



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS OGDEN AIR LOGISTICS CENTER (AFLC)
HILL AIR FORCE BASE, UTAH 84008

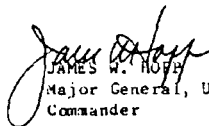
3 August 1989

I am very pleased to present this Base Comprehensive Plan to the Hill Air Force Base community, Headquarters AFLC and Air Force Headquarters. The plan has been developed to provide an organized, coordinated and comprehensive approach to planning and development.

The plan provides the background information essential for knowledgeable resource use decisions. The Base Comprehensive Plan is intended to be the primary planning tool of the base to be used in all future land use actions, resource management decisions and facility sitings. It is to be followed as much as possible, yet it is not an inflexible document. Rather, it is the printed result of an ongoing planning process and may be modified when fully justified and in the best interest of the Air Force.

The crowded conditions at Hill AFB, environmental constraints and reduced government spending make it essential that we avoid incompatible future development and that we plan intelligently for Hill's role in the future mission of national defense.

I endorse this Base Comprehensive Plan and trust that future planning and programming actions by base, tenant and headquarters personnel will be accomplished within the framework of base comprehensive planning.


JAMES W. HOYT
Major General, USAF
Commander

BASE COMPREHENSIVE PLAN
HILL AIR FORCE BASE
OGDEN AIR LOGISTICS CENTER

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This Base Comprehensive Plan was approved by the Hill AFB Facility Board in concept on 15 January 1987 and in final form on 20 July 1989. The following personnel were members of those boards.

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LtC R L Williams	388TFW/RM	BG Forrest Winebarger	419TFW/CC

SPECIAL RECOGNITION

Special recognition must go to Col. Thane Judd (Hill Air Force Base Civil Engineer 1984-1988), whose belief in cooperative management, endless enthusiasm, creativity and "bullseye" judgment created the climate that put Base Comprehensive Planning to work at Hill AFB.

PLAN OVERVIEW
BASE COMPREHENSIVE PLAN
HILL AIR FORCE BASE
OGDEN AIR LOGISTICS CENTER

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Base map (TAB C-1)

Figures are reproduced directly from their respective component plans. Their original titles and numbers have been left intact to facilitate cross-referencing.

1.0

Executive Summary

1.0 EXECUTIVE SUMMARY

1.1 Purpose of the Base Comprehensive Plan

The Base Comprehensive Plan is a document and a dynamic process, both formulated under the guidance of AFR 86-4, Base Comprehensive Planning. Its purpose is twofold:

1. To be an efficient planning and decision making tool by providing a single, comprehensive information framework that coordinates the many resource management elements, correlates their interactions and synthesizes a current description and analysis.
2. To express the official position, philosophy and resource management intentions of the base, as sanctioned by the Base Facility Board.

1.2 Components of the Base Comprehensive Plan

Each component or section of the Base Comprehensive Plan consists of a narrative plan and computer-generated tabs (maps). Narrative plans contain appropriate maps and graphics to illustrate the text. The heart of the Base Comprehensive Plan is the Land Use Plan, which integrates the findings and recommendations of all the components.

COMPONENTS OF THE BASE COMPREHENSIVE PLAN

<u>Designation and Title</u>	<u>Subcomponents</u>
A. Natural Resources	
B. Environmental Quality	
C. Base Layout	
D. Land Use (Synopsis)	Community Center Development 1200 Zone Development
E. Airfield and Air Operations	
F. Air Installation Compatible Use Zone	
G. Utilities	
H. Communications and NAVAIDS	
I. Transportation	Vicinity Profile
J. Energy	
K. Architectural Compatibility	
L. Landscape Development	
M. Facilities Development	Capital Improvements Program
N. Fire and Life Safety	
O. Contingency	

1.3 Summary of Findings for Hill Air Force Base

1.3.1 Physical

- o Hill AFB is reaching saturation levels of development.

Redevelopment offers the greatest opportunity for accommodating changes in missions, technologies and procedures. Incomplete redevelopment (e.g. 1200 zone) has resulted in inefficiency and inadequate real property.

- o Hill AFB has a strong boundary defined by major physical (natural and man-made) features.

Contiguous industrial expansion beyond existing base boundaries is not feasible. Non-contiguous urban expansion is feasible in adjacent communities.

- o Critical utility systems are systemically reliable and available supplies exceed foreseeable needs.

Portions of every utility system are used to maximum practical capacity. Water conservation and aquifer replenishment are essential but not yet acute.

1.3.2 Functional

- o Most functional "core" areas are efficiently arranged.

- o Major dysfunctions are caused by expansion resulting in encroachment and/or over-utilization.

Thunderbird Park Housing and the adjacent Airfield are incompatible and mutually restrictive.

Arterial roadways are undersized and inappropriately routed.

Facility development is reducing aircraft ground space, thus reducing the size of aircraft Hill AFB can maintain.

- o The south base functional centroid is transitioning from community to industrial uses.

Community/Host and industrial functions lack strong and identifiable boundaries. Elements of these functions are adversely intermingled.

- o Space deficiencies are a major limiting factor in contingency and posture planning, technological modernization and program acquisition.

Space deficiencies are critical for the administrative, depot storage, software engineering/maintenance and aircraft support functions.

Building deficiencies limit the use of otherwise existing capability in munitions storage, airfield operations, aircraft maintenance, propellant testing and commercial community functions.

Capabilities that are highly specialized (munitions storage and distribution and weapon systems test-training) or high profile (night flying and hazardous waste handling/disposal) are increasingly difficult to retain; increasing the value of existing capabilities.

1.3.3 Organizational

- o Most organizational "core" areas are geographically effective.
- o Major dysfunctions are caused by fragmenting and by poor satellite locations.

2849ABG operations and personnel support functions experience the most severe geographic fragmentation.

Development east of the runway must be functionally autonomous to prevent traffic which reduces airfield capability and increases risk.

1.3.4 Demographic

- o Base population "core" areas are appropriately spaced.
- o Regional support is strong and the base/region interface mutually supportive overall.

Off-base urban encroachment has a strong potential to limit airfield capability and/or decrease the strength of the interface.

Off-base pollution levels cause on-base operational limitations.

1.4 Summary of Recommendations for Hill Air Force Base

1.4.1 Improve Arterial Roadway and Gate System

- o Create an east-west arterial road, of adequate size, that accesses but does not penetrate all organizational "core" areas.
- o Improve the geometrics of South Gate Drive, M Street, Second Street and the West Gate.

1.4.2 Protect Threatened Resources

- o Utilize irrigation system water rather than well water for landscape maintenance.
- o Increase the size of water transmission lines for fire protection purposes.
- o Develop alternative and backup electrical systems.

1.4.3 Correct Real Property and Functional Deficiencies

- o Develop functionally autonomous aircraft maintenance capabilities along the east side of the runway.
- o Construct warehouses with high-density storage capability, relocate DS out of the community zone and reduce inappropriate outdoor storage.
- o Consolidate the 2849ABG and personnel functions into a "city hall" adjacent to the community center. Relocate community functions out of the industrial and 1200 (logistics/engineering) zones.
- o Modernize the 1200 zone administrative/engineering complex.
- o Expand combat and cargo hot pad complex (airfield).
- o Correct other severe space deficiencies.
- o Relocate Thunderbird Park housing residents, if possible without severely adverse economic effects.

1.4.4 Support Changes in Mission and Technology

- o Enhance capability for mid-sized aircraft.
- o Increase software capabilities.
- o Enhance usefulness of the Utah Test and Training Range.

1.5 Summary of Expected Costs

The costs listed below are estimates based on 1989 dollars. Many of these recommendations will not become wholly discrete projects, but will be revised, combined (with each other or with other projects), developed by entities other than Hill AFB, and/or fragmented into several projects. These actions will have a profound effect on their costs.

1.5.1 Improve Arterial Roadway and Gate system \$ 3,900,000

Cross-base arterial	\$ 1,800,000
Gate/Access Improvements	2,100,000

1.5.2 Protect Threatened Resources \$ 14,100,000

Upgrade Water Distribution System	\$ 1,550,000
Extend Irrigation systems	450,000
Construct Electrical Peaking Plant	12,100,000

1.5.3 Correct Deficiencies \$299-325,000,000

Develop East Side of Runway	86,216,000
Develop Adequate Warehouse complex	32,700,000
Consolidate Host/Personnel Functions	23,401,000
Redevelop 1200 Zone	
Site Development/Improvement	7,077,000
1,267,300 SF New Space	89,978,300
OR	
1,216,000 SF Infill/Adal Space	95,616,000
Expand Airfield Hot Pad Complex	9,400,000
Correct Severe Space Deficiencies	50,200,000
Relocate Thunderbird Housing	unknown

1.5.4 Support changes in Mission and Technology 332,756,000

C-130 Beddown	47,600,000
Software Maintenance	13,200,000
Minuteman ICBM	2,800,000
Peacekeeper Rail Garrison	30,430,000
Small ICBM	121,763,000
Utah Test and Training Range	2,613,000
Electronic Combat Training Center	114,350,000

1.6 Schedule for Implementation

Appendices 1 and 2 list the phasing schedules for implementation for the recommendations presented in Section 1.4. Appendix 1 is based on the assumption that approximately 10 million dollars annually will be used to correct deficiencies and solve existing systemic problems. Heavy cost phases have been alternated with lower cost phases so as to produce the least disruption and the most even schedule. Appendix 2 assumes that another ten million dollars annually will be used to support changes in mission/or technology.

Upon completion of these schedules, the combination of corrective construction and new mission/technology-driven construction will have nearly tripled the composite real property useful life span and greatly increased the value of Hill AFB to the Department of Defense.

1.7 Roles and Responsibilities

A successful Base Comprehensive Plan (BCP) must include executive involvement, as well as widespread participation by planners, resource managers and supervisors.

The BCP is a function of the Facility Board, as directed by AFR 86-4, Base Comprehensive Planning. BCP plans and changes are approved by the Facility board, while subject matter and policies are directed by the Facility Planning Committee. Management of the BCP is the responsibility of the Base Civil Engineer. Through the management process, and the Facility Board and Facility Planning Committee, all organizations participate. In a very real sense, the BCP is the collective product of those organizations. It is the responsibility of decision makers for all directorates and tenants to become familiar with the goals and major recommendations of the BCP so that their plans may be in coordination with those of the Facility Board.

It is important that not only decisions, but all changes/additions affecting Hill AFB be reviewed in relation to the BCP, including transportation improvements, landscape developments, and management plans. Only in this way can the BCP remain an effective management tool.

Undoubtedly there will be information missing from this first Base Comprehensive Plan, and all of your questions will not be answered. You can improve the BCP, for yourself and others, if you will phone or write those items to the BCP manager, Mrs. Marge Williams, 2849ABG/DEEX/72145. Your questions will be answered and the BCP made more responsive at its next revision.

Table 1

Comprehensive Planning Process

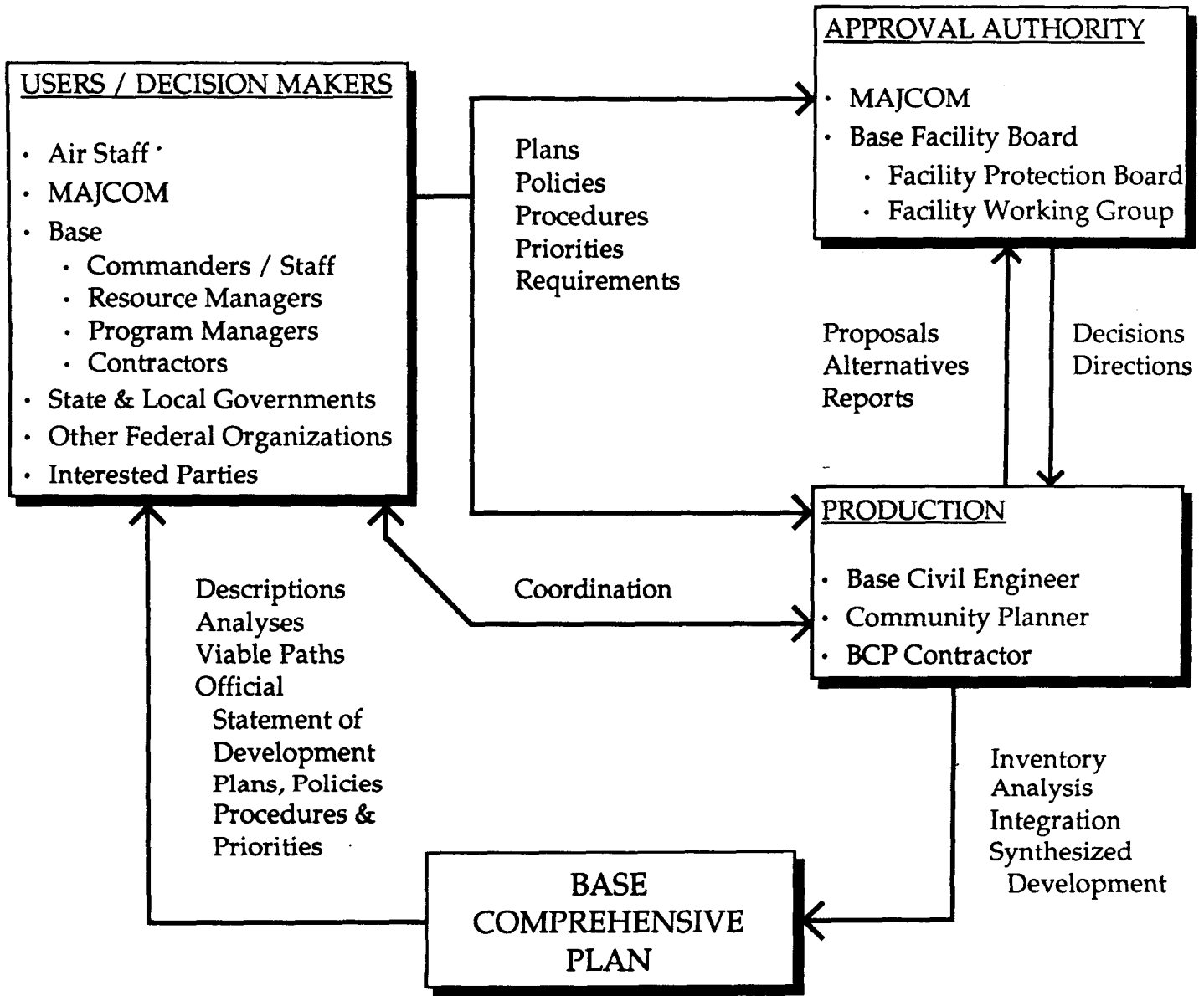
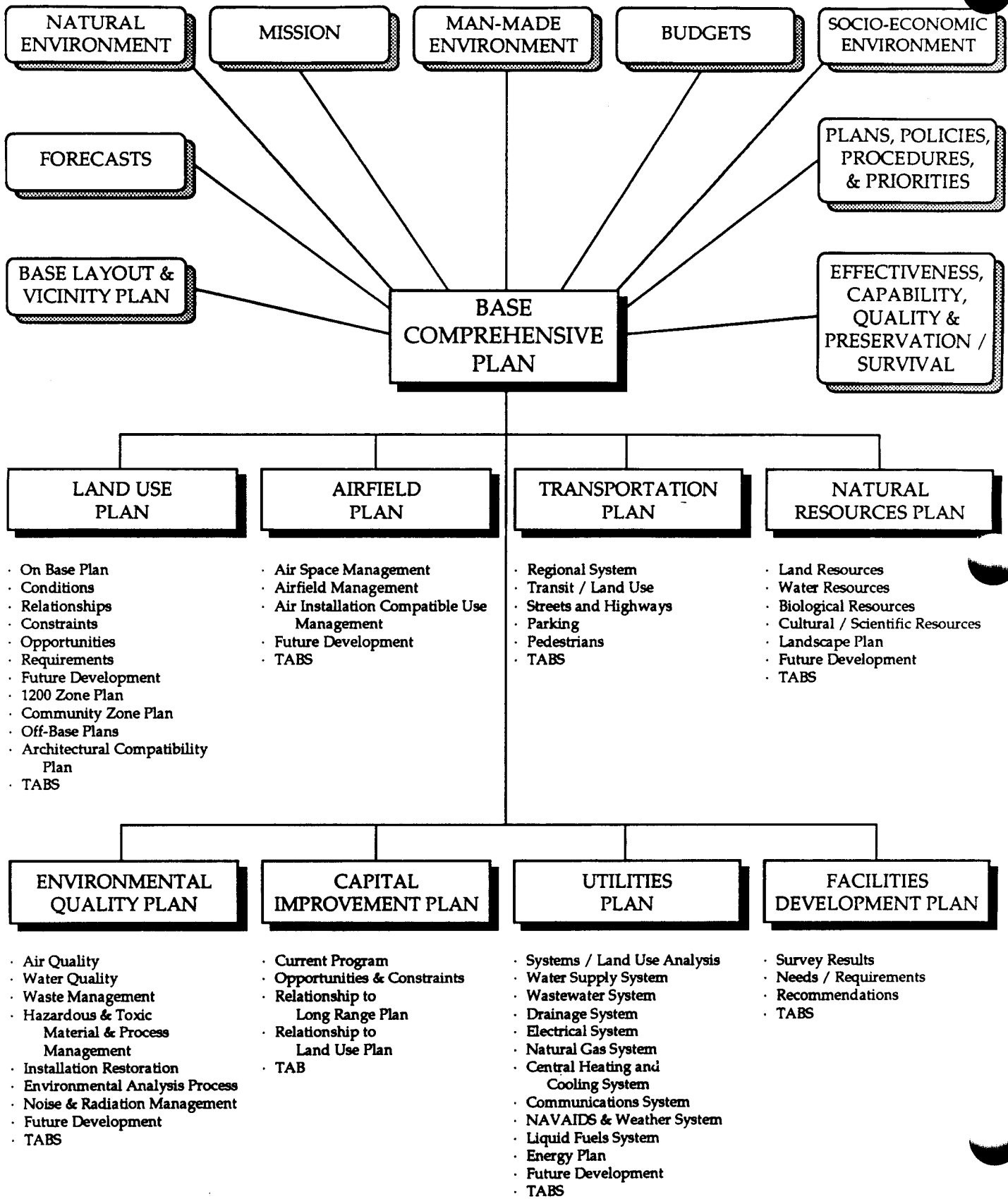
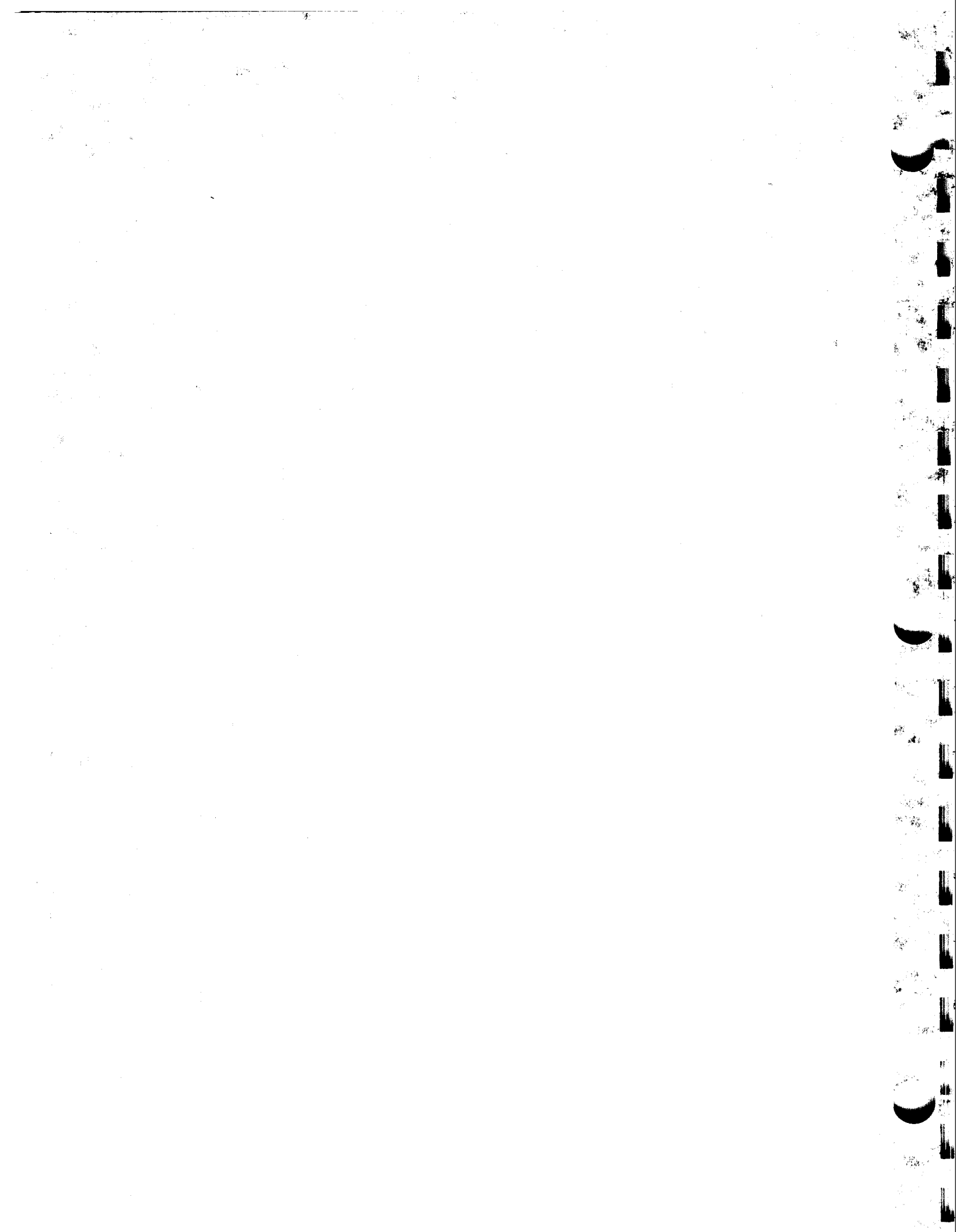


Table 2
Framework of Base Comprehensive Plan



2.0

Introduction to Hill AFB



2.0 INTRODUCTION TO HILL AFB

2.1 Missions Statements

The "business" of an Air Force Base is the performance of its mission. The complex and diversified mission of Hill Air Force Base is accomplished by the Ogden Air Logistics Center, the Air Base Group, and several tenant organizations. Their missions are as follows:

2.1.1 Ogden Air Logistics Center (OOALC) Mission

Ogden ALC, the major organization at Hill Air Force Base, is one of five Air Logistics Centers assigned to the Air Force Logistics Command (AFLC). The mission of the AFLC is to insure that Air Force weapons systems are kept at maximum operational capability at the least possible cost. Ogden ALC plays a vital role in fulfilling this mission.

A total of 56 Air Force activities in a four million square mile area receive support from Ogden ALC. This support area includes the States of Utah, Colorado, Montana, Idaho, Wyoming, South Dakota, New Mexico, Arizona, Nebraska, Alaska, and the western two-thirds of Canada. Ogden has, in terms of geographic area, the largest Air Logistics Center responsibility in North America.

In addition to area support functions, Ogden has world-wide logistics support responsibilities. Ogden ALC's major logistical mission support includes:

- o System management of vital jet fighter aircraft, including the F-4 Phantom and F-16 Fighting Falcon;
- o System management of all non-nuclear air munitions, solid propellant missiles and explosive devices used throughout the Air Force, including the Minuteman, Peacekeeper and Maverick missiles and the GBU-15 Laser-Guided Bomb.
- o Air Force management of landing gears, wheels, brakes and struts for all types of aircraft and all Air Force photographic and reconnaissance equipment, flight simulators, and trainers.

In addition to the staff offices, the OOALC has seven major Directorates as discussed below:

Directorate of Maintenance (MA)

The Directorate of Maintenance (MA) is the largest Directorate. MA is responsible for effective and timely restoration of Air Force equipment to a serviceable condition and for the effective management of the maintenance industrial mission.

The majority of MA functions are located immediately west of the airfield. Exceptions are some missile and aircraft functions which must be located in remote areas due to explosives safety criteria and some remote detachments (off-base).

MA objectives are to increase its critical mass capability (high surge workloads, such as the T56 Gearbox and other electronic devices); expand the software support workload; accommodate Peacekeeper, Rail Garrison and Small ICBM maintenance requirements; consolidate scattered functions along work flow paths; correct access deficiencies; modernize its facility resource base; re-establish the aircraft maintenance workload; and increase its ability to physically accommodate more mid-size aircraft. AFLC is currently conducting a pilot program designed to replace the three level aircraft maintenance concept with a two level concept. If this pilot program is successful, MA expects a substantial increase in aircraft maintenance spares requirements (MM/DS function).

Directorate of Distribution (DS)

The mission of DS is to direct Air Force depot level operations to accomplish the receipt, storage, issue, and shipment of materiel, including quality control, packaging, inventory, and transportation functions.

DS objectives are to consolidate critical storage into an interconnected facility complex which can be protected as necessary; increase bulk/large and critical item covered storage capability, modernize storage aids and material handling equipment to increase space use efficiency; accommodate increasing system manager requirements (new weapon systems, out of production equipment, accelerated spares deliverables, increased WRM quantities and decreasing off-base storage space); replace deteriorated and high risk facilities; and increase response time to customers.

Directorate of Material Management (MM)

The Directorate of Material Management (MM) is the focal point of all Ogden logistics management activities. The mission of MM is to accomplish Systems Management (SM) and Inventory Management (IM) responsibilities necessary to support the Ogden ALC assigned weapons systems and commodities on a world-wide basis and to provide logistics systems management, material services, operations support and service engineering support.

The majority of MM buildings are located in the 1200 Zone (on the west side of the base). These buildings were originally designed and constructed as warehouses, circa 1943, and have since been converted to administrative use. Facility-driven problems include lack of expansion capability, severe overcrowding, dysfunctional communications, diffused span of control, parking deficiencies and vehicle circulation problems.

MM objectives are to modernize its facility resource base; consolidate inter-related functions/units; increase software support capability; relocate off-base functions/units onto the base; accommodate new weapon system requirements (Rail Garrison, F-16 Blocks 40 and 50, Peacekeeper and Small ICBM); and accommodate increasing inter-relationships with MA and contractors.

Directorate of Plans and Programs (XP)

The Directorate of Plans and Programs (XP) is the principal staff advisor to the ALC Commander. Specifically, XP is responsible for administration and management functions relating to plans, programs, research, studies, and logistics readiness affecting the Ogden mission. The XP staff is located in Building 1102 and in the Hill Consolidated Command Post (Building 120).

There must be integration between XP and the BCP since XP is the focal point for plans which deal with manpower, mission, materials, and money. XP also coordinates inter-directorate changes and studies.

The Directorate of Contracting and Manufacturing (PM)

The Directorate of Contracting and Manufacturing (PM) contracts for supplies and services to support commodities and weapon systems assigned to Ogden ALC. Its mission is to provide management over internal operational functions associated with the procurement of material and services. PM, located in the 1200 Zone, has a goal to consolidate operations within the 1200 Zone.

Directorate of Competition Advocacy (CR)

Established in 1985, the Directorate manages the Competition Advocacy Program for the ALC Commander. This Directorate (CR) works for and with MM and PM to increase competitive acquisitions, establish a target price on all non-competitive buy items, identify new sources, and increase contractor awareness. The Directorate is located in the 1200 Zone. Land Use plans for CR anticipate the diffusion of their personnel through MM and PM.

Directorate of Communications-Computer Systems(SC)

SC advises and acts for the Commander on matters concerning automatic data processing and the acquisition and management of ADP equipment.

2.1.2 2849th Air Base Group

The 2849th Air Base Group provides a variety of services and support to all activities located on Hill AFB. Specifically, its mission is to provide services and support, as required, to carry out the mission of the installation, Ogden ALC, tenants and off-base activities. The 2849th Air Base Group's functions are scattered in buildings both in the 1200 Zone and south area of the base. The land use plan addresses the need to centralize certain of these functions for more efficient operation.

2849th AIR FORCE BASE GROUP

Administration Division	Information Management Division
Civil Engineering Squadron	Services Squadron
Base Chaplain	Vehicle Transportation Division
Security Police Division	Base Plans Division
2701 Explosive Ordnance	Base Operations and Training
Disposal Squadron	Family Support Center
Morale, Welfare and	2849th Support Squadron (UTTR)
Recreation Division	

2.1.3 Tenant Organizations

The largest tenant organization on Hill AFB is the 388 Tactical Fighter Wing; a unit of the Tactical Air Command. The primary mission of the 388 TFW is air-to-ground weapons delivery with a secondary air superiority mission.

Hill AFB supports five reserve force units, including the 419th Tactical Fighter Wing (AFRES), who fly the F-16 "Fighting Falcon". The 419TFW is the only AFRES flying unit in Utah and the largest reserve unit in the state (over 800 reservists). Units of the 419TFW are also located in Tinker AFB, OK and Luke AFB, AZ.

The 6545th Test Group, a unit of the Air Force Systems Command, is composed of the 6514th Test Squadron, 6501st Range Squadron and the 299 Range Squadron (ANG). Its mission is to provide on-site management of tests and evaluations of unmanned vehicles, support of related manned aircraft, missile deployment test and evaluation, and operational management of the Utah Test and Training Range.

Other tenants on base include the 84th Radar Evaluation Squadron (TAC), 729th Tactical Control Squadron (AFSC), 1881st Information Systems Squadron (AFCC), the Defense Reutilization/Marketing Office (DLA), and the General Rail Shop Branch of the Tooele Army Depot (USA).

2.1.4 Major Off Base Sites

The 6501th Range Squadron (AFSC) and the 2849 ABG jointly manage the AF portion (nearly one million acres) of the Utah Test and Training Range (UTTR) in support of test and operational communities of the Department of Defense. The entire UTTR consists of 1.8 million acres of restricted land and almost 13,000 square nautical miles of airspace west of the Great Salt Lake (approximately 48 miles west of Hill AFB). These features make UTTR the ideal choice for the primary test site of advanced strategic weapon systems. The UTTR also provides extensive capability to support air-to-air, air-to-surface and surface-to-air training requirements.

The Little Mountain Test Annex is the other major area, owned and operated by Hill AFB. Located on 740 acres northwest of the Base, between Ogden City and the Great Salt Lake, it provides Hill AFB with two basic capabilities: missile motor dissection and hardness testing. Both are designed to analyze and test survivability.

The next page illustrates the location of UTTR and Little Mountain in relation to the main base.

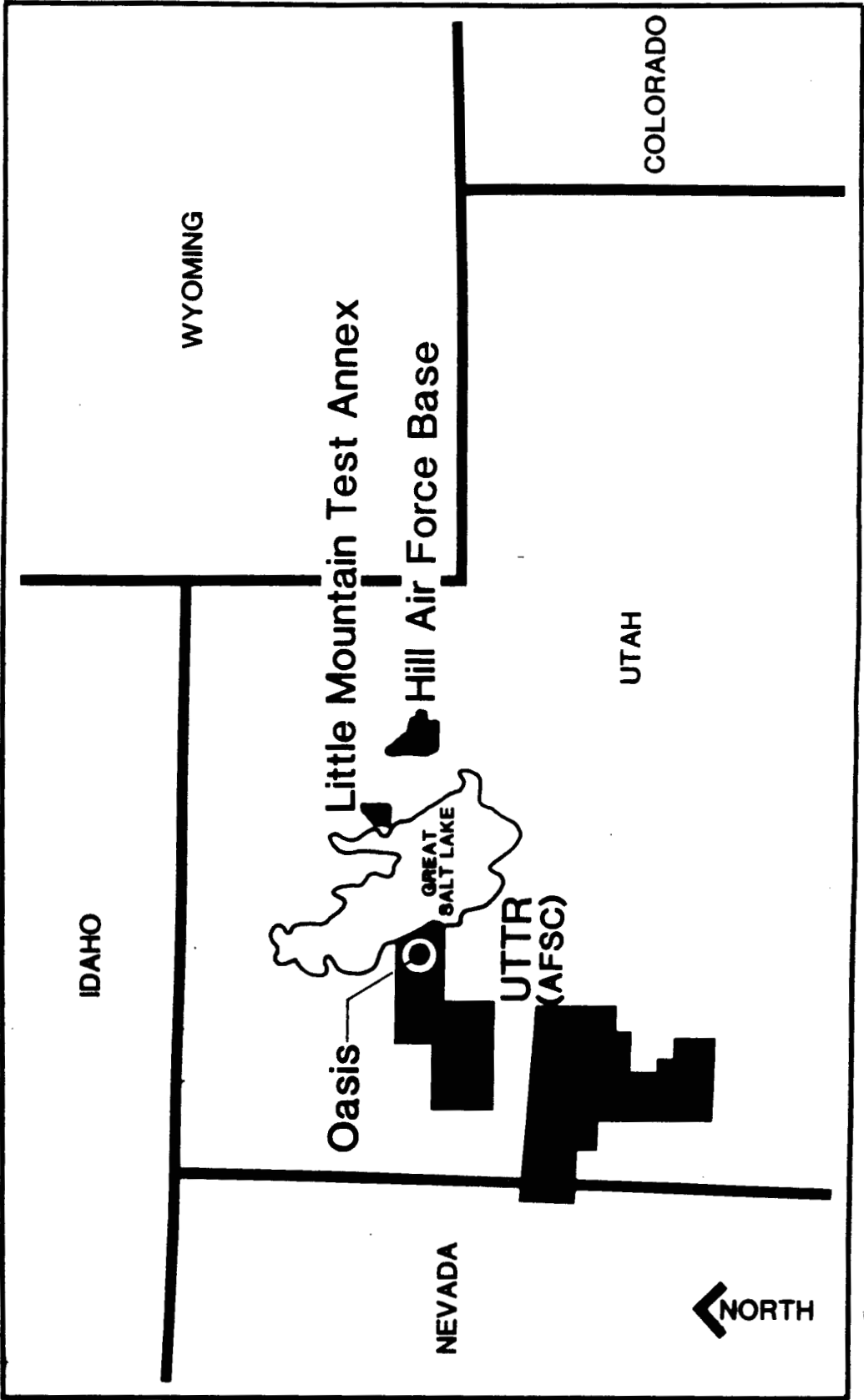
2.1.5 Physical and Social Profile

Hill Air Force Base is located in north central Utah, approximately 7 miles south of Ogden and 25 miles north of Salt Lake City, with the Wasatch Mountains to the east and overlooking the Great Salt Lake to the west. This area was recognized early by pilots as the safest air corridor to the east and west, and aviation has continued to be an integral part of the valley. The region has a semi-arid climate, with two well-defined seasons, summer and winter. The average daily mean temperature ranges from 27 degrees F in winter and 76 degrees in summer. Mean all-weather wind speed ranges from 11.9 knots to 6.8 knots.

The installation's boundaries are defined/reinforced by both man-made and natural features. The north-northeast boundary is defined by the Davis-Weber Water Conservancy District's Distribution Canal and steeply sloping topography. The eastern boundary is adjacent to agricultural lands which are being developed for residential and industrial use. Utah State Route 193 defines the southern boundary of the base. The western boundary is generally defined by Interstate Highway 15.

The "built environment" of Hill Air Force Base resembles that of a medium size civilian community. The base offers living, work, and support service areas. In terms of living areas, the base contains a total of 1,145 family housing units, the majority of which (approximately 99%) are multi-family dwellings (duplexes, fourplexes and sixplexes). Unaccompanied Enlisted Quarters, Visiting Officer's

Geographic Location



Quarters, and Temporary Family Lodging, account for the remaining types of housing. On-base housing units (family and unaccompanied) currently support an estimated population of 5,420 military personnel and their dependents. The base employs over 20,000 persons, (see Table 3).

There are more males than females among both military and civilian base employees. The male population in the region is slightly higher as a result of the Base. Approximately 80% of the civilian and military employees are married.

Since the mid-1960s, wage improvements have substantially outdistanced the growth of new jobs at Hill AFB. Base salaries represent about 6.7% of non-agricultural wages in the Davis, Weber, Morgan, Salt Lake, Box Elder and Cache County Area.

TABLE 3
WORK FORCE
JANUARY 1989

<u>Military Personnel</u>	<u>Number</u>
Living On-Base	2,132
Living Off-Base	2,710
SUBTOTAL	4,842
 <u>Civil Service</u>	
General Schedule (GS)	7,463
Wage Grade (WG)	5,616
Wage Supervisor (WS)	591
General Manager (GM)	426
Wage Leader (WL)	109
Executive Service (ES)	3
SUBTOTAL	14,208
 <u>Other Civilian Employees</u>	
Non Appropriated Funds (NAF)	454
TOTAL	19,504

Source: Economic Resource Impact Statement, 1989

WHERE WE LIVE

As can be seen below, most of those employed at Hill AFB live within the four county area of Weber, Davis, Morgan and Salt Lake counties.

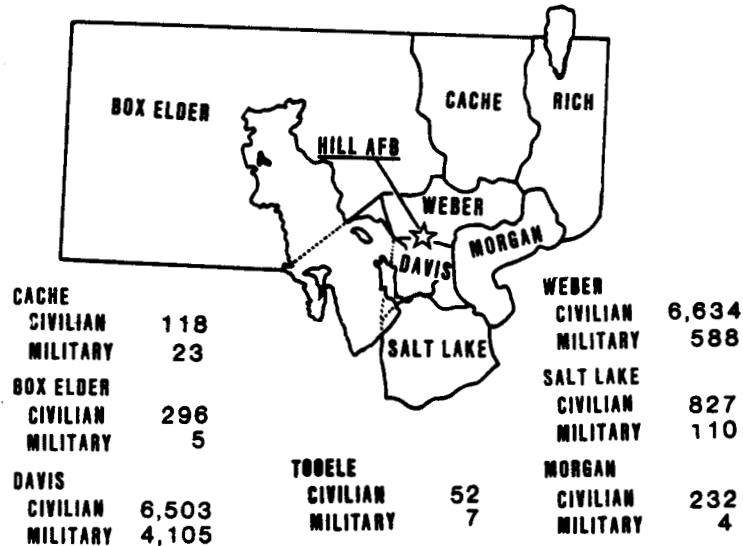
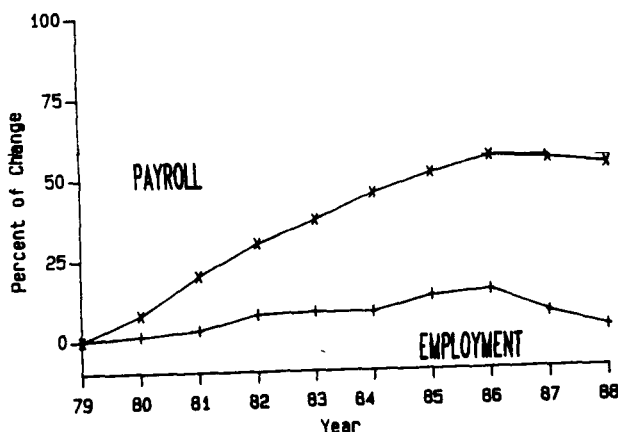


TABLE 4
HAFB ECONOMIC CONTRIBUTION
JANUARY 1989

The Utah economy is enhanced by the following Hill AFB expenditures for salaries, contracts, construction, retirement pay, tuition, aid to schools, health insurance payments and off-base accommodations for travelers.

Payroll (19,504 Personnel)		
Civilian Payroll	\$458,339,393	
Military Payroll		
Military Off-Base	63,924,975	
Military On-Base	50,290,792	
Non Appropriated funds	<u>1,258,910</u>	
Total Payroll		\$573,814,070
Retirement		
Civilian	\$314,341,760	
Military	<u>84,393,216</u>	
Total Retirement		\$398,734,976
Contracts		
Construction	\$ 17,257,000	
Services	30,214,000	
Other Material, Equipment and Supplies	<u>115,827,000</u>	
Total Contracts		\$163,298,000
Commissary		\$ 6,746,773
CHAMPUS		\$ 10,579,784
Impact Aid		\$ 2,615,606
Off-Base Accommodations		\$ 136,920
Tuition		\$ 303,880



IMPACT

The Oakridge National Laboratory of Oakridge, Tennessee developed models to compute impact statistics. Based on these models, the retirees generated \$659,633,081 in Utah's economy. Hill AFB funds spent in the region produced an estimated 12,680 secondary jobs and show a total impact of \$1,709,438,839. The models recognized that money spent in Utah result in additional spending in other parts of the country. This shows another 7,314 secondary jobs and an overall impact of \$1,979,291,798.

2.1.6 Functional Profile

Land use planning has its base in functional relationships. What is known by AF conventions as functional land use can also be called operational pattern. Order exists in the organization of people and materials along flow lines (communications, transportation, utilities, etc). Physical factors influence the pattern but the cause of change, its direction, quality and quantity, are dependent on the function involved. As with ecosystems, interrupting the processes of an operational pattern reduces or destroys its ability to perform.

Functional categories for Hill AFB are presented in Table 5. Some functions may fit more than one category. When this occurs, the function is classified by its dominant characteristics.

The figure, Functional Land Use, represents a more locational description of these functional relationships. This type of analysis indicates the dynamic nature of land use, which is the relationship between activities distributed spatially over an area.

The Airfield, Air Operations and Industrial functions have a close relationship in which spatial proximity is essential. These also require high-capacity or specialized infrastructure (i.e.; industrial sewer), so that it is more cost effective to consolidate the functions. Open space is important to these functions. The environment created by these functions is detrimental to housing, medical and community functions. Administrative functions are part of most other functions and compatible with all except airfield operations. Administrative centers are normally near the commercial functions or similar areas with which they are environmentally compatible. All of these functions are destination points for the more than 15,000 civilian employees entering the base daily.

Housing, medical, retail, service and recreational functions are closely related and require spatial proximity as well as a sense of coherent identity. This is the center of town for base residents and the thousands of retirees that the base serves.

TABLE 5
EXISTING FUNCTIONAL LAND USES

<u>Category</u>	<u>Acreage</u>	<u>% of Total Base</u>
Operations	3,464	51.9
Aircraft Operations and Maintenance (3.0%)	203	3.0
Industrial Operations (11.2%)	745	11.2
Hazardous Operations (37.7%)	2,516	37.7
Administration	89	1.3
Community Services (0.3%)	17	0.3
Commercial (1.0%)	67	1.0
Open Space	838	12.5
Undevelopable (unsuitable/inappropriate for development)		
Undeveloped Outdoor Recreation/Training Buffer Lands		
Airfield	1,442	21.6
Housing	353	5.3
Accompanied (4.6%)	305	4.6
Unaccompanied (0.7%)	48	0.7
Medical	21	0.3
Water	26	0.4

2.1.7 Base Goals and Objectives

Although general in nature, Base goals provide a foundation against which the effectiveness of future development plans and decisions may be tested. As such, base goals are the foundation for the planning and analysis framework, facilitating the identification and articulation of primary issues.

Six goals have been established for the Hill Air Force Base community. These goals, and associated objectives, are summarized below. It should be noted that goals are both singular and interrelated and that no prioritization is implied by the numbering system utilized.

Goal 1: Optimize use of energy efficient concepts, systems, and technologies.

Objectives:

- 1-A: Minimize energy expenditures.
- 1-B: Optimize use of renewable energy resources.
- 1-C: Plan for future energy flexibility.
- 1-D: Evaluate/incorporate conservation systems.
- 1-E: Utilize energy efficient construction concepts, systems, and/or technologies.

Goal 2: Protect the natural and human environment.

Objectives:

- 2-A: Minimize pollution.
- 2-B: Minimize adverse impacts on the natural environment.
- 2-C: Properly/efficiently store and dispose of wastes.

Goal 3: Provide highest possible quality of life for the Air Force community.

Objectives:

- 3-A: Plan for convenient, dependable, and comfortable transportation.
- 3-B: Plan communications linkages with other population centers.
- 3-C: Provide for maximum recreation and leisure time opportunities.
- 3-D: Plan facilities that are compatible with the environment.
- 3-E: Plan/design an efficient and aesthetically pleasing living and working environment.
- 3-F: Provide for the social/psychological needs of base inhabitants.

Goal 4: Achieve optimum land use planning.

Objectives:

- 4-A: Establish the most efficient and functional base layout.
- 4-B: Plan for future growth and/or change.
- 4-C: Utilize the full potential of the land.
- 4-D: Enhance the base image.

Goal 5: Plan for maximum maintainability.

Objectives:

- 5-A: Plan to use low maintenance or maintenance-free architectural design/materials.
- 5-B: Use the existing environment to minimize maintenance.

Goal 6: Facilitate mission objectives/performance.

This goal is the overriding concern of military base planning. This goal is one of the key elements which sets military planning apart from civilian community planning. The Base Comprehensive Plan is designed to support the complex mission of the installation.

2.2 Civilian Community Profile

2.2.1 Population

Hill Air Force Base is part of the rapidly growing "Wasatch Front" region. This region is generally defined by Weber, Davis, Tooele, Morgan, and Salt Lake Counties. The population of the five county area was estimated to total 1.05 million persons in 1985; a 48 percent increase over the area's 1970 population. The Wasatch Front region is estimated to be the third fastest growing area in the United States.

Weber and Davis Counties, which immediately surround Hill AFB, are among the leaders in the area's population growth. Since 1970, the two counties have witnessed a combined 47 percent increase in population. 1985 estimates place the population of the two counties at 329,000 persons.

2.2.2 Housing

Population increases in Weber and Davis County have resulted in increased housing development. Over the 1970 to 1985 period, there was a 69 percent increase in the number of housing units within the two counties. It is estimated that, in 1985, a total of 102,000 housing units were contained in Weber and Davis Counties. Hill Air Force Base refers 150 potential buyers and renters to off-Base housing every month.

TABLE 6

REGIONAL POPULATION
TRENDS AND PROJECTIONS

	<u>1980</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>
Utah State	1,059,273	1,474,000	1,665,600	1,912,400	2,099,700	2,238,700	2,431,500
Wasatch Front* Region	709,441	941,195	1,051,854	1,191,100	1,312,600	1,399,600	1,533,700
Davis County	99,028	147,509	171,261	205,500	236,500	260,800	293,700
Weber County	124,130	139,890	157,525	177,500	195,000	207,300	226,600

*Participating Counties: Davis, Weber, Morgan, Salt Lake and Toole

Source: Wasatch Front Regional Council (Projections rounded to nearest 100 persons)

Moving towards the year 2000, the area's population and housing growth is expected to continue at near its present rate. Population in the two counties is expected to increase 42 percent, over 1985 figures, to a total of 468,000 persons by the year 2000. The number of housing units is expected to increase by 69 percent in Weber and Davis Counties for a total of 172,000 units by the year 2000.

2.2.3 Employment

Employment within the Wasatch Front region has grown at a pace nearly equal to that of its population. From 1970 to 1985, total employment in the region grew from 264,000 to 475,000 for a 44 percent increase.

Weber and Davis Counties were at the forefront in terms of employment growth. Combined employment for the two counties stood at 74,200 in 1970 and grew to an estimated 118,500 by 1985; a 60 percent increase over the 15 year period.

Federal, state, and local governments are the largest employers in Utah, accounting for 22% of state employment. In the four-county Wasatch Front Region, government employment is 23%, but in Davis and Weber counties it is 53% and 27%, respectively.

In addition to the government, there are other large employers in the Wasatch Front area such as Eimco, Envirotech, Hercules, Kennecott Copper Corporation, and Western General Dairies. However, most of the region's non-government employment would have to be classified a small or medium industry or business--the largest industries employ only a few hundred workers. Considerable warehousing and distribution activities exist in the region because of the availability of transportation and the state's "free port" laws. There has been development of light-industry industrial parks.

A major obstacle to further industrial growth is the high cost of transportation resulting from the region's distance from marketing areas. However, a favorable labor market has encouraged some small industries to locate in the area.

The local communities surrounding Hill AFB are heavily dependent on the federal government for their economic base. The Department of Defense, specifically Hill AFB, which is the state's largest employer, has a significant economic impact on Davis and Weber counties. Dependence on Hill will decrease as efforts to attract other industries succeed, but Hill will remain a dominant factor in the two counties in the foreseeable future.

In Davis County, Government is by far the largest employer. In Weber County the government is the largest with manufacturing the second largest employer, with the wholesale industry not far behind. In Weber County, selected professional services are the largest employers with retail falling into third place.

Hill AFB has been, and continues to be, a significant source of employment within the two counties, Wasatch Front region and the State of Utah. Hill AFB accounts for 4 percent of total employment within the Wasatch Front region and nearly 18 percent of total employment within Weber and Davis Counties.

Employment within Weber and Davis Counties is expected to continue to grow rapidly. Recent projections indicate a 46 percent increase in employment by 2000. Total employment for the two counties is thus projected to reach 173,600 by the year 2000.

2.2.4 Off-Base Constraints and Opportunities

As previously detailed, Hill Air Force Base is located in the third fastest growing region in the United States. Projections indicate expectations for continued rapid growth in the region out to the year 2000.

In general, the region is physically prepared for growth. The region's basic infrastructure, including utilities and roadways, is sound and could be expanded to accommodate growth. Energy resources, such as coal and natural gas, are in abundant supply. Developable lands are also available although future development may result in an overall decrease in agricultural land.

The key opportunity which growth affords is the future expansion of the labor pool available to the base in both professional and unskilled workers.

The potential constraints associated with projected future growth are primarily natural resource and environmental quality-related. The level of two pollutants, carbon monoxide and ozone, already exceed the federal ambient air standards for the region. An increase in population means more automobiles, and potentially more industries, which may exacerbate air pollution problems. The region may also be confronted with water supply problems since current supplies come from an underground aquifer which is slowly being depleted. Existing regional plans specify new water storage reservoirs (fed by above ground streams) and new water management techniques which, if implemented, are expected to keep supply in line with demand.

Also, noise from the airfield is considered a constraint. Air Installation Compatible Use Zone (AICUZ), AFR 19-9 and AFM 19-10 criteria are designed to regulate development in areas with high industrial and/or aircraft noise levels and/or high accident potential.

With respect to development constraints, Air Force Manual 19-10 designates compatible land uses/development types by Noise Zone. (Noise Zones are defined by the 65, 70, 75, 80, and 85 ldn contours). AICUZ only involves noise generated by aircraft operations, ignoring

the cumulative effect of noise generated by other operations and transportation. It is therefore, a very liberal yardstick. Permitted land uses/development types, by Noise Zone, for the predominant land uses on and off-base are summarized in the Environmental Quality plan.

2.2.5 Vicinity Land Use

The areas immediately surrounding Hill Air Force Base range from densely to sparsely developed and populated. To the west of the base lie the Cities of Clearfield, Sunset and Roy, all of which are highly developed with residential and commercial/industrial land uses. Interstate Highway 15, located on the western edge of the base, provides physical definition between the base and those communities.

The north and northeastern boundaries of the base are defined by the Davis-Weber Water Conservancy District's Distribution Canal and steep sloping topography. The communities of Washington Terrace, Riverdale, and South Weber, to the north-northeast of the base, are sparsely to moderately developed (primarily residential) with large tracts of agricultural lands in evidence. A review of existing zoning and future land use maps indicates a continued mix of residential (moderate to light density) and agricultural/open space uses in the area situated between the north - northeastern boundary of the base and Interstate 84. Further north is the City of Ogden, a densely developed community and government center for Weber County.

The land adjacent to the eastern boundary of the base is characterized as gently rolling and basically agricultural in use. Development is, however, occurring in this area; converting portions of the land to residential and commercial/industrial use. In terms of future land use, it is projected that lands closest to the eastern boundary of the base (and adjacent to Utah State Route 193) will develop as commercial and light industrial properties. Further north of Route 193, and adjacent to the base, land use is projected to gradually become industrial or commercial. Further east from the base, land use is projected as moderate density residential.

Utah State Route 193 defines the southern boundary of the base. Below, to the south of SR193, is the City of Layton. Developable tracts of land are interspersed among developed tracts (primarily residential) in the area immediately south of the base. Future land use trends are expected to result in light to moderate residential development densities. Commercial and high density (multi-family construction) residential development is expected to occur along the major roadways with commercial and low-density residential development within the AICUZ area.

Hill Air Force Base enjoys generally positive relations with neighboring civilian communities. This positive relationship is due in great measure to the economic contribution made by the base to the community. There are however, a few direct land use conflicts between the base and civilian communities. Examples of this incompatibility are the result of encroachment in the designated Compatible Use Districts (CUDs) specified in the Air Installation Compatible Use Zone (AICUZ) plan.

2.2.6 Transportation

Access to the base is provided via five gates; each with good to excellent highway access. Moving counterclockwise from the north and west, the Roy and West Gates both offer access to Utah State Route 126 and Interstate Highway 15; major north-south thoroughfares. The Southwest and South Gates are accessed from Utah State Route 193; a major east-west route providing access to Interstate 15 west of the base, and U.S. 89 east of the base. In addition, the Southwest Gate is accessed from State Route 126; a primary street through the cities of Clearfield, Sunset, and Roy. The North Gate offers access to Utah State Route 168, and from there to Interstate 84. Discussions have proceeded on a new base gate entering the base just south of Thunderbird Housing and serving the new C-130 and ETC Complex.

A review of future land use and transportation plans for areas adjacent to the base was conducted. The greatest impacts on the Base will occur at its southern boundary where an improvement of Utah State Route 193 is planned that will offer a total of 4 lanes (2 east bound and 2 westbound) from U.S. 89 to I-15. The improvement of SR 193 reflects existing and projected increases in traffic volume due to urban expansion. The base's Cross-Base Arterial project is designed to reduce the traffic bottleneck at the South Gate and prevent a worsening of congestion at SR 193. With respect to land use, the State of Utah is pursuing the purchase of a combination of permanent easements to the south of the base and airfield. The purpose of the easements is to insure, through development restrictions, land use compatibility with the airfield. In addition, local planning authorities indicated a desire to permit only that development which conforms with the AICUZ plan for the base in areas covered by AICUZ noise contours. Encroachment is, however, continuing and if unchecked, may severely constrain or eliminate mission flexibility.

2.2.7 Local Government Interaction

There are numerous local and regional governments which surround Hill AFB. These governments include the cities of: Riverdale, Roy, Clearfield South Weber, Layton, Washington Terrace, Sunset, and Syracuse. In addition the regional institution responsible for planning in the area is the Wasatch Front Regional Council. Other regional institutions include the Mountainlands Association of

Governments and the Airport Systems Planning Advisory Committee. Because of the impacts on Hill AFB relating to decisions made by these governments and visa versa, there must be communication between the Air Force and the surrounding governments. The issues affecting communication include; noise, land use, and transportation problems.

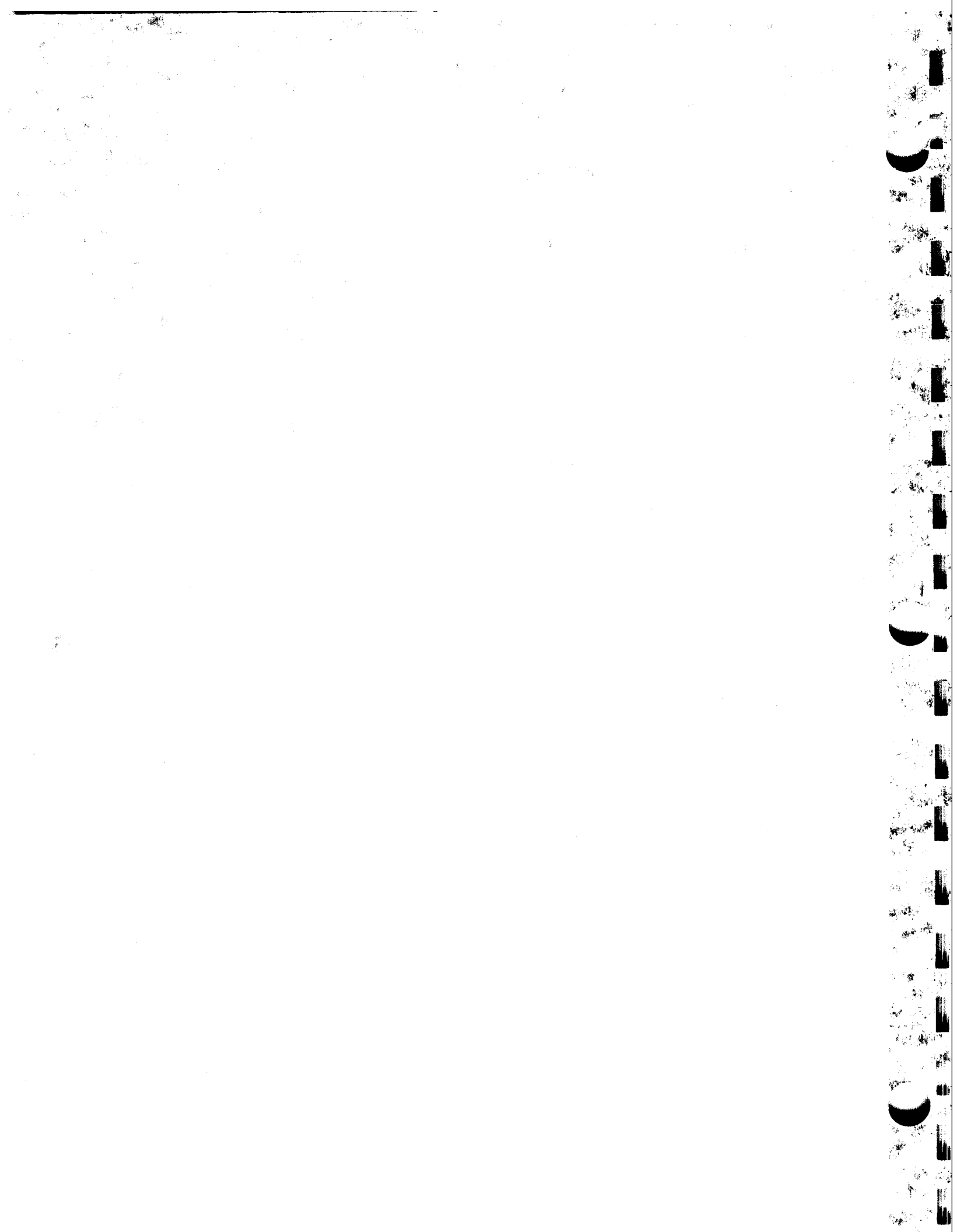
The base enjoys a tremendous spirit of cooperation and support from local and state governments. The Base Commander is considered as the "Mayor" of Hill and as such, has membership on the highly influential Davis County Council of Governments. This council provides a composite management structure for the large number of incorporated towns and municipalities within the county. The Base Commander, as the Air Force mayor, has access to this forum to discuss ideas and cooperative efforts and to solicit support in obtaining necessary services for the base.

Interaction in recreational activities, development of transportation systems, and support to communities during natural disasters have fully demonstrated this outstanding rapport.

There are areas of differing opinions typical to any Department of Defense installation. However, Hill actively works with its neighbors to minimize these situations and has, perhaps, one of the best public relation programs in the Department of Defense. Hill has maintained a significant role in the state and has established itself as a leader in management, economics, environmental concerns, and cooperative efforts with local governments. This provides a strong and influential installation capable of meeting its assigned Department of Defense mission.

3.0

Plan Synopsis



3.0 ON-BASE PLAN SYNOPSIS

This section summarizes the Comprehensive Plan by synthesizing a composite from the various component plans and describing the manner in which they interact. Included are the composite constraints and opportunities which affect future development and alternatives for future development.

3.1 Constraints/Opportunities

For the purposes of this plan, constraints and opportunities can be divided into three distinctively different categories; physical, operational, and functional.

3.1.1 Physical

Various physical features, both natural and man-made, help define Hill Air Force Base, and to a large extent, set parameters for future development. Included among these features are the "built" environment, such as buildings, roadways, and the airfield, and natural features such as topography and resources. The on-Base physical constraints are listed below (see Figure 15):

- o Airfield, Associated Noise and Safety Zones
- o Explosives Quantity - Distance (Q/D Arcs)
- o Topography (greater than 7 percent slope)
- o Landslide Areas
- o Wetlands (protected by federal legislation)
- o Abandoned Sanitary Landfills
- o Hazardous Waste Sites (IRP sites)
- o Existing Development
- o Utility Deficiencies
- o Wind Direction and Intensity

In addition to the on-base features outlined above, there are regional environmental and resource constraints. These constraints involve climate, topography, existing development, water, geologic hazards, pest control, historic sites, air quality and water resource consumption considerations which can impact the types and operational characteristics of development rather than the level or quantity of development. For example, since water is a relatively scarce resource in the region, future development should always consider water conservation.

Expansion of the Base beyond its existing boundaries is not a feasible option for future development. Natural and man-made physical constraints, including steep slopes and roadways surround a majority of the Base which limits the opportunities for growth of the existing facility.

Opportunities for large scale future development expansion fall into either of two categories: New development and redevelopment. New development can occur on currently undeveloped or underdeveloped parcels which are not subject to physical constraints as previously discussed. Redevelopment involves rehabilitation and the conversion and/or demolition and replacement of existing structures.

Redevelopment offers the greatest opportunities, particularly for such functions as administration, community, storage, and hazardous operations. The area offering the greatest potential for large scale new development and expansion is east of the airfield. This 60-65 acre site is situated adjacent to the airfield and on relatively level land with an existing roadway. Due to functional constraints, its development is limited to airfield operations and unmanned storage functions. To be developed, the area requires an increased infra-structural capacity, including utilities and an access taxiway.

There are, in addition to the above, opportunities for smaller scale development on remaining available parcels. In developing smaller parcels, attention must be given to the conservation of space in siting the facility so as to allow for possible future space requirements. Facilities centered within a small parcel will often preclude the possibility of future expansion on the site. The remaining land area around the facility, in such instances, will be virtually undevelopable due to its small size and/or irregular configuration.

Multiple work shifts offer an opportunity for production growth. However, its effect of generating noise over a longer period of the day provides another reason to stop off-base urban encroachment.

3.1.2 Organizational

Operational constraints and opportunities lay the groundwork for Base efficiency. In order to promote efficient operation of the Base, there is a need to improve the management of land and facility resources and consolidate the organizations. Depending on the organization's mission, it is desirable for each organization to be consolidated into a well defined area which best supports not only current operations, but lays the groundwork for efficient future change or expansion. In addition, good military planning practice calls for the grouping of military units in terms of administration, mission related activities, housing and community support functions. Benefits derived include administrative and command efficiencies as well as improved morale, sense of identify and esprit de corps. The constraints to operational efficiency include:

- o Geographically fragmented operations (i.e.; 2849th ABG),
- o Insufficient operation space (i.e., MA along Airfield),
- o Space inefficient facilities (i.e., converted warehouses in 1200 Zone),
- o Insufficient facility space (i.e., overcrowded office space), and
- o Unconsolidated and/or ineffectively controlled support areas (i.e.; scattered/uncontrolled storage in MA and 2849th ABG)

The opportunities to enhance operational efficiency involve: consolidating directorates and tenant organizations; providing sufficient space for future development; providing adequate support areas; and banning renovations and alterations which perpetuate space inefficiencies and prevent the acquisition of efficient facilities.

3.1.3 Functional

The functional use of land within the Base must be spatially organized to promote land use efficiencies. When these functions are properly arranged, each has an identifiable geographic area.

The roadway system and other physical features act to facilitate the desired separation and interaction of these functions.

Constraints to optimum functional efficiency include the following:

- o Existing incompatible development
- o Improperly utilized or designed roadways
- o Inadequate infrastructure
- o Competition for space

The opportunity for maximum functional efficiency exists with future development of the Base. Facility planners should relocate functions/activities in order that functional efficiency is achieved. Specific recommendations are listed in section 3.2.2.

3.2 Future Development Composite

Each of the BCP's twelve component plans include recommendations for future use or development of the Base. The purpose of this section is to summarize and composite the plans' recommendations. These recommendations will be presented based on a hierarchy which begins with site recommendations affecting the entire physical Base, and mostly involving the natural environment. It will then proceed to recommendations at a functional and organizational level; or the use of land relating to the human activity occurring on it. Finally, this section will focus in on the dynamics associated with the recommended land uses, including buildings, utilities, roadways, and communication systems.

3.2.1 Physical Recommendations

Proper management of the land/environment is vital to future development. While some natural features currently present constraints to future development, proper resource management can lessen the affect of these constraints and minimize the impact of future resource problems. In addition, land management can visually improve the overall image of the Base. As a general goal, prior to approving development, decision makers must be sensitive to the environmental aspects of the action being evaluated.

Consideration of both constraints and capabilities presented by the natural environment will protect development investments from degradation. Future development recommendations from three BCP Component Plans are drawn for this analysis: Natural Resources, Environmental Quality, and Landscape Development.

A thorough understanding of the Base's physical resources and their ability to impact future development is an initial recommendation. Resources/areas which have the potential to impact future expansion and, therefore, require additional study/action include the following:

- o A geologic fault line identified by the State of Utah should be assessed regarding its potential for seismic activity.
- o The Delta Aquifer is being gradually depleted. The Base should initiate or cooperate in a plan for water conservation reuse and replenishment, which includes a goal of reversing the depletion trend.
- o Airborne dust associated with wind erosion can impact aircraft operations. Therefore, areas which are highly erodible should be identified and stabilized with vegetation or other means to prevent further problems, particularly around security fences.
- o Although Federal law does not require agencies to preserve sites of historic or archaeological significance, an investigation and documentation of the site is mandated. Therefore, it is desirable to identify these sites prior to development to avoid costly construction delays.
- o The hazardous waste sites which are associated with the Installation Restoration Program (IRP) are in the process of being studied in regard to off-site impacts. Base personnel must identify those impacts and then implement a development ban zone around the site as required by the situation.

- o The use and management of vegetation is important to the Base mission, as well as to aesthetic values. For example, safety and visual clearance criteria dictate that large areas of airfield grounds be permanently grassed. Vegetation used for landscaping near housing and administration developments improves the Base image. The plants selected and used should conform to the Master Plant List and the landscape character established in the zone. All plants should require minimal maintenance.
- o Areas of the Base which should receive landscaping priority include the 1200 zone, parking areas, roadways, the Base Perimeter, and the Community Center.

3.2.2 Functional and Organizational Recommendations

Functional relationships and operational efficiency represent the second layer of future development recommendations. This layer provides an outline for specific facility siting as well as transportation and utility recommendations. Given the near saturation levels of development on-Base, it is essential that the various functions within the base are spatially organized to promote operational and land use efficiencies.

When Base functions are properly arranged, each has an identifiable geographic area. The roadway system and other physical features act to facilitate the desired separation and interaction of these functions.

The future land use plan illustrates an arrangement of land uses which provides for an effective functional relationship. The major land use recommendations are presented below:

- o **Improve Housing Quality of Life**

Officer housing in the 1100 Zone should be reinforced by increased buffering at its edges and by relocation of incompatible functions such as vehicle operations and maintenance. Existing vehicle maintenance facilities may be converted to more compatible functions (such as MWR satellite services or storage and care of locally utilized grounds maintenance equipment).

Thunderbird Housing residents should be relocated to recover utility capability for airfield operations and to remove residents from the incompatible environment.

- o **Protect Functional Integrity**

Utilize South Gate Drive (up to Sixth Street) and Sixth Street to define the boundaries of community and operations functional areas.

New development north of Sixth Street and/or east of South Gate Drive must be compatible with Operations. Conversely, new development south of Sixth Street and west of South Gate Drive must be compatible with community functions.

o Relocate Community Functions

Currently, community functions are concentrated south of Sixth Street with Operations and base functions to the north. South Gate Drive, up to Sixth Street, helps define the east-west boundary between community and operations. The recommended plan is designed to build on this strength using Sixth Street and South Gate Drive to define the boundaries of the three functional areas. Community and base functions will be located south of Sixth Street and west of South Gate Drive. Operations functions will be located north of Sixth Street.

In order to implement the plan, community and base functions now located north of Sixth Street will be relocated to the south. Functions to be relocated include civil engineering, base headquarters, officer family housing and visiting officer's quarters, the Officer's Club, and the Family Service Center. (From the standpoint of practicality, within a 20 year planning horizon, the Officer's Club and Officer Housing will likely remain in their current location. Relocation of these activities, while necessary to achieve the ideal functional layout, are thus long range options of the plan). The relocation of these activities will reduce functional conflicts and thereby promote continuity within the operations area. Relocation of these activities will also reduce the flow of nonindigenous traffic into the operations areas of MA, MM and other autonomous areas.

To accommodate the relocation of community functions, operations functions now south of Sixth Street, must be relocated to the north. This primarily affects warehousing and open storage facilities controlled by the Directorate of Distribution and located on 45 acres bounded by Sixth Street, F Street, and Eleventh Street. This relocation allows DS to consolidate into an autonomous area which promotes efficiency.

o Establish Consolidated Host Base Operations Area

There is a need to consolidate/centralize, in a "Office Park" type complex, the functions of the 2849th ABG. Functions to be consolidated include base headquarters, personnel, security police, civil engineering, and administrative activities. These functions should be located apart from other organizations and away from the airfield.

The location for host base functions is in the area on the site bounded by Sixth, Eleventh, and F Streets. In developing this area for base operations, the initial phase focuses on administrative facilities. This phase enables the relocation of personnel, security police, and similar functions from the 1200 Zone, and the relocation of base headquarters, civil engineering, family services, and similar functions from north of Sixth Street in the South Area.

The second phase of development for this site focuses on consolidating vehicle operations and maintenance facilities. This action, however, must be in conjunction with the construction of additional warehouse space because of deficiencies in covered storage.

o Prepare *Operations Expansion Area

As previously indicated, opportunities for large scale expansion are limited. One site which offers the greatest potential is immediately east of and adjacent to the airfield. The site contains approximately 60 to 65 acres of level land serviced by a roadway (Foulois Drive) around its perimeter. Supporting infrastructure (i.e., utility extensions) are needed to accommodate development of the site. The only constraint to development in this area involves AICUZ and airfield criteria.

Given the location of the site, adjacent to the airfield, appropriate development types are limited to aircraft operations and maintenance with ancillary/supporting industrial and/or administrative functions. Further, given that the site is remote from the operations center (South Area), the using organization would need to be operationally autonomous. That is, the day-to-day operations of the using organization would not be directly dependent upon close proximity to another organization or organizations. (The SAC facility at the north end of the airfield is an example of the type of organization whose operational characteristics are suited to a remote or detached location). The using organization should also benefit from the security afforded by the remoteness of the site. Lastly, unless an organization has low personnel densities, any expansion project must include provisions to avoid or solve traffic circulation problems on Foulois Drive.

Of the major directorates and tenant organizations on-base, only three exhibit some degree of operational and functional characteristic which are compatible with this site: The 419th TFW (AFRES), the 6545 TG, and potentially, certain functions of the Directorate of Maintenance. Since, however, the relocation of any function will impact other areas of the base, the most advantageous organizational move involves the 419th TFW (AFRES).

The functional and operational characteristics of the 419th are generally well suited to this site. As a tenant organization, the 419th is not directly dependent upon the directorates for day-to-day operational support. The aircraft and nature of the operations would benefit from the security afforded by a remote site.

The relocation of the 419th would also benefit the South Area, in general, and MA, in particular. MA operations generally require proximity to the airfield and are best consolidated in a given geographical area. The relocation of the 419th would provide room for MA expansion along the airfield, adjacent to its current operations center. This would reduce the need for MA to expand west, away from the airfield and into conflict with DS, the 388 TFW and community (housing, commercial, etc.) functions.

It should be noted that there are current plans to locate two major complexes in this area. The Electronic Capability Training Center Facilities will be located in the southern portion of this undeveloped area and MA's C-130 Maintenance Complex will be located in the central portion. There should be adequate space for the 419th to relocate north of the ECTC Complex and C-130 Complex. Development of the site will require utility extensions and construction of an access taxiway and apron.

There are, in addition to the above, opportunities for small scale development. In developing smaller parcels, attention must be given to the conservation of space in siting the facility so as to allow for possible future space requirements. Facilities centered within a small parcel will often preclude the possibility of future expansion on the site. The remaining land area around the facility, in such instances, will be virtually undevelopable due to its small size and/or irregular configuration. To assure long term usability, infrastructural development such as parking lots, and utility corridors must be included in siting and design.

o Maximize the Use of Land Which Poses Constraints to Development

Future recreation areas should be located on sites (i.e., steep slopes) which are suitable for this use, but may pose constraints for other land uses. In addition, wetlands which pose constraints to most forms of development can be utilized for certain types of recreation.

o Redevelop 1200 Zone

Another major facility recommendation which will require a phased approach is redevelopment of the 1200 Zone. This area, like the South Area, currently contains a mix of community and operations functions.

The area exhibits poor circulation, parking problems, and numerous functional incompatibilities; all of which are intensified by development and personnel densities.

The layout of the 1200 Zone (i.e., the spatial arrangement of roadways and buildings) reflects the original design for warehousing functions with much lower personnel densities than the administrative functions to which most of these facilities have been converted. Traffic circulation and parking problems are rooted in the difference between the area's original and current function. There is little relief from the asphalt and concrete environment in the 1200 Zone; a problem from an energy, visual and human environment standpoint. Thus, while building interiors have been converted to administrative use, the exterior environment (facility layout, circulation, parking, landscape) still reflects the area's original, low personnel density, warehousing function. Until the "form," or layout, of the 1200 Zone is brought in line with its "function" (i.e., administrative activities with high personnel densities), the problems will persist.

The current layout of the 1200 Zone is space inefficient. Due to single as opposed to multi-level construction, the 1200 Zone uses at least two times the land area necessary to accommodate its administrative functions. Compounding the problem is the location of base operations functions (personnel, security police, vehicle maintenance) among the directorate and tenant organizations in the 1200 Zone; adding to the congestion problem. In addition, a substantial amount of administrative space has been given over to contractors, further reducing the floor space available for the directorates and tenant organizations. Given the current layout, the single level construction and the collocation of incompatible functions in the 1200 Zone, opportunities for expansion and new development are severely limited.

There are, of course, various alternatives for future redevelopment of the West Area, in general, and 1200 Zone, in particular. The early phase of the plan is designed to remedy existing problems through organizational and circulation improvements. The latter phases are oriented towards redevelopment, including multi-level and/or in-fill construction and selected demolition to free space for an adequate infrastructure. For instance, although construction of a multi-story building in the hillside between the upper and lower parts of the 1200 Zone would be more expensive than free-standing structures and would require the same demolition and infrastructural alterations, it may be the ideal solution for organizations having a strong functional tie to both parts of the zone. The long term goal of the plan is for an "Office Park/Campus" in the West Area, similar to those which are developed in the civilian community. The phased approach is presented in the BCP, 1200 Zone Sub-Component of the Land Use Plan.

TABLE 7 1200 ZONE DYSFUNCTION SUMMARY

LAND:	60% Underutilized
FACILITY LAYOUT:	Functionally inflexible and inefficient
FACILITIES:	60% Overcrowded
	92% mechanically deficient
	78% life-safety code violations
ENERGY COSTS:	+40%
TRANSPORTATION:	65% Over-utilized
OPERATING COST/FUNCTIONAL EFFICIENCY:	+30%

o Relocate Thunderbird Housing

The need to relocate Thunderbird Housing residents results from the unacceptable noise levels and accident potential experienced by the residents. The following three alternatives were assessed: moving the housing residents off-Base; constructing another housing complex on-Base; and a no action alternative. Because of the costs involved, it is recommended that, in the short term, the no action alternative be implemented. However, the Base should concentrate on finding an economical method of moving Thunderbird Housing residents to the off-Base community, since no suitable site exists on-Base. Alternative methods, such as the rental guarantee program and third party financing, should be explored creatively.

3.2.3 Dynamics Recommendations

The dynamics of an area is the final layer which converts a site, and its land use, into a community. The dynamics include utilities, transportation, communications systems, and facilities development.

3.2.3.1 Transportation

At Hill Air Force Base, the roadway system provides the routing necessary to achieve the desired interrelationship of the functions and land uses on-Base. The roadways also help to define and separate functional areas and land uses.

Several types of transportation related problems occur on the Base. These include congestion at some of the gates, roadways not designed as arterials but functioning as arterials, poor geometrics and visibility at various locations, inadequate traffic signalization, main roadways dividing similar land uses, and heavy pedestrian traffic.

Any improvements made on the Base must be coordinated with the carrying capacity of connected roadways off-Base. At this time, congestion occurs outside of the South Gate, the Southwest Gate, the West Gate, and the Roy Gate.

There are several intersections on the Base which may operate more efficiently with traffic signals since left turn movements during peak hours are very difficult.

The most recent Base traffic counts were taken between December, 1986 and February, 1987 as part of the Basewide Traffic Study. The traffic increased at the Southwest Gate, West Gate, and Roy Gate between 1977 and 1986. During the same time period the traffic decreased at the South Gate and the North Gate. The total 24 hour volumes at all the gates had increased from 39,090 vehicles in 1977 to 51,447 vehicles in 1986.

A traffic signal should be installed at the intersection of 2nd and M Streets. In addition, the existing traffic signal at 6th Street and Liberty Road should be converted to a pedestrian activated signal.

Traffic congestion on South Gate Drive results from the absence of an effective east/west arterial roadway in the southern portion of the Base. A proposal to make 6th Street an extension of South Gate Drive will relieve congestion in the northern part of the South Area (MA and DS complexes).

Also, facilities located near the intersection of South Gate Drive and 2nd Street are high security areas and should not be located along major thoroughfares. Therefore, the solution is to promote east-west turnoff from South Gate Drive prior to reaching 2nd Street. 6th Street, which presently runs east and west will be an extension of South Gate Drive and become the major east-west arterial for the Base. This will be done by realigning 6th Street at South Gate Drive. Both roadways will be widened to allow for three lanes of traffic in both directions and a median wide enough to allow for left turns where required. Northbound South Gate Drive traffic would be allowed to go east on 6th Street into the airfield maintenance area, but the traffic exiting in this area would be forced to use the 'D' Street Extension.

The heavy pedestrian traffic at Hill Air Force Base is the result of locating parking areas apart from places of employment. Some modifications which are being made at this time, without changing the location of parking and employment, include street lighting near crosswalk areas, and better marking of crosswalks. This is especially important due to the heavy amount of pedestrian traffic which occurs during non-daylight hours. Generally, the peak pedestrian traffic occurs at the same time as the vehicular peak hours which increases the hazards.

Past development of the Base has not considered the need for parking. Facilities in the 1200 Zone and South Area are in many cases densely situated without parking lots to serve them. Therefore, large centralized parking lots, located apart from the buildings served by them, were constructed. The main problems with this situation relate to safety and morale. Workers must walk, in some cases, large distances to reach their place of employment. Given winter wind chill, this can exacerbate health problems, as well as being very unpleasant. Pedestrian crossings on arterial roadways slow traffic, increasing congestion and creating hazards. Further, large parking lots are aesthetically unpleasant. Large areas of pavement, without occasional greenery, produce a stark bareness that affects the entire area negatively, no matter how attractive nearby architecture may be.

A major goal for solving parking area problems at Hill Air Force Base is to provide a more efficient utilization of parking lots; relieving demand at the "at capacity" lots, while increasing the demand at underutilized lots. This can be accomplished by providing a mini shuttle route servicing the parking lots.

Although decentralized parking is the most preferable alternative, incorporating smaller lots within existing building densities is a major problem. In addition, the construction of additional parking lots may be cost prohibitive. Therefore, the base will have to live with some large, centralized parking lots that are distant from employment centers and should concentrate on solving the problems they create.

In the future, the Base must assume that each building attracts and generates traffic. Future development plans must, therefore, consider adequate parking as a vital element. Failure to provide parking areas results in traffic-circulation problems, delays on the local street network, and increased accident potential. To assure adequate parking, all future development plans will illustrate parking as a requirement for approval. The number of future parking spaces should be based upon facility type (industrial, administration, etc.), size and/or projected assigned personnel and customer strength.

There is a need to recover land for industrial operations by constructing an MA multi-story parking building. This will be located west of the pacer protect project and will, in part, replace POV lots displaced by pacer protect and MA operations. This multi-story lot is only intended for MA parking, but it benefits the entire area by preventing a worsening of the situation and intrusion of the problem into other organizational areas.

3.2.3.2 Utilities

Utilities, like the roadway system, are basic to the support of the Base and its functioning. Distribution systems are a factor in the value and cost of developing land parcels. Deficiencies in the system

can limit the functional capability and economical development of a particular area and should therefore be corrected. To correct these deficiencies, the following major actions are recommended.

- o Utilize additional irrigation system water instead of well water for landscape maintenance to avoid summer draw-down of Base wells.
- o Upgrade water transmission lines, especially in the northern portion of the Base, for fire protection purposes.
- o Develop alternative sources of electricity, including federal consideration of hydropower and constructing a new power plant on-Base.
- o Utilize rooftop and upstream ponding to alleviate problems experienced by the storm drainage system.
- o Provide basic utilities to the expansion areas identified in the BCP Land Use Plan.

3.2.3.3 Communications

Communication systems at Hill Air Force Base can be categorized as three separate components; telephone, data, and facsimile.

Saturation of telephone and information processing systems can shorten the lifespan of equipment and delay or prevent transmissions. These problems can be prevented by developing a scheduling program that regulates the number of transmissions and number and type of user. Also, use of a satellite communication system can provide for secure transmittal of logistics information.

Since communications, like other types of infrastructure, can impact land use development, adequate cabling, additional terminals, more telephones, and more computer hours must be synonymous with future expansion plans for the Base.

3.2.3.4 Facilities Siting

The final dynamic element, which makes the development complete, is the future siting of buildings. To this point, recommendations for future expansion have been presented regarding the physical site, land use, and the infrastructure. The future siting of buildings must be incorporated with these other recommendations in order for a complete and effective development plan to be implemented.

A Five Year Capital Improvements Program has been developed by Hill Air Force Base, and represents the foundation for future development of the Base. The program includes over one hundred projects, all scheduled for programming over the next seven years. The major accomplishments of the program include the following aspects.

- o Increasing road and gate capacity and improving flow characteristics
- o Increasing warehouse space
- o Increasing/consolidating aircraft maintenance activities
- o Consolidating logistics support
- o Increasing Flight-line ops space and security
- o Adding space to community support activities
- o Increasing/modernizing munitions storage

According to a Facility Use Survey conducted by contract, the Base's Capital Improvements Program satisfies many of the existing needs and requirements.

3.2.4 Base Quality of Life

Improving the quality of life is one of the primary underlying goals of all Base Comprehensive Planning. Quality of life is an elusive concept. It is not one particular program or one particular facility which will establish an excellent quality of life, but rather, it is the combination of the Base facilities, policies, programs, and environment, that constitute quality of life on Base. All of these factors work together to contribute to the morale of the Base Community. Quality of life programs are designed to promote the cohesiveness and commitment that are essential to effective mission performance. In addition, the program's focus is to attract and retain quality personnel by providing positive motivation and meeting the living and working needs of the community.

3.2.4.1 Specific Goals for Quality of Life Programming Are To:

- o Promote the development of high morale throughout the Base Community;
- o Recognize that the personal living and working needs of the Base community must be met; provide for these needs through a combination of policies, programs, and facilities; and
- o Be responsive to the changing needs of the Base community.

Achieving a high quality of life on Base is a constant, ongoing process. Since the needs of the Base community change over time and no Base environment is "theoretically perfect" the commitment to achieving a high quality of life is a continuous effort which is never finished.

The BCP Component Plans make numerous recommendations for improving the quality of life at Hill AFB. Presented below is summary of recommendations, reiterated from the various component plans which satisfy the above goals.

3.2.4.2 Outdoor Recreation (from Natural Resources Plan)

The physical, cultural and spiritual benefits of passive outdoor recreation for Base personnel include an appreciation for the natural environment, enhanced individual satisfaction and enjoyment of the aesthetics of nature, the opportunity for diversion and relaxation, development of physical fitness, and development of desirable social patterns.

Presently, there are nine major outdoor recreational areas on Base representing various activities. With the exception of the golf course, these facilities are small and scattered due to the lack of available space and to the lack of natural areas specifically suited to a type of recreation. Off-Base recreation opportunities, on the other hand, are numerous, varied, and accessible.

Base recreation has, in the past, been planned around day-use activities such as team sports, jogging, bicycling, horseback riding and target practice. Much MWR effort is put into helping Base personnel utilize the off-Base recreational opportunities. MWR operates Hilhaus Lodge, Carter Creek Recreation Camp and a comprehensive sports loan. MWR circulates information flyers detailing upcoming local events and frequently arranges transportation, tours and reduced rate tickets to these events.

Two future projects which will add to outdoor recreation at the base are presented below.

- o Pond 3: Development of the Pond 3 Nature Area was initiated in 1982 at Hill AFB. The area was set aside to provide opportunities for outdoor recreation and natural landscape enhancement because of its aesthetic setting, close proximity to Military Family Housing, and accessibility to the civilian workforce. The long-term development plan for the area includes additional rest rooms, interpretive nature trails including bridges and rest stops, a bicycle motocross course, picnic areas, an amphitheater, shallow ice skating ponds, a cross country ski course, and a sledding/tubing hill. Completed aspects of the project include construction of a log cabin for recreational use, and a jogging trail.

In addition to its recreation amenities, Pond 3 is a working part of the Base's storm water retention system and water quality improvement programs. The nature area also includes a tree-holding area for drought tolerant native trees as a base for transplant/landscape enhancement and erosion control projects (approximately 20,000 trees), and domestic waterfowl nest boxes for the Base's flightless ducks and geese.

- o Base Museum: In the very northern portion of the Base, a museum/ aerospace park has been developed. This area is open to the public and is therefore secured from the rest of the Base by a fence. Currently the area consists of one building (1919) used for the museum and an open area for displays. Future plans call for a wetlands area to be developed just west of the museum, and construction of a display building, administration building, restoration complex and parking lots.

3.2.4.3 Landscaping (From Landscape Plan)

Landscaping improves quality of life from three major aspects; noise reduction, climate modification, and aesthetics.

Research indicates that plants essentially reduce noise two ways: (1) their foliage absorbs sound and, (2) their trunks and branches deflect sound. Generally, plants with thick, fleshy leaves are most efficient at sound absorption. However, evergreen plants are most effective for year round effect. As a rule, the taller and wider a plant massing is, the more effective it is as a sound barrier. A combination of both trees and shrubs is best for maximum effectiveness.

The climate at Hill Air Force Base dictates hot, dry summers and cold winters. Without modification to the exterior environment, human comfort out-of-doors on Base can be difficult to attain. Plant materials can be used effectively to modify microclimate outdoors as well as heating and cooling requirements indoors to create a more pleasant, economical, livable environment on Base.

The aesthetic attributes of plants are, perhaps, their most widely acknowledged characteristics. However, the aesthetic value of plants should not be the major criteria in selection of a plant for a specific purpose. Rather, the aesthetic contributions of a plant to the environment should be a secondary consideration only after functional considerations are satisfied. A plant can add aesthetic value to any given situation, improving the overall visual and sensual image of the Base while effectively providing functional solutions to environmental concerns.

Major characteristics of successful landscaping include an overall balance of texture, size, form, seasonal color, noise, fragrance, and tactile qualities in site furnishings, plant materials and pathways. Careful thought should be given to the use and maintenance characteristics of materials and plants. Landscaping must include consideration for human scale and improvement to the visual quality of the Base. By so doing, the overall visual character of the base can be coherently organized to convey a pleasant image.

3.2.4.4 Reduction of Pollution (Taken from Environmental Quality Plan)

The base has made great progress in reducing and controlling pollution. This is important to the quality of life as thousands of persons live and work in close proximity to areas which generate pollutants. Ongoing projects for pollution mitigation include clean up of hazardous waste sites (IRP Program), on site destruction of toxic materials, working with off base communities to control air pollution and elimination of hazardous materials use wherever possible. Some severe problems, however, remain to be dealt with.

3.2.4.5 Reduction of Fire and Life Safety Problems (Taken from Fire and Life Safety Component Plan)

Fire and life safety programs, because of their obvious value to human health, are important quality of life components.

A key to preventing fire and life safety problems is to eliminate or control hazards or deficiencies before they cause injury or damage. AFR 127-2 has developed a hazard prevention process which should be followed by HAFB personnel. The first step of the process is to identify hazards. Managers and supervisors must identify hazards by evaluating the work environment and job tasks. They receive technical assistance from the safety staff, medical staff, and fire prevention personnel. Hazards are identified through hazard analyses, mishap reports, inspections and deficiency reports.

The next phase is to accurately determine and implement hazard abatement action. Although alternative actions are limited by time and cost, the alternative that contributes the most to mission accomplishment should be recommended. The actions taken to correct hazards fall into one of the following areas:

- o Planning and Engineering - hazards are identified through a review of specifications, drawings and plans and corrected with engineering solutions.
- o Procedural Actions - procedures are developed to control problem areas.
- o Personnel Actions - Hazards are also controlled through proper training and motivation.

Commanders can protect national security resources when functional managers correct hazards in their area of responsibility and safety staffs help functional managers determine what actions are needed.

3.2.4.6 Reduction of Traffic Problems (Taken from Transportation Plan)

Several types of transportation related problems occur on Base. These include congestion at gates, poor geometrics and visibility at various locations, and pedestrian/auto conflicts. These transportation related problems cause employee frustration, as well as safety problems, thus decreasing the quality of life. In addition, past development of the Base has not considered the need for parking, resulting in employee traffic violations and the need for walking sometimes long distances to work. Recommendations to solve some of these problems include the following.

- o Redesign of the West Gate and alteration of streets to allow better traffic flow.
- o Improvements to South Gate Drive to allow better flow of traffic.
- o A comprehensive staggered work hour program to achieve a more uniform distribution of gate arrivals and departures during peak traffic periods.
- o Installing traffic signals at selected intersections.
- o Provide adequate parking lots for all future buildings, (including a multilevel structure for MA).
- o Complete a cross base arterial which avoids pedestrian traffic in MA and removes non-indigenous traffic from operations area.

3.2.4.7 Provision of Adequate Community/Service Facilities (Taken from Community Center Sub-Component Plan)

Factors such as housing, recreation facilities, shopping, services and community events play an important role in shaping the attitudes of military personnel toward their jobs. Quality of leisure is an integral part of quality of life and near to home leisure opportunities are usually the most important. The BCP makes the following recommendations intended to create a true Community Center that is responsive to modern cultural expectations and activities. Recommendations for improving quality of life components include:

- o Provision of space for community activities.
- o Providing space for commercial type facilities in one area, south of Sixth Street.
- o Addition of indoor recreation facilities (i.e. satellite gymnasium).
- o Establishment of a pedestrian corridor (Eighth Street) throughout the Community Center.

- o Establishing a consistent, attractive landscape theme throughout the area.

3.2.4.8 Provision of Visual Quality and Consistency
(Taken from Landscape and Architectural Compatibility Plans)

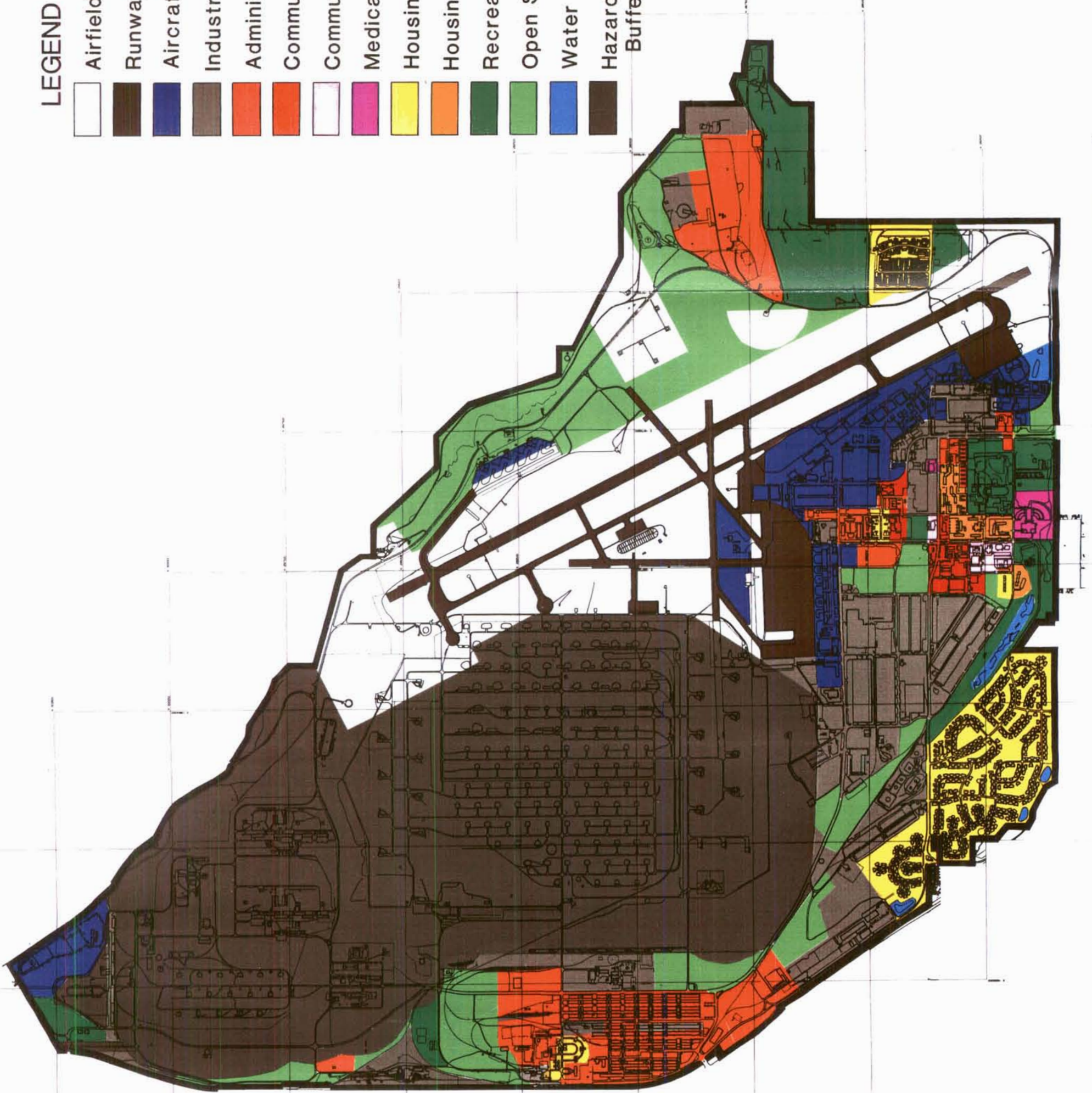
Community visual quality standards, which are normally enforced by local ordinances and neighborhood peer pressure, have only a weak influence on the base. This is probably because very few individuals consider themselves to have a personal stake. That is, employees expect the employer/land owner (the Air Force) to provide visual quality and individual Air Force members are not usually on base long enough to feel a personal stake in it. Also, the "landlord" (the 2849 ABG) doesn't have sufficient available funds or manpower. Nonetheless, visual quality has a strong effect on morale; it reduces stress and increases positive images of self-worth.

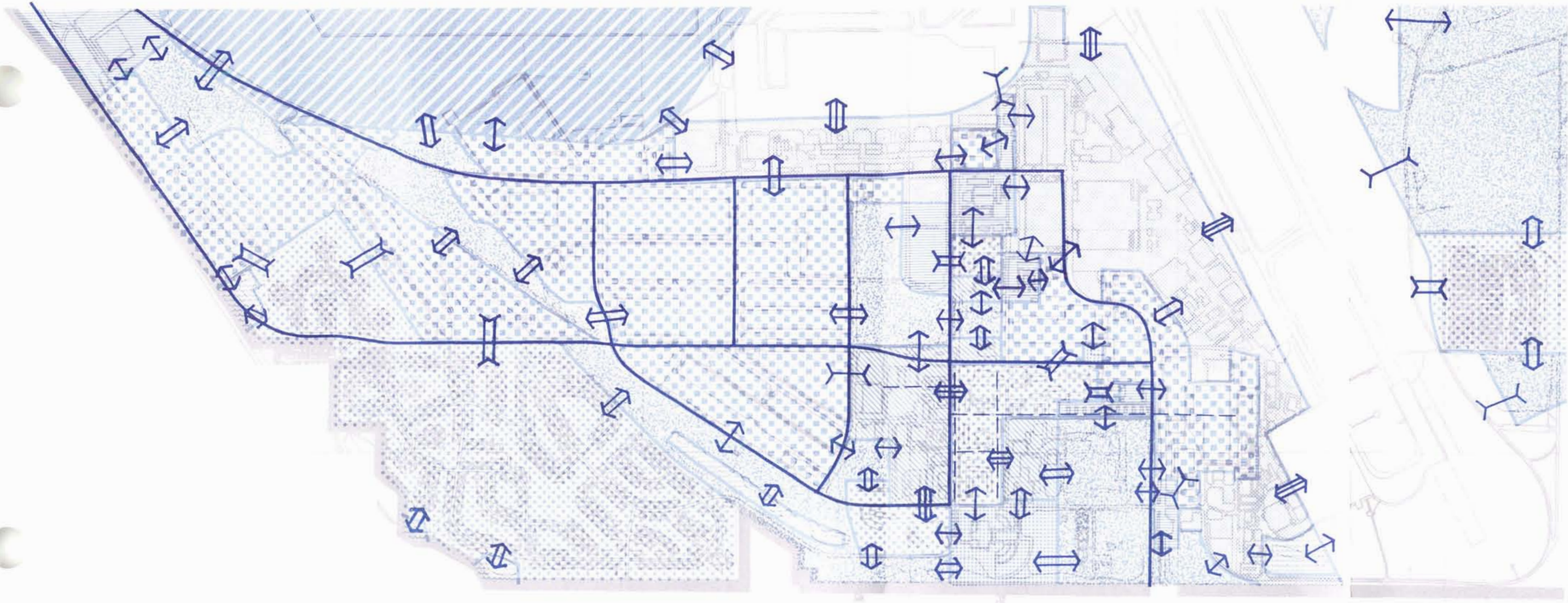
Concentrations of people require stable, consistent and identifiable features to organize and harmonize the many functions occurring simultaneously. Yet, because these functions are dynamic, consistency is difficult to maintain. Which is precisely why regulations and Architectural Compatibility Plans dictate standards for signs, pavements, construction materials, access-ways, set backs, fences, etc. These are the features that indicate location, appropriate activity and where hazards might be. Their consistency organizes and harmonizes, reducing stress and frustration and improving the quality of life.



LEGEND

- Airfield & Associated Buffer Open Space
- Runway/Taxiway/Apron
- Aircraft Operations and Maintenance
- Industrial Operations
- Administration
- Community (Commercial)
- Community (Services)
- Medical
- Housing (Accompanied)
- Housing (Unaccompanied)
- Recreation Open Space
- Open Space (Undeveloped)
- Water
- Hazardous Operations and Associated Buffer Open Space





LEGEND

-  Closeness Essential
-  Normally Close
-  Compatible
-  Normally Separate
-  Separation Essential
-  Major Auto Circulation
-  Pedestrian Pathways
-  Airfield
-  Air Operations
-  Industrial
-  Hazardous Operations
-  Administration
-  Services/Commercial
-  Housing
-  Open Space or Recreation
-  Water
-  Medical



Hill Air Force Base, Utah

Base Comprehensive Plan

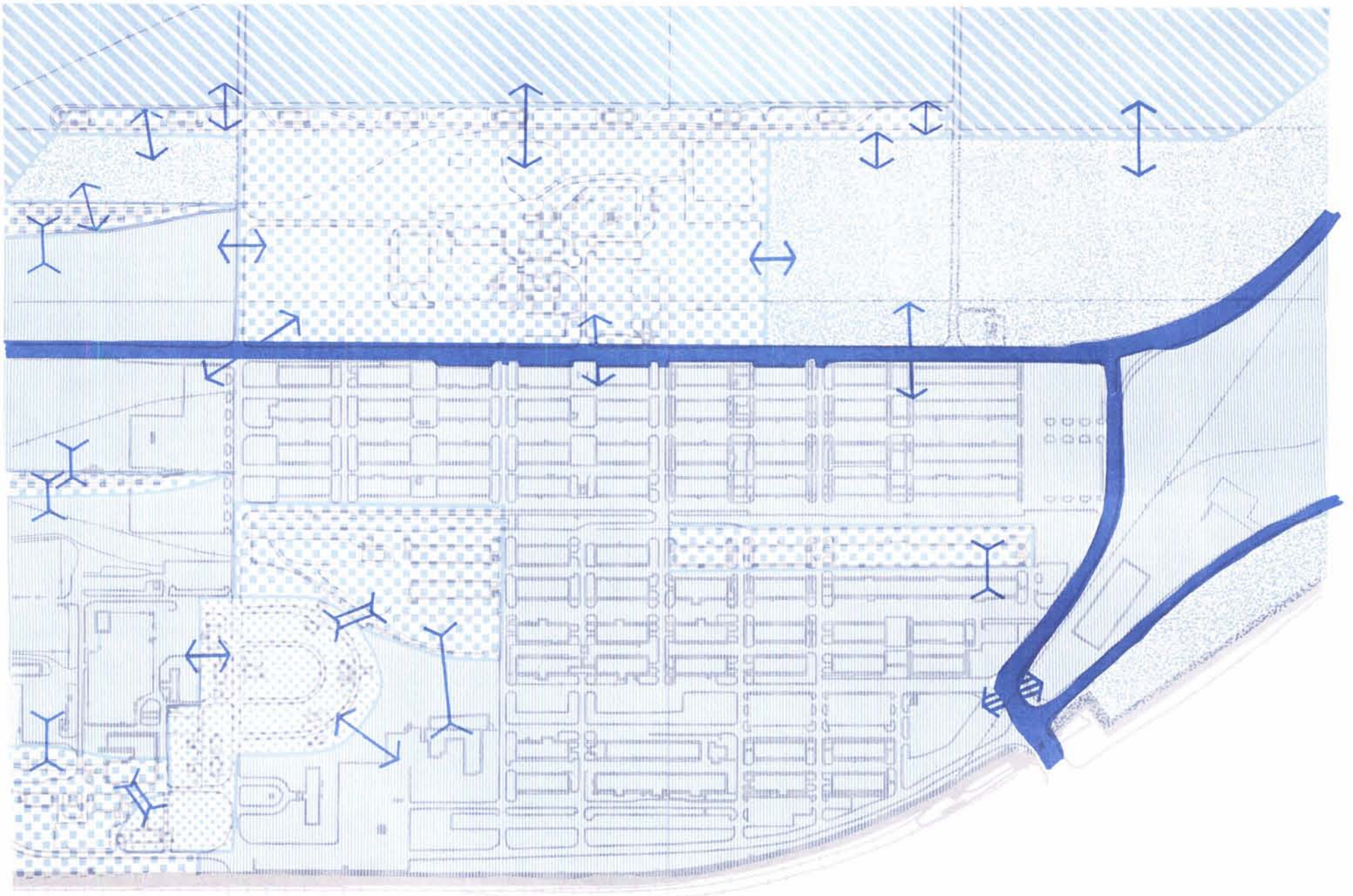


Functional Relationships: South Area

Land Use
Figure 5

LEGEND

- Closeness Essential
- Separation Essential
- Normally Close
- Compatible
- Normally Separate
- Major Auto Circulation
- Industrial
- Hazardous Operations
- Administration
- Housing
- Open Space/Recreation



LEGEND

- Functional Incompatibility (Normally Seperate)
- Functional Incompatibilities (Seperation Essential)
- Utility Overload/Capacity Problems
- Transportation Problems/Conflicts
- Saturation Without Expansion Space



Water Flow/Pressure Shortage

Use of Septic Tanks

Parking Problems & Congestion

Traffic Congestion

Turning Conflict and Non-Indigenous Traffic

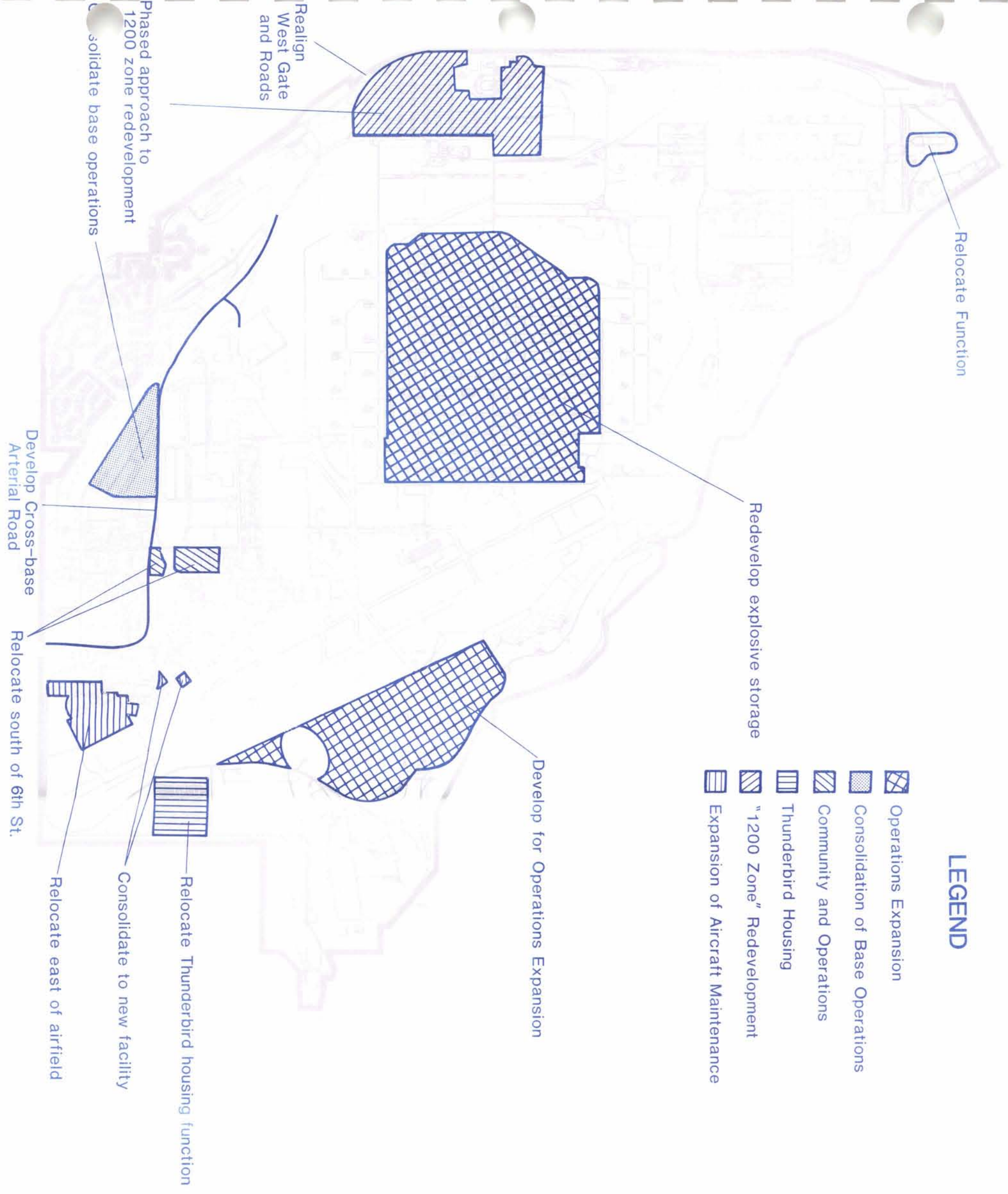
Inadequate Deluge System

Traffic Congestion

Inadequate Sewer Capacity

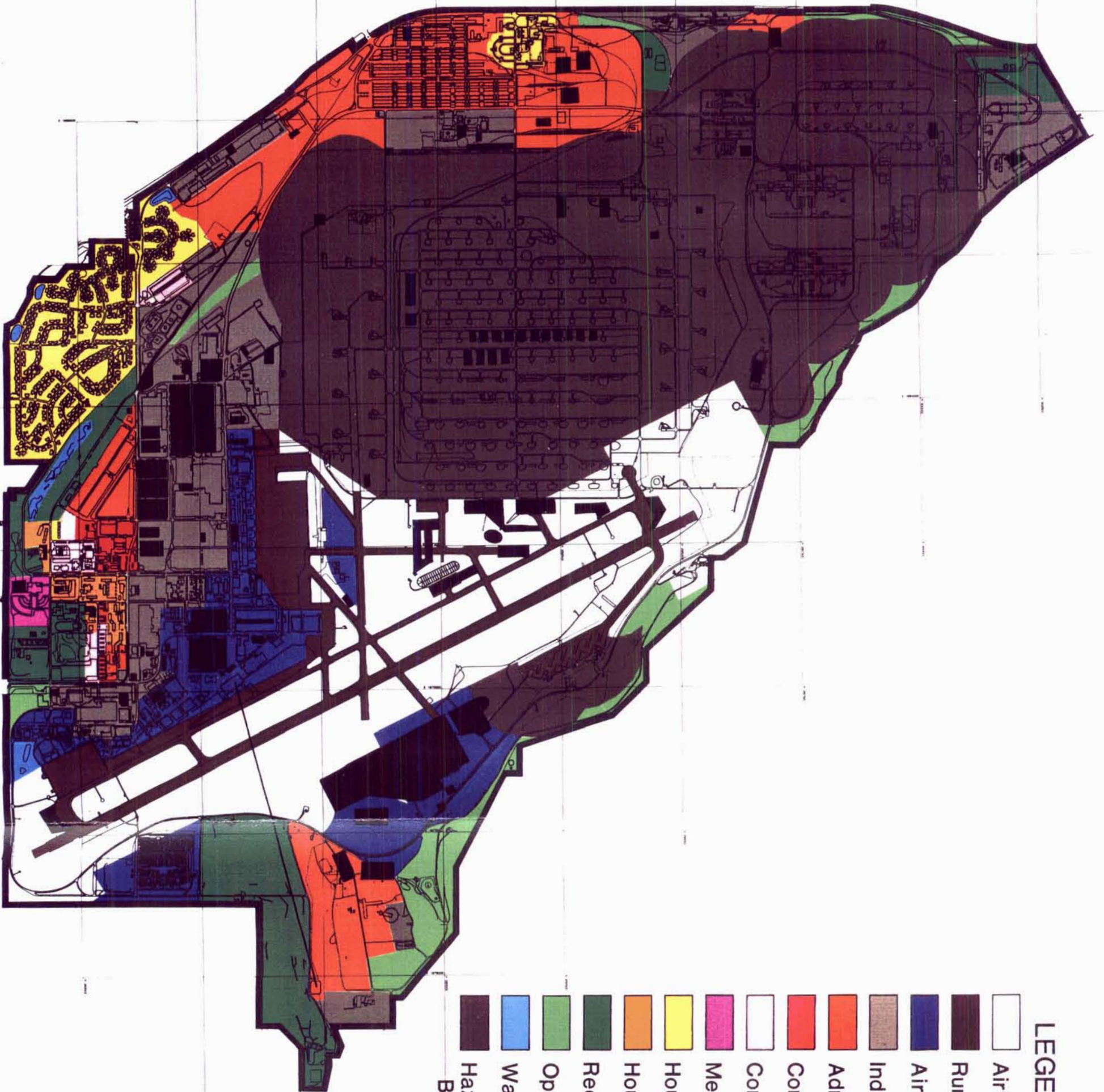
High Accident Area

Traffic Congestion



LEGEND

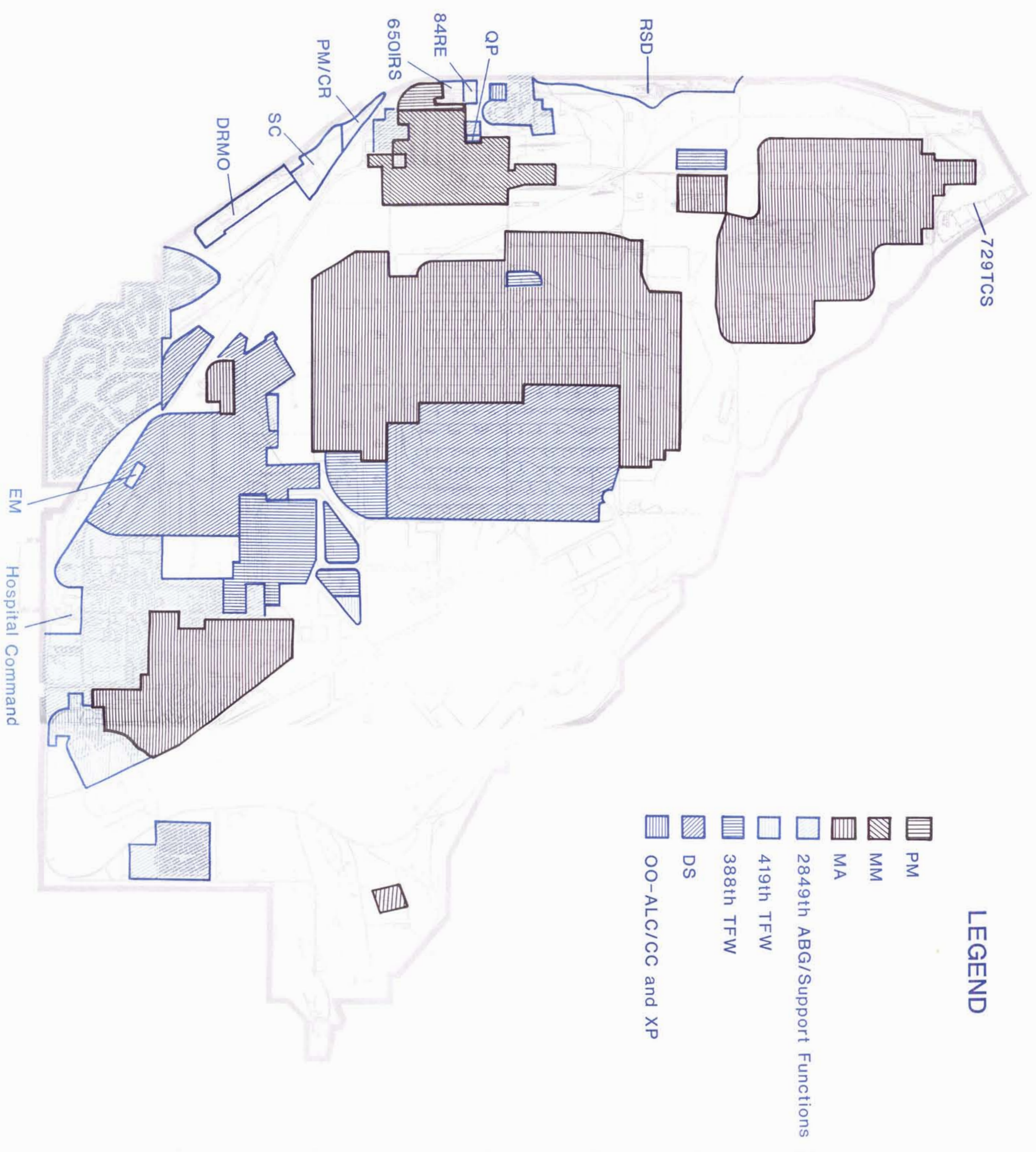
-  Operations Expansion
-  Consolidation of Base Operations
-  Community and Operations
-  Thunderbird Housing
-  "1200 Zone" Redevelopment
-  Expansion of Aircraft Maintenance




LEGEND

- Airfield & Associated Buffer Space
- Runway/Taxiway/Apron
- Aircraft Operations and Maintenance
- Industrial Operations
- Administration/Base Operations
- Community (Commercial)
- Community (Services)
- Medical
- Housing (Accompanied)
- Housing (Unaccompanied)
- Recreation Open Space
- Open Space, Unsuitable for Development
- Water
- Hazardous Operations and Associated Buffer Space





LEGEND

-  PM
-  MM
-  MA
-  2849th ABG/Support Functions
-  419th TFW
-  388th TFW
-  DS
-  OO-ALC/CC and XP

NORTH 

Hill Air Force Base, Utah

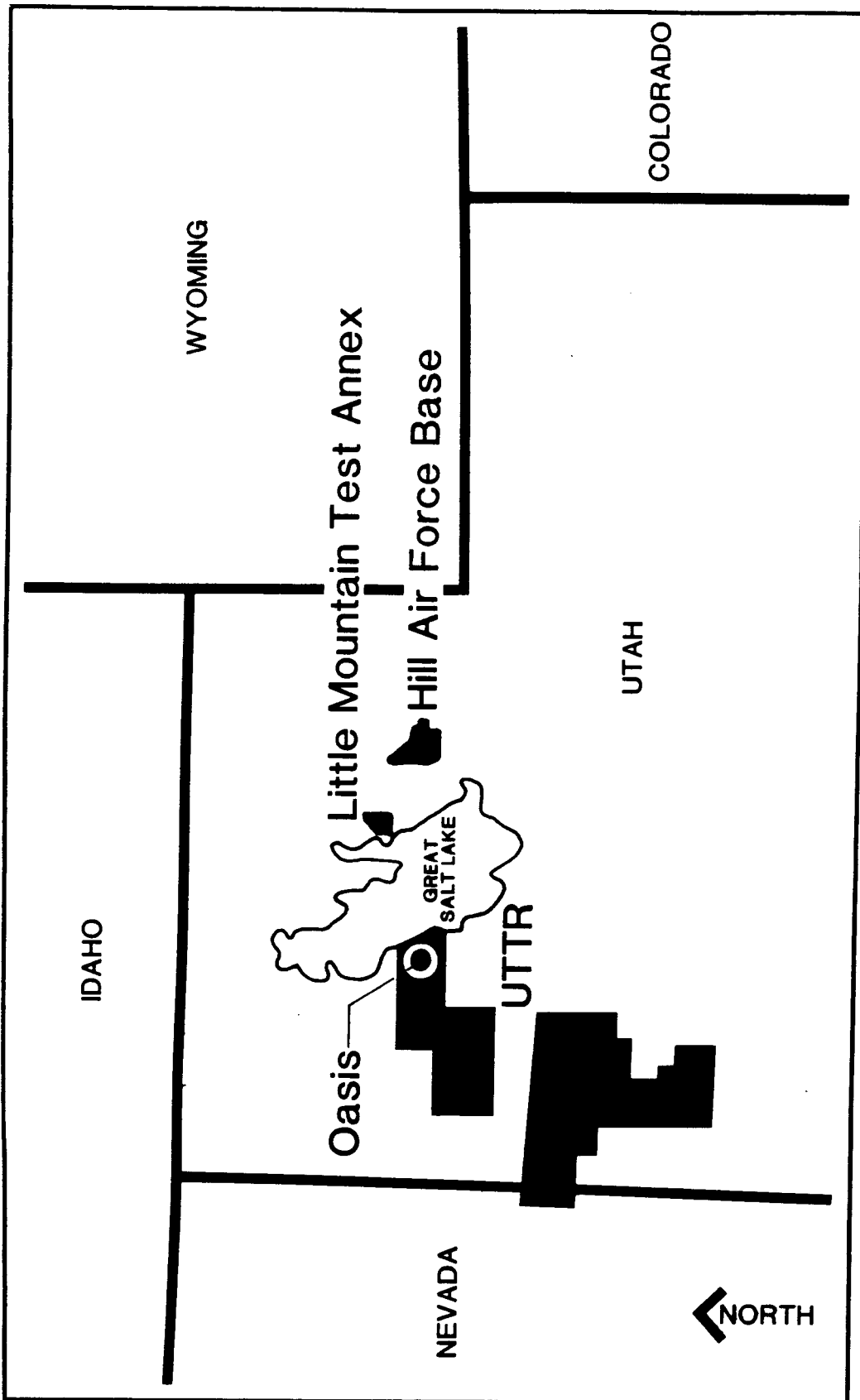
Base Comprehensive Plan

Organization Locations

Land Use
Figure 8



Geographic Location












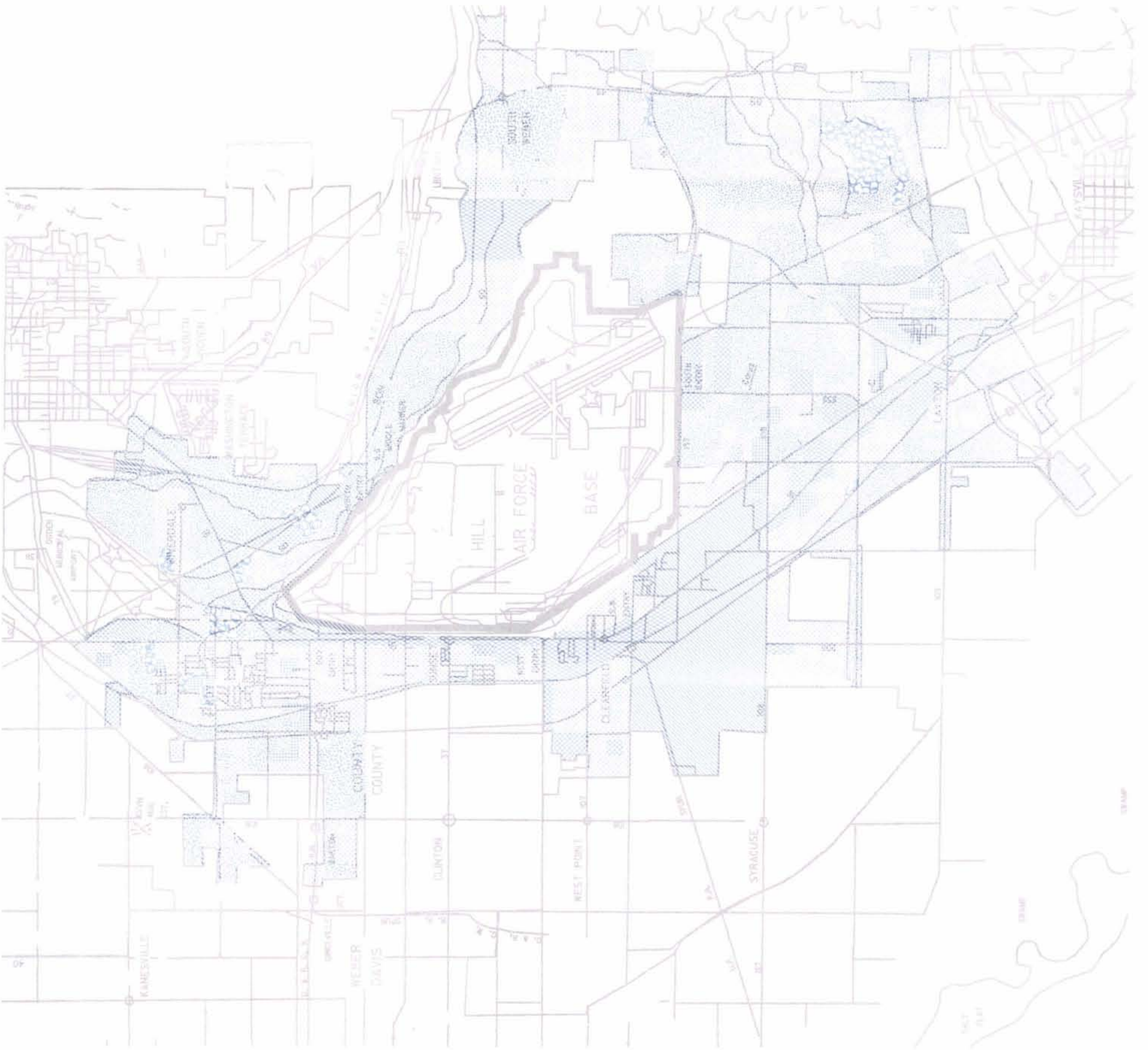


Hill Air Force Base, Utah

Base Comprehensive Plan

LEGEND

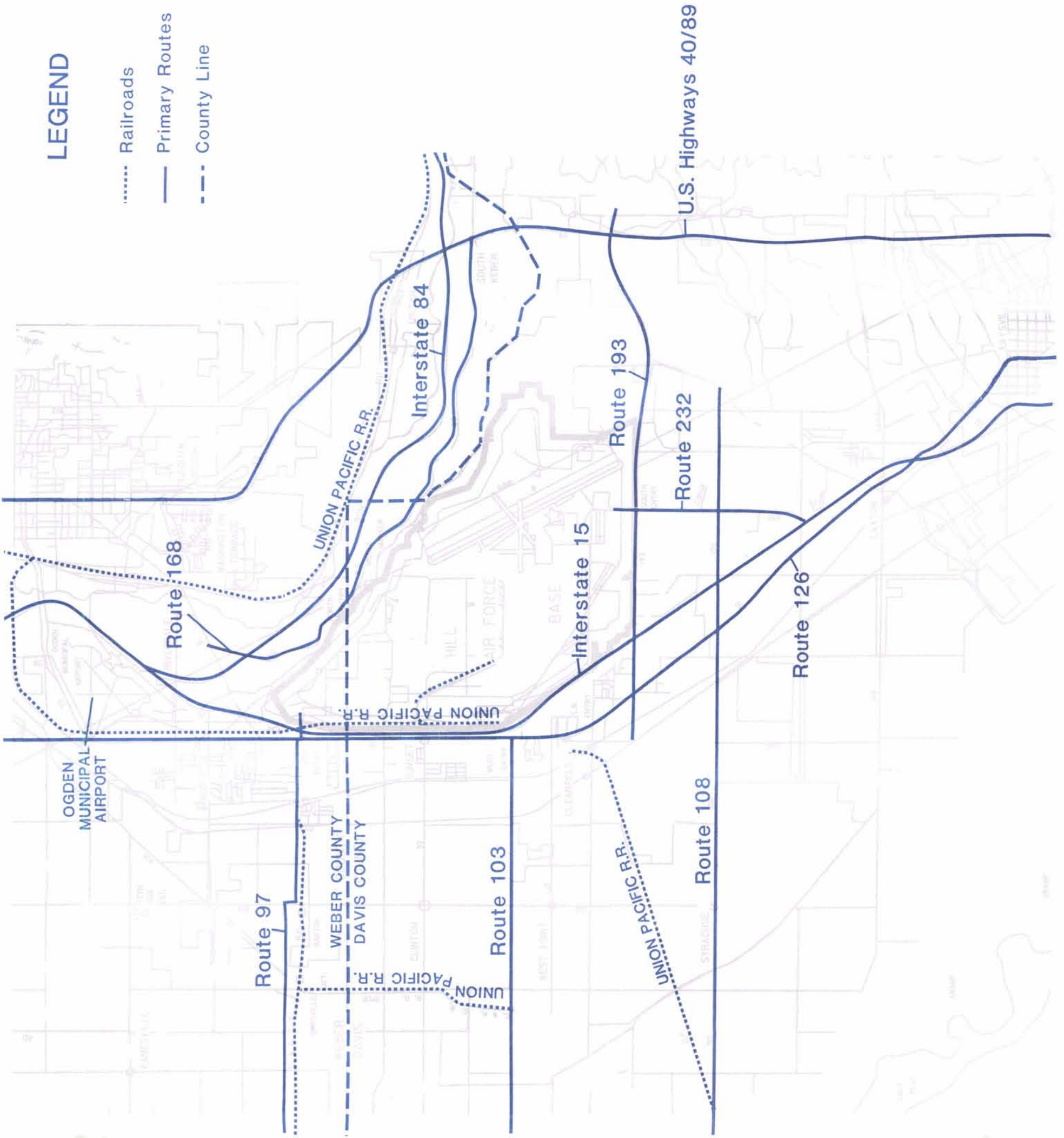
-  Residential (Low Density)
-  Residential (Medium Density)
-  Residential (High Density)
-  Industrial
-  Commercial
-  Institutional
-  Parks & Recreation
-  Agricultural
-  Vacant







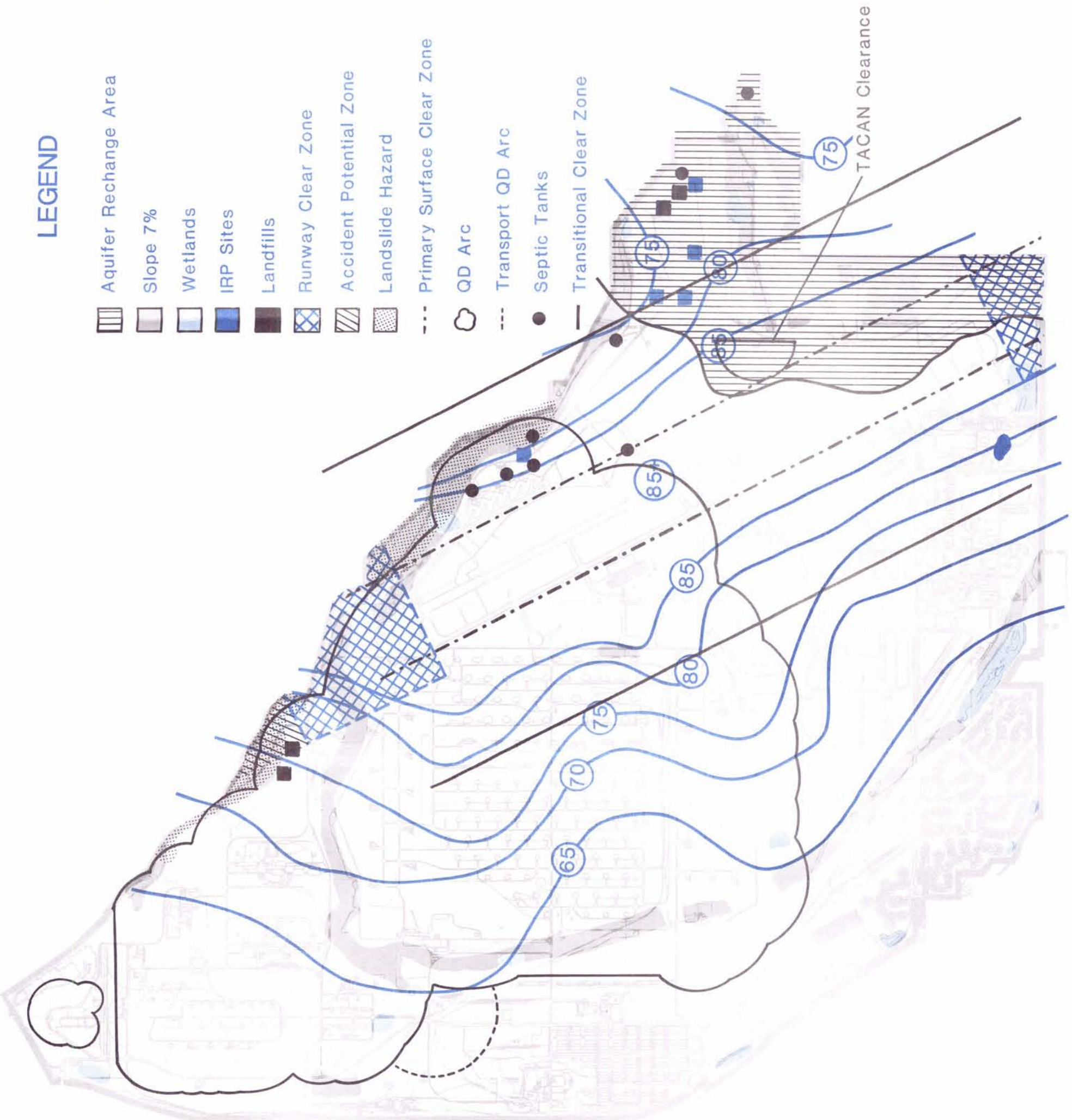
LEGEND

- Railroads
- Primary Routes
- - - County Line



LEGEND

-  Aquifer Recharge Area
-  Slope 7%
-  Wetlands
-  IRP Sites
-  Landfills
-  Runway Clear Zone
-  Accident Potential Zone
-  Landslide Hazard
-  Primary Surface Clear Zone
-  QD Arc
-  Transport QD Arc
-  Septic Tanks
-  Transitional Clear Zone
-  AICUZ



C-130 and ECTC Complex

Airfield & Air Operations
Figure 16



Hill Air Force Base, Utah

Base Comprehensive Plan

LEGEND

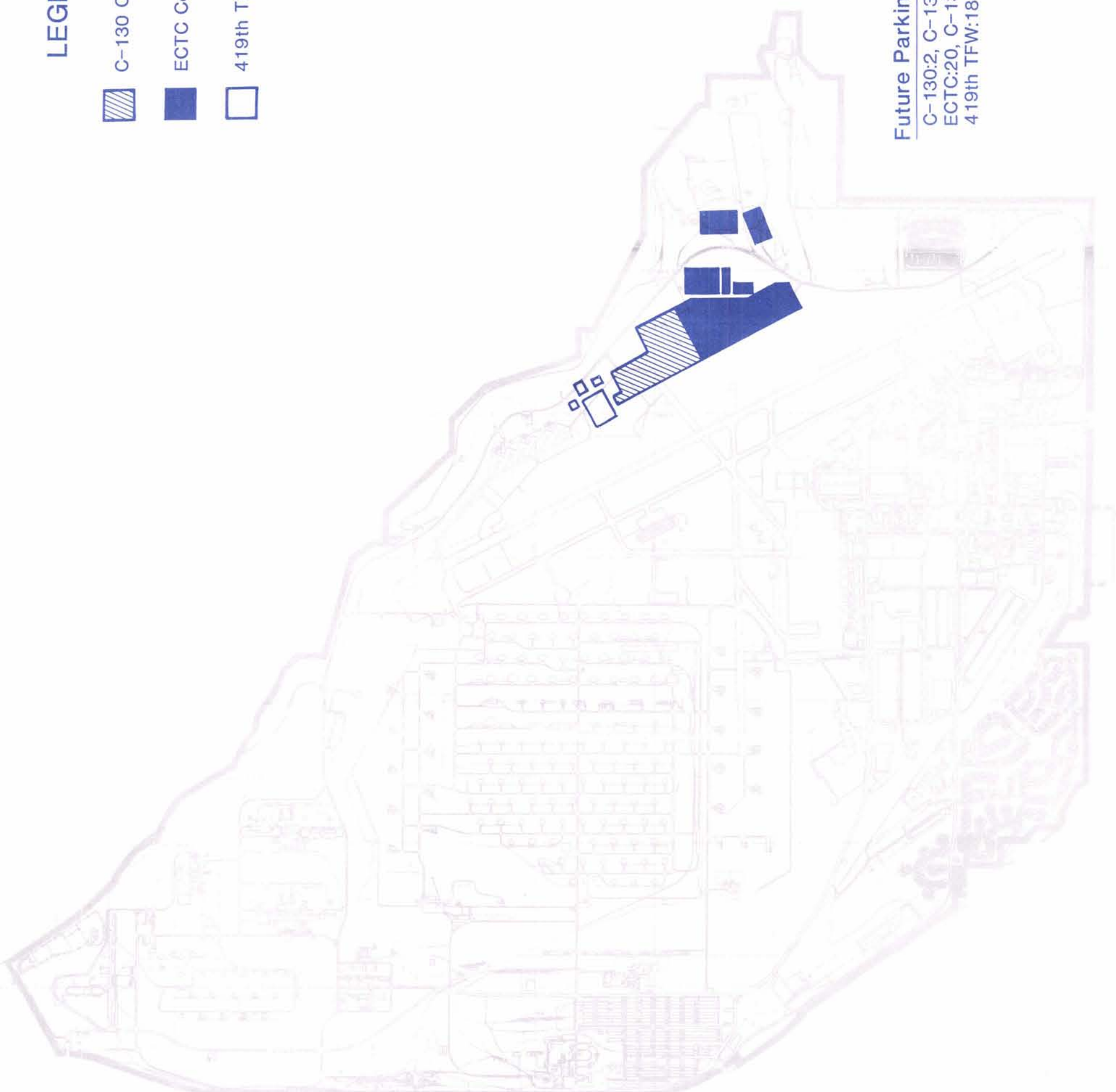
 C-130 Complex

 ECTC Complex

 419th TFW Complex

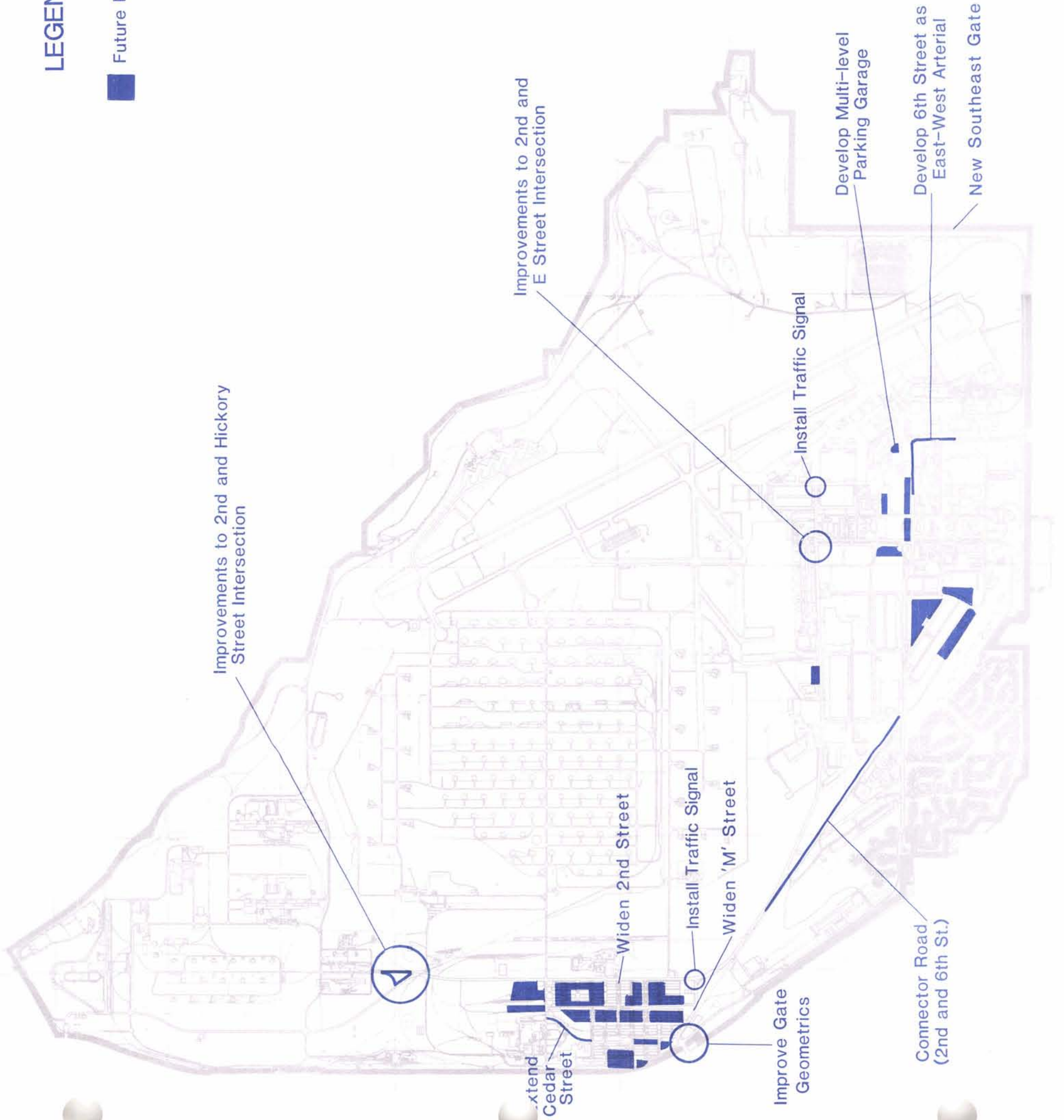
Future Parking Spaces

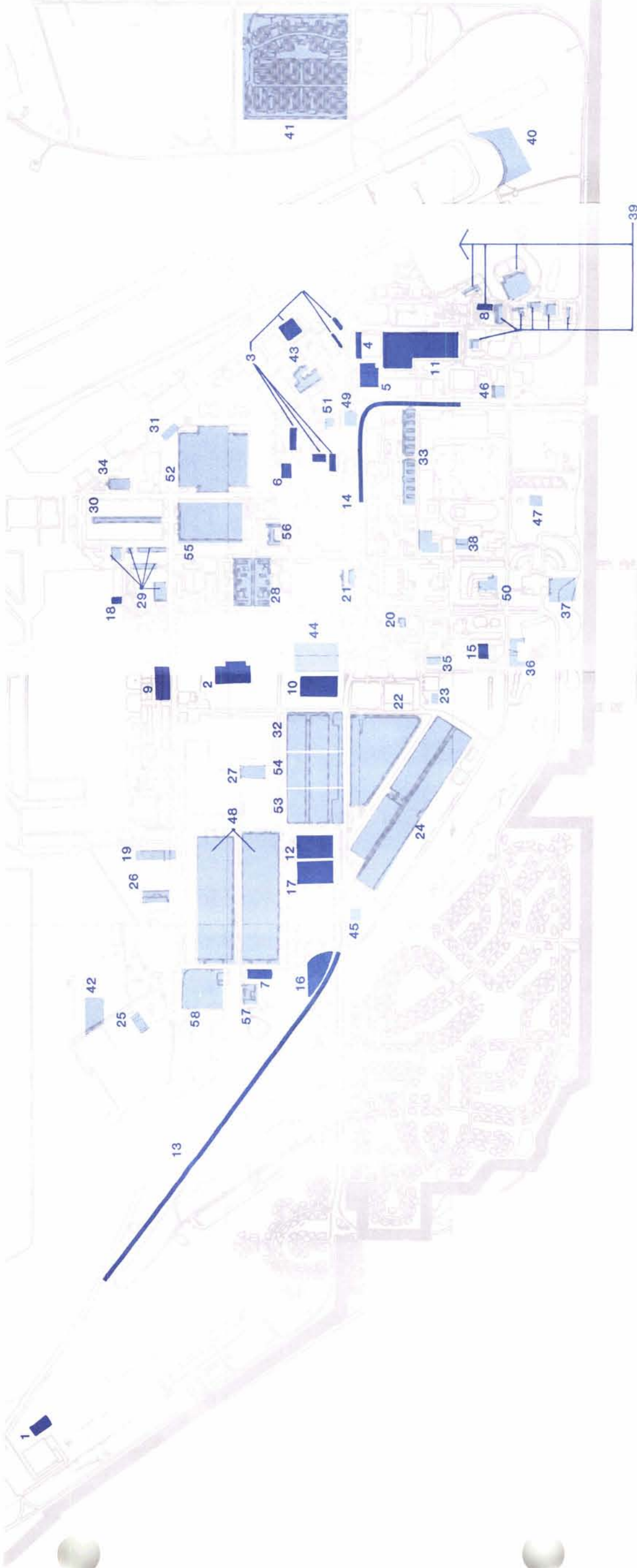
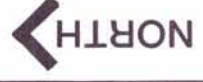
C-130:2, C-130S
ECTC:20, C-130S
419th TFW:18-36, F-16S



LEGEND

Future Parking





LEGEND

	Short Range Improvements (FY 89-93)		
1	Consolidated Telecommunications Center, 870076	21	Relocate Family Service Center to New Host Operations Area
2	Equipment/Spares Warehouse, 913013, 903005, 913005, 923004	22	Prepare for Host Operations, Construct Combat Support Center, 880090
3	Demolish Buildings (261, 250, 273, 275, 276, 243)	23	New Troop Subsistence Warehouse, 923017
4	Addition to Metal Process Shop, 870074	24	Renovate Warehouses/Utilize for Host Operations, 880063
5	New Depot Production Support Facility, 870068	25	Supply Support Facility, 860089
6	Combat Logistics Center, 860088	26	Addition to Hazardous Storage, 943008
7	Tire Storage System, 893100	27	Packing, Crating and Support Facility, 943013
8	Add to Reserve Forces O&T, 870093	28	Relocate Housing and VOO
9	Weapon and Release System Shop, 923021	29	Relocate Base Engineering, Administration, and Maintenance to New Host Operations
10	Unit Load Warehouse, 933006	30	Aircraft General Purpose Shop, 890061
11	Emergency Power, 890076	31	New Non-Destructive Inspection Facility, 860084
12	New Depot Warehouse, 870067	32	Depot Warehouse, 880061
13	Sixth Street/Second Street Connector Road, 923022	33	Demolish WWII Wood Facilities
14	South Gate Drive/Sixth Street Connector Road, 923022	34	Aircraft and Missile Cable Repair, 953005
15	Child Development Center, 923006	35	Add to Recreation Center, 880057
16	Open Storage, 913019	36	New Visiting Officers Quarters, 870070
17	Base Warehouse, 923003	37	Add to Composite Medical Facility, 913004
18	Avionics Support Facility, 890010	38	Add to Gymnasium, 923016
	Long Range Improvements	39	Relocate 419th TFW to east of Airfield
19	Mobility Training and Support, 870072		
20	ADAL Base Library, 903001		
		40	Expand Arm/Dearm Pads, 953001
		41	Demolish and Relocate Thunderbird Housing Function
		42	Open Storage Lot
		43	Advanced Engine Test Cell, 953006
		44	Depot Warehouse, 943018
		45	BUFIS Store
		46	Corps of Engineers Relocation
		47	Utility Steam Plant
		48	Fire Protection (Warehouses), 880068
		49	Equipment Staging Warehouse, 943005
		50	Unaccompanied Housing, 890057
		51	Parking Terrace, 953004
		52	Fire Protection Depot Aircraft Maintenance Facility, 953002
		53	Depot Warehouse, 913002
		54	Depot Warehouse, 890062
		55	Renovate Bldg. 100/Add Avionics Support, 923014
		56	Relocate Base Commander to New Host Operations
		57	SICBM Electronics and Hydraulics Repair, 903011
		58	SICBM Transporter Repair Addition, 903010, 913017, 923011

LEGEND

Short Range Improvements (89-93)

1 Depot Procurement Facility, 903018

Long Range Improvements

- 2 Relocate Base Accounting to New Host Operations Area
- 3 Relocate Base Personnel to New Host Operations Area
- 4 Relocate Security Police to New Host Operations Area
- 5 Relocate Vehicle Maintenance to New Host Operations Area
- 6 Relocate Missile Testing

- 7 Relocate Avionics Shop to South Area
- 8 Relocate Small Arms Storage adjacent to Rifle Range, North of Golf Course
- 9 Relocate Photo Lab to "Community Center"
- 10 Relocate 2849th Training to New Host Operations Area
- 11 Relocate PLT Reproduction/Comptroller to New Host Operations Center
- 12 Georgia Street/Dogwood Alley Connector Road
- 13 Widen Second Street to 5 Lanes

- 14 Relocate West Gate
- 15 Georgia Street/Second Street Connector Road
- 16 Weapon Support (Resource Management), 943016
- 17 Weapon Support Engineering, 943007
- 18 Weapon Support (Air Munitions), 943006
- 19 Weapon Support (F-4), 943004
- 20 Weapon Support (F-16), 943003
- 21 Weapon Systems Management, 933003



NORTH ↓

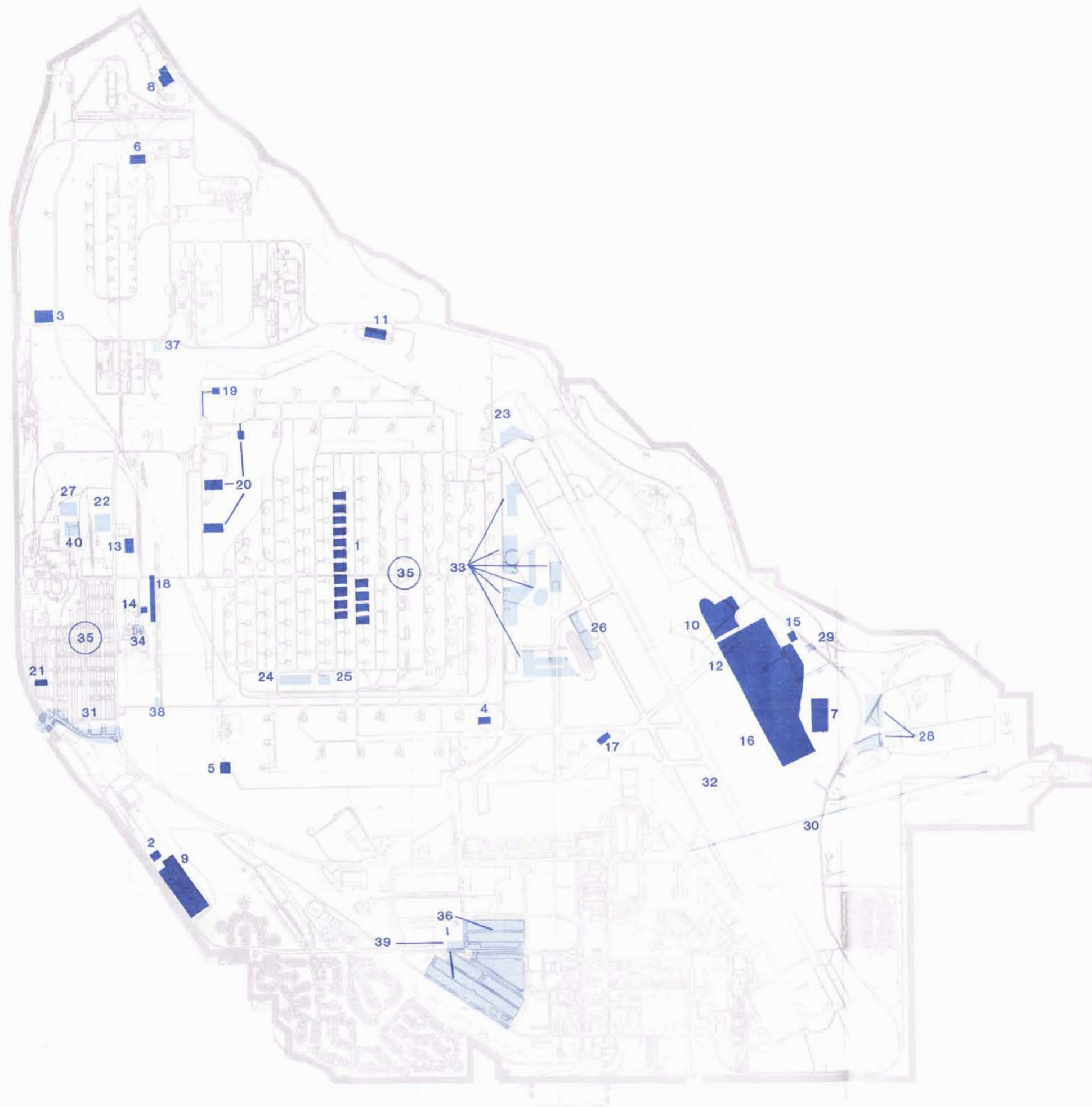
Hill Air Force Base, Utah

Base Comprehensive Plan

1200 Zone

Facilities Development
Figure 3





LEGEND

Short Range Improvements (FY89-93)

- 1 Missile Storage, 913015, 903007, 903004
- 2 Conforming Storage - DRMO, 890091
- 3 Explosive Ordnance Disposal, 860089
- 4 Missile Maintenance Facility, 870088
- 5 Computed Tomography, 923023
- 6 ADAL Peacekeeper PEMA Storage, 903008
- 7 ECTC Mission Control Center, 903030
- 8 Tactical Control Aircraft Operation, 880092
- 9 Fire Protection and Open Storage Modernization, DLA
- 10 Depot Maintenance Support C-130, 933012
- 11 Propellant Testing and Analysis, 923013
- 12 C-130 Maintenance Facility, 923001
- 13 Peacekeeper Integrated Support Facility, 923030
- 14 PKRG System Engineering Test Facility, 913011
- 15 C-130 Fire Station, 933014
- 16 ECTC Test Aircraft Hangar, 933008
- 17 Hush House Support, 893092
- 18 SICBM Engineering Test Facility, 913007, 923012
- 19 SICBM Stage Repair, 913008
- 20 SICBM Booster Integration, 903006, 913006, 933007
- 21 Depot Procurement Facility, 903018

Long Range Improvements

- 22 Missile and Munitions Systems Engineering, 933001
- 23 Arm/Dearm Pad Extension, 953001
- 24 Cad Pad/Spares Storage, 880064
- 25 Munitions Shipping/Receiving, 943012
- 26 Combat Aircraft Hot Pads, 903002 (Subject to Change)
- 27 Software Support Facility, 943001
- 28 ECTC Complex, 943022, 953009, 953010
- 29 C-130 Paint Facility, 943021
- 30 Upgrade Water Distribution System, 913003
- 31 Gate Improvements, 890070
- 32 Special Airfield Lighting, 923018
- 33 Hot Pads, 943010
- 34 Add to Hardness Engineering Test Facility, 890065
- 35 ADAL Water System for 1200, 1300 and 1400 Zones, 943011
- 36 Alter Fire Sprinkler System, 943014
- 37 Explosive Test and Analysis, 870069
- 38 Munition Control Facility, 890073
- 39 SICBM ADAL Heating Facility, 903017
- 40 SICBM Integrated Software Support, 903009

NORTH 

Hill Air Force Base, Utah

Base Comprehensive Plan

Basewide

Facilities Development
Figure 4

LEGEND



BUILDINGS



PARKING

EXP

EXPANSION



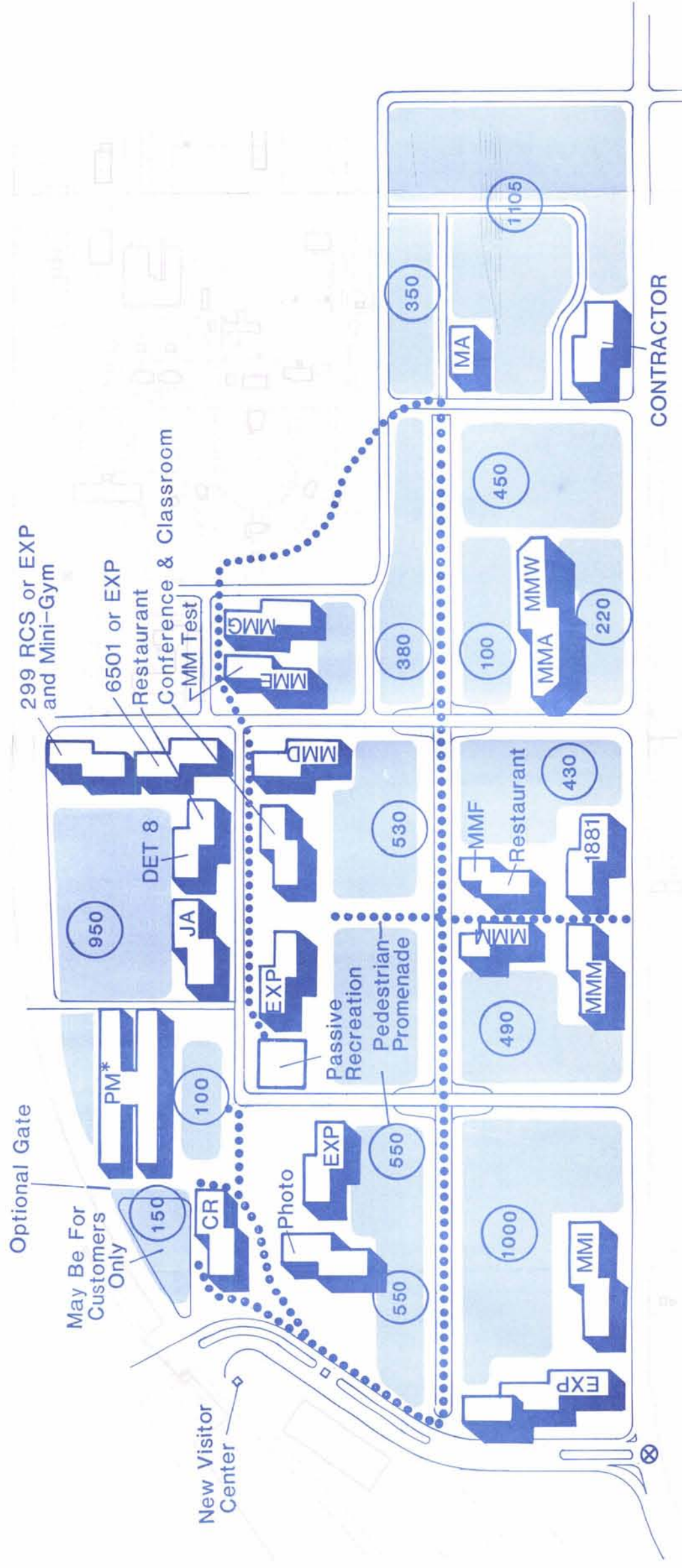
PEDESTRIAN PATH



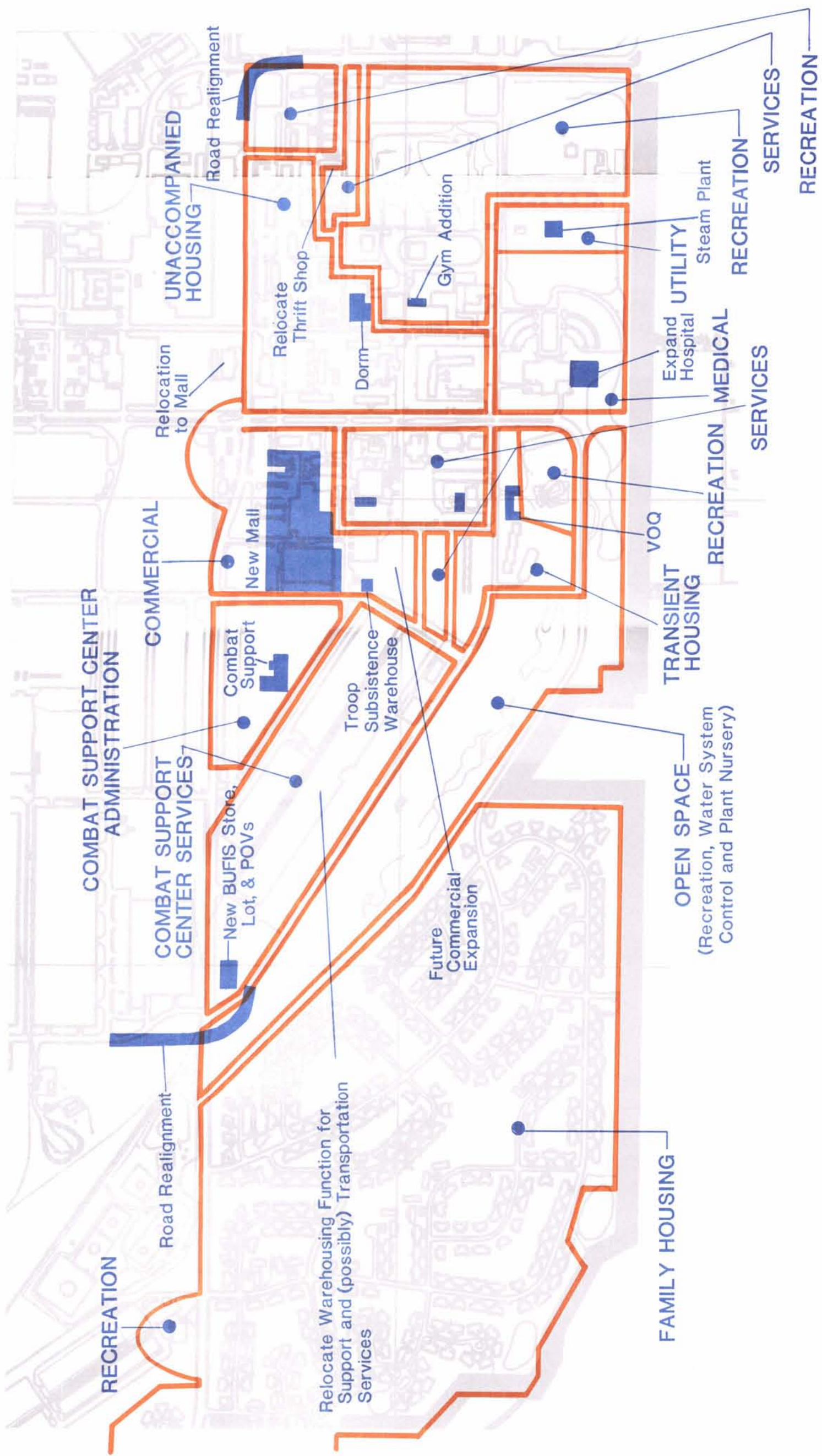
NUMBER OF POV SPACES



TRAFFIC SIGNAL



*PM is multi-story center with single story wings



Proposed Community Zone Land Use

Community Zone Plan
Figure 3

Base Comprehensive Plan

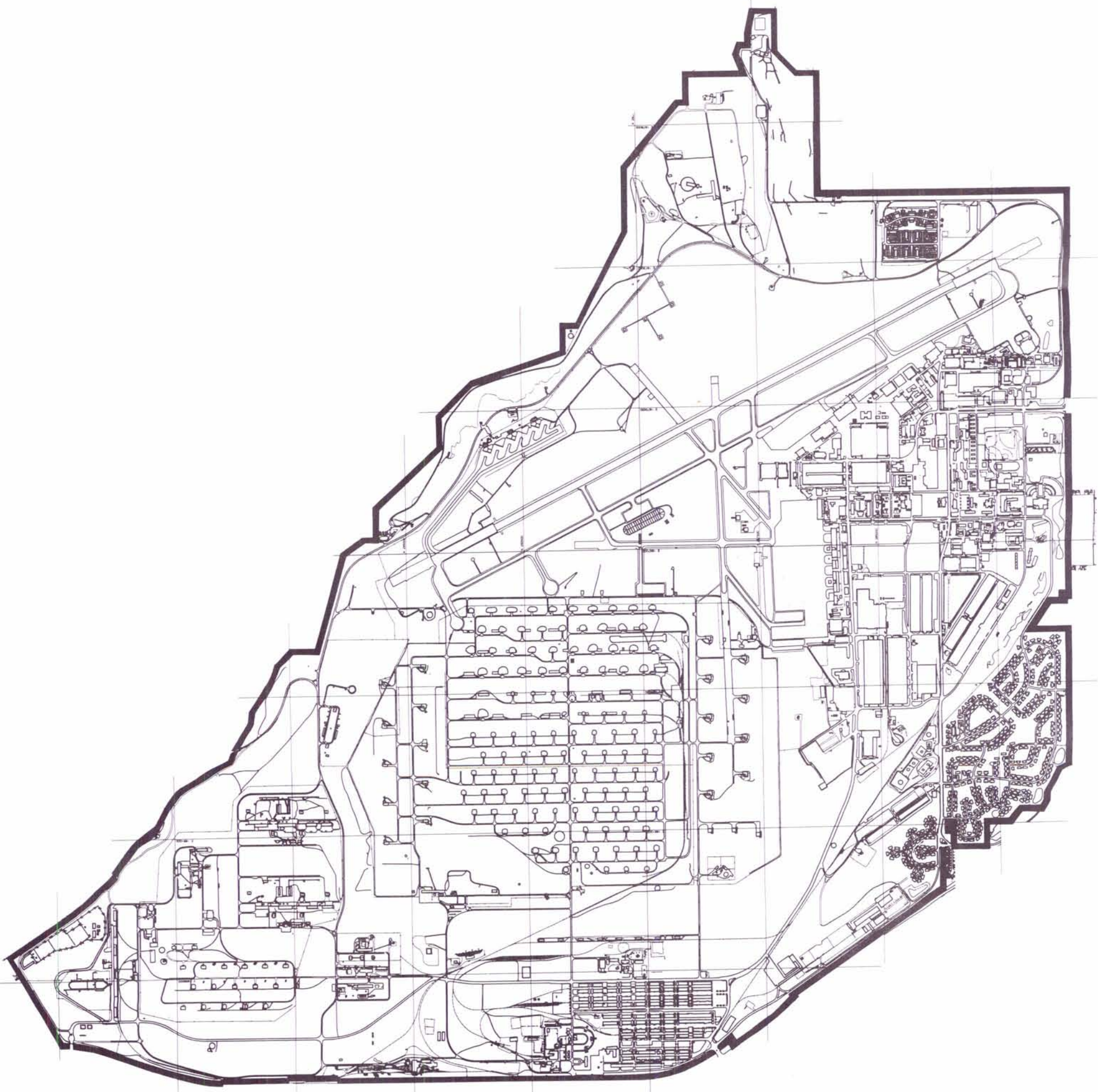
Hill Air Force Base, Utah





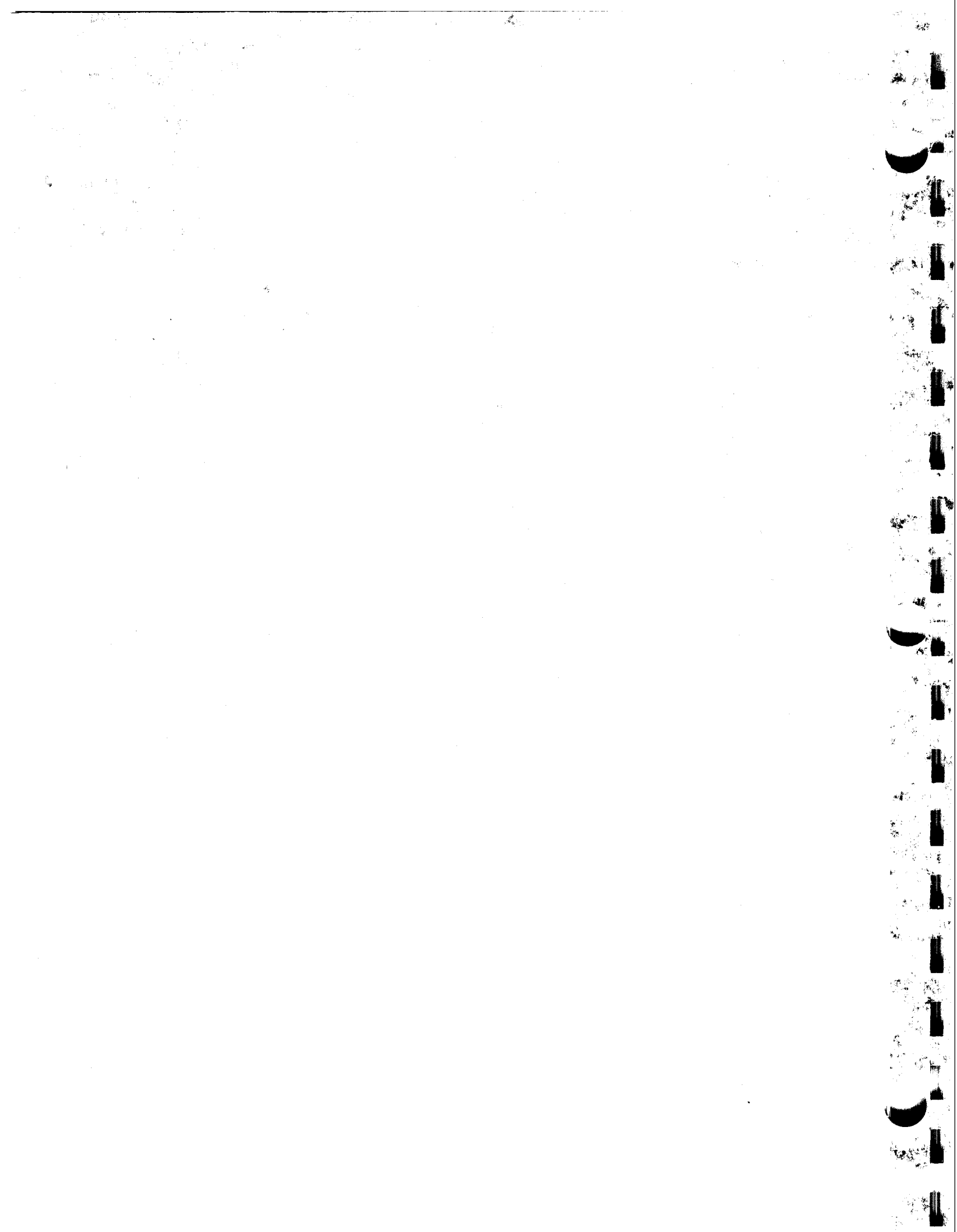
Hill Air Force Base, Utah

Base Comprehensive Plan



4.0

Highlights of Component Plans



4.0 HIGHLIGHTS OF COMPONENT PLANS

4.1 Interaction of Component Plans

Each component plan is written in sufficient detail to acquaint the reader with existing conditions, programs, policies, objectives, constraints, requirements, opportunities and recommendations for the future.

The Natural Resources, Landscape, Environmental Quality, Energy and Utility Component Plans address many of the same resources from different perspectives. They, along with the Transportation, Airfield, Air Installation Compatible Use Zones (AICUZ), Facility Development, Fire Protection and Architectural Compatibility plans, examine specific systems and their interactions.

The 1200 Zone and Community Zone Component Plans are actually Master Plans; they analyze a specific area on base, synthesize a future land use design and recommend a logical series of actions and expenditures to achieve that design.

The Land Use Component Plan is the heart of the BCP. It combines the other plans with the OOALC Long Range Plan, Strategic Development Plans and other data, and synthesizes them into a plan for development.

The Capital Improvement Component Plan influences the other plans and draws from them. It presents a brief overview of Civil Engineering funding avenues and consulting services and the base's current (5-year) plan for construction, demolition and major operations and maintenance (O&M) funds.

4.2 Natural Resources Component Plan

The Natural Resource component is a digest of regional and base natural resources and phenomena. It focuses on both the military mission and the long range public interest.

Development is banned on unstable slopes and abandoned landfills and difficult on steep slopes and wetlands. Further work is required to assure resource survival from seismic activity and possibly liquefaction. Further research is also required to understand the ramifications of regional, and maybe Air Force, historic/archaeological sites.

Northern Utah's semi-arid climate is often beneficial, but two of its features should be considered in sitings and projects. One is the Great Basin High Pressure System, which puts a "lid" on the local

atmosphere, trapping pollutants and increasing noise perception. During episodes, industrial operations may be curtailed and restrictions placed on flying schedules and vehicle usage. The second feature is the easterly, morning "canyon wind", which can produce gusts up to 90 knots and lower wind chill temperatures to dangerous levels. Parked aircraft and small equipment must be stabilized; flying and other exposed activities may be curtailed; and FOD blows onto the runway. Since it coincides with morning rush hours, in winter people tend to park where they can walk to work in the shelter of buildings. There is a crosswind to the runway, so facilities between the canyon and the runway must not be allowed to create turbulence on the airfield as they rechannel the wind.

Domestic and industrial water for the base and much of the region is drawn from wells sunk into the Delta Aquifer, which is in turn dependent on the percolation of surface waters (snow melt). The aquifer is being depleted at a faster rate than it can recharge itself. The base should leave as much unpaved land as is feasible, particularly in the aquifer recharge area. (Paved areas drain to off base systems, which use the water for irrigation and dump the excess into the Great Salt Lake.) Contaminates must not endanger the aquifer or drain off base. Perched water tables protect the aquifer and should not be arbitrarily destroyed.

Vegetation controls erosion, improves air quality, reduces energy use and improves the quality of life. Many traditional landscaping plants are not well suited to this arid climate and uncertain water supply. It would be wise to use mostly native or drought-tolerant plants and confine others to small, protected and irrigated sites. The native vegetation used to control erodible or unstable soils cannot withstand much traffic and must be protected (regenerates in years, not weeks).

Changing lifestyles demand more outdoor recreation opportunities. The 10 major recreational areas on base are not likely to expand to a great extent. There are, however, many locations suitable for short (1/2 - 2 miles) walking/jogging paths through or near population centers. These paths can be developed quickest through self-help projects.

4.3 Landscape Component Plan

Recognizing that most landscaping is self-help, the Landscape Plan provides design fundamentals, a plant/use matrix, illustrated do's and don'ts and guidelines for solving specific problems with plants. The text is written for the average reader and can also be used by project managers in evaluating contracted landscape designs.

4.4 Environmental Quality Component Plan

An environment includes everything that can be seen, smelled, felt, heard or tasted, as well as the many things that have an effect but are not detected by the senses. Not all of these things originate in the environment they influence. Some may be unforeseen, previously undetected or secondary effects. The responsibility to protect and improve the quality of the environment is an enormous challenge. Lives and quality lifestyles depend on meeting that responsibility successfully. Everyone is involved in some way.

The Environmental Quality Component Plan focuses on materials, wastes, emissions and conditions that can degrade the environment. The programs it describes concentrate on eliminating, minimizing and controlling the storage, use and creation of potential pollutants; preventing the release of contaminants; and removing the hazards created by the release of pollutants.

Although the base is not a major contributor, the level of air pollution (smog or ozone) in the region around the base exceeds federal standards, impeding visibility and aggravating health problems. Unless smog levels are reduced, federal development bans may curtail future regional and base industrial processes and construction. During severe Great Basin High Pressure System events, the base phases down the operation of aircraft, vehicles, fuel transfer, boilers and certain industrial processes to reduce the amount of pollutants originating on the base. New air pollution sources, or an increase from existing sources, should only be allowed if absolutely necessary. The base, and the region, would gain by any improvement of air quality, including that provided by vegetation.

Waste management is vital to environmental quality. Urban and storm runoff wastewater systems are fed into an off base system with little monitoring or opportunity for treatment. Contaminates must not be allowed to enter these systems, i.e.; vehicles which leak oil or other fluids should be repaired immediately. Industrial wastewater is routed through the industrial sewers to the Industrial Waste Treatment Plant, where it is pretreated to meet chemical and physical quality standards before being released into the sanitary sewer system off-base. Only certain types and concentrations of contaminants can be handled in this way. Others must be gathered into containers and recycled or disposed of in a way commensurate with their hazard, under strict environmental laws and regulations. Installation Restoration of contaminated sites is being managed to contain the hazard and, if possible, restore the site to pre-contamination standards. Development which breaks the ground and casual traffic are not allowed on these sites.

Noise is intrusive sound. High noise levels have an adverse and, if persistent, cumulative effect on health, performance levels, safety consciousness and attitude (morale). Physical and perceived levels are equally important. In recent years, noise has become a focus of legislative and judicial activity, which has in turn provided measurable criteria for planning and forecasting. Four residential land uses on base are incompatible with their noise environment: Thunderbird Park Family Housing (adjacent to the runway), Area B Family Housing and the old Visiting Officers Quarters (in the center of the industrial zone) and the three easternmost Unaccompanied Enlisted Personnel Housing (UEPH) complexes (adjacent to MA). Three promising improvement and protection strategies involve shutting down noise sources (in airfield and industrial operations) during relaxation/sleep hours; buffering the occupants with trees, acoustic materials and "tight" construction; and managing the occupancy to exclude personnel who sleep during high noise periods. The only strategy that will work alone is to relocate the functions out of the high noise. Solving this problem may be the biggest challenge on base.

Although friable asbestos is present in over 61% of the buildings on base, the primary hazard potential involves not building occupants but the building maintenance personnel who could be expected to work with the asbestos-containing materials. Management actions include periodic inspection and encapsulation/enclosure/removal of the material as required by the situation. Interior alteration projects should be cleared by OOALC/EM to ensure that friable asbestos will not be encountered.

4.5 Airfield Component Plan

Hill's airfield region-of-influence encompasses half the State of Utah and a small part of the State of Nevada. The closer to the base, the heavier the influence and more stringent the criteria become.

The air corridor in which the base resides is a north-south metropolitan air corridor constrained by the Wasatch Mountains on the east and the Great Salt Lake and Utah Lake on the west. While the corridor is expected to have excess capacity through the year 2006, its configuration and the land uses beneath it make the alteration of base aircraft routes very difficult. 80% of Hill's daily air traffic is either heading toward or returning from the UTR along an intersecting east-west air corridor.

The airfield's most limiting factors are on the ground. Hill operates a Class B (all aircraft), all-weather runway, supported by taxiways, ramps, helipads, hotpads and cargo pads. Although users are aware of

severe space deficiencies on ramps, hot pads and cargo pads, the extent and configuration of the solution are still being worked out. The type and numbers of on-base aircraft are impacted by these factors, as well as a lack of transient aircraft hangar space, air quality, the effects of airfield noise, and on and off-base development.

There are seven distinct types of surface and two clear zones to the airfield. All are controlled by stringent regulations and procedures designed to protect the operational capability and safety of the airfield and its surroundings. In addition, three programs, Bird Aircraft Strike Hazard (BASH), Air Installation Compatible Use (AICUZ) and Pacer Protect, help protect the airfield and its surroundings.

In the near future, the base plans construction of the C-130 and Electronic Combat Training Center complexes on the east side of the runway. Gradually, as facilities are torn down, new facilities constructed and operations relocated, the aircraft tow-lanes within MA should be reconfigured to accommodate the larger aircraft coming off the drawing boards. In the future, the base must remove the existing housing complex (Thunderbird Park) that violates the airfield clear zone.

A BCP long range land use recommendation is to relocate the 419th TFW to the east side of the airfield, allowing for contiguous MA expansion along the western edge of the airfield. This move would alleviate security and transportation concerns indigenous to the current location of the 419 TFW. Though HQ AFRES has concurred with this concept, facilities and funding must come from the ALC.

4.6 Utilities Component Plan

Utilities, like roadways, are basic to the integrity and capability of the base. Of the 13 utility systems on base, 6 are rated as being in overall good condition, while 7 are in overall fair to poor conditions. For the most part the poor ratings are due to age and the multitude of different manufacturers and technology levels of the components.

Utility systems, or the lack of them, have a strong influence on facility sitings. Areas with existing utilities tend to attract relatively small and usually low cost facilities; while areas remote from utilities are left to the larger, higher cost facilities. This common sense approach becomes defeatist when the small facilities are allowed to destroy the architectural compatibility, design cohesion, fire resistivity, and/or functional flexibility of the area.

Three utility systems should be considered carefully when new development is proposed: water, industrial sewer and steam. The water system exhibits generally insufficient capacity for peak flow requirements. There is a lack of volume and pressure to the north portion of the base, which adversely impacts fire fighting capabilities. Projects have been scheduled to increase the water supply and correct flow deficiencies.

The industrial wastewater collection (sewer) system is currently being used at maximum practical capacity. Due to its inverse or flat slopes, which hamper the removal of sediment deposits, the flow capacity of the existing system will continue to worsen. Projects have been scheduled to install larger lines at steeper grades and greater depths wherever possible.

Eight of the ten central steam systems experience inadequate boiler capacities, which reduces steam availability and constrains development.

Critical utility systems, such as electricity, water and steam are looped so that failure in one segment can be compensated for from other segments until repairs can be made.

A major earthquake (7.5 M or better) on the Wasatch Fault south of the base, can be expected to seriously disrupt utility distribution and storage systems on and off base. Base facilities and infrastructure should be examined to establish vulnerability and allow the base to increase survivability.

4.7 Transportation Component Plan

The transportation network provides the dynamic element of the base systems by binding together physical environments and land uses, while moving people and goods throughout the base. Transportation systems have a strong influence on the rate and direction of land development and on the efficiency of land use.

Of all the transportation systems on base (air, rail, pneumatic tube, walkways, bicycle paths and roads), the road network is in most need of changes to increase efficiency. The following objectives should be applied to all designs and projects which affect land use/roadway interface.

- a. Concentrate most of the traffic on a few well-designed arterial roads.
- b. Provide direct access from entrance gates to work areas.

- c. Organize gates and entrance ways to enhance linkages with existing and proposed major roads off base.
- d. Simplify complex road patterns and intersections.
- e. Use the road system to help define and reinforce land uses.
- f. Avoid placing roads between land uses which encourage pedestrian traffic.

The primary recommended transportation projects include alterations to intersections along 11th, 6th, M and 2nd Streets; closure of the intersection of 6th/M Streets; and the reduction of traffic on South Gate Drive north of 6th Street (through the aircraft maintenance area) and through the Southwest Gate.

The solution to many of the worst congestion problems is to decrease the number of vehicles trying to do the same thing at the same time (perhaps by staggering work shifts or permitting flex time) and to increase the flow capacity between the South and West Gates and the work centers. This can be done for the South Gate by turning the traffic off of South Gate Drive onto 6th Street before it slows down to begin dispersal. At the West Gate, this can be done by closing the 6th/M streets intersection and moving the gate house eastward along M Street, giving the merging traffic on State Route 103 sufficient space to maneuver. To connect these two improvements into a functionally adequate cross-base arterial route, then, requires a short stretch of new road between 2nd and 6th Streets west of H Street. This solution has the added advantage of drawing the heavy traffic out of the maintenance complex, simplifying the road pattern, reinforcing the boundary between industrial and community land uses and opening land opportunities for solving the parking problem.

The base has a deficiency of privately owned vehicle space, underutilized parking lots, and a high number of illegally parked vehicles (which block fire lanes, endanger pedestrians and impede traffic flow). Together, these facts indicate that the location of the parking capacity does not correlate well with the location of the need. The regional vehicular trend is toward greater single occupancy. The base development trend is to construct buildings on the over-utilized, close-in parking lots. The relationship of parking place to working place is, therefore, deteriorating. Yet, one only has to look off base to see successful remedies in Park & Ride lots and multi-level parking structures, both virtually impossible under current regulations and policies. The solutions lie in a resource management philosophy that recognizes the necessity of having adequate access to the work place for its most important resource: its people. Under-utilized parking lots can be made more attractive by developing

walking/jogging trails (with distance markers) between them and the work place (creating a recreational opportunity) and by providing direct bus service to/from them during shift changes (utilizing the park and ride concept). Close-in lots should not be demolished without commensurate replacement, such as a multi-story parking structure. New development should plan for adequate parking as a vital part of its access pattern.

4.8 Facility Development Component Plan

The Facility Development Component Plan summarizes the results of a facility/use survey conducted in 1987 as a basis for the Land Use Component Plan. Input was obtained from facility users, studies and reports, applicable AF standards and policies, facility records and an independent, on-site architectural survey of every inhabited building on base. In addition to providing specific data for the Land Use plan, recommendations were used to compile and prioritize the FY88 and 89 maintenance and repair projects and long range minor construction (MC) and military construction program (MCP) projects. Although the survey reported minor physical problems for most facilities, major trends regarding facility deficiencies were evident, and included:

- o Space deficiencies in aircraft maintenance facilities located along the airfield.
- o Physical deficiencies and lack of space in the Base warehouses.
- o Overcrowding in the administrative facilities.
- o Incapacity to accommodate usage demands at Service/Community facilities.

Most of the plans recommendations have already been programmed. Follow-on analysis and comparison will provide the base with a periodic facilities "report card", indicating progress, trends and persistent inefficiencies.

4.9 Fire and Life Safety Protection Component Plan

The Fire and Life Safety Protection Component Plan examines facility and land uses (not operational procedures) on Hill AFB which place personnel and resources at risk. The plan is based on the combined experience and technical knowledge of base fire department and safety offices. It was compiled specifically to help resource and project managers understand the capabilities and limitations of protection and response systems and to help them avoid common facility use/design errors which create risks.

4.10 Land Use Component Plan

The Land Use Plan is the heart of the BCP. It analyzes the mission of the base together with the real property, operational interactions, physical conditions and support structures. Using this analysis and the following data, the plan synthesizes a design for the functional and physical development of the base and its satellite responsibilities.

- o Inventories, requirements, opportunities, constraints and recommendations of the other component plans.
- o Missions, requirements, budgets, and the projected needs from the OOALC Long Range Plan.
- o Policies, procedures, and priorities of the base and higher headquarters as contained in plans, orders and statements.
- o Local government comprehensive plans and activities.

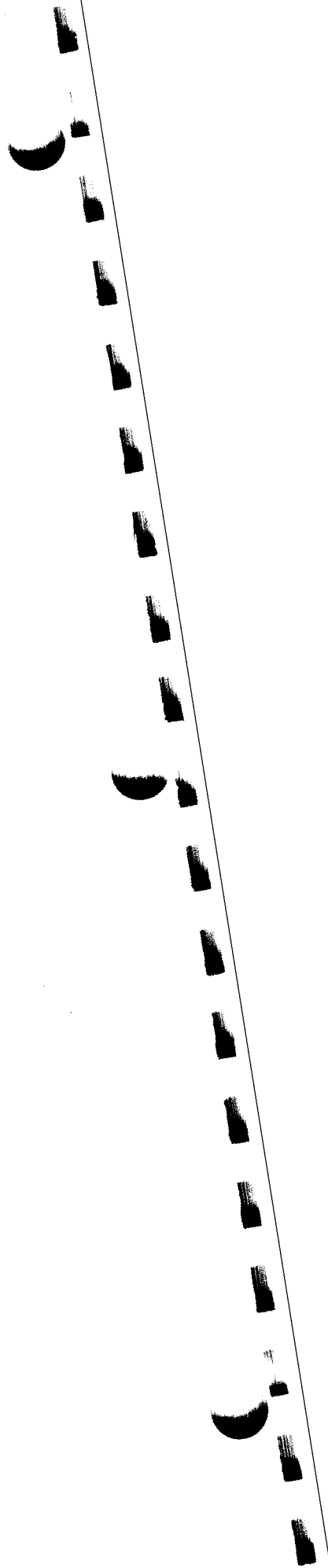
All of sections 2 (Introduction to Hill AFB) and 3 (Plan synopsis) were taken from the Land Use Plan, with the exception of section 2.2 (Community Profile) which is not reprinted in the Land Use Plan.

4.11 Capital Improvements Program Component Plan

This plan summarizes the base's official five-year Capital Improvements Program. Specific year and cost data is not included for several reasons, but that information can be obtained from 2849ABG/DEEX for official use.

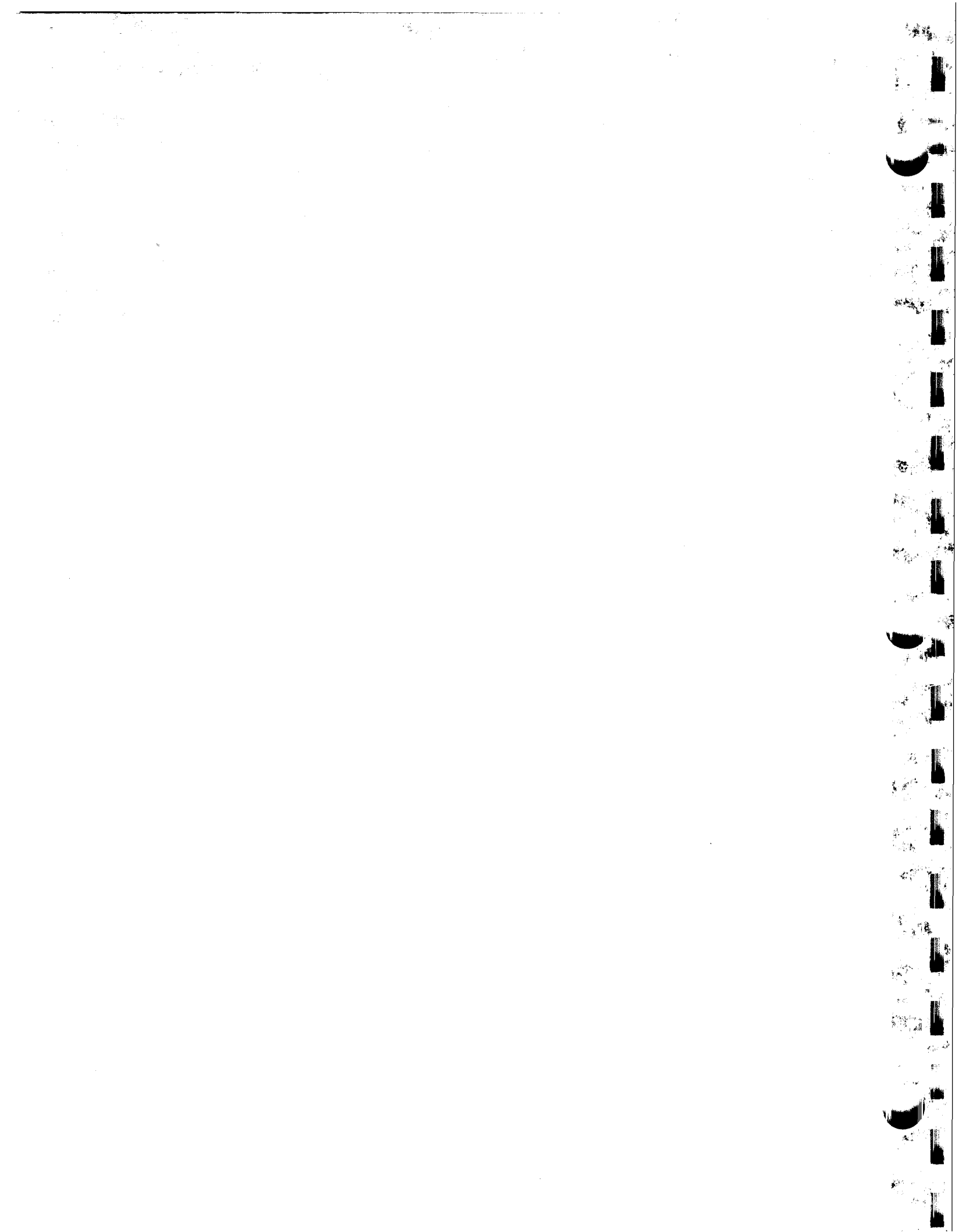
4.12 Base Layout and Vicinity Component Plan

This component contains a description of the methods and criteria used in photographing the base and creating accurate maps from that photography.



5.0

Installation History



5.0 INSTALLATION HISTORY

In 1939, at the direction of President Roosevelt, the War Department initiated a program aimed at increasing arms production and expanding military operations, specifically in the Army Air Corps. As part of the War Department's readiness plan, orders were issued for the construction of new military supply and maintenance depots in strategic regions within the continental United States. In the northwestern region, an area in north central Utah was selected for construction of an air depot. The selected 3,000 acre site was adjacent to the existing Ogden Ordnance Depot located in Davis County, 7 miles south of the City of Ogden and 25 miles north of Salt Lake City. Munitions, including aerial bombs for the Army Air Corps were manufactured and stored at the Ordnance Depot; a factor which undoubtedly contributed to the selection of the adjacent site as an air depot.

Aside from the site's close proximity to the Ogden Ordnance Depot, other positive attributes recommended its selection. The most important of these attributes were: 1) the unlikelihood of enemy attack due to the distance inland from the Pacific Coast; 2) excellent access to major rail and motor transport routes; 3) favorable climatic and aviation conditions; and 4) ample supplies of water, power, and fuel. In addition to these features, there was local support for the construction of a military air depot in the intermountain west region.

Congress appropriated \$8 million to construct the Ogden Air Depot; an investment that would equal well over \$61 million in 1985 dollars. The War Department named the site "Hill Field," in honor of Major Ployer P. Hill. Major Hill had lost his life in 1935 at Wright Field, Ohio while test piloting the original model of the B-17 Flying Fortress. In November 1940, the Army Air Corps activated Hill Field (the Ogden Air Depot).

During World War II, Hill Field became a vital component of the Army Air Force's air logistics program. The depot overhauled and provided supply support for the A-20, B-17, B-24, B-29, P-40, P-47, and P-61 aircraft. Moreover, an innovative, time-saving maintenance program was implemented at Hill Field that utilized factory production line techniques for aircraft reconditioning. In addition to innovation in aircraft maintenance, an equally innovative warehousing system was set up at Hill Field. Both the warehousing system and aircraft maintenance technique proved so successful that they were subsequently adopted by other logistics units.

To accomplish the base mission during World War II, the Hill Field work force rapidly grew to a peak level of over 22,000 personnel by 1943. The post-war period, in contrast, resulted in the reduction of the work force to 2800 personnel by the end of 1946. The reduction in

work force after World War II reflected the decreased production and operations at Hill. The storage of over 1,200 aircraft and support equipment was the dominant role of Hill during the years immediately after World War II.

Hill Field kept its name until February 1948. The name was changed to Hill Air Force Base in 1948 with the establishment of the U.S. Air Force as a separate armed services branch on 18 September 1947. The name for the main headquarters at Hill Field went through a series of changes and was most popularly known as the Ogden Air Materiel Area. (On 1 April 1974, the name was changed to Ogden Air Logistics Center to more clearly define its worldwide role in support of national policy.)

Beginning in 1950 at Hill Air Force Base, B-26 and B-29 aircraft were reactivated and made fit to fly and fight in Korea. In response to military needs during the Korean conflict, the work force increased from 3,990 personnel in 1950 to approximately 15,000 by the middle of 1952. The end of the Korean conflict brought about a relatively slight decline in the size of the work force at Hill; approximately 14,000 personnel by the beginning of 1955. Tenant flying units included the 28th Logistics Squadron with C-124 loadmaster aircraft and the 4677 Radar Evaluation Squadron which first flew B-29s and in 1959 switched to B-57s, and the 401st light bomber wing.

On 1 April 1955, the Base nearly doubled in physical size with the annexation of the adjacent Ogden Ordnance Depot. A new 13,500 foot runway was completed in March 1957 to accommodate jet powered aircraft and increased activity. The broad physical parameters which now describe Hill Air Force Base were thus established.

During the mid and late 1950s, the air depot mission included geographic support of Air Force activities in the American northwest, two-thirds of Canada, and all of Alaska. The center began to manage the F-89/F-101/F-84 aircraft; all Air Force training devices; all aircraft landing gear components and photographic equipment; all non-nuclear air munitions; all solid fuel propellants, and certain missiles, drones, and rockets.

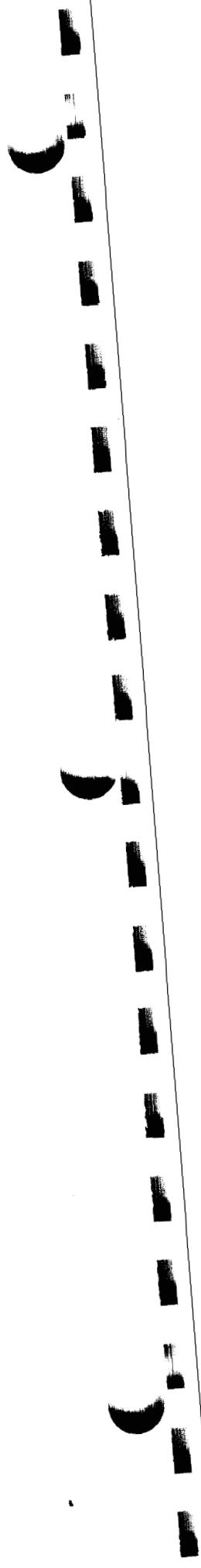
In 1959, the Depot became the System Manager of the Minuteman Intercontinental Ballistic Missile (ICBM) and Hill Air Force Base was designated the single assembly and depot repair point.

In the 1960s and 1970s, the Ogden Air Logistics Center became the system manager of the Titan ICBM, the Maverick air-to-ground missile, the Walleye laser and electro-optical guided bombs and the F-4 aircraft. More recently, OALC was selected as system manager for the F-16 aircraft, the Peacekeeper ICBM, and the upcoming small ICBM,

popularly referred to as the "Midgetman." These Intercontinental Ballistic Missile mission assignments have made OOALC the ICBM center of the Air Force. Tenant organizations included the 1550th ATTW in the early 1970s and the 388th TFW which replaced the 1550th in 1976.

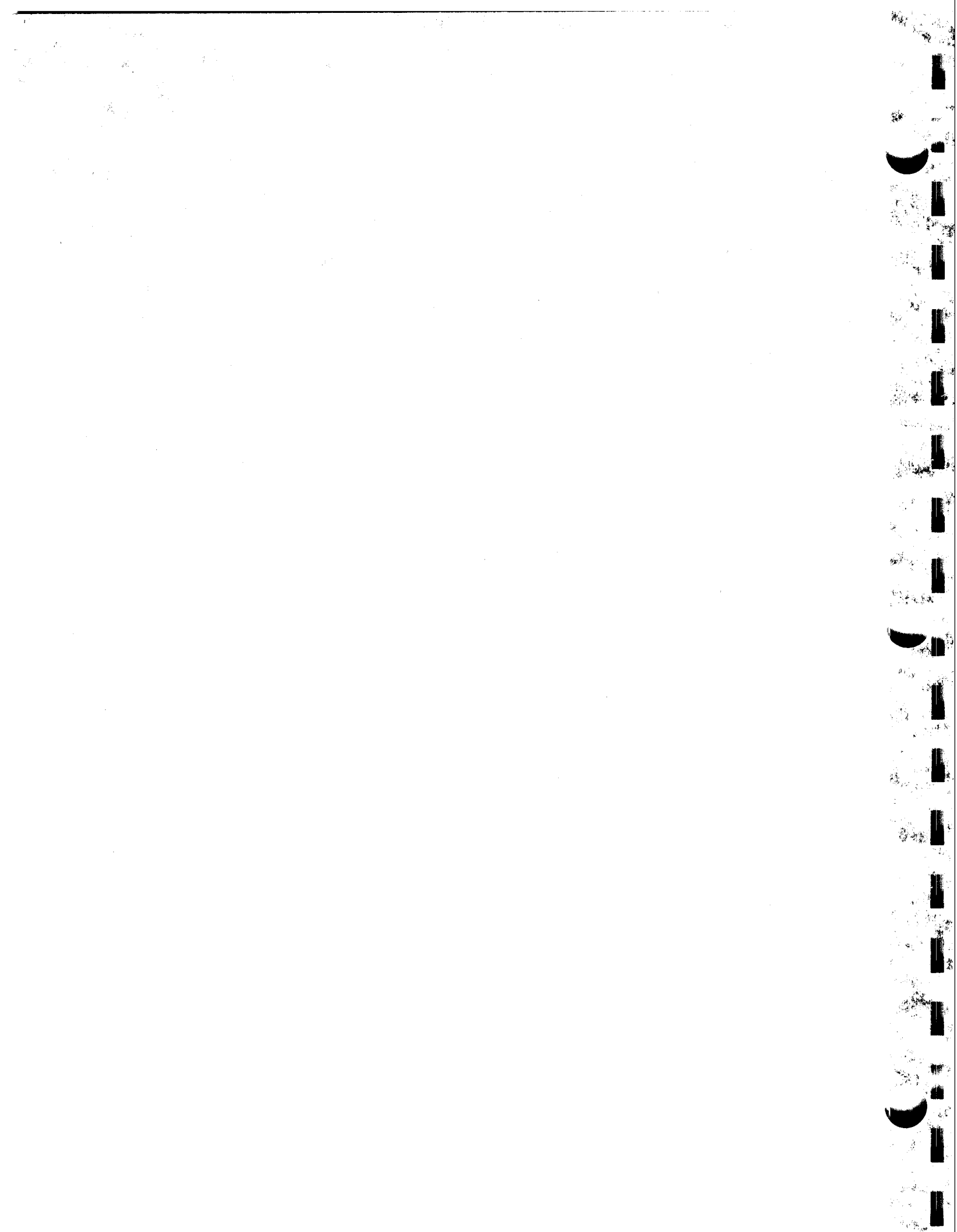
Ogden ALC mission expansion, coupled with the addition and growth of on-base tenant organizations, has resulted in an increase in the total work force from approximately 14,000 personnel in the early 1960s to just over 20,000 personnel (15,200 civilian and 5,400 military) at the present.

Since its inception in 1940, Hill Air Force Base has been at the forefront of Air Force innovation, creatively responding to mission expansion, evolution, and technological advances. The Base Comprehensive Plan, as a forward-thinking document, is designed to keep Hill Air Force at the forefront of innovation and excellence.



6.0

References



6.0 REFERENCES

A majority of the information in the Plan Overview was taken from the BCP Component Plans. Additional documents utilized appear below.

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Appendix 1

Deficiency Correction Projects



APPENDIX 1
DEFICIENCY CORRECTION PROJECTS
IMPLEMENTATION SCHEDULE

<u>PROJECT TITLE</u>	<u>SCOPE</u>	<u>ESTIMATED COST</u> (000)	<u>PROJECT</u>	<u>USER</u>
<u>PHASE 1</u>				
<u>Base</u>				
Depot Production Support FAC	64,500 SF	4,550	870068	DS
Cross Base Arterial Road	42,000 SY	1,800	923022	DE
Upgrade Water Distribution Sys	7,300 LF	1,550	913003	DE
Gate Improvements	LS	2,100	890070	DE
<u>TOTAL</u>		<u>10,000</u>		
<u>Tenant</u>				
Missile Maintenance Facility	9,800 SF	2,350	870088	388 TFW
Fire Protection & Open Storage	LS	1,400		DLS
Range Instrumentation Sites, UTTR	LS	3,000	900008	AFSC
<u>TOTAL</u>		<u>6,750</u>		
<u>PHASE 2</u>				
<u>Base</u>				
Propellant Test and Analysis	21,200 SF	4,400	923013	MA
Automated Tire Storage System	48,300 SF	5,000	893100	DS
<u>TOTAL</u>		<u>9,400</u>		
<u>Tenant</u>				
CombAt Aircraft Hot Pads	24,500 SY	2,350	903002	388 TFW
Weapon and Release Systems Shop	25,000 SF	3,200	923021	388 TFW
<u>TOTAL</u>		<u>5,550</u>		
<u>PHASE 3</u>				
<u>Base</u>				
Water Storage Tank, UTTR	528 KG	1,900	923015	DE
Emergency Power, Worldwide	750 KW	430	890076	MA
Landing Gear Overhaul Fac				
Mobility Training and Support	74,000 SF	6,100	870072	2849ABG/XP
<u>TOTAL</u>		<u>8,430</u>		
<u>Private</u>				
Electrical Peaking Plant		12,000	Utah Power & Light	
<u>TOTAL</u>		<u>12,000</u>		

DEFICIENCY CORRECTION PROJECTS
IMPLEMENTATION SCHEDULE

<u>PROJECT TITLE</u>	<u>SCOPE</u>	<u>ESTIMATED COST (000)</u>	<u>PROJECT</u>	<u>USER</u>
<u>PHASE 4</u>				
<u>Base</u>				
Base Warehouse	136,800 SF	8,200	923003	DS
Troop Subsistence Warehouse	6,400 SF	1,050	923017	SV
<u>TOTAL</u>		<u>9,250</u>		
<u>Tenant</u>				
Range Instrumentation Sites, UTRR	10 EA	3,500	913009	AFSC
<u>TOTAL</u>		<u>3,500</u>		
<u>PHASE 5</u>				
<u>Base</u>				
Unit Load Warehouse	127,000 SF	14,000	933006	DS
<u>TOTAL</u>		<u>14,000</u>		
<u>PHASE 6</u>				
<u>Base</u>				
Weapon Support Aircraft	32,300 SF	TBD	933003	MM
Weapon Support F-16	60,750 SF	9,400	943003	MM
<u>TOTAL</u>		<u>12,000</u>		
<u>PHASE 7</u>				
<u>Base</u>				
Combat Support Center	83,000 SF	9,800	880090	2849ABG
<u>TOTAL</u>		<u>9,800</u>		
<u>PHASE 8</u>				
<u>Base</u>				
Munitions control Facility	14,000 SF	2,400	890073	DS
Host Engineering Center	150,000 SF	6,714		DE
<u>TOTAL</u>		<u>9,114</u>		
<u>PHASE 9</u>				
<u>Base</u>				
Special Airfield Lighting	LS	4,250	923018	OT
Weapon Support Engineering	38,200 SF	TBD	943004	MM
Weapon Support Items	38,200 SF	TBD	943006	MM
<u>TOTAL</u>		<u>10,500</u>		

DEFICIENCY CORRECTION PROJECTS
IMPLEMENTATION SCHEDULE

<u>PROJECT TITLE</u>	<u>SCOPE</u>	<u>ESTIMATED COST (000)</u>	<u>PROJECT</u>	<u>USER</u>
<u>PHASE 10</u>				
<u>Base</u>				
ADAL Base Library	10,500 SF	600	903001	SS
ADAL Combat Support Center	37,000 SF	2,627		DE
ADD/Alter Dorms (UTTR)	21,150 SF	2,900	943019	2849/SS(R)
Energy Security Improvements	LS	3,500	923019	DE
<u>TOTAL</u>		<u>9,627</u>		
<u>PHASE 11</u>				
<u>Base</u>				
CAD PAD/ Spares Storage	81,000 SF	5,100	880064	DS
Missile and Munition Systems Eng	40,000 SF	6,000	933001	MA
<u>TOTAL</u>		<u>11,100</u>		
<u>PHASE 12</u>				
<u>Base</u>				
Fire Protection, Depot Whse	1,120,000 SF	8,100	880068	DE
Add to Gymnasium	16,800 SF	2,600	923016	SS
<u>TOTAL</u>		<u>10,700</u>		
<u>PHASE 13</u>				
<u>Base</u>				
Depot Warehouse	164,000 SF	12,600	913002	DS
<u>TOTAL</u>		<u>12,600</u>		
<u>PHASE 14</u>				
<u>Base</u>				
Service Center	60,000 SF	4,260		2849ABG
Visiting Officers Quarters	66 PN	3,800	870070	SV
<u>TOTAL</u>		<u>8,060</u>		
<u>Tenant</u>				
UTTR Helicopter Hangar	7,200 SF	1,200	900013	AFSC
<u>TOTAL</u>		<u>1,200</u>		

DEFICIENCY CORRECTION PROJECTS
IMPLEMENTATION SCHEDULE

<u>PROJECT TITLE</u>	<u>SCOPE</u>	<u>ESTIMATED COST (000)</u>	<u>PROJECT</u>	<u>USER</u>
<u>PHASE 15</u>				
Base				
Base Fire Reporting System	LS	7,600	943009	DE
Weapon Support Missile/Munitions	38,200 SF	TBD	943007	MM
<u>TOTAL</u>		<u>11,000</u>		
<u>PHASE 16</u>				
Base				
Supply Support Facility	65,000 SF	8,000	860089	DS
<u>TOTAL</u>		<u>8,000</u>		
<u>PHASE 17</u>				
Base				
Expand Arm/Dearm & Hot Pad	70,000 SY	5,900	953001	OT
Weapon System Support	38,200 SF	TBD	943016	MM
<u>TOTAL</u>		<u>9,000</u>		
<u>PHASE 18</u>				
Base				
Parking Terrace	250,000 SF	7,400	953004	MA
Add/Alter Water System	LS	1,600	943011	DE
<u>TOTAL</u>		<u>9,000</u>		
<u>PHASE 19</u>				
Base				
Depot Warehouse	164,000 SF	12,800	890062	DS
<u>TOTAL</u>		<u>12,800</u>		
<u>PHASE 20</u>				
Base				
Equipment Staging Warehouse	80,000 SF	5,900	943005	MA
<u>TOTAL</u>		<u>5,900</u>		

DEFICIENCY CORRECTION PROJECTS
IMPLEMENTATION SCHEDULE

<u>PROJECT TITLE</u>	<u>SCOPE</u>	<u>ESTIMATED COST (000)</u>	<u>PROJECT</u>	<u>USER</u>
<u>PHASE 21</u>				
<u>Base</u>				
Unaccompanied Enlisted PN HS	530 PB	9,000	890057	SV
Add to Recreation Center	19,800 SF	960	880057	SS
<u>TOTAL</u>		<u>9,960</u>		
<u>PHASE 22</u>				
<u>Base</u>				
Composite Medical Fac	93,500 SF	20,000	913004	SF
<u>TOTAL</u>		<u>20,000</u>		
<u>PHASE 23</u>				
<u>Base</u>				
Add to Hazardous Storage	20,000 SF	2,950	943008	DS
Construct Hot Pads	81,000 SY	9,400	943010	OT
<u>TOTAL</u>		<u>12,350</u>		
<u>PHASE 24</u>				
<u>Base</u>				
Munitions Shipping/Receiving	22,000 SF	1,550	943012	DS
Packing, Crating & Support Fac	40,000 SF	5,100	943013	DS
<u>TOTAL</u>		<u>6,650</u>		
<u>PHASE 25</u>				
<u>Base</u>				
* Relocate 419 TFW		16,300		419 TFW
<u>TOTAL</u>		<u>16,300</u>		
<u>PHASE 26</u>				
<u>Base</u>				
Aircraft General Purpose Shop	43,200 SF	6,900	890061	MA
<u>TOTAL</u>		<u>6,900</u>		

* Coincides with expiration of C-130 Hangar useful life span.

DEFICIENCY CORRECTION PROJECTS
IMPLEMENTATION SCHEDULE

<u>PROJECT TITLE</u>	<u>SCOPE</u>	<u>ESTIMATED COST (000)</u>	<u>PROJECT</u>	<u>USER</u>
<u>PHASE 27</u>				
Base Depot Warehouse	164,000 SF	13,200	880061	DS
<u>TOTAL</u>		<u>13,200</u>		
<u>PHASE 28</u>				
Base Explosive Test and Analysis	24,000 SF	3,350	870069	MA
Alter Fire Sprinkler System	800,000 SF	5,300	943014	DE
<u>TOTAL</u>		<u>8,650</u>		
<u>PHASE 29</u>				
Base Alter Software and Avionics Sup	102,700 SF	10,200	923014	MA
<u>TOTAL</u>		<u>10,200</u>		
<u>PHASE 30</u>				
Base Depot Warehouse	164,000 SF	13,200	943018	DS
<u>TOTAL</u>		<u>13,200</u>		
<u>PHASE 31</u>				
Base Road Missile Storage Area (UTTR)	45,000 SY	1,250	943015	SP
Non Destructive Insp Fac	9,000 SF	2,250	860084	MA
Fire Protection, Depot Aircraft Maintenance Facility	LS	<u>2,950</u>	953002	MA
<u>TOTAL</u>		6,450		
<u>PHASE 32</u>				
Base Missile Equipment Handling Shed	8,000 SF	620	953003	MA
Aircraft and Missile Cable Repair	29,500 SF	1,300	953005	MA
Advanced Engine Test Cell	LS	4,000	953006	MA
<u>TOTAL</u>		<u>5,920</u>		

DEFICIENCY CORRECTION PROJECTS
IMPLEMENTATION SCHEDULE

<u>PROJECT TITLE</u>	<u>SCOPE</u>	<u>ESTIMATED COST (000)</u>	<u>PROJECT</u>	<u>USER</u>
<u>PHASE 33</u>				
<u>Base</u>				
<u>Depot Warehouses</u>	656,000 SF	36,000	943017	DS
<u>TOTAL</u>		36,000		



Appendix 2

Implementation Schedule



APPENDIX 2

IMPLEMENTATION SCHEDULE
CHANGES IN MISSION AND/OR TECHNOLOGY

<u>PROJECT TITLE</u>	<u>PHASE OF CONSTRUCTION</u>	<u>PROGRAMMED AMT (\$000)</u>	<u>PROJECT NUMBER</u>	<u>SCOPE</u>	<u>OPR</u>
<u>C-130 BEDDOWN</u>					
Depot Maintenance Fac	FY 90-94	25,000	923001	262,000 SF	MA
Depot Maintenance Sup	FY 90-94	11,600	933012		LS MA
C-130 Paint Facility	FY-90-94	9,400	943021	44,000 SF	MA
Fire Station	FY 90-94	1,600	933014	8,400 SF	DE
<u>SOFTWARE SUPPORT</u>					
Software Support Fac	FY 95-99	13,200	943001	70,000 SF	MA
<u>MINUTEMAN ICBM</u>					
Non-Destructive Inspection Fac	FY 90-94	2,800	923023	11,000 SF	MM
<u>PEACEKEEPER RAIL GARRISON</u>					
Systems Eng Test	FY 90-94	11,400	913011		LS MM/MM
Equip/Spares Warehouse	FY 90-94	5,500	913013	80,000 SF	MM/DS
Open Storage	FY 90-94	430	913019	5,500 SY	MM/DS
Integr Software Sup	FY 90-94	9,300	923030	50,000 SF	MM/MA
PK ADAL Static Test	FY 95-99	3,800	870081		LS MM/MA
<u>MIDGETMAN (SICBM) not programmed</u>					
ADAL Heating Facility		1,650	903017	2,000 SF	AFRCE-BMS
Booster Integration Fac		1,700	903006	12,000 SF	MM/MA
Electronics and Hydraulics Repair		6,000	903011	40,000 SF	MM/MA
Roads + Utilities		5,700	903021		LS MM/DS
Ordnance Storage Fac		2,750	903004	11,300 SF	MM/DS
Equip/Spares Warehouse		6,000	903005	83,000 SF	MM/DS
Booster Integration		1,850	913006	12,000 SF	MM/MA
Roads and Utilities		6,900	913018		LS AFRCE-BMS
PEMA Storage Fac		420	903008	4,400 SF	MM/DS
Engineering & Test Fac		3,850	913007	14,400 SF	MM
Engineering & Test Fac		1,040	923012	8,640 SF	MM
Stage Repair		850	913008	6,000 SF	MM/MA
Solid Stage Storage		2,750	903007	11,300 SF	MM/MA
Missile Transporter		5,700	903010	40,000 SF	MM/MA
Handling Equipment Repair					
Equipment/Spares Whse		10,200	913005	164,000 SF	MM/DS

IMPLEMENTATION SCHEDULE
CHANGES IN MISSION AND/OR TECHNOLOGY

<u>PROJECT TITLE</u>	<u>PHASE OF CONSTRUCTION</u>	<u>PROGRAMMED AMT (\$000)</u>	<u>PROJECT NUMBER</u>	<u>SCOPE</u>	<u>OPR</u>
<u>MIDGETMAN (SICBM) cont</u>					
Explosive Vibration Test Chamber		2,068	903019	5,232 SF	MM
Flash X-Ray		242	923007	1,180 SF	MM
Static Test Prep (UTTR)		220	923009	1,000 SF	MM/MA
Computed Tomography		3,400	913010	12,600 SF	MM/MA
Integrated Software Sup		14,300	903009	50,000 SF	MM/MM
Missile Transporter & Handling Equip Repair		6,000	913017	40,000 SF	MM/MA
Equipment/Spares Whse		5,093	923004	81,000 SF	MM/DS
Missile Vibration Test		3,900	903015	5,600 SF	MM
Aging & Surveillance Storage		200	933009	1,500 SF	MM/MA
Booster Integration Fac		2,000	933007	10,000 SF	MM/MA
Ordnance Storage Fac		2,950		11,300 SF	MM/DS
Missile Transporter & Handling Equip Repair		5,720	923011	40,000 SF	MM/MA
Missile Storage Fac		3,650	943002	11,500 SF	MM
Stage Storage 5 & 6		7,310		22,600 SF	MM/DS
Stage Storage 3		3,670	933003	11,300 SF	MM/DS
Stage Storage 4		3,670	943002	11,300 SF	MM/DS
<u>UTAH TEST AND TRAINING RANGE OPERATIONS</u>					
Commercial Power to North Wig (Dugway)	FY 90-94	670	903015		LS AFSC
Commercial Power to North east Range	FY 90-94	443	903005		LS AFSC
<u>ELECTRONIC COMBAT TRAINING COMPLEX</u>					
Range Maint Fac (Sand Pass)	FY 90-94	4,350	923026	15,800 SF	AFSC
Helicopter Hangar (Sand Pass)	FY 90-94	2,900	923027	20,000 SF	AFSC
Threat Sites	FY 90-94	4,100	923025	2 EA	AFSC
Gapfillar Radar	FY 90-94	1,500	923024		LS AFSC

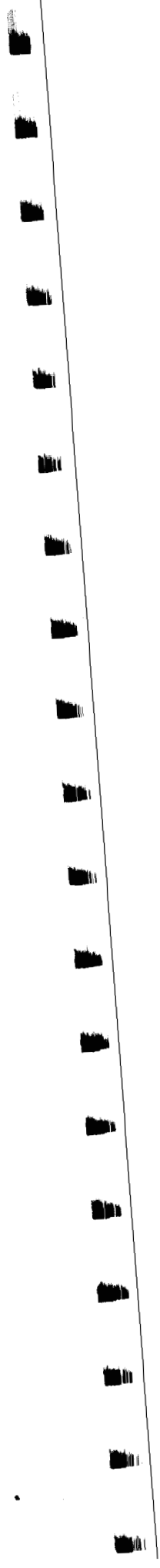
IMPLEMENTATION SCHEDULE
CHANGES IN MISSION AND/OR TECHNOLOGY

<u>PROJECT TITLE</u>	<u>PHASE OF CONSTRUCTION</u>	<u>PROGRAMMED AMT (\$000)</u>	<u>PROJECT NUMBER</u>	<u>SCOPE</u>	<u>OPR</u>
<u>ELECTRONIC COMBAT TRAINING COMPLEX (cont)</u>					
Test ACFT Hangar	FY 90-94	11,000	933008	104,300 SF	AFSC
Engineering Technical Support (Private-Financed) Fac	FY 90-94	5,500	921530	47,000 SF	AFSC
Maj Threat Sites	FY 90-94	4,000	733011	2 EA	AFSC
Major Threat Sites	FY 90-94	4,000	933011	2 EA	AFSC
CTF/AFOTEC Fac	FY 90-94	3,000	943021	67,000 SF	AFSC
Major Threat Site	FY 90-94	2,000	943023	1 EA	AFSC
Taxiways/Aprons *	FY 90-94	6,500	903022	1,200,000 SF	AFSC
Helicopter Hangar (Wendover)	FY 90-94	1,500	943026	12,060 SF	AFSC
Range Maintenance Fac (Wendover)	FY 90-94	3,000	943025	26,100 SF	AFSC
Fire Station & Medical Clinic (Dugway)	FY 90-94	500	943024	8,275 SF	AFSC
Threat Site UTTR	FY 90-99	4,000	953007	2 EA	AFSC
Aircraft Hangar (Dugway)	FY-95-99	5,500	953008	33,750 SF	AFSC
Helicopter Fac	FY 95-99	3,000	953009	24,000 SF	AFSC
Engineering Fac	FY 95-99	3,000	953010	TBD	AFSC
Threat A/C Hangar	FY 95-99	9,500	963001	52,400 SF	AFSC
Billeting Fac	FY 95-99	2,000	963002	52,400 SF	AFSC
Major Threat Site	FY 95-99	5,500	963003	1 EA	AFSC
Runway Upgrade (Dugway)	FY 95-99	15,500	973001	1,600,000 SF	AFSC



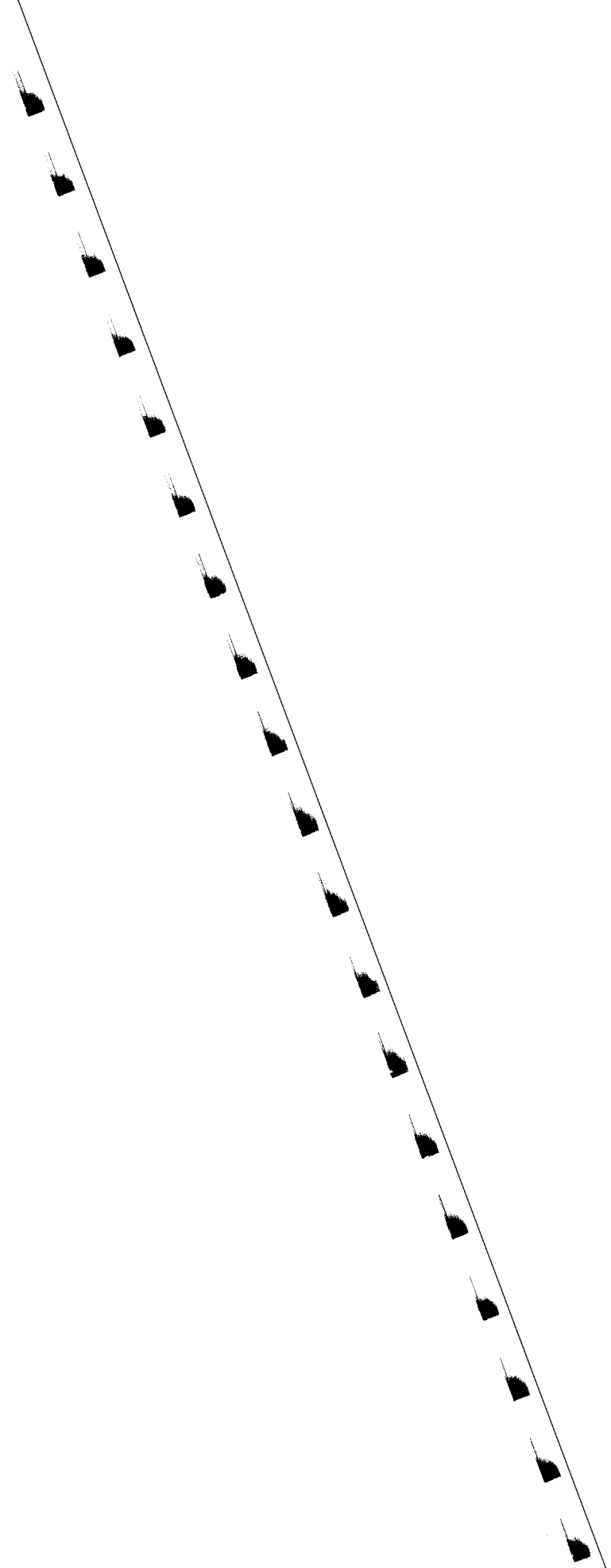
Appendix 3

Airfield Encroachment Prevention



TALKING PAPER
ON
ENCROACHMENT

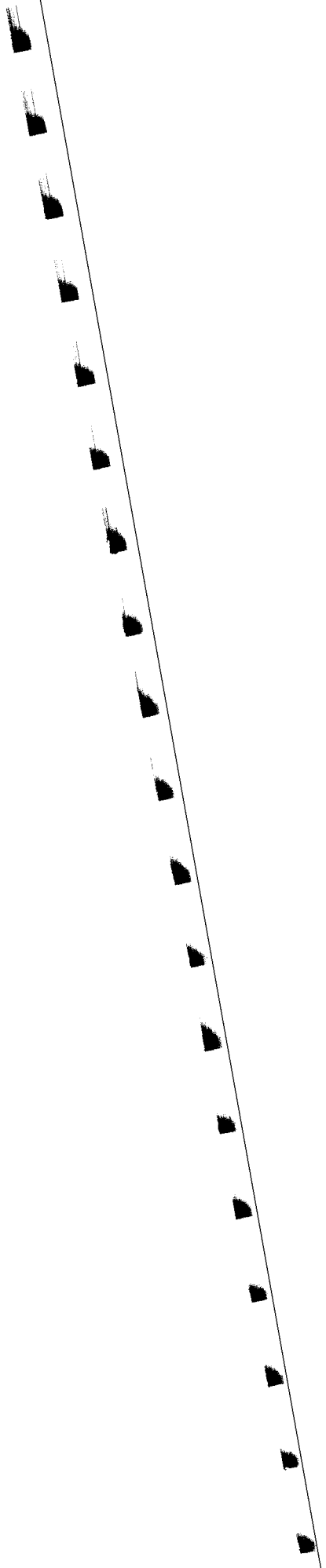
- Hill AFB has been very active in programs to reduce encroachment.
 - In 1974 Hill AFB produced the first Air Installation Compatible Use Zone (AICUZ) study in the Air Force. AICUZ is the current tool used by the Air Force to promote compatible development.
- State of Utah has been very supportive.
 - In 1976 the state began purchasing restrictive easements to protect the base from encroachment.
 - In 1994 the state provided an additional \$10.0 million to complete the easement purchase process in the accident potential zones and the high noise, 75-85 Ldn, areas. A building moratorium is in place while the easement purchase program proceeds. Current funding should complete the program.
- FHA and VA financing requirements have prevented incompatible development in the low noise, 65-75 Ldn areas, since the late 1980s.
- The Utah Energy Code requirements require special construction which is also compatible with airfield operations in the low noise areas.
- Hill AFB has survived three lawsuits relating to encroachment.
 - Through the settlements and court rulings the base flying mission is protected.
- There will be no additional encroachment at Hill AFB.
 - Existing encroachment was reported and is minimal.
 - Existing encroachment will not impact flight operations as a result of court settlements and rulings.
 - The Utah State purchase of restrictive easements in the accident potential zones and high noise areas stops incompatible development.
 - The Utah State Energy Code and FHA and VA financing rules stops stop incompatible development.

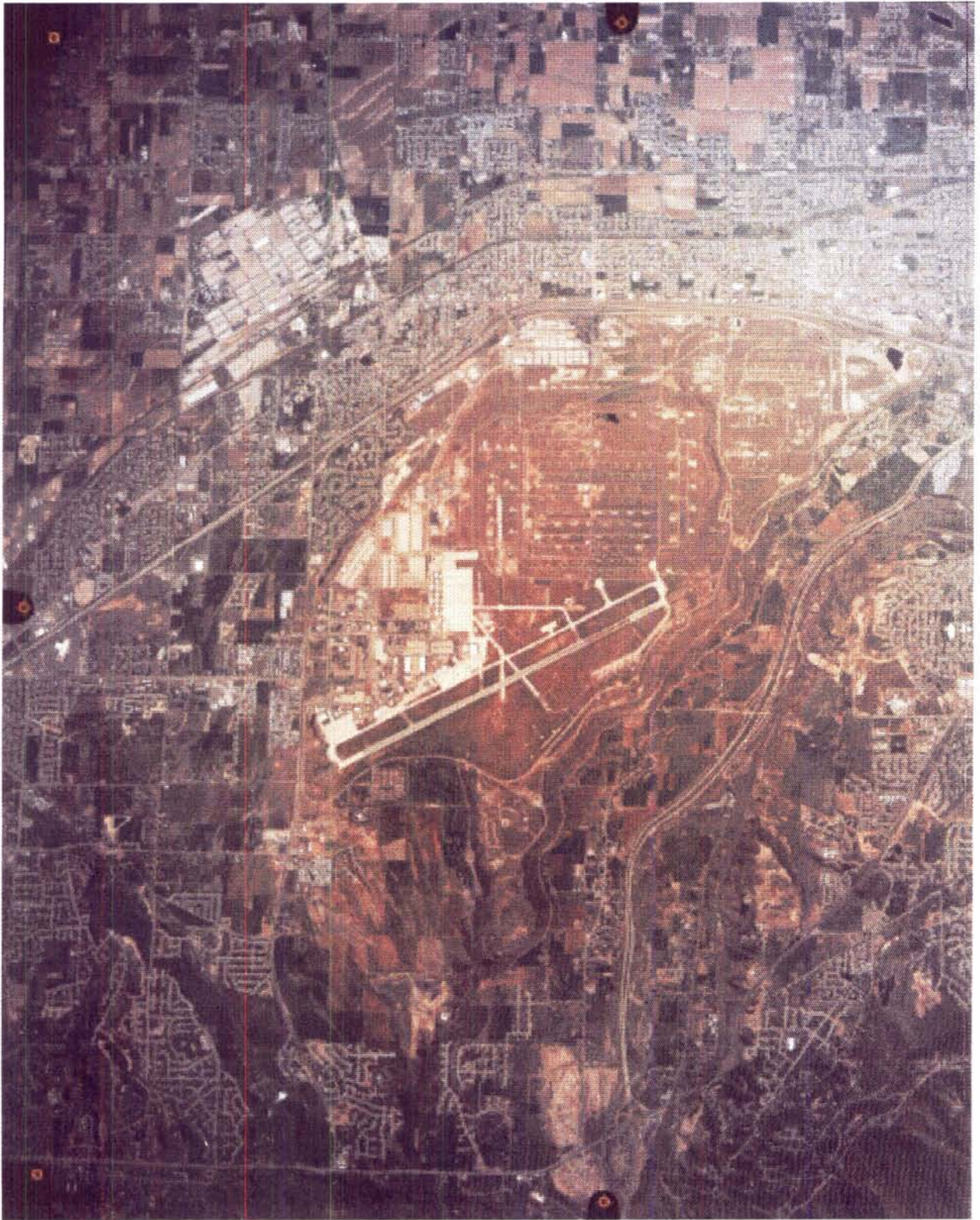


AICUZ

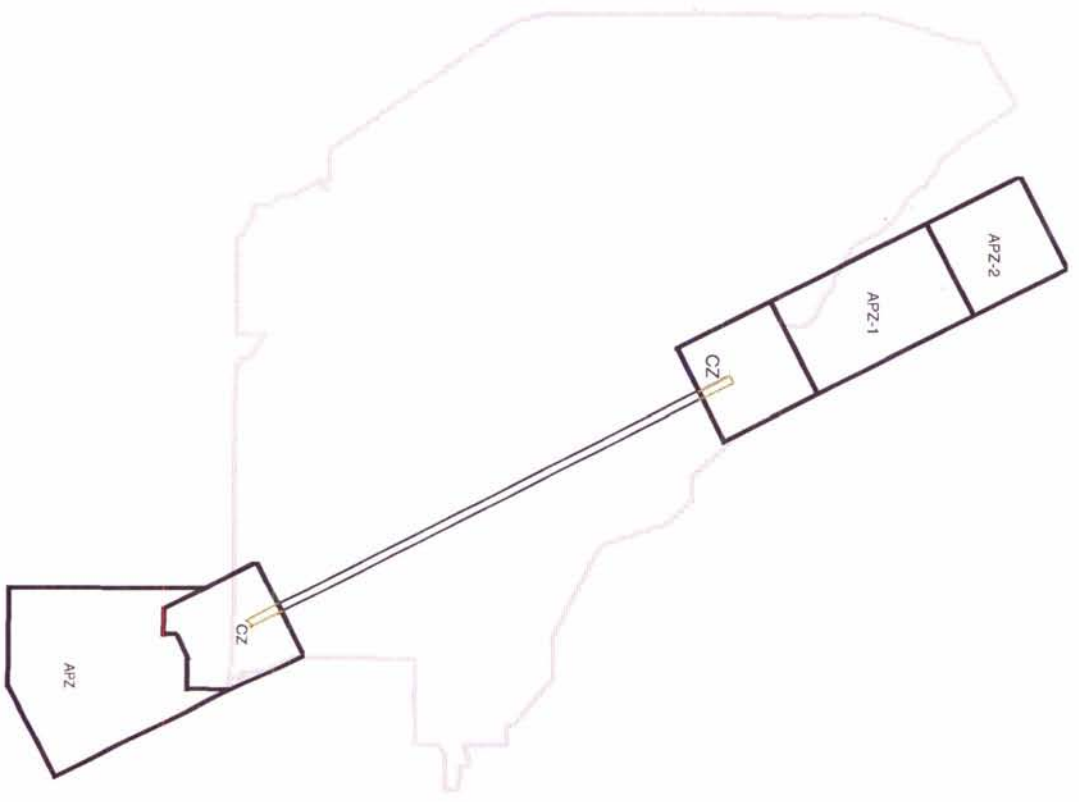
649 CES

- **1974: Hill AFB had First AICUZ in AF**
- **1976: Utah State, \$1.0 M for easements**
- **1980s: Easement purchase in south APZ**
 - Red
- **1993: New noise contours**
- **1994: Utah State, \$10.0 for easements**
 - Remainder of APZs
 - High noise areas, 75+
 - Orange
- **Now:**
 - Moratorium in affected areas
 - State has hired team to do purchases
 - Hill AFB continues to support

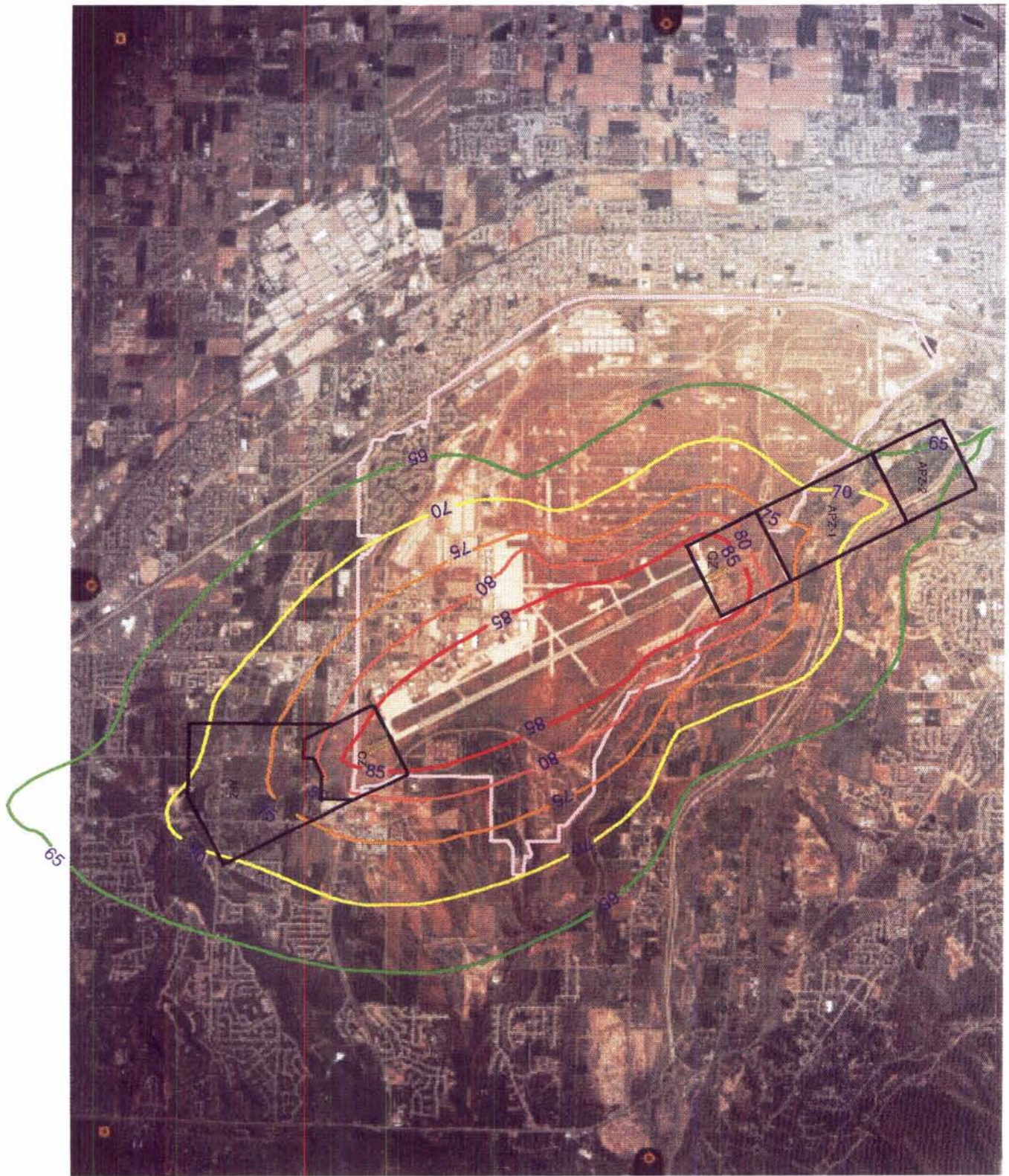




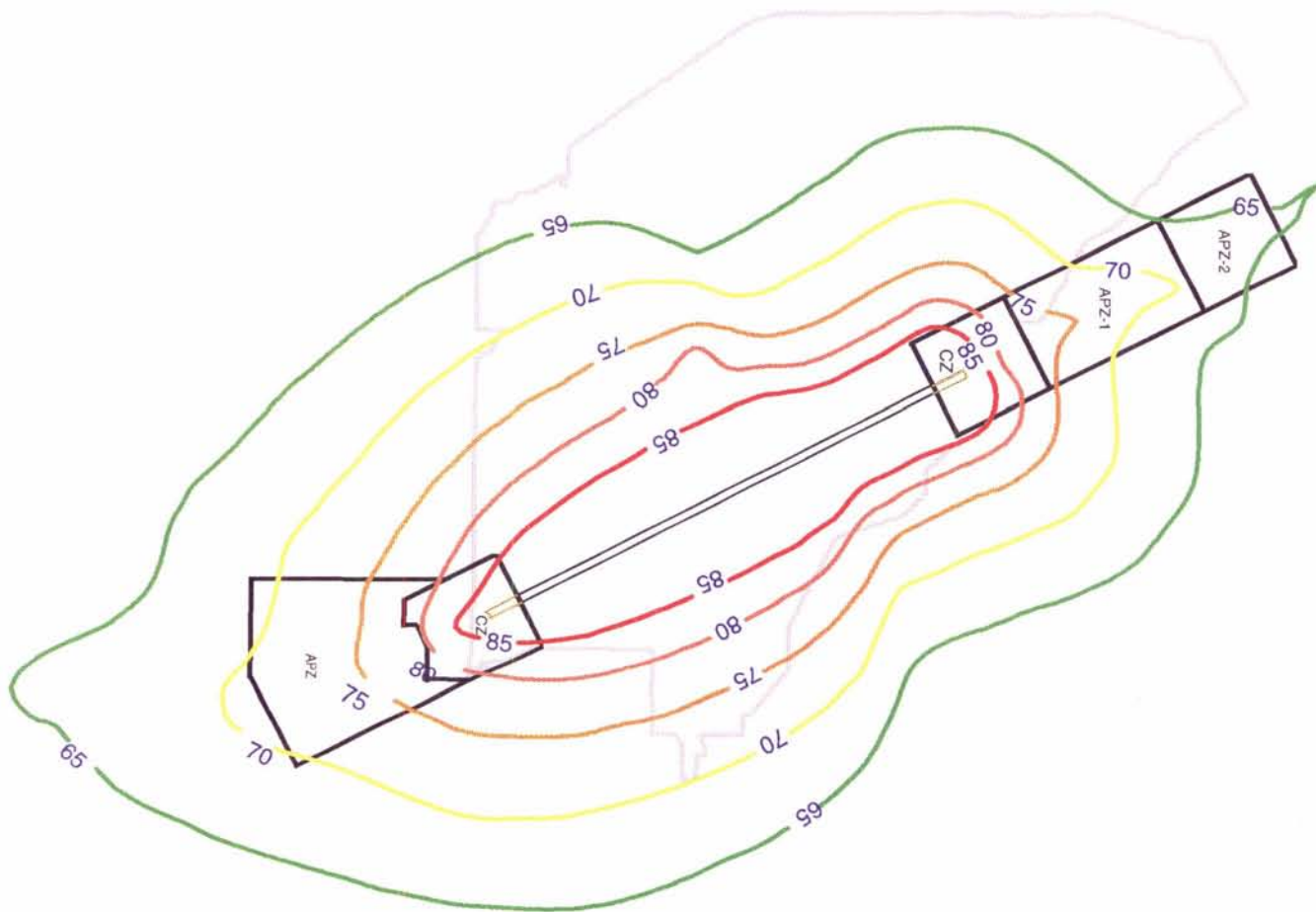


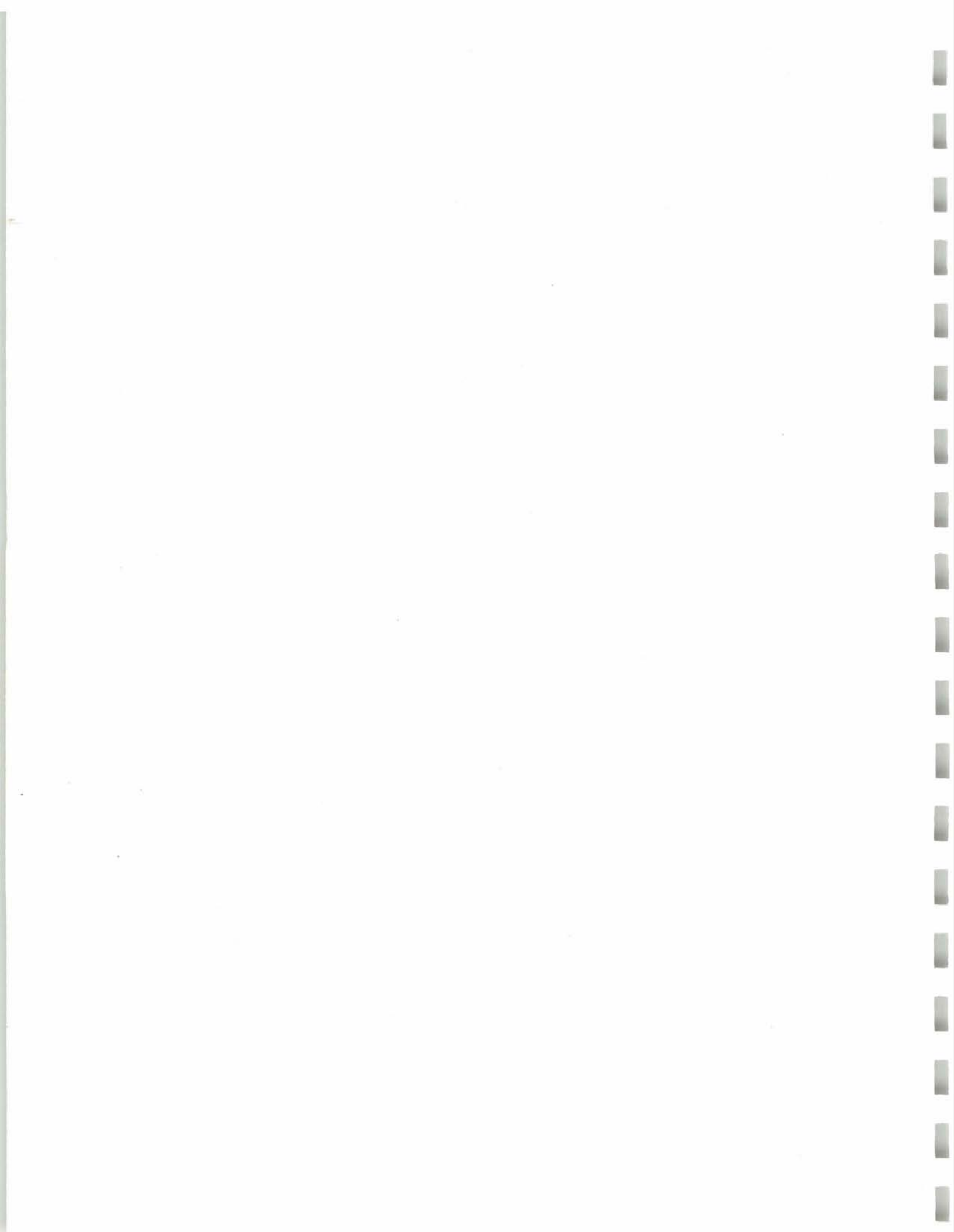












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**TENANTS LOCATED ON HILL AFB
24 APRIL 1995**

	<u>OFF</u>	<u>ENL</u>	<u>CIV</u>	<u>TOTAL</u>
AAFES - Army/Air Force Exchange Service Terri Kelly 776-0277			225	225
ACC - 388 Fighter Wing (incl. 4, 34, 421 FS, 729 CS, 29 TSY, 84 RADES, QCL Grp) Chief Henshaw 7-3834 388 FW/MO	196	1915	69	2180
ACC - ACC Logistics Liaison Office TSgt Annette Espinosa 7-6883 LAA-ACC-LLO		3		3
ACC - Air Warfare Center Russ Bowden 7-3086 29 TSS, OLAH			8	8
AETC - 368 USAF Recruiting Squadron Sgt Johnson 7-7385 368 RCS/RSRP	5	17	2	24
AETC - 372 USAF Recruiting Group MSgt Perez 7-8014 372 USAFRG/RSRP	3	16	1	20
AETC - 533 Training Detachment MSgt Hess 7-2084 TD 533		17		17
AETC - Training Support Squadron Sgt Davis 7-0763 AETC TRSS	5	97	14	116
AFAA - Air Force Audit Agency Gregory Carlson 7-6272			29	29
AFGE - Federal Employees Labor Union Susan Ward 7-3257 AFGE			2	2
AFMC - 545 Test Group (incl. 501 RS & 514 TS) Ray Kykendal 7-1318 545 TG/XRMM	59	123	227	409



**TENANTS LOCATED ON HILL AFB
24 APRIL 1995**

		<u>OFF</u>	<u>ENL</u>	<u>CIV</u>	<u>TOTAL</u>
AFMC - Contracting Lab				28	28
Kevin McClowsky	7-9011				
PKL					
AFOSI - Office of Special Investigation		3	11	2	16
Sgt Rosenthal	7-1852				
AFOSI, Det 113					
AFOTEC - AFOTEC OLJJ		1	1		2
Maj Stanley	7-6676				
AFRES - 419 Fighter Wing (incl. 405 CLSS, 67 APS, 466 FS)		108	1191	263	263
Cheryl	7-3314				
419 FW/MSMPU					1299 *
AFRES - 419 Fighter Wing Recruiting Squadron			7	1	8
Phil Sloyer	7-2074				
419 FW/RS					
AFRES - AFRES Statutory Tour Officer					
Richard Flackman	7-7669	1			1
RFR					
AFSPACECOM - Missile Trainer Program Office				1	1
James Allen	5-2908				
OL HD/DMT					
ANG - 299 Range Control Squadron		10	0	43	53
Vicki Stanley	7-9329	4	94		98 *
299 RCS/DCQX					
America First Credit Union				22	22
Rachel Farnsworth	627-1280 ext 2637				
American Red Cross				1	1
Peggy	7-1855				
ARC/LC					
ARMY - Tooele Army Depot Rail Shop				39	39
Toni	7-4961				

**TENANTS LOCATED ON HILL AFB
24 APRIL 1995**

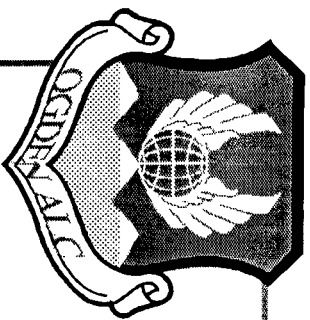
	<u>OFF</u>	<u>ENL</u>	<u>CIV</u>	<u>TOTAL</u>
ARMY - U.S. Army Corp of Engineers Rita Saldivar 7-2206 U.S. Army Corp of Engineers			19	19
ARMY - Veterinary Services MSgt Martin DSN 943-3140 Fitzsimons Army Medical Center	1	1		2
DCAA - Defense Contract Audit Agency Gary Porter 7-7561 DCAA/POA			1	1
DECA - Defense Commissary Agency Glen Hartey 7-2175 DECA		3	65	68
DFAS - Defense Finance & Accounting Service Ed Lindeman 7-5148 DAO-DE Hill/FQ	1	8	144	153
DIS - Defense Investigative Service Michelle Dodson 7-1024 DIS			6	6
DISO - Defense Information Services Organization Audene French 7-4960 UFHRA	3	48	306	357
DLA - DLA Liaison Office Marianne Clair 7-6654			1	1
DLA - Defense Reutilization/Marketing Jean Bellingham 7-7422 DRMO WHC			56	56
DLA - Hill Site Distribution Susan Cady 7-4581 DDOU-TZO			523	523
DPS - Defense Printing Service Larry Harlan 7-7707 DPS			30	30

**TENANTS LOCATED ON HILL AFB
24 APRIL 1995**

	<u>OFF</u>	<u>ENL</u>	<u>CIV</u>	<u>TOTAL</u>
Defense Fuel Region West Pam Bryson DSN 972-3090 3171 N Gaffey, San Pedro, CA 90731-1099			1	1
First Security Bank Susie Smith 773-8000			9	9
NAF - Non-Appropriated Funds Toni Carter 7-7955 75 SPTG/SVXH			407	407
NAVY - Naval Ordnance Station Liaison Frank Atwood 7-7465 LIWC-NLO			1	1
PACAF - PACAF Logistics Liaison Office Sgt Gleason 7-6883 LAA-PACAF-LLO		1		1
Small Business Administration Milly Simons 7-4150 SBA			3	3
USAF - Area Defense Counsel SrA Frye 7-2940 ADC	1	1		2
USPS - Hill Branch, Clearfield Post Office Terri Priest 7-3507			2	2
TOTAL TENANTS	401	3554	2551	6506
* TOTAL RESERVISTS	112	1285		1397 *
TOTAL NON-RESERVISTS TENANTS	289	2269	2551	5109

*Does not
include
Contractors
on base.*

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WORKLOAD FIGURES

DIRECT LABOR HOURS (MILLIONS)

	FY95	FY96	FY97	FY98	FY99	FY00	FY01
WORKLOAD							
OCT 94 (BRAC)	5.256	5.146	5.046	5.283	4.938	- -	- -
MAY 95	5.264	5.154	5.162	4.987	4.779	4.838	4.362
CORE	4.895	4.895	4.895	4.895	4.895	4.895	4.895
CAPACITY (2 SHIFTS)	14.401	14.401	14.401	14.401	14.401	14.401	14.401



OO-ALC Information

FAX from BRAC Staffers (Jim Owsley & Ann Reese):

"We request the following information be presented to Commissioners during your base visit:

- Current workload
- Projected workload each year FY95-01
- Amount of core workload each year FY95-01
- Percentage of core/total workload in FY99
- 2-shift capacity
- Average ALC salary (Air Force only)

We request the following information be prepared and forwarded to Commission Staff by the time your base is visited by Commissioners:

- Number of critical skill depot workers (97/4) - deleted per Ann Reese
- Lost time incidents per 200K hours for years 92,93,94
- Average labor hour cost for a WG-11 step three as of 1 Oct 1994
- Average depot salary as of 1 Oct 94
- Average ALC salary as of 1 Oct 94 (Air Force only)
- Depot hour cost
- Indirect costs as a percentage of total depot hour costs"

Answers to above questions:

Current workload, projected workload, core workload, 2-shift capacity are all included on enclosed briefing chart.

Average ALC salary (AF only) - \$17.74 per hour/\$37,023 per year/average grade - GS-09.66

Lost time incidents per 200K hours: .00053 (1992); .00027 (1993); and .00036 (1994)

Average labor hour cost for a WG-11, step three, as of 1 Oct 1994: \$15.47

Average depot salary as of 1 Oct 94: \$17.67 x 2080 = \$36,760

Average ALC salary as of 1 Oct 94 (AF only) - \$37,023 annually

Depot hour cost (FY94 unit cost) - \$87.11

Indirect costs as a percentage of total depot hour costs - 45%

FAX

TO: *McClellan, Robins, Tinker,
Kelly and Hill AFB BRAC
offices, Letterkenny Army
depot BRAC office,
Tobyhanna Army depot
BRAC office*

FROM: *Ann Reese
Base Closure Commission*

Phone 703-696-0504 ext 176
Fax Phone 703-696-0550

The following is clarification (in bold) of the data that we requested yesterday be included during your Commissioner visit

- current workload - **the workload, in hours, FY 1995 customers orders in direct labor hours (DLHs)**
- projected workload each year FY 95-01- **in DLHs (Air Force - I assume you'll use the numbers from table 3.1.b from your data call)**
- amount of core workload each year FY 95-01- **in DLHs (table 13.1.a)**
- percentage of core / total workload in FY 99 - **percentage of DLHs**
- 2-shift capacity - **2 measures capacity standard definition and maximum potential capacity (as defined on table 1.1.a and 1.3.a) using these definitions, show two shifts**
- average ALC salary (AF only) - **1994 actuals and provide salary, benefits and total**

We request the following information be prepared and forwarded to Commission Staff by the time your base is visited by Commissioners:

- number of critical skill depot workers (97/4) - **don't report this, I can't get a definition that is clear and is still meaningful (I give up!!!)**
- lost time incidents per 200K hours for years 92,93,94 -**self-explanatory**
- average labor hour cost for a WG-11 step three as of 1 October 1994 **self-explanatory**
- average depot salary as of 1 October 1994 **self-explanatory**
- average ALC salary as of 1 October 1994 (Air Force only) **self-explanatory**
- depot hour cost- **FY 94 unit cost 1994**
- indirect costs as a percentage of total depot hour costs - **everything except direct for FY 1994**

OO-ALC MISSILE WORKLOAD
FY95

	DPAH	
STRATEGIC MISSILES	694,460	
TACTICAL MISSILES	186,194	
TOTAL		880,654
TOTAL OO-ALC WORKLOAD	5,256,392	
MISSILES - PERCENT OF TOTAL WORKLOAD		16.75%

OO-ALC MISSILE WORKLOAD
FY95

	DPSH	
STRATEGIC MISSILES	478,547	
TACTICAL MISSILES	120,000	
TOTAL		596,547
TOTAL OO-ALC WORKLOAD	4,839,425	
MISSILES - PERCENT OF TOTAL WORKLOAD		12.33%

Document Separator

FY 90 MILCON

UNDER CONSTRUCTION

Title	Scope	Program Amount	Const Status	Project Number	Cat Code	OPR
<u>Base</u>		(\$000)				
Consolidated Telecommunication Center (B891)	52,600 SF	7,300	100%	870076	131-111	CS
Explosive Ordnance Disposal (B1781)	18,400 SF	2,150	100%	86009	141-165	EOD
Child Development Center (B470)*	20,400 SF	1,300	99%	923006	740-884	MW
Depot Procurement Consolidation Fac (B1297)	86,300 SF	3,700	100%	903018	610-675	PK
	SUBTOTAL	\$14,450				
	<u>FY 90 TOTAL</u>	<u>\$14,450</u>				

FY 91MILCON

UNDER CONSTRUCTION

Title	Scope	Program Amount	Const Status	Project Number	Cat Code	OPR
<u>Base</u>		(\$000)				
ICBM Nondestructive Inspection*	11,000 SF	2,800	98%	923023	312-477	TI
<u>Peacekeeper</u>						
Stage Storage (B1404)	11,300 SF	3,250	100%	913014	422-256	LM
Ordnance Storage (B1328)	11,300 SF	3,250	100%	913015	422-256	LI
<u>Tenant</u>						
Depot Warehouse (B843)**	301,000 SF	16,000	0%	870067	441-758	DLA
<u>P-341</u>						
Reserve Medical Training (B568)	4,700 SF	382	100%	891521	171-450	419
	<u>FY 91 TOTAL</u>	<u>25,682</u>				

* Inserted by Congress

** On Hold at OSD level (Most likely dead)

FY 92MILCON

UNDER CONSTRUCTION

<u>Title</u>	<u>Scope</u>	<u>Program Amount</u>	<u>Const Status</u>	<u>Project Number</u>	<u>Cat Code</u>	<u>OPI</u>
		<u>(\$000)</u>				
<u>Housing</u>						
Replace Housing Phase 1	130 UN	11,628	100%	904002PI	711-142	CEI
<u>Tenant</u>						
Weapon and Release Shop (B52)	25,000 SF	2,700	98%	923021	215-552	388
Missile Maintenance Shop	9,300 SF	2,530	100%	870088	212-216	388
Depot Production Support Fac (B503)	64,500 SF	4,050	95%	870068	441-758	DL
<u>P-341</u>						
Fuel Systems Maintenance Dock	2,000 SF	320	100%	870190	211-179	419
Hush House Support	LS	731	100%	926001	166-665	LA
ADAL Hardness Test Facility	LS	572	98%	916002	312-477	LM
<u>FY 92 TOTAL</u>		<u>22,531</u>				



FY 93MILCON

UNDER CONSTRUCTION

<u>Title</u>	<u>Scope</u>	<u>Program Amount</u>	<u>Const Status</u>	<u>Project Number</u>	<u>Cat Code</u>	<u>OPI</u>
<u>Base</u>		(\$000)				
ACM Add to Non-Destructiive Inspection	7,300 SF	1,450	99%	923028	212-212	LI
Underground Storage Tanks	20 EA	1,500	70%	933018	411-13X	EM
Add to EMCS (ECIP)	91 BLDGS	1,100	10%	913021	890-272	CE
Power Upgrade*	LS	2,300	0%	923019	813-231	CE
Engine Test Cell Support*	1 EA	850	9% design	943037	211-183	LA
<u>Housing</u>						
Replace Housing Phase II	82 UN	6,353	95%	904002P2	911-142	CEI
<u>Tenant</u>						
Conforming Storage	12,800 SF	1,730	100% design	Hil88-0	442-XXX	DL
Corrosion Ctl/Fuel System Maint Facility*	4,400 SF	971	40%	899003	219-178	419
<u>Titan IV</u>						
Rocket Motor Inspection & Staging Complex**	120,000 SF	37,000	0%	939999	226-227	CV
<u>FY 93 TOTAL</u>		<u>53,283</u>				

***Congressional Adds**

****Approval Pending**



FY 94MILCON

CONGRESSIONALLY FUNDED

Title	Scope	Program Amount	Design Status	Project Number	Cat Code	OPI
<u>Base</u>		(\$000)				
Upgrade Water Distribution System	13,300 LF	2,400	100%	913003	842-245	CE
Fire Training Pit	LS	934	100%	933019	179-511	CE
Renovate IWTP	LS	5,100	100%	943032	831-155	EM
Upgrade Industrial Waste Collection System*	32,000 LF	6,200	100%	963013	832-255	CE
<u>Tenant</u>						
Fire Protection and Open Storage Modernization	LS	1,700	88%			DL
<u>FY 94 TOTAL</u>		<u>16,280</u>				

***Congressional Addition**

FY 95MILCON

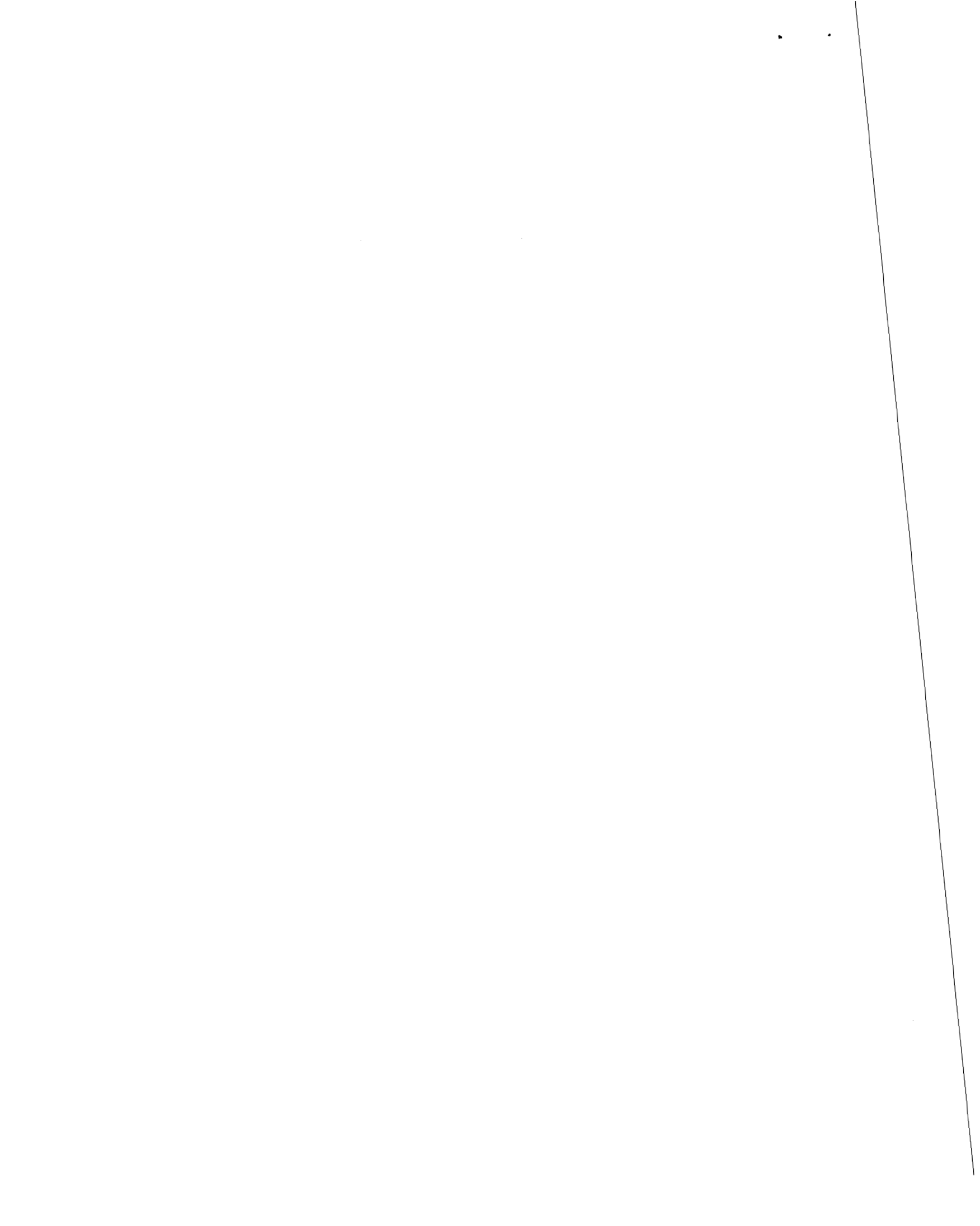
PROGRAM CANCELLED

Title	Scope	Program Amount	Const Status	Project Number	Cat Code	OPI
<u>Base</u>		(\$000)				

***Congressional Adds**

****Approval Pending**





FY 98MILCON

PROPOSED

<u>Title</u>	<u>Scope</u>	<u>Cost</u>	<u>Project Number</u>	<u>Cat Code</u>	<u>OPR</u>
<u>Base</u>		<u>(\$000)</u>			
Air Pollution Monitoring and Control	LS	880	963015	211-000	EM
Upgrade Steam Distribution System (Bld 260 & 1286)	LS	4,550	953012	821-113	CE
Automate Boiler Plants	LS	3,370	984005		
Fire Protection Deficiency Correction (Bld 100 & 225)	LS	6,400	943039	880-000	LA
CAD PAD/ Spares Storage (B1477)	81,000 SF	5,100	933002	422-258	LI
<u>Medical</u>					
Clinics and Alter Hospital	10,200 SF	3,200	963017	510-411	MG
<u>New Mission</u>					
Peacekeeper Storage Facilities	24,600 SF	3,450	963007	422-256	LM
<u>Tenant</u>					
Munitions Handling Equipment Maint Training and Support	10,000 SF	1,500	923008	216-642	419
ADAL Corrosion Control Fac. Bld 48	19,500 SF	1,550	936001	211-159	388
	<u>FY 98 TOTAL</u>	<u>\$ 34,600</u>			

FY 99MILCON

PROPOSED

<u>Title</u>	<u>Scope</u>	<u>Program Amount</u>	<u>Project Number</u>	<u>Cat Code</u>	<u>OPR</u>
<u>Base</u>		<u>(\$000)</u>			
Upgrade Fire Protection (1,5,25,220,233,236,270,295)	LS	8,000	963016	880-211	CE
		<u>FY 99 TOTAL</u>			
		<u>\$12,550</u>			



FY 00 MILCON

PROPOSED

<u>Title</u>	<u>Scope</u>	<u>Program Amount</u>	<u>Project Number</u>	<u>Cat Code</u>	<u>OPR</u>
<u>Base</u>		<u>(\$000)</u>			
Central Chiller System	LS	8,000	983004		EM/C E
Upgrade Heating Facilities (ECIP)	LS	500	953018	821-117	CE
Munitions Control Facility (B1368)	14,000 SF	2,400	870073	610-144	LI
Construct Hot Pads	81,000 SY	15,300	943010	116-662	DO
Upgrade Structural Repair Fac.	284,000 SF	1,900	963009	211-152	LA
ADAL Base Library (B 440)	10,500 SF	600	903001	740-765	SS
Install Infrared Heating Systems	LS	640	953019	211-254	CE
<u>Medical</u>					
Composite Medical Facility (B570)	93,500 SF	20,000	913004	510-001	SG
<u>545TG</u>					
<u>Tenant</u>					
Alter Fire Sprinkler System	800,000 SF	5,300	943014	880-211	DLA
Fire Protection, Depot Warehouse	1,120,000 SF	8,100	880068	880-211	DLA
<u>FY 00 TOTAL</u>		<u>\$ 82,870</u>			

Document Separator

Average age - Base wide - 33 yrs old - 1962 yr const.

18 MAR 94

DMIF FACILITIES

1 ZONE

BLDG	DIR	FUNCTIONS(S)	AREA
1	LAO	AIRCRAFT OPERATIONS	75,000 SF

Year

5 ZONE

BLDG	DIR	FUNCTION(S)	AREA
5A	FMDP	DMMIS PROJECT OFFICE	5,000 SF
	bank		2,525 SF
	non DMIF	EM OFFICES	2,500 SF
5B	LITC	PHYSIOLOGICAL TRAINER RPR	14,000 SF
5C	LIWP	MAVERICK MISSILE	4,236 SF
	LAR	SHOP	17,619 SF
5D	LARP	APQ 120 REPAIR	1,525 SF
	LIW	MAVERICK MISSILE	20,330 SF
5E	LITB	ELECTRICAL/CABLE SHOP	21,855 SF
5F	TIWP	PARACHUTE TEXTILE TEAM	21,855 SF
	TIWR	RUBBER REPAIR TEAM	
5G	TIWM	HARDWARE TECHNICAL TEAM	21,855 SF
5M	LARP	F-4/F-16 RADOME RPR	21,855 SF
5N,P	LARP	AIS/FLIGHT ELECTRONICS	65,908 SF
		F-16 SRU/DIG	
		F-15/16 SRU-ANA, F-16 LRU	
5U non dmif		EM OFFICES	14,700 SF

41

10 ZONE

11	TIS	SOFTWARE SUPPORT FAC	15,507 SF

100 ZONE

BLDG	DIR	FUNCTION(S)	AREA
100A	LIPP	PHOTO/INTEL UNIT	18,010 SF
	LAR	F16 HUD	4,672 SF
100B	LARP	AIRCRAFT AVIONICS	12,555 SF
	TIWL	PMEL SUPPORT UNIT	10,127 SF
100C	TIWL	INSTRUMENT PHOTO AVIONICS	13,919 SF
	LARP	AIRCRAFT AVIONICS	8,763 SF
100D	TIEL	PHYSICAL SCIENCE LABORATORY	21,862 SF
100E	TIEL	PHYSICAL SCIENCE LABORATORY	21,862 SF
100F	LA	AIRCRAFT DIRECTORATE	24,777 SF
	LAM	PROGRAM MANAGEMENT DIVISION	
	LAS	MANAGEMENT SERVICES	

42

year

100G	TIS	SOFTWARE SUPPORT DIVISION	20,764 SF
	TISA	ATE SOFTWARE UNIT	
100H	TISM	MISSILE SYSTEM SOFTWARE UNIT	12,600 SF
100J	TIWL	TEST EQPT UNIT	33,320 SF
	LIT	NAVIGATIONAL AIDS	
	LM	MISSILE AVIONICS	
100K	LIPP	PHOTO/INTEL UNIT	19,731 SF
	TIW	TECHNICAL SUPPORT TEAM	2,131 SF
100L	LMSM	OPERATIONAL GROUND EQPT UNIT	21,862 SF
100M	LAR	SHOP	9,553 SF
	LMSM	NCU SHOP	11,659 SF
	TIW	TECHNICAL SUPPORT TEAM	650 SF
100N	TISA/M	SOFTWARE UNIT	21,004 SF
1000	TISA/M	SOFTWARE UNIT	21,004 SF
100P	TIST	SOFTWARE SUPPORT UNIT	21,004 SF
	SC	HOT SITE AREA	
101	TIW	HAZARDOUS MATERIAL STG	480 SF

83

200 LM

200 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
205	TIW	(INSTRUMENT PHOTO AVIONICS) (MCM WORKLOAD)	29,516 SF	42
214	TIW	TECHNICAL SUPPORT DIVISION	88,214 SF	42
	TIWL	PREC MEASUREMENT EQPT LAB		
	LAR	AVONICS	8,695 SF	68
	LIT	BEARING/INSTRUMENT		
216	TIWL	AIRCRAFT X-RAY	3,995 SF	87
217	LAOP	STORAGE	1,637 SF	57
220	LAOS	AIRCRAFT PREP & PAINT	97,099 SF	67
222	LAOT	AIRCRAFT ENGINE RUN-UP	10,249 SF	
5134	LAOT	AIRCRAFT ENGINE RUN-UP	20,382 SF	70
225	LAO	AIRCRAFT OPERATIONS	596,094 SF	42
	LAOA	F-16 PRODUCTION UNIT		
	LAOB	C-130 PRODUCTION UNIT		
	LAOC	F-4 PRODUCTION UNIT		
	LAOD	ADMINISTRATION UNIT		
	LAOP	AIRCRAFT SUPPORT UNIT		
	LAOS	SERVICES UNIT		
227	LAOT	AIRCRAFT FUEL SYSTEM TEST	4,178 SF	68
228	LAOT	AIRCRAFT FUEL SYSTEM TEST	4,178 SF	68
231	LAO	UTILITY VAULT FOR F16	480 SF	79
233	LAOT	FLIGHT TEST	107,700 SF	81
	LAOE	15 TEST SQUADRON		
236	LAOT	AIRCRAFT FUEL SYSTEM REPAIR	30,018 SF	92
237	LAB	649 COMBAT LOGISTICS SPT SQDN	32,000 SF	91
238	LAR	TECHNICAL REPAIR DIVISION	284,345 SF	
	LARS	STRUCTURAL RPR/PLASTICS/RADOME		
244	TIU	COLLEGE OF TECH & IND SKILLS	9,230 SF	43
	TIUA	SPEC TNG & ADMINISTRATION UNIT		
245	TIUB	TECHNICAL TRAINING UNIT	4,000 SF	86

246	Disp	FY92	RETICULATED FOAM STG (THOR)	3,480 SF	
247	TIPE		EQPT STG, AGE CONTRACTOR (THOR)	2,146 SF	73
248	TIPE		EQPT STG, AGE CONTRACTOR (THOR)	2,146 SF	73
250	TIU		TRAINING	8,613 SF	43
252	LAOS		TRANS UNIT/TIRE RECLAM	4,620 SF	89
256	TI		EM SHOP SPT (CHEMICALS) 14%	922 SF	42
257	LARS		PLASTIC/GLASS & HYDRO SHOP	16,825 SF	41
259	Disp	FY94	EQUIPMENT MAINT UNIT	2,360 SF	
261	Disp	FY92	CTR WING/TIRE RECLAMATION	19,200 SF	
265	TIP		PLANT MANAGEMENT SHOPS	115,820 SF	41
	LAO		MACHINE SHOP	11,000 SF	
	LIT		TANKS WORKLOAD		
266	Disp	FY94		15,221 SF	
267	LARE		SHEET METAL & LOG SUPPORT	15,104 SF	42
	LIL		CARBON BRAKES		
268	LARE		END TEST CELLS, TUBE SHOP	61,230 SF	42
	LIT		RAM AIR TURBO		
269	Disp	FY94		4,800 SF	
270	LAOS		C-130 PAINT BOOTH	61,569 SF	43
	LAOP		F-4 PRODUCTION UNIT		
271	LAOS		FUEL FOAM	7,800 SF	88
272	LARE		ENGINE SHOP	39,792 SF	43
274	TIPM		EQUIPMENT MAINTENANCE UNIT	35,636 SF	
275	Disp	FY94	WOODMILL STORAGE	2,180 SF	
276	TIWB		BATTERY SHOP TEAM	7,916 SF	44
279	TIPR		MATERIAL SUPPORT	14,410 SF	85
281	TI		HAZARDOUS STORAGE	1,500 SF	92
282	Disp	FY94	SHOP SUPPORT (THOR)	2,639 SF	
286	LAO		DEFUEL/PURGE	294 SF	70
287	LAOS		DEFUEL & PURGE	683 SF	60
10295	LM		HOIST FACILITY TEST EQPT	(1 EA)	
15090	LAOS		OUTSIDE WASHRACK & AC PURGE	60,075 SF	60

500 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
505	LILP	METAL PROCESS	90,827 SF	73
506	LIL	SHOP GENERAL PURPOSE	546 SF	89
507	LIL	LANDING GEAR DIVISION	286,182 SF	77
	LILP	PRODUCTION UNIT		
	LICT	ENGINEERING UNIT		
	LIMQ	QUALITY UNIT		
509	LITD	AIRCRAFT ARMAMENT REPAIR	59,853 SF	87
	LITD	LAUNCHERS		
510	LILP	MANUFACTURING UNIT	96,659 SF	56
511	LILP	INVESTMENT CASTING	19,699 SF	52
512	TIPM	CABLE TEST FACILITY	1,030 SF	64
514	EM	EM HAZARDOUS WASTE CONTROL 64%	3,000 SF	44
515	TIPE	AGE CONTRACTOR	18,755 SF	58
516	TIPE	MATERIAL PROCESS	920 SF	83
555	TIP	TO FILES OPERATIONS 45%	2,602 SF	69
535	TI	RAG RECYCLING	2,000 SF	95



700 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
745	LIT	TIPI SHELTERS	2,880 SF	72
747	LIT	EQPT SHELTER	80 SF	89
751	LIT	COMPASS REPAIR	5,500 SF	88
752	LITD	WEAPONS TEST	4,788 SF	78
787 non dmif 514th	PAD	ARM & DISARM	1,320 SF	
797	LIW	MISSILE IGLOO	1,804 SF	39

800 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
810A	TIP	STORAGE WOOD 5.9%	5,911 SF	43
843	LMSM	ADMIN	7,000 SF	86
847	LMSMT	GROUND MECHANICAL DIVISION	141,560 SF	75
	LMSMT	TRANSP/HANDL MECH UNIT		
849	TI	ADMINISTRATIVE 14%	69,062 SF	75
861	LMSMT	HAZARDOUS STORAGE	460 SF	41
862	LMSMT	EQUIPMENT SHELTER	1,140 SF	73
10848	LAR	RADOME TEST TOWER	156 SF	62

900 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
935 non dmif Det 1		MISSILE ASSEMBLY	6,997 SF	
936	LMSM	SHOP SUPPORT (THOR)	3,924 SF	76
940	LMSM	MISSILE ASSEMBLY	6,997 SF	63
945	LMSM	MISSILE ASSEMBLY	6,997 SF	63
950	LMSM	MISSILE ASSEMBLY	6,997 SF	64
965	LMSM	MISSILE ASSEMBLY	6,997 SF	62
970	LMSM	MISSILE ASSEMBLY	6,997 SF	62
975	LMSM	MISSILE ASSEMBLY	6,997 SF	62
980	LMSM	MISSILE ASSEMBLY	6,997 SF	62
981	LMSM	MISSILE ASSEMBLY	6,656 SF	75
982	LMSM	MISSILE ASSEMBLY	6,656 SF	75
983	LMSM	MISSILE ASSEMBLY	6,656 SF	75
985	TIL	RADIOGRAPHIC LAB	10,379 SF	63

1100 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
1102	FMP	BUSINESS OFFICE 85%	25,120 SF	42
1146	TISF	OPERATIONAL FLIGHT PROGRAM	4,324 SF	

1207	LM	admin	13,655	41
1254	LM	admin	6265	41

1200 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
1202	TIS	SOFTWARE 50%	6,327 SF	41
1203	LMSI	INTEGRATED SUPPORT 34%	4,779 SF	42
1204	LMSI	INTEGRATED SUPPORT 21%	2,686 SF	42
1208	LMSM	MISSILE CABLE ASSY	13,655 SF	41
1209	FM	FINANCIAL MANGT 31%	7,480 SF	42
1211	FMD	SYSTEMS/PROGRAMS 44%	6,656 SF	41
1228	LM	PROPULSION PMT 8%	1,092 SF	41
1248	LM	KIT BUILD UP, RIVET MILE SPT 14%	6,000 SF	44
1258	LMA	ADMINISTRATIVE 25%	13,735 SF	41
1265	LM	AVONICS SHOP 30%	3,798 SF	42
1289	PK	ADMINISTRATIVE .6%	606 SF	42

1328			11,300 SF	94
1331		stor igloo	2,109 SF	61

1300 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
1319	LMSM	PK STORAGE	900 SF	88
1320-21	LMSM	PK MSL STOR (2 EA [12,000 AF EA])	24,000 SF	92-92
1332-39	LMSM	MISSILE IGLOOS (9 EA [2,109 SF EA])	18,981 SF	61
1341-49	LMSM	MISSILE IGLOOS (9 EA [2,109 SF EA])	18,981 SF	61
1350-54	LMSM	MISSILE IGLOOS (5 EA [2,109 SF EA])	10,545 SF	61
1357-59	LMSM	MISSILE IGLOOS (3 EA [1,804 SF EA])	5,412 SF	39
1362-65	LMSM	MISSILE IGLOOS (5 EA [1,804 SF EA])	9,020 SF	39
1367	LMSM	MISSILE TRANSPORTATION FAC	2,286 SF	
1372-73	LMSM	MISSILE IGLOOS (2 EA [1,211 SF EA])	2,422 SF	
5038	LIW	PAD-ARM AND DISARM	36,000 SF	51
1403-		stor-chk assembly	12,600 SF	94
1402				
1403				

1400 ZONE

BLDG	DIR	FUNCTION(S)	AREA
1420	non DMIF	DET 1 PRODUCTION SUPPORT FAC	4,400 SF 38
1422	LIW	FUEL STG FACILITY	50 SF 84
1423	LIW	ALCM FACILITY	1,225 SF 84
1424	LIW	ALCM FACILITY	33,060 SF 38
1440-44	LMSM	MISSILE IGLOOS (5 EA [2,109 SF])	10,545 SF (4) 71 (1) 61
1446-49	LMSM	MISSILE IGLOOS (4 EA [2,109 SF])	8,436 SF (4) 71
1450-56	LMSM	MISSILE IGLOOS (7 EA [2,109 SF])	14,763 SF (2) 71 (5) 61
1458-63	LMSM	MISSILE IGLOOS (6 EA [1,804 SF])	10,824 SF 37
1459		Store 19100	1,804 SF

1500 ZONE

BLDG	DIR	FUNCTION(S)	AREA
1515	TIS	SOFTWARE SUPPORT FAC	145,000 SF 88
1530	LMSI	MSL/SPACE RESEARCH TEST 3.9%	783 SF 56
1540	LMSI	TEST INTEGRATION 8.2%	1,300 SF 66

1600 ZONE

BLDG	DIR	FUNCTION(S)	AREA
1600	LIWA	LAB MATERIEL TEST	2,827 SF 71
1621	LMSM	WORK CENTER MATERIEL SPT	11,272 SF 42
1622	LIWA	PHOTO/DATA WORK CENTER	4,820 SF 42
1623	LMSM	ADMINSTRATION & SUPPORT	2,310 SF 41
1631	LIW	ENVIRONMENTAL CONDITIONING	1,148 SF 41
1632	LIWA	TEST DATA FACILITY	1,148 SF 41
1633	LIW	MUNITIONS STORAGE	1,148 SF 41
1642	LIWA	MUNITIONS TEST	16,050 SF 41
1643	LIW	MATERIEL HOLDING AREA	127 SF 41
1646	LIW	TEST PAD	127 SF 41
1649	LIWA	MUNITIONS TEST	468 SF 58
1651	LIW	MUNITIONS STORAGE	1,148 SF 41
1652	LIWA	MUNITIONS STORAGE	2,785 SF 41
11647	LIW	ROCKET ENG TEST (TEST STAND)	81 SF 44

1800 ZONE

BLDG	DIR	FUNCTION(S)	AREA
1803	LMSM	STAGE IV STG, PEACEKEEPER	17,658 SF 86
1804	LMSM	REENTRY SYS STG, PEACEKEEPER	7,200 SF 77
1805	LI	ENVIRONMENTAL TEST	1,928 SF 41
1806	LI	ENVIRONMENTAL TEST	1,931 SF 41
1811	LMSM	SURVEILLANCE 1ST STAGE LGM-30	1,838 SF 41
1812	LMSM	SURVEILLANCE 1ST STAGE LGM-30	1,906 SF 41
1813	LMSM	SURVEILLANCE 1ST STAGE LGM-30	1,906 SF 41
1814	LMSM	SURVEILLANCE 1ST STAGE LGM-30	1,906 SF 41
1815	LMSM	SURVEILLANCE 1ST STAGE LGM-30	1,906 SF 41
1816	LIW	ENVIRONMENTAL TEST	2,247 SF 41
1822	LMSM	SURVEILLANCE 2ND STAGE LGM-30	1,906 SF 41
1823	LMSM	SURVEILLANCE 2ND STAGE LGM-30	1,906 SF 41
1824	LMSM	SURVEILLANCE 2ND STAGE LGM-30	1,804 SF 41
1825	LMSM	SURVEILLANCE 3RD STAGE LGM-30	1,804 SF 41
1826	LMSM	SURVEILLANCE 3RD STAGE LGM-30	1,804 SF 41
1832	LMSM	SURVEILLANCE 3RD STAGE LGM-30	1,804 SF 41
1833	LMSM	AGING & SURVEILLANCE LAB	3,064 SF 41
1834	LMSM	AGING & SURVEILLANCE LAB	1,804 SF 41
1835	LMSM	SURVEILLANCE 3RD STAGE LGM-30	1,804 SF 41
11802	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11803 bank	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11804 bank	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11825 bank	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11826 bank	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11827	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11828	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11829	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61
11830 bank	LM	VERTICAL SURVEILLANCE LGM-30	127 SF 61

1900 ZONE

BLDG	DIR	FUNCTION(S)	AREA
1901 non	DMIF	MUSEUM STORAGE	5,160 SF
1902 non	DMIF	MUSEUM STORAGE	8,906 SF
1911	LIT	HYDRAULIC OFFICES	2,880 SF 86
1913	LIT	HYDRAULIC REPAIR	13,424 SF 42
1914	LIT	HYDRAULIC SUPPORT	127 SF 42
1915	LIT	HYDRAULIC REPAIR	15,541 SF 42
1917	LIT	ACFT ACCESSORIES REPAIR	18,437 SF 42
1932	LMSI	PROPELLANT SUPPORT	657 SF 42
1940	LMSI	PROPELLANT IGLOO	378 SF 70
1941	LMSI	PROPELLANT QUALITY LAB	3,297 SF 42
1943	LMSI	PROPELLANT QUALITY LAB	3,297 SF 42
1944	LMSI	MACHINE SHOP SUPPORT	127 SF 42
1945	LMSI	SOLID PROPELLANT SUPPORT	127 SF 42
1946	LMSI	SOLID PROPELLANT PREP (CUTTING)	2,436 SF 42
1948	LMSI	QUALITY LAB SUPPORT	1,051 SF 42
1947		Prod Gm	240 88

1949	LMSI	MACHINE SHOP SUPPORT	127 SF	42
1950	LMSI	MACHINE SHOP SUPPORT	127 SF	42
1952	LMSI	QUALITY LAB SUPPORT	127 SF	42

2000 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
2002	LIT	HYDRAZINE STORAGE	334 SF	42
2003	LIT	HYDRAZINE STORAGE	68 SF	42
2005	LIT	HYDRAZINE BOTTLE FILL (F-16)	1,322 SF	42
2006	LIT	FUELING EQPT HOLDING	127 SF	42
2007	disposed FY92	EQPT STORAGE [LM]	(3,022 SF)	
2008	disposed FY92	EQPT STORAGE [LM]	(3,022 SF)	
2013	LIT	F-16 EPU FACILITY	13,614 SF	42
2014	LMSM	HAZARDOUS MSL COMPONENT RPR	9,171 SF	42
2015	bank LM	HAZARDOUS MSL COMPONENT RPR	657 SF	
2016	LMSM	REENTRY SYSTEMS REPAIR (PSRE)	5,208 SF	70
2017	LMSM	SEGREGATED MAGAZINE STORAGE	210 SF	70
2018	LMSM	PSRE IN CONTAINER (HOLDING)	1,245 SF	70
2019	LMSM	PSRE IN CONTAINER (HOLDING)	1,245 SF	70
2026	LIWP	MSL REPAIR & TEST FACILITY	22,750 SF	80

2100 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
2107	TIWNA	MISSILE INPROCESS MATL (INERT)	1,148 SF	41
2113	TIL	RADIOGRAPHIC LAB	18,437 SF	41
2114	LMSM	MINUTEMAN MOTOR REPAIR	14,077 SF	41
2115	LMSM	SHOP SUPPORT (THOR)	2,088 SF	74
2117	LMSM	MISSILE INPROCESS MATL (INERT)	280 SF	52
2123	TIW	MISSILE INPROCESS MATL (INERT)	127 SF	
2124	TIW	MISSILE INPROCESS MATL (INERT)	264 SF	
2125	LMSM	MISSILE INPROCESS MATL (INERT)	264 SF	42
2127	LMSM	MISSILE INPROCESS MATL (INERT)	127 SF	41
2138	LMSM	EXPLOSIVES	1,148 SF	41

2200 ZONE

BLDG	DIR	FUNCTION(S)	AREA	
2201	LMSM	MISSILE GROUND SUPPORT	2,514 SF	41
2202	LMSM	LGM-30 NOZZLE REPAIR	4,329 SF	41
2204	LMSM	MISSILE INPROCESS MATL (INERT)	2,400 SF	42
2211	LMSM	ROCKET MOTOR REPAIR	11,000 SF	41
2212	LMSM	ROCKET MOTOR REPAIR	11,000 SF	41
2213	LMSM	ROCKET MOTOR REPAIR	18,437 SF	41
2222	LMSM	PAINT & DOPE SUPPORT	127 SF	41
2223	LMSM	MISSILE INPROCESS MATL (INERT)	127 SF	41

2400 ZONE

BLDG	DIR	FUNCTION(S)	AREA
2401	LMSM	MSL MOTOR REPAIR	6,997 SF 61
2403	LMSM	MSL MOTOR REPAIR	6,997 SF 61
2404	LMSM	MISSILE SUPORT	11,058 SF 61
2405	LIW	FLIGHT TEST SUPPORT	6,997 SF 61
2406	LMSM	MISSILE SUPPORT	6,997 SF 61
2407	LMSM	MISSILE REPAIR	6,997 SF 62
2408	LMSM	MISSILE REPAIR	6,997 SF 62
2409	LMSM	MISSILE REPAIR	6,997 SF 62
2411	LMSM	MISSILE SUPPORT	8,128 SF 86

LITTLE MOUNTAIN

BLDG	DIR	FUNCTION(S)	AREA
503	LMSI	TEST CONTROL CENTER	553 SF 60
601	LMSI	ROCKET MOTOR DISSECTION (SPT)	961 SF 60
1200	LMSI	ANALYTICAL EXPLOSIVE FACILITY	127 SF 75
1204	LMSI	ROCKET MOTOR DISSECTION	815 SF 75
4301	LMSM (5%)	ADMINISTRATIVE	490 SF 60

UTAH TEST & TRAINING RANGE

BLDG	DIR	FUNCTION(S)	AREA
10001-03	LMSM	BUNKER 60 SF ea	180 SF
10004	LMSM	METAL BLDG	400 SF
10007	LMSM	METAL BLDG	720 SF
30023	LMSM	MISSILE STORAGE	6,006 SF 77
30024	LMSM	MISSILE R/T STORAGE	3,668 SF 70
30025	LMSM	MISSILE R/T SUPPORT	1,616 SF 64
30200	LMSM	MISSILE R/T SUPPORT	4.320 SF 64
30201	LMSM	MISSILE STORAGE	6,560 SF 67
30202	LMSM	MISSILE STORAGE	6,560 SF 67
30203	LMSM	MISSILE STORAGE	6,560 SF 67
30204	LMSM	MISSILE STORAGE	6,560 SF 67
30205	LMSM	MISSILE STORAGE	6.560 SF 67
30206	LMSM	MISSILE STORAGE	6,560 SF 67
30207	LMSM	MISSILE STORAGE	6,560 SF 67
30208	LMSM	MISSILE R/T SUPPORT	6,560 SF 67
30210	LMSM	MISSILE STORAGE	7,636 SF 64
30211	LMSM	MISSILE STORAGE	6,700 SF 76
30212	LMSM	MISSILE STORAGE	6,700 SF 76
30213	LMSM	MISSILE STORAGE	6,700 SF 76

Document Separator

Commandeas Facility Assessment

CFA

CFA COST BY ORGANIZATION				
ORG	FACILITY	RATING	DEFLINE 1	COST
			3568 USAF RES	
221	1532	U	TO BE DEMOLISHED	10.0
Total				10.0
			DLA	
222	800	D	ROOF LEAKS	1142.6
222	800	D	ROOF LEAKS	1142.6
222	810	D	ROOF LEAKS, TRUSS AND COLUMN FAILURE	12.3
222	810	D	ROOF LEAKS, TRUSS AND COLUMN FAILURE	21.0
222	810	D	ROOF LEAKS, TRUSS AND COLUMN FAILURES	500.7
222	810	D	ROOF LEAKS, TRUSS AND COLUMN FAILURES	21.0
222	840	D	ROOF LEAKS	600.0
222	840	D	ROOF LEAKS	600.0
222	840	D	ROOF LEAKS	600.0
222	849	D	ROOF LEAKS	25.0
222	850	D	LIGHT AND ELEC PROBLEMS	680.4
222	850	D	LIGHT AND ELEC PROBLEMS	119.3
Total				5464.9
			299 RANGE CONTROL	
231	1276	U	ROOF LEAKS	140.0
Total				140.0
			LM	
335	830	D	ASSETS INSECURE	13.1
335	843	D	HVAC INADEQUATE	55.4
335	847	D	ROOF IN DISREPAIR	400.0
335	847	D	ROOF IN DISREPAIR	7.5
335	847	D	ROOF IN DISREPAIR	35.0
335	847	D	ROOF IN DISREPAIR	10.0
335	940	D	FLOORS CRACKED, REPLACE HVAC, REPLACE DOORS, REPLACE	3.8
335	940	D	FLOORS CRACKED, REPLACE HVAC, REPLACE DOORS, REPLACE	4.8
335	940	D	FLOORS CRACKED, REPLACE HVAC, REPLACE DOORS, REPLACE	4.4
335	940	D	FLOORS CRACKED, REPLACE HVAC, REPLACE DOORS, REPLACE	31.3
335	940	D	FLOORS CRACKED, REPLACE HVAC, REPLACE DOORS, REPLACE	1.9
335	940	D	FLOORS CRACKED, REPLACE HVAC, REPLACE DOORS, REPLACE	14.4
335	945	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	3.8
335	945	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.8
335	945	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.4
335	945	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	31.3
335	945	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	1.9
335	945	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	14.4
335	950	D	HVAC, CONCRETE FLOORS, ENTRANCE DOORS, CEILING LIGHTS,	3.8
335	950	D	HVAC, CONCRETE FLOORS, ENTRANCE DOORS, CEILING LIGHTS,	4.8
335	950	D	HVAC, CONCRETE FLOORS, ENTRANCE DOORS, CEILING LIGHTS,	4.4
335	950	D	HVAC, CONCRETE FLOORS, ENTRANCE DOORS, CEILING LIGHTS,	31.3
335	950	D	HVAC, CONCRETE FLOORS, ENTRANCE DOORS, CEILING LIGHTS,	1.9
335	950	D	HVAC, CONCRETE FLOORS, ENTRANCE DOORS, CEILING LIGHTS,	14.4
335	965	D	HVAC, CONCRETE FLOORS, DRINKING WATER, LIGHTING, DOORS	3.8
335	965	D	HVAC, CONCRETE FLOORS, DRINKING WATER, LIGHTING, DOORS	4.8
35	965	D	HVAC, CONCRETE FLOORS, DRINKING WATER, LIGHTING, DOORS	4.4

Yellow - Degraded or unsatisfactory
 all others - Satisfactory

CFA

335	965	D	HVAC, CONCRETE FLOORS, DRINKING WATER, LIGHTING, DOORS	31.3
335	965	D	HVAC, CONCRETE FLOORS, DRINKING WATER, LIGHTING, DOORS	1.9
335	965	D	HVAC, CONCRETE FLOORS, DRINKING WATER, LIGHTING, DOORS	14.4
335	970	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOOR, LIGHTS	11.5
335	970	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOOR, LIGHTS	10.0
335	970	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOOR, LIGHTS	25.0
335	970	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOOR, LIGHTS	2.0
335	975	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOORS, LIGHTS AR	3.8
335	975	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOORS, LIGHTS AR	4.8
335	975	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOORS, LIGHTS AR	4.4
335	975	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOORS, LIGHTS AR	31.3
335	975	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOORS, LIGHTS AR	1.9
335	975	D	HVAC, CONCRETE FLOORS, DRINKING WATER, DOORS, LIGHTS AR	14.4
335	980	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	3.8
335	980	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.8
335	980	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.4
335	980	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	31.3
335	980	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	1.9
335	980	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	14.4
335	983	D	DESIGN AND INSTALL MM RAILS INSIDE PK RAILS	30.0
335	1203	D	INADEQUATE HVAC SYS	15.5
335	1203	D	INADEQUATE HVAC SYS	10.0
335	1203	D	INADEQUATE HVAC SYS	25.0
335	1204	A	PIPES LEAKING	35.5
335	1204	A	PIPES LEAKING	12.5
335	1204	D	PIPES LEAKING	36.5
335	1204	D	PIPES LEAKING	12.5
335	1208	D	ROOF LEAKS, FIRE PROTECTION SYSTEM REQUIRES MODIFICATIO	85.0
335	1208	D	ROOF LEAKS, FIRE PROTECTION SYSTEM REQUIRES MODIFICATIO	52.5
335	1218	D	ASBESTOS ON PIPES	75.0
335	1227	U	ROOF LEAKS	85.0
335	1227	U	ROOF LEAKS	262.0
335	1228	U	ROOF LEAKS	85.0
335	1228	U	ROOF LEAKS	262.0
335	1229	D	HVAC MALFUNCTION	35.0
335	1255	D	ASBESTOS COATED PIPES	25.0
335	1256	D	PARTITIONS REQUIRE REPAIR	236.0
335	1256	D	PARTITIONS REQUIRE REPAIR	25.5
335	1258	D	HALON FIRE PROTECTION SYS	68.7
335	1258	D	HALON FIRE PROTECTION SYS	25.0
335	1258	D	HALON FIRE PROTECTION SYS	10.5
335	1265	D	ASBESTOS ON PIPES	270.0
335	1265	D	ASBESTOS ON PIPES	22.0
335	1265	D	ASBESTOS ON PIPES	7.5
335	1265	D	ASBESTOS ON PIPES	15.0
335	1266	D	MODIFY TO ACCEPT NCU WORKLOAD	280.0
335	1320	D	HVAC INADEQUATE	3.7
335	1332	D	MULTIPLE MAINT PROBLEMS	6.9
335	1332	D	MULTIPLE MAINT PROBLEMS	28.7
335	1332	D	MULTIPLE MAINT PROBLEMS	6.2
35	1332	D	MULTIPLE MAINT PROBLEMS	9.4

335	1333	D	MULTIPLE MAINTENANCE PROBLEMS	6.9
335	1333	D	MULTIPLE MAINTENANCE PROBLEMS	28.7
335	1333	D	MULTIPLE MAINTENANCE PROBLEMS	6.2
335	1333	D	MULTIPLE MAINTENANCE PROBLEMS	9.4
335	1334	D	MULTIPLE MAINT PROBLEMS	6.9
335	1334	D	MULTIPLE MAINT PROBLEMS	28.7
335	1334	D	MULTIPLE MAINT PROBLEMS	6.2
335	1334	D	MULTIPLE MAINT PROBLEMS	9.4
335	1335	D	MULTIPLE MAINT PROBLEMS	6.9
335	1335	D	MULTIPLE MAINT PROBLEMS	28.7
335	1335	D	MULTIPLE MAINT PROBLEMS	9.4
335	1336	D	MULTIPLE MAINT PROBLEMS	6.9
335	1336	D	MULTIPLE MAINT PROBLEMS	28.7
335	1336	D	MULTIPLE MAINT PROBLEMS	6.2
335	1336	D	MULTIPLE MAINT PROBLEMS	9.4
335	1337	D	MULTIPLE MAINT PROBLEMS	6.9
335	1337	D	MULTIPLE MAINT PROBLEMS	28.7
335	1337	D	MULTIPLE MAINT PROBLEMS	6.2
335	1337	D	MULTIPLE MAINT PROBLEMS	9.4
335	1338	D	MULTIPLE MAINT PROBLEMS	6.9
335	1338	D	MULTIPLE MAINT PROBLEMS	28.7
335	1338	D	MULTIPLE MAINT PROBLEMS	6.2
335	1338	D	MULTIPLE MAINT PROBLEMS	9.4
335	1339	D	MULTIPLE MAINT PROBLEMS	6.9
335	1339	D	MULTIPLE MAINT PROBLEMS	28.7
335	1339	D	MULTIPLE MAINT PROBLEMS	6.2
335	1339	D	MULTIPLE MAINT PROBLEMS	9.4
335	1341	D	MULTIPLE MAINT PROBLEMS	6.9
335	1341	D	MULTIPLE MAINT PROBLEMS	28.7
335	1341	D	MULTIPLE MAINT PROBLEMS	6.2
335	1341	D	MULTIPLE MAINT PROBLEMS	9.4
335	1342	D	MULTIPLE MAINT PROBLEMS	7.0
335	1342	D	MULTIPLE MAINT PROBLEMS	37.5
335	1342	D	MULTIPLE MAINT PROBLEMS	6.1
335	1343	D	MULTIPLE MAINT PROBLEMS	6.9
335	1343	D	MULTIPLE MAINT PROBLEMS	28.7
335	1343	D	MULTIPLE MAINT PROBLEMS	9.4
335	1344	D	MULTIPLE MAINT PROBLEMS	28.7
335	1344	D	MULTIPLE MAINT PROBLEMS	9.4
335	1345	D	MULTIPLE MAINT PROBLEMS	6.9
335	1345	D	MULTIPLE MAINT PROBLEMS	28.7
335	1345	D	MULTIPLE MAINT PROBLEMS	9.4
335	1346	D	MULTIPLE MAINT PROBLEMS	6.9
335	1346	D	MULTIPLE MAINT PROBLEMS	28.7
335	1346	D	MULTIPLE MAINT PROBLEMS	6.2
335	1346	D	MULTIPLE MAINT PROBLEMS	9.4
335	1347	D	MULTIPLE MAINT PROBLEMS	6.9
335	1347	D	MULTIPLE MAINT PROBLEMS	28.7
335	1347	D	MULTIPLE MAINT PROBLEMS	6.2
335	1347	D	MULTIPLE MAINT PROBLEMS	9.4
35	1348	D	MULTIPLE MAINT PROBLEMS	6.9

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335	1348	D	MULTIPLE MAINT PROBLEMS	28.7
335	1348	D	MULTIPLE MAINT PROBLEMS	6.2
335	1348	D	MULTIPLE MAINT PROBLEMS	9.4
335	1349	D	MULTIPLE MAINT PROBLEMS	6.9
335	1349	D	MULTIPLE MAINT PROBLEMS	28.7
335	1349	D	MULTIPLE MAINT PROBLEMS	6.2
335	1349	D	MULTIPLE MAINT PROBLEMS	9.4
335	1350	D	MULTIPLE MAINT PROBLEMS	6.9
335	1350	D	MULTIPLE MAINT PROBLEMS	28.7
335	1350	D	MULTIPLE MAINT PROBLEMS	9.4
335	1351	D	MULTIPLE MAINT PROBLEMS	6.9
335	1351	D	MULTIPLE MAINT PROBLEMS	28.7
335	1351	D	MULTIPLE MAINT PROBLEMS	9.4
335	1352	D	MULTIPLE MAINT PROBLEMS	6.9
335	1352	D	MULTIPLE MAINT PROBLEMS	28.7
335	1352	D	MULTIPLE MAINT PROBLEMS	9.4
335	1353	D	MULTIPLE MAINT PROBLEMS	6.9
335	1353	D	MULTIPLE MAINT PROBLEMS	28.7
335	1353	D	MULTIPLE MAINT PROBLEMS	9.4
335	1354	D	MULTIPLE MAINT PROBLEMS	6.9
335	1354	D	MULTIPLE MAINT PROBLEMS	28.7
335	1354	D	MULTIPLE MAINT PROBLEMS	9.4
335	1357	D	MULTIPLE MAINT PROBLEMS	6.9
335	1357	D	MULTIPLE MAINT PROBLEMS	28.7
335	1357	D	MULTIPLE MAINT PROBLEMS	9.4
335	1358	D	MULTIPLE MAINT PROBLEMS	6.9
335	1358	D	MULTIPLE MAINT PROBLEMS	28.7
335	1358	D	MULTIPLE MAINT PROBLEMS	6.2
335	1358	D	MULTIPLE MAINT PROBLEMS	9.4
335	1359	D	MULTIPLE MAINT PROBLEMS	6.9
335	1359	D	MULTIPLE MAINT PROBLEMS	28.7
335	1359	D	MULTIPLE MAINT PROBLEMS	6.2
335	1359	D	MULTIPLE MAINT PROBLEMS	9.4
335	1362	D	MULTIPLE MAINT PROBLEMS	6.9
335	1362	D	MULTIPLE MAINT PROBLEMS	28.7
335	1362	D	MULTIPLE MAINT PROBLEMS	9.4
335	1363	D	MULTIPLE MAINT PROBLEMS	6.9
335	1363	D	MULTIPLE MAINT PROBLEMS	28.7
335	1363	D	MULTIPLE MAINT PROBLEMS	9.4
335	1364	D	MULTIPLE MAINT PROBLEMS	6.9
335	1364	D	MULTIPLE MAINT PROBLEMS	28.7
335	1364	D	MULTIPLE MAINT PROBLEMS	9.4
335	1365	D	MULTIPLE MAINT PROBLEMS	6.9
335	1365	D	MULTIPLE MAINT PROBLEMS	28.7
335	1365	D	MULTIPLE MAINT PROBLEMS	9.4
335	1403	D	PROBLEM WITH TEMP CONTROLS	17.5
335	1440	D	HVAC SYS INADEQUATE, MULTIPLE MAINT PROBLEMS,	10.0
335	1440	D	HVAC SYS INADEQUATE, MULTIPLE MAINT PROBLEMS,	30.0
335	1440	D	HVAC SYS INADEQUATE, MULTIPLE MAINT PROBLEMS,	10.0
335	1440	D	HVAC SYS INADEQUATE, MULTIPLE MAINT PROBLEMS,	5.0
35	1441	D	MULTIPLE MAINT PROBLEMS, HVAC INADEQUATE	10.0

335	1441	D	MULTIPLE MAINT PROBLEMS, HVAC INADEQUATE	30.0
335	1441	D	MULTIPLE MAINT PROBLEMS, HVAC INADEQUATE	10.0
335	1441	D	MULTIPLE MAINT PROBLEMS, HVAC INADEQUATE	5.0
335	1442	D	MULTIPLE MAINT PROBLEMS	10.0
335	1442	D	MULTIPLE MAINT PROBLEMS	30.0
335	1442	D	MULTIPLE MAINT PROBLEMS	10.0
335	1442	D	MULTIPLE MAINT PROBLEMS	5.0
335	1443	D	MULTIPLE MAINT PROBLEMS	10.0
335	1443	D	MULTIPLE MAINT PROBLEMS	30.0
335	1443	D	MULTIPLE MAINT PROBLEMS	10.0
335	1443	D	MULTIPLE MAINT PROBLEMS	5.0
335	1444	D	MULTIPLE MAINT PROBLEMS	10.0
335	1444	D	MULTIPLE MAINT PROBLEMS	30.0
335	1444	D	MULTIPLE MAINT PROBLEMS	5.0
335	1446	D	MULTIPLE MAINT PROBLEMS	10.0
335	1446	D	MULTIPLE MAINT PROBLEMS	30.0
335	1446	D	MULTIPLE MAINT PROBLEMS	10.0
335	1446	D	MULTIPLE MAINT PROBLEMS	5.0
335	1447	D	MULTIPLE MAINTENANCE PROBLEMS	30.0
335	1447	D	MULTIPLE MAINTENANCE PROBLEMS	10.0
335	1447	D	MULTIPLE MAINTENANCE PROBLEMS	5.0
335	1448	D	MULTIPLE MAINT PROBLEMS	6.9
335	1448	D	MULTIPLE MAINT PROBLEMS	28.7
335	1448	D	MULTIPLE MAINT PROBLEMS	6.2
335	1448	D	MULTIPLE MAINT PROBLEMS	9.4
335	1449	D	MULTIPLE MAINT PROBLEMS	6.9
335	1449	D	MULTIPLE MAINT PROBLEMS	28.7
335	1449	D	MULTIPLE MAINT PROBLEMS	6.2
335	1449	D	MULTIPLE MAINT PROBLEMS	9.4
335	1450	D	MULTIPLE MAINT PROBLEMS	6.9
335	1450	D	MULTIPLE MAINT PROBLEMS	28.7
335	1450	D	MULTIPLE MAINT PROBLEMS	6.2
335	1450	D	MULTIPLE MAINT PROBLEMS	9.4
335	1451	D	MULTIPLE MAINT PROBLEMS	6.9
335	1451	D	MULTIPLE MAINT PROBLEMS	6.9
335	1451	D	MULTIPLE MAINT PROBLEMS	28.7
335	1451	D	MULTIPLE MAINT PROBLEMS	6.2
335	1451	D	MULTIPLE MAINT PROBLEMS	9.4
335	1452	D	MULTIPLE MAINT PROBLEMS	6.9
335	1452	D	MULTIPLE MAINT PROBLEMS	6.9
335	1452	D	MULTIPLE MAINT PROBLEMS	9.4
335	1453	D	MULTIPLE MAINT PROBLEMS	6.9
335	1453	D	MULTIPLE MAINT PROBLEMS	28.7
335	1453	D	MULTIPLE MAINT PROBLEMS	9.4
335	1454	D	MULTIPLE MAINT PROBLEMS	6.9
335	1454	D	MULTIPLE MAINT PROBLEMS	28.7
335	1454	D	MULTIPLE MAINT PROBLEMS	9.4
335	1455	D	MULTIPLE MAINT PROBLEMS	6.9
335	1455	D	MULTIPLE MAINT PROBLEMS	28.7
335	1455	D	MULTIPLE MAINT PROBLEMS	9.4
35	1459	D	MULTIPLE MAINT PROBLEMS	28.7

335	1459	D	MULTIPLE MAINT PROBLEMS	6.2
335	1459	D	MULTIPLE MAINT PROBLEMS	9.4
335	1460	D	MULTIPLE MAINT PROBLEMS	28.7
335	1460	D	MULTIPLE MAINT PROBLEMS	6.2
335	1460	D	MULTIPLE MAINT PROBLEMS	9.4
335	1461	D	MULTIPLE MAINT PROBLEMS	28.7
335	1461	D	MULTIPLE MAINT PROBLEMS	6.2
335	1461	D	MULTIPLE MAINT PROBLEMS	9.4
335	1462	D	MULTIPLE MAINT PROBLEMS	10.0
335	1462	D	MULTIPLE MAINT PROBLEMS	30.0
335	1462	D	MULTIPLE MAINT PROBLEMS	10.0
335	1462	D	MULTIPLE MAINT PROBLEMS	5.0
335	1463	D	HVAC INADEQUATE	29.5
335	1623	D	DEFECTIVE COOLER	15.0
335	1623	D	DEFECTIVE COOLER	5.0
335	1804	D	INADEQUATE HVAC	30.0
335	1932	D	PROPELLANT CABINETS NEED TO BE INSTALLED IN B 1932	9.5
335	1932	D	PROPELLANT CABINETS NEED TO BE INSTALLED IN B 1932	7.5
335	1941	D	RESTROOMS ARE INADEQUATE	25.0
335	1941	D	RESTROOMS ARE INADEQUATE	3.0
335	1941	D	RESTROOMS ARE INADEQUATE	10.0
335	1943	D	RESTROOMS INADEQUATE	25.0
335	1943	D	RESTROOMS INADEQUATE	25.0
335	1943	D	RESTROOMS INADEQUATE	3.0
335	1943	D	RESTROOMS INADEQUATE	3.0
335	1944	D	OFFICE AREA INADEQUATE	200.0
335	1946	D	HAZARDOUS WASTE CONTAINERS ARE DETERIORATING	10.0
335	2016	D	POOR WORKING CONDITIONS	75.0
335	2016	D	POOR WORKING CONDITIONS	25.0
335	2016	D	POOR WORKING CONDITIONS	15.0
335	2016	D	POOR WORKING CONDITIONS	30.0
335	2115	D	EQUIPMENT SHELTER DETERIORATING	112.5
335	2204	D	NEEDS AWNING OVER DOOR	3.8
335	2204	D	NEEDS AWNING OVER DOOR	0.8
335	2211	D	ASPHALT DETERIORATED	12.0
335	2212	D	ASPHALT SURFACES DETERIORATED	12.0
335	2401	D	NEED BLDG ADDITION FOR SPACE	225.0
335	2407	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	3.8
335	2407	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.8
335	2407	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.4
335	2407	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	31.3
335	2407	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	1.9
335	2407	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	14.4
335	2408	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	3.8
335	2408	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.8
335	2408	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.4
335	2408	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	31.3
335	2408	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	1.9
335	2408	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	14.4
335	2409	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	3.8
35	2409	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.8

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335	2409	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	4.4
335	2409	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	31.3
335	2409	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	1.9
335	2409	D	HVAC, FLOORS, DRINKING WATER, DOORS, LIGHTS INADEQUATE	14.4
335	4301	56 D	WATER DAMAGE, RUPS/UPS SUS INTERCONNECT HAS NOT BEEN MA	9.5
335	4301	D	WATER DAMAGE, RUPS/UPS SUS INTERCONNECT HAS NOT BEEN MA	15.0
335	4301	D	WATER DAMAGE, RUPS/UPS SUS INTERCONNECT HAS NOT BEEN MA	75.0
335	4301	D	WATER DAMAGE, RUPS/UPS SUS INTERCONNECT HAS NOT BEEN MA	12.0
335	30024	D	ROOF CORRODED	31.0
335	30024	D	ROOF CORRODED	7.8
335	30025	D	SUBSTANDARD STRUCTURE, FIRE ALARM NOT RELIABLE	38.0
335	30025	D	SUBSTANDARD STRUCTURE, FIRE ALARM NOT RELIABLE	9.5
335	30025	D	SUBSTANDARD STRUCTURE, FIRE ALARM NOT RELIABLE	8.5
335	30025	D	SUBSTANDARD STRUCTURE, FIRE ALARM NOT RELIABLE	7.5
335	30200	D	DOORS CORRODED	15.6
335	30210	D	DOORS CORRODED	15.6
335	30211	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30212	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30213	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30214	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30215	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30216	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30217	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30218	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30219	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30221	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30222	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30223	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30224	D	FIRE ALARM SYS NOT RELIABLE	24.5
335	30230	D	DOORS CORRODED	15.6
335	30240	D	CORRODED DOORS	15.6
335	30250	D	DOORS CORRODED, INSULATION DETERIORATED	15.6
335	30270	D	DOORS CORRODED	15.6
335	30280	D	DOORS CORRODED	15.6
335	40080	D	RESTROOM NEEDS REPAIR	37.5
335	60000	D	DATA LINES ARE OUT, LIGHTING LUMEN POWER TOO LOW	15.0
335	60000	D	DATA LINES ARE OUT, LIGHTING LUMEN POWER TOO LOW	38.0
Total				7197.2
			FM	
348	1209	26 D	HVAC AND LIGHTING INADEQUATE	4.0
348	1209	D	HVAC AND LIGHTING INADEQUATE	263.0
348	1231	D	ROOF LEAKS, PARKING LOT INADEQUATE	24.0
348	1231	D	ROOF LEAKS, PARKING LOT INADEQUATE	18.0
348	1239	D	SYS FURNITURE NEEDS REWIRING TO HANDLE COMPUTERS	15.0
348	1295	D	HVAC AND LIGHTING INADEQUATE, FRONT ENTRANCE NEEDS REPR	5.0
348	1295	D	HVAC AND LIGHTING INADEQUATE, FRONT ENTRANCE NEEDS REPR	5.0
348	1295	D	HVAC AND LIGHTING INADEQUATE, FRONT ENTRANCE NEEDS REPR	5.0
348	1295	D	HVAC AND LIGHTING INADEQUATE, FRONT ENTRANCE NEEDS REPR	50.0
Total				389.0
			LA	
55	1	U	HVAC BELOW STANDARD, FIRE PROTECTION INADEQUATE	20.0

355	1	U	HVAC BELOW STANDARD, FIRE PROTECTION INADEQUATE	150.0
355	1	U	HVAC BELOW STANDARD, FIRE PROTECTION INADEQUATE	140.0
355	1	U	HVAC BELOW STANDARD, FIRE PROTECTION INADEQUATE	3.0
355	1	U	HVAC BELOW STANDARD, FIRE PROTECTION INADEQUATE	30.0
355	5	D	OVERHEAD LIGHTING INOPERABLE	30.0
355	100	D	HVAC SYS INADEQUATE, SECURITY UPGRADES REQUIRED	8.0
355	100	D	HVAC SYS INADEQUATE, SECURITY UPGRADES REQUIRED	280.0
355	220	U	HVAC INADEQUATE, FIRE PROTECTION BELOW STANDARD	20.0
355	220	U	HVAC INADEQUATE, FIRE PROTECTION BELOW STANDARD	275.0
355	220	U	HVAC INADEQUATE, FIRE PROTECTION BELOW STANDARD	100.0
355	220	U	HVAC INADEQUATE, FIRE PROTECTION BELOW STANDARD	260.0
355	222	D	FIRE ALARM SYS NEEDS UPGRADING, LIGHTING IN DISREPAIR,	12.5
355	222	D	FIRE ALARM SYS NEEDS UPGRADING, LIGHTING IN DISREPAIR,	10.5
355	222	D	FIRE ALARM SYS NEEDS UPGRADING, LIGHTING IN DISREPAIR,	12.0
355	222	D	FIRE ALARM SYS NEEDS UPGRADING, LIGHTING IN DISREPAIR,	30.0
355	225	U	BROKEN SKYLIGHTS, HVAC IN DISREPAIR, SPRINKLER SYS TOO	499.5
355	225	U	BROKEN SKYLIGHTS, HVAC IN DISREPAIR, SPRINKLER SYS TOO	325.0
355	225	U	BROKEN SKYLIGHTS, HVAC IN DISREPAIR, SPRINKLER SYS TOO	10.0
355	233	D	HVAC NEEDS REPAIR, WALL OF BLDG NEEDS REPAIR, LIGHTS AR	25.0
355	233	D	HVAC NEEDS REPAIR, WALL OF BLDG NEEDS REPAIR, LIGHTS AR	8.5
355	233	D	HVAC NEEDS REPAIR, WALL OF BLDG NEEDS REPAIR, LIGHTS AR	22.0
355	236	D	HANGAR DOORS NEED REPAIR, HVAC SYS BELOW STANDARD	20.0
355	236	D	HANGAR DOORS NEED REPAIR, HVAC SYS BELOW STANDARD	60.0
355	237	D	ROOF LEAKS, POWER INADEQUATE, URINAL BACKUPS	10.0
355	237	D	ROOF LEAKS, POWER INADEQUATE, URINAL BACKUPS	8.0
355	237	D	ROOF LEAKS, POWER INADEQUATE, URINAL BACKUPS	3.0
355	237	D	ROOF LEAKS, POWER INADEQUATE, URINAL BACKUPS	2.0
355	270	D	FIRE PROT, HVAC, LIGHTING, INT ELECT BELOW STANDARD	75.0
355	270	D	FIRE PROT, HVAC, LIGHTING, INT ELECT BELOW STANDARD	75.0
355	270	D	FIRE PROT, HVAC, LIGHTING, INT ELECT BELOW STANDARD	672.8
355	270	D	FIRE PROT, HVAC, LIGHTING, INT ELECT BELOW STANDARD	25.0
355	1147	D	FAN MOTOR OUT, PARKING LOT NEEDS REPAIR	20.0
355	1147	D	FAN MOTOR OUT, PARKING LOT NEEDS REPAIR	6.0
355	1201	D	HVAC IS INADEQUATE, CONFERENCE ROOM TOO SMALL	426.0
355	1201	D	HVAC IS INADEQUATE, CONFERENCE ROOM TOO SMALL	100.0
355	1212	D	ROOF LEAKS, UPGRADE FIRE PROT	60.0
355	1212	D	ROOF LEAKS, UPGRADE FIRE PROT	54.0
355	1213	D	ROOF LEAKS, FIRE PROT NEEDS TO BE UPDATED	60.0
355	1213	D	ROOF LEAKS, FIRE PROT NEEDS TO BE UPDATED	54.0
355	1222	D	POOR LIGHTING, WATER TASTES BAD, SEWAGE BACKUP, HVAC	0.5
355	1222	D	POOR LIGHTING, WATER TASTES BAD, SEWAGE BACKUP, HVAC	30.0
355	1222	D	POOR LIGHTING, WATER TASTES BAD, SEWAGE BACKUP, HVAC	0.5
355	1222	D	POOR LIGHTING, WATER TASTES BAD, SEWAGE BACKUP, HVAC	0.5
355	1223	D	ROOF LEAKS, FIRE PROT UPGRADED	65.0
355	1223	D	ROOF LEAKS, FIRE PROT UPGRADED	54.0
355	1223	D	ROOF LEAKS, FIRE PROT UPGRADED	7.5
355	1224	D	ROOF LEAKS, STAIRS NEED CEMENT WORK	35.0
355	1224	D	ROOF LEAKS, STAIRS NEED CEMENT WORK	12.0
Total				4206.8
			<i>LJ</i>	
60	5	D	HVAC SYS INADEQUATE	10.0

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360	5	D	ROOF LEAKS, RAMP NEEDS REPAIR	80.0
360	5	D	ROOF LEAKS, RAMP NEEDS REPAIR	8.0
360	100	D	EMER LIGHTS DO NOT WORK	5.0
360	100	D	ROOF LEAKS	30.0
360	100	D	LIGHTING INADEQUATE, BAY NOT SECURE	200.0
360	100	D	LIGHTING INADEQUATE, BAY NOT SECURE	20.0
360	267	D	HVAC INADEQUATE	50.0
360	505	D	LIGHTING INADEQUATE, ROOF LEAKS	250.0
360	505	D	LIGHTING INADEQUATE, ROOF LEAKS	45.0
360	507	D	HVAC INADEQUATE, ROOF LEAKS, POWER BREAKER NOT CORRECT	99.5
360	507	D	HVAC INADEQUATE, ROOF LEAKS, POWER BREAKER NOT CORRECT	50.0
360	507	D	HVAC INADEQUATE, ROOF LEAKS, POWER BREAKER NOT CORRECT	150.0
360	507	D	HVAC INADEQUATE, ROOF LEAKS, POWER BREAKER NOT CORRECT	30.0
360	507	D	HVAC INADEQUATE	300.0
360	510	D	ROOF LEAKS, NO SAFETY LIGHTING	200.0
360	510	D	ROOF LEAKS, NO SAFETY LIGHTING	15.0
360	511	D	POOR HEAT CONTROL	20.0
360	1225	D	ROOF LEAKS, LIGHTS INADEQUATE, HVAC SYS INADEQUATE	140.0
360	1225	D	ROOF LEAKS, LIGHTS INADEQUATE, HVAC SYS INADEQUATE	0.5
360	1225	D	ROOF LEAKS, LIGHTS INADEQUATE, HVAC SYS INADEQUATE	0.8
360	1225	D	ROOF LEAKS, LIGHTS INADEQUATE, HVAC SYS INADEQUATE	1.5
360	1225	D	ROOF LEAKS, LIGHTS INADEQUATE, HVAC SYS INADEQUATE	0.5
360	1234	D	ROOF LEAKS, HVAC SYS INADEQUATE	135.0
360	1234	D	ROOF LEAKS, HVAC SYS INADEQUATE	5.0
360	1234	D	ROOF LEAKS, HVAC SYS INADEQUATE	0.5
360	1246	D	ROOF LEAKS, HVAC POOR	150.0
360	1246	D	ROOF LEAKS, HVAC POOR	0.5
360	1246	D	ROOF LEAKS, HVAC POOR	5.0
360	1247	D	ROOF LEAKS, HVAC SYS POOR	200.0
360	1247	D	ROOF LEAKS, HVAC SYS POOR	0.5
360	1247	D	ROOF LEAKS, HVAC SYS POOR	2.5
360	1247	D	ROOF LEAKS, HVAC SYS POOR	1.5
360	1257	D	ROOF LEAKS, HVAC SYS INADEQUATE	150.0
360	1257	D	ROOF LEAKS, HVAC SYS INADEQUATE	5.5
360	1257	D	ROOF LEAKS, HVAC SYS INADEQUATE	2.5
360	1264	D	LEAKING WINDOWS	1.0
360	1331	D	INTERIOR LIGHT SYS INOPERATIVE, ENTRY ROAD TOO NARROW	7.0
360	1331	D	INTERIOR LIGHT SYS INOPERATIVE, ENTRY ROAD TOO NARROW	23.0
360	1816	U	HVAC SYS DETERIORATED	400.0
360	1915	D	ROOF LEAKS	80.0
360	2002	D	TRENCH IN SIDEWALK	4.3
360	2013	D	INADEQUATE PAVING	4.3
360	2013	D	INADEQUATE PAVING	4.3
360	2026	D	ROOF LEAKS AND LIGHTING INADEQUATE	30.0
360	2026	D	ROOF LEAKS AND LIGHTING INADEQUATE	7.0
360	2026	D	ROOF LEAKS AND LIGHTING INADEQUATE	23.0
Total				2948.2
			649 MMTS	
361	800	D	ROOF LEAKS	50.0
361	800	U	MINIMAL SECURITY	14.3
361	1318	D	NO ALARM SYS, ROAD NOT WIDE ENOUGH	21.0

361	1318	D	NO ALARM SYS, ROAD NOT WIDE ENOUGH	21.0
361	1370	D	LIGHTS DO NOT WORK	10.0
361	1375	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	194.0
361	1375	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	100.0
361	1375	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	100.0
361	1377	D	INADEQUATE TO EFFICIENTLY SUPPORT INCREASED MUNITIONS	48.8
361	1377	D	INADEQUATE TO EFFICIENTLY SUPPORT INCREASED MUNITIONS	81.0
361	1377	D	INADEQUATE TO EFFICIENTLY SUPPORT INCREASED MUNITIONS	6.4
361	1377	D	INADEQUATE TO EFFICIENTLY SUPPORT INCREASED MUNITIONS	95.7
361	1377	D	INADEQUATE TO EFFICIENTLY SUPPORT INCREASED MUNITIONS	48.8
361	1377	D	INADEQUATE TO EFFICIENTLY SUPPORT INCREASED MUNITIONS	95.7
361	1396	D	LIGHTS DO NOT WORK	10.0
361	1415	D	HARDSTAND NEEDS METAL SIDING INSTALLED	50.0
361	1420	D	LIGHTS DO NOT WORK	10.0
361	1466	D	ELEC BOXES DENTED	0.2
361	1467	D	LIGHTS INOPERATIVE	0.1
361	1471	D	DETERIORATING DOORS	170.2
361	1471	D	DETERIORATING DOORS	100.0
361	1471	D	DETERIORATING DOORS	100.0
361	1472	D	LIGHTS DO NOT WORK	10.0
361	1475	D	LIGHT INOPERATIVE	10.0
361	1476	D	INTERIOR LGTS INOP	10.0
361	1478	D	LEFT ROW LIGHTS INOP	0.5
361	1481	D	INSIDE LIGHTS INOP	10.0
361	1485	D	INSIDE LIGHT BURNT OUT	0.1
361	1491	D	INSIDE LIGHTS INOP	10.0
361	1492	D	LIGHTS DO NOT WORK	0.1
361	1496	D	LIGHTS DO NOT WORK	10.0
361	1497	D	LIGHTS DO NOT WORK	10.0
361	1499	D	VENT CABLE STAYS CLOSED	1.0
361	1564	U	DETERIORATING EXT DOORS, NO INT LIGHTING	100.0
361	1564	U	DETERIORATING EXT DOORS, NO INT LIGHTING	100.0
361	1564	U	DETERIORATING EXT DOORS, NO INT LIGHTING	15.0
361	1564	U	DETERIORATING EXT DOORS, NO INT LIGHTING	16.6
361	1627	D	DOOR INADEQUATE	26.5
361	1805	D	DOORS TOO SMALL, NO ALARM SYS	37.0
361	1805	D	DOORS TOO SMALL, NO ALARM SYS	40.7
361	2101	U	RECOMMENDED FOR DISPOSAL	68.6
361	2111	D	DETERIORATING DOORS AND WINDOWS	142.2
361	2111	D	DETERIORATING DOORS AND WINDOWS	200.0
361	2111	D	DETERIORATING DOORS AND WINDOWS	100.0
361	2112	D	DETERIORATING DOORS AND WINDOWS	158.0
361	2112	D	DETERIORATING DOORS AND WINDOWS	100.0
361	2112	D	DETERIORATING DOORS AND WINDOWS	100.0
361	2141	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	100.0
361	2141	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	50.0
361	2141	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	61.2
361	2142	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	100.0
361	2142	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	50.0
361	2142	D	HOLLOW TILE CONSTRUCTION, MINIMUM SECURITY	61.2
361	2214	D	ROOF LEAKS	80.0

361	2232	D	DETERIORATING DOORS	18.5
361	2237	D	DETERIORATING DOORS PROVIDE MINIMUM SECURITY	100.0
361	2237	D	DETERIORATING DOORS PROVIDE MINIMUM SECURITY	50.0
361	2237	D	DETERIORATING DOORS PROVIDE MINIMUM SECURITY	3.0
361	2238	D	DETERIORATING DOORS, MINIMUM SECURITY	9.5
361	2238	D	DETERIORATING DOORS, MINIMUM SECURITY	9.0
361	2248	D	HOLLOW TILE CONSTRUCTION, MIN SECURITY	100.0
361	2248	D	HOLLOW TILE CONSTRUCTION, MIN SECURITY	51.2
361	2248	D	HOLLOW TILE CONSTRUCTION, MIN SECURITY	40.0
Total				3487.1
			SC	
383	9	D	HVAC INADEQUATE	10.0
383	800	U	ROOF LEAKS, NEEDS ADDED SECURITY	225.0
383	800	U	ROOF LEAKS, NEEDS ADDED SECURITY	1.6
383	800	U	ROOF LEAKS, NEEDS ADDED SECURITY	34.0
383	1214	D	HVAC INADEQUATE	200.0
383	1248	D	INTERIOR PARTITIONS REQUIRED	145.6
383	1267	D	DEBRIS IN WATER LINE	5.0
Total				621.2
			DP	
391	383	D	INADEQUATE CLASSROOM SPACE	130.0
391	385	D	INADEQUATE SPACE IN SEMINAR ROOMS	989.0
391	1244	D	ROOF LEAKS, HVAC MALFUNCTIONS	400.0
391	1244	D	ROOF LEAKS, HVAC MALFUNCTIONS	120.0
391	1245	D	ROOF LEAKS	80.0
391	1279	U	HVAC INADEQUATE	20.0
391	1279	U	HVAC INADEQUATE	200.0
Total				1939.0
			PK	
597	1215	D	ROOF LEAKS	72.6
Total				72.6
			TOOELE ARMY	
601	1701	D	ROOF DRAINS LEAK	8.5
601	1704	D	DOORS LEAK, NEEDS SIDING REPAIR	0.9
601	1705	D	WINDOWS AND SIDING NEED REPAIR	0.8
601	1712	D	DOOR INOPERABLE	1.0
601	1723	D	NO HOT WATER, AIR LEAK, BROKEN WINDOWS	1.5
Total				12.7
			QL	
610	1232	D	ROOF LEAKS, HVAC DYSFUNCTIONAL	30.0
610	1232	D	ROOF LEAKS, HVAC DYSFUNCTIONAL	60.0
Total				90.0
			SG	
712	401	U	INADEQUATE SPACE, DOES NOT MEET FIRE CODE	205.5
712	401	U	INADEQUATE SPACE, DOES NOT MEET FIRE CODE	29.5
712	569	U	INADEQUATE SPACE	1.3
712	570	D	INSUFFICIENT NUMBERS OF EXAM ROOMS	15.4
712	570	D	INADEQUATE SPACE	220.0
712	570	D	INADEQUATE SPACE □□□□□□□□□□ 224.0	
712	570	D	CLINIC UNDERSIZED	510.0
712	570	D	INADEQUATE EXAM ROOMS	3.3

712	570	D	INADEQUATE SPACE	368.0
712	570	U	INADEQUATE SPACE FOR THERAPY	429.0
712	570	U	INADEQUATE WAREHOUSE SPACE FOR MEDICAL SUPPLIES	280.0
712	1295	D	INADEQUATE HVAC SYS	63.0
Total				2125.0
			DO	
715	1	D	SNOW DAMAGES LIGHTNING PROTECTION, LIGHTING REQUIRES	100.0
715	1	D	SNOW DAMAGES LIGHTNING PROTECTION, LIGHTING REQUIRES	30.0
715	1	D	SNOW DAMAGES LIGHTNING PROTECTION, LIGHTING REQUIRES	126.8
715	10	D	UNSTABLE POWER SUPPLY, RADAR SYS OUT OF SERVICE	126.8
715	10	D	UNSTABLE POWER SUPPLY, RADAR SYS OUT OF SERVICE	129.0
715	202	D	WATER LEAK IN LATRINE, FIRE CODE VIOLATION IN WOODEN	22.6
715	202	D	WATER LEAK IN LATRINE, FIRE CODE VIOLATION IN WOODEN	3.5
715	202	D	WATER LEAK IN LATRINE, FIRE CODE VIOLATION IN WOODEN	3.5
715	202	D	WATER LEAK IN LATRINE, FIRE CODE VIOLATION IN WOODEN	20.0
Total				562.2
			SV	
720	134	D	ROOF INADEQUATE	50.0
720	134	D	ROOF INADEQUATE	20.0
720	141	D	ROOF NEEDS REPLACING	35.0
720	142	D	SEWER SLOW, ROOF INADEQUATE	35.0
720	142	D	SEWER SLOW, ROOF INADEQUATE	2.5
720	146	D	BRICK VENEER IS FALLING OFF BUILDING	50.0
720	150	D	ROOF INADEQUATE	30.0
720	350	D	PARKING LOT NEEDS RESURFACING, SEWER INADEQUATE	100.0
720	350	D	PARKING LOT NEEDS RESURFACING, SEWER INADEQUATE	2.5
720	351	D	SEWER IS SLOW, PARKING LOT NEEDS RESURFACING	5.0
720	351	D	SEWER IS SLOW, PARKING LOT NEEDS RESURFACING	12.0
720	440	D	NEED ADDITION SPACE	600.0
720	470	D	KITCHEN NEEDS FLOOR REPLACED	19.1
720	472	D	HVAC INADEQUATE	120.0
720	472	D	HVAC INADEQUATE	100.0
720	480	D	ENTRANCES NOT PROTECTED FROM ICE AND SNOW,	50.0
720	480	D	ENTRANCES NOT PROTECTED FROM ICE AND SNOW,	50.0
720	520	D	NOT ENOUGH SPACE, HVAC SYS INEFFICIENT, ROOF LEAKS	4.9
720	520	D	NOT ENOUGH SPACE, HVAC SYS INEFFICIENT, ROOF LEAKS	30.0
720	520	D	NOT ENOUGH SPACE, HVAC SYS INEFFICIENT, ROOF LEAKS	25.0
720	520	D	NOT ENOUGH SPACE, HVAC SYS INEFFICIENT, ROOF LEAKS	10.0
720	521	D	PARKING LOT NEEDS TO BE RESURFACED, LIGHTING COULD BE	7.0
720	521	D	PARKING LOT NEEDS TO BE RESURFACED, LIGHTING COULD BE	0.8
720	521	D	PARKING LOT NEEDS TO BE RESURFACED, LIGHTING COULD BE	17.2
720	561	D	ROADWAY AND PARKING LOT NEED RESURFACING	100.0
720	697	D	HVAC SYS POOR, SPACE UTILIZATION POOR, ROOF LEAKS	3.0
720	697	D	HVAC SYS POOR, SPACE UTILIZATION POOR, ROOF LEAKS	4.0
720	697	D	HVAC SYS POOR, SPACE UTILIZATION POOR, ROOF LEAKS	8.0
720	697	D	HVAC SYS POOR, SPACE UTILIZATION POOR, ROOF LEAKS	3.0
720	697	D	HVAC SYS POOR, SPACE UTILIZATION POOR, ROOF LEAKS	20.0
720	1277	D	NO AIR COOLING, NO HEAT CONTROL, HOT WATER SHORTAGE	163.6
720	1277	D	NO AIR COOLING, NO HEAT CONTROL, HOT WATER SHORTAGE	5.0
Total				1682.6
			SP	

754	552	D	INSUFFICIENT ELECT OUTLETS, HVAC INADEQUATE	5.0
754	552	D	INSUFFICIENT ELECT OUTLETS, HVAC INADEQUATE	8.0
754	744	D	WINDOWS NEED REPLACEMENT, HVAC INADEQUATE	12.0
754	744	D	WINDOWS NEED REPLACEMENT, HVAC INADEQUATE	5.0
754	1296	D	NOT HANDICAP ACCESSIBLE	6.0
754	1296	D	NOT HANDICAP ACCESSIBLE	2.0
754	1963	D	NEEDS PHONE, OVERHANG TO PROTECT SENTRY	5.0
754	1963	D	NEEDS PHONE, OVERHANG TO PROTECT SENTRY	4.0
754	2500	D	INTERIOR WIRING NEEDS REPLACING	5.0
Total				52.0
			ABW	
774	133	D	ROOF LEAKS, HVAC UNRELIABLE, SECURITY PROBLEM	30.0
774	133	D	ROOF LEAKS, HVAC UNRELIABLE, SECURITY PROBLEM	60.0
774	133	D	ROOF LEAKS, HVAC UNRELIABLE, SECURITY PROBLEM	50.0
774	820	U	ROOF LEAKS, DOOR LOCK BROKEN	4.7
774	820	U	ROOF LEAKS, DOOR LOCK BROKEN	50.0
Total				194.7
			LGT	
775	1138	D	HEAT DEFICIENCIES	20.0
Total				20.0
			LG	
777	5	D	ROOF LEAKS	140.0
777	100	D	ROOF LEAKS	41.4
777	220	D	ROOF LEAKS, EXPLOSION PROOF LIGHTING IS INADEQUATE	210.8
777	220	D	ROOF LEAKS, EXPLOSION PROOF LIGHTING IS INADEQUATE	10.0
777	233	D	NOISE HAZARD	5.0
777	792	D	DOOR REQUIRES REPLACEMENT, ROOF NEEDS REPAIR	125.6
777	792	D	DOOR REQUIRES REPLACEMENT, ROOF NEEDS REPAIR	1.0
777	793	D	WALLS, ROOF, FLOOR NEEDS REPAIR	151.2
777	830	U	TO BE DEMOLISHED	68.0
777	865	D	OVERCROWDING	19.6
777	901	D	FACILITY REQUIRES ROOF REPAIRS	25.0
777	914	D	HVAC OUTDATED	20.0
777	915	D	ROOF DAMAGED, DOCK HEIGHT INCORRECT	12.0
777	915	D	ROOF DAMAGED, DOCK HEIGHT INCORRECT	340.0
777	915	D	ROOF DAMAGED, DOCK HEIGHT INCORRECT	60.0
777	918	D	DIRTY ENVIRONMENT FOR AVIATOR BREATHING OXYGEN SERVICIN	4.0
Total				1233.6
			DRMO	
803	890	D	ROOF LEAKS	54.0
Total				54.0
			545 TEST SQD	
813	1	D	HVAC INADEQUATE	40.0
813	5	D	ROOF LEAKS, STEAM PIPE LEAKS	57.0
813	5	D	ROOF LEAKS, STEAM PIPE LEAKS	0.5
813	1285	D	HVAC SYS INADEQUATE	80.0
Total				177.5
			84 RADES	
854	1283	U	STRUCTURAL AND INTERIOR DAMAGE	241.0
854	1283	U	STRUCTURAL AND INTERIOR DAMAGE	17.5
854	1283	U	STRUCTURAL AND INTERIOR DAMAGE	100.8

Total				359.3
			DET 8	
857	1269	D	HVAC INADEQUATE	200.0
Total				200.0
			OSI	
860	1219	U	ASBESTOS, POOR HVAC SYS, NO PARKING LOT LIGHTING, LACK	0.8
860	1219	U	ASBESTOS, POOR HVAC SYS, NO PARKING LOT LIGHTING, LACK	1.0
860	1219	U	ASBESTOS, POOR HVAC SYS, NO PARKING LOT LIGHTING, LACK	1.0
860	1219	U	ASBESTOS, POOR HVAC SYS, NO PARKING LOT LIGHTING, LACK	1.0
860	1219	U	ASBESTOS, POOR HVAC SYS, NO PARKING LOT LIGHTING, LACK	1.0
Total				4.8
			419th	
875	578	D	OVERHEAD HEATER LEAKING	0.5
875	587	D	NO FIRE PROTECTION	8.0
875	590	D	HVAC INADEQUATE, OFFICES ARE OLD	12.0
875	590	D	HVAC INADEQUATE, OFFICES ARE OLD	15.0
875	590	D	HVAC INADEQUATE, OFFICES ARE OLD	25.0
875	590	D	ROOF LEAKS, NO SEWER DRAIN IN RESTROOM, ASPHALT DETERIO	50.0
875	590	D	ROOF LEAKS, NO SEWER DRAIN IN RESTROOM, ASPHALT DETERIO	15.0
875	590	D	ROOF LEAKS, NO SEWER DRAIN IN RESTROOM, ASPHALT DETERIO	20.0
875	592	D	BLDG NEEDS HARD-WIRE CONNECTION TO LAN	25.0
875	593	D	HVAC INADEQUATE, NO ROOM FOR MOBILITY STORAGE	190.0
875	593	D	HVAC INADEQUATE, NO ROOM FOR MOBILITY STORAGE	100.0
875	593	D	LIGHTING INADEQUATE	50.0
Total				510.5
			388th FW	
883	5	D	HVAC SYS UNRELIABLE, EAST WALL LEAKS	4.0
883	5	D	HVAC SYS UNRELIABLE, EAST WALL LEAKS	20.0
883	5	D	ALARM SYS ACTIVATES RANDOMLY	26.5
883	25	D	ROOF LEAKS, FIRE SYS INADEQUATE	120.0
883	25	D	ROOF LEAKS, FIRE SYS INADEQUATE	7.5
883	25	D	ROOF LEAKS, FIRE SYS INADEQUATE	24.0
883	25	D	ROOF LEAKS, FIRE SYS INADEQUATE	4.0
883	25	D	ROOF LEAKS, FIRE SYS INADEQUATE	10.5
883	35	D	INSUFF WORK SPACE, LIGHTING INSUFF, HVAC INADEQUATE	25.0
883	35	D	INSUFF WORK SPACE, LIGHTING INSUFF, HVAC INADEQUATE	20.0
883	35	D	INSUFF WORK SPACE, LIGHTING INSUFF, HVAC INADEQUATE	55.0
883	37	D	NO CO2 FIRE BOTTLES FOR MANUAL FIRE SUPPRESSION	4.0
883	42	D	ROOF WEAK, SPACE UTILIZATION POOR, POTHOLES IN ROAD	5.0
883	42	D	ROOF WEAK, SPACE UTILIZATION POOR, POTHOLES IN ROAD	20.0
883	42	D	ROOF WEAK, SPACE UTILIZATION POOR, POTHOLES IN ROAD	34.0
883	43	D	INADEQUATE WRM TANK TRAINING AREA, INADEQUATE LIGHTING,	25.0
883	43	D	INADEQUATE WRM TANK TRAINING AREA, INADEQUATE LIGHTING,	25.0
883	43	D	INADEQUATE WRM TANK TRAINING AREA, INADEQUATE LIGHTING,	25.0
883	45	D	ROOF WEAK, SPACE UTILIZATION POOR, FIRE SYS IS OLD, FOD	7.0
883	45	D	ROOF WEAK, SPACE UTILIZATION POOR, FIRE SYS IS OLD, FOD	120.0
883	45	D	ROOF WEAK, SPACE UTILIZATION POOR, FIRE SYS IS OLD, FOD	15.0
883	45	D	ROOF WEAK, SPACE UTILIZATION POOR, FIRE SYS IS OLD, FOD	24.5
883	55	D	NEEDS EXT LIGHTING, FLOOR SLIPPERY	11.0
883	55	D	NEEDS EXT LIGHTING, FLOOR SLIPPERY	7.0
883	56	D	NEEDS REWIRING, FLOOR SLIPPERY	1.2

883	56	D	NEEDS REWIRING, FLOOR SLIPPERY	8.0
883	118	D	WATER FOUNTAIN UNUSABLE	5.0
883	120	D	MAIN CIRCUIT BREAKER KEEPS TRIPPING.	25.0
883	524	D	ROOF LEAKS	25.0
883	938	D	CEILING INSULATION FALLING DOWN	4.7
883	938	D	CEILING INSULATION FALLING DOWN	65.0
883	960	D	OPERATION SHUTDOWN	65.0
883	960	D	OPERATION SHUTDOWN	65.0
883	1607	D	INSULATION FALLING DOWN, NO FIRE PROTECTION	18.7
883	1607	D	INSULATION FALLING DOWN, NO FIRE PROTECTION	12.5
883	1607	D	INSULATION FALLING DOWN, NO FIRE PROTECTION	6.3
883	1607	D	INSULATION FALLING DOWN, NO FIRE PROTECTION	19.5
883	1626	D	BLDG NEEDS PAINTING, DOOR HINGES LOOSE	6.0
883	1910	D	WORK AREA CONGESTED	150.0
883	1936	U	OIL/WATER SEPARATOR TANK REPAIR	8.0
883	1938	D	MULTIPLE MAINT PROBLEMS	40.0
883	1938	D	MULTIPLE MAINT PROBLEMS	7.0
883	1938	D	MULTIPLE MAINT PROBLEMS	15.0
883	1938	D	MULTIPLE MAINT PROBLEMS	5.0
883	1938	D	MULTIPLE MAINT PROBLEMS	7.0
Total				1197.9
			CEG	
900	2	D	BOILERS INADEQUATE	291.0
900	2	D	BOILERS INADEQUATE	300.0
900	2	D	BOILERS INADEQUATE	2300.0
900	2	D	BOILERS INADEQUATE	500.0
900	2	D	BOILERS INADEQUATE	187.0
900	2	D	BOILERS INADEQUATE	296.0
900	4	U	WATER SYSTEM CAN'T SUPPLY, TREAT OR DELIVER ENOUGH WATE	1400.0
900	12	D	HVAC INADEQUATE, SINKS/DRAINS NEED TO BE CONNECTED TO	15.0
900	12	D	HVAC INADEQUATE, SINKS/DRAINS NEED TO BE CONNECTED TO	9.7
900	12	D	HVAC INADEQUATE, SINKS/DRAINS NEED TO BE CONNECTED TO	40.0
900	15	D	NOT IN COMPLIANCE WITH LIFE SAFETY CODE, HVAC WORK	27.0
900	15	D	NOT IN COMPLIANCE WITH LIFE SAFETY CODE, HVAC WORK	453.6
900	15	D	NOT IN COMPLIANCE WITH LIFE SAFETY CODE, HVAC WORK	1.5
900	15	D	NOT IN COMPLIANCE WITH LIFE SAFETY CODE, HVAC WORK	24.0
900	15	D	NOT IN COMPLIANCE WITH LIFE SAFETY CODE, HVAC WORK	6.0
900	15	D	NOT IN COMPLIANCE WITH LIFE SAFETY CODE, HVAC WORK	4.5
900	29	D	INTERIOR ELEC POWER UPGRADE	2.5
900	559	D	LACK OF PROPER VENTILATION	5.0
900	820	D	ROOF LEAKS	100.0
900	860	D	HVAC UNRELIABLE, ROOF SHOULD BE REPLACED	10.0
900	860	D	HVAC UNRELIABLE, ROOF SHOULD BE REPLACED	100.0
900	916	D	FAC NEEDS INDUS OIL/WATER SEPARATOR INSIDE, PCC PAVEMEN	22.0
900	916	D	FAC NEEDS INDUS OIL/WATER SEPARATOR INSIDE, PCC PAVEMEN	68.0
900	916	D	FAC NEEDS INDUS OIL/WATER SEPARATOR INSIDE, PCC PAVEMEN	76.0
900	921	D	FAC REQUIRES PAINTING	2.0
900	1136	D	FAC REQUIRES COMPOSITE ROOF REPLACEMENT	14.0
900	1140	U	TO BE DEMOLISHED	55.0
900	40033	U	NEEDS FILTERING AIR EXCHANGE SYS	20.0
tal				6329.8

CE DORMS				
936	518	D	ENTRANCE CONCRETE DEGRADING, HVAC LINES ARE RUSTED	25.0
936	518	D	ENTRANCE CONCRETE DEGRADING, HVAC LINES ARE RUSTED	15.0
INFRASTRUCTURE SYSTEMS				
	3	U	SEWER SYS FAILING DUE TO AGE	11.3
	4	D	WELLS - 2 HAVE INADEQUATE WATER QUALITY, 2 HAVE MECH	2000.0
	5	D	ANNUAL MAINTENANCE REQUIRED	25.0
	6	D	ANNUAL MAINTENANCE REQUIRED	13.4
	8	U	FIRE TRANSMITTERS NEED TO BE CHANGED TO MONACO	100.0
	23	D	HELICOPTER PADS ARE NOT ILLUMINATED	308.8
	26	U	RUNWAY DOES NOT HAVE TWO SEMIPERMANENT ARRESTING SYS	299.0
Total				2797.5
Total				44080.1

FMC

FAX

Date *May 15, 1995*

Number of pages including cover sheet *1*

TO: *McClellan, Robins, Tinker,
Kelly and Hill AFB BRAC
offices, Letterkenny Army
depot BRAC office,
Tobyhanna Army depot
BRAC office*

Phone

Fax Phone

FROM: *Jim Owsley & Ann Reese
Base Closure Commission*

Phone *703-696-0504 ext 176*

Fax Phone *703-696-0550*

CC:

REMARKS: *Urgent* *For your review* *Reply ASAP* *Please Comment*

We request the following information be presented to Commissioners during your base visit:

- The average age of all buildings on your installation
- A list showing the age and description for each building within your depot's industrial area.
- For ALC's only -- a copy of the Comprehensive Land Use Plan prepared for FAA.

Document Separator

A photograph of a Hill AFB airfield. In the foreground, a fighter jet is parked on the tarmac, facing right. The tail of the jet has the letters "HL" and the number "385" on it. The airfield is a flat, brownish landscape. In the background, there are mountains under a blue sky with some clouds. The entire image is framed by a double-line border.

Hill AFB

COMPATIBLE LAND USE STUDY

Preliminary Draft, March, 1995

PREPARED BY:
Wasatch Front Regional Council
in cooperation with
Hill AFB, Local Jurisdictions
and the Compatible Land Use Comm



SUMMARY

The Hill AFB Compatible Land Use Study (CLUS) combines aspects of a traditional AICUZ study, which describes the noise exposure associated with the operations of the Base, and a land use study that describes existing conditions and trends, and makes recommendations for future land uses that would be compatible with mission of the Base. The one of the primary goals of the study was to involve the participation of the affected local jurisdictions in the developing and establishing appropriate long-range programs which would ensure compatibility of future land use with the Base in the areas of the Base environs. Another primary goal was to identify measures by which aircraft noise associated with Base could be minimized. Lastly, another goal was to identify and recommend action strategies by which the local jurisdictions could adopt and implement appropriate land use controls and other measures, and ways Hill AFB could reasonably implement noise reduction measures recommended by the study into its operations.

The CLUS was prompted in part by a 1987 resolution of the state legislature which recommended cities, towns, and counties in the vicinity of a military airport adopt zoning regulations that would result in compatible land use with military airport operations. Also, in 1989, the Aircraft Noise and Compatibility Study for the Wasatch Front Region recommended that a land use compatibility study be undertaken for Hill AFB. Subsequently, the Compatible Land Use Committee (CLUC), comprised mostly of local elected, state, and Hill AFB officials, and a Technical Advisory Committee (TAC), consisting mostly of local, state and Hill AFB planners, were formed. Early in 1990, partial funding from the Department of Defense was obtained, along with in-kind services from the local jurisdictions and some funding from the state, made it possible for the Wasatch Front Regional Council (WFRC) to conduct the study.

The CLUS consists of the following elements or chapters: Ch. I - Introduction; Ch. II - Inventory of Existing Conditions; Ch. III - Noise Environment; Ch. IV - Land Use Impacts; Ch. V - Noise Abatement Alternatives and Evaluation; Ch. VI - Compatibility Recommendations; and Ch. VII - Implementation and Management Program. The CLUS recommendations, and study report in general, were presented to the TAC and CLUC for review and approval.

Numerous committee meetings (TAD and CLUC) were held during the course of the Study, which were open to the public. Other public participation opportunities will be provided during the implementation of several of the recommendations, including adoption of policies by the local jurisdictions requiring compatible land use development within the Hill noise environment.

The major purpose of the study was to identify and implement reasonable controls to achieve

compatible future development within the Hill AFB noise environment, and base operations strategies that would minimize the noise environment around the Base. A majority of the recommended land use control decisions rest with the City of Layton. To a much lesser degree, they also rest with the cities of Clearfield, South Weber, Washington Terrace, Riverdale, and the affected unincorporated areas of Davis and Weber Counties.

The study process involved the identification of the existing noise environment of Hill AFB by collecting and assessing base operations data, development of noise contours derived through computer modelling techniques, and a rudimentary field noise measuring program was completed. The existing and future land uses were identified and evaluated in light of the AICUZ guidelines in order to determine existing and potential land use incompatibilities with the base's noise environment. Based on the land use impact and operations evaluation findings, recommendations and responsibilities for implementing them were developed.

The recommendations which involved base operations included some slight modification of the flight tracks, and the relocation of some operations to another facility when practicable. The recommendations that were the responsibility of the local jurisdictions basically included incorporating compatible land use policies into the affected jurisdiction's General Plans, zoning and subdivision ordinances, as well as the amending the Uniform Building Code so that noise reduction measures could be incorporated into the structures of noise sensitive land use. The recommendation that the remaining use easements be acquired within the APZs and other high noise areas, is presently in the process of being implemented by the State of Utah. The recommendations were each connected to implementation actions, which identified the responsible entities, and the steps and time frames necessary for implementing the action items.

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ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

AAF	Army Air Field	ILS	Instrument Landing System
A/B	Afterburner	IMC	Instrument Meteorological Conditions
AFB	Air Force Base	KIAS	Knots Indicated Air Speed
AICUZ	Air Installation Compatible Use Zone	KT	Knots
AGL	Above Ground Level	LANTIRN	Low Altitude Navigation and Targeting Infrared for Night System
ARC	Curvilinear Flight Path	LOM	Low Frequency Outer Marker
ASR	Airport Surveillance Radar	MAAF	Michael Army Air Field
ATA	Airport Traffic Area	MASP	Metropolitan Airport System Plan
ATC	Air Traffic Control	MDA	Minimum Descnt Altitude (Non-Precision Approach)
ATCT	Air Traffic Control Tower	MM	Middle Marker (ILS)
CHRONICLES	Description of Model Inputs	MSL	Mean Sea Level
CLUS	Compatible Land Use Study	NDB	Non Directional Beacon
CLUC	Compatible Land Use Committee	NM	Nautical Miles
DH	Decision Height (Precision Approach)	NPIAS	National Plan of Integrated Airport Systems
DME	Distance Measuring Equipment	OI	Operating Instructions
FAA	Federal Aviation Administration	OM	Outer Marker (ILS)
FAR	Federal Aviation Regulation	PAR	Precision Approach Radar
FL	Flight Level (100 ^o ft. ASL)	RPM	Revolutions per Minute
FREQ	Frequency	RVR	Runway Visual Range
GA	General Aviation	SID	Standard Instrument Departure
GCA	Ground Control Approach	SFO	Simulated Flame Out
GCI	Ground Controlled Intercept	SLC	Salt Lake City
HDG	Heading		
IFR	Instrument Flight Rules		

SLCAA	Salt Lake City Airport Authority
SLCATCT	Salt Lake City Air Traffic Control Tower
SLCIA	Salt Lake City International Airport
TACAN	Tactical Air Navigation System
TCA	Terminal Control Area
TDY	Temporary Duty
TRACON	Terminal Radar Approach Control
UHF	Ultra High Frequency
UTTR	Utah Test and Training Range
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions
VOR	Very High Frequency Omni Range
VORTAC	Very High FREQ-OMNI Range/Tactical Air Navigation
WFRC	Wasatch Front Regional Council
ZULU	Greenwich Mean Time also GMT

CHAPTER I. INTRODUCTION

BACKGROUND

This study was prompted in part by a 1987 resolution of the state legislature which recommended cities, towns and counties in the vicinity of a military airport adopt zoning regulations which are compatible with military airport operations. Also, the study was an outgrowth of the desire of Hill Air Force Base (AFB) and the adjacent communities to work together in a cooperative fashion relative to land use compatibility planning and airport noise reduction.

In 1989, the Aircraft Noise and Compatibility Planning Special Study for the Wasatch Front Region recommended that a land use compatibility study be conducted for the surrounding area of Hill AFB. The study found that efforts to reduce noise at the Salt Lake City International Airport (SLCIA) and to plan compatible land use around and with the airport had been quite successful. The success at the SLCIA influenced the decision to proceed with a Compatible Land Use Study (CLUS) for Hill AFB in an effort to achieve similar noise reduction and land use planning objectives as those accomplished by SLCIA.

Also in 1989, the Compatible Land Use Committee (CLUC), made up mostly of elected officials from the Hill AFB environs was established. The key members of the CLUC were the Wasatch Front Regional Council (WFRC), Layton City, Riverdale City, Ogden City, Washington Terrace, Weber County, Davis County, State Aeronautics, Utah Air National Guard (UANG), Department of Community & Economic Development (DCED), Hill AFB, and a legislative liaison. A Technical Advisory Committee (TAC) was also created, consisting of local planners, Federal Aviation Administration (FAA), Hill AFB and the WFRC.

Early in 1990, a Department of Defense grant, which provided half of the project funding, some funds from the State of Utah and a commitment of in-kind services from the local affected entities were obtained, enabling the study to proceed.

Previous studies related to land use compatibility and aircraft noise have been conducted by the planners of Hill AFB. These studies are completed under the Air Installation Compatible Use Zone (AICUZ) program and take the form of formal reports and aircraft noise contour maps. In the past, AICUZ formal studies were conducted in 1974, 1977, and 1982. These studies were "...presented as a statement of the Air Force's findings on aircraft noise and accident potential in the environs of Hill AFB. It [AICUZ] is intended to serve as an input to the local comprehensive land use planning process

of the jurisdictions which surround the base. The objective of this [AICUZ] study is to examine the effects of aircraft noise and accident potential from flight operations on adjacent communities. This examination establishes a background for relating land use to noise levels and accident potential and identifies those land uses which are compatible with flight operations" (Hill AFB AICUZ, 1982).

In 1978, a comprehensive study dealing with land use and aircraft noise related to Hill AFB called the Davis County - Hill Air Force Base Land Use Compatibility Study was conducted. It was prepared for Davis and Weber Counties by a group of consultants and it was funded by the Four Corners Regional Commission and Davis County. This study was precipitated by the perceived need of the local affected entities to better understand the land use implications of noise and "a more thorough local investigation of HAFB's noise impact was deemed appropriate as an extension of the AICUZ program" (Davis Co. - Hill AFB Study, 1978). The study conducted extensive noise monitoring on the ground which resulted in the identification of Noise and Safety Hazard Districts (NASH Districts) in the affected areas around the Base. The NASH Districts and study recommendations do not appear to have been adopted and incorporated into local land use planning by the affected jurisdictions.

STUDY GOALS

One of the principal goals of this study is to develop and establish an appropriate long-range program which ensures compatibility of land use with military aircraft operations. Conversely, another goal is to ensure that aircraft noise from the base is not louder or broader in effect than it needs to be and that the operations of the base incorporate noise reduction measures.

In addition to the goals above, the study considers the various interests and brings them together to form a consensus. These interests include the military, the land owner, the local governments, businesses and residents. The Air Force's interest is to protect the mission and public health, safety and welfare. The landowner, business developer and real estate agent desires to achieve the best use of their properties, with minimal governmental interference. Local governments are interested in reducing hazard exposure, achieving planning goals, increasing the tax base, and protecting adequate development opportunities. The residents would like to see a safe and healthy living environment and adequate work opportunities.

Most importantly, and as a result of the study process, the local jurisdictions are expected to adopt and implement appropriate land use controls based on the findings of the proposed study and Hill AFB would be expected to incorporate feasible noise reduction measures into its operations.

STUDY CONTEXT

With an annual economic impact of \$1.9 billion and over 18,000 jobs, Hill AFB is a major element of the metropolitan economy. Also, it is the second busiest airport in the state in total aircraft operations, utilizing primarily F-16 aircraft. With the new advanced F-16C, Block 40 aircraft and addition of the Low Altitude Navigation and Targeting Infrared For Night (LANTIRN) mission, steps must be taken and a program established to allow the after dark flying mission of the base to be fulfilled and the development of compatible environs be promoted. It should be noted that one of the primary missions of Hill AFB is to provide logistics and maintenance support for advanced aircraft weapon systems.

The Air Force has publicly stated it is interested in a good relationship with the communities and wants to maintain compatibility with the environs surrounding the airfield. Concurrently, communities want to develop in the proper manner and without adverse influence and effects on future residents in the AICUZ area. The goals and objectives of both Hill AFB and the affected jurisdictions are seemingly mutual. Thus, this study draws attention to the many options available to achieve these goals and objectives.

STUDY ASSUMPTIONS

Several study assumptions were formulated, approved by the CLUC and used in the study. These assumptions provided an underlying understanding and guided the approach to the Hill AFB CLUS. These assumptions are as follows:

- Assumption One -** Hill AFB would remain in its present location and would retain its present runway configuration.
- Assumption Two -** Hill AFB would retain its currently established flying mission of tactical fighter training, flight test, air freight and flights of Fighter aircraft utilizing the Utah Test and Training Range (UTTR). Military aircraft from other bases will continue to temporarily be based at Hill AFB while training at UTTR.
- Assumption Three -** Determination of current and historical levels of aircraft operational activity at Hill AFB would be based on Air Force activity records. Forecasts would be based on projected activity levels furnished by the

Air Force for the five year planning period (1991-1996).

Assumption Four - The generalized study area for purposes of land use data collection and analysis would include the communities of Layton, Riverdale, South Weber, Washington Terrace, South Ogden, Roy, Ogden, Uintah, Sunset, Clearfield, Kaysville and Weber/Davis Counties. The study area, for purposes of impact analysis, would be based on noise contours which would be developed. Airspace issues regarding SLCIA and Ogden-Hinckley Airport would also be considered in the planning process.

Assumption Five - Land Use Classification would include the categories of:

Single family residential

Mobile home residential

Multi-family residential

General commercial

Industrial

Public

Agriculture/Open

Specific designations and notation would be made for schools, churches, hospitals and other noise sensitive uses.

Assumption Six - It may be appropriate to develop land use guideline criteria specific to this study effort. However, until such a need is determined, FAA FAR Part 150 Land Use Compatibility Guidelines and AICUZ Guidelines will be used.

Assumption Seven - F-16 fighter aircraft would be the primary aircraft used at Hill AFB with certain upgrades over the next five years.

Assumption Eight - Population growth figures would be ascertained from adopted WFRC population forecasts. Adopted future land use plans would be considered as guidelines for land use recommendations as appropriate.

Assumption Nine - The surface transportation network is a determinant of land use patterns. Therefore, existing transportation plans and roadway programs would be thoroughly reviewed and the plans/programs currently defined would be considered valid for purpose of this study.

Assumption Ten - Existing statutory requirements and case law would be used to determine applicability of implementing land use controls.

Assumption Eleven - Present and historical operating schedules at Hill AFB would be considered valid for the study. The current and projected ratio of daytime to nighttime operations and weekday to weekend operations would be used for the study as approved by the TAC.

Assumption Twelve - The noise metric for noise and land use analysis would be day-night noise level (Ldn). Noise contours would be developed for the 60, 65, 70, 75 and 80 Ldn levels.

Assumption Thirteen - Average Ldn would be based on 365 days of exposure and will represent calendar year Ldn (January 1 through December 31).

Assumption Fourteen - Analysis of single event impacts would be based on measurement data of actual aircraft flyovers.

There were some slight revisions made to the above assumptions as the study progressed. These were in the areas of the land use classification, the noise contours modeled, and the number of days or noise exposure for modeling purposes. The actual land use classification categories used are self evident in the figures showing existing and future land use in the study area. The 60 Ldn contour was not modeled. Also, 365 days exposure for Log Aire and Transients, and 264 days exposure for base assigned and TDY aircraft representing the average week day activities, were used.

STUDY DESIGN PROCESS AND METHODS

Information for designing this study was obtained from studies which had been done previously for other military airports, such as the Maricopa Association of Governments Eastside Joint Land Use and Westside Joint Land Use Studies of 1988 and 1989, respectively. In addition, the AICUZ reports, the 1978 Davis County - Hill AFB Land Use Compatibility Study, and the Sacramento Area Council of Governments (SACOS) studies conducted for Mather, McClelland and Beale Air Force Bases were used as resources.

One of the objectives of this study was not only to augment, but also to add to the Hill AFB AICUZ program. In the past, AICUZ studies have not involved the participation of local officials and the citizenry. The Air Force, as a matter of procedure, conducts these studies without input from the affected communities, prepares a report and noise contours map, and then submits the results to the local officials and the public with an admonition to use them in their land use decisions. In contrast, the Compatible Land Use Study has made an effort to involve local elected and other officials and the citizenry by establishing a Compatible Land Use Committee (CLUC) and a Technical Advisory Committee. These committees provided guidance and vital community information during the study process and participated fully as partners in the conduct of the study. In addition, informational meetings with community planning commissions and city councils were held to provide information regarding the progress and findings of the study. In essence, this study was a cooperative effort between Hill AFB, the local communities and the Wasatch Front Regional Council.

One of the initial phases of this study involved the collection, review, and analysis of existing (secondary) plans and land development information. These secondary sources of information included city and county zoning, long-range planning and other information, transportation plans, airport master plans, AICUZ study reports, Bureau of the Census reports, letters, legal reports, and a variety of other information (see selected list of references in appendix).

Interviews were conducted with local planning officials and officials from Hill AFB in an effort to gain additional insight into community land use issues and base operations characteristics.

Noise modeling and monitoring were also an important part of this study. The Air Force performed the modeling which generated the various sets of noise contours that were used for impact analysis and planning. Existing and future contours were generated using the Air Force NOISEMAP 6.0 model. Inputs to the model were based on the operational characteristics of the base. Arrangements were made with SLCIA using its environmental personnel and noise monitoring equipment to assist the WFRC with some limited on-the-ground noise monitoring in the study area. This was done to validate the noise

contours, thus providing a greater degree of public credibility in them.

A subsequent Phase of the study included the analysis of existing and future land use and land use controls being used in the study area. The modeled noise contours were evaluated in relationship to the geographic area they covered and the existing and future land use they affected or potentially could affect.

Airfield operations were identified and analyzed for potential reduction of existing noise and implementation of future noise reduction programs.

Relative to land use, existing and potential future incompatibilities were identified using the AICUZ guidelines. An alternative land use scenario was also developed from the AICUZ guidelines, and alternative airfield noise abatement procedures were evaluated. Recommendations for alternative land use, types of land use controls and noise reduction programs were presented to Hill AFB, the two committees and the communities for adoption and implementation.

Lastly, a plan for implementation was developed detailing specific action and specific roles and responsibilities of the cooperating entities.

GEOGRAPHIC FOCUS AND GOVERNMENTAL JURISDICTIONS

The geographic focus of this study are generally the areas located in fairly close proximity to Hill AFB. The size or extent of the study area was influenced to a large degree by the configuration of the noise contours, a 3-mile Hill AFB radius representing the approximate F-16 maneuvering area, and the location of existing geographic statistical areas (census tracts) of the Bureau of the Census.

A more specific study area was identified that is based on the spatial extent of the 1993 AICUZ noise footprint. The area is split between the following two counties: Davis and Weber. In Weber County, the area includes, wholly and/or in part, the incorporated communities of Riverdale, and Washington Terrace, and in Davis County, it includes South Weber, Layton, Kaysville, and Clearfield. In addition, the study area includes some unincorporated islands and/or peninsulas in both Weber and Davis Counties.

The vast majority of the area that the Hill AFB noise environment affects is represented by incorporated area, which means that the respective communities have governmental control over their municipal areas, whereas in the unincorporated areas the counties have control. This control by the

communities and counties extends to planning and zoning, proposed development approvals, and building permits. Most of the unincorporated areas presently under the control of the counties have been designated in the communities' annexation policy declarations as areas of future annexation and are subject to annexation by the communities, but only if the conditions and requirements of the state annexation statutes are fulfilled.

REFERENCES

1. Air Installation Compatible Use Zone (AICUZ) Report, Hill AFB, Utah, Amended April, 1982, p. I-4.
2. Davis County - Hill Air Force Base Land Use Compatibility Study, August, 1978, p.4.

CHAPTER II. INVENTORY OF EXISTING CONDITIONS

EXISTING LAND USE, ZONING AND PLANNING

Land Use

Hill AFB is surrounded by urban, suburban, and rural development. The base itself consists of about 10.5 square miles (6666 acres) with a majority of this area being devoted to industrial/transportation type land use. The base and surrounding area of study for land use purposes is comprised of about 52 square miles.

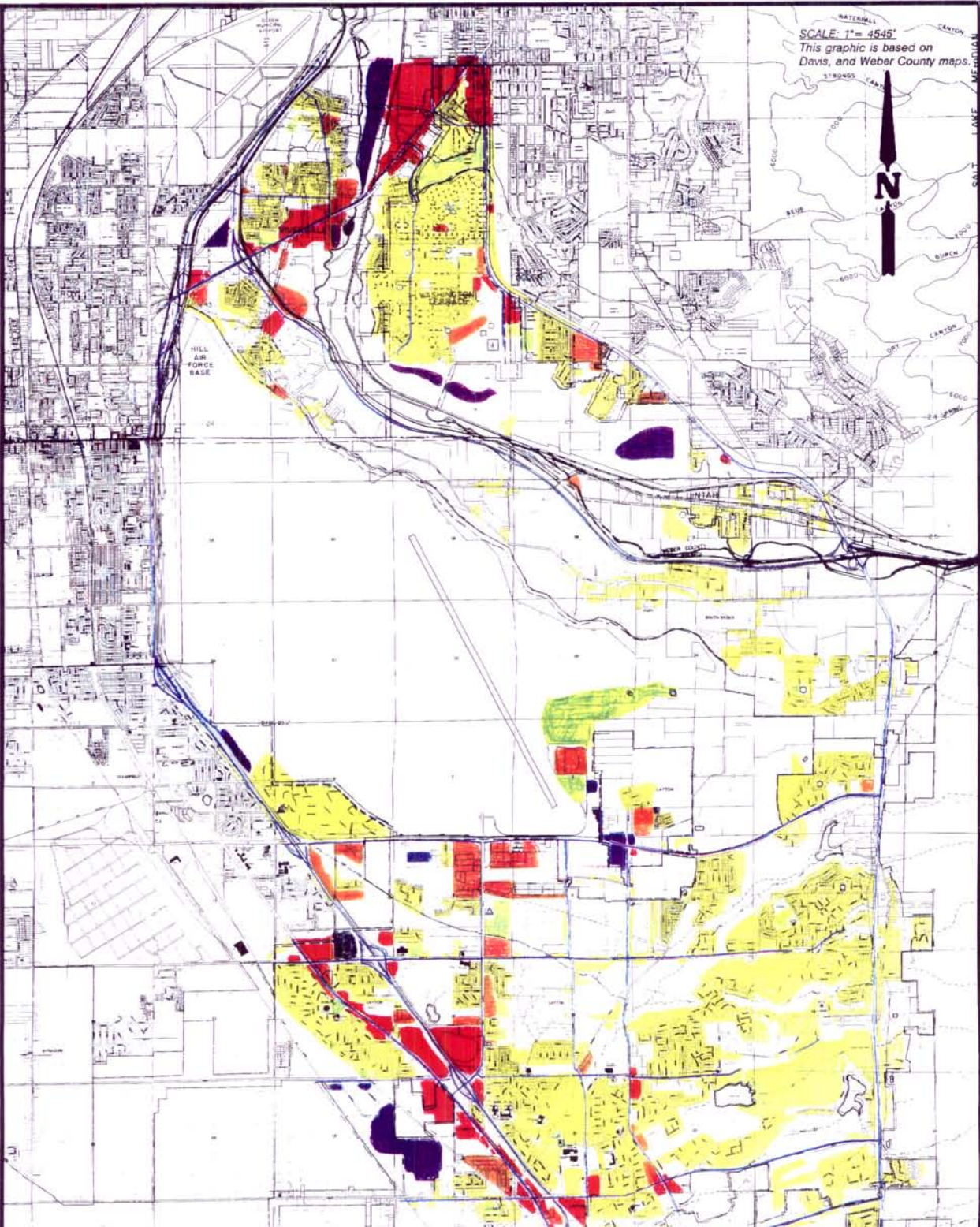
In a very general way, the land use of the surrounding area of the base can be described as follows: Located immediately to the north of the base is the Weber River Basin or flood plain. This area is generally predominated by agriculture and widely spaced (low density) residential use. There is also some minor subdivision development on the eastern and western portions of the basin as well as some mining in the form of gravel pits. North of the basin are the bench land areas of the Wasatch Range. In this area, more dense residential development predominates. In the lower lying areas along Riverdale Road, commercial development is most prevalent. The Ogden Municipal Airport lies just northwest of this area.

The area west of the base is characterized by mostly residential land use with pockets of strip commercial prevailing along the major highways. The Freeport Center, in Clearfield, lies just to the south of this area.

South of the base, along both State Street and I-15, there is a substantial amount of strip commercial use with some agriculture/undeveloped and residential uses interspersed. Most of the area south of the base and east of I-15 is predominated by medium to low density residential use with a substantial amount of agricultural/vacant acreage interspersed.

A generalized existing land use (1993) map (see Figure II-1) was developed for the land use study area. The map is based on the following categories of land Use: Residential - low; residential - medium/high; commercial; industrial; parks/open space; public/institutional; and agriculture/undeveloped. For purposes of the study, single family and duplex dwellings are considered low density residential and three or more units per dwelling, trailer parks and apartment complexes are considered medium/high density residential. The generalized land use map represents the predominant use on any given parcel or area and is not intended to show each individual use.

SCALE: 1" = 4545'
This graphic is based on
Davis, and Weber County maps.



STUDY AREA GENERALIZED EXISTING LAND USE: FIGURE II-1

- | | |
|---|--|
|  Residential - Low |  Transportation |
|  Residential - Medium/High |  Parks/Open Space |
|  Commercial |  Public |
|  Industrial |  Agricultural/Undeveloped |

Land uses that are considered most sensitive to noise are shown in Figure II-2, Nonresidential Sensitive Land Uses. These sensitive land uses include schools, churches, day care centers, preschool/private schools, nursing homes and hospitals. The sensitive receptors were shown in Figure II-2 on the basis of whether or not they were located within or in proximity to the 1996 projected 65 Ldn noise contour. Nursing homes are not shown since none were located within or in proximity to the 65 Ldn contour.

An inventory of the sensitive land uses shows that 12 schools, 17 churches, 9 day care, preschool and/or private schools are located in or close to the noise impact area. There are the two hospitals, one in Layton and the other in Washington Terrace which fall well outside the 65 Ldn, but could at times be affected by single event noise from aircraft overflights.

Zoning

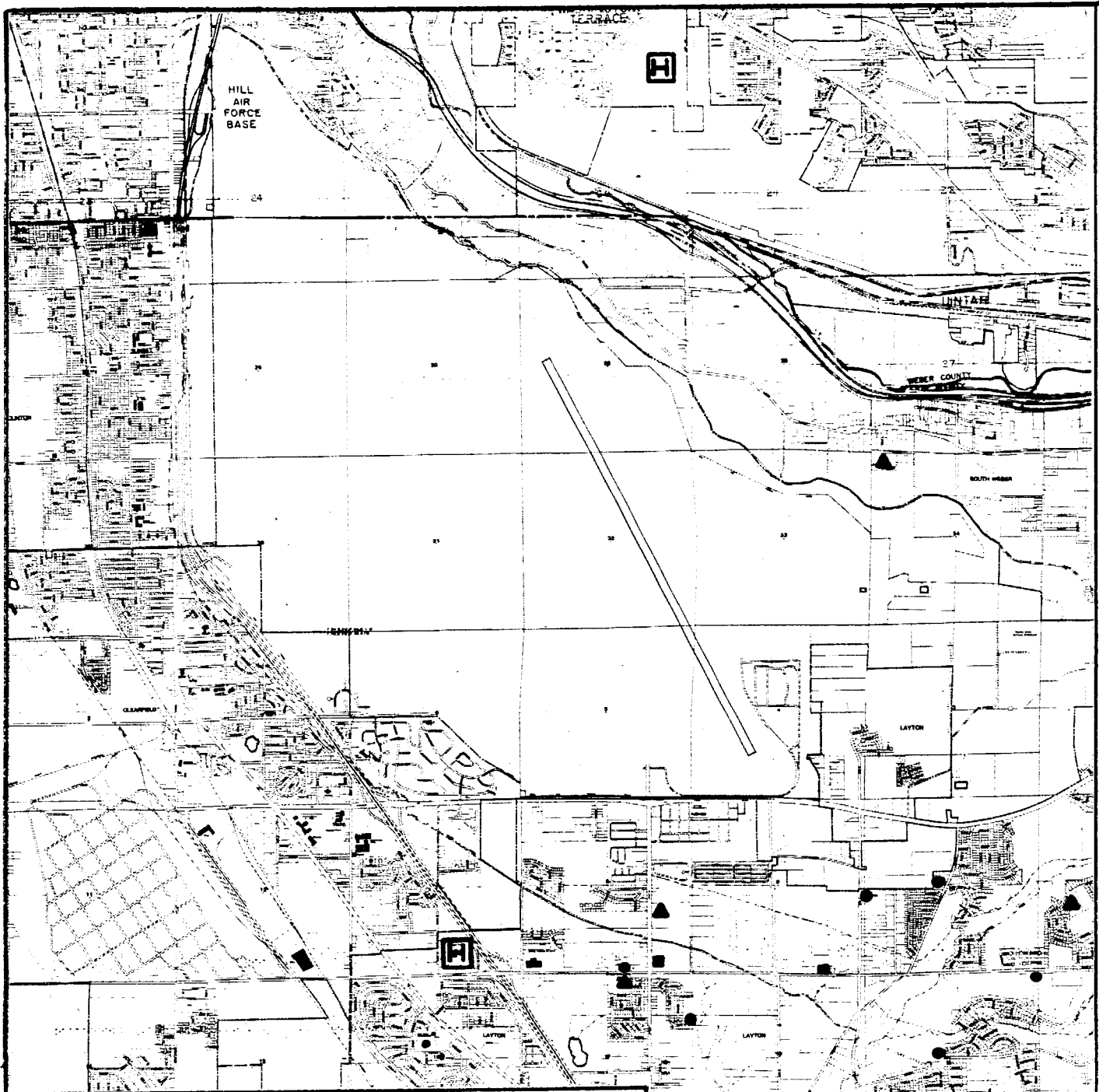
The zoning districts of the municipalities and counties in the study area follow fairly closely the patterns of the existing land use. Area wise, the majority of the land is zoned residential and agriculture. Industrial or manufacturing districts are also well represented in the area, with the most significant large districts being comprised of Hill AFB, the Freeport Center and the districts located west of the Union Pacific Railroad tracks in Layton. Commercial and higher density residential districts become more prevalent along busy arterial highways and intersections. Significant commercial districts are located along 1900 west, Main Street and State Street on the west side of the Base, along I-15 at interchange locations and along Riverdale Road (see Figure II-3, Existing Zoning for more details).

All of the communities and the counties in the study area currently have adopted zoning ordinances and an official zoning district map. Figure II-3, Existing Zoning shows the hundreds of various districts in the study area with their respective zoning designations. A generalized legend shows the symbolic zoning designation and its meaning. More information about the meaning and interpretation of each zoning designation is contained in the zoning ordinances of the thirteen jurisdictions in the study area.

The review of the various zoning ordinances and maps of the jurisdictions in the study area indicate that there are no existing provisions in the zoning ordinances which deal with or are sensitive to the aircraft noise of the Base.





General Plans

All of the local jurisdictions in the study area currently have adopted general plans.



HILL AFB COMPATIBLE LAND USE STUDY FIGURE II-2

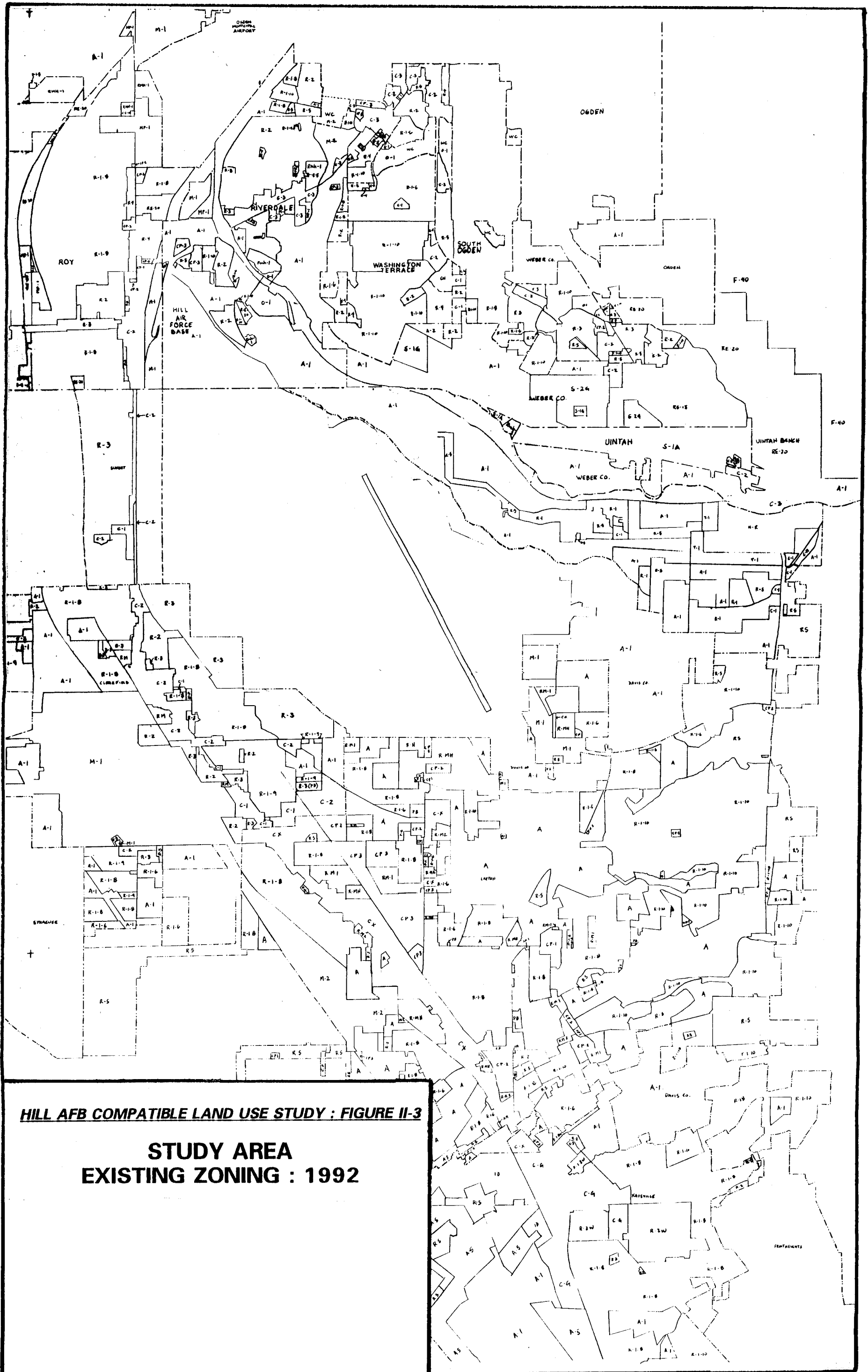
STUDY AREA NONRESIDENTIAL SENSITIVE LAND USES

-  -HOSPITALS
-  -SCHOOLS
-  -DAY CARE CENTERS
-  -CHURCHES



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HILL AFB COMPATIBLE LAND USE STUDY : FIGURE II-3

**STUDY AREA
EXISTING ZONING : 1992**

Some of the smaller communities have plans which were prepared several years ago and have not been updated to reflect current conditions. The cities of Layton, South Weber and Roy are in the process of updating their plans.

The jurisdictions' general plans for the most part contain long-range land use plans. These plans were used as a basis to develop Figure II-4, which shows a composite of the land use plan maps for the jurisdictions. This map shows the future land use as contained in the adopted comprehensive plans, and reflects the thinking of the community at the time the plans were prepared but may not necessarily reflect current desires and/or conditions of a community.

A review of the general plans indicates that only a very few had provisions which dealt with or were sensitive to aircraft noise from the Base.

Transportation

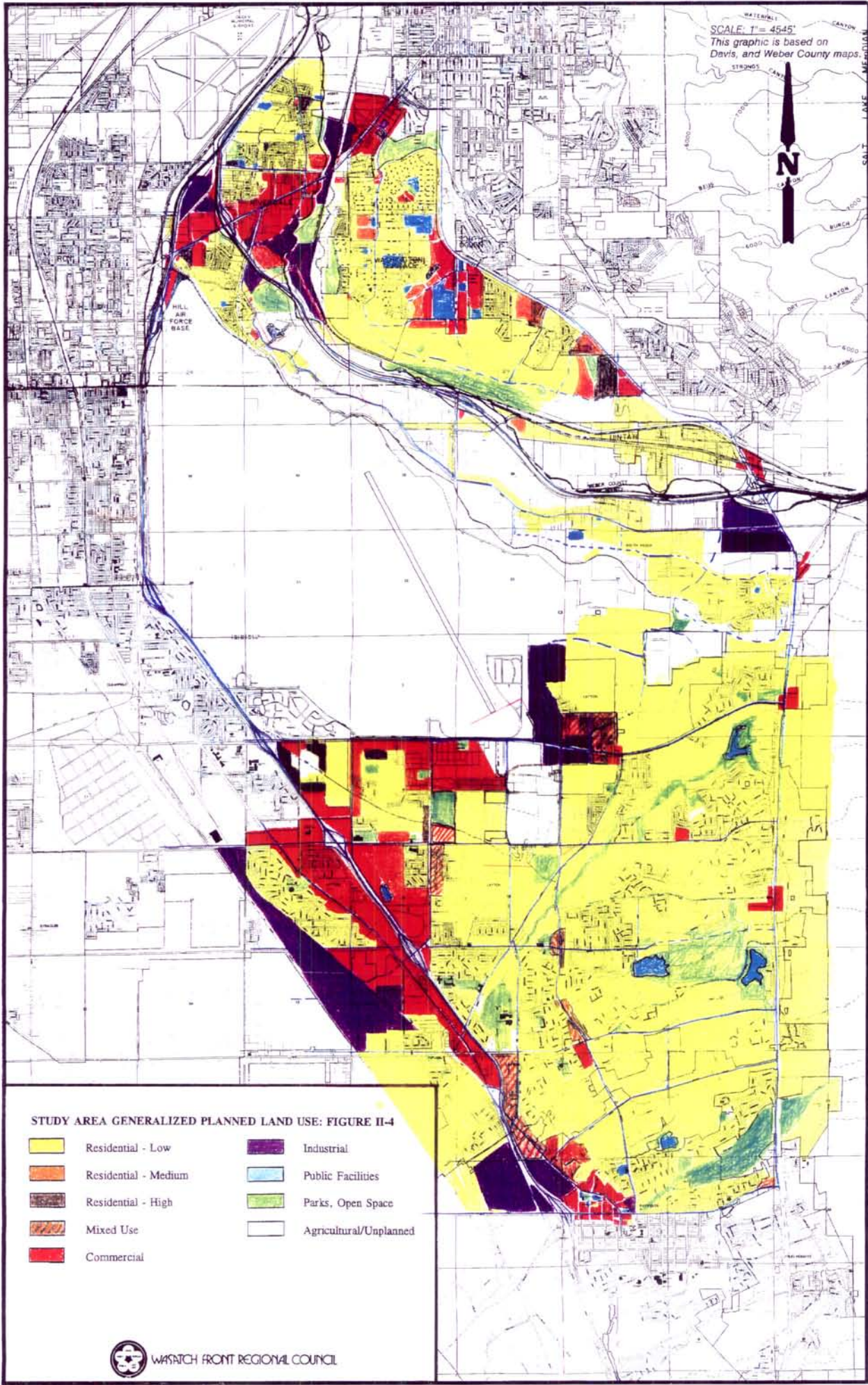
Transportation and land use are inextricably interwoven. The magnitude and type of existing and future development is very strongly influenced by the location and type of highway and other transportation facilities. Therefore, a review of the existing and proposed roadway system located in and affecting the development intensity and patterns of the study area is appropriately discussed here.

There are five major existing highways serving the function of principal or major arterials in the study area: Interstate 15, Interstate 84, U.S. 89 and Riverdale Road, Harrison Blvd., and Washington Blvd. The interstate highways are freeways and Riverdale road and U.S. 89 and Harrison Blvd. are major arterials. These facilities ideally provide for the expeditious movement of large volumes of through traffic between areas and are not intended to provide direct land access. Presently, U.S. 89 is being studied for possible upgrading to expressway standards. Riverdale Road, Washington Blvd, Harrison Blvd., and U.S. 89 serve a dual function inasmuch as they serve both through and land access traffic. All of the above principal arterials are under the jurisdiction of the Utah Department of Transportation.

There are several highways which are classified as minor arterials. These include: Main Street and 2nd North in Kaysville; 1900 West and 5600 South in Roy; Hill Field Road, Syracuse Road, State Street and 400 West in Layton; Main Street in Sunset and Clearfield; Chimes View Dr./ 40th Street in South Ogden; and Adams in Washington Terrace. These facilities are intended to serve through traffic within the city and provide direct access to abutting properties.

The collector roads are: Fort Lane, Fairfield St., Gentile St., Gordon Ave/100 North, and Church St. in Layton; Mutton Hollow Rd in Kaysville; South Weber Drive and 475 East in South Weber; 700

SCALE: 1" = 4545'
This graphic is based on
Davis, and Weber County maps.



STUDY AREA GENERALIZED PLANNED LAND USE: FIGURE II-4

- | | |
|--|--|
|  Residential - Low |  Industrial |
|  Residential - Medium |  Public Facilities |
|  Residential - High |  Parks, Open Space |
|  Mixed Use |  Agricultural/Unplanned |
|  Commercial | |

West, 1050 West, 300 North and 4400 South in Riverdale; Marine Drive, 500 West and 4800 South in Washington Terrace; 1700 South or Syracuse Road, 300 North, Doxey St., and Center Street in Clearfield/Sunset; and Adams Ave. in South Ogden. These facilities provide for through traffic movement between arterials and local streets and direct access to abutting property.

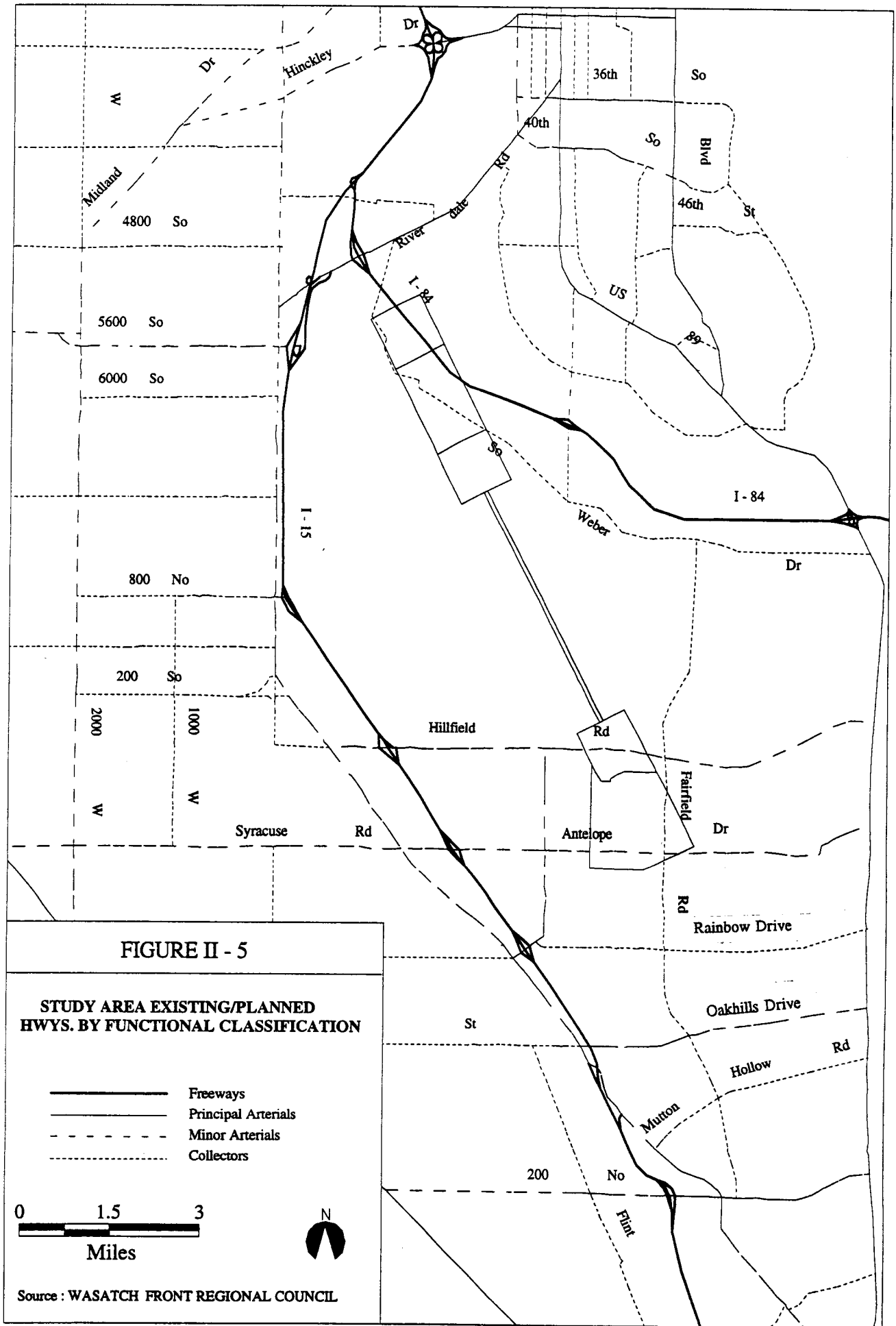
The Ogden Area Long Range Transportation Plan calls for the improvement of many existing and the development of several new highway facilities in the study area. Of the projects to be improved or upgraded, the proposed upgrading of U.S. 89 to expressway or freeway standards is probably the most significant. The Transportation Plan also calls for the construction of entirely new facilities (see Figure II-5). These facilities are most significant, since they have the potential of providing access to areas that have not been accessible in the past and increasing property values and pressures for development. These new facilities are: Antelope Drive (minor arterial), Rainbow Drive (collector), and Fairfield/Church extension in Layton; 200 So./Center Street Connection (collector) in Clearfield; 2675 West (collector) in Roy; Adams Ave. (minor arterial), Skyline Drive (collector), and 5600 South extension (minor arterial) in Weber County; Glassman Way (minor arterial), Edgewood Dr. (collector) and 46th Street (collector) in South Ogden; and Weber View Drive (collector) in Washington Terrace, South Ogden, Uintah and Weber County (for more information, consult the Ogden Long Range Transportation plan, Update No. 3, September, 1991).

Land Use/Development Trends

Hill AFB began its operations in the early 1940's. At that time the area around the base was relatively sparsely developed and populated. As the base grew and its operations expanded, so did growth and development in the surrounding communities, such as Layton, Washington Terrace, South Ogden, Roy, Riverdale and others. Many of the farms which existed were converted from agriculture to residential, commercial and industrial uses.

Over the past 30 years, there has been significant growth in the study area, particularly in north Davis County. Davis County has been one of the fastest growing counties in the state relative to population (see Chapter II, Community and County Population Profiles for more detailed information). The decade of the 70's was one of the highest growth decades for the study area. This brought with it an accelerated rate of conversion of land use from low to higher intensity use. Large tracts of land were being developed for residential, commercial and industrial purposes, including areas which were being impacted by Hill AFB aircraft noise. Also, during this period, the first Air Force AICUZ information was provided to affected jurisdictions.

Even though growth has been cyclical, overall the study area has had significant sustained growth



and development over the years. More recently, construction activities in the early part of the 1980's were affected by a relatively strong economic recession in the area. Since then, however, construction activities have increased in the area and are presently quite strong. The single family home construction market has been improving over the past few years and presently is prospering in the area. The bulk of the area's residential construction activity in the first six months of 1992 has occurred in the city of Layton, with 255 residential building permits issued. During this time, the cities of Roy, Kaysville, and South Ogden issued 101, 85, and 32 residential permits, respectively (Utah Construction Report, 1992). The residential construction activity of the other communities in the study area was relatively insignificant compared to the communities mentioned above.

AICUZ PROCESS

Background

Both the Federal Aviation Administration (FAA) and the Department of Defense (DOD) have developed and published guidelines for noise control and land use compatibility planning for airports. The FAA guidelines provide for the conduct of Part 150 studies and are used by commercial airports. The guidelines used by DOD are a part of the Air Installation Compatible Use Zone (AICUZ) program, and are used by military installations. Both of these studies or programs emphasize airport/land use compatibility and provide noise guidelines or standards and noise exposure maps that can be used as a basis for implementing land use controls. Additionally, the AICUZ studies address accident potential in the Accident Potential Zones (APZs).

The compatibility program had its beginnings nationally in 1971 when the military initiated a compatibility program called the Greenbelt Program. The generally rapid land development and population growth in the 1950's and 1960's; the employment opportunities and growth generated by and near the military air bases; the emergence of heavier planes and louder engines; and the increase in number of complaints made the implementation of a compatibility program a necessity. In 1972, the Greenbelt Program, because of a number of deficiencies which were inherent in the program, was replaced by the AICUZ program.

Hill AFB developed its first AICUZ study in 1974, and has developed other formal studies in 1977, and 1982; and maps showing noise contours in 1983 and 1988. These studies were developed for the purpose of protecting the local citizenry from noise impacts and accident hazards associated with the base's flying activities, and to discourage residential encroachment that may diminish the mission capabilities of the base.

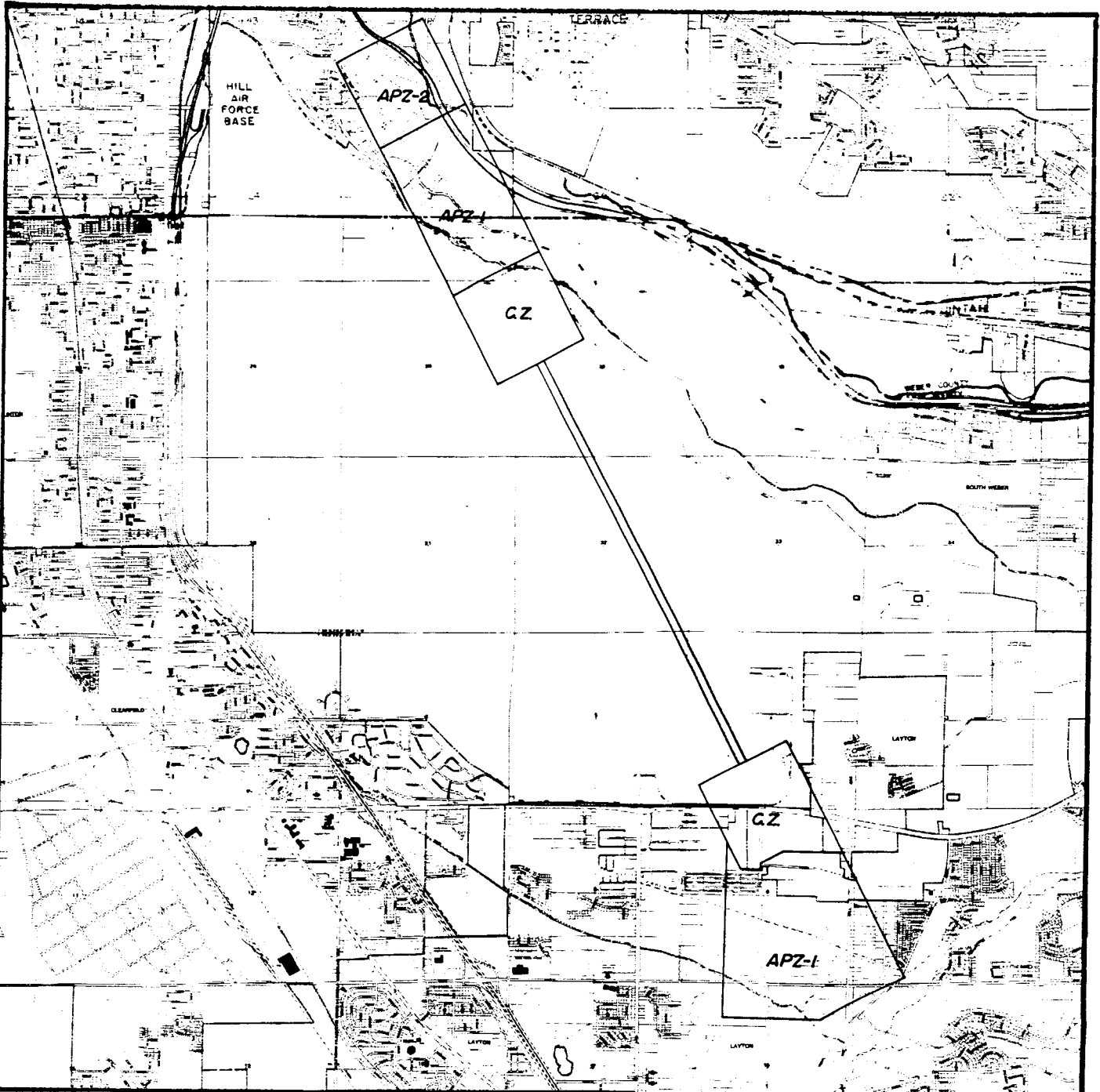
In the 1982 Hill AFB AICUZ document, the base has essentially listed the objectives of the AICUZ program as follows: (1) provide information, criteria and guidelines to state, regional and local planning bodies, civic associations, and similar groups, (2) inform the above groups of the requirements of the flying operations, noise exposure, aircraft accident potential and AICUZ plans; (3) describe the noise reduction measures being used; and (4) insure that all reasonable, economical and practical measures are taken to reduce or control noise producing activities.

The AICUZ identifies: (1) Accident Potential Zones (APZ's) based on past military aircraft accident records at all bases; (2) Noise Zones (NZ's) produced by the computerized Day-Night Average Sound Level (Ldn) methods for the specific base; and (3) areas designated by the FAA and Air Force which have height limitations in the approach and departure zones of the base.

The AICUZ program overlays the APZ's and noise zones on a community base map to create Compatible Use Districts (CUD's) which are intended to be used as a tool, along with the AICUZ Compatible Land Use Guidelines, by the local community planning departments in the land use planning process.

Description

In addition to the noise zones, the AICUZ study also is concerned with the clear zones and accident potential zones (APZs). In an area immediately adjacent to the runway ends, which is centered on the runway center line, is a Clear Zone of 3000 feet square. Attached to the end of the Clear Zone, is Accident Potential Zone I (APZ I) which is 3000' wide and 8000' long. Beyond APZ I, on the extended centerline of Runway 32, is a third zone, APZ II which is also 3000' feet square. On the end of Runway 14 at Hill AFB, APZ II is omitted since departing traffic initiates a right turn within 2 NM of the TACAN, prior to the south boundary of APZ I. The Clear Zone has been determined to be so prone to accident as to preclude any economic use. APZ I is not acceptable for activities which concentrate people in small areas. It is however deemed acceptable for industrial/manufacturing, transportation, communication/utilities, wholesale trade, open space, recreation and agricultural uses (Hill AFB AICUZ, 1982). APZ II, located further from the runway end, is not subject to the same level of risk as APZ I, but does present some risk (see Figure II-6). It is considered to be an acceptable location for low density single family homes (with sound attenuation), personal and business services, commercial and retail trade uses and those uses included in APZ I; high people density functions are not considered appropriate (Hill AFB AICUZ, 1982). The AICUZ recommends that densities for residential use be limited to one dwelling per acre and in non-residential uses that buildings be one story and not exceed 20% of the lot area.



HILL AFB COMPATIBLE LAND USE STUDY : FIGURE II-6

**HILL AFB ACCIDENT
POTENTIAL ZONES**

C.Z. - CLEAR ZONE

APZ - ACCIDENT POTENTIAL ZONE



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The AICUZ studies both aircraft and airport noise. "Aircraft Noise" is that generated by a single aircraft making a single flyover. "Airport Noise" is the noise environment created by multiple aircraft making multiple flyovers combined with the noise created by ground operations. Airport noise is depicted as the Day-Night Average Sound Level (Ldn). The Ldn begins with a single noise event. That event is then modified based on the number of repetitions and the time of day. Since the main concern regarding airport noise is its impact on residential development, night-time events (those occurring between 10:00 p.m. and 7:00 a.m.) are considered more aggravating than those occurring in daytime, and are then weighted accordingly. Noise contours, commonly referred to as the noise footprint, are a product of flight tracks, flight profiles, power settings, flight path and profile, and ground operations by type of aircraft and engine. For Hill AFB, these data are entered into a computer which produces Ldn values for the mix of aircraft and operations at the Base. Equal value points are then connected to form the contours. It is clear that the areas of highest noise should overlay the runway or fall within the Clear Zones and APZs.

AVAILABLE LAND USE CONTROL TOOLS

Introduction

There are a variety of tools available for implementing land use plans and controlling land development within the environs of an air base. Each measure or regulatory mechanism has certain unique characteristics and capabilities and when used individually or in combination can bring about certain desired patterns and quality of development. What follows will be a description and analysis of the land use and development control measures available to and ways these have been applied by the local and/or state jurisdictions.

Property Acquisition

Land acquisition can be accomplished through a negotiated purchase, condemnation or by grant and may include the land itself, the structures, and/or the right to use the land. Most properties are acquired through negotiation between a buyer and a seller to arrive at a mutually acceptable price for purchase. When properties cannot be acquired through negotiation for one reason or another, a public agency has the power of eminent domain or condemnation. Generally, a public body may exercise the power of eminent domain if the intended use of the land is for public purposes and the public good. If property is acquired using federal funds, compliance must be made with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. The act provides for the payment of up to \$15,000 to cover the difference between the condemnation value and the cost of comparable

replacement housing, and renters and owners are eligible for some moving expenses.

The most effective and at times the most expensive way to control land use and development in aircraft noise impacted areas is through the acquisition of properties in fee simple (ownership of all the property rights). Many times incompatible properties can be purchased and resold with covenants and restrictions or leased back guaranteeing a compatible future use. This method would allow an agency the opportunity to reduce its costs in acquiring land. This tool is most often used under circumstances when a situation is most critical for existing uses, or when other preventative measures such as land use planning and zoning measures have failed or have not been implemented for commercial airports. The FAA, for example, has recommended that properties within the 75 Ldn contour be acquired, since few developed uses of land are compatible within the 75 Ldn contour.

In the case of Hill Air Force Base, the base owns all the property of the base proper (runways, primary surface, taxiways, tower facilities, etc.) as well as the clear zones on either end of the runway. However, the Air Force has no mechanism nor funds to purchase properties outside of these areas. Also, other jurisdictions, such as the local municipalities, counties and the state have not in the past been engaged in any property acquisition programs.

Easements

An easement gives someone the right to make lawful and beneficial use of or gives an interest in a property owned by someone other than the easement holder. Easements can be categorized into two types: A positive easement and a negative easement. A positive easement gives the owner of the easement the right to do something with the land, and a negative easement prohibits a land owner from doing or gives up his right to do something. Easements can be acquired through purchase, condemnation, gift or grant.

Generally, one of the advantages of easements is that they may not cost as much as the fee simple purchase of land. However, there have been cases when the purchase of an easement has been as expensive as an outright purchase. Other advantages offered by easements are: They keep the property on the tax rolls; the property owner may continue to use the property within the conditions prescribed by the easement; and, they may be the second most desirable and effective land use control method after fee simple purchase.

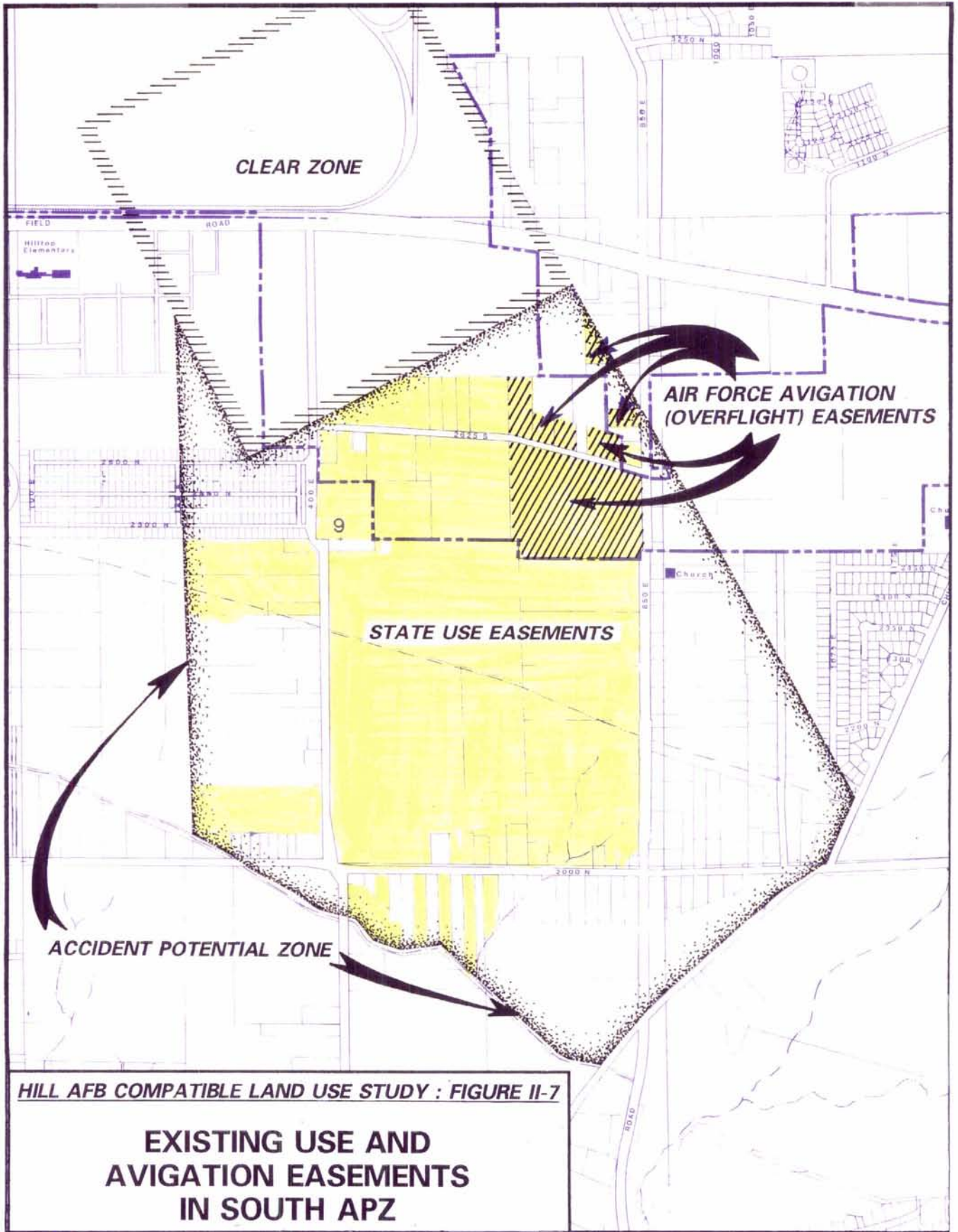
Avigation easements are a good example of the type of easements commonly acquired in the environs of an airport, and may be acquired over undeveloped as well as developed land. This type of easement allows for the overflight of land by aircraft, noise from the aircraft, and can limit the height

of structures on properties in the approach zones. These easements are recorded and become a part of the deed to property. Therefore, a potential purchaser of property would be made aware of the existence of an avigation or any other easement through a land title report.

In the Utah Code/Aeronautics, Chapter 4, Airport Zoning Act, Section 2-4-13, the acquisition of easements for navigation purposes is dealt with. It empowers the state and local governments to "remove, lower, or otherwise terminate a nonconforming structure of use." That power is granted to government when the necessary approach protection cannot be achieved through airport zoning because of constitutional limitations, or if it appears that approach protection is better provided through the acquisition of property rights rather than through zoning or police power.

In January of 1976, an act was passed by the Utah State Legislature which set aside \$1,000,000 for the acquisition of use easements to land in the Accident Potential Zone (APZ) adjoining the southern end of the Base. The acquisition of these easements was motivated by the fact that there were certain properties being developed in the APZ for residential and other uses that were incompatible with the base operations because of noise and safety. In the State Affairs In General, Chapter 31 (H.B. No. 61) the motivation of the State Legislature's actions are stated as follows: "Therefore, in order to assure the continued operation of Hill Air Force Base as an active military base and to protect the health and safety of the citizens of the State of Utah, the Legislature deems it necessary for the State to acquire easements restricting the use of said portions of land and air space above them, and said easements are declared to be for public use."

Originally, all of the APZ, which consisted of the AICUZ Compatibility Use Districts 3,4, and 5, was designated for easement acquisition. However, the funds for acquisition were not ample enough to acquire all of the properties (see Figure II-7). About 12 properties were acquired through condemnation and several lawsuits ensued as a result of the state easement program. The Utah Department of Transportation was authorized by the Legislature to "acquire by purchase or condemnation, easements for the establishment, maintenance and operation of a restrictive use area for the operation of aircraft from and to Hill Air Force Base." The land was restricted according to the 1974 AICUZ Land Use Compatibility Guidelines. The restrictions placed on the affected properties include the following: (1) No residential development; (2) Restrictions placed on the property by zoning shall not be affected if not in conflict with the restrictions; (3) use of the property shall not result in a concentration of people no greater than 25 persons; and (4) no improvements on the property shall exceed a height of 50 feet. Even though the state was able to place restrictions on the properties in the APZ through the purchase of some property rights, the state did not remove prior existing residences and eliminate the existing incompatible uses, nor did it establish a mechanism for preventing the violation and enforcement of the easement provisions.



Early in 1994, the State Legislature passed legislation (Utah Code Ann. 63-49a-3) that appropriated \$10,000,000 for the acquisition of use easements from property owners in the Accident Potential Zones (APZs) and other sensitive areas located within the 75 Ldn noise contour and in the immediate vicinity of the APZs (see Figure II-8). In addition, the legislature adopted a moratorium which prohibited development from occurring in these areas for period of one year (expires March 1, 1995) while preparations were being made for identifying the specific properties affected, determining the value of the easements, and acquiring them.

In large part, the efforts of the Legislature to protect Hill AFB from incompatible land use development was influenced by the Hill/DDO Committee, which was setup by the Governor's Office in 1993. It is composed of a coalition of private business and government officials, and is being funded by both state and private donations. The purpose of the Committee is to keep up with development of the base closure process, and to keep Hill AFB and Defense Depot Ogden off the closure list.

Exchange of Property Near Federal Airports

Unique to the State of Utah is a provision in the Utah State Code/Aeronautics, Section 2-4-16, which went into effect in 1988 and makes available to property owners, who are affected by governmental or agency actions, a land exchange program. The land exchange provisions are described in Section 2-4-16, as follows:

(1) If any governmental entity or agency adopts any measure which infringes upon the use of privately owned property, or which is designed to assure development compatible with the continued operation of a federal airport, the owner of that private property, if the owner has continuously owned the land from the date of the measure and whose land is wholly or partially within the area directly affected by the measure, may request an exchange of the affected land for state land outside the affected area.

(2) Upon a request pursuant to Subsection (1), the Board of State Lands [Board of State Lands and Forestry], without cost to the affected landowner, shall appraise the subject land taking into consideration the fair market value of any and all improvements, and may offer a land exchange at the earliest practicable time. The state may identify at least one, and may identify up to three parcels of state land of a substantially equal value to the land requested to be exchanged, and which can otherwise be exchanged in a manner which will not prejudice the interest of the state and which will not be inconsistent with proper management, control, protection, and use of state land. The state may provide for the use of qualified appraisers to expedite the process of the request.

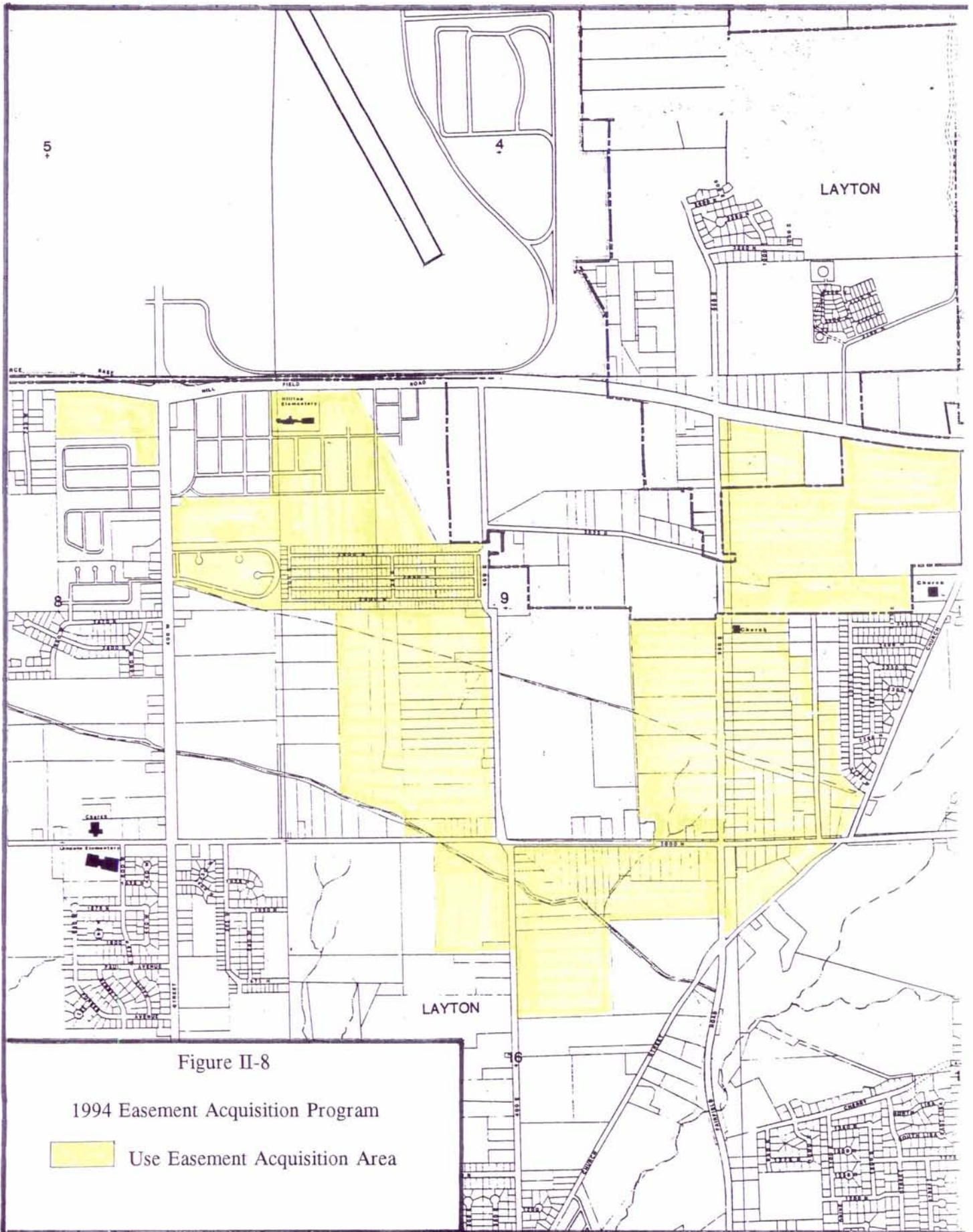



Figure II-8

1994 Easement Acquisition Program

 Use Easement Acquisition Area

The Division of State Lands and Forestry has been designated as the implementing agency of the land exchange program and as such has developed a "rule" which governs the process. Therein the state has defined a "measure" as being a binding land-use policy or zoning action formally adopted after April 25, 1988, by a governmental entity. Further clarifying land usage states that "... there is clear evidence the measure was adopted to assure the continued operation of a federal airport and which (a) curtails private property uses existing at the time the measure is adopted or (b) limits reasonably likely and prudent uses of private property in addition to those existing at the time the measure is adopted."

Even though the state land exchange program has been available for a few years (1988), there have not been any exchanges of land take place. Also, it is not evident that the local jurisdictions surrounding the base have taken formal "measures" or land use/zoning actions which could assure the continued operations of the base and curtails or limits reasonably likely and prudent private property uses. This may explain the fact that no exchanges have been made since adoption of the state statute and accompanying rule.

Subdivision Regulations/Plat Review

Cities and counties have been empowered by the state to enact subdivision regulations. These regulations enable the local jurisdictions the use of police power, and to be most effective, they should be correlated or connected with the zoning ordinances and the comprehensive plan. Subdivision regulations control the manner in which land is subdivided and specifies the type and quality of the accompanying subdivision improvements required. The regulations may require the dedication of easements or land for roadways and other public purposes. There are instances where the subdivision regulations have been used to require the dedication of avigation or noise easement as a condition for plat approval. The subdivision ordinances can require the drawing of the aircraft noise contour lines on the plat maps, which would enable potential property buyers who see the plat map to identify the noise impact area. From a practical standpoint, this may present a problem since noise from aircraft is not constant and the noise contours may change over time rendering them inaccurate and obsolete. Also, the subdivision ordinance may be used, along with the noise easements, to require the sound proofing of homes and other buildings within the 65 Ldn or greater noise contour.

At the present time, there is no evidence that the local jurisdictions surrounding Hill Air Force Base have used in the past or presently have in place the subdivision regulations requiring avigation easements, the drawing of noise contours on the plat maps, and/or covenants related to soundproofing of homes and other buildings when located in the aircraft noise impact area.

Building Codes

Building activity in the various political jurisdictions is covered by building codes or regulations. These codes can specify building techniques and materials used for the health and safety of the public. They can be applied to new construction within a political jurisdiction and can require suitable noise attenuation through insulation, types of windows and other measures, for site specific noise exposure areas. Attenuation requirements can be coordinated with the zoning and subdivision ordinances, which can have references to the building code provisions concerned with noise attenuation for specific areas of a community. The code is most easily enforced through building permit and building inspection procedures. Any new building code requirements enacted at a future time would not be retroactive and existing homes and other buildings would not be affected, unless additions were made to these structures.

There are certain disadvantages to the use of building codes in an effort to attenuate noise. These disadvantages, as listed in the State Aviation Programs: A Survey Study, (Goodwyn, 1990), include the following:

(1) There is no accepted "Standard" building code for achieving noise reduction. Acoustical experts do not agree on the level of noise reduction that can be achieved by certain building methods. A number of factors besides building methods influence the sound level that can be transmitted through the exterior of a building.

(2) Noise reduction achieved by soundproofing is only effective if windows are closed when the noise event occurs. In areas with a mild climate, or during the temperate times of the year, it is questionable whether the windows will remain closed and soundproofing of residences can be an effective means for assuring airport or airbase compatible land use.

Another factor not mentioned above is the problem of roof-mounted evaporative coolers which are very prevalent in the study area surrounding Hill AFB. When these coolers are installed, a hole is cut into the roof, a duct is extended from the cooler to the inside of a residence or building. Under normal circumstances this type of cooler arrangement serves as a conduit of noise from the exterior to the interior of a building. For exterior noise attenuation to be effective, this problem would need to be overcome either through design or elimination of this type of cooling system in aircraft noise areas.

Another consideration relative to locally adopted building codes is the passage of the Utah Uniform Building Standards Act of 1987 which repealed the old Contract Licensing Act and required all of the political jurisdictions in the state to use a uniform code. The codes that were required to be adopted by all the local jurisdictions were the: Uniform Building Code (ICB0) National Electrical Code;

Uniform Mechanical Code (ICBO and IAPRO); and Uniform Plumbing Code (IAPMO). A provision was made in the new act which eliminated all building code provisions which were passed by and unique to the local jurisdictions, unless they petitioned the state to retain these codes. Under this circumstance, the State Building Code Commission reviewed the local codes and subsequently arrived at a decision to either allow the local jurisdictions to keep previously adopted building code amendment provisions or to eliminate them. Jurisdictions desiring to amend the building code or adopt provisions unique to themselves would need to first receive the approval of the Uniform Building Code Commission. Any local or state regulators, state agencies involved in construction (design, contractors, plumbers, or electricians licensing boards or contract associations can request an amendment of the Uniform Building Code Commission.

All of the local jurisdictions in the study area govern and/or control building activity in their areas through building codes. As a result of the Uniform Building Standards Act, all the jurisdictions were required to adopt the provisions of the uniform codes and eliminate any others. The city of Kaysville was the only jurisdiction in the study area which amended its building code (prior to the passage of the Uniform Building Standards Act) which implemented the AICUZ recommendations for aircraft noise attenuation. The provision was contained in Section 18-2-5 of the Kaysville Building Code as follows: *Residential structures in Compatible Use District 13 as shown on the Compatible Use Districts Map of the Air Installation Compatible Use Zone (AICUZ) Report for Hill Air Force Base, Utah, as amended, shall be constructed in a manner to provide a minimum noise level reduction of 25 db. Such construction shall be in accordance with Appendix F, "Noise Level Reduction Guidelines," of the AICUZ Report.*

This provision, along with all other building code amendments of the various jurisdictions, was repealed by the state since the city of Kaysville did not petition the Uniform Building Code Commission to keep it.

Zoning

Zoning is the principal legal mechanism for controlling development, and guiding the establishment and maintenance of various land uses. Zoning receives its name from the practice of dividing the land area of a political jurisdiction into various zones or districts where certain types of land uses are or are not permitted. Land use within a zoning scheme includes basic land use categories such as residential, commercial and industrial and more elaborate schemes which further subdivides the basic one. Also, building size and height, lot size, building separation and set-backs, and the number of household units per acres can be specified with zoning.

Zoning, along with subdivision regulations, is a police power vested in the state. The state has

delegated this power to the local political jurisdictions through enabling legislation. Generally, the purpose of zoning is to provide a means to protect the health, safety and general welfare of the public. Also, it is intended to serve as a tool in guiding the orderly growth and development and implement the comprehensive land use plan of a community. Zoning must be fair, based on a reasonable plan, permit an economic use of property, allow public participation in the zoning process and an opportunity for redressing unfavorable decisions.

Some communities in Utah (and elsewhere in the nation) that have airports within their jurisdictional boundaries have used a zoning technique called an overlay zone. These zones may be superimposed on the existing comprehensive zones and have traditionally been used in connection with the control of height hazards. The overlay zone takes precedence over and supersedes the height restrictions of the underlying or comprehensive zone. Some states (including Utah) have further empowered local jurisdictions to not only use the overlay zone to control height hazards, but also to protect airports from incompatible land use or development that would limit the airport's usefulness. This type of overlay zoning, as with height hazards, supersedes the underlying or comprehensive zoning provisions. Where the comprehensive zoning permits certain land uses, they might be prohibited or restricted by an overlay zone.

Zoning is an excellent tool for guiding compatible land use development and has been used extensively throughout the country. However, since zoning normally restricts property rights it must be used very wisely and not misused. In order for zoning to be successful it cannot be administered in a deliberate or overly restrictive way so that property values are greatly diminished and/or uses significantly limited. When this situation occurs, it is usually considered inverse condemnation or a "taking". Past case law has shown, however, that the courts will generally support a community if the zoning in question is reasonable, even if an owner experiences some reduction in property values.

Relative to land use compatibility planning, zoning, along with its assets, does have some deficiencies. They include the following: (1) Zoning cannot be applied retroactively, and therefore, cannot bring existing incompatible uses into conformity; (2) zoning cannot normally be uniformly applied because of political boundaries and the great degree of variation relative to ordinance content and interpretation; and (3) zoning is not permanent and can be changed relatively easily when compared to easements and deed restrictions.

The power to zone in Utah rests with the State. The State Legislature, in the enacted statutes dealing with planning and zoning, has delegated this power to the local political jurisdictions. One of the purposes of the Planning and Zoning Act (revised, 1991) is to "provide for the health, safety, and welfare" by empowering communities to "enact all ordinances, resolutions, and rules that they consider

necessary for the use and development of land ... including ordinances, resolutions, and rules governing uses, density open space..." etc. In Section 10-9-405 (1)(b) of the Act relating to zoning, it states that "within those zoning districts, the legislative body may regulate and restrict the erection, construction, reconstruction, alteration, repair, or use of buildings and structures, and the use of land."

In addition to the powers and laws dealing with planning/zoning, the acquisition of navigation easements, and the land exchange program, the State's Airport Zoning Act has specifically empowered the local jurisdictions to zone properties to control airport height hazards.

In 1987, a joint resolution of the State Legislature was passed called the Military Airport Resolution. This resolution was adopted for purposes of "encouraging cities, towns and counties with territory in the vicinity of Hill Air Force Base... to cooperate with the Base in developing zoning regulations to prevent unsafe development" In essence, the resolution encouraged the political jurisdictions to use available airport land-use studies, such as the Air Force's AICUZ Study, to determine aircraft noise and accident potential zones in developing compatible land-use plans and zoning regulations.

Since (or before) the passage of the above resolution, there have been no comprehensive plan nor zoning ordinance provisions adopted by the local political jurisdictions surrounding the base which are sensitive to the existing aircraft noise environment.

The power to restrict land use through zoning in the vicinity of airports has been available to local political jurisdictions in the state for many years. For example, Salt Lake City, West Valley City, West Jordan, and Salt Lake County, have used overlay zones to not only restrict height, but also land use in areas that are affected by the Salt Lake City International Airport and Salt Lake Airport No. 2. Salt Lake City's ordinance not only restricts certain uses within the Airport Influence Zones, but also requires the granting of avigation easements and the incorporation of noise attenuation measures in homes before approval of a development or building permit is granted.

General Planning

The zoning ordinances and subdivision regulations, which were previously discussed, are theoretically developed as outgrowths and implementing tools of a community's General Plan. Therefore, the plan serves as a policy guide to ordinances dealing with land development and control, and to the decision-making process. It should reflect the hopes, desires and values relative to the community's physical development and quality of life amenities. The General Plan is a statement of goals the community wishes to accomplish.

A general plan can contain specific policies about land use, which can be expressed in the form of development policy statements and a future land use plan map. The plan can do little by itself relative to incompatible land use and noise impacts, but must rely on other tools for implementation.

There are four communities in the general study area which have to some degree addressed the issue of the environmental problems resulting from the aircraft operations of the base. These communities (Layton, Riverdale, South Weber, and Washington Terrace) have been or are presently affected by the noise contours of the AICUZ studies.

In Layton, the currently adopted 1982 Comprehensive Plan adopted a goal to provide compatible land use plans for District No. 2 (located just south of the base runway), and to "restrict development [to areas] least impacted by noise." Layton is presently in the process of updating its comprehensive plan. As a result, some preliminary recommendations or suggestions have been made by one of the comprehensive plan committees concerned with aircraft noise and safety. Generally, it was suggested that the city strongly consider the Accident Potential Zone (APZ's) when making land use decisions, that the Air Force provide updated AICUZ information for land use decisions, and that the operations of the base should be such as to minimize noise effects.

The City of Riverdale, in its 1987 master plan, recommended adoption of the restrictions as contained in the AICUZ relating to the APZ's and Compatible Use Districts (CUDs).

The City of South Weber's 1979 Comprehensive Plan identifies a noise impacted planning district located next to the northern APZ, but does not specify any restrictions.

The 1986 Washington Terrace Master Plan recommended that the noise sensitive areas identified by the AICUZ be considered for "special regulation" and that building criteria for noise attenuation be adopted.

A review of the currently adopted comprehensive plans, zoning ordinances, subdivision regulations, and building codes of the four communities indicates that there are no provisions in the land use/development control regulations which would effectively implement the policies and goals of the comprehensive plans dealing with noise related compatible land use planning.

Capital Improvements

Capital improvement programs can be used to control development. The planning and extension of public utilities, such as water, sewer and streets virtually assure development of property at some point

in time. Conversely, when these utilities are not extended, development does not take place. Capital improvement programs should be coordinated with the policies and future land use scheme of a community's comprehensive plan. However, unplanned and incompatible land uses can occur when this coordination does not take place.

Policies for Federally Assisted Housing Projects

The U.S. Department of Housing and Urban Development (HUD) in 1985 adopted a Noise Guidebook to serve as a reference document for all HUD field personnel who are responsible for implementing the department's noise policies as enumerated in 24 CFR Part 51.

As an outgrowth of the above regulations, and in coordination with Hill AFB, local planners, and developers, some specific policies were developed in 1987 by the regional offices of HUD and the Veteran's Administration (VA) relative to federally supported residential development "within normally unacceptable noise zones surrounding Hill AFB (AICUZ map zones 12 and 13).

The VA stated in bulletin 26-98-15 the following policies and procedures:

- (1) Proposed construction will be acceptable in areas above 65 Ldn but not in excess of 70 Ldn, provided that sound attenuation of 25 Ldn to reduce interior noise to acceptable levels (45 Ldn or below) is built into the dwelling.
- (2) There is market acceptance of the subdivision in which the dwelling is to be built.
- (3) The purchaser signs a disclosure statement which states that the property being purchased is adjacent to a military base and that aircraft noise may affect "normal livability, value and salability of the property."
- (4) A certification from an acoustical engineer that the dwelling (living Unit) has been constructed with appropriate sound attenuation features to reduce the interior Ldn of the dwelling to 45 or lower.

The DVA bulletin also stated that existing dwellings located in the 65-70 Ldn must have adequate insulation and year-around air conditioning as a condition of being acceptable.

The HUD-FHA Policy Statement concerning federally supported housing loan applications was issued in March, 1987. The provisions of this statement are paraphrased as follows:

Existing Homes - More Than One Year Old

HUD will continue to accept, process, and insure individual applications for existing homes that are over one year old even though they may be situated in unacceptable noise (AICUZ) zones.

New Properties of Construction - Less Than One Year Old

HUD-FHA will process applications in AICUZ Zone 13 (65-70 Ldn) subject to the following conditions: (1) The developer will obtain an acoustical engineer's certification that a minimum of 5 Ldn of additional (interior) sound attenuation [or a total of 25 Ldn] has been provided for buildings; and (2) that the mortgagee certify that the borrower was notified of the noise hazard before the execution of a sales contract [this requirement was dropped by HUD in October, 1987].

The policy also states that the HUD-FHA "will make every effort to withhold mortgage insurance from all future developments in the 70-75 decibel level (Zone 12)." And "... there will be no further development that will involve HUD-FHA programs in this normally unacceptable zone."

The policies of HUD-FHA and the DVA relative to their mortgage insurance programs can be used as a tool in controlling the development of incompatible or unacceptable uses in areas of high aircraft noise. However, the effectiveness of these policies is dependent upon the degree these policies are enforced. In early 1987, there was an effort made by HUD to re-articulate or re-affirm its noise policies after being contacted by Hill AFB about the severity of the residential encroachment problem in areas surrounding the base.

SUMMARY OF LEGAL ISSUES

Existing Case Law

With the advent of more powerful aircraft engines and rapid residential growth around many of our air bases, increasing numbers of citizens have been exposed to military aircraft noise. Citizens and property owners who have been aggrieved have used the court system in an effort to redress damages to their property. The courts have had difficulties in reaching verdicts that provide appropriate and adequate remedies, since traditional real estate laws have proven inadequate in dealing with the impacts of aircraft overflight.

Over the past 40 or more years, there have been numerous lawsuits filed and settled in the courts involving both commercial and military airports. However, there has been less litigation against military airbases when compared to commercial airports, because of limitations set by the U.S. constitution.

Typically, the types of remedies resulting from these court cases are either property or tort based. The property based remedy usually available to landowners involves inverse condemnation or a "taking.." whereas the tort based remedies involve nuisance and trespass (personal injuries).

There have been some leading cases involving military airbases (Hill AFB included) in the United States. Some of these cases are described below as contained in "Airport Operations and Land Use Law: (Lorenz, 1990) as follows:

INVERSE CONDEMNATION:

The leading case in the realm of inverse condemnation as a consequence of the flight of aircraft over private property is United States v. Causby, 328 U.S. 256 (1946). In that case, plaintiff owned a chicken farm outside a military air base. Government aircraft regularly passed over the property, often below 100 feet above ground level (AGL). The Court indicated in language that is now often quoted that flights over private land do not amount to a taking unless they are "so low and so frequent as to be a direct and immediate interference with the enjoyment and use of the land." The Court stated that incidental damages are not enough, but rather the damage must be so substantial as to amount to a taking. The United States was found to be liable for a taking, not as a result of noise intrusion, but as a result of physical intrusion due to frequent overflights. It is important to note that the U.S. Constitution, unlike many state constitutions, does not mention injury to property, but speaks only of just compensation for a "taking." As a result of this distinction, as long as there are no overflights, a claim based upon intrusion of noise, vibration and smoke alone will likely be dismissed in a case against the United States.

In litigation against the United States, plaintiffs are faced with an obstacle that has evolved under the Causby principle that a "trespass" is required before a taking can occur. In Batten v. United States, 306 F. 2d 580 (10th Cir. 1962), cert. denied, 371 U.S. 955 (1963), the Court found no taking where there were no overflights even though there was a substantial diminution of the market value of each house adjacent to the military air field. Chief Judge Murrah dissented and argued that a taking should have been found. The Batten rule has often been criticized, see Kanner, "Hurrah for Murrah!" 18 Just Compensation 11, 12 (1974), but it remains in force today.

Although the bare presence of noise without penetration of the superjacent airspace cannot itself amount to a taking, an increase in noise alone without any change in the nature of the physical invasion has been held to constitute a further taking that can be described as an "incremental taking." In Avery v. United States, 330 F.2d 640 (Ct.Cl. 1964), the Court held that the introduction of a larger, heavier, noisier aircraft can constitute a fifth amendment taking of an additional easement even though the noisier aircraft did not violate the physical boundaries of an earlier easement. The earlier easement was acquired through purchase and provided for "a perpetual easement and right of way for the free and unobstructed passage of aircraft." This was not enough to preclude a subsequent lawsuit.

The difficulties in making out a valid claim of a taking against a military air station is illustrated in Stephens v. U.S., 11 Cl. Ct. 352 (1986), a case arising at Hill AFB, Utah. Plaintiff introduced

evidence of 70-100 overflights per day over the property at altitudes between 800-1500 feet, with most flights over 1000 feet. In footnote 6, the court discussed the distinction between the 500 foot rule in "uncongested areas" and the 1000 foot rule for "congested areas found in 14 C.F.R. 91.79. Here plaintiffs' vacant land was adjacent to residential development. The court considered the 1000 foot rule to apply rather than isolating the uncongested land of plaintiff. Even with the application of the "1000 foot rule" the court concluded that there was no "direct and immediate interference with the use and enjoyment of the land." Citing Aaron v. U.S., 311 F.2d 798 (Ct. Cl. 1963), the court held that exceptions to the "500 foot rule" would be found only when damages to real property are "so severe as to amount to a practical destruction or substantial impairment of it" (emphasis added). Although plaintiff's land is located within the 65-70 LDN line and residential use is "discouraged" under the AICUZ, the court was not impressed and observed that "28 million people" in the U.S. are exposed to the noise levels in excess of 65 LDN.

NUISANCE AND TRESPASS:

The United States has waived sovereign immunity for the negligent or wrongful acts or omissions of its agents acting within the scope of their authority under the Federal Tort Claims Act, 28 U.S.C. § 2674. This waiver is not unconditional and is limited by the terms and exclusions of the Act. Noise based upon a nuisance theory is not a negligent or wrongful act. The Supreme Court in Laird v. Nelms, 406 U.S. 797 (1972), reh'g denied, 409 U.S. 902 (1972), has barred recovery from sonic boom damages under a nuisance theory indicating that no negligence was shown, and that the United States could not be held liable under the Tort Claims Act on a theory of strict or absolute liability. The Court also found that there was no trespass because the airways are public highways and there was no evidence of a wrongful act.

In a case more closely on point, the United States District Court found the Navy not to be liable under the Federal Tort Claims Act for damages resulting from noise emanating from the testing of jet engines at a Naval Air Station. Schubert v. United States, 246 F. Supp. 168, (S.D. Tex. 1965). The plaintiff had alleged negligence in failing to conduct jet engine testing in a quiet manner and placing the facility in a position near the plaintiff's home. The court found no negligence in the operation of the test cells and found that the decision to locate the test cells in a particular place was a "discretionary function", the exercise of which is specifically exempted from liability under 28 U.S.C. § 1680(a). Plaintiffs attempted to amend their action to allege a Constitutional taking but the Court noted that consequential damage does not amount to a taking of property.

A question arises as to the liability of the United States in tort for activities, influence or lobbying with respect to the development of private property near an air installation. No court has imposed such liability, because if the alleged activity is claimed to be a form of "misrepresentation": or "deceit" such claims are barred under 28 U.S.C. § 2680(h) as an exception to a valid tort claim. If the activity alleged is neither "unlawful" nor "negligent", again there would be no basis for tort liability. A valid tort claim is unlikely to arise as a result of overflights, regulations or other Federal activities that may affect landowners and citizens near federal air installations.

IMPROPER GOVERNMENT ACTIVITIES:

Several landowners have made claims against the United States resulting from alleged improper government activity to achieve compatible land use. One of the early cases was Cortese v. United States, Ct Cl #396-67 (Dec 29, 1972). In that case, the Court criticized the actions of the Marine Corps at Marine Corps Air Station, El Toro, California. This case arose even before implementation of the AICUZ program but was part of Marine Corps efforts to preserve a "green belt" under the primary aircraft approach corridor to the base. The Court found that the Marine Corps had improperly influenced the county decision making process by overstating accident potential and conducting "lobbying" efforts. The case was settled before final judgement and the Marine Corps paid 2.4 million dollars for a permanent greenbelt on plaintiff's property.

The Cortese case was followed by De-Tom Enterprises, Inc. v. United States, 552 F2d 337 (Ct Cl. 1977), where the court recognized that it is appropriate for the United States as an affected landowner to exert influence upon the local government to limit development of nearby land. The AICUZ plan has no regulatory effect; the local community can adopt or ignore it. All claims against the United States were dismissed.

THE "500 FOOT RULE" AND INVERSE CONDEMNATION:

The unique, high intensity level of certain military training activities has spawned litigation that challenged the already murky "500 foot rule." In Branning v. United States, 654 F2d 88 (Ct. Cl 1981), the Court found the United States to be liable for the taking of plaintiff's property even though the flights were within the navigable airspace. The Branning case, however, is of doubtful precedent because of an unusual set of facts. Marine Corps aircraft flew the carrier landing "race track pattern" continuously over the plaintiff's property just over 500 feet AGL. After reading the AICUZ study, the Court found that plaintiff was "consciously singled out to bear the burden" not imposed upon others. Aircraft flew at 30 second intervals, night and day, for several weeks. The trial judge found that the United States had taken an avigation easement over plaintiff's land and left the amount of compensation to be determined at a later date. The compensation phase of Branning was decided at 7 Cl Ct 777 (1985), finding that the value of the property was diminished as a result of the taking to the extend of \$2 million. With interest, attorneys fees and other costs, total compensation was approximately \$5 million.

The holding in Branning was limited by the case of Hero Lands Company v. United States, 554 F. Supp. 1262 (1983), aff'd., 727 F. 2d 1118 (Fed. Cir 1983), cert. denied, 1045 S.Ct. 233346 (1984). This case also involved carrier landing practice, this time at Naval Air Station, New Orleans. Hero Lands illustrates the difficulties encountered by landowners attempting to make out a case of inverse condemnation against the United States. Plaintiffs were unable to show the direct, immediate and substantial interference with the use and enjoyment of the land required under the Causby theory. The Claims court cited Branning, but refused to apply the "Branning exception", stating that the peculiar facts of that case were not present. Hero Lands was finally resolved on the basis of the six year statute of limitations, 28 U.S.C. § 2501. In Branning, the plaintiff was able to demonstrate a new cause of action beginning at the time of introduction of the heavier and noisier F-4d aircraft. In Hero, the change in aircraft did not produce any significant change in noise above that produced by the aircraft in use more than six years before the filing of the lawsuit. Thus, the Court held that plaintiff's cause of action, if any, accrued before the beginning of the six year limitations period and was barred.

ACTIONS RESULTING FROM IMPLEMENTING AICUZ:

*In a recent important case, the U.S. Claims Court denied a regulatory taking claim against the United States based upon implementation of the Navy's AICUZ program in Escambia County, Florida. Levy H. Blue v. United States, 21 Cl. Ct. 359 (1990). Citing the De-Tom decision, the Court found that the Navy did nothing to incur liability, because the threshold federal action requirement was not met. The Navy did not regulate the land. Plaintiffs made additional claims based upon "undue influence" and a violation of the constitutional right to due process. The undue influence claim was dismissed because it alleged tortious conduct that is not within Tucker Act and U.S. Claims Court jurisdiction, 28 USC § 1491 (a)(1)(1988). Finally, the due process claim was dismissed as beyond the jurisdiction of the court since the Fifth Amendment Due Process clause does not obligate the Federal government to pay money damages. See Carruth v. United States, 224 Ct Cl 442, 627 F. 2d 1068 (Ct. Cl. 2980). Also see Bieneman v. City of Chicago, *supra*, in which due process claims were dismissed.*

AVIGATION VS. CLEARANCE EASEMENTS:

In Adams v. United States, 680 F. 2d 746 (Ct. Cl. 1982); the State of Utah had acquired written clearance easements over plaintiffs' lands through contract and condemnation prior to 1976. These easements placed restrictions on the height of structures on plaintiffs' land and prohibited residential dwellings while listing a variety of permissible uses such as industrial, transportation, commercial and agricultural uses. In addition, the easements prohibited smoke and reflective light emissions that would interfere with pilot vision. The court noted that these easements did not by their terms include a right to overfly plaintiffs' lands.

During 1976, a new fighter wing arrived at Hill Air Force Base and the trial judge found that the attendant increase in number and loudness of aircraft operating out of the base constituted an additional taking of an avigation easement. The Court of Claims approved those findings, including the judge's consideration of AICUZ studies as evidence of the taking. The Court of Claims reversed the trial judge in part by finding that the written easements were "land use or clearance easements" and would not preclude recovery for "avigation or overflight easements." The Court of Claims distinguished the two by citing United States v. Brondum, 272 F.2d 642, 645 (5th Cir. 1959), which held:

An avigation easement may or may not contain provisions dealing with obstructions, but, unlike a clearance easement, in express terms it permits free flights over the land in question. It provides not just for flights in the air as a public highway - in that sense, no easement would be necessary; it provides for flights that may be so low and so frequent as to amount to a taking of the property.

In finding that the written easements were "clearance or land use" easements the Court of Claims nevertheless agreed with the government that the ultimate value at issue was the amount of compensation for the inability to develop these lands residentially, and to that extent the two kinds of easements overlap. The Adams case was settled before the final judgment to determine compensation for the landowner. In return for payment of just compensation the Air Force was awarded an avigation easement over the property. Additional funding from Air Force sources was used to acquire additional clearance easements not covered in the avigation easement.

When the United States is required to pay compensation in an inverse condemnation action based

upon aircraft overflight, there may be an unfortunate and unintended result. There is typically an award of only an avigation easement although damages are based on the value of the clearance easement. Value is determined in cases of easement condemnation as the difference between the value of the property immediately before and the value immediately after the taking, United States v. 329.73 Acres, 666 F.2D 281, 283 (5th Cir. 1982). The same valuation method is used in inverse condemnation cases based upon aircraft overflight. See A. J. Hodges Industries v. United States, 355 F. 2d 592 (Ct. Cl. 2966).

Most of the reported federal cases have been settled before final judgment, permitting the United States to acquire the appropriate clearance easements in return for just compensation. In Branning, the case was fought to the bitter end, resulting in the acquisition of only the classical "avigation easement" described in Causby. Development on the ground can go on unabated while the United States has merely an insurance policy against further lawsuits. If flight activity at Marine Corps Air Station, Beaufort returns to the intensive levels of 1975, the scope of the easement could only be determined by reviewing the evidence submitted in the 1982 ruling of the U.S. Claims Court. The one page "easement" filed in Beaufort County, South Carolina makes no mention of the amount of noise intrusion or flight activity permitted over the property. More importantly, the Air Station receives no protection from noise complaints or political pressure that might result from the new residents of Pleasant Point Plantation, the site of the Branning Litigation. The lesson from Branning: when the writing is on the wall, settle the case and obtain clearance easements.

There were other cases described in the paper by Lorenz, but were not described because they are not particularly relevant to this study involving Hill AFB. However, those that are described above should provide the reader with a general understanding of the legal underpinnings of court actions taken against the U.S. Government and their outcomes.

Past Litigation Involving Hill AFB

Hill AFB has been in litigation three times during the past sixteen years. The first case, Nalder v. United States, was initiated in 1974 by a group of owners with property located about one and one half miles south of the south end of the runway. It was during the time the Air Force's Greenbelt Program was in transition to the AICUZ program. The issue was restrictive zoning relative to residential use, and the influence the Air Force brought to bear on the municipalities to enact restrictive zoning ordinances. The plaintiffs filed the lawsuit on the basis that the restrictive zoning diminished property values and, therefore, was a "taking" for which compensation was due. The case was dismissed on the basis of the De Tom Enterprises, Inc. v. United States case "where the court recognized that it is appropriate for the United States as an affected land owner to exert influence upon the local government to limit development of nearby land" (Lorenz, 1990).

The Nalder v. United States case was later followed by the Adams v. United States case. The plaintiffs in this case were primarily the property owners in the south APZ and the suit was filed to cover

damages for overflights of military aircraft. The issue of this case was the inability of the land owners to develop their lands residentially and the ultimate value of the resultant damages. This case was settled prior to final judgement in 1982. The settlement involved payment of just compensation to the land owners (26 parcels) by the Air Force and, in return, the Air Force received aviation easements for most of the properties in the APZ. The aviation easement contained several stipulations which essentially dealt with overflights, noises, vibrations, fumes, fuel particles, smoke and such other effects resulting from the overflights; and holding the Air Force harmless (no future lawsuits or inverse condemnation).

The last case, *Stephens v. United States*, was filed and dismissed in 1986. The plaintiffs owned land located primarily in Washington Terrace and South Weber, which was within the AICUZ 65 Ldn noise contour. Approximately 586 acres were involved and the claim was for damages resulting from inverse condemnation. The court dismissed the case on the basis that there was no "direct and immediate interference with the use and enjoyment of the land" (see previous section on case law for more details).

POPULATION PROFILES

Existing Community Populations

As was discussed earlier, the study area touches on or includes Weber and Davis Counties, and the following eleven communities: Ogden, Riverdale, Roy, South Ogden, Uintah, Washington Terrace, Clearfield, Kaysville, Layton, South Weber and Sunset.

The 1990 census or population shows that Ogden has the largest population of the communities listed above with 63,909 people. Next in population size are Layton, with 41,784; Roy with 24,603; and Clearfield with 21,435. The remaining communities have populations of less than 14,000 each. The combined populations of the unincorporated portions of Weber and Davis Counties and the eleven communities amount to 201,156 people.

Community Growth Trends

The communities of South Weber and Layton had the highest annual rate of growth over the past 30 years (1960 - 1990) with 6.94 and 5.24 percent respectively. Other communities which showed fairly impressive growth over this time period are: Kaysville, Riverdale and Roy with annual growth rates of 4.61, 4.24 and 3.32 percent, respectively.

During the decade of the 1980's, South Weber, Uintah, Layton, and Kaysville grew most rapidly

with annual growth rates of 6.16, 5.64, 4.70, and 3.06 percent, respectively. From 1970 to 1980, South Weber, Riverdale, Kaysville, and Roy grew most rapidly, whereas from 1960 to 1970, the communities of South Weber, Riverdale, Kaysville, and Roy had the highest annual growth rates (see Table II-1).

There were four communities which lost population between 1980 and 1990. They were Riverdale, Sunset, Ogden and Washington Terrace. Between 1970 and 1980, Ogden was the only city with a population loss. None of the communities lost population between 1960 and 1970. Also, during this decade, some of the highest population annual growth rates were experienced by several communities, particularly South Weber, and Riverdale.

The overall total population of the communities grew from 121,559 in 1960 to 201,156 in 1990, which equates to an annual growth rate of 1.69. The table above shows that the population growth rate has been decreasing over each succeeding decade of the 30 year period.

Table II-1

COMMUNITY POPULATIONS, 1960 TO 1990

	1960	1970	Annual Percent Change	1980	Annual Percent Change	1990	Annual Percent Change	1960 to 1990 Percent Change
WEBER COUNTY								
Ogden	70,197	69,478	-0.10	64,407	-0.76	63,909	-0.08	-0.31
Riverdale	1,848	3,704	7.20	7,293	7.01	6,419	-1.27	4.24
Roy	9,239	14,356	4.51	19,694	3.21	24,603	2.25	3.32
South Ogden	7,405	9,991	3.04	11,366	1.30	12,105	0.63	1.65
Uintah	344	400	1.52	439	0.93	760	5.64	2.68
Washington Terrace	6,441	7,241	1.18	8,212	1.27	8,189	-0.03	0.80
DAVIS COUNTY								
Clearfield	8,833	13,316	4.19	17,982	3.05	21,435	1.77	3.00
Kaysville	3,608	6,192	5.55	10,331	5.25	13,961	3.06	4.61
Layton	9,027	13,603	4.19	26,403	6.86	41,784	4.07	5.24
South Weber	382	1,073	10.88	1,575	3.91	2,863	6.16	6.94

Sunset	4,235	6,268	4.00	5,733	-0.89	5,128	-1.11	0.64
TOTAL:	121,559	145,622	1.82	173,435	1.76	201,156	1.49	1.69
Source: Bureau of the Census								

Census Tract Population Distribution

A group of census tracts were selected to serve as a statistical area for population for the study area. The census tracts were selected on the basis of their proximity to Hill AFB and the noise contours developed for the 1996 projection. The census tracts include, in whole or in part, areas of unincorporated Davis and Weber Counties, Layton, Sunset, Clearfield, Riverdale, Roy, Washington Terrace, South Ogden and Uintah (see Figure II-9, Census Tract Population Statistical Area).

The Bureau of the Census reported a population of 100,077 for the census tracts in the population statistical area in 1990. In 1970 a population of 56,145 was reported, and in 1980 the population was 81,131. The annual growth rates were most pronounced between 1970 and 1980, with a rate of 3.75 percent. Between 1980 and 1990 the annual growth rate was 2.12 percent. Overall, between the 1970 and 1990 period there was an annual average rate of growth of 2.93 percent (see Table II-2) Census Tract Population, 1970-1990).

In analyzing the population growth by individual census tracts, the most significant growth occurred in census tract 1258.3 in Layton, which had a growth rate of 13.36 percent, annually, between 1970 and 1990. In 1970, this tract had a population of 403, and in 1990 it had grown to 4,945. Other high population growth census tracts between 1970 and 1990 were: 1258.2 (in Layton); 2112 (in South Ogden, Uintah and Uintah Highlands); 1251.1 (in South Weber and Layton); 1259.2 (in Layton); and 1259.1 (in Layton).

As can be seen in Table II-2, the census tracts located in Layton, South Ogden, Uintah, Uintah Highlands, and South Weber had the most significant growth during the past 20 years. There are three census tracts which lost population between 1970 and 1990. These are: 1253.1 (Sunset); 2107.1 (Roy); and 1257.0 (Clearfield).

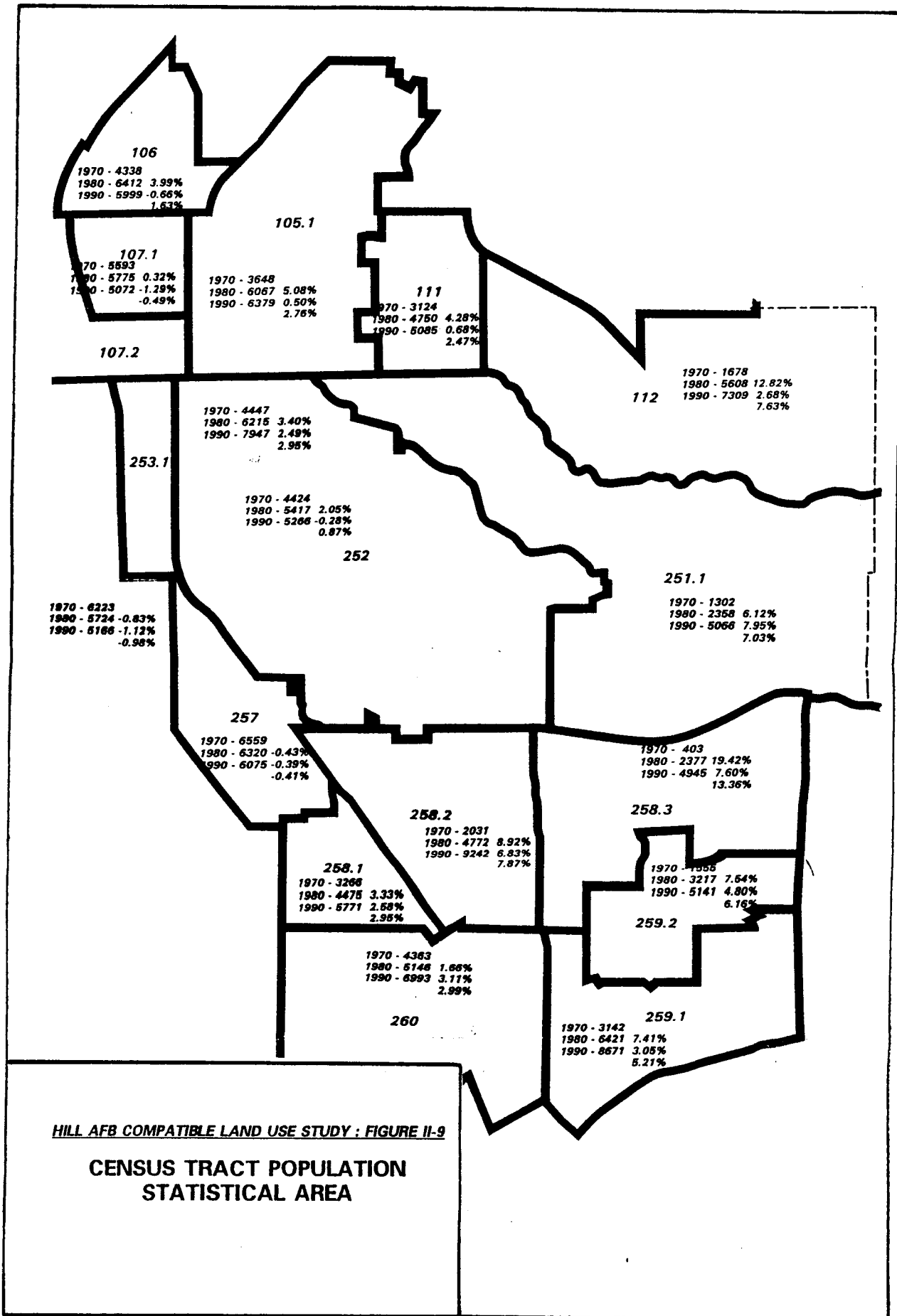


Table II-2

CENSUS TRACT POPULATION, 1970-1990

COMMUNITY	CENSUS TRACT	1970	1980	Percent Change	1990	Percent Change	Percent Change 1970-1990
South Weber/Layton	1251.1	1,302	2,358	6.12	5,066	7.95	7.03
Hill AFB	1252.0	4,424	5,417	2.05	5,266	-0.28	0.87
Sunset	1253.1	6,223	5,724	-0.83	5,116	-1.12	-0.97
Clearfield	1257.0	6,598	6,320	-0.43	6,075	-0.39	-0.41
Layton	1258.1	3,226	4,475	3.33	5,771	2.58	2.95
Layton	1258.2	2,031	4,772	8.92	9,242	6.83	7.87
Layton	1258.3/ 1258.4*	403	2,377	19.42	4,945	7.60	13.36
Layton	1259.1/ 1259.3*	3,142	6,421	7.41	8,671	3.05	5.21
Layton	1259.2/ 1259.4*	1,555	3,217	7.54	5141	4.80	6.16
Layton	1260.0	4,363	5,146	1.66	6,993	3.11	2.39
Riverdale	2105.1	3,698	6,067	5.08	6,379	0.50	2.76
Roy	2106.0	4,338	6,412	3.98	5,999	-0.66	1.63
Roy	2107.1	5,593	5,775	0.32	5,072	-1.29	-0.49
Roy	2107.2	4,447	6,215	3.40	7,947	2.49	2.95
Washington Terrace	2111.0	3,124	4,750	4.28	5,085	0.68	2.47
So. Ogden/Uintah/ Uintah Highlands (Uninc.)	2112/ 1212.1* 1212.2*	1,678	5,608	12.82	7,309	2.68	7.63
TOTAL:		56,145	81,131	3.75	100,077	2.12	2.93
Source: Bureau of the Census							
* New Census Tract Designation For 1990							

ECONOMIC IMPACT ANALYSIS

Introduction

The Hill AFB 1992 ECONOMIC RESOURCE IMPACT STATEMENT describes the economic impact of the Base on the surrounding counties of Cache, Box Elder, Davis, Weber, Salt Lake, Morgan and Tooele as well as state-wide impacts. The following information is based on the above document.

Hill AFB is the largest employer in Utah and as such fosters far reaching economic impacts. The base itself represents a major Department of Defense investment in Utah, exceeding \$12.378 billion. Weapon systems account for \$1,661,775,805; capital assets \$611,275,485; equipment \$1,041,314,926; inventories \$11,033,098,715; retail sales \$58,489,959 and Base operations and maintenance \$784,388,000. Clearly, Hill AFB and the Ogden Air Logistics Center is big business.

Procurement

Large quantities of goods and services are purchased in the local area ranging from missile parts to office equipment and commissary supplies. Total procurement for FY 91 was \$1,326,376,000 with \$101,256,931 contracted to Utah firms. Additional wages and salaries flowed into the Base as a result of civilian DOD contractors employing local technicians to perform base functions: Contractor employees number 5495.

School Impact Funds

As a result of having an Air Force Base in the area, schools are impacted by having to educate the children of non-resident sponsors who are assigned to the Base. Public Law 81-874 makes federal funds available to school districts based on how many non-resident students they serve. In Utah in 1990 that amounted to \$2,591,211.

Payroll

The most visible impact of Hill AFB is the wages of both the military and civilian work force. These wages, when they enter the economy, create the secondary jobs necessary to support the primary work force. With 17,843 Base employees, the study estimates that at the end of 1991, the wages paid these employees results in 11,513 additional jobs in the economic impact area. Base payroll is shown below:

Payroll

Civilian	\$493,101,767	
Military	\$155,986,504	
Non-Appropriated Fund	<u>\$4,684,298</u>	
Total:		\$653,772,569

Retirement

Civilian	\$134,626,388	
Military	<u>\$62,961,744</u>	
Total		<u>\$197,588,132</u>
Grand Total:		<u>\$851,360,701</u>

Economic Impact

The total direct impact of Hill AFB on the local economy in Fiscal Year 1990 is shown as follows:

Military Payroll	\$155,986,504
Non-Appropriated funds	\$4,684,298
Civilian Payroll	\$493,101,767
Military Retiree	\$62,961,744
Civilian Retiree	\$134,626,388
Services	\$4,270,439
Construction	\$27,634,655
Materials/Supplies/Equipment	\$69,351,837
CHAMPUS (Medical)	\$6,853,608
Impact Aid	\$1,584,284
Off Base Accommodations, Tuition, Commissary	\$8,686,373
Total:	<u>\$969,741,897</u>

Summary

The Oakridge National Laboratory has developed models to compute economic impact statistics. Based on these models and Air Force estimates of productivity factors, Hill AFB funds spent in the

primary impact area around the base (Box Elder, Cache, Davis, Morgan, Salt Lake, Tooele and Weber Counties) have produced an economic impact of \$1,695,088,728; 17,843 jobs on base and 11,513 secondary jobs off base.

AIRPORT/AIRSPACE CONSIDERATIONS

Introduction

The airspace along the Wasatch Front is a precious commodity. It is constrained by base elevation, which limits the performance of many aircraft, and topography, which channelizes most traffic into a north-south flow. A considerable percentage of the airspace in the region is controlled or restricted, thereby, compressing operations into a tighter volume.

Regional airspace is used by a wide variety of aircraft types, ranging from gliders, ultra-light aircraft and balloons, to heavy commercial transports and military jet fighters. The land area, stretching from Provo to Brigham City, is the most densely populated in the state. Making relatively heavy use of this airspace are the three busiest airports in Utah: Salt Lake City International Airport, Hill AFB, and the Ogden-Hinckley Airport. Proper coordination between controlling agencies, and day-to-day air traffic management and airspace control in this area presents a considerable challenge.

Airspace System

National/Regional

The national airspace system is provided for under Title 14 (Aeronautics and Space) of the U.S. Code, also entitled Federal Aviation Regulations (FAR). Subchapter E (Airspace), Part 71, defines federal airways, control areas, control zones, terminal control areas, airport radar service areas, and positive control areas. Part 73 defines special use airspace, including restricted, and prohibited areas. Part 91 establishes operating rules applicable to all pilots.

Metropolitan

The Salt Lake Metropolitan Area, from an airspace standpoint, includes most of the airspace in northern Utah. The reason for this is the heavy commercial traffic using the Salt Lake City International Airport (SLCIA) and its effect on all air traffic in the area. The following categories of airspace are found in the Metropolitan Area.

Controlled Airspace: Continental Control Area. The Continental Control Area covers the entire metropolitan area, and includes all airspace above 14,500 feet MSL, exclusive of airspace less than 1500 feet AGL and restricted areas.

Control Areas. Control Areas are defined in FAR Part 71. They include Colored Federal Airways, VOR Federal Airways, area low routes, and additional control areas specified by the regulations, all of which are outside (below) the Continental Control Area.

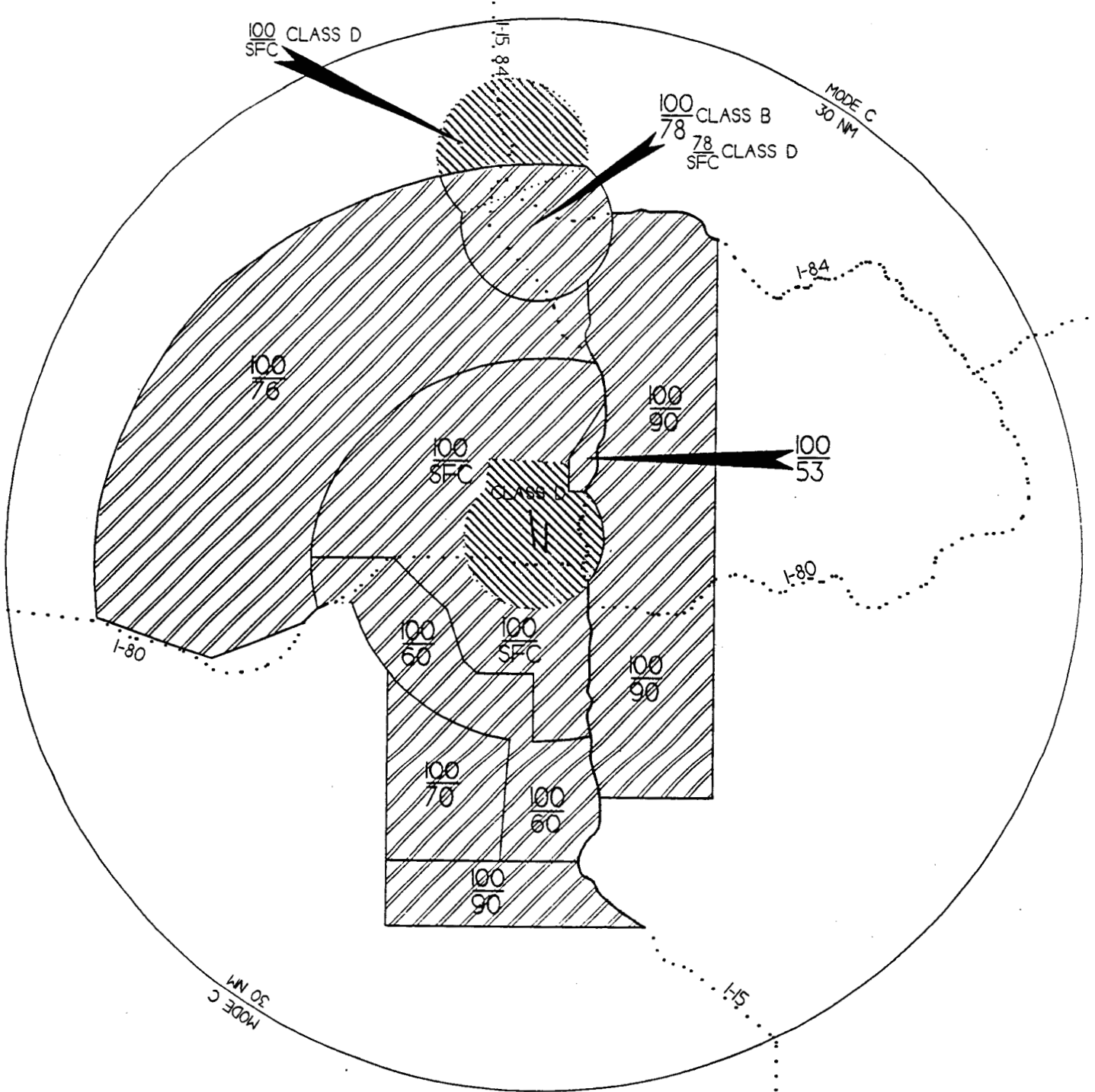
Control Zones. Control Zones include the airspace within a 5 mile radius of an airport with a published instrument approach and weather service (or AWOS), extending from the surface to the base of the Continental Control Area. Control Zones may include more than one airport and may have extensions necessary to protect instrument approach and departure paths. They are not to be confused with Airport Traffic Areas. There are seven regional airports with published instrument approaches and weather service, but only four have control zones established.

Airport Traffic Areas. This is the airspace found within 5 statute miles of the center of an airport with an operating control tower and extending upward to, but not including, 3000 feet AGL. All operations within an airport traffic area are controlled by the air traffic control tower. There are three airport traffic areas in the region, with associated air traffic control towers, at Salt Lake City International Airport, Ogden-Hinckley Airport, and Hill AFB. The Ogden-Hinckley and Hill AFB ATAs are standard with tops of 7469 feet MSL and 7788 feet MSL, respectively.

Positive Control Area. The Positive Control Area (PCA) includes all the airspace in the region from 18,000 feet MSL upward through FL 600. All flights within the PCA are conducted via Instrument Flight Rules (IFR) and are under positive control by the Air Route Traffic Control Center (ARTCC) or military controller. The Positive Control Area is designed in FAR Part 71, and rules for operating in the PCA are found in FAR Part 91.

Salt Lake City Class B Airspace. The Salt Lake City Class B Airspace was activated on November 19, 1989, concurrent with the deactivation of the Salt Lake City Airport Radar Service Area (ARSA). The Class B Airspace is controlled airspace, centered on SLCIA, which extends upward from the surface, or higher altitudes around the periphery, to specified altitudes. The top of the current Class B Airspace is 10,000 feet MSL, and the base extends from the surface at SLCIA to 9000 feet MSL over the Wasatch Range. The Class B Airspace is depicted in Figure II-10. Rules for operating in this airspace are found in FAR Part 91.

SALT LAKE CITY CLASS B AIRSPACE



Special Use Airspace: Restricted Areas. There are 13 different restricted areas in the region. Restricted areas are established, pursuant to FAR Part 73, to restrict (not prohibit) flight, to permit the user (normally the military) large blocks of unimpeded airspace for their operations. These areas are shown in Figure II-11, and include the restricted areas of R-6402 through R-6407 and R-6412. Restricted areas R-6402, R-6404, R-6406, and R-6412 are subdivided for better airspace utilization and control. The using agency for R-6402 through R-6407 (excluding R-6403) is the 299 Range Squadron at Hill AFB, and the controlling agency is the Salt Lake City Air Route Traffic Control Center (ARTCC). These areas are normally in continuous use. The using and controlling agency for R-6403 is the Tooele Army Depot. This area is in use weekdays, generally from sunrise to sunset. The using agency for R-6412 is the Utah National Guard, and the controlling agency is the Salt Lake City Air Traffic Control Tower (ATCT). This area is designated for intermittent use and is activated by NOTAM. Non-military access to all restricted areas in the region is gained through the controlling agency, and all are designated for VFR and IFR use.

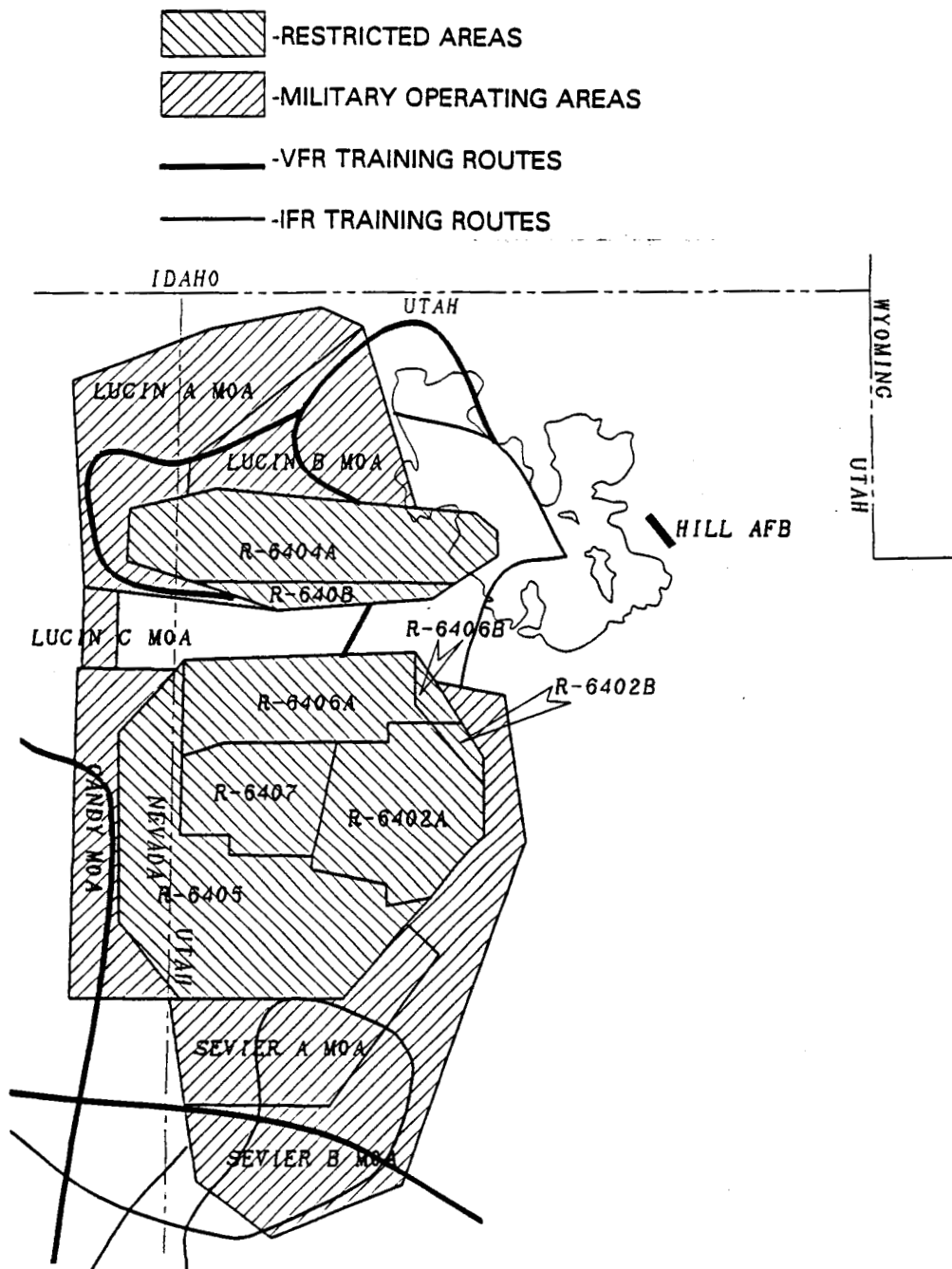
Military Operating Areas. There are six different Military Operating Areas (MOAs) in the region. MOAs are airspace blocks outside Positive Control Areas assigned to segregate certain military activities from IFR traffic, to identify VFR traffic to the user, and to make non-participating aircraft aware of these operations. Scheduling, coordination and flight procedures for MOAs are established by letters of agreement between local military authorities and concerned ATC facilities. MOAs are used intermittently. They are scheduled by the designated military scheduling authorities, and they are activated by ATC. They are frequently subdivided for better utilization of the airspace. Locations of the six MOAs in the region are shown Figure II-11. All of the regional MOAs are scheduled by the 299 Range Squadron at Hill AFB, and scheduling, coordination, and flight procedures are established by letter of agreement with the Salt Lake City ARTCC.

Utah Test and Training Range (UTTR). The Restricted Areas and MOAs are managed by the 299 RCS and are referred to collectively as the Utah Test and Training Range (UTTR). The UTTR is in almost continuous use by the Department of Defense (DOD). About 80 percent of the daily traffic from Hill AFB enters and exits the UTTR for training and test missions. The UTTR is shown in Figure II-11.

Military Training Routes. There are four designated Military Training Routes (MTRs) in the region. MTRs are air corridors of defined lateral dimensions established for the conduct of military training at speeds in excess of 250 knots. These routes are designated IR or VR to indicate VFR or IFR use. IR routes are usable either in VFR or IFR conditions. VR routes are

HILL AFB COMPATIBLE LAND USE STUDY : FIGURE II-11

**UTAH TEST AND TRAINING RANGE
AND PROCEDURAL FLIGHT TRACKS**



usable only with VFR. MTRs may be bi-directional or unidirectional. Similar to MOAs, the routes are scheduled by the using military unit via flight plan. Since these routes are below the radar coverage of the ATC, the user is responsible to see and avoid the other traffic. Entry to the route and exit is reported to the Flight Service Station (FSS) as an advisory to other VFR traffic and for purposes of flight following. The 388th Fighter Wing at Hill AFB is the originating and scheduling authority of all of the routes depicted, except VR-1445. The 299th Communications Squadron at SLCIA schedules and coordinates VR-1445.

Restricted Airspace: The restricted airspace in the region is described below as follows.

National Security Area. There is one designated National Security Area in the region, the Tooele Ammunition Depot. This area is depicted on low altitude en route, sectional, and terminal area charts. Pilots are requested to avoid flights in the designated area below 7700 feet MSL (2500 feet AGL).

Wilderness Areas. There are seven designated wilderness areas within the region. FAR Part 91 prohibits flight in these areas below 2000 feet AGL except in special circumstances, such as search and rescue, fire fighting, and the like.

Wildlife Refuge. The Bear River National Wildlife Refuge is located in the Bear River Bay portion of the Great Salt Lake about five miles southwest of the Brigham City Airport. This area is home to a large number of migratory waterfowl, and overflight below 2000 feet is prohibited by FAR Part 91.

National Parks and Monuments. There are two national parks/monuments in the region: the Golden Spike National Historic Site and Timpanogos Cave National Monument. Overflight below 2000 feet is prohibited.

Local Airspace

The Hill AFB Airport Traffic Area, which was described above, constitutes the only local airspace that is under the control of Hill AFB.

Air Traffic Control

A large portion of the airspace of the Wasatch Front is controlled airspace. The Federal Aviation

Administration (FAA), with the assistance of several subordinate agencies, has the overall responsibility for managing and controlling the airspace. The subordinate agencies have responsibility for certain portions of the airspace in the area.

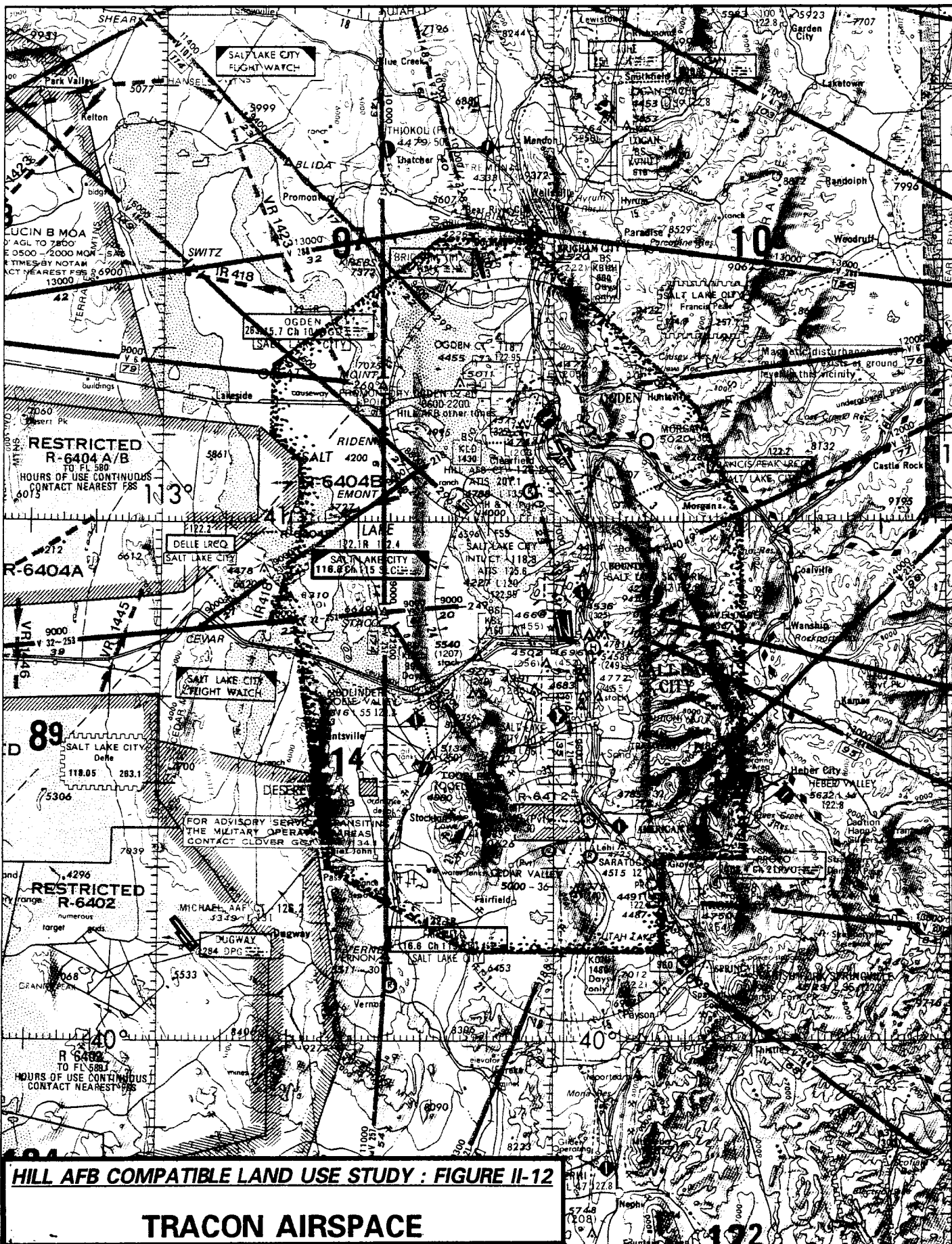
Salt Lake Air Route Traffic Control Center (ARTCC): Airspace control throughout most of the Intermountain Region rests with the Salt Lake City ARTCC, or the "Salt Lake Center." The Center controls the airspace in the Continental Control Area between 16,000 feet and FL 600, which encompasses most of Utah, Idaho, and Montana. About one-half of Nevada and Wyoming, and portions of Oregon, North Dakota and South Dakota also come under the Center's control. The Salt Lake City ARTCC is located at the SLCIA and exercises its control through remote radar and radio facilities located throughout the region.

Salt Lake Air Traffic Control Tower (ATCT): The Salt Lake ATCT is the agency responsible for air control within the Salt Lake City Terminal Area. The Salt Lake ATCT controls the airspace below 16,000 feet MSL in an area extending as far north as Brigham City and as far south as the Fairfield VORTAC. It also extends about 20 miles east and 30 miles west of the Salt Lake City VOR. The Salt Lake ATCT provides tower control for the SLCIA and Terminal Radar Approach Control (TRACON). TRACON provides radar air traffic control service throughout the terminal area.

Salt Lake Tower: The Salt Lake Tower exercises visual control over aircraft operating on the ground, or in the airport traffic area at SLCIA.

Salt Lake Terminal Radar Approach Control (TRACON): The TRACON is the second level of air control provided by the Salt Lake ATCT. The TRACON exercises radar traffic control in the terminal area. TRACON manages all traffic in the Salt Lake City Class B Airspace which is not under tower control and handles IFR arrivals and departures for the airports at Brigham City, Ogden-Hinckley, Hill AFB, Tooele Valley, SLC No. 2, and Provo (see Figure II-12). The TRACON also provides Air Surveillance Radar (ASR) service for instrument approaches to SLCIA and Salt Lake City Airport No. 2.

Ogden ATCT: The Ogden-Hinckley Airport Tower is operated by the FAA. The Tower controls aircraft in the Ogden Airport Traffic Area and Control Zone, which overlaps with the area/zone of Hill AFB. The Tower is equipped with a terminal area radar repeater system (D Bright) which gives the tower controller better awareness of aircraft operating in the vicinity. Air traffic control is coordinated with Hill AFB and the Salt Lake TRACON through letters of agreement.



HILL AFB COMPATIBLE LAND USE STUDY : FIGURE II-12
TRACON AIRSPACE

Hill ATCT: The Hill Tower is also equipped with the D Bright radar repeater. This facilitates coordination with the Salt Lake TRACON, which manages Hill AFB's IFR arrivals and departures beyond the Hill AFB ATA boundary. Most traffic emanating from Hill AFB transits to and from the UTTR Restricted Areas and MOAs to the west of Hill AFB. The Hill Tower also has a small element which provides Precision Approach Radar (PAR) service to arriving aircraft. The Hill Tower maintains close coordination with both the Ogden Tower and the Salt Lake TRACON.

299th Range Control Squadron: This organization is a part of the Utah Air National Guard. It provides tactical radar service to military users of the UTTR and advisories to civilian aircraft upon request. It is located at Hill AFB, and exercises control through remote radar sites and communications facilities located in the UTTR. The 299 RCS was recently certified as an Air Traffic Control by the FAA. This allows the 299 RCS to provide radar service to non-military aircraft transiting the UTTR.

Airspace Management

Several natural factors dictate aviation traffic flows in the Salt Lake City-Ogden area. On the east are the Wasatch Mountains which rise to almost 10,000 feet within 5 nautical miles of Hill AFB. This restricts operations east of Hill AFB and Ogden-Hinckley. On the west of the airports is the Great Salt Lake, a natural barrier to many single-engine general aviation airplanes. South of the Lake and southwest of SLCIA, the Oquirrh Mountains rise over 10,000 feet and restrict aircraft movement into and out of SLCIA. The prevailing winds are north-south resulting in similar runway orientations at each of the area airports; 03/21 at Ogden-Hinckley, 14/32 at Hill AFB, Skypark 16/34, and 16/34 at SLCIA. These conditions cause aircraft to operate north-south in the narrow band between the mountains and the Lake. Under these conditions, accommodations must be made to permit a safe and orderly flow of airborne traffic.

SLCIA traffic arriving from the North or departing to the North must cross 41° N. Latitude, at or above 8000 feet MSL. This position is 13 nautical miles North of SLCIA and seven nautical miles South of Hill AFB. This restriction is imposed to permit departing Hill AFB traffic at 7000 feet MSL to pass below the commercial traffic. Nearly 95 percent of Hill AFB takeoffs and landings are on Runway 14 and depart to the West. Such departures maintain runway heading to 1.5 to 2 DME on the Hill TACAN and execute a right turn. Altitude is limited to 7000' MSL to a point 10 NM DME from the Hill TACAN or until they are clear of SLCIA traffic, as determined by Salt Lake City Approach Control. The Ogden-Hinckley traffic pattern is 700 feet above the ground, due in part, to the fact that Hill AFB Runway 14 VFR arrivals pass directly over the airport. Initial entry to the overhead traffic

pattern at Hill AFB is at 6800 feet MSL, or 2300 feet above the Ogden-Hinckley Airport and 1600 feet above their traffic pattern. Rectangular patterns to Hill AFB Runway 14 are East of the airfield boundary at 6300 feet. On instrument approaches to the Base, whether ILS or TACAN to Runway 14, aircraft must maintain a minimum of 5700 feet MSL until 4 miles from the Hill TACAN, or 1/2 nautical mile past the Ogden-Hinckley Airport boundary.

Airport System

There are five airports located within 25 NM of Hill AFB. They are: Brigham City Airport, Ogden-Hinckley Airport, Morgan County, Bountiful Skypark and Salt Lake City International Airport. With the exception of Morgan County Airport, all are on a north-south line between the Wasatch Mountains and the Great Salt Lake (see Figure II-13). The five airports had over 570,000 operations in 1990. Hill AFB, Ogden-Hinckley and SLCIA accounted for almost 510,000 operations and are the three busiest airports in Utah.

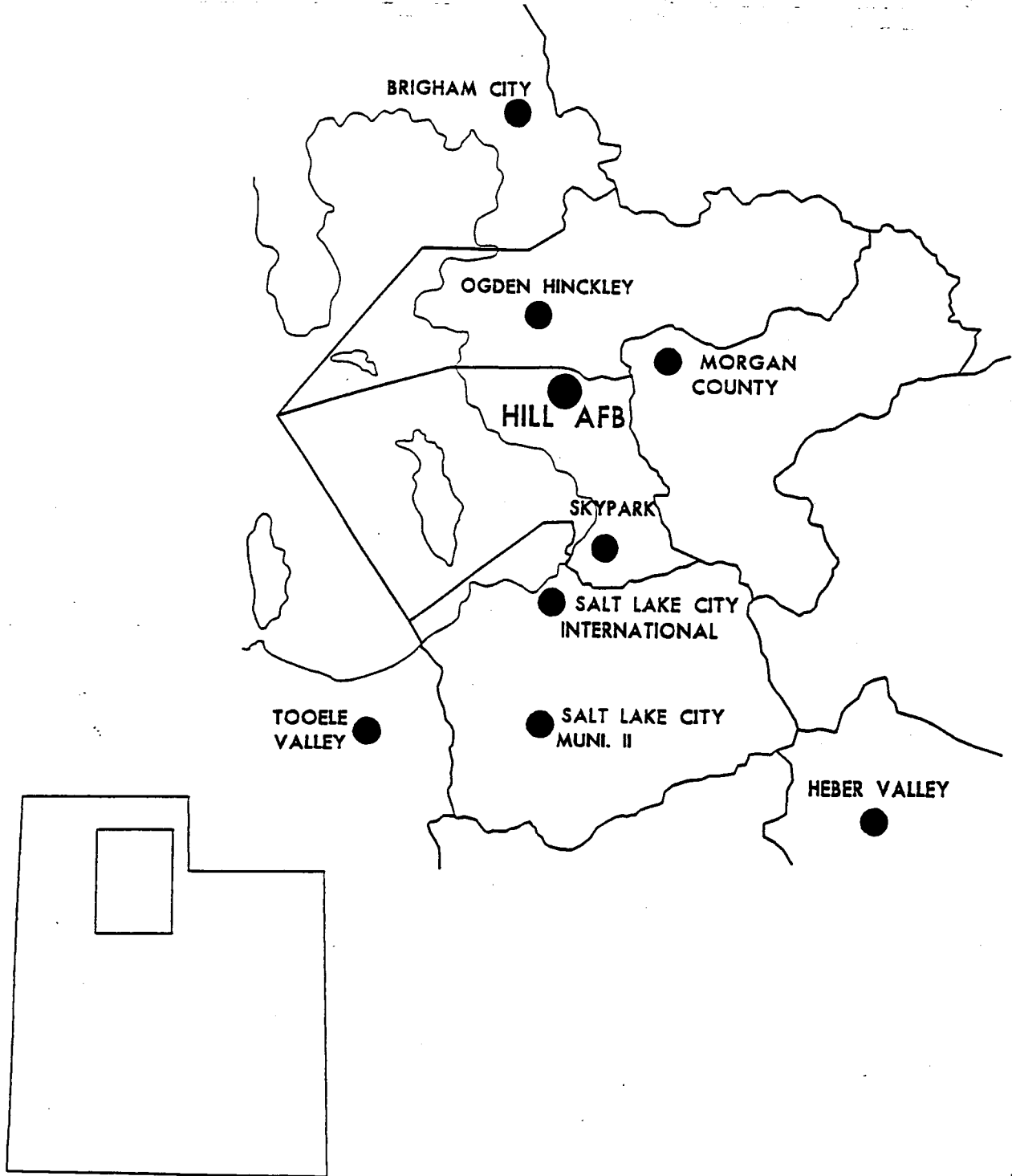
Brigham City: This is a general aviation airport located 3 miles NW of Brigham City. There are approximately 30 airplanes based at Brigham City and approximately 15,000 operations occur there, annually. Since most traffic at Brigham City is VFR, and the airport is located 26 miles north of Hill AFB, it cannot be expected to affect Hill AFB traffic significantly.

Ogden-Hinckley: This is the northern most airport in the study area. It is a transport class airport located 4.5 nautical miles north of Hill AFB on the extended center line of Hill AFB Runway 32. A busy general aviation airport, it had 212 based aircraft and recorded over 106,900 operations in 1990. Operations are forecast to increase to 120,000 by the year 2000. The air traffic control tower operates 15 hours per day, 7:00 a.m. to 10:00 p.m. local time. Operations occurring at other times are not recorded. Ogden-Hinckley's primary Runway 03/21 is 8100 feet long and 150 feet wide. An ILS Runway 03 approach was activated in 1992. Runway 16/34 measures 5349 feet X 150 feet and Runway 07/25 measures 5600 feet X 150 feet. Ogden-Hinckley is a designated "Reliever" airport for SLCIA. The Ogden-Hinckley traffic pattern is 700 feet above the ground (5200' MSL) since initial approach to Hill AFB Runway 14 is directly over the airport at 2300 feet above the ground (6800 feet MSL).

Hill Air Force Base: This facility is located approximately 4.5 nautical miles south of Ogden-Hinckley Airport and 20 nautical miles north of SLCIA. The single runway is 14/32 and measures 13,500 feet long and 200 feet wide. A military control tower is operated 24 hours per day. The Base assigned aircraft include approximately 80 F-16 fighter aircraft, and several categories of cargo and tanker aircraft. Hill AFB also hosts deployed fighter units, which operate

HILL AFB COMPATIBLE LAND USE STUDY : FIGURE II-13

AIRPORTS IN VICINITY OF HILL AFB



all types of first line fighter aircraft, that periodically come to Hill to use the Utah Test and Training Range (UTTR). The Base activity level fell in 1990 to slightly over 94,000 operations as a result of several squadrons being deployed to Operation Desert Storm. The activity level

is expected to stabilize at approximately 100,000 operations per year, and to maintain that level of activity through the year 2000.

Morgan County: This facility is a basic utility airport, is located 10 NM east of Hill AFB and is separated from the Base by the front range of the Wasatch Mountains which rise to almost 10,000 feet MSL. Because of the mountains between Morgan County and Hill AFB, traffic interfaces are not a factor. The Morgan County runway is 03/21 and is 3800' long by 50' wide. They had an estimated 8500 operations in 1990 and are forecast to have 11,600 in the year 2000. Morgan County is a VFR only airport, separated from Hill AFB by the Bountiful Front Mountain Range. As such, it has little effect on Hill AFB operations.

Skypark: This airport is a privately owned basic utility airport open to the public. It is located 16 NM South of Hill AFB, and five NM northeast of SLCIA in the TCA. Skypark's single Runway 16/34 is 4700 feet long and 60 feet wide. They had 52,000 operations in 1990 and are forecast to have 61,800 operations in 2000. This facility is primarily a VFR general aviation airport, and does not affect IFR traffic using Hill AFB.

Salt Lake City International Airport (SLCIA): This airport is located 20 nautical miles south of Hill AFB, between Salt Lake City and the Great Salt Lake. It is the 25th busiest major hub airport in the United States. SLCIA had 468 based aircraft and 303,000 operations in 1990 and is expected to exceed 400,000 by the year 2000. The bulk of airport operations are commercial jet. There are three Runways, 16R/34L which is 12003 feet X 150 feet; 16L/34R, 9596 feet X 150 feet and 14/32 which measures 5295 feet X 150 feet. Runways 16/34, right and left are the primary runways. The ATCT operates 24 hours per day, and Salt Lake City Approach Control manages arrival and departure IFR traffic at all five region airports except for Morgan County.

Hill AFB Operations Summary

Aircraft operations at Hill AFB have decreased over the last six years, from 121,314 in 1985, to 94,406 in 1990. The 1990 count is misleading since several squadrons of F-16 aircraft deployed to the Persian Gulf in August in support of Operation Desert Storm. However, in 1989, operations totaled only 108,303. Even though operations totals have decreased, most Hill missions continue to operate in the UTTR conducting training, whether based at or deployed to Hill. The Hill AFB operations count is

expected to stabilize in the area of 90,000 per year through the planning period.

While Hill AFB traffic counts are expected to be flat for the foreseeable future, activity at SLCIA and Ogden-Hinckley airports will increase significantly. By 1995 Ogden-Hinckley activity will exceed 100,000 operations and SLCIA will exceed 325,000 operations by 1996.

Activity levels at Hill AFB have decreased during the last five years, but the annual distribution of activity has remained similar. Between April and October, from 62 percent to 67 percent of the annual total of operations have been flown. This is due to the lack of cloud cover and excellent in-flight visibility available. A review of 1990 operations by quarters of each day shows that almost 84% of all operations occur between 6 a.m. and 6 p.m., with the period Noon to 6 p.m. having almost 50% of the operations total.

The daily distribution of traffic changed with the start of training for Low Altitude Navigation and Targeting Infrared for Night (LANTIRN). LANTIRN will require that 3000 F-16 missions, normally flown in daylight, be flown at night. There will be no increase in the total number of operations, but the redistribution to nighttime will result in an apparent increase; aircraft will be flying after people return home from work, which they had not done previously.

HILL AFB NOISE COMPLAINTS

Noise Complaint History

During a 5-year period from 1987 to 1991, Hill AFB received a total of 334 complaints resulting from aircraft noise. Most of these complaints stemmed from the operations at Hill AFB directly and the operations related to the Utah Test and Training Range (UTTR) located west of the Great Salt Lake. Also, during this time period the total number of sorties ranged between approximately 20,000 and 27,000. In no year during this period did the complaints exceed 0.4 percent of the sorties flown, which appears to be a relatively small complaint/sortie ratio.

According to the Hill AFB records covering 1987 through 1991, about 96 percent of the complaints were made Monday through Friday, and the remaining 4 percent were made during Saturday and Sunday. This pattern of complaints is reflective of the flying schedule of the Base which calls for nearly all of the flying to be done during the week day.

Generally, a majority of the complaints are made during the summer months. This can be

explained, to a large degree, by the prevalence of open windows during the warmer times of the year which allow aircraft noise to be more noticeable indoors (see Table II-3).

Table II-3

Hill AFB Community Noise Complaints, 1987-1991

Community	Year					Total Complaints	Percent
	1987	1988	1989	1990	1991		
Clearfield	0	1	2	1	0	4	1.98
Kaysville	1	0	1	1	0	3	1.49
Layton	47	30	5	13	21	116	57.43
Ogden	2	7	1	1	3	14	6.93
Riverdale	1	3	6	4	1	15	7.43
Roy	0	1	3	3	2	9	4.46
South Ogden	0	1	2	4	3	10	4.95
South Weber	7	5	4	1	2	19	9.41
Sunset	0	0	0	0	0	0	0.00
Uintah	0	1	2	0	1	4	1.98
Washington T.	0	0	1	0	4	5	2.48
Hill AFB	0	1	2	0	0	3	1.49
Total:	58	50	29	28	37	202	100.00
Source: Data from Hill AFB Office of Public Affairs							

Of the 334 complaints recorded, 202, or slightly more than 60 percent came from the communities in the vicinity of Hill AFB. These communities include: Clearfield; Kaysville; Layton; Ogden; Riverdale; Roy; South Ogden; South Weber; Sunset; Uintah; Washington Terrace; and Hill AFB. Approximately 57.4 percent of the complaints came from Layton and the bulk of the remaining coming from South Weber, Riverdale and Ogden with 9.4, 7.4 and 6.9 percent, respectively (see Table II-4)

Table II-4

Hill AFB Noise Complaints from 1987-1991 by Month and Day of Week

Year & Month	Complaints	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1987	January	0	0	1	1	0	1	0
	February	0	1	1	0	0	1	0
	March	0	2	0	1	3	4	0
	April	0	1	2	2	0	3	0
	May	0	2	2	6	1	5	0
	June	0	6	3	2	5	1	0
	July	0	1	2	4	1	2	0
	August	0	1	0	0	3	2	0
	September	0	0	1	0	0	1	0
	October	0	0	0	1	2	0	0
	November	0	1	0	1	1	2	0
	December	0	0	0	0	0	0	0
Total:	83	0	15	12	18	16	22	0
1988	January	0	0	0	0	1	0	0
	February	0	1	2	0	1	2	0
	March	0	0	1	2	2	1	0
	April	0	0	0	1	3	3	0
	May	0	0	2	2	1	0	0
	June	0	0	2	1	1	2	0
	July	0	0	0	0	1	1	0
	August	0	6	2	2	2	1	1
	September	0	0	2	0	0	2	0
	October	0	0	1	0	0	0	0
	November	0	0	1	0	1	3	0
	December	0	1	0	2	0	0	0
Total:	60	0	8	13	10	13	15	1

Year & Month	Complaints	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1989	January	2	0	0	0	1	1	0
	February	1	0	0	0	1	0	0
	March	9	0	1	2	3	2	0
	April	16	0	1	5	2	7	0
	May	1	0	0	1	0	0	0
	June	19	1	7	2	2	1	2
	July	11	0	2	1	4	3	0
	August	9	0	0	2	2	3	0
	September	9	0	2	1	4	1	1
	October	7	1	1	1	2	0	1
	November	4	0	1	1	1	0	0
	December	9	0	0	1	0	8	0
Total:		95	2	15	17	16	19	4
1990	January	1	0	1	0	0	0	0
	February	1	0	0	1	0	0	0
	March	9	0	0	4	1	3	1
	April	11	0	2	2	2	1	0
	May	8	0	0	4	1	2	0
	June	4	0	0	1	1	2	0
	July	5	0	0	1	2	2	0
	August	6	0	1	2	3	0	0
	September	3	0	0	1	1	1	0
	October	2	0	0	0	0	1	0
	November	2	1	0	0	0	1	0
	December	0	0	0	0	0	0	0
Total:		51	1	4	16	12	13	1

Year & Month	Complaints	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1991 January	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0
March	1	0	0	0	0	0	1	0
April	0	0	0	0	0	0	0	0
May	3	0	0	1	1	0	1	0
June	11	0	1	3	4	3	0	0
July	11	0	2	2	1	4	2	0
August	15	1	1	3	1	3	3	3
September	4	1	0	0	0	3	0	0
October	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0
Total:	45	2	4	9	7	13	7	3
Grand Total:	<u>334</u>	<u>5</u>	<u>46</u>	<u>64</u>	<u>63</u>	<u>66</u>	<u>81</u>	<u>9</u>

Noise Complaint Procedures

The Office of Public Affairs at Hill AFB has responsibility for administering the noise complaint process. The noise complaint procedures have been formalized in the form of Base Operating Instruction (OI) 190-7, dated 1 January, 1992.

The OI establishes the following procedures in dealing with community noise complaints:

- (1) During regular duty hours, the complaint will be referred to the Office of Public Affairs and during non-duty hours calls will be referred to an on-call Public Affairs Officer.
- (2) As much information as possible will be gathered about the complainant and the source of the noise.
- (3) The flying organizations will be contacted to determine whether the aircraft in question was base assigned, or was a transient, and a response from the commander will be obtained as to the cause of the problem.

- (4) The complainant will be contacted to provide factual information about the noise problem, and a follow up letter will be sent explaining what action has been taken.
- (5) All citizen complaint files will be maintained by the Director of Airspace and Government Affairs. The files will be periodically reviewed and analyzed for complaint trends.

CRITERIA FOR BASE CLOSURES

In February, 1991 the Secretary of Defense published selection criteria to be used by the Department of Defense in making recommendations for the closure or realignment of military installations inside the United States.

The selection criteria, which are a part of Title XXIX, part A of the National Defense Authorization Act, are as follows:

In selecting military installations for closure or realignment, the Department of Defense, giving priority consideration to military value (the first four criteria below), will consider:

Military Value

- (1) The current and future mission requirements and impact on operational readiness of the Department of Defense's total force.
- (2) The availability and condition of land, facilities and associated airspace at both the existing and potential receiving locations.
- (3) The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations.
- (4) The cost and manpower implications.

Return on Investment

- (5) The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.

Impacts

- (6) The economic impact on communities.
- (7) The ability of both the existing and potential receiving communities' infrastructure to support the Air force's missions and personnel.
- (8) The environmental impact.

The encroachment of noise sensitive land use on an air base is included in criterion 2 which is a criterion given priority consideration by the Department of Defense.

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20. Uniform Building Standards Act, Utah Dept. of Commerce
21. Utah Code Annotated, Aeronautics, Ch. 4, Airport Zoning Act
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24. Wash. Terrace Comprehensive Plan, 1986

CHAPTER III. NOISE ENVIRONMENT

HILL AFB CURRENT OPERATIONS SUMMARY

Introduction

The information contained in this section is based on current operations data as generated by personnel from Hill Air Force Base. The data is for the year 1991 and is reflective of the data used for the NOISEMAP model and as inputs to generate the noise contours.

These data are a summary of the information obtained from the Air Force and as contained in the Noise Modeling Computer Chronicles (a detailed listing of computer model inputs). From an aircraft operations standpoint, the following general characteristics are used in the modeling process: (1) Installation operational data; (2) daily operations by type of aircraft; (3) flight track and profile data for each runway; (4) individual flight tracks and aircraft performance data; (5) ground run-up data; and (6) transient aircraft.

Description of Operations

The most frequent types of operations at Hill AFB are: (1) Runway 14 Island Departure; (2) Causeway Arrival; (3) Runway 14 Closed Traffic Pattern; (4) Runway 14 Overhead Traffic Pattern; (5) "Layton" VFR Missed Approach; (6) Simulated Flame Out Approach; (7) Zoom Departure (F-16); and (8) Quick Climb (F-4, F-18).

Operations Mix: Based on the annual operations total for the base, average busy weekday operations were determined by dividing the annual total of operations by 264. Total operations for transients was divided by 365. This recognizes reduced flying over weekends, but tends to make the contours larger. This, in effect, depicts a worst case scenario.

Operations by Runway: Since Hill AFB is a single runway operation, either Runway 14 or 32 must be used. The data indicate that Runway 14 is used approximately 95 percent of the time.

Operations by Activity: An operation is either a take-off or a landing. Normal operations include one departure and one arrival; each closed traffic pattern also includes one take-off like event and one landing type or actual landing event.

Operations by Flight Track: Because of the limitations imposed by the mountains east of Hill AFB and commercial traffic into and out of Salt Lake City International Airport (SLCIA), the number of flight tracks possible are limited. Tracks are presented for departure, arrival, closed traffic, and simulated flame out. These tracks represent the intended routes of flight and do not reflect minor deviations resulting from pilotage.

Operations by Day/Night Mix: Night operations are defined as those occurring between 10 p.m. and 7 a.m., regardless of whether it is daylight or dark. During the hours of darkness only certain flight tracks are used which are: instrument approaches with a full stop landing or a visual approach to a full stop landing. Many operations are conducted in darkness, but are not considered night operations, because they do not occur between 10:00 p.m. and 7:00 a.m.

Dominant Flight Tracks

There are a number of other flight tracks in use at Hill AFB which are used to a lesser degree than those described here. All flights departing the Base are under instrument flight rules and as such are under positive control throughout the flight. During the flight, certain visual maneuvers may be performed which require visual contact with the ground or the horizon. The tracks listed below are those which are the principle determinants of the noise contours.

Standard Instrument Departure (Island Departure): Taking off Runway 14 on an F-16 training mission has the aircraft making a right turn after takeoff at 1.5 - 2 nautical miles distance measuring equipment (NMDME) from the Hill AFB tactical aid to navigation (TACAN) to a heading of 280° to intercept the 240° radial of the Hill TACAN. If afterburner is used, it is discontinued at approximately 600 feet above the ground of the field boundary, as required by Hill AFBR (Air Force Base Regulation) 60-3. Altitude on departure is restricted to avoid conflict with SLCIA arrival and departure traffic. Departing aircraft (which are controlled by SLCIA) must be above 6300 feet MSL but below 7000 feet MSL by 5 NM DME, maintain 7000 feet MSL until 10 NM from the TACAN, and then not above 9000 feet until 20 NM from the TACAN or until cleared for higher altitude by SLCIA Approach Control. Taking off Runway 32 the departing aircraft must turn left to a heading of 190° at 3 NM DME to intercept the 240° radial of the Hill TACAN. Afterburner use is discontinued 600 feet above ground or at the air field boundary. Altitude restrictions are above 5700 feet MSL but below 7000 feet or higher at 3 NM DME, maintain 7000 feet MSL until 10 NM from the TACAN and not above 9000 feet MSL until 20 NM DME (see Figure III-1 for diagram). This routing is followed by over 95 percent of the aircraft departing Hill AFB.

Flight Test Quick Climb (F-4, F-18): This procedure is used when performing an F-4 functional check flight. On Runway 14, the aircraft will accelerate to 250 knots in afterburner then climb at a 20°-25° angle to 11,000 feet MSL, turning right to a heading of 160° at 1.5-2 NM from the Hill AFB TACAN, then to 270° at 14,000 feet-16,000 feet MSL. Taking off Runway 32 (done very infrequently), the aircraft climbs at a 20°-25° angle in afterburner, on Runway heading until 14,000 feet - 16,000 feet MSL, then left to a heading 238° to intercept the 255° radial of the Hill TACAN (see Figure III-2).

Zoom Departure (F-16 only): This procedure is used when performing an F-16 functional check flight. The departing aircraft will accelerate to approximately 450 knots in afterburner. At the air field boundary a vertical climb is initiated which will put the aircraft over the runway, on the reciprocal heading at 17,000 feet MSL, within 5 NM of the Base TACAN. The aircraft will turn to intercept the 255° radial of Hill TACAN while continuing climb to flight level (FL in hundreds of feet) 310. This procedure will allow the aircraft to land at Hill AFB in the case of engine failure at any point prior to intercepting the 255° radial (see Figure III-3).

Causway Recovery for Mudflat or SFO Transition: The aircraft is maneuvered so as to arrive at the 256° radial of the Ogden VORTAC at 5 NM (Mudflat Intersection). Further procedures vary depending on the type of approach desired. This flight track is only for F-16 aircraft and allows an aircraft which has experienced or is about to experience engine failure to glide to a safe landing on the runway (see Figure III-4). There are three variations of this approach which are described below.

Simulated Flame Out (SFO): The aircraft arrives at 256° radial/9 at NM from the Ogden VORTAC at 14,500 feet MSL, then direct to a position over the intended point of landing at Hill AFB; then execute a racetrack pattern east of the runway to a low approach.

Visual Flight Rules (VFR) Overhead Approach: After arrival at Mudflat and when in contact with the Hill AFB Tower, the aircraft will enter a 5-7 NM initial approach at 7300 feet MSL, descending to 6800 feet MSL after passing Ogden-Hinckley airport. The entry to the approach will be flown at 300 knots.

Straight-in Approach: After arrival at Mudflat and when in contact with the Hill AFB Tower, the aircraft will enter a 3-5 NM final approach remaining at 5700 feet MSL and delaying further descent until past Ogden-Hinckley Airport.

Figure III-1
Standard Instrument Departure

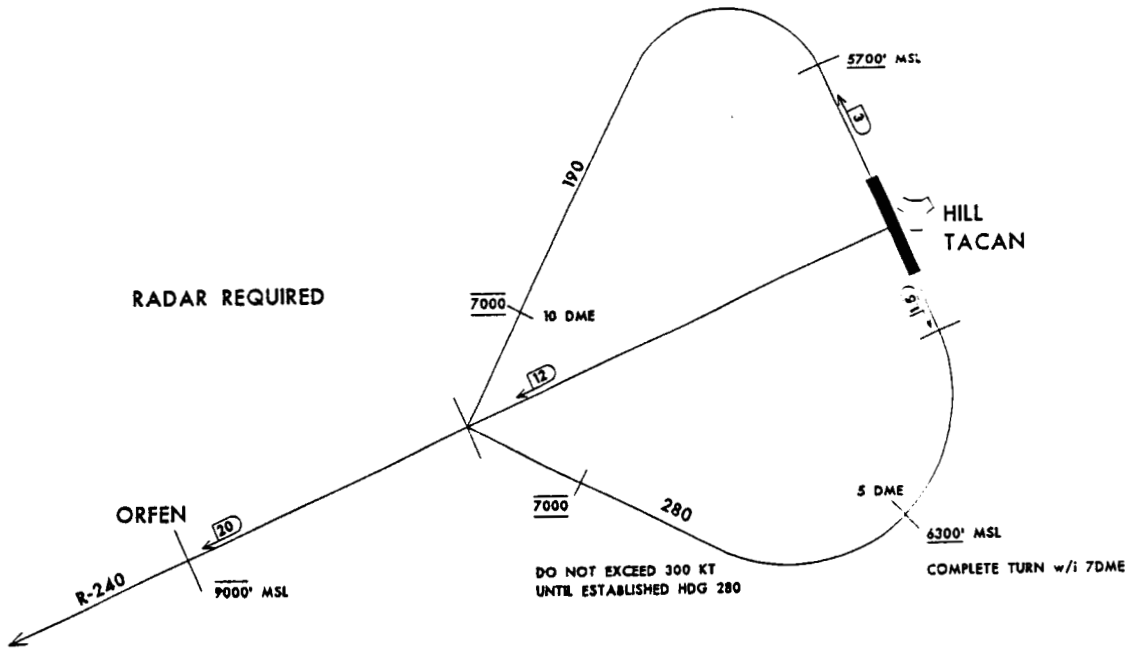
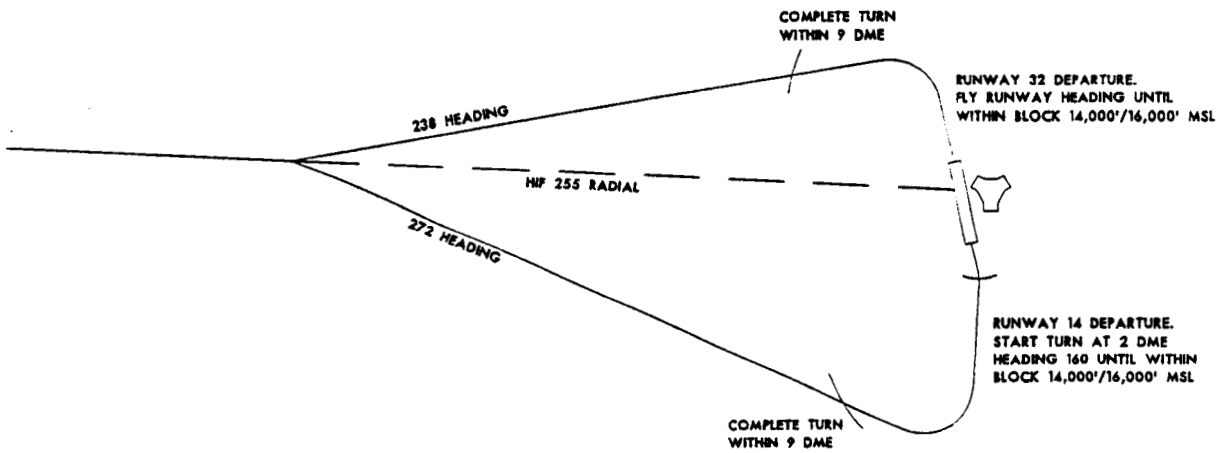


Figure III-2
Flight Test Quick Climb



Figures III-1 Figures III-3

Zoom Departure

F-16 ONLY

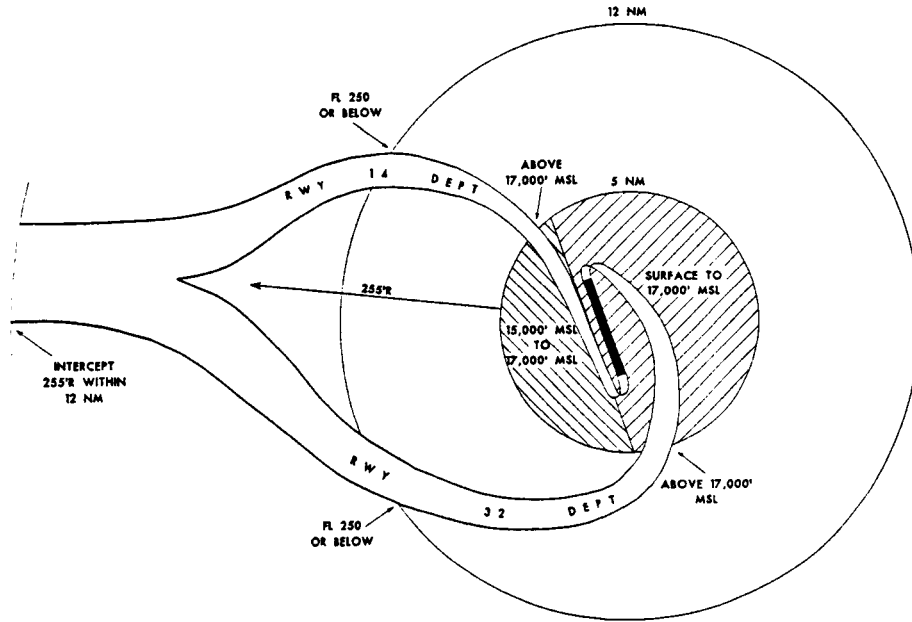
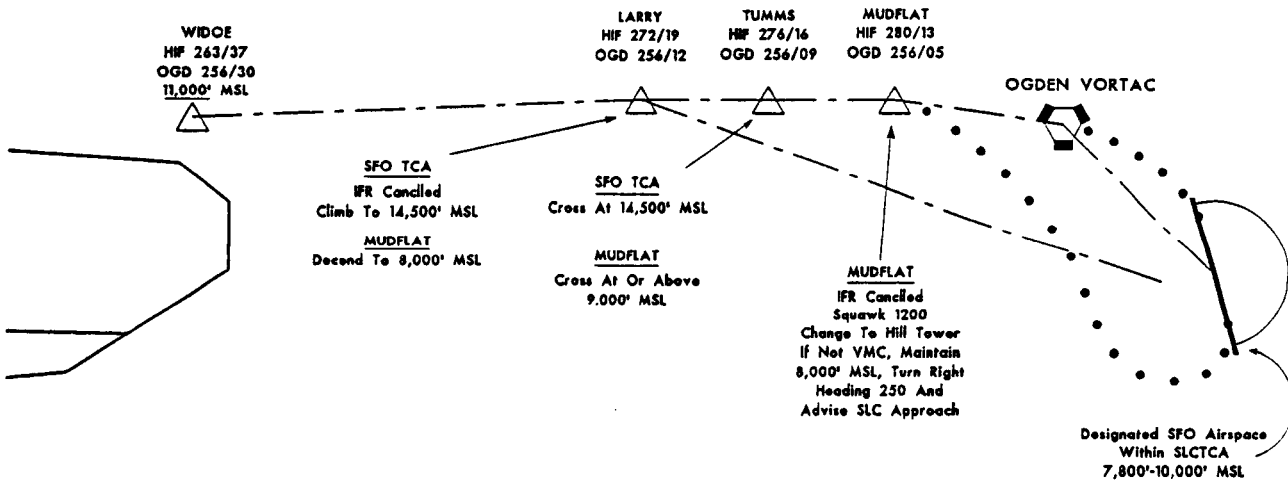


Figure III-4

Causeway Recovery for Mudflat or SFO Transition



Layton Missed Approach Traffic Pattern: This pattern is made following a practice VFR ILS or TACAN approach by flying the runway heading (Runway 14 only) to 2 DME, then a right turn to Heading 270°, completing the turn within 7 NM; cross 2 NM at or below 6300 feet MSL, cross 5 NM at or above 6300' MSL; climb and maintain 7000' MSL and contact approach control. If no radio contact is made by 8 NM, turn right heading 320° and maintain 7000 feet MSL. Intercept the 12 NM ARC to intercept the Hill TACAN 308° radial for a TACAN approach or the ILS localizer for an ILS approach. Descend to 6300 feet MSL until the final approach fix and execute the approach (see Figure III-5).

VFR Overhead Pattern: This is the most common traffic pattern at Hill AFB. The pattern consists of two 180° turns and resembles a race track. The pattern is entered from "the initial" at 6800 feet MSL and 300 knots. Over the approach end of the runway, a level left 180° turn is made to the "downwind". A second 180° turn is made to align the aircraft with the runway for either a full-stop landing or a low approach (see Figure III-6).

Closed Traffic Pattern: This pattern is used when multiple approaches are to be made, after an SFO, touch and go landing or after an instrument approach which terminates in a low approach. The aircraft accelerates with military power (94%RPM) to the departure end of the runway, a left climbing turn is made to position the aircraft on the downwind at 6800' MSL. The second half of the normal overhead approach completes the pattern (see Figure III-7).

Missed Approach Traffic Pattern: Instead of entering closed traffic on a low/missed approach, the aircraft can execute a VFR (Runway 14 only) re-entry to the overhead traffic pattern. The aircraft maintains a runway heading for 2 NM and initiates a right climbing turn to 6800 feet MSL crossing I-15 at or above 6300 feet MSL. The aircraft continues north around the Freeport Center to reenter the initial approach at a point 1 NM south of Ogden-Hinckley Airport (see Figure III-8).

Instrument Approach (TACAN/ILS/PAR): The aircraft is maneuvered so as to intercept the 24 NM ARC of the Hill TACAN descending to between 8100 feet - 9000 feet MSL until past Promontory Point. After passing Promontory Point, descend to 7000 feet MSL on the ARC and intercept the localizer or final approach radial. When established on the final approach, descend to 6300 feet MSL and execute the approach (see Figure III-9).

Figures III-5
Layton Missed Approach

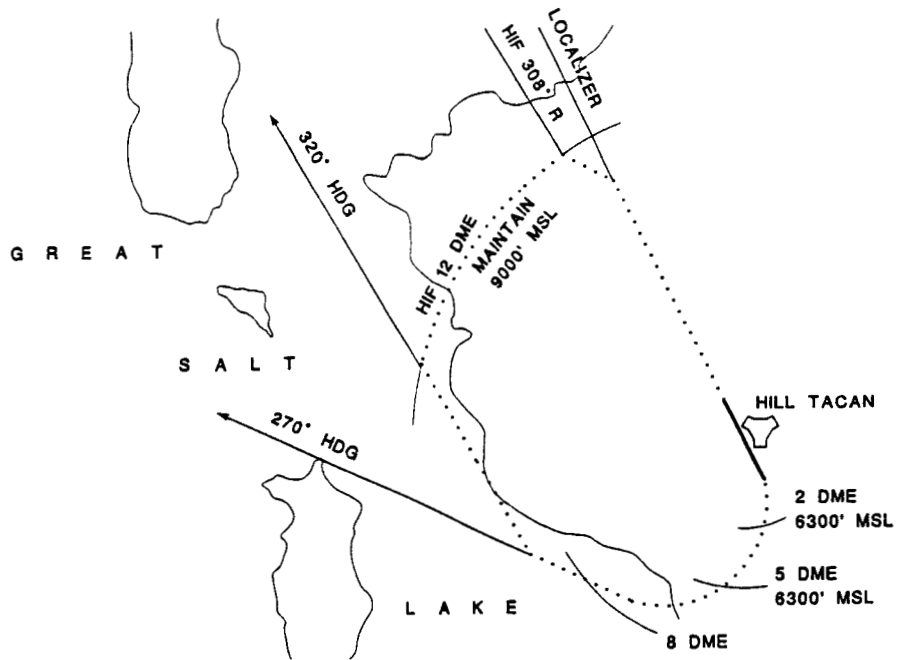
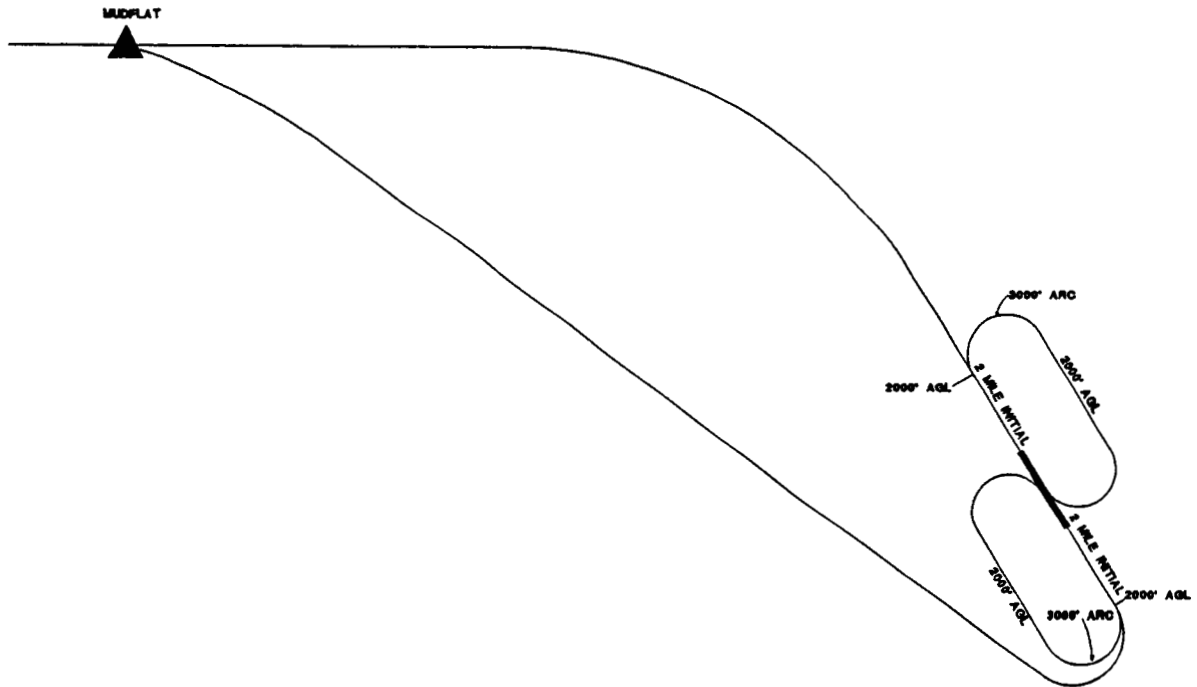


Figure III-6
VFR Overhead Pattern



Figures III-7
Closed Traffic Pattern

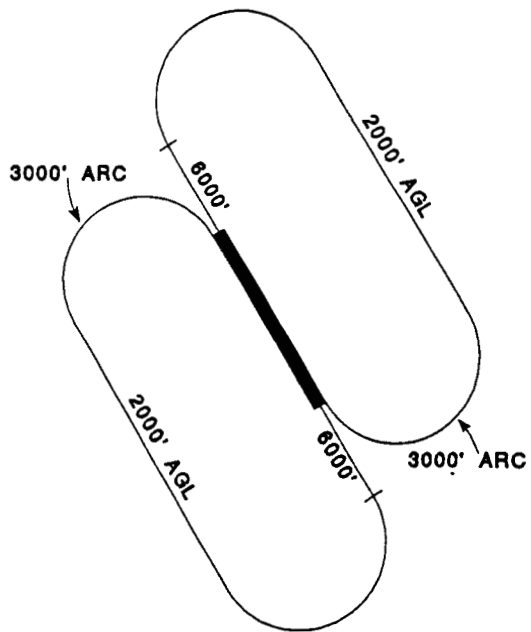


Figure III-8
Missed Approach Traffic Pattern

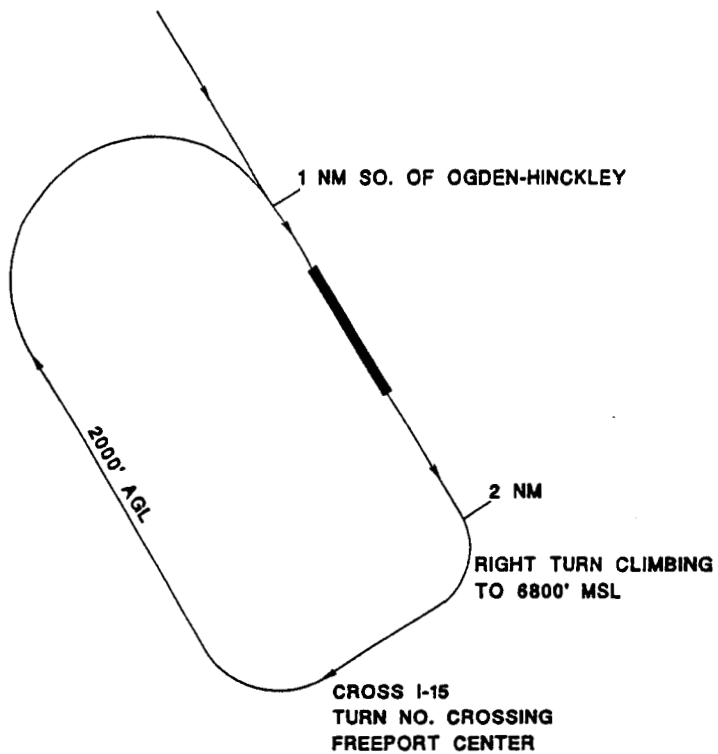
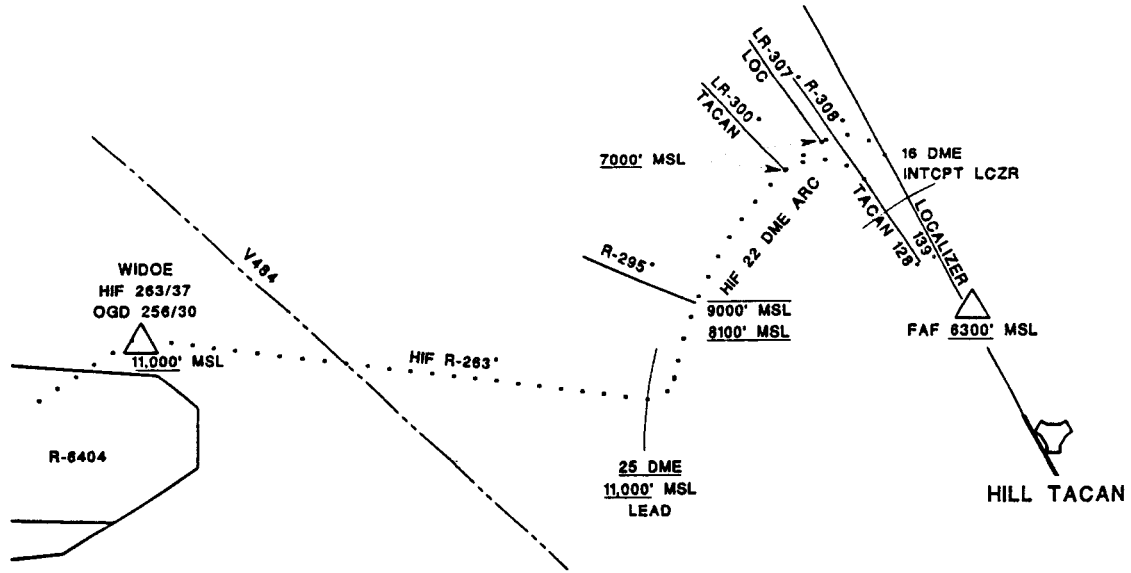


Figure III-9
Instrument Approach (ILS/PAR/TACAN)



NOISE MEASUREMENTS AND MODELING

Overview of Noise Contour Modeling Strategy

One of the objectives of the Hill AFB Compatible Land Use Study was to estimate the location of the noise contours around the base. This was essentially accomplished by collecting information about the Base's aircraft operations and using that information as inputs to the NOISEMAP Computer Model which estimated the noise contour locations. Also, on the ground noise measurements were taken at various locations around the base. The intent of these measurements was not to use the results as input to the computer model or for model calibration purposes, but to enable a comparison of the model outputs with the measurement results. The measurements were not conducted in such a way as to make model calibration possible, but rather, the intent was to simply determine on a limited basis whether or not the model outputs could be favorably compared with the measurement results.

This study relies exclusively on the noise contours generated by the NOISEMAP model which the Air Force uses to estimate noise effects for the AICUZ program at all of its installations. In the process of collecting the operations data, the data were verified through a number of interviews with the base's management personnel responsible for the various missions. The model input data included flight tracks; altitude, air speed and power setting profiles, and ground run-up information for each aircraft. As a result of the interviews and observations, the described flight track data was updated to reflect actual flying practices.

Other NOISEMAP Model Considerations

The NOISEMAP modeling program has been actively developed and refined by the Air Force since 1971. It is a fully computerized procedure for generating cumulative noise exposure contours in the environs of air bases and forms the cornerstone of the Air Force's AICUZ program. The NOISEMAP program development has been the responsibility of the Armstrong Aerospace Medical Research Laboratory (AAMRL) at Wright-Patterson Air Force Base. Their efforts have lead to the development of NOISEMAP 6.0 and BASEOPS 3.00. Both computer programs will run on the following machines: 80286 (IBM PC AT or compatible) 80386 (IBM Personal System 2 of compatible) and the Sun Microsystems Workstation 3/280.

The number of daily operations (base assigned) used to compute Ldn levels at Hill AFB is the annual total of operations divided by 264 (for transients, 365 gas used). This is not the method used by the EPA and the FAA who use the annual total of operations divided by 365, or the actual average. The method used at Hill AFB reflects the reduced weekend flight activity and produces the average

"weekday".

A significant shortcoming of the NOISEMAP program is the fact that it does not consider variations in terrain elevation, but assumes that the land surrounding the air base is at the same elevation as the runway. The elevation of the runway at Hill AFB is published as 4789 feet MSL. Measurement site 5 (see Figure III-10) is at approximately 4460 feet MSL; a difference of 329 feet. This difference will allow sound to dissipate and may account for the difference of 11 Ldn between the NOISEMAP contour and the sound level measured. Although no measurements were taken east of the Base on the rising terrain near Rt. 89, it may be assumed that this area is closer to the 65 Ldn contour than depicted since it is at 4960 feet MSL.

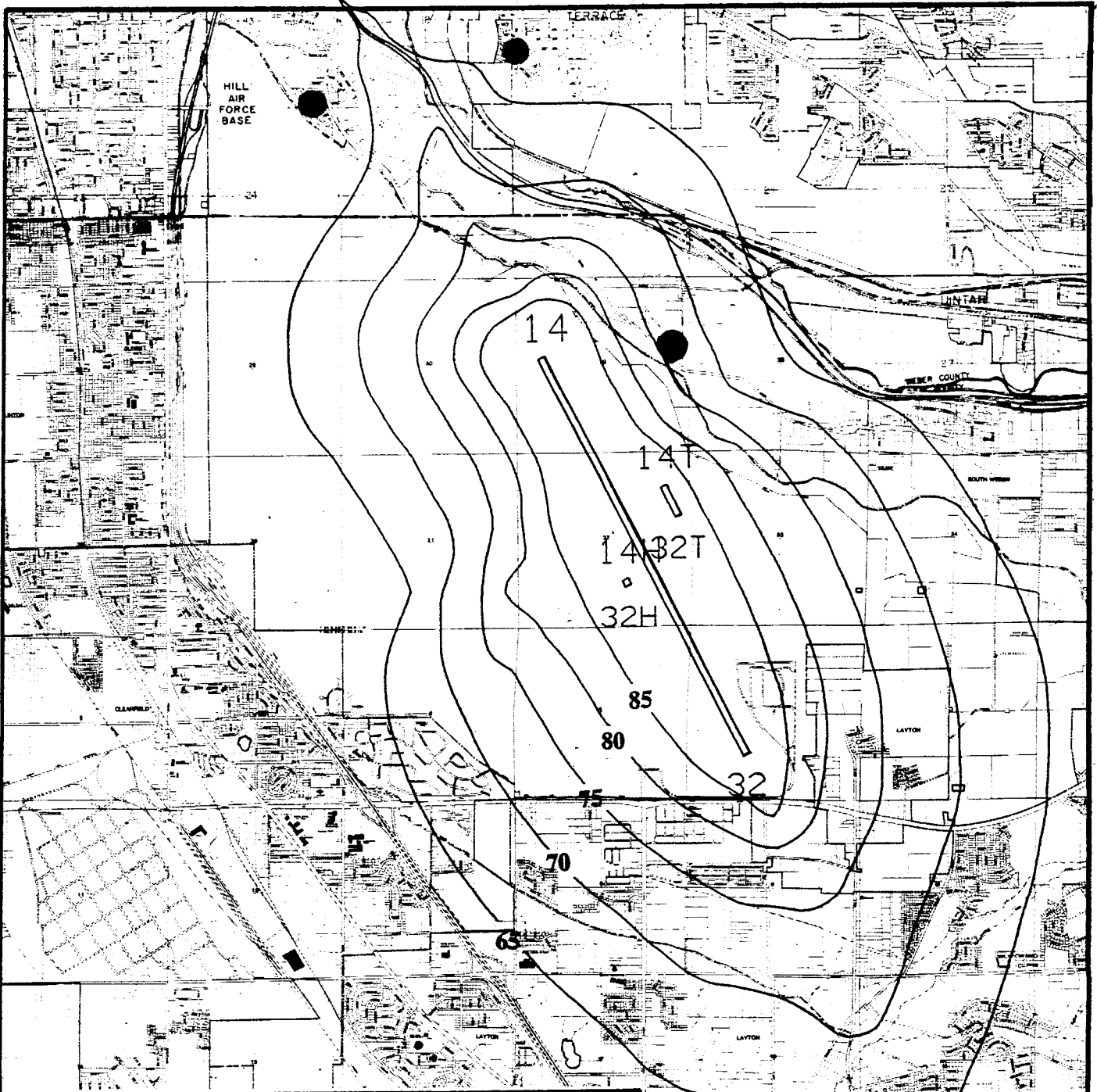
Strategy for Conducting Noise Measurement Survey

A noise measurement survey was conducted at five locations surrounding Hill AFB. The intent of the survey was an attempt to validate the NOISE MAP, computer generated contours. Noise monitoring equipment was placed at each location for several days. Sites #1, 2, & 3 were attended during daylight hours to determine aircraft type, number of aircraft and maneuver being flown. This approach is superior to a program of unattended monitoring where equipment is placed in a location for up to one week at each site, since no determination can be made as to what caused single event noises because the sound measuring equipment is unable to discriminate between aircraft types, or non-aircraft generated community noise. The logs kept during the attended periods of noise monitoring are found in Technical Appendix. The contours were validated at all sites except site 5, where recorded sound levels were 11 dBA lower than the contours depicted.

Measurement Survey Sites: Five measurement sites were selected in an effort to validate the accuracy of the noise contours drawn by NOISEMAP. The location of the sites is shown on Figure III-10.

Site 1: Site 1: was adjacent to the Layton City swimming pool. Measurement was conducted 21-24 May 1991 for 77 hours and the site was attended for 49 hours during that time. This site was on the 70 Ldn contour.

Site 2: Site 2 was located in East Layton at approximately 2500 east and 1800 north in a residential neighborhood, southeast of Hill AFB. Measurement was conducted 7-11 June 1991



GROUND MEASUREMENT SITES: FIGURE III-10

● Measurement Sites



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for 93 hours and the site was attended for 46 hours during that time. This site was outside the 65 Ldn contour.

Site 3: Site 3 was in Washington Terrace at approximately 5500 South 500 West in a residential neighborhood. Measurement was conducted 11-14 June, 1991 for 71 hours of which seven hours was attended. This site was outside the 65 Ldn contour.

Site 4: Site 4 was in Riverdale at approximately 5600 South and 1100 West in a residential neighborhood. Measurement was conducted 3-6 September, 1991 for 82 hours. The site was unattended. This site was outside the 65 LDN contour.

Site 5: Site 5 was in South Weber at approximately 6900 South and 500 East in a residential neighborhood. Measurement was conducted 16-19 September, 1991 for 70 hours. This site was unattended. The site was very close to the 70 Ldn contour, but measurement produced a 59 Ldn reading. This disparity was discussed earlier.

Noise Measurement Procedures and Results: The noise measurements conducted at all five locations were taken by a Larson-Davis model 870, Airport Noise Monitor. The equipment was calibrated May 1, 1991 and checked again May 21, 1991 at the completion of recording at Site #1. The equipment remained in calibration throughout the recording period.

Listings of all recorded noise events are included in the Technical Appendix. The noise events range from barking dogs and lawn edgers to F-16 and B-52 aircraft. During the periods when the recording was monitored, the noise events are identified by the observer in the comments column of the observer logs. Of all noise events measured, those generated by the F-16 aircraft predominate, since they are the most common aircraft operating from Hill AFB.

The recorded threshold of ambient noise was not limited at any of the five measurement sites. The summaries of noise levels present the minimum and maximum level of events ranging from 25.8 dBA at Site #2 to 102.0 dBA at Site #1.

Noise Descriptors

Sound can be measured in terms of loudness and frequency. These terms relate to the amplitude and pitch of the sound. The loudness is measured in Decibels (dB) and the pitch in Hertz (HZ). The human ear does not respond equally to all frequencies, so a frequency weighted scale has been developed to relate noise to the human ear's ability to hear it. The A-weighted decibel scale (dBA) discriminates

against frequencies in a manner similar to the sensitivity of the human ear.

Decibel measurement is on a logarithmic scale. A noise 10 dBA louder than another is twice as loud, while a noise 20 dBA louder is four times as loud. The level of sound is affected by the distance from the source, absorption by the atmosphere and ground attenuation. Since sound moves in waves, the greater the distance traveled, the greater the dispersion. Attenuation is also affected by the humidity and temperature of the air as well as turbulence, wind gradients and terrain features.

The single event noise level (SEL) represents the total noise energy of a noise event compressed into a one second time frame or said differently, the noise level required to produce in one second, all the noise of an event.

LEQ is the sound level corresponding to a steady-state sound containing the same total energy as a time-varying signal over a given sample period. LEQ is the energy average during the sample period, which is typically one hour.

Cumulative noise measurements attempt to include the loudness, duration, total number and time of day for all events into one rating scale. The Ldn scale is used by the FAA, DOD and this study.

Ldn is a 24 hour, time weighted annual noise level. Where LEQ is the noise energy experienced in 1 hour, Ldn is an estimate of the noise experienced during a 24 hour day. Time weighting refers to a 10 dB penalty, applied to any events which occur between 10 p.m. and 7 a.m. This period is selected to account for the fact that most people are sleeping and are thus more sensitive to noise.

Meteorological Effects on Noise

The weather during all monitored periods was typical for summer in Utah. Temperatures rose into the low to mid 90's during the day from nighttime lows in the 60° F range. Sky conditions were clear to high thin scattered clouds with visibility exceeding 20 nautical miles. During all measurement activities, winds were light and Runway 14 was active. It should be noted that as part of Base noise abatement procedures, Runway 14 is used as long as the tail wind component is 10 knots or less. This procedure and the prevailing wind results in Runway 14 being used for approximately 95 percent of all arrivals/departures.

The effect of temperature and humidity on noise propagation is included in the NOISEMAP model. In general terms, sound travels better in high temperature and high humidity conditions. The average temperature and humidity for Hill AFB used in the model was 74° F and relative humidity of 37

percent. Field elevation also has a significant effect on noise propagation. For the same aircraft movements at sea level, the contours would be reduced by over 20 percent at 4600 feet MSL. Winter contours are smaller than summer contours because of lower temperatures, increased aircraft performance and increased atmospheric absorption.

DESCRIPTION OF FLIGHT TRACKS AND CONTOURS

Introduction

There have been several AICUZ studies conducted for Hill AFB over the past twenty years. The first AICUZ study was done in 1974. The others were conducted in 1977, 1982, 1983, and 1993. In an effort to provide some understanding of trends relative to flight tracks and contours, the milestone years of 1974, and 1983 were selected for generally describing/evaluating, and graphically displaying the historical flight track and contour data. The flight track and contour data were obtained from the Hill AFB AICUZ study reports and chronicles.

1974 AICUZ

Composite Flight Tracks: The geographic extent of the composite flight tracks for 1974 are shown in Figure III-11. Generally, the closed pattern tracks extend eastward from the runway about three miles. They extend slightly more than four miles north, and three miles south from the longitudinal midpoint of the runway. West of the runway the tracks extend more than twice the distance (about six miles) of those on the east side. Also, the north-south extent of the tracks on the west is also considerably greater than on the east (about 7 miles north and 5 miles south of the midpoint of the runway). The flight tracks extended well into areas of Layton, South Weber, South Ogden, Riverdale, the extreme southern portion of Ogden, Roy, Clinton, Clearfield, Washington Terrace, West Point, and Syracuse.

Contours: The 1974 AICUZ 65 Ldn contour and greater footprint or noise environment generally extended 13.45 miles in a northerly/southerly direction, and 3.41 miles in an easterly/westerly direction. The total area of the footprint (65 Ldn or more) amounted to 10,735.25 acres.

The areas contained between the various contours is described in the table below.

Table III-1

1974 AICUZ Areas Between Contours

65-70 Ldn	-	5,977.67 acres
70-75 Ldn	-	2,406.61 acres
75-80 Ldn	-	995.89 acres
80 + Ldn	-	1,355.09 acres

1983 AICUZ

Composite Flight Tracks: The composite flight tracks for 1983 are shown in Figure III-14. The north/south geographic extent of the 1983 (closed pattern) tracks west of the runway is generally comparable to the 1974 tracks. The 1983 tracks west of the runway, however, do extend slightly (less than one-half mile) farther north, and about one mile farther south than the 1974 tracks. East of the runway the 1983 tracks are more compact and less extensive than the 1974 tracks. In essence, the most eastward extension of the 1983 tracks has shifted about one mile westward, and in a north/south direction the tracks are about one and one-half miles less extensive than the 1974 tracks.

Contours: The 1983 AICUZ noise environment (65 Ldn noise contour and greater) generally extended 11.74 miles in a northerly/southerly direction, and 3.60 miles in an easterly/westerly direction. The total area of the footprint amounted to 14,359.98 acres. In comparison to the 1974 footprint, the 1983 footprint is about 3,625 acres larger.

The areas contained between the various contours is shown in the table below.

Table III-2

1983 AICUZ Areas Between Contours

65-70 Ldn	-	5,981.34 acres
70-75 Ldn	-	3,608.08 acres
75-80 Ldn	-	2,280.75 acres
80-85 Ldn	-	1,046.81 acres
85 + Ldn	-	1,442.10 acres

In comparing the 1974 with 1983 noise environments, not only was the overall geographic extent greater in 1983, but there was generally more acreage within contours being exposed to aircraft noise.

1993 AICUZ

Composite Flight Tracks: The geographic extent of the composite flight tracks for 1993 are shown in Figure III-16. The east-west extent of the closed pattern flight tracks are generally comparable to the 1983 tracks. However, the north-south extent is somewhat greater. West of the runway, one of the tracks extends about one mile farther north than the farthest track for 1983. East of the runway, a track extends almost two miles farther south than the farthest extending track for 1983. Generally, there appears to be a greater number of tracks with more complex patterns in 1993 than in either 1974 and 1983. As with the 1974 and 1983 flight tracks, the 1993 tracks extend well into the surrounding communities of Layton, South Weber, South Ogden, and Riverdale, and affect the periphery of several more in Weber County.

Contours: The 1993 AICUZ footprint or noise environment generally extended 7.77 miles in a northerly/southerly direction, and 3.6 miles in an easterly/westerly direction. The total area of the footprint amounted to 11,549.29 acres. The 1993 footprint is about 814 acres larger, and 2,811 acres smaller than 1974 and 1983 footprints, respectively.

The areas contained between the various contours is shown in the table below.

Table III-3

1993 AICUZ Areas Between Contours

65-70 Ldn	-	4,768.62 acres
70-75 Ldn	-	2,813.60 acres
75-80 Ldn	-	1,581.99 acres
80-85 Ldn	-	991.27 acres
85 + Ldn	-	1,393.81 acres

Composite of Past and 1993 AICUZ 65 Ldn Contours

A composite of all the past (1974, 1977, 1982, and 1983) and 1993 contours of 65 Ldn and

greater (footprints) can provide information as to the area that has been exposed by high aircraft noise at some time in the past. The total acreage of the composite footprint amounts to about 19,802 acres. The past and present noise environments for Hill AFB, although much smaller than the size of the composite footprint, have essentially vacillated or shifted about continuously within the composite 65 Ldn contour over the past 19 years AICUZ studies have been conducted.



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1974 AICUZ FLIGHT TRACKS

HILL AFB COMPATIBLE LAND USE STUDY : FIGURE III-11





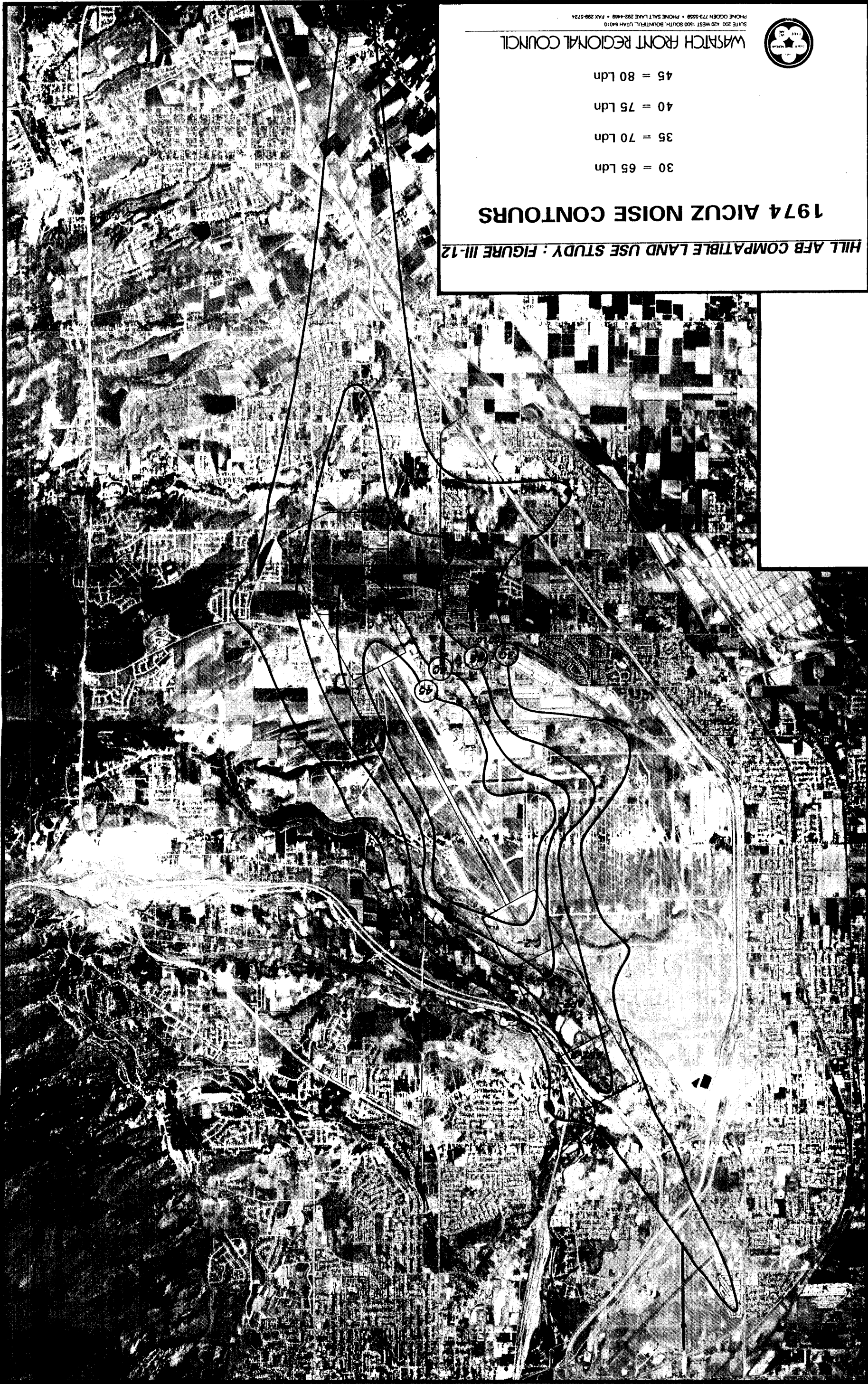
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- 45 = 80 Ldn
- 40 = 75 Ldn
- 35 = 70 Ldn
- 30 = 65 Ldn

1974 AICUZ NOISE CONTOURS

HILL AFB COMPATIBLE LAND USE STUDY : FIGURE III-12



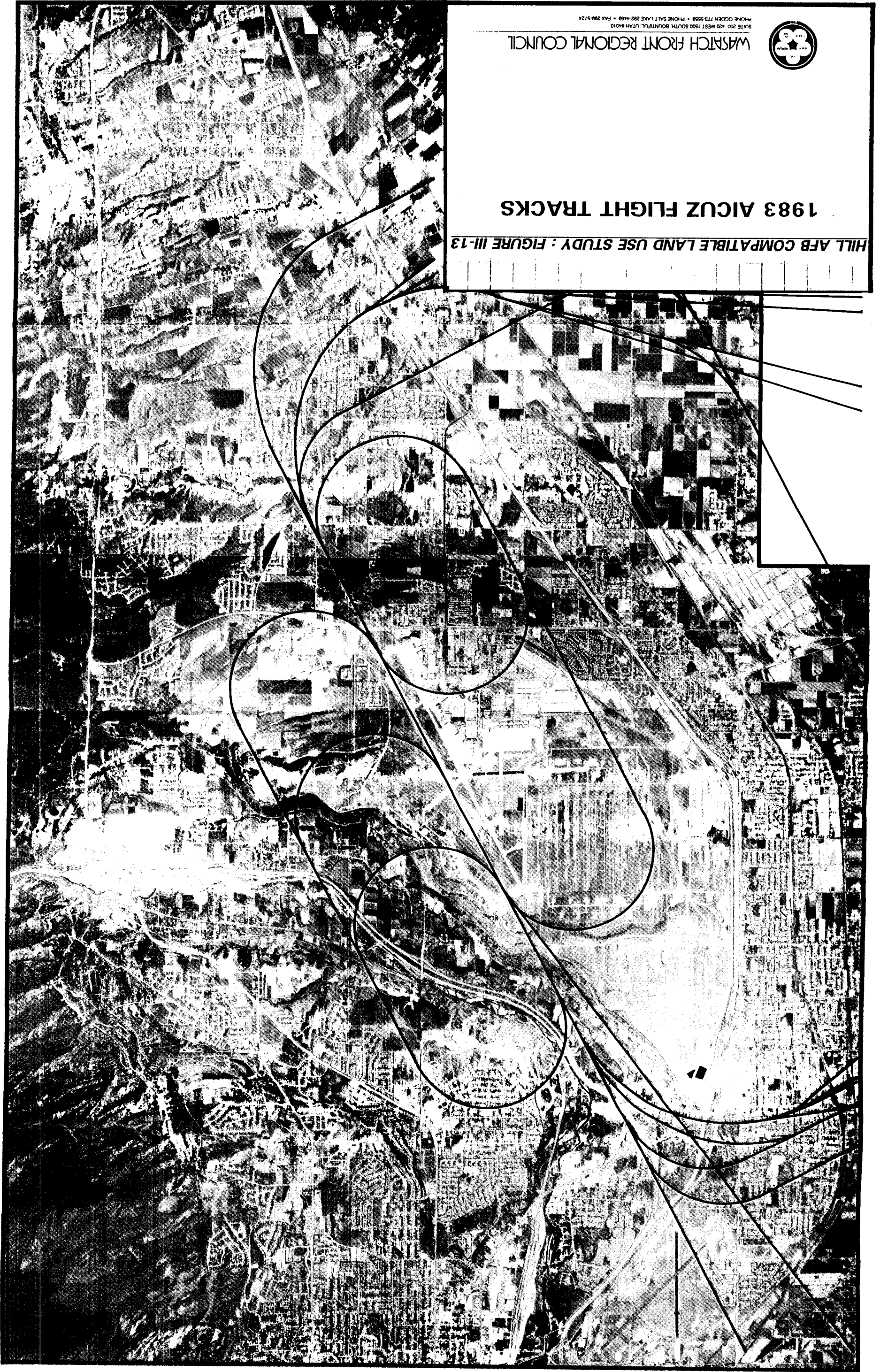


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1983 AICUZ FLIGHT TRACKS

HILL AFB COMPATIBLE LAND USE STUDY : FIGURE III-13





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1983 AICUZ NOISE CONTOURS

HILL AFB COMPATIBLE LAND USE STUDY : FIGURE III-14

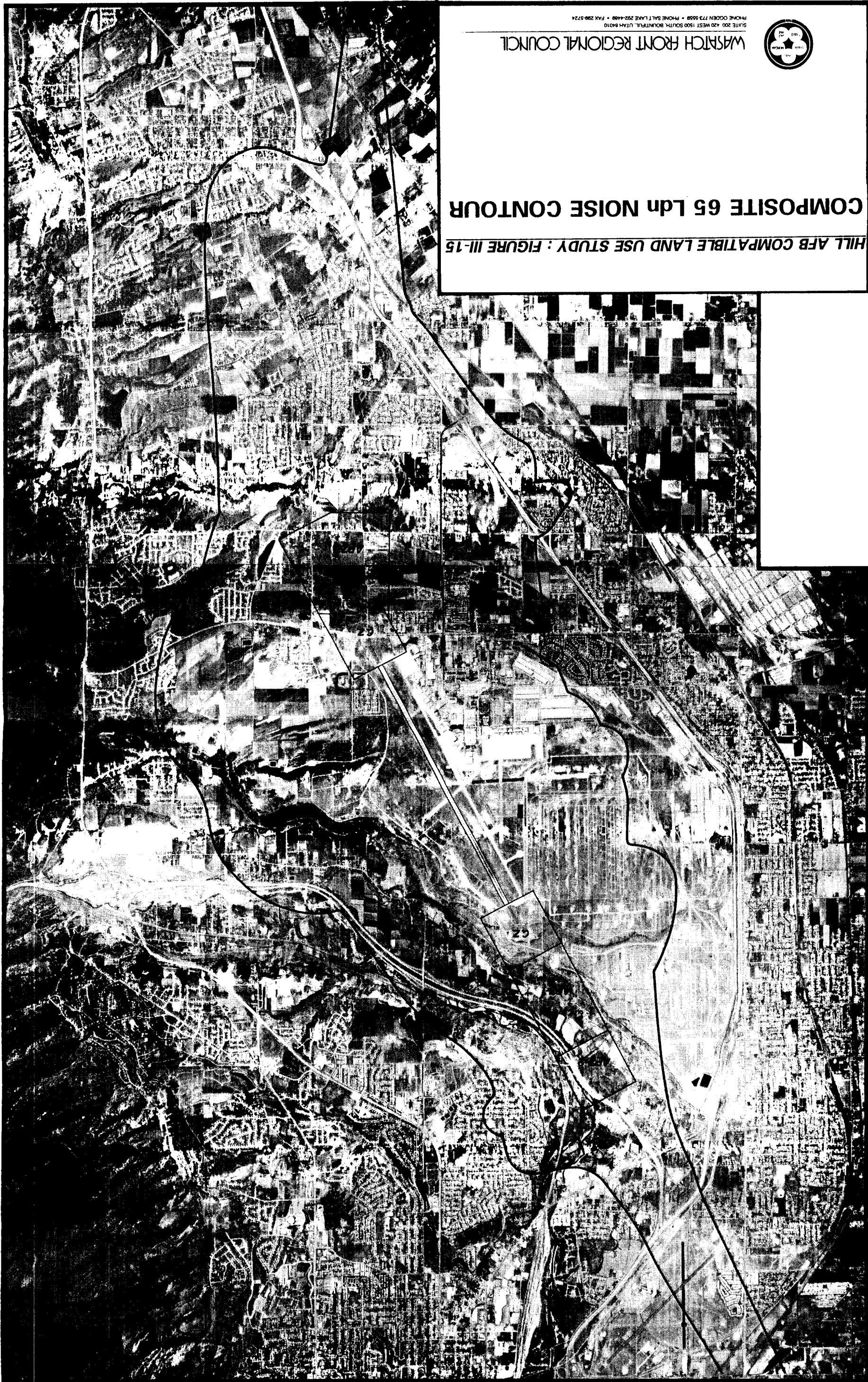




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COMPOSITE 65 Ldn NOISE CONTOUR

HILL AFB COMPATIBLE LAND USE STUDY : FIGURE III-15





Hill AFB Compatible Land Use Study: Figure III-16

1993 AICUZ COMPOSITE FLIGHT TRACKS



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Hill AFB Compatible Land Use Study: Figure III-17

1993 AICUZ NOISE CONTOURS



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4. Air Installation Compatible Use Zone (AICUZ) Report, 1974, Hill AFB, Utah
5. Air Installation Compatible Use Zone (AICUZ) Report, 1982, Hill AFB, Utah
6. DOD Flight Information Handbook
7. Metropolitan Airport Systems Plan, 1985
8. Mid Air Collision Avoidance Handbook, Hill AFB, July 1, 1991

CHAPTER IV. LAND USE IMPACTS

COMPATIBLE USE DISTRICTS (CUDS)/LAND USE GUIDELINES

Description of Districts

The area or footprint of the Air Installation Compatible Use Zone (AICUZ) of Hill AFB is divided into Compatible Use Districts (CUDs). These districts are based on a combination of the prevailing noise and safety characteristics found within them. The AICUZ footprint is based on the area affected by the 65 Ldn and higher noise contours, and the areas that Accident Potential Zones, and Clear Zones cover (see Figure IV-1). Within the AICUZ footprint there are normally 13 CUDs which reflect the degree of exposure to the combined effects of noise and accident hazards. The CUDs are listed below in Table IV-1 according to number and criteria that characterize them.

Table IV-1

AICUZ Compatible Use Districts and Respective Criteria

CUD 1	-	Ldn 85 +
CUD 2	-	APZ I and Ldn 80-85
CUD 3	-	APZ I and Ldn 75-80
CUD 4	-	APZ I and Ldn 70-75
CUD 5	-	APZ I and Ldn 65-70
CUD 6	-	Ldn 80-85
CUD 7	-	Ldn 75-80
CUD 8	-	APZ II and Ldn 80-85
CUD 9	-	APZ II and Ldn 75-80
CUD 10	-	APZ II and Ldn 70-75
CUD 11	-	APZ II and Ldn 65-70
CUD 12	-	Ldn 70-75
CUD 13	-	Ldn 65-70

In conjunction with the CUDs, the Air Force has developed "Compatibility Guidelines" which, if applied to the above districts, would provide an indication as to the type of land uses

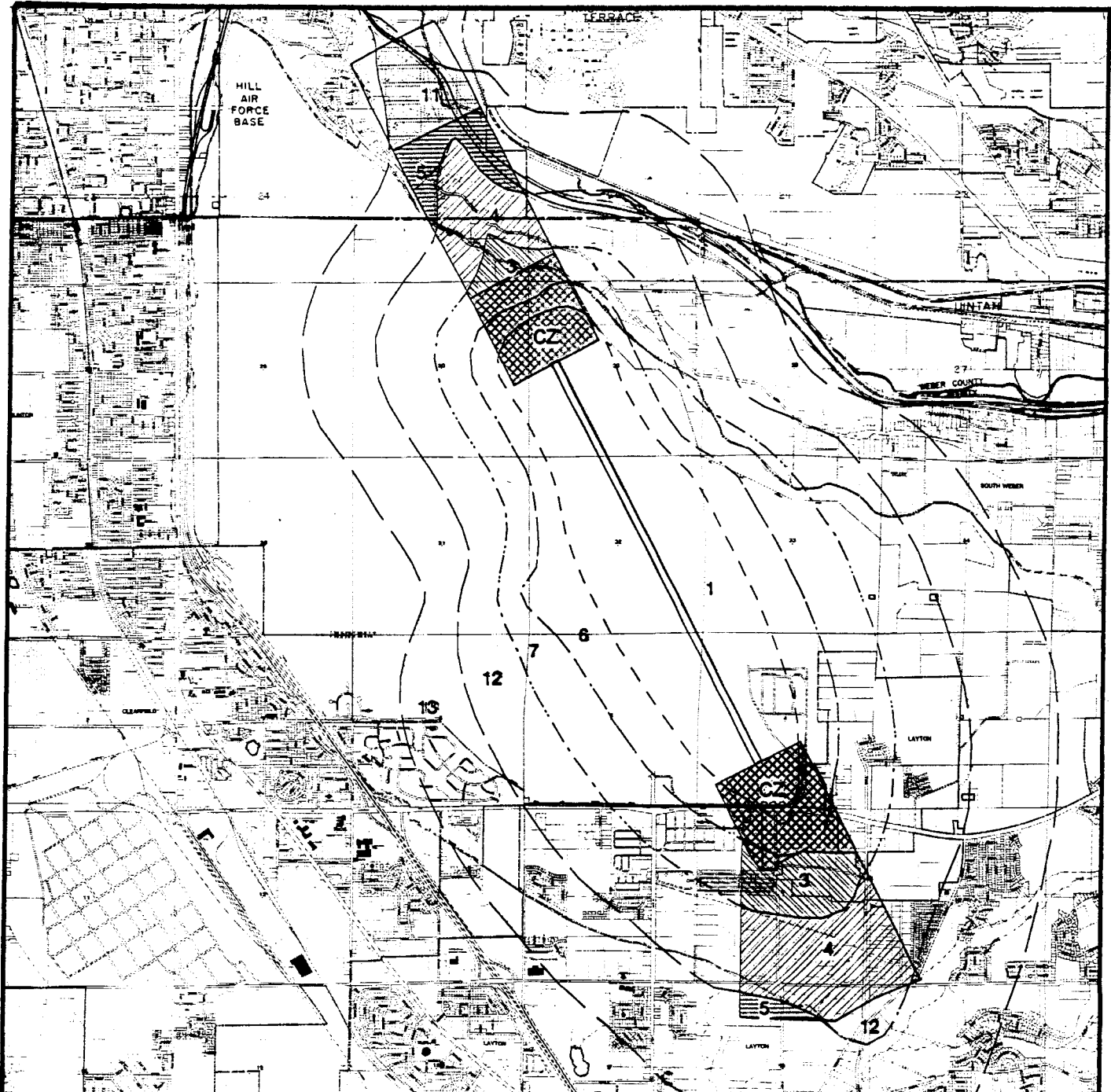
(existing or proposed) that would be compatible within these districts, given the degree of the prevailing aircraft noise and accident hazards. The CUDs and the Land Use Compatibility Guidelines (see Table IV-2) were developed primarily on the basis of past studies that have been conducted by the Federal Aviation Administration, Department of Housing and Urban Development, Environmental Protection Agency, and the Air Force. The Guidelines have served and are intended to serve as a resource in assisting local governments in planning in order to minimize conflictive land uses in areas that are affected by military aircraft noise and safety hazards, such as those presented by Hill AFB. The Guidelines are not mandatory, and their use or incorporation into the provisions of community General Plans is strictly voluntary and at the local jurisdiction's discretion.

Districts Applicable to the Hill AFB Noise Environment

The 1993 Hill AFB AICUZ contours enable the delineation of nine CUDs out of thirteen that typically can be delineated (see Figure IV-1). Only nine are identified, since the criteria for those that are excluded cannot be met. The CUDs that cannot be delineated are districts 2 (APZ I, 80-85 Ldn); 8 (APZ II, 80-85 Ldn); 9 (APZ II, 75-80 Ldn); and 10 (APZ II, 70-75 Ldn).

Use of the Guidelines and CUDs by Local Planning Jurisdictions

The 1993 Hill AFB AICUZ noise contours generally describe the noise environment that is associated with the base's operational characteristics and reflect a "snapshot" in time. As has been the case in the past, and will certainly be the case in the future, the operational characteristics of the base are subject to change, and as a consequence, the noise environment, or AICUZ, is also subject to change. The dynamic nature of the AICUZ noise contours makes it difficult for local jurisdictions to plan compatible land use for future development. Therefore, the Air Force recommends that the local jurisdictions do not solidify the boundaries of the AICUZ, but consider them as dynamic and subject to change. Long range land use planning must, therefore, be based not only on the AICUZ guidelines, but other planning considerations as well.



COMPATIBLE USE DISTRICTS (CUD): FIGURE IV-1

COMPATIBLE USE DISTRICT (CUD)			
LEGEND			
CLEAR ZONE		CUD 6	
CUD 1		7	
3		11	
4		12	
5		13	



Table IV-2
Air Force AICUZ Land Use Compatibility
with respect to Noise and Accident Potential

LAND USE		ACCIDENT POTENTIAL ZONES			NOISE ZONES			
		CLEAR ZONE	APZ I	APZ II	65-70	70-75	75-80	80+
10	Residential							
11	Household units							
11.11	Single units; detached	N	N	Y ¹	A ¹¹	B ¹¹	N	N
11.12	Single units; semidetached	N	N	N	A ¹¹	B ¹¹	N	N
11.13	Single units; attached row	N	N	N	A ¹¹	B ¹¹	N	N
11.21	Two units; side—by-side	N	N	N	A ¹¹	B ¹¹	N	N
11.22	Two units; one above the other	N	N	N	A ¹¹	B ¹¹	N	N
11.31	Apartments; walk up	N	N	N	A ¹¹	B ¹¹	N	N
11.32	Apartments; elevator	N	N	N	A ¹¹	B ¹¹	N	N
12	Group quarters	N	N	N	A ¹¹	B ¹¹	N	N
13	Residential hotels	N	N	N	A ¹¹	B ¹¹	N	N
14	Mobile home parks or courts	N	N	N	N	N	N	N
15	Transient lodgings	N	N	N	A ¹¹	B ¹¹	C ¹¹	N
16	Other residential	N	N	N ¹	A ¹¹	B ¹¹	N	N
20	Manufacturing							
21	Food & kindred products; manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
22	Textile mill products; manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
23	Apparel and other finished products made from fabrics, leather, and similar materials; manufacturing	N	N	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
24	Lumber and wood products (except furniture); manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
A	Furniture and fixtures; manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
26	Paper & allied products; manufacturing	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴

LEGEND

SLUCM - Standard Land Use Coding Manual
Y(Yes) - Land use and related structures compatible without restriction
N(No) - Land use and related structures are not compatible and should be prohibited
NLR (Noise Level Reduction) - Noise level reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure (see Appendix E in Volume III for additional NLR information)
Y^x (Yes with Restrictions) - Land use and related structures generally compatible; see notes 1 through 21
N^x (No with exceptions) - See notes 1 through 21
A, B, or C - Land use and related structures generally compatible; measures to achieve NLR for 66-70, 71-75, or 76-80 DNL/CNEL must be incorporated into design and construction of structure.
A*, B*, or C* - Land use generally compatible with NLR: However, measures to achieve an overall noise level reduction do not necessarily solve noise difficulties and additional evaluation is warranted
Ax, Bx - NLR: See footnotes

LAND USE		ACCIDENT POTENTIAL ZONES			NOISE ZONES			
SLUCM NO	NAME	CLEAR ZONE	APZ I	APZ II	65-70	70-75	75-80	80+
27	Printing, publishing, and allied industries	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
28	Chemicals and allied products manufacturing.	N	N	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
29	Petroleum refining and related industries	N	N	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
B	Manufacturing							
31	Rubber and misc. plastic products, manufacturing	N	N ²	N ²	Y	Y ¹²	Y ¹³	Y ¹⁴
32	Stone, clay and glass products manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
33	Primary metal industries				Y	Y ¹²	Y ¹³	Y ¹⁴
34	Fabricated metal products; manufacturing	N	N ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
C	Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks							
39	Miscellaneous manufacturing	N	N	N ²	Y	A	B	N
		N	Y ²	Y ²	Y	Y ¹²	Y ¹³	Y ¹⁴
40	Transportation, communications and utilities							
41	Railroad, rapid rail transit and street railroad transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
42	Motor vehicle transportation	N ³	Y	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
43	Aircraft transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
44	Marine craft transportation	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
45	Highway & street right-of-way	N ³	Y	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
46	Automobile parking	N ³	Y ⁴	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
47	Communication	N ³	Y ⁴	Y	Y	A ¹⁵	B ¹⁵	N
48	Utilities	N ³	Y ⁴	Y	Y	Y	Y ¹²	Y ¹³
49	Other transportation communication and utilities	N ³	Y ⁴	Y	Y	A ¹⁵	B ¹⁵	N
50	Trade							
51	Wholesale trade	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
52	Retail trade—building materials, hardware and farm equipment	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
53	Retail trade—general merchandise	N	N ²	Y ²	Y	A	B	N
54	Retail trade—food	N	N ²	Y ²	Y	A	B	N

LAND USE		ACCIDENT POTENTIAL ZONES			NOISE ZONES			
SLUCM NO.	NAME	CLEAR ZONE	APZ I	APZ II	65-70	70-75	75-80	80+
55	Retail trade—automotive, marine craft, aircraft and accessories	N	Y ²	Y ²	Y	A	B	N
56	Retails trade—apparel and accessories	N	N ²	Y ²	Y	A	B	N
57	Retail trade—furniture, home furnishings and equipment	N	N ²	Y ²	Y	A	B	N
58	Retail trade-eating and drinking establishments	N	N	N ²	Y	A	B	N
59	Other retail trade	N	N ²	Y ²	Y	A	B	N
60	Services							
61	Finance, insurance and real estate services	N	N	Y ⁶	Y	A	B	N
62	Personal services	N	N	Y ⁶	Y	A	B	N
62.4	Cemeteries	N	Y ⁷	Y ⁷	Y	A	Y ¹³	Y ^{14,21}
63	Business Services	N	Y ⁸	Y ⁸	Y	A	B	N
64	Repair Services	N	Y ²	Y	Y	Y ¹²	Y ¹³	Y ¹⁴
65	Professional services	N	N	Y ⁶	Y	A	B	N
65.13	Hospitals, nursing homes	N	N	N	A*	B*	N	N
65.19	Other medical facilities	N	N	N	Y	A	B	N
66	Contract construction services	N	Y ⁶	Y	Y	A	B	N
67	Governmental services	N	N	Y ⁶	Y*	A*	B*	N
68	Educational services	N	N	N	A*	B*	N	N
69	Miscellaneous services	N	N ²	Y ²	Y	A	B	N
70	Cultural, entertainment and recreational							
71	Cultural activities (including churches)	N	N	N ²	A*	B*	N	N
71.2	Nature exhibits	N	Y ²	Y	Y*	N	N	N
72	Public assembly	N	N	N	Y	N	N	N
72.1	Auditoriums, concert halls	N	N	N	A	B	N	N
72.11	Outdoor music shells, amphitheaters	N	N	N	N	N	N	N
72.2	Outdoor sports arenas, spectator sports	N	N	N	Y ¹⁷	Y ¹⁷	N	N
73	Amusements	N	N	Y ⁸	Y	Y	N	N
74	Recreational activities (including golf courses, riding stables, water recreation)	N	Y ^{8,9,10}	Y	Y*	A*	B*	N
75	Resorts and group camps	N	N	N	Y*	Y*	N	N
76	Parks	N	Y ⁸	Y ⁸	Y*	Y*	N	N

LAND USE		ACCIDENT POTENTIAL ZONES			NOISE ZONES			
SLUCM NO.	NAME	CLEAR ZONE	APZ I	APZ II	65-70	70-75	75-80	80+
79	Other cultural, entertainment and recreation	N	Y ⁹	Y ⁹	Y*	Y*	N	N
80	Resource production and extraction							
81	Agriculture (except livestock)	Y	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
81.5	Livestock farming and animal							
81.7	Breeding	N	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
82	Agricultural related activities	N	Y ⁵	Y	Y ¹⁸	Y ¹⁹	N	N
83	Forestry activities and related services	N ⁵	Y	Y	Y ¹⁸	Y ¹⁹	Y ²⁰	Y ^{20,21}
84	Fishing activities and related services	N ⁵	Y ⁵	Y	Y	Y	Y	Y
85	Mining activities and related services	N	Y ⁵	Y	Y	Y	Y	Y
89	Other resource production and extraction	N	Y ⁵	Y	Y	Y	Y	Y

*The designation of these uses as "compatible" in this zone reflects individual Federal agencies, and program consideration of general cost and feasibility factors as well as past community experiences and program objectives. Localities, when evaluating the application of these guidelines to specific situations, may have different concerns or goals to consider.

Figure 8 (Notes)

1. Suggested maximum density 1-2 dwelling units per acre, possibly increased under a Planned Unit Development (PUD) where maximum lot coverage is less than 20 percent.
2. Within each land use category, uses exist where further definition may be needed due to the variation of densities in people and structures.
3. The placing of structures, buildings, or above-ground utility lines in the clear zone is subject to severe restrictions. In a majority of the clear zones, these items are prohibited. See AFR 19-9 for specific guidance.
4. No passenger terminals and no major above-ground transmission lines in APZ I.
5. Factors to be considered: labor intensity, structural coverage, explosive characteristics, air pollution.
6. Low-intensity office uses only. Meeting places, auditoriums, etc., not recommended.
7. Excludes chapels.

8. Facilities must be low intensity.
9. Clubhouse not recommended.
10. Small areas for people gathering places are not recommended.
11.
 - a. Although local conditions may require residential use, it is discouraged in DNL/CNEL 65-70 and strongly discouraged in DNL/CNEL 70-75. The absence of viable alternative development options should be determined and an evaluation indicating that a demonstrated community need for residential use would not be met if development were prohibited in these zones should be conducted prior to approvals.
 - b. Where the community determines that residential uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) for DNL/CNEL 66-70 and DNL/CNEL 71-75 should be incorporated into building codes and be considered in individual approvals. See Appendix E of Volume III for a reference to updated NLR procedures.
 - c. NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, design and use of berms and barriers can help mitigate outdoor exposure particularly from level sources. Measures that reduce noise at a site should be used whenever practical in preference to measures which only protect interior spaces.
12. Measures to achieve the NLR for 66-70 DNL/CNEL must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
13. Measures to achieve the NLR for 71-75 DNL/CNEL must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
14. Measures to achieve the NLR for 76-80 DNL/CNEL must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
15. If noise sensitive use indicated NLR; if not, use is compatible
16. No buildings.
17. Land use compatible provided special sound reinforcement systems are installed.
18. Residential buildings require the NLR for 66-70 DNL/CNEL.
19. Residential buildings require the NLR for 71-75 DNL/CNEL.
20. Residential buildings not permitted.
21. Land use not recommended; built if community decides use is necessary; hearing protection devices should be worn by personnel.

EXISTING LAND USE WITHIN THE AICUZ

Existing Land Use

About 40 percent of the total noise environment of Hill AFB, which amounts to more than 11,000 acres, is on the base itself. Therefore, the existing or current land use that will be generally described here is the land use which is located in the areas off the Base. The City of Layton is affected by majority of the noise environment, which is shared to a much lesser degree by Riverdale, Washington Terrace, unincorporated Davis County, and South Weber (see Figure II-I).

The land use within the south and north APZ I is comprised mostly (a range between 89 and 96 percent, respectively) of open space or vacant land, agriculture, and low density residential development. In addition, there are smaller amounts of industrial, high density residential (mobile home park), and public (church and day care center) land use. As far as the north APZ I is concerned, about 40 percent is located on the Base. The remaining portion is mostly in agriculture/vacant/open space with small amount of disbursed low acreage residential land use. In the APZ II (north), the predominant land use is open space (golf course and Weber River floodplain), with small amounts of low density disbursed residential, and commercial (small portion of an outdoor theater) land use.

Within the 80-85 Ldn outside of the APZ I, in Layton, the predominant land use is medium density residential (mobile home park), and public (special education school). The total acreage within the 80 + contour amounts to about 247 acres. This acreage also includes the area located in the south clear zone that is affected by 80+ Ldn noise environment.

Most of the area with the 75-80 Ldn contours is located in the City of Layton and South Weber and unincorporated Davis County. The developed land affected by the 75-80 Ldn contours is located in Layton and is comprised mostly of agricultural/vacant, and medium/high density residential (mobile home park and apartments) land use. The acreage within the 75-80 Ldn contours amounts to about 859 acres, including the area located in the south APZ I.

The majority of the area within the 70-75 Ldn contours is located in the City of Layton. About 50 percent of the affected area is agricultural/vacant land use, and the remaining is developed in single family residential (mostly 1/4 acre lots), some apartments, a mobile home park, and a high school. The affected South Weber and Riverdale areas are mostly agricultural/vacant with small

amounts of low density dispersed residential land use. The total acreage within the 75-80 Ldn contours amounts to about 1973 acres, some of which is located in the south APZ I.

By far the largest subdivision of the Hill AFB noise environment is the area within the 65-70 Ldn contours, which amount to about 3,771 acres. Roughly one-half of the area is in Layton, and the remaining in unincorporated Davis and Weber Counties, South Weber, Washington Terrace, and Riverdale. About 50 percent of the land is developed in single family residential use (1/4 acre lots), some high density residential (apartments), some public (schools and churches), and a small amount of commercial land use.

Incompatible Land Use

The determinations of land use incompatibility were based on the AICUZ (Air Force) guidelines and was accomplished only as part of this study. Because the AICUZ guidelines have not been given official status by the local jurisdictions, the determinations of this study may not necessarily be in accordance with the perceptions of these jurisdictions. At this time, the local jurisdictions have not adopted any official standards or regulations to determine what constitutes land use incompatibility. Also, the Air Force does not have the authority to determine land use incompatibility, since the guidelines are only recommendations and do not automatically define incompatible land uses. The AICUZ guidelines were developed strictly as a tool in aiding the local land use planning efforts for lands in proximity to air installations. Therefore, the determinations of incompatible land use which follow below could more appropriately be considered as inconsistencies, rather than incompatibilities.

Most of the incompatible land use is located in Layton. The existing land use that can be deemed incompatible according to the guidelines is the medium/high density residential land use which lies within the 75 Ldn and higher noise contour. There is some low density residential land use located in the south APZ I area which are deemed incompatible. Other incompatible areas are found in South Weber, which has some low density residential land use within the 75 Ldn contour, and Riverdale, which has some low density residential use in the north APZ I area. The total acreage of incompatible land use was estimated to amount to about 312 acres (see Figure IV-2).

The Air Force, estimated that about 21 percent of the existing (off base) land use within the 75 Ldn and greater contours was incompatible. Between the 70-75 Ldn, and 65-70 Ldn contours, it was estimated that approximately three and seven percent of the land use was incompatible,

respectively.

Discouraged Land Use

Discouraged land use was also determined from the AICUZ guidelines, and includes mostly residential type land uses, which, even though sensitive to air craft noise, can be deemed compatible if the community has determined that there is a necessity for this type of development within the noise hazard area, and if the structures are constructed to include appropriate outdoor to indoor noise mitigation. As with incompatible land use, a majority of the discouraged land use is located within the limits of Layton. There are much smaller areas located in Clearfield, South Weber, Riverdale, and unincorporated portions of Weber County. The discouraged land use in these areas consists primarily of low density residential, and some medium/high density land use within the 65 Ldn and 75 Ldn noise contours (see Figure IV-2). The total acreage of discouraged land use was estimated to amount to about 1,217 acres.

EXISTING ZONING WITHIN THE AICUZ

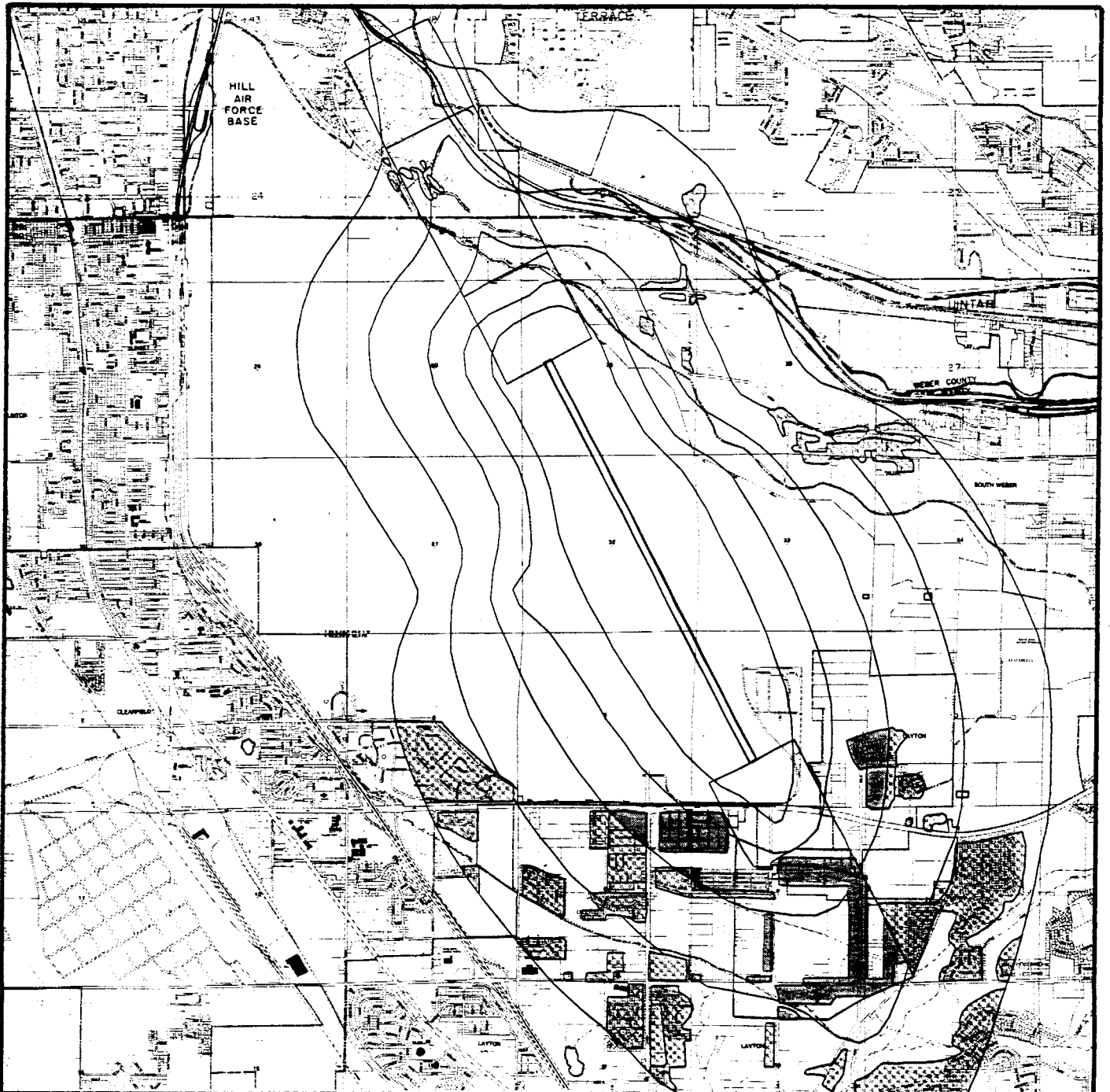
Existing Zoning

The existing zoning generally reflects the existing land use, and the land use that is or would be permitted on undeveloped land upon compliance with the conditions set by the local governmental jurisdictions. Since there is little, if anything, that can be accomplished with zoning in areas that are already developed, the undeveloped parcels of land in the noise affected areas have been singled out and have been made the focus of this particular discussion. Therefore, only the zoning of the undeveloped parcels of land that are not affected by existing use easements, and have the potential to develop as residential, or other sensitive uses, will be described below.



It was estimated that the potentially developable land within the AICUZ noise footprint amounts to about 2,675 acres.

Incompatible Zoning

Incompatible zoning was determined using the AICUZ guidelines. All of the incompatible land use was located in Layton. A majority of the incompatible zoning is designated as R-MH (



INCOMPATIBLE/DISCOURAGED EXISTING LAND USE: FIGURE IV-2

-  Incompatible Land Use
-  Discouraged Land Use



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residential-mobile homes). The remainder is zoned R-1-10 (single family residential, 10,000 sq. ft. minimum lot size). The total acreage of the land with incompatible zoning amounted to about 76 acres. The incompatibly zoned land is located either in the south APZ I, or within the 75 Ldn and greater noise contour (see Figure IV-3).

Discouraged Zoning

The definition of discouraged zoning is essentially the same as for discouraged land use. In this case, discouraged zoning is based on the type of land use that a particular zone would allow that would potentially be discouraged by the AICUZ guidelines.

The majority of the areas that have lands where the particular existing zoning designation would be discouraged by the AICUZ guidelines is located in Layton and Washington Terrace. Much smaller parcels are located in unincorporated Weber County and South Weber. The zoning designations of the areas that are discouraged are all residential, and include R-M1 (low/medium Density Residential), R-1-6 (residential, 6,000 sq. ft. minimum lot size), R-1-8 (residential, 8,000 sq. ft. minimum lot size), R-1-10 (residential, 10,000 sq. ft. minimum lot size), and R-S (residential suburban, 18,000 sq. ft. minimum lot size). The areas of discouraged zoning fall within the 65 Ldn and 75 Ldn contours, and the total acreage amounts to about 311 acres (see Figure IV-3).

FUTURE LAND USE WITHIN THE AICUZ

Future Land Use

As with existing zoning, future land use was considered only for those areas that are presently undeveloped or are developable at some point in the future, and it was assumed that the existing use would not change significantly at any time in the foreseeable future. The type of future land use for this study was determined from the land use elements contained in the adopted General Plans of the local jurisdictions that are affected by the Hill AFB AICUZ noise footprint.

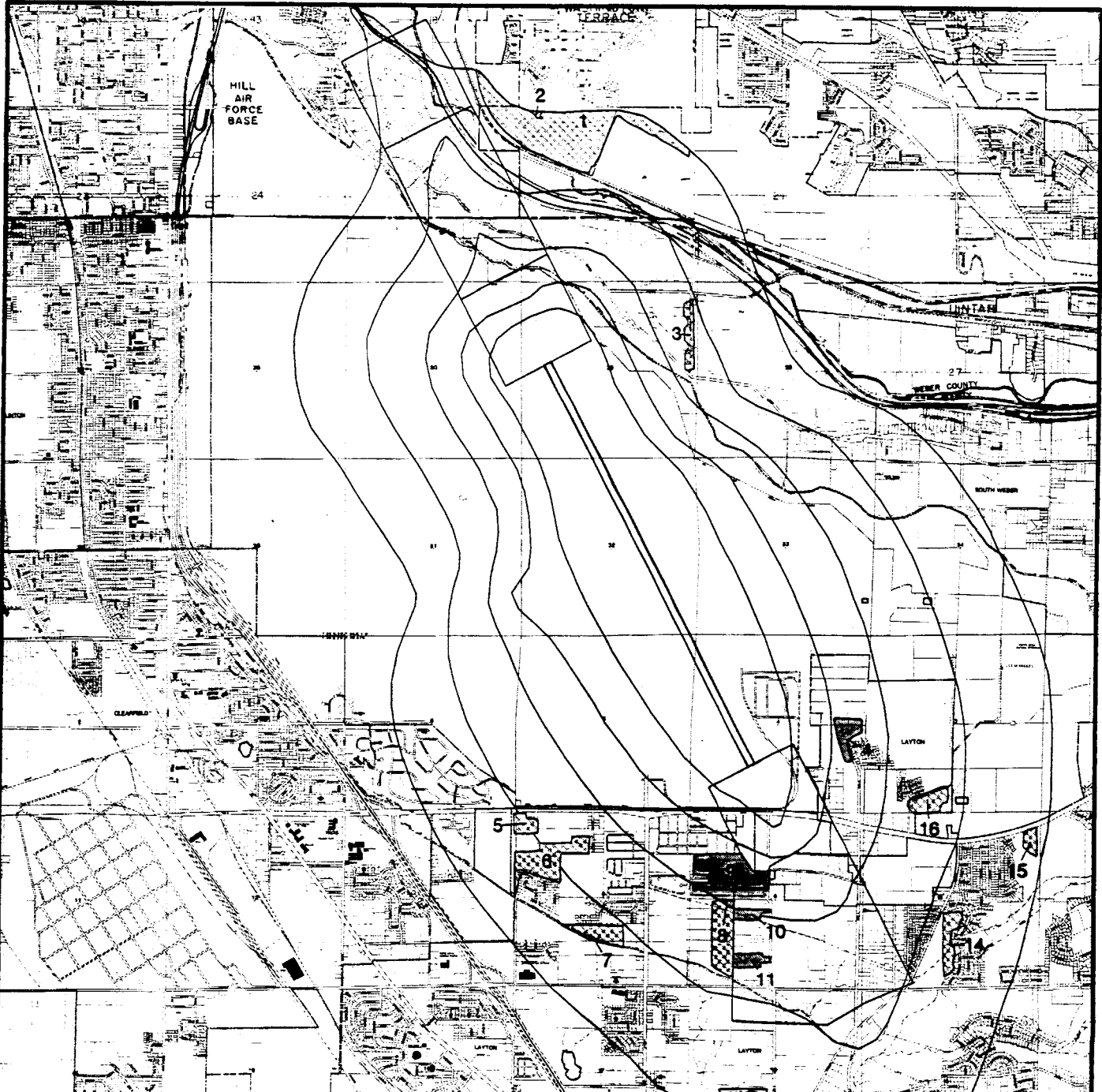
Incompatible Future Land Use

The areas that were considered to be incompatible relative to future land use are contained entirely within the 75 Ldn or greater noise contour, and the north and south APZ I. almost all of



the future incompatible land use is located in Layton, with very small parcels in South Weber, and Riverdale. The uses involved include low and medium density residential amounting to about 249 acres (see Figure IV-4).

Discouraged Future Land Use

A majority of the discouraged future land use is located in Layton, with smaller parcels located in Clearfield, South Weber, Washington Terrace, and some unincorporated portions of Weber and Davis Counties. The type of discouraged land use includes mostly low density residential, and some smaller parcels of medium and high density residential, and mixed uses. The discouraged land uses are found within the 65 Ldn and 75 Ldn noise contours, and amount to about 1,840 acres (see figure IV-4).



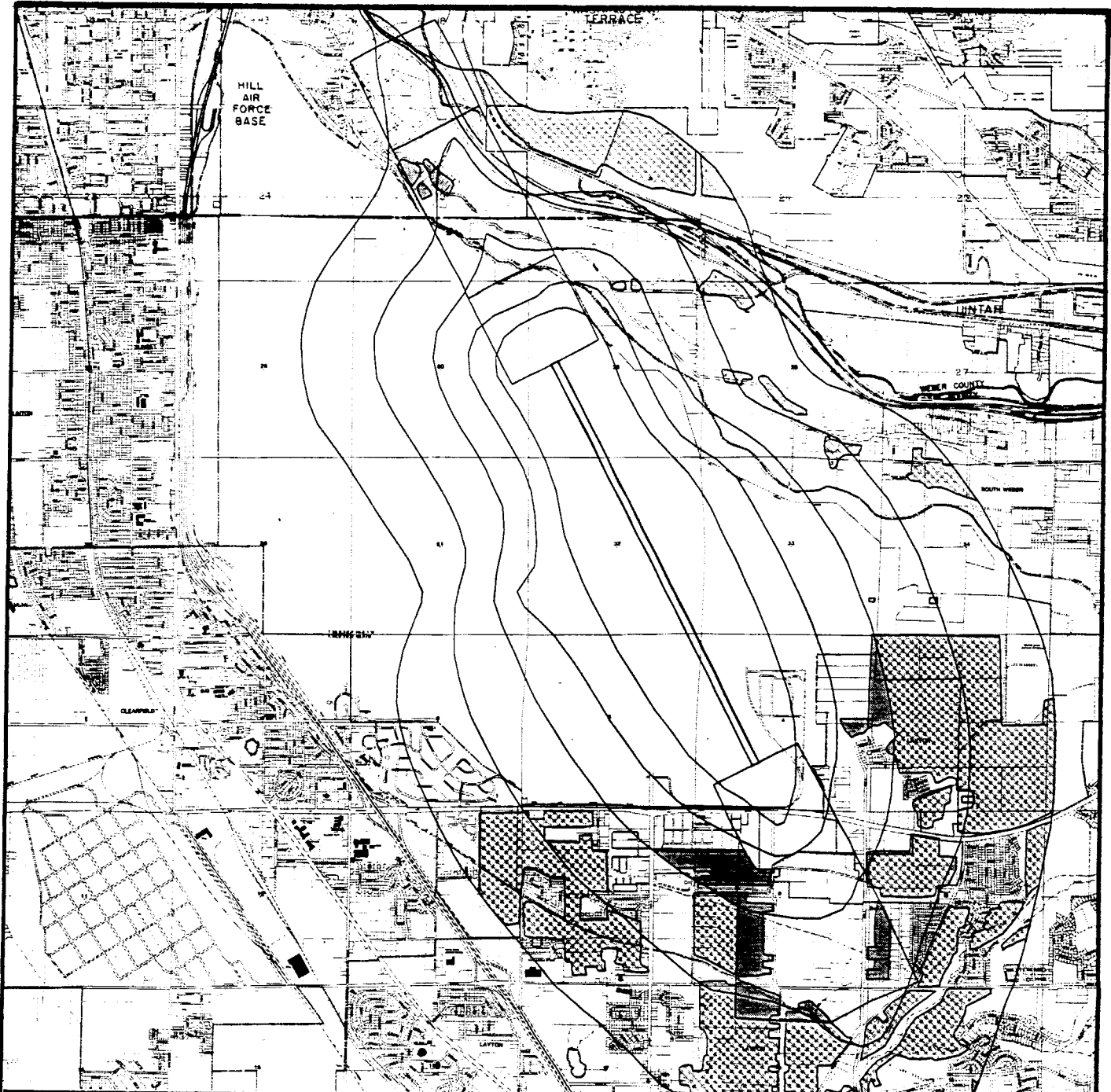
INCOMPATIBLE/DISCOURAGED EXISTING ZONING: FIGURE IV-3

-  Incompatible Zoning
-  Discouraged Zoning



ZONING KEY

- | | | | |
|----|--------|-----|--------|
| 1. | R-1-10 | 9. | R-MH |
| 2. | R-4 | 10. | R-1-10 |
| 3. | R-S | 11. | R-1-10 |
| 4. | R-M1 | 12. | R-1-8 |
| 5. | R-M1 | 13. | R-1-8 |
| 6. | R-1-8 | 14. | R-1-10 |
| 7. | R-1-6 | 15. | R-1-6 |
| 8. | R-1-10 | 16. | R-1-6 |





INCOMPATIBLE/DISCOURAGED FUTURE LAND USE: FIGURE IV-4

-  Incompatible Land Use
-  Discouraged Land Use



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REFERENCES

AICUZ Report, 1982, Hill AFB, Utah

Air Force AICUZ Land Use Compatibility with Respect to Noise and Accident Potential

Respective General Plans (see references in Ch. II)

Respective Municipal/County Zoning Ordinances

Unpublished Hill AFB Worksheet Documenting the Answers to BRAC 95 Question number II.6.A.1 through II.6.A.3

CHAPTER V. NOISE ABATEMENT ALTERNATIVES AND EVALUATION

INTRODUCTION

This chapter focuses on the development of mitigation or abatement alternatives which can be pursued by both Hill Air Force Base and the local jurisdictions. Several options will be presented which can result in a reduction of noise and/or reduce the noise impact on the local jurisdictions. The measures proposed relate to operational opportunities and land use control measures that may be considered. These alternatives or options can provide the basis for taking advantage of potential opportunities in the future relative to recommendations to be made and actions to be taken.

ABATEMENT ALTERNATIVES - AIR BASE OPERATIONS

Existing Procedures

In order to reduce aircraft noise impacts on the communities surrounding Hill AFB, the Air Force has established several procedures. These procedures are described as follows:

- (1) Runway 14 is used any time the tailwind component is less than 10 knots. This procedure tends to minimize afterburner noise in the densely populated area south of the base. This is referred to as a preferential runway procedure.
- (2) The fighter aircraft overhead traffic pattern is flown at 2000 feet above ground level (6800 feet MSL) instead of the normal altitude of 1500' AGL. This keeps the traffic 2500-3000 feet AGL over populated areas on final approach to Rwy 14.
- (3) Zoom Departures (F-16 flight test procedure) allows the aircraft to be landed on the runway, should engine failure occur at any point in the maneuver. This avoids the possibility of engine failure on the test aircraft occurring over populated areas.
- (4) The precision approach glide slope for Runway 14 is 2.8° instead of 2.5° to keep the aircraft higher on approach. There is no precision approach to Runway 32.
- (5) No VFR overhead traffic patterns are permitted between sunset and sunrise and multiple approaches are prohibited between the hours of 10:30 p.m. and 6:00 a.m. Flights originating at Hill AFB between these hours are held to an absolute minimum and each

must be approved by the Wing Commander.

- (6) Engine run-ups for maintenance purposes are prohibited between the hours of 10:30 p.m. and 6:00 a.m. unless they are in a hush house with the outer doors closed. There are four hush houses at Hill AFB, three constructed in the last five years. Extended C-130 engine run-ups are limited to the hours of 8:00 a.m. to 8:00 p.m.
- (7) Hill AFB Regulation 60-3 states in part, "Pilots will avoid flying over densely populated areas, schools, churches and public buildings to the extent practicable and consistent with safety and mission requirements. After passing the end of the runway, pilots will typically discontinue the use of the afterburner and continue to climb as rapidly as ATC guidance and aircraft performance characteristics permit. On VFR landing approach, altitude will be held as long as possible prior to final descent to the runway." As a general rule, afterburner use on takeoff is discontinued upon reaching the base boundary.
- (8) A Noise Complaint/Community Liaison Program has been established to investigate all noise complaints and to ensure that the person complaining receives an explanation. While not a noise mitigation activity, it assists members of the community in understanding the noise levels which accompany normal operations and also results in corrective actions when the noise generated was not essential.

Discussion of Options

Discussed below are a number of options available to the Air Force which could reduce the noise impact on the communities surrounding Hill AFB. These options are only being proposed as hypothetical options, since they have not been tested nor have their practicality been fully determined. As part of the following discussion, the response of the Air Force to these options is included.

Curtail or Eliminate Based Flying Operations: With the relaxation of international tensions the USAF is consolidating missions and bases. Movement of the based F-16 aircraft at Hill AFB to another Air Force Base would take about 100 aircraft out of the local environment. Remaining flight activities would be limited to ferry flights of aircraft to and from depot maintenance, functional test flights of aircraft coming out of depot repair and the transport activity (air freight) needed to support depot maintenance functions. Additionally, units would come to Hill AFB on a temporary basis to conduct training in the UTTR.

While implementation of the above option would reduce the aircraft generated noise level in the

vicinity of HAFB, it is not economically and practically feasible. Without the F-16 missions, the utility of the base would be greatly reduced and would lead to consideration of the Base for closure. Aside from the cost of moving the active duty wing, flight crews and support personnel, the economic impact on the community would be devastating (refer to economic impact). In addition to the loss of the active duty wing, the Air Force Reserve Wing would have to be disbanded or moved to another location. Such changes would increase the number of visiting units coming to Hill AFB to use the UTTR. Noise complaint records indicate that complaints increase when visiting units are deployed to Hill AFB. This may be a result of inadequate briefing and/or lack of understanding of local noise abatement procedures by deployed units. It is assumed that such would continue to be the case and that an increase in the number of deployments would result in increased complaints. Based on the foregoing, further consideration was not given to this alternative.

Air Force Response: Elimination of the 419th and 388th Fighter Wing (FW) units from Hill AFB would impact the local economy by eliminating military and civilian jobs. Further, the number of civilian jobs in the community, which serve the military, would be reduced or eliminated. The reduced income spent in the local area would have an adverse affect on local economies. However, transient aircraft training in the Utah Test and Training Range (UTTR) would continue to stage from Hill AFB. Transients would continue to rotate to Hill AFB on a temporary duty basis and noise mitigation measures would be more difficult to enforce. Also, the 6545 Test Group uses the range for testing ordinance and equipment. It would likely not relocate to another range. The KC-135, C-130 and other aircraft would likely visit the airstrip at Hill AFB for closed pattern training.

Review Mission Requirements to Reduce the Use of Afterburner: Changes in mission requirements, which would eliminate the use of afterburner or reduce the duration of use on takeoff and departure, would significantly reduce the airport noise impact on the community. This could be accomplished by scheduling those missions which require A/B use during cooler parts of the year and/or in the cooler parts of the day. Reduction in A/B usage would reduce the noise irritant south of the base where a significant percentage of noise complaints originate.

Reduction in the number of afterburner (A/B) takeoffs would significantly reduce noise levels. Approximately 87 percent of F-16 takeoffs are made using A/B. Air Force regulations require that the A/B be used whenever the predicted takeoff roll, without the use of A/B, exceeds 50 percent of the runway available. This is a common occurrence brought about by aircraft configuration, external stores, fuel load, gross weight, runway temperature, surface wind, and the like. Based on these variables, we do not believe that a further reduction in the number of

A/B assisted takeoffs is possible at this time.

Air Force Response: Previous noise modeling has shown that an increase in the number of afterburner takeoffs would reduce the noise levels under the departure corridor. Compared to military power departure, by the time an aircraft reaches the end of the runway, afterburners are typically discontinued and power is reduced. Power must be reduced to stay in the departure pattern. Military power takeoffs require a continued high rate of power throughout the takeoff. Training requirements are continuous year around. Changes in mission dictate aircraft configuration and takeoff characteristics.

Increase the Rate of Climb and the Maximum Altitude on departure: An increase in the departure rate of climb and maximum altitude on departure would in effect, get the noise farther away from residents. The F-16 is capable of executing a departure which would get higher, faster than is presently done.

Increased rates of climb and higher maximum altitudes on departure would reduce noise in the communities. Present departure instructions require attainment of at least 6300 feet MSL (1500 feet above ground) at 5 NM from the Hill TACAN or 4 NM from the base boundary; this requirements is easily exceeded. Maximum altitude restrictions are imposed by the FAA at Salt Lake City Approach Control. The requirements to maintain 7000' MSL until 10 DME and to remain below 9000' MSL until 20 DME are to ensure that Hill AFB departures pass below the predominantly commercial traffic into and out of SLCIA. The traffic control procedures in effect for SLCIA and the interface with Hill departures is viewed as being as efficient as possible based on state-of-the-art equipment in use. Further pursuit of this alternative may be warranted at this time.

Air Force Response: ATC rules dictate pattern altitudes. Local restrictions require departing aircraft to fly below 6300 feet MSL in order not to conflict with aircraft traffic in the overhead pattern at 6800 feet. We would be happy to entertain any proposed options to the departure rules.

Limit the Use of Closed Traffic Pattern: Use of the closed traffic pattern could be limited to establishing and maintaining landing proficiency. Entry into the closed traffic pattern from a low approach is a loud activity performed at 94 percent revolutions per minute (RPM). Any reduction in the number of closed patterns would reduce the size of the noise contours surrounding the base. Clearly, there is a need to establish and maintain approach and landing proficiency in fighter aircraft. It is also clear that Air Force approach and landing minimum

requirements are the least needed to maintain a safe operation and are quite different from those required to maintain a highly professional level of performance. A high time pilot does not need and should not take the same amount of proficiency time as a low time pilot. Consideration should be given to pursuing this alternative.

Air Force Response: The pilots stationed at Hill typically do not train in the pattern except for touch and goes. The time spent in flight is maximized at the UTTR as the type of training afforded at UTTR is more important. The closed pattern operations performed at Hill AFB may be conducted for training, but they are already being minimized to the number needed to maintain minimum proficiency. Also, any reduction in the number of closed patterns may have a negligible affect on the noise contours surrounding the Base. The midfield closed pattern is an option offered to pilots which may reduce noise levels south of the Base. They may sometimes be used based on a particular pilots experience and airfield conditions.

Eliminate Entry to the SFO Pattern from a Low Approach: An entry to the SFO pattern is available from LARRY intersection on the Causeway Recovery. This entry is at 14,500 feet MSL and would avoid high engine power setting entry from a low approach. Low altitude entry to the SFO pattern requires military power and as such is a loud activity. Use of the high altitude entry from LARRY intersection at 14,500 feet MSL would eliminate the entry from a low approach in most cases. An SFO requested upon completion of an instrument approach or as part of a check-ride entry from a low approach is appropriate. This option should be pursued.

Air Force Response: Pilots are encouraged to fly only the required number of SFOs unless the pilot feels his proficiency is low. Further, pilots are already directed to enter the SFO pattern from Larry (high altitude) when possible. However, the high entry will still not reduce closed patterns on the reentry which occurs after every SFO. Full stop landings and touch-and-go practice are not permitted upon the termination of an SFO. To land, the pilot must reenter via a closed pattern initial VFR, or GCA pattern. These options may be pursued further in the interests of reducing noise.

Conduct SFO and Closed Traffic Training at Michael Army Air Field (Michael AAF): Michael AAF is located at the Dugway Proving Ground, within the UTTR, R-6402A. It is the designated recovery base for 00-ALC TEST aircraft with hung ordinance. With 13,125' of runway and a control tower, its remote location seems to be ideal for noise abatement.

Michael AAF has a control tower and sufficient runway to accommodate F-16 aircraft.

The remoteness of the airport makes it an ideal location for practice VFR approaches. However, the Michael control tower was closed 1 October, 1991 and as a result the overhead patterns and SFO approaches are not authorized. Additionally, U.S. Army testing and artillery firing has priority over any aircraft operations. A joint waiver request was made by the 388th and 419th fighter wings to allow SFO approaches at Michael. This request was approved in 1992, which can reduce the number of SFOs at Hill AFB. However, only one element (two aircraft) can use the airfield at one time, since Clover Control controls traffic.

Air Force Response: The Michael Army Air Field tower is presently closed; therefore, overhead and SFO patterns are not authorized. The cost involved would only allow minimal use. The following comments on MAAF are offered for your study:

- a. The tower at MAAF has been non operational since 1 Oct 91.
- b. A Waiver was requested and approved to allow SFOs at MAAF. This could decrease SFO conducted at Hill AFB by a small amount.
- c. Even with a waiver MAAF is unsuitable for use by more than one element (two fighter aircraft) at a time. Also, Army testing has priority so the field would not be open all of the time. Often, the field is closed for a month at a time for Army munitions testing.
- d. While the cost to run MAAF would be \$50,000 a year for limited SFO use, continuous pattern use would boost the cost to over \$100,000 per year.
- e. The use of MAAF would also divert pilots time and fuel availability from their present training profiles since MAAF is not centrally located to all training areas. It is close to south range, but it is 50 miles from north range.
- f. If MAAF were used on a continuous basis, arresting cables/barriers would need to be installed on both ends of the runway, and additional airfield pavement installed at a substantial cost.

ABATEMENT ALTERNATIVES - GOVERNMENTAL JURISDICTIONS

Existing Procedures

A fairly extensive discussion of land use controls available to and in use by governmental jurisdictions is contained in Chapter II, Section C, Inventory of Existing Conditions. Therefore, only an evaluation of the tools presently being used by the affected governmental jurisdictions will be summarized below.

Easements: Land use or clearance easements were acquired through purchase by the State of Utah in 1976. These easements put restrictions on the affected land relative to the type and density of land use development which can occur in the future. The use easements acquired by the state are located within the boundaries of the Hill AFB south APZ I. In addition, in 1982, as a result of the Adams v. United States (Hill AFB) lawsuit settlement. The U.S. Government acquired avigation or overflight easements which coincide fairly closely with the use easement properties the state acquired earlier (see Figure II-7).

State Land Exchange Program: Under the proper conditions, this program is presently available to property owners since 1988 in areas affected by high aircraft noise. To date, however no exchanges have taken place. This could be partially explained by the fact that property owners in the high aircraft noise areas have not had a governmental entity or agency adopt any "measures" which have restricted or infringed on their property rights. Most commonly, these measures would include zoning, which has not been used by the local governmental jurisdictions as a noise mitigation tool.

FHA - DVA Housing Programs: According to the HUD office in Salt Lake City, both the FHA and DVA are following the HUD Noise Guidebook and some specific policies developed by HUD, in cooperation with Hill AFB in 1987, relative to federally supported residential developments in high noise areas. Generally, the policy prohibits the FHA or VA to grant its federally supported mortgage insurance for new homes if they are located in noise areas in excess of 70 Ldn. Also, contractors of new homes constructed within the 65-70 Ldn noise contours are required to obtain certification that (interior) noise attenuation of 25 dBA has been incorporated in the building. After one year from the date of construction completion of a home, the noise hazard restrictions of both FHA and VA no longer apply, and therefore, a home owner could obtain federally supported mortgage insurance regardless of the severity of the noise hazard affecting the home.

Uniform Building Codes: As mentioned in Ch. II, all of the local governmental jurisdictions in the study area have adopted the Uniform Building Code (ICBO) and other uniform codes for electrical, mechanical and plumbing. All construction is controlled according to these codes, which is a requirement of the state.

The city of Kaysville is the only community in the study area which adopted an amendment to its building code (prior to the passage of the Uniform Building Standards Act of 1987) implementing the AICUZ recommendations for aircraft noise attenuation of 25 decibels (interior) for residential construction.

Comprehensive Planning: The communities of Layton, Riverdale, South Weber, and Washington Terrace have, to some degree, addressed the issue of environmental problems resulting from the aircraft operations of the base. However, a review of the zoning and subdivision regulations of these communities indicates that there are no provisions in these ordinances which address and would effectively implement the goals and policies contained in the communities' comprehensive plans dealing with noise related compatible land use planning.

Discussion of Options

Land use and development controls are the easiest and most powerful tools available to the local governmental jurisdictions in ensuring compatible land use for the areas affected by aircraft noise of the Base. The options presently in use are discussed in the previous sections. The land use controls and other tools generally available to local, state and federal governmental jurisdictions are extensively discussed in Chapter II and, therefore, will only be briefly discussed in summary fashion below. The specific options or actions which could be taken, however, will be discussed in more detail by the option categories in which they fall. It is on these specific actions that the compatibility recommendations will be based.

Property Acquisition: This is the most effective and sometimes the most expensive way to control land use in aircraft noise impacted areas. Many times properties with incompatible uses can be purchased and resold with covenants and restrictions or leased back guaranteeing a compatible future use. This tool is most often used for commercial airports when other preventative measures for insuring compatible land use have failed or have not been implemented. The FAA, for example, has recommended that properties within the 75 Ldn contour be acquired, since few developed uses of land are compatible within the 75 Ldn contour.

Possible Options:

(1) Since few developed uses of land are compatible within the 75 Ldn contour, the Federal Aviation Administration has recommended that properties within the 75 Ldn contour around commercial airports affected by aircraft noise be acquired. This standard could be applied to military airports and specifically to Hill AFB as well. The difficulty of this option is that there are no Air Force or federal programs or funds which could make it possible for noise affected properties to be acquired. If a property acquisition program were to be adopted, a commitment for federal government, state and/or local government funds would need to be obtained. The properties most severely affected, such as the Hill Top School, the trailer park development immediately south of the runway and the day care center at the south end of the south APZ (Accident Potential Zone) I, would be appropriate candidates for acquisition. Other areas for acquisition could include subdivision properties between the 75-80 Ldn, such as the Eastridge Quail Ridge and North Hill Estates subdivisions. In short, a program should be created that would ultimately acquire in fee simple the properties within the 75 Ldn noise contour as per the standard operating procedures of the FAA.

(2) A cooperative and concerted effort should be made by Hill AFB, the State of Utah and the affected local units of government to persuade the federal government to provide funding (similar to FAA programs) for the acquisition of properties that are being severely impacted by aircraft noise.

Easements - Avigation/Use: These can be acquired through purchase and may not cost as much as fee simple purchase. There are two types of easements presently being used in the study area: avigation and use easements. An advantage of easements is that properties are kept on the tax rolls, and the owner can continue using property (within conditions prescribed by the easement).

Possible Options:

(1) Extend and/or continue the acquisition of use easements in the south APZ I which was begun in 1976 by the State of Utah. There are still many properties in this zone which are presently or have the potential of becoming incompatible with the accident potential and noise exposure which prevails in this zone.

(2) Pursue the acquisition or avigation easements, within the 65 Ldn which allow for the

overflight of land by and noise emanating from the aircraft. Avigation easements would be provided to the Air Force and recorded on the deeds of the properties which have them. When property is sold, the easement would be disclosed to the purchaser, since it is recorded on the deed.

(3) Encourage the State Legislature to appropriate some additional funds to finish acquiring use easements in the APZ I (located south of the runway).

(4) Work with the State Legislature to establish a mechanism whereby property owners in a high aircraft noise impact area would receive a "tax break" in exchange for granting avigation easements.

State Land Exchange Program: Property owners in an area affected by high aircraft noise who have had their property rights restricted through zoning or other governmental measures may apply to the Division of State Lands and Forestry to exchange their lands for comparably valued properties in state ownership.

Possible Options:

(1) Amend the State Land Exchange Statute which would eliminate the "formal measures" provision and so it could apply to both developed and undeveloped property. As far as can be ascertained, the property rights or property owners in the aircraft noise affected areas have to date not been curtailed by local government. This may make it difficult for affected property owners to qualify for the program.

(2) Determine exactly what the other impediments to the land exchange program's future success are and eliminate them.

Subdivision Regulations/Plat Review: These regulations, in effect, are implementing tools of zoning and the comprehensive plan and require the subdivision of land to follow certain design standards, and the dedication of easements for public utilities and other public purposes.

Possible Options: Amend the local subdivision regulations so that they would include a provision requiring the dedication of avigation easements as a condition of plat approval by the local jurisdiction in areas of high aircraft noise impact (65 Ldn or higher).

Building Codes: Building codes specify building techniques and materials used in construction for the health and safety of the public. They can be applied to new construction and can require suitable noise attenuation for site specific noise exposure areas.

Possible Options:

- (1) The local jurisdictions affected by aircraft noise should cooperatively request a building code amendment of the Uniform Building Code Commission. The amendment should specify the minimum outdoor to indoor db noise reduction for residential, commercial and other construction as recommended by the AICUZ and/of FAR Part 150 guidelines.
- (2) The local jurisdictions should provide information to the public and contractors on how to achieve aircraft noise reduction when remodeling or building new residential and other structures.

Zoning: This is the principal legal mechanism for controlling development and guiding the establishment and maintenance of various land uses. Some communities in Utah that have airports within their jurisdictions have used a zoning technique called an overlay zone. These zones may be superimposed on the existing comprehensive zones. They take precedence over and supersede the underlying or comprehensive zones and have been used to protect airports from incompatible land use or development that would limit the airport's usefulness through the use of land use restrictions, aviation easements and building code requirements.

Possible Options:

- (1) The local jurisdictions affected adopt an overlay zoning concept similar to what has been adopted in Salt Lake City, Salt Lake County, West Valley City and West Jordan. Overlay zones supersede existing underlying zones when the situation warrants it. In the case of Salt Lake City, an ordinance has been developed which identifies and controls the land use in four influence zones. These zones relate to the following various aircraft noise conditions which exist at the Salt Lake City International Airport: Zone A - very high noise impact; Zone B - high noise impact; Zone C - moderate noise impact; and Zone H - height restrictions.
- (2) Establish a permanent Compatible Land Use Commission comprised of representatives of the jurisdictions in the vicinity of Hill AFB which are affected by aircraft noise. This

commission would meet regularly, review and evaluate development proposals relative to accepted land use standards, and provide recommendations to planning commissions and city councils relative to planning and zoning matters in the Hill AFB aircraft noise impact area.

(3) The local jurisdictions rezone those portions of the city which are adversely affected by aircraft noise in order to prevent incompatible land development from occurring and to permit uses which are compatible. The AICUZ and/or FAR Part 150 noise guidelines should be used for determining compatible/incompatible uses.

Transfer of Development Rights: This technique was not discussed in Chapter II, since it has not been used in the State of Utah and there may not be any enabling legislation which would empower local governmental jurisdictions to use this technique. However, it will be briefly discussed here.

The above concept involves the transfer of the right to develop a certain parcel of property to a certain density or intensity to another parcel under separate ownership. This allows the property that obtains the added rights to develop to an intensity or density beyond that which would normally be allowed.

Possible Options: If this tool were to be used, it would be recommended that it be further researched to determine if any governmental entities in Utah have used it and what experiences they have had with it. Even though this tool may not have been used in Utah, and only rarely in the country, there may be some merit to using it.

Comprehensive Planning: The comprehensive plan serves as a policy guide to ordinances dealing with land development and control, and to the decision-making process. The plan contains specific policies about land use which can be expressed in the form of development policy statements and a future land use plan map. The plan can do little by itself, but must rely on other tools for implementation.

Possible Options:

(1) The local political jurisdictions and/or the Wasatch Front Regional Council (WFRC) work with the State Legislature and propose amendments to Utah's Planning and Zoning Enabling Acts which would mandate consideration of compatible land use planning during the comprehensive planning process in communities and counties affected

by military airports. The amendments would incorporate the land use compatibility standards of the AICUZ, FAR Part 150 or other appropriate standards acceptable to the local entities. Also, action could be taken to amend Chapter 4, Airport Zoning Act of the Utah Code/Aeronautics making comprehensive land use planning and zoning a requirements, along with the power to control physical hazards in areas of both military as well as commercial (federally supported) airports.

(2) Local political jurisdictions affected by airport noise and safety hazards adopt goals, objectives and policies in their general plans which adequately deal with the issues of land use planning, and more specifically with the planning of land use so that it will be compatible with the prevailing aircraft noise and safety environments. In particular, the communities of Layton, Riverdale, Washington Terrace and South Weber should evaluate their general plans and consider incorporating provisions which will provide guidance to the type and geographic location of future land uses in order to minimize or mitigate the effects of aircraft overflight and noise.

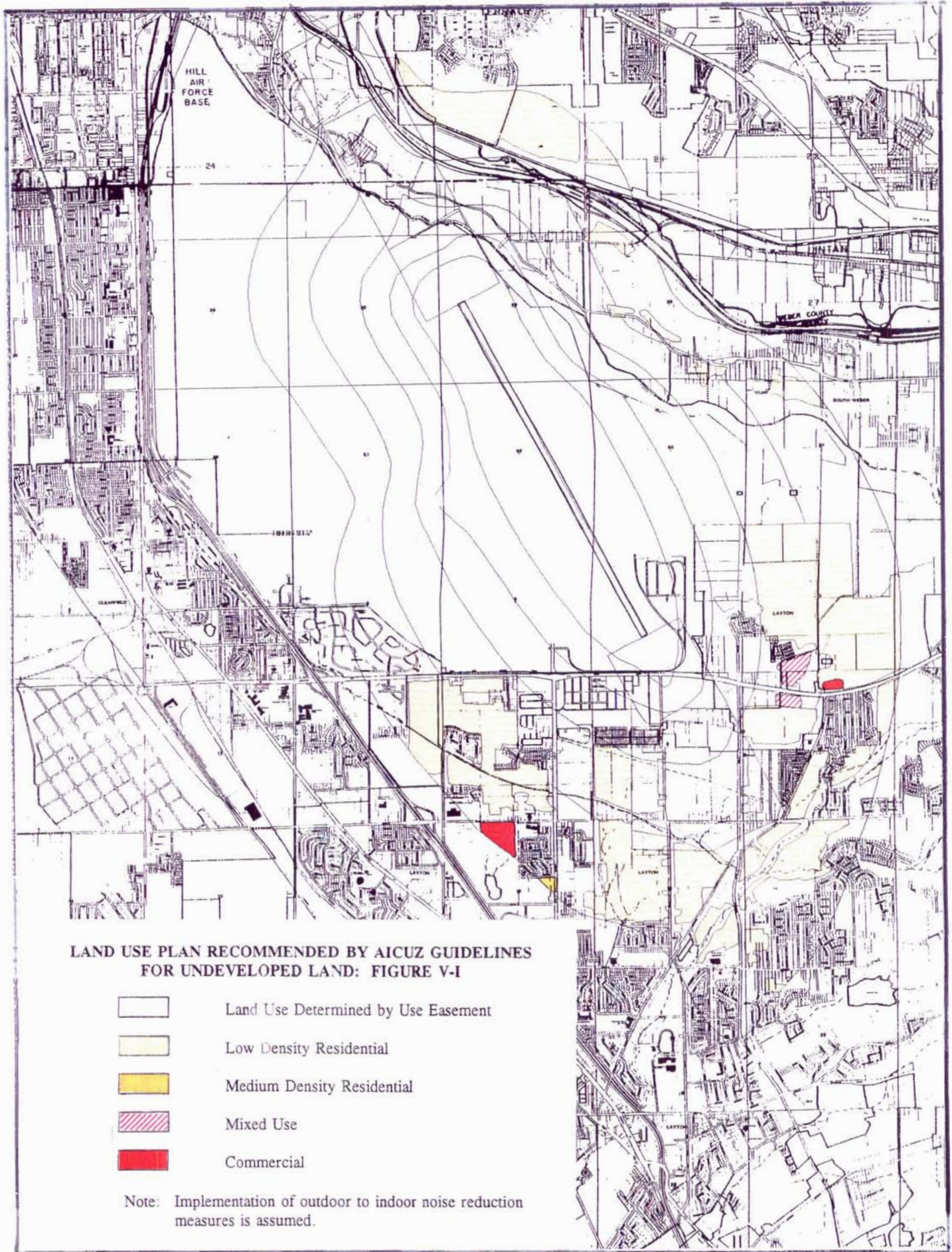
A suggested land use plan option was developed in conjunction with this study. The option reflects the recommendations of the local jurisdictions' planning staff, and the strict interpretation of the AICUZ Guidelines (see Figures V-1).

(3) The local jurisdictions adopt policies which recognize: (a) the importance of Hill AFB to the local and regional economy and the need to protect its operational capacity; (b) the local responsibility to protect the public health, safety and welfare of the community's citizenry; and (c) the value of compatible land use development in high noise impact areas.

(4) The local jurisdictions adopt a set of contours which are reflective of the Base's existing and projected future activity levels for land use planning purposes. The contours would serve as a guide in identifying parcels of property whose boundaries would be used in establishing compatible land use zones.

(5) The local jurisdictions should consider Hill AFB as an affected agency with regards to the community's land use planning policy decisions. Some of the specific policies the political jurisdictions could incorporate into their comprehensive plans are:

(a) Discourage or prohibit residential development (particularly multi-family dwellings, group quarters, hotels, motels, and mobile home parks or courts),



**LAND USE PLAN RECOMMENDED BY AICUZ GUIDELINES
FOR UNDEVELOPED LAND: FIGURE V-1**

- Land Use Determined by Use Easement
- Low Density Residential
- Medium Density Residential
- Mixed Use
- Commercial

Note: Implementation of outdoor to indoor noise reduction measures is assumed.

schools, churches, medical facilities and other noise sensitive development in the Accident Potential Zone (APZ) as well as in areas within the 75 Ldn or greater (80 Ldn and 85 Ldn) noise contours.

(b) Where it is determined that residential and other noise sensitive uses must be allowed within the 75 Ldn or greater noise contours, because of the absence of viable alternative development options, the building code, zoning ordinance and/or subdivision regulations should be amended to incorporate provisions which require residential and other noise sensitive development to achieve outdoor to indoor Noise Level Reductions (NLR) of at least 35 dB or more depending on the existing or projected noise levels, and to provide the Air Force with an avigation easement.

(c) New residential and other noise sensitive developments which are approved in the aircraft noise impact or influence area (between 65 Ldn and 75 Ldn noise contours) should also be required to provide an avigation easement to the Air Force which would be recorded with the plat and to achieve an NLR ranging between 25 dB and 35 dB, depending upon the existing or projected noise levels.

(6) Local political jurisdictions invite representatives from Hill AFB to become more involved in the comprehensive long range and current planning processes by appointing them to serve on various commissions and committees which deal with planning and policy formulation, such as the planning commission, comprehensive planning advisory committee and like organizations. Hill AFB representation on community commissions and committees would foster better communications between the base and the communities relative to concerns which both entities share in common.

Capital Improvements: The capital improvements program controls the type and extent of development through the programming of funds to construct public utilities, such as water, sewer and streets. The extension of utilities virtually assures the development of property at some point in time.

Possible Options: The local jurisdictions and special improvement districts adopt policies which would limit the programming of funds for infrastructure in areas which are adversely affected by aircraft noise and safety hazards. The programming of funds for the development of infrastructure in these hazard areas should be carefully considered and should only be approved if there are no other alternative projects available for the

use of funds and if the affected local jurisdiction has determined, on the basis of the comprehensive plan and other policies, that the noise affected area(s) should be served with new or expanded infrastructure. It is important for capital improvement programs and policies relating to future land use schemes, as documented in the comprehensive plan, to be coordinated so that the development of planning and/or incompatible uses can be minimized or avoided.

FHA/DVA Housing Programs: Policies with regards to noise hazards were developed by HUD in guiding the acceptance of residential development for federal mortgage insurance. FHA/DVA will not approve new housing if the noise hazard is excessive. In this case, the guidelines call for non approval of federal mortgage insurance if new housing falls within the 70 Ldn. If it falls within the 65-70 Ldn contours, noise attenuation is required.

Possible Options:

(1) The local jurisdictions, WFRC, and Hill AFB cooperatively and in concert work with HUD's FHA and DVA in an effort to amend its present policy to provide mortgage insurance to eligible home owners in areas of high aircraft noise (70 Ldn or higher) one year after the date of the home's construction. Essentially, this policy provides a loophole to developers/owners and to a large degree negates other FHA/DVA policies which restricts the availability of mortgage insurance to newly constructed homes within the 70 Ldn or less noise contour. FHA/DVA should be encouraged to not provide mortgage insurance in areas where high aircraft noise hazards exist (70-85 Ldn), to drop the one year rule, to uniformly enforce a noise hazard policy and not differentiate between newly constructed (one year old or less) and older homes.

(2) The local jurisdictions, WFRC and Hill AFB encourage FHA/DVA to reinstate the requirement, within the 65-70 Ldn) that the mortgagee certify that the borrower was notified of an existing aircraft noise hazard before the execution of a sales contract.

(3) Periodically determine if FHA/DVA is enforcing its policy of withholding mortgagee insurance from all future residential developments which lie within the 70-75 Ldn noise contour. There have been times in the past when it was perceived that this policy was not enforced as stringently as it could have been. Therefore, a periodic check and a re-affirmation of FHA/DVA's noise policies could be beneficial.

Other Programs

Possible Options:

- (1) Continue to have the Hill AFB Compatible Land Use Committee function as an active committee. The purpose of the committee would be to review land development proposals, make recommendations to Hill AFB and local jurisdictions relative to base operations and land use decisions, and to work with FHA/DVA, Utah State Division of State Lands, Department of Commerce - Division of Occupational and Professional Licensing and other organizations whose regulations could have an effect on planning for mitigation of aircraft noise.
- (2) Local jurisdictions and WFRC work with the Davis School District in an effort to institute district policies guiding the placement or location of new schools and measures that can be taken to minimize aircraft noise on newly constructed buildings.
- (3) Local jurisdictions and WFRC encourage the State Legislature to offer representatives of Hill AFB an opportunity to report (on an annual basis) on subjects like progress being made by and problems confronting the Base as was the customary practice several years ago, but has since been discontinued.
- (4) Chambers of Commerce should be encouraged to form a "Military Affairs Committee" to aid in the communication and public awareness of Hill AFB activities and schedules.
- (5) Local government should encourage the business community to lead the way on a voluntary program to remove/minimize land use conflicts in the APZs and other areas of high noise impact (75-80 Ldn).
- (6) The local jurisdictions should integrate noise attenuation with their existing housing assistance programs within the 65 Ldn contour.
- (7) The Department of Defense should periodically field measure actual aircraft noise levels at Hill AFB, recalibrate noise models to reflect actual conditions, and reconfigure the AICUZ contours based on its findings.

CHAPTER VI. COMPATIBILITY RECOMMENDATIONS

INTRODUCTION

The following material discussed in this chapter lists and describes air base operations, land use, and other recommendations as approved by the CLUS Committee. Cumulatively and singularly, the implementation of these recommendations would help to reduce the number of people exposed to aircraft noise within the environs of Hill AFB through an overall minimization in the level of aircraft noise that results from the base's operations.

The recommendations contained here are intended for consideration by and as guidance for the principal parties involved or affected by this study - the Air Force, and the various units of local, state, and federal government. They are based on Chapter V, which deals with the evaluation of the various noise abatement options that are available. Implementation of the recommendations will be the responsibility of the Air Force, and the governmental jurisdictions. The options were selected as recommendations on the basis of their reasonableness and implementability, given the means and political climate of the entities involved.

AIR BASE OPERATIONS RECOMMENDATIONS

Recommendation One - Increase the Rate of Climb and the Maximum Altitude on Departure: It is recommended that the departure rate of climb and maximum altitude on departure be increased in order to get the noise source farther away, and more quickly, from residents. Increased rates of climb and higher maximum altitudes on departure would reduce noise in the communities. Efforts should be made to see if changes in the ATC rules can be made that would result in an increase in the departure rate of climb.

Recommendation Two - Limit the Use of Closed Traffic Pattern: It is recommended that the closed traffic pattern be evaluated to see if its use can be further limited. This could be accomplished by considering lowering the approach and landing proficiency times of high time pilots.

Recommendation Three - Eliminate Entry to the SFO Pattern from a Low Approach: It is recommended that the low altitude entry to the SFO pattern be minimized as much as possible, and that the use of the high altitude entry SFO pattern from LARRY intersection on the Causeway

Recovery be maximized.

Recommendation Four - Conduct SFO and Closed Traffic Training at Michael Army Air Field or the Wendover Airport: It is recommended that the Michael control tower be reopened so that overhead patterns and SFO approaches are possible. Another alternative of this recommendation is that the Air Force participate in upgrading the Wendover Airport to meet the requirements of F-16 aircraft and make it available for practice approaches and routine operations in conjunction with the training activities at UTTR.

LAND USE RECOMMENDATIONS

Recommendation One - Acquire Use Easements in the Accident Potential Zones: It is recommended that the remaining use easements be acquired in the south accident potential zone, and in the north accident potential zones. These easements would restrict incompatible uses as described by the AICUZ Noise Guidelines in these zones, and other high aircraft noise areas of the Base.

The above recommendation is in the process of being implemented. The 1994 State Legislature appropriated \$10,000,000 to acquire the use easements in the accident potential zones. Properties of over one acre in the accident potential zones, and in the highest noise environment (within the 75 and 80 Ldn contours) which are presently undeveloped have been given the highest priority for easement acquisition. The Legislature also mandated a one year building moratorium (expires March 1, 1995) for the easement acquisition target areas with the passage of the bill which appropriated the funds for the acquisition of the easements.

Recommendation Two - Acquire Avigation Easements in Noise Environments of 65 Ldn or higher: It is recommended that in those undeveloped areas where use easements will not be acquired that avigation easements be required as a condition of development approval. These easements would be granted to the Air Force or the local jurisdictions that have the power to grant approval of new development. This recommendation could be implemented by amending the local subdivision regulations so that they would include a provision requiring the dedication of avigation easements as a condition of plat approval in the areas of high aircraft noise impact (65 Ldn or higher).

Recommendation Three - Local Jurisdictions Adopt Provisions in their General Plans

that Will Ensure Compatible Land Use in Aircraft Noise Areas: It is recommended that the local political jurisdictions affected by airport noise and safety hazards adopt goals, objectives, policies, and land use plans (see Figure V-1) in their General Plans which adequately deal with the issues of planning for compatible land use. Specifically, provisions as recommended by the AICUZ Guidelines should be adopted, particularly by Layton, Riverdale, Washington Terrace, Clearfield, and South Weber, that requires all future development to be compatible with the prevailing aircraft noise and safety environments. Figure V-1 shows a land use concept which maximizes the residential component of land use within the AICUZ noise footprint. If noise attenuation were to be incorporated into the construction of the dwelling units, this plan would be compatible with the AICUZ guidelines. However, there is nothing sacrosanct with this plan, and other land use concept scenarios could be developed and found to be compatible with the guidelines.

Recommendation Four - Local Jurisdictions Adopt Provisions in their Zoning Ordinances that Will Implement the Compatible Land Use Goals and Policies of the General Plan: It is recommended that the local jurisdictions adopt provisions in their zoning ordinances that ensure the development of compatible land uses in the aircraft noise areas. This could be accomplished by the adoption of an overlay zoning concept which, in effect, supersedes existing underlying zones when the situation warrants it. Similar overlay zoning ordinances have been adopted by Salt Lake City, Salt Lake County, West Valley City, and West Jordan, in dealing with the airport safety and noise environments located in their communities.

OTHER RECOMMENDATIONS

Recommendation One - Amend the Uniform Building Code so that Minimum Noise Reduction is a Requirement of All Applicable New Construction in High Noise Areas: It is recommended that the local jurisdictions affected by high aircraft noise cooperatively request a building code amendment of the Uniform Building Code Commission (State of Utah Department of Commerce). The amendment should specify the minimum outdoor decibel noise reduction for residential, commercial and other construction as recommended by the AICUZ Guidelines for areas within the 65 Ldn contour and higher.

Recommendation Two - Local Jurisdictions Provide Information on Achieving Noise Reductions when Building: It is recommended that local jurisdictions provide information to the public and contractors on how to achieve aircraft noise reductions when remodeling or building new

residential and other structures.

Recommendation Three - Establish a Permanent Multi-jurisdictional Land Use Committee: It is recommended that a permanent committee be established with members coming from the various affected jurisdictions, and Hill AFB. The primary purpose of the committee would be to review rezoning and land development proposals, make recommendations to Hill AFB and local jurisdictions relative to base operations and land use decisions, and work with school districts and other agencies whose regulations could have an effect on planning for mitigation of aircraft noise.

Recommendation Four - Work With the School Districts in the Development of Criteria/Policies for Minimizing Aircraft Noise for New Schools: It is recommended that the local jurisdictions and/or the WFRC work with the school districts in an effort to institute district policies guiding the placement of new schools, and measures that can be taken to minimize aircraft noise for newly constructed buildings.

Recommendation Five - Field Measure Actual Aircraft Noise Levels within the Noise Environs of Hill AFB: It is recommended that the Department of Defense periodically field measure actual aircraft noise levels at Hill AFB so that an opportunity might be provided to recalibrate the noise models to reflect the most accurate existing noise conditions.

CHAPTER VII. IMPLEMENTATION AND MANAGEMENT PROGRAM

IMPLEMENTATION ACTION STRATEGIES AND ENTITIES RESPONSIBLE

Introduction

The recommendations of the Hill AFB Compatible Land Use Study would be implemented over a period ranging between one and possibly two or more years. Some of the recommendations may not require a great deal of time for implementation, whereas, others could be more complex in nature and involve changes in procedures/policies not cannot be easily changed without possible further study and the involvement of multiple jurisdictions or entities. The entities responsible for implementation of the recommendations are the Wasatch Front Regional Council (WFRC), Hill AFB, the cities of Layton, South Weber, Washington Terrace, Riverdale, Clearfield, Weber and Davis Counties, the Utah Department of Transportation, and the Utah Department of Community and Economic Development.

The implementation action strategies are organized according to air base operations, land use, and other action strategies. The operations action strategies would be the responsibility of the Air Force, and deal primarily with the actions necessary to implement the operations modifications that have been recommended. The operations modifications that have been recommended deal with slight that could be made to the flight tracks, as well as transferring some operations activities to the Michael Army Air Field, or Wendover Airport, where possible. The land use action strategies primarily concern land planning activities, and as such, would be the responsibility of the local jurisdictions to implement. The use easement acquisition program would primarily involve the State of Utah. The other action strategies deal with changes in the Uniform Building Code, the dissemination of information to the public, coordinating with the school districts, the establishment of a land use committee, and field measuring the noise in the Hill AFB noise environment. A variety of entities are involved in and have responsibility for the implementation of these recommendations.

Air Base Operations (Note: Completion of this section currently in progress.)

Recommendation One - Increase the Rate of Climb and the Maximum Altitude on Departure.

Implementation Action One -

Recommendation Two - Limit the Use of Closed Traffic Pattern.

Implementation Action Two -

Recommendation Three - Eliminate Entry to the SFO Pattern from a Low Approach.

Implementation Action Three -

Recommendation Four - Conduct SFO and Closed Traffic Training at Michael Army Air Field or the Wendover Airport.

Implementation Action Four -

Land Use

Recommendation One - Acquire Use Easements in the Accident Potential Zones.

Implementation Action One - The above recommendation is in the process of being implemented. The Utah Department of Community and Economic Development, which is overseeing the use easement process, has initiated actions that has started the acquisition of easements. A commercial real estate company has been hired to negotiate use easements with the property owners affected. Also, an appraiser is in the process of determining the values of the use easements. A development moratorium, which expired March 1, 1995, was put in place in order to minimize potential conflicts with the easement acquisition process, and incompatible uses from occurring during the easement acquisition start-up period. Acquisition of the easements should be complete by the end of the year 1996.

Recommendation Two - Acquire Avigation Easements in Noise Environments of 65 Ldn or higher.

Implementation Action Two - The local political jurisdictions would have responsibility for this action item. The local jurisdictions would require avigation easements from

all new noise sensitive developments in the AICUZ Noise footprint. It would require amending the Subdivision Ordinance, and can be implemented during the site plan and/or subdivision approval process. In the case of residential subdivisions, the provisions of the avigation easements should be recorded at the same time a plat is recorded at the county recorders office. The avigation easement puts a home buyer on notice that the residence to be purchased is in an area of a potential noise hazard, and waives the right to future noise related litigation. The easement should indemnify both the Air Force and the community having jurisdiction of the development. This action item could be implemented in the year 1995.

Recommendation Three - Local Jurisdictions Adopt Provisions in their General Plans that Will Ensure Compatible Land Use In Aircraft Noise Areas.

Implementation Action Three - The implementation of compatible land use in the Hill AFB noise environment would be the responsibility of the local political jurisdictions. The jurisdictions should initiate a General Plan amendment process that will incorporate provisions and land use plans that are consistent with the AICUZ guidelines into the General Plan document. The plan amendment process will involve both the Planning Commissions, City Councils, and General Plan Committees within the affected jurisdictions. This action item could be implemented by spring of the year 1996.

Recommendation Four - Local Jurisdictions Adopt Provisions in their Zoning Ordinances that Will Implement the Compatible Land Use Goals and Policies of the General Plan.

Implementation Action Four - As with Implementation Action Three, this action is the responsibility of the local jurisdictions. Amendments to the Zoning Ordinance requires action of the part of the Planning Commissions, and the City Councils of the affected jurisdictions. The process to amend the Zoning Ordinance is similar as the process involved to amend the General Plan, and Implementation Actions Three and Four could be accomplished concurrently.

The most common way airport noise hazard areas have been dealt with in the State and nationally has been through the use of a zoning technique called an Overlay Zone. In this case, the boundaries of an Air Base Overlay Zone, the outer limits would be defined by the extent of the current AICUZ 65 Ldn noise contour. An Overlay Zone works in conjunction with the provisions of the underlying or existing zoning, which identifies a range of allowable uses. The provisions of

the Overlay Zone, on the other hand, prohibits or restricts certain of the uses allowed by the underlying zone. The restrictions would be gaged to the noise contours, and the land uses recommended for the areas within them. This technique offers the maximum planning flexibility to the local jurisdictions, does not require the identification of a specific land use for each parcel, and would allow the market and economic conditions to determine land use, within the parameters of the Overlay Zone. This zoning technique, once incorporated into each jurisdiction's Zoning Ordinance, provides assurances that noncompatible uses would not occur, and that noise attenuation would be implemented as a part of the building inspection/permit process.

Other

Recommendation One - Amend the Uniform Building Code so that Minimum Noise Reduction is a requirement of All Applicable New Construction in High Noise Areas.

Implementation Action One - This action item is the responsibility of the local jurisdictions, since they will be required to petition the Uniform Building Code Commission, Utah Department of Commerce for an amendment of the Uniform Building Code. The WFRC could assist the local jurisdictions in managing the amendment process, by coordinating activities, in the preparation of applications and other paperwork, and with attendance at and participation in meetings/formal hearings of the Department. The amendment will allow the local jurisdictions in the high noise areas to enforce the incorporation of outdoor-to-indoor noise level reduction features in the construction of structures that will house noise sensitive uses. The amendment should specify the minimum outdoor decibel noise reduction for residential and other sensitive construction as recommended by the AICUZ guidelines for areas within the 65 Ldn contour and higher. The **Guidelines for the Sound Insulation of Residences Exposed to Aircraft Operations (USDOT, 1992)**, and other engineering studies and information should be referred to and used as resources in developing the provisions to the amendment of the Code. This action Item could be implemented by spring of the year 1996.

Recommendation Two - Local Jurisdictions Provide Information on Achieving Noise Reductions when Building.

Implementation Action Two - This action item is the responsibility of the local jurisdictions. A group or committee of the building inspectors of each jurisdiction could develop the

details of a standard information packet that could be made available to and used by all of the affected entities. It should be made available prior to or at the time remodeling and new building permit applications are requested by the contractor. This action item could be implemented by spring of the year 1996.

Recommendation Three - Establish a Permanent Multi-jurisdictional Land Use Committee.

Implementation Action Three - The responsibility of this action item would fall on the affected local jurisdictions and Hill AFB. A permanent committee, with the purpose of reviewing, evaluating, and providing recommendations on rezoning/development proposals, and General Plan revisions, could be comprised of representatives of the affected local jurisdictions, Hill AFB, the Weber or Davis County Councils of Governments, and possibly the WFRC. The committee could also make recommendations relative to base operations, and work with the school districts and other organizations whose regulations or activities could have an effect on land use planning and the aircraft noise environment. This action item could be implemented by spring of the year 1996.

Recommendation Four - Work with the School Districts in the Development of Criteria/Policies for Minimizing Aircraft Noise for New Schools.

Implementation Action Four - This recommendation would be the direct responsibility of the multi-jurisdictional permanent committee that will be involved in the review/evaluation/recommendations relating to land use development within the AICUZ noise environment. With the implementation of this recommendation, the local jurisdictions and Hill AFB would have indirect responsibilities relative to the above action item. This action item could be implemented by the middle of the year 1996.

Recommendation Five - Field Measure Actual Aircraft Noise Levels within the Noise Environs of Hill AFB.

Implementation Action Five - The responsibility for this action should be assumed by Hill AFB or the Department of Defense. It would involve periodic field measurements of actual aircraft noise levels associated to the Hill AFB noise environment. Field testing could be conducted concurrently with an update of the AICUZ study, would provide noise data that would reflect actual

noise experienced on the ground, and could be compared with the modelled noise levels, thereby, providing an opportunity for increasing the accuracy of the AICUZ modelling process.

Document Separator

AIR FORCE LOGISTICS COMMAND HILL AIR FORCE BASE TELEPHONE DIRECTORY



DSN NUMBERS:
OPERATOR ASST 458-1110
HILL 458-XXXX
924-2XXX

AREA CODE 801
OPERATOR ASST 777-7221
DIRECT DIAL 777-XXXX
775-XXXX
BASE INFO 777-1411

EMERGENCY NUMBERS

AIRCRAFT ACCIDENTS911	GROUND ACCIDENTS 73333
AMBULANCE (EMERGENCY ONLY)911	HAZARDOUS POLLUTION SPILL 911
AMERICAN RED CROSS71855	HILL CONSOLIDATED COMD POST 73007
BOMB THREAT 911	HOSPITAL (EMERGENCY)..... 911
CIVIL ENGINEER 71856	SECURITY POLICE 911
CHAPLAIN 72106	COVERED WAGON 73058
EXPLOSIVE ORDNANCE DISPOSAL75501	HELPING HAND 73058
FIRE 911	CRIME STOP 71100

HOUSING AREA: FIRE, SECURITY POLICE, HOSPITAL (EMERGENCY ONLY)..... 911

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**ORGANIZATIONAL
CLASSIFIED**

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
OGDEN AIR LOGISTICS CENTER				DIR OF ENVIRONMENTAL MANAGEMENT			
COMMANDER	1102	CC	7-5111	DIR OF ENVIRONMENTAL MANAGEMENT	5U	EM	7-6917
VICE COMMANDER	1102	CC	7-5111	Environmental Compliance	5U	EME	7-0359
Aide De Camp	1102	CCA	7-5111	Hazardous Waste	5U	EMH	7-3124
Chief EEO Counselor	1245	CCD	7-4856	Hazardous Waste Control Fclty	514	EMH	7-1252
ANG Advsr to Comdr-Opr/Log ARF	1222	CCG	7-5031	Pollution Prevention	5U	EMP	7-3568
Protocol Officer	1102	CCP	7-5565	Installation Restoration Prgm	5U	EMR	7-8790
Reserve Program Coordinator	1102	CCR	7-5566	Environmental Planning	5U	EMX	7-7651
Base IMA Administration Team	180	CCV	7-3502	FINANCIAL MGT DIRECTORATE			
Reserve Affairs	180	CCV	7-7889	FINANCIAL MGT DIRECTORATE	1209	FM	7-5076
Executive Assistant	1102	CCX	7-5111	READINESS PLANS & PROJECT DIV	1102	FMA	7-5961
Senior Enlisted Advisor	1102	CMS	7-5567	Plans & Project Branch	1102	FMAP	7-5961
Space Launch Support Office	1258	CVS	7-4311	Readiness Plans Team	1102	FMAP	7-5218
SMALL BUSINESS OFFICE				Video Teleconference Center-VTC	1102	FMAP	7-0926
Small Business Office	1288	BC	7-4143	Poe Conference Center	1295	FMAP	7-4704
Source Development Staff	1289	BC	7-9993	Command Support Team	1102	FMAP	7-5961
Small Business Administration	1289	SBA	7-4150	SYSTEMS/PROGRAMS DIVISION	1211	FMD	7-9362
OFFICE OF COMPETITION ADVOCACY				DMMIS Project Office	507	FMDP	7-7134
OFFICE OF COMPETITION ADVOCACY	1289	CR	7-7594	LA Production Mgt Sys Team Ofc	225	FMDP	7-4988
Competition Advocacy Director	1289	CR	7-7594	LI Production Mgt Sys Team Ofc	507	FMDP	7-8092
Management Advisor	1289	CR	7-7594	LM Production Mgt Sys Team Ofc	5	FMDP	7-6653
Competition Plan & Reporting	1289	CR	7-1341	TI Production Mgt Sys Office	849	FMDP	7-4454
Technical Spt Staff J&A	1289	CR	7-9996	Tech Programs Development Br	1211	FMDR	7-9473
Technical Spt Staff J & A	1289	CR	7-9998	Systems/ Program Mgt Branch	1211	FMSD	7-9432
Tech Review Barriers to Comp	1289	CR	7-1340	LOG & FINANCIAL MGT TNG DIV	1231	FME	7-7395
Acquisition Planning & Mod Rev	1289	CR	7-1341	FINANCIAL SERVICES DIVISION	1238	FMF	7-7788
PERSONNEL DIRECTORATE				Civilian Payroll Branch	1238	FMFC	7-6853
PERSONNEL DIRECTORATE	1245	DP	7-6149	ICP Liaison Office	1238	FMFL	7-7094
MIL CUSTOMER SERVICE	180	DPMAPR	7-1845	Mil Pay Branch	1238	FMFM	7-1851
CIVILIAN PERSONNEL DIVISION	1245	DPC	7-5508	Travel Branch	1238	FMFT	7-5842
Classification Branch	1254	DPCC	7-2279	RQMTS & BUDGET INTEGRATION DIV	1209	FMI	7-5042
Personnel Data System Branch	1245	DPCD	7-7309	Appropriated Funds Branch	1209	FMI	7-7181
Labor Relations Empl Mgt Br	1245	DPCE	7-7128	Contract DMIF Branch	1209	FMIC	7-2168
Empl Entitlements/Benefits Sec	1245	DPCEB	7-6142	Organic DMIF Budget Branch	1209	FMIO	7-7896
Employee Relations Section	1245	DPCEE	7-7251	Stock Fund Branch	1209	FMIS	7-5042
Labor Relations Section	1245	DPCEL	7-7129	MANAGEMENT SERVICES DIVISION	1209	FMM	7-5182
Affirmative Employment Branch	1244	DPCF	7-6808	Policy & Procedures Branch	1209	FMMI	7-0556
201 Files	1244	DPCFR	7-7597	Foreign Disclosure & Policy Ofc	1209	FMMI	7-6857
Records Team	1244	DPCFR	7-7597	Policy, Rprts & Sys Analy Team	1209	FMMI	7-4604
Training Branch (Civilian)	1279	DPCT	7-9150	FMS Policy & Procedures Office	1209	FMMI	7-2320
MILITARY PERSONNEL DIVISION	180	DPM	7-3205	Resource Management Branch	1209	FMMR	7-5182
Mil Customer Assistance	180	DPMA	7-2104	BUSINESS ENHANCEMENT DIVISION	1102	FMP	7-0785
Mil Retention	180	DPMAP	7-3571	Cost Analysis Branch	1239	FMPA	7-9054
Mil Personal Affairs	180	DPMAP	7-2104	Business Management Branch	1209	FMPB	5-2159
Mil Personnel Systems Mgt Team	180	DPMD	7-3131	Bid & Proposal Branch	1102	FMPD	7-7111
Mil Information Mgt	180	DPME	7-2612	Marketing Office	1209	FMPM	7-5851
Base IMA Administrator	180	DPMM	7-3502	CHAPLAIN DIVISION			
Mil Personnel Programs	180	DPMP	7-3138	CHAPLAIN DIVISION	475	HC	7-2106
Mil Evaluations	180	DPMP	7-1705	Chaplain-Duty Hours 0700-1630	475	HC	7-2106
Mil Promotions	180	DPMP	7-2916	Chaplain-Non Duty Hours	133	HC	7-3007
Mil Special Actions	180	DPMP	7-2916	Chapel Administration Office	475	HC	7-0277
Mil Separations/Retirements	180	DPMP	7-2854	Chapel Protestant Religious Edu	445	HC	7-1723
Mil Personnel Utilization	180	DPMU	7-0387	Chapel Catholic Religious Educ	445	HC	7-6327
Mil Outbound Assignments	180	DPMU	7-3171	OFFICE OF HISTORY			
Mil Employment	180	DPMU	7-2431	Chief, Office of History	1295	HO	7-4002
Mil Personnel Readiness	180	DPMU	7-3498	Office of History	1295	HO	7-4006
AIRMAN LEADERSHIP SCHOOL	385	DPN	7-2913	Office of History, STU III	1295	HO	7-9009
SOCIAL ACTIONS DIVISION	555	DPS	7-3407	INSPECTOR GENERAL			
Social Actions	555	DPS	7-3680	Inspector General	1102	IG	7-5305
Social Actions MIL Drug/Alcohol	555	DPS	7-3516	Action Line (Code A Phone)	1102	IG	7-7000
Equal Opportunity & Treatment	555	DPS	7-3663	Action Line (To Receive Answer)	1102	IG	7-5306
HUMAN RESOURCE DEV DIVISION	1221	DPU	7-6998	Fraud, Waste & Abuse	1102	IG	7-7000
EDUCATION SERVICES DIVISION	383	DPUE	7-3329	Fraud, Waste & Abuse	1102	IG	7-5305
				Exercise Planning & Evaluation	1102	IG	7-7001

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Mobility Planning & Evaluation	1102	IG	7-8626	Aircraft Services	1233	LAKS	7-5399
STAFF JUDGE ADVOCATE				RESOURCES MANAGEMENT DIVISION	100F	LAM	5-3125
Legal Assistance Branch	1278	JAMLA	7-6625	Budget/Funds Team	1213	LAM	7-9341
Staff Judge Advocate	1278	JA	7-6756	Aircraft War Plans	100F	LAM(2)	7-7104
CLAIMS DIVISION	1278	JAD	7-7255	Management Info Branch	100F	LAMA	7-3128
GENERAL LAW DIVISION	1278	JAM	7-4886	Visitor Control Center	100F	LAMA	7-2735
Appointments (Legal Assistance)	1278	JAM	7-6625	LA Directorate Competition/Bid	100	LAMC	7-2766
Civil Law Branch	1278	JAMCL	7-6627	LA Directorate Business Office	100	LAMC	7-8080
Environmental Law Branch	1278	JAMEL	7-7457	Aircraft Acquisition Center	1224	LAMC(2)	7-6138
Labor Law Branch	1278	JAMLL	7-7455	Human Resources Branch	100F	LAMH	7-3515
Military Justice Branch	1278	JAMMJ	7-7441	Manpower	100	LAMH	7-2459
ACQUISITION LAW SERVICES DIV	1278	JAN	7-6753	Workloading Branch	225	LAMW	7-1093
AIRCRAFT DIRECTORATE				AIRCRAFT OPERATIONS DIVISION	225	LAO	7-3766
AIRCRAFT DIRECTORATE	100	LA	7-3815	F-16 Production Branch	225	LAOA	7-2489
F-16 System Support Manager	1223	YPA	7-5873	F-16 AG/AR Section	225	LAOAA	7-3722
F-16 SYSTEM SUPPORT DIVISION	1223	LAA	7-5873	F-16 Sheet Metal Section	225	LAOAC	7-2491
F-16 Manpower	1223	LAA	5-2462	F-16 Planning Section	225	LAOAP	7-3396
F-16 System Safety	1212	LAA	7-4816	F-16 Scheduling Section	225	LAOAS	7-2515
Avionics Team	1213	LAAA	7-5186	C-130 Production Branch	225	LAOB	7-2489
Support Equipment Team	1224	LAAE	7-6660	C-130 AG/AR Section	225	LAOBA	7-0814
Mechanical Team	1212	LAAM	7-5002	C-130 Sheet Metal Section	225	LAOBC	7-3429
Production Management Team	1224	LAAP	7-6660	C-130 Planning Section	225	LAOBP	7-4459
Structures Team	1212	LAAS	7-5002	C-130 Scheduling Section	225	LAOBS	7-4459
Software Team	1515	LAAW	7-0332	F-4 Production Branch	225	LAOC	7-2489
Program Management Team	1223	LAAX	7-5644	F-4 AG/AR Section	225	LAOCA	7-3321
Customer Support	1223	LAAXC	7-5644	F-4 Sheet Metal Section	225	LAOCC	7-3181
Analysis	1223	LAAXC	7-6882	F-4 Planning Section	225	LAOCP	7-2758
Customer Interaction	1223	LAAXC	7-6414	F-4 Scheduling Section	225	LAOCS	7-3269
Two-Level Maintenance	1223	LAAXC	7-4169	Administration Branch	225	LAOD	7-2603
Sustainment Actions	1223	LAAXC	7-6234	Training OJT	225	LAOD	7-2396
Systems Requirements	1223	LAAXC	7-4172	Aircraft Support Branch	225	LAOP	7-3534
Program Control Branch	1223	LAAXP	7-4756	Engineering Section	225	LAOPE	7-2042
Administration	1223	LAAXP	7-4757	Scheduling Integration Section	225	LAOPS	7-2605
Budget	1223	LAAXP	7-4821	Control Room Unit	225	LAOPSC	7-2812
Configuration Management	1223	LAAXP	7-9501	Forms & Records Unit	225	LAOPSF	7-2645
F-16 TO Library	1212	LAAXP	7-4521	Program Integration Unit	225	LAOPSI	7-1093
Security	1223	LAAXP	5-3298	Services Branch	225	LAOS	7-3193
F-4 SYS PROG MANAGEMENT DIV	100	LAC	7-6165	Prep & Paint Section	220	LAOSA	7-2666
F-4 Flight Safety	100	LAC	7-5291	Incoming Unit	274	LAOSAB	7-3161
F-4 Avionics Engineer	100	LACA	7-4763	Disassembly Unit	220	LAOSAB	7-2666
F-4 Mechanical & Struct Engr	100	LACM	7-5291	Incoming Team	274	LAOSAB	7-3161
F-4 Requirements	100	LACR	7-6240	Paint Unit	220	LAOSAC	7-2666
F-4 Weapon System Support Br	100	LACS	7-5262	Production Support Section	225	LAOSB	7-2215
INTERNATIONAL DIVISION	1201	LAI	7-6674	Station 12/99 Unit	225	LAOSBK	7-9271
F-4 Technical Coordination Gp	1201	LAI	7-6175	Transportation Unit	225	LAOSBM	7-2760
F-4 Technical Data	1222	LAIAD	7-5131	Reclamation Unit	261	LAOSBM	7-5899
Multi National Force Program	1224	LAI	7-8102	Tool Crib & Equip Ops Unit	225	LAOSBM	7-2244
F-16 Middleast Program Mgt	1222	LAI	7-2959	Electrical Checkout (ECO) Unit	225	LAOSBP	7-2215
F-16 A/B Program Management	1202	LAI	7-2574	Fast Fighter Unit	225	LAOSBS	7-7516
F-16 C/D Program Management	1222	LAI	7-2959	Flight Test Branch	233	LAOTA	7-3075
Program Integration & Services	1201	LAI	5-2571	Prep for Flight Section	233	LAOTA	7-3075
F-16 Technical Coordination Gp	1201	LAI	7-6746	Radar/ATE Section	233	LAOTB	7-2461
FOREIGN AF LIAISON OFFICES	1201	LAI	7-6674	QUALITY SUPPORT	225	LAQ	7-9816
Egyptian AF Liaison Office	1201	LAI-EG	7-6744	Customer Relations & Analysis	225	LAQA	7-2873
German AF Liaison Office	1201	LAI-GY	7-5743	Quality Center	225	LAQQ	7-0563
Indonesian AF Liaison Office	1201	LAI-ID	7-2227	TECHNICAL REPAIR DIVISION	238	LAR	7-2553
Israel AF Liaison Office	1201	LAI-IS	7-7360	Engines Branch	272	LARE	7-2517
Korean AF Liaison Office	1201	LAI-KS	7-7724	Plastics/Canopies/C-130	225	LARE	7-3283
Singapore AF Liaison Office	1201	LAI-SN	7-7197	F-100	272	LAREA	7-2517
Turkish AF Liaison Office	1201	LAI-TK	7-7681	J-79	272	LAREA	7-2517
Taiwan AF Liaison Office	1201	LAI-TW	7-9571	T-56/T-76	272	LAREA	7-2517
Venezuela AF Liaison Office	1201	LAI-VE	7-7174	Test Cells	268	LAREA	7-3039
AIRCRAFT CONTRACTING DIVISION	1233	LAK	7-8600	Swing Supervisor	272	LAREA	7-2517
Aircraft Avionics	1233	LAK	7-0139	Plastics/Hydrostatics/Radomes	257	LAREB	7-2629
Aircraft Administration	1233	LAKA	5-2290	Tubing	268	LAREC	7-2925
Aircraft Radar/Air Frame	1233	LAKR	7-8640	Aircraft Avionics Branch	5	LARP	7-3513
				Navigational Systems	100	LARP	7-3736
				F-16 SRU-DIG	5	LARPA	7-3105

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ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
F-16 Avionics Sys & Radio Freq Display Indicator	5	LARPB	7-4554	Manufacturing Team II	510	LILPM	7-3698
Computer Inertial System	100	LARPC	7-4554	Industrial Support Team	510	LILPMI	7-6621
F-16 Processor Pneumatic	100	LARPD	7-3736	Line Support	225	LILPMM	7-9271
F-15/F-16 Analog	5	LARPE	7-0701	Conventional & Numerical Ctrl	510	LILPMN	7-2811
Radar	5	LARPF	7-0017	Tool, Die & Fixture Team	510	LILPMT	7-3420
AWLS Navigational	214	LARPG	7-2795	Metal Process Section	505	LILPP	7-0203
F-16/B1 Radar Section	100	LARPI	7-3278	Anodize Cad	505	LILPPC	7-2782
Structural Rpr Branch	238	LARPJ	7-3105	Grinding Shop	507	LILPPG	7-2967
Composite/Bond	266	LARS	7-2561	Machine Shop	507	LILPPM	7-2967
Plastic Manufacture & Repair	257	LARSA	7-3552	Welding Shop	507	LILPPW	7-2137
Paint/Bead Blast	266	LARSA	7-2592	TRAINING SYSTEMS MGT DIV	1218	LIR	7-4721
Center Wings	238	LARSB	7-3552	Strategic Systems Branch	1225	LIRA	7-5698
C-130	238	LARSC	7-3784	B-1/B-52 Section	1225	LIRAA	7-4712
Miscellaneous	238	LARSC	7-3798	Cargo Section	1225	LIRAB	7-6355
Technical Support Branch	238	LARSC	7-2725	SOF/HELO Section	1225	LIRAC	7-1017
Eng/Planning Structural	238	LART	5-2256	E-3/E-6/E-8 Section	1225	LIRA	7-9418
Sched/Materiel-Avionics	5	LARTE	5-3401	Tactical System Branch	1218	LIRB	7-5656
Admin, Safety, Training	238	LARTM	7-4847	F-4/A-7/A-10 Section	1218	LIRB	7-4811
Overseas Liaison	238	LARTW	5-3120	F-111 Section	1218	LIRBA	7-5910
		LAY	7-1220	ATF/F-15 Section	1218	LIRBC	7-5882
				F-16 Section	1218	LIRB	7-8682
COMMODITIES DIRECTORATE				Support Systems Branch	1288	LIRC	7-7588
COMMODITIES DIRECTORATE	1234	LI	7-5712	Range & Physiological Section	1218	LIRC	7-6114
LI Safety Office	507	LI(5)	7-3596	Undergraduate Product Section	1225	LIRC	7-6982
LI Business & Development Ofc	1234	LI(6)	5-3320	Mission Support Section	1225	LIRC	7-5734
Program Control Division	1234	LIC	7-8343	TECH RPR CTR & PHOTONICS DIV	1226	LIT	5-2265
DMIF Resource Branch	1234	LICD	5-2262	Prod Spt/Budget Rqmts Branch	1226	LITA	5-2267
DMIF Resource/Budget/TDY	1234	LICD	7-7107	Avionics, Instms & Photonics Br	100B	LITB	7-0703
DMIF Resource/G017 Equip Mgt	1234	LICD	7-9108	Instruments & Compass	100	LITBA	7-0703
First Article Branch	849	LICF	7-7566	Transmitters Repair Section	751	LITBA	7-3912
Operation Branch	1234	LICO	7-8343	Electric Shop	5E	LITBB	7-2563
Administrative Support Section	1234	LICOA	7-5862	Electrical Harness Asbly	5E	LITBB	7-3589
Alert Center (ALC/LI)	1225	LICOA	7-7753	Airborne Sensore Repair Section	100	LITBE	7-2530
LI Control Center	1225	LICOA	7-7753	Imaging/Processing Repair Sec	100	LITBF	7-2566
Human Resources Section	1234	LICOH	5-2259	Pneudraulic/Hydraulic/Tnr Rpr	1911	LITC	7-9314
Materiel Support Branch	1217	LICS	7-4601	Production Support Section	1911	LITCC	7-0712
Funds Team	1217	LICSF	7-2114	Pneudraulic/Hydraulic Section	1917	LITCH	7-5933
Product Support Section	1217	LICSP	7-4602	Pneudraulic/Hyd Rpr/F-16 EPU	2013	LITCH	7-0929
Technical Support Branch	507	LICT	7-2341	Physiological Trainer Repair	5B	LITCT	7-5294
FIP/Systems	1217	LICT(2)	7-4141	Armament & Tank Repair Branch	509	LITD	7-7964
CONTRACTING DIVISION				Acft Ordnance Release	509	LITDB	7-0733
Administration Branch	1215	LIK	7-6360	Launchers	509	LITDB	7-8513
Landing Gear/Photo Branch	1215	LIKA	7-6011	Pylons	509	LITDB	7-3337
Contracts Airmunitions Branch	1215	LIKL	7-6501	Fuel Tanks	265	LITDB	7-3351
Contracts Training Devices Br	1215	LIKM	5-2098	Gun Repair Shop	509	LITDB	7-1717
Wheels/Brakes Branch	1215	LIKT	7-4705	Gun Accessories	509	LITDB	7-1717
LANDING GEAR DIVISION				Production Support Section	509	LITDC	7-7964
Principle Engineer Advisor	507	LIL	7-3192	Airborne Sensore Rqmts Branch	1226	LITE	7-6014
Quality Support Branch	507	LIL	7-1418	Imaging/Processing Rqmts Branch	1226	LITF	7-4824
Customer Requirements Branch	1216	LILA	7-7278	ARMAMENT DIVISION	1247	LIW	7-5432
Logistics Support Section	1216	LILAA	7-7278	Matrixed Personnel	1247	LIW	5-2411
Integration Section	507	LILAC	7-3241	Resource Advisor	800	LIWAL	7-2189
Item Management Section	1216	LILAM	7-7278	Supply Support Section	1377	LIWAL	7-5829
Product Management Section	1216	LILAP	7-4196	Bomb/Ground Support Branch	1257	LIWB	7-7380
Engineering Branch	507	LILE	7-3946	Bomb Support Section	1257	LIWBB	7-7607
Product Engineering Section	1216	LILEC	7-4050	Ground Support & Cartridge Sec	1247	LIWBC	7-7804
Planning Section	507	LILEL	7-3357	CAD/PAD Tank Support Branch	1246	LIWC	7-4091
Process Engrg Sys Safety Sec	507	LILEP	7-2558	Bomber/Cargo Section	1247	LIWCB	7-4646
Tech Services Section	1217	LILET	7-4195	Fighter Section	1247	LIWCF	7-5694
Production Branch	507	LILP	7-2597	Central Tank Management Section	1247	LIWCT	7-6196
Production Support Section	507	LILP	7-7149	Missile Support Branch	1257	LIWD	7-7679
Wheels/Brakes Section	507	LILPG	7-1901	Maverick Missile Section	1257	LIWDM	7-8492
Brake Assembly	507	LILPGA	7-2797	Tactical Missile Support Sec	1257	LIWDT	7-8492
Wheel Assembly	507	LILPGA	7-1212	International Program Branch	1246	LIWF	7-5120
Strut Assembly	507	LILPGA	7-1710	Armament Production Branch	5D	LIWP	7-8048
C-5 A/B Assembly	507	LILPGA	7-2974	AIM L/M Section	100	LIWP	7-2844
E & I Unit	507	LILPGA	7-1026	Planning & Scheduling Section	5	LIWP	7-3064
Manufacturing Section	510	LILPM	7-8073	Maverick Missile Guidance	5D	LIWPA	7-2795

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Sidewinder AIM-9 L/M Section	100K	LIWPC	7-3981	Program Management Team	1218	LMST	5-2927
AIM L/M Section (Swing)	100	LIWPC	7-3981				
Full-up Missile Test Rpr Sec	2026	LIWPG	7-4905	MANPOWER OFFICE			
Explosive Safety Branch	1246	LIWS	7-7300	Chief, Manpower Office	1254	MO	7-4302
Resources/Production & Tech Sys	1247	LIWX	7-7326	Administration	1254	MO	7-4301
Armament Operations Branch	46	LIWX	7-5151	Resources & Productivity Branch	1254	MO	7-5264
Armament Transportation Section	1246	LIWXD	7-5110	Manpower & Organization Branch	1254	MO	7-5014
				SUGGESTION PROGRAM	1254	MO	7-6901
ICBM PRODUCT DIRECTORATE				OFFICE OF PUBLIC AFFAIRS			
SILO-BASED ICBM SYS PROGRAM OFF	1258	LM	7-8644	OFFICE OF PUBLIC AFFAIRS	1102	PA	7-5201
Management Operations	1258	LMA	7-1310	Media Relations	1102	PA	7-4435
PROGRAM CONTROL	1258	LMC	7-1980	Community Relations	1102	PA	7-5333
Financial Management Branch	1258	LMCF	7-1959	Base Tours	1102	PA	7-7400
Plans & Program Branch	1258	LMCP	7-1980	HillTop Times	1102	PA	7-4598
DEVELOPMENT SUPPORT DIV	1258	LMD	7-1745	Plans & Programs	1102	PA	7-4438
Ground Support Branch	830	LMDA	7-1349	Environmental Public Affairs	5U	PA	7-0359
Missile Support Branch	1227	LMDB	7-9159				
SYSTEM ENGINEERING DIVISION	1255	LME	7-3051	CONTRACTING DIRECTORATE			
Engineer Software Branch	1256	LME	7-1253	CONTRACTING DIRECTORATE	1289	PK	7-6000
Sub System Engineers	1255	LME	7-3041	DIRECTOR	1289	PK	7-6000
Engineering Support Branch	1255	LMEA	7-2690	Director of Operations	1289	PK	7-6000
Safety Branch	1256	LMES	5-2661	Special Activities	1232	PK	7-7353
EXECUTION/INTEGRATION DIVISION	1258	LMI	5-2187	AIRCRAFT CONTRACTING DIV (LAK)	1233	PK	7-6800
START Office	1552	LMI(2)	7-9718	COMMODITIES CONTRACT DIV (LIK)	1215	PK	7-6360
ICBM CONTRACTING DIVISION	1258	LMK	7-4106	ICBM CONTRACTING DIVISION (LMK)	1258	PK	7-4106
ICBM Contract Admin Team	1258	LMKA	7-0137	Pricing Support	1289	PKF	7-6991
Engineering Svcs/MODS/Repair	1258	LMKE	7-0912	Zero Overpricing Hot Line	1289	PKF	7-9999
SYSTEMS SUPPORT DIVISION	843	LMS	7-1284	Source Selection	1289	PKF	7-1327
Operational Ground Elect Branch	830	LMSE	5-2248	Aircraft Pricing	1233	PKFA	7-6095
Communications/MSE Section	830	LMSEA	7-1943	Commodities Pricing	1215	PKFI	7-6992
LF/MAF Ground Electronics Sec	830	LMSEB	7-6432	Operations Support Team	1289	PKFS	7-9974
Guidance System Support PMT Br	1227	LMSG	7-4715	Hq AFMC Contracting Lab	1289	PKL	7-9011
Ground Mechanical Branch	1256	LMSH	7-6841	OPERATIONAL CONTRACTING DIV	1287	PKO	7-7517
Rivet MILE Program Office	1254	LMSHX	7-4109	Operational Support	1289	PKOA	7-2002
Ground Mechanical Section	1256	LMSHY	7-0914	Commodities Contracting	1289	PKOC	7-5019
Transportation & Handling Sec	1256	LMSHZ	7-8117	Construction Contracting	1289	PKOE	7-0187
Missile Integration Facility Br	1530	LMSI	7-5442	Services Contracting	1287	PKOS	7-2395
Guidance & Control Lab	1203	LMSI	7-7121	Quality & Improvement	1289	PKQ	5-2115
Instrumentation Facility	1540	LMSI	7-4788	Policy & Procedure	1289	PKQP	7-5087
Peacekeeper Integration Fclty	1530	LMSI	7-5678	ACPS/REPRO	1289	PKQP	7-4754
MM AM Sys Integration Facility	1203	LMSIA	7-1724	Management Services	1289	PKX	7-6720
MM B Sys Integration Facility	1538	LMSIB	7-6435	Contract Closeout	1295	PKX	7-6664
Propellant Lab	1917	LMSIP	7-5680	Solicitations	1237	PKX(2)	7-5495
Logistics Management Branch	1258	LMSL	5-2724	Bid Opening	1289	PKXD	7-5071
Maintenance Branch	843	LMSM	7-3911	Systems Management	1289	PKXD	7-5978
Propulsion Repair Section	1621	LMSMA	7-5065	Personnel Support (PK ONLY)	1289	PKXR	7-7323
Production Control Unit	1621	LMSMA	7-7586	Quality	1289	PKXR	5-5308
MAMS I Missile Maint Unit	970	LMSMAA	7-2356				
MAMS II Component Repair Unit	2014	LMSMAC	7-6071	DIRECTORATE OF SPECIALIZED MGT			
Ground Electronic Repair Sec	100	LMSME	7-3750	DIRECTOR SPECIALIZED MANAGEMENT	1232	QL	7-6371
ICBM Ground Elect Repair Unit	100	LMSMEA	7-3267	FX2027 SRAN	1232	QL	7-6371
Nozzle Control Repair Unit	100	LMSMEB	7-0360				
Production Control Unit	100	LMSMED	7-3980	OGDEN ALC SAFETY OFFICE			
Missile Handling Section	843	LMSMH	7-6574	CHIEF OF SAFETY, OGDEN ALC	383	SE	7-3333
LM Alert Center	843	LMSMHA	7-6825	Flight Safety Office	383	SEF	7-2932
Transportation & Storage	1623	LMSMHD	7-8358	GROUND SAFETY DIVISION	383	SEG	7-3333
Range Operations	843	LMSMHR	7-6862	Technical Pub Safety	383	SEG	7-1428
Industrial Operations Section	843	LMSMO	7-1281	Occupational Safety	383	SEG	7-3333
Ground Mechanical Repair Sec	847	LMSMT	7-3958	SYSTEM SAFETY DIVISION	383	SES	7-2125
PDM Sheet Metal Unit	847	LMSMTA	7-3910	WEAPONS SAFETY DIVISION	383	SEW	7-3862
Transporter Repair Unit	847	LMSMTB	7-3910	Safety	40020	SEW	7-1581
Sandblast & Paint Unit	847	LMSMTC	7-3910	Explosives Safety	383	SEW	7-1425
PDMS/Machine Shop/MISTR Unit	847	LMSMTD	7-3953	Nuclear Surety	383	SEW	7-3864
Welding/Sheet Metal MFG Unit	847	LMSMTE	7-3953	Missile Safety	383	SEW	7-3863
Swing Shift Unit	847	LMSMTF	7-3953	Range Safety	40020	SEW	7-1581
Production Control Unit	847	LMSMTP	7-3953				
Propulsion Program Mgt Branch	1228	LMSP	5-2149				
Embedded Systems Support Branch	1258	LMSS	5-2186				

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ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
TECHNOLOGY & IND SUPPORT DIR				Equipment Maintenance Unit	265	TIPM	7-9511
TECHNOLOGY & IND SUPPORT DIR	849	TI	7-4504	Carpenter Support Branch	265	TIPM	7-2379
Lab Sys Prototype Development	5G	TI	7-3820	Elec/Num/Con/PC Rprt Spt Branch	265	TIPME	7-2545
PROGRAM CONTROL DIVISION	849	TIC	7-4504	Installation Support Branch	265	TIPMI	7-3575
Program Management Team	849	TICC	7-4498	Mechanical Support Branch	274	TIPMM	7-3990
Programs	849	TICC	7-5747	Mfg/Reconditioning Support Br	265	TIPM	7-2334
Resources Management Branch	849	TICH	7-5318	System Support Branch	849	TIPMS	7-7419
Labor Relations	849	TICH	7-5253	Millwright Support Branch	265	TIPMW	7-6570
Manpower & Requirements	849	TICH(2)	7-5157	Resource Materiel Management Br	265	TIPR	7-8010
Funds Management	849	TICH	7-6428	SOFTWARE ENGINEERING DIVISION	100	TIS	7-2615
Admin & Analysis Branch	849	TICO	7-7538	Aircraft Software Dev Unit	100	TISA	5-2054
Marketing & Workloading Branch	849	TICW	7-4575	Aircraft Software Dev Section	100	TISAA	7-6145
TI Business Office	849	TICW	7-2719	F-16 Avionics Intmed Shop Sec	1515	TISAB	5-2895
Workloading Team	849	TICW	7-3481	Neural Eng Research & Dev Sec	100	TISAD	7-8775
Marketing	849	TICW	7-7442	Software Tech Spt Ctr Sec	100	TISE	7-8068
Requirements Unit B	849	TIDMAB	7-4446	Secure Entrance/Oper Flt Area	1515	TISF	7-0513
Customer Service Desk	849	TIDMAB	7-4327	Opl Flight Program Dev Unit	1515	TISF	7-0513
Customer Service Desk	849	TIDMAB	7-9590	Operational Flight Program	1515	TISFA	5-2820
Local Purchase Unit	849	TIDMAE	7-4456	Operational Flight Program	1515	TISFB	5-2728
Commodities Support Unit C	509	TIDMCC	7-4370	Operational Flight Program	1515	TISFC	7-0327
SCIENCE & ENGINEERING DIVISION	849	TIE	7-4871	Operational Flight Programming	1515	TISFD	7-0513
Contract Support	1297	TIED	7-7355	Operational Flight Support Br	1515	TISH	7-7518
Administrative Services	1289	TIEDA	7-4051	Avionics Software Test Sec	1515	TISHA	5-2829
Provisioning	1297	TIEDAP	7-7364	OFF Support Software Section	1515	TISHB	7-0346
Initial Provisioning	1236	TIEDAP	7-5049	OFF Test Stand Dev/Maint Sec	1515	TISHC	5-2750
Item Acquisition	1207	TIEDAP	7-6334	OFF Support Section	1515	TISHD	7-7518
Residual Provisioning	1205	TIEDAP	5-3900	Missiles Sys Software Dev Br	100	TISM	7-9683
Quality Liaison Office (SPOCO)	1289	TIEDAQ	7-5059	Msl Sys E 35/ATE Software Spt	11	TISMA	5-2032
Data Analysis & Development	1298	TIEDD	7-9210	Electronic Devices Dev Software	100	TISMB	5-2047
Screening Section B	1298	TIEDD	7-9902	Missile Sys Software Dev Team	1515	TISMC	7-5677
Data Development Section	1298	TIEDD	7-9972	Support Branch	100	TIST	7-1789
Screening Section A	1298	TIEDDA	7-9903	Support System Sec	100	TISTA	7-9926
Data Analysis Section	1298	TIEDDM	7-1331	Support Section	100	TISTC	7-3126
Analysis Support Section	1298	TIEDDS	7-9972	Software Control Center	1202	TISTCB	7-4201
Engineering Data Management	1288	TIEDE	7-7714	TECH & IND SKILLS DIVISION	250	TIU	7-8702
PR Distribution & Control	1288	TIEDEA	7-5476	Learning Center	849	TIUAB	7-8341
Data Management & Distribution	1237	TIEDED	7-9182	Learning Center	225	TIUAB	5-3364
EDCARS Data Management	1237	TIEDEE	7-9177	Training Management	250	TIUAC	7-2077
Technical Order Production	1236	TIEDTA	7-6987	Technical Training	250	TIUB	7-0608
Technical Order Branch	1236	TIEDTA	7-8421	Tech Tng & Development	250	TIUBA	5-3242
Technical Order Distribution	1236	TIEDTA	7-8182	Course Development Team	250	TIUBA	7-0605
Technical Order Management	1207	TIEDTM	5-2595	Aircraft Systems Tng & Dev	250	TIUBB	7-0460
Science & Engineering Lab Br	100E	TIEL	7-3636	Instruction Team	250	TIUBB	7-0462
Chemical Science Lab Section	100E	TIELC	7-2302				
Environmental Analysis	100	TIELC	7-3430	DIRECTORATE OF TOTAL QUALITY			
Chemical Analysis	100	TIELC	7-2826	DIRECTORATE OF TOTAL QUALITY	1289	TQ	7-4391
Materials Science Lab Section	100E	TIELM	7-2874	Policy	1289	TQ	7-5526
Materials Analysis	100	TIELM	7-2874	Surveys	1294	TQ	7-5546
Verification Laboratories	100	TIELM	7-1094	Automation/Data	1289	TQ	7-4406
Hardware Tech Branch	5G	TIEM	7-1709	Publicity	1289	TQ	7-4428
Nondestructive Insp Test Branch	507	TIEN	7-1718	Facilitation	1289	TQ	7-5527
Ldg Gear/Plating Aircraft X-Ray	507	TIENA	7-3893	Library/Information	1289	TQ	7-4392
Ultrasonic/Eddy Current Sec	225	TIENB	7-0309	FAX	1289	TQ	7-5589
Msl X-Ray Comp Tomography Sec	2113	TIEND	7-6080				
Engineering & Technical Branch	849	TIET	7-3285	649TH AIR BASE GROUP			
PRAM/RAMTIP Office	849	TIET	5-3169	649 AIR BASE GROUP COMMANDER	180	CC	7-2181
Technology Advancement Section	849	TIETA	7-2316	Deputy Commander 649 Support Gr	180	CD	7-2181
Senior Engineering Staff Sec	849	TIETE	7-2977	Executive Officer	180	CCE	7-3309
Tech Management & Analysis Sec	849	TIETM	7-3652	Centralized Corr Custody Fclty	521	CCB	7-2153
PLANT MANAGEMENT DIVISION	849	TIP	7-8064	Centralized Transition Flight	521	CCB	7-2153
Engineering & Planning	849	TIPE(2)	7-2806	Base Transition Flight	521	CCB	7-2153
PMEL Branch	214	TIPL	7-2250	HQ SQUADRON SECTION			
Elec Mech/Optical Dimen Sec	214	TIPLA	7-3100	COMMANDER, HQ SQUADRON SECTION	180	CCQ	7-2404
Instrument Photo Avionics Sec	214	TIPLB	7-3100	Orderly Room	180	CCQ	7-2456
Missile Test Equip West Sec	1530	TIPLC	7-5685	First Sergeant	180	CCQ	7-3230
Missile Test Equip East Sec	100K	TIPLD	5-2082	OJT Monitor	180	CCQ	7-2614
Small Missile Test Equip Sec	5	TIPLG	7-2795				
E-35 Test Section	5	TIPLJ	7-3981				

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ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
HILL CONSOLIDATED COMMAND POST				TRANSPORTATION DIVISION			
HILL CONSOLIDATED COMMAND POST	133	CP	7-3007	Transportation Division	1135	LGT	7-6837
HCCP Administration	133	CP	7-2082	Packaging & Transportation Fl	800	LGTP	7-4514
HCCP OIC	133	CP	7-9703	Design Section	800	LGTPD	7-4460
HCCP Reports NCOIC	133	CP	7-9749	Trans/Packaging Logistics	1289	LGTPPL	7-4495
HCCP Reports SORTS	133	CP	7-3512	Hazardous Materiel Insp Unit	1377	LGTPPL	7-2180
HCCP Supt	133	CP	7-9739	Plans & Readiness Flight	1135	LGTR	7-9068
HCCP ACC COMREP	133	CP	7-9752	Traffic Management Flight	900	LGTT	7-0775
HCCP Training NCO	133	CP	7-1233	Air Terminal Section	900	LGTTA	7-3597
SUPPLY DIVISION				Records Unit	900	LGTTA(2)	7-2556
SUPPLY DIVISION	849	LGS	7-4441	Household Goods	180	LGTTT	7-6398
Fuels Accounting Unit	914	LGSF	7-4016	Operations Section	405	LGTTHP	7-2887
Fuels Management Flight	914	LGSF	7-4014	Passenger Travel Services Unit	1238	LGTTHP	7-4247
Storage & Refueling Unit	914	LGSFD	7-4014	Vehicle Ops & Maint Flight	1138	LGTV	7-5452
Fuels Control Center	914	LGSFD	7-7311	Vehicle Maintenance Section	1253	LGTVM	7-9170
Mobile Refueling	914	LGSFD	7-4014	Base Maintenance Repair	1253	LGTVMB	7-4535
Storage & Cryogenics	914	LGSFD	7-4014	Maintenance Control/Analy Chief	1243	LGTVMC	7-6874
Depot Support Flight	849	LGSI	7-4316	Gen Purpose Equipment Repair	1253	LGTVMG	7-7567
Aircraft DMSC Mgt Unit	225	LGSI	7-2216	Tire Shop	1135	LGTVMG	7-4047
Direct/Indirect Mgt Sub-Unit	225	LGSIAA	7-6168	Material Handling Equip Repair	1243	LGTVMM	7-5316
Direct/Indirect	225	LGSIAA	7-2351	Vehicle Maintenance Body Shop	1133	LGTVMM	5-2713
Flight Test/Paint/Hazardous	220	LGSIAA	7-2014	Materiel Control	1243	LGTVMP	7-6940
F-16 Kits PSF	225	LGSIAB	7-0010	Special Purpose Equip Repair	1243	LGTVMS	7-9163
F-16 PSF Unit	225	LGSIAB	7-2808	Fuel Services Vehicle Repair	911	LGTVMSF	7-7048
Kit Issue Unit	845	LGSIAB	7-7069	Vehicle Operations Section	1138	LGTVO	7-5452
C-130 PSD Sub-Unit	225	LGSIAC	7-2608	Vehicle Registered Equip Mgt	1138	LGTVO	7-9139
Indirect Materiel Sub-Unit	225	LGSIAC	7-2351	Vehicle Fleet Management Unit	1138	LGTVOA	7-5820
Commodities DMSC Mgt Unit	507	LGSIC	7-2136	Government Driver Licensing	1138	LGTVOA	7-5452
MDD DMSC Sub-Unit	100	LGSICA	7-3254	Crane Service	1138	LGTVOH	7-1843
MFF/MKK/MTT DMSC Sub-Unit	507	LGSICB	7-2136	Wrecker Services	1138	LGTVOH	7-1843
Electronics/Msles DMSC Mgt Unit	849	LGSIE	7-5022	Railroad Ops/Mat Handling Unit	1132	LGTVOM	7-6888
MPP/MSS DMSC Sub-Unit	5	LGSIEA	7-3339	Taxi Services	1138	LGTVOP	7-1843
MMM/MLL DMSC Sub-Unit	847	LGSIEB	7-3125	Shuttle Bus	1138	LGTVOP	7-1843
MGG/MOO/MOQ/MW DMSC Sub-Unit	1621	LGSIEC	7-5022	RV Storage	1138	LGTVOP	7-1843
Retail Item Mgt Unit	849	LGSIR	7-4465	FAMILY SUPPORT CENTER			
National Stock Number Sub-Unit	849	LGSIRA	7-7890	DIRECTOR, FAMILY SUPPORT CENTER	308	MSF	7-4044
Missile Support Unit C	1621	LGSIRA	7-5022	Deputy Dir, Family Support Ctr	308	MSF	7-4044
National Stock Number Sub-Unit	849	LGSIRB	7-4324	Air Force Aid Society	308	MSF	7-4681
Local Purchase/Manufacture Sub-	849	LGSIRC	7-4067	Financial Counselor	308	MSF	7-4682
Technical Repair DMSC Mgt Unit	5	LGSIT	5-2236	Volunteer Resource	308	MSF	7-4681
MGG DMSC Sub-Unit	214	LGSITA	7-3177	Career Focus	308N	MSF	7-4681
MJJ DMSC Sub-Unit	5	LGSITB	7-2124	Relocation Information	308	MSF	7-4682
MBB/MEE DMSC Sub-Unit	238	LGSITC	7-3186	Care Line	308N	MSF	5-2273
Materiel Management Flight	849	LGSIM	7-2350	Family Services	308N	MSF	7-2301
Equipment Management Section	849	LGSME	7-4472	Transition Assistance Program	308	MSF	7-4681
Retail Sales Section	830-5A	LGSMR	7-3830	INFORMATION MANAGEMENT FLIGHT			
Stock Control Section	849	LGSMS	7-5047	INFORMATION MANAGEMENT FLIGHT	180	MSI	7-2191
Hazardous Materiel Cell	849	LGSMSH	7-5041	QAE QUALITY ASSURANCE	820	MSIA	7-2488
Hazardous Matl Dispensing Fclty	256	LGSMSP	7-1315	Administrative Communications	820	MSIA	7-3726
Supply Policy & Procedures Fl	849	LGSP	7-4316	Base Postal Officer	820	MSIA	7-2488
Resources & Inventory Section	849	LGSPA	7-9591	Officers Duty Roster	820	MSIA	7-2855
Depot Systems & Procedures Sect	849	LGSPB	7-4473	Base Mail Distribution Section	820	MSIAM	7-2855
SBSS Systems & Procedures Sect	849	LGSPC	7-7200	Postal Service Center	332	MSIAS	7-2509
Training (SBSS)	849	LGSPC	7-4448	Admin Comm Dist Section	820	MSIAS	7-3358
Document Control	849	LGSPC	5-2476	Document Security Function	820	MSIAS	7-3252
RPS Unit	849	LGSPCC	7-1457	Electro Mail	820	MSIAS	7-3358
SBSS Inventory Unit	849	LGSPCI	5-2478	Copier Manager	180	MSIC	7-9441
Weapons Systems Support Flight	849	LGSW	7-4023	OO-ALC Bulletin	180	MSIP	7-3913
Expedite-Days	830	LGSWD	7-9990	Forms Management	180	MSIP	7-3913
Routine Cargo/Heavy Equipment	830	LGSWD	7-9990	Master Publications Library	180	MSIP	7-3586
Expedite-Swing Shift	830	LGSWD	7-9990	Publications Management	180	MSIP	7-3658
Operations Support Section	849	LGSWM	7-4337	Rqmts Stock Control Unit	820	MSIPD	7-6849
DP/Research/Rec Maint	849	LGSWM	7-3261	Base Pub Forms Dist Unit	820	MSIPD	7-4953
Repair Cycle Section	830-5A	LGSWR	7-4035	TO Distribution Unit	820	MSIPT	7-5356
COSS	39	LGSWR	7-5976	ADMIN COMM & RECORDS MGT BRANCH	180	MSIR	7-2201
DIFM/Equipment Processing	830	LGSWR	7-2588	Records Section	180	MSIR	7-2504
Bench Stock/MRSP	830	LGSWR	7-7722				

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Privacy Act Information	180	MSIR	7-3409	Mil & Civ Equipment Checkout	402	SVRO	7-2225
Freedom of Information Act	180	MSIRF	7-3409	Outdoor Recreation	402	SVRO	7-2225
Documentation Staging Area	820	MSIRS	7-5359	Resource Recovery Recycle Prgm	1248	SVRR	7-9007
SERVICES DIVISION				Civilian Community Activities	564	SVRX	7-3661
SERVICES DIVISION	180	SV	7-3611	Civilian Recreation	564	SVRX	7-3661
SERVICES DIVISION ADMIN	180	SVA	7-4134	Plans & Force Management Flight	180	SVX	7-9982
Membership Support Flight	180	SVB	7-3611	Honor Guard Coordinator	351	SVX	7-3967
Bowling Center	525	SVBB	7-6565	Prime RIBS Mobility NCOIC	180	SVX	7-9982
Bowling Lanes Snack Bar	525	SVBB	7-9911	Services Marketing/Publicity	564	SVXA	5-2084
Hill Rod & Gun Club	1506	SVBF	7-6767	NAF Human Resources Office	180	SVXH	7-2791
Golf Course	720	SVBG	7-3272	Mortuary Affairs	180	SVXM	7-9982
Golf Course Maintenance	710	SVBG	7-3500	Youth Programs Flight	180	SVY	7-3611
Golf Course Pro Shop	720	SVBG	7-3272	Child Development Center	470	SVYC	7-6321
Golf Course Club House	720	SVBG	7-3272	Youth Activities	883	SVYY	7-2419
NCO CLUB	450	SVBN	7-3841	Boy Scout Hut	696	SVYY	7-3723
OFFICERS CLUB	150	SVBO	7-2809	Girl Scout Hut	629	SVYY	7-2520
Base Restaurant Administration	230	SVBR	7-2043	BASE PLANS DIVISION			
Base Restaurant Manager	230	SVBR	7-2043	Base Plans Div	180	XP	7-5623
Base Restaurant "Crosswinds"	230	SVBR	7-4165	Hill AFB Museum	1955	MU	7-6818
Base Restaurant (45)	45	SVBR	7-0615	Mobility Operations	830-5A	XPI	7-6335
Base Restaurant (225N)	225N	SVBR	7-9924	649 COMM-COMPUTER SYS GROUP			
Base Restaurant (225S)	225S	SVBR	7-0202	649 COMM-COMPUTER SYS GROUP	891	CC	7-3979
Base Restaurant "Den"	849	SVBR	7-6219	COMMANDER	891	CC	7-3979
Base Restaurant "Westside"	1235	SVBR	7-8161	First Sergeant	891	CCF	7-1940
Base Restaurant "Loft"	507	SVBR	7-0780	Orderly Room	891	CCQA	7-2131
Base Restaurant (1289)	849	SVBR	7-5101	NETWORK SYSTEMS FLIGHT	891	SCN	7-2946
BASE RESTAURANTS MOBILE VENDING	230	SVBR	7-2043	Wire Maintenance Team	891	SCN	7-4411
Base Restaurant (100)	100	SVBR	7-9058	Secure Comm Sys Maint Team	891	SCNB	7-3700
Canteen	891	SVBR	7-2295	NETCOMM	1214	SCNB(1)	7-9198
RESOURCE MANAGEMENT FLIGHT	180	SVF	7-3047	Cable Plant	891	SCNC	7-6464
NAF Funds Finance Mgt	180	SVF	7-3047	Inside Plant	1214	SCNI	7-6969
NAF Accounting	180	SVF	7-3046	Network Systems	891	SCNN	7-3897
NAF Procurement	180	SVF	7-3404	Outside Plant/Foreman	891	SCNO	7-9052
Logistics/Supply	820	SVFL	7-9495	BASE OPERATING SYSTEMS FLIGHT	891	SCS	7-6718
NAF Oversight	180	SVFR	7-2333	ATCALs Maintenance Team	798	SCSA	7-2343
Services Division Budget Office	180	SVFR	5-2403	METNAV	798	SCSAM	7-3747
Military Support Flight	180	SVM	7-9954	RADAR	798	SCSAR	7-2472
FOOD SERVICE OFFICE	332	SVMF	7-3686	Base/Range Frequency Manager	891	SCSL	7-2015
Food Services Officer	332	SVMF	7-3686	Base/Range Frequency Manager	891	SCSL	7-8364
Dining Hall Menu Recording	519	SVMF	7-4946	Land Mobile Radio	891	SCSL	7-5160
Airmens Dining Hall	519	SVMF	7-3428	Ground Radio Maintenance Team	891	SCSR	7-2669
Flight Kitchen	519	SVMF	5-2460	COMPUTER TECHNOLOGY FLIGHT	891	SCT	7-2413
Lodging Manager	146	SVMH	7-3999	Technical Services Support Team	849	SCTE	7-5166
Lodging Front Desk Manager	146	SVMH	7-0801	MAGIC	849	SCTE	7-4795
Lodging Reception Desk	146	SVMH	7-2601	P C Technical Support	849	SCTE	7-5166
Lodging Reservations	146	SVMH	7-0802	Chief, Base Communications Ctr	891	SCTT	7-2409
Linen Exchange	5	SVMH	7-3196	Base Communications Center	891	SCTT	7-3350
HESS Fitness Center	520	SVMP	7-2761	Base Communications Center	891	SCTT	7-1863
HESS Fitness Center	520	SVMP	7-2762	Base Communications Center	891	SCTT	7-9354
Athletic Director	520	SVMP	7-9377	Base Comm Center NCOIC	891	SCTT	5-3297
Intramural Director	520	SVMP	7-7772	BCC Message Distribution Center	891	SCTT	7-1863
Varsity Director	520	SVMP	7-7779	BCC Traffic Analysis	891	SCTT	7-3944
West Area Fitness Center	1277	SVMP	7-8360	BCC Programs & Analysis	891	SCTT	7-9354
Aquatics Director	520	SVMP	7-4617	P C Technical Support	891	SCTW	7-0603
Aquatics Center #1 (Hess Gym)	520	SVMP	7-4617	P C Technical Support	891	SCTW	7-2434
Aquatics Center #2	460	SVMP	7-6010	P C Technical Support	891	SCTW	7-7103
Aquatics Center #3	483	SVMP	7-2165	SUPPORT FLIGHT	891	SCX	7-1694
Ticket & Tour Office	460	SVMR	7-2892	Maintenance Control Superintend	891	SCXM	7-2230
Thornton Community Center	460	SVMR	7-3525	Matériel Control	891	SCXMC	7-1317
Recreation Support Flight	180	SVR	7-3611	Job Control	891	SCXMJ	7-3741
Oasis NCO Club	40055	SVR	7-1540	Analysis	891	SCXMQ	7-3923
Oasis Lounge	40055	SVR	7-1573	Base COMSEC/TEMPEST Manager	891	SCXMS	7-0362
Skills Development Center	534	SVRA	7-2649	COMSEC Accounting	891	SCXMS	7-3557
Auto Hobby Shop	534	SVRA	7-3476	COMSEC Accounting NCOIC	891	SCXMS	7-9136
Base Library	440	SVRL	7-3833	ETAP Manager	891	SCXMS	7-5162
Gerrity Memorial Library	440	SVRL	7-2533	WASSO	891	SCXMS	7-4400
Hillhaus Lodge Reservations	460	SVRO	7-3525				

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
WICP	891	SCXMW	7-3202	HOUSING FLIGHT	180	CEH	7-2963
Base Locator	891	SCXO	7-1841	Housing Maintenance	3303	CEH	7-6230
Telephone Chief Operator	891	SCXO	7-9245	Housing Assistance Section	180	CEH	7-1840
Telephone Directory Clerk	891	SCXO	7-5575	Housing Facilities Section	180	CEH	7-2964
Programs, Resources & Training	891	SCXP	7-5714	Furnishings Warehouse	5	CEHF	7-3373
Comm Project Manager	891	SCXPP	7-1938	OPERATIONS FLIGHT	15	CEO	7-2966
CSRDS	891	SCXPP	7-1696	Deputy Operations	15	CEO	7-3077
Budget	891	SCXPR	7-1935	Exterior Electric	30	CEOE	7-3479
Manpower	891	SCXPR	7-0399	Liquid Fuel Unit	860	CEOF	7-9576
Contracts	891	SCXPR	7-6586	Heat Ops/Steam Dist	859	CEOH	7-5581
Telephone Billing	891	SCXPR	7-3108	IWTP (Industrial Waste)	575	CEOI	7-3189
Training	891	SCXPT	7-2739	Maintenance Engineering	15	CEOM	7-3988
Visual Information Manager	1267	SCXV	7-0809	Engineering Staff	15	CEOMA	7-3875
Visual Information Graphics	1267	SCXV	7-5011	EMCS Operations Shop	15	CEOMD	7-3988
Visual Information Library	1267	SCXV	7-7140	Mechanical Engr Unit	15	CEOMG	7-3062
Photographic Laboratory	1267	SCXV	7-7615	Red Stake	15	CEOMR	7-1995
IPMS & Warehouse Branch	891	SCXW	7-0397	Electrical Power Production	30	CEOP	7-2006
IPMS	891	SCXWI	7-6340	Electronics Shop	20	CEOS	7-1190
Warehouse	1248	SCXWW	7-4013	Water & Waste Section	30	CEOU	7-8638
SC Warehouse	891	SCXWW	7-9832	Utility Section	30	CEOU	7-3647
Benchstock	1248	SCXWW	7-0007	Resources Flight	15	CER	7-4926
				Training Monitor-Civilian	15	CER	7-6303
				Human Resources	15	CERA	7-3581
				Customer Accounts	15	CERC	7-3091
				Financial Management	15	CERC	7-3091
				Real Estate	15	CERC	7-2500
				INFORMATION & COMPUTER MGMT	15	CERI	7-2270
				Computer Systems	15	CERI	7-3074
				READINESS FLIGHT	133	CEX	7-4910
				Disaster Preparedness	133	CEX	7-4185
				Prime BEEF Manager	30	CEX	7-4909
				Customer Service	21	CEZE	5-3058
				East Zone	21	CEZE	7-7950
				Heavy Repair	21	CEZH	7-3875
				Grounds Unit	914	CEZH	7-3997
				Planning Unit	15	CEZHA	7-3096
				Entomology Unit	859	CEZHE	7-4427
				Pavements & Equipment	916	CEZHP	7-2929
				Railroads Unit	1132	CEZHP	7-5448
				Heavy Repair Vertical	20	CEZHV	7-3875
				Composite Crafts	20	CEZHVC	7-2454
				HVAC Upgrade	29	CEZHVH	7-1191
				Metal Fabrication	30	CEZHVM	7-3209
				Metals Shop	30	CEZHVM	7-3209
				Paint & Sign	12	CEZHVP	7-2097
				Logistics Section	820	CEZL	7-1650
				Material Control	820	CEZL	7-2093
				Bench Stock	820	CEZL	7-4914
				Vehicle Control Officer	820	CEZL	7-3413
				Self-Help Center	820	CEZL	7-1244
				West Zone	1268	CEZW	7-7144
				649TH COMBAT LOG SUPPORT SQ			
				COMMANDER	237	CC	7-2121
				Secretary	237	CC	7-2121
				First Sergeant	237	CCF	7-2121
				Career Advisor	237	CCQ	7-2122
				Orderly Room	237	CCQ	7-2123
				Safety NCO	237	CCQ	7-2122
				Training	237	CCT	7-2068
				Director of Logistics	237	LG	7-6130
				Chief Enlisted Manager	237	LG	7-6130
				Material Control	237	LGC	7-2539
				Sq Operations	237	LGC	7-2906
				Sq Operations Codaphone	237	LGC	7-7332
				Supply & Transportation Supt	237	LGD	7-6131
				Supply Branch	237	LGD	7-6131
				Supply Warehouse	5	LGD	7-7953

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Chief of Maintenance	237	LGM	7-3028	Pharmacy Services	570	SGHP	7-5463
Maintenance Superintendent	237	LGM	7-2069	Radiology Department	570	SGHR	7-5424
Crash Damage Repair Section	295	LGMC	7-3348	Surgical Suite	570	SGHSE	7-6223
Avionics/Elec Branch	237	LGME	7-3025	OB/GYN Clinic	570	SGHSO	7-7776
Avionics/Elec Section	237	LGME	7-8072	Appointments OB/GYN	570	SGHSO	7-7020
Structural Repair	237	LGMF	7-8070	Surgical Clinic	570	SGHSS	7-6721
APG Branch	237	LGMG	7-3025	Orthopedic Clinic	570	SGHST	7-3016
APG Shop	237	LGMG	7-8071	Physical Therapy	570	SGHY	7-5401
Systems Branch	237	LGMS	7-3902	Chief Nurse	570	SGN	7-5429
Crash Damage Repair Systems	237	LGMS	7-1241	Nurse Superintendent	570	SGN	7-5440
Egress Shop	237	LGMS	7-3902	Educational Coordinator	570	SGNE	7-6217
Fuel Systems Shop	237	LGMS	7-1242	Hospital Multi Service Unit	570	SGNM	7-6905
Pneudraulic Shop	237	LGMS	7-1241	Obstetrical Nursing Unit	570	SGNO	7-6932
Crash Damage Repair Tool Room	237	LGMT	7-1174	Flight Medicine	569	SGP	7-7932
Crash Damage Repair Supply	237	LGMT	7-2352	Physical Exam Center	569	SGPFS	7-7934
Quality Programs	237	LGQ	7-8067	Occupational Health Education	249	SGPM	7-1170
Plans & Programs	237	LGX	7-8019	Epidemiology	570	SGPM	7-7330
Programs & Mobility	237	LGX	7-2914	Environmental Health	249	SGPM	7-1166
Resource Manager	237	LGX	7-2914	Hearing Clinic	249	SGPM	7-1069
Aircraft Battle Damage Repair	237	LGX	7-8065	Environmental Food Inspection	400	SGPM	7-7817
649TH MEDICAL GROUP				Occupational Medicine	249	SGPO	7-1155
DIRECTOR BASE MEDICAL SERVICES	570	SG	7-5457	Civilian Dispensary	249	SGPO	7-1159
Administrator	570	SGA	7-5458	SQUADRON COMMANDER	570	SGQ	7-6205
Medical Supply	570	SGAL	7-4501	Personnel/Administrative Svc	570	SGQ	7-5426
Food Services	570	SGALF	7-4536	Administrative Services	570	SGQA	7-5426
Plant Management	570	SGALG	7-4530	Orderly Room	570	SGQA	7-6205
Housekeeping Section	570	SGALG	7-6204	First Sergeant	570	SGQF	7-6205
Central Supply Hosp	570	SGALG	7-4538	Library	570	SGQL	7-5449
Medical Maintenance	570	SGALM	7-7204	Health Promotion Office	1295	SGZ	7-1215
Resource Management	570	SGAM	7-5406	Veterinary Service	401	HSHG/VSH	7-2969
Quality Assurance	570	SGAQ	7-1004	649 MUNITIONS MAINT & TEST SQ			
Admissions & Dispositions	570	SGAR	7-7037	COMMANDER	800	CC	7-6680
INFORMATION-DUTY HOURS	570	SGAR	7-7037	Squadron Section Commander	800	CC	7-5375
Patient Administration	570	SGAR	7-7906	First Sergeant	8007D	CCF	7-1982
MEDEVAC Air Evacuation	570	SGAR	7-7906	Orderly Room	800	CCQ	7-3236
Inpatient Records	570	SGARI	7-7904	Training NCO	800	CCT	7-2298
Director of Ambulatory Services	570	SGARO	7-6607	Technical Support	800D	MAA	7-2767
Chief, Admin Support Branch	570	SGARO	7-4052	Munitions Acct & Inv Section	800D	MAK	7-2911
Chief, Clinical Support	570	SGARO	7-5504	Depot Records Section	800D	MAK	7-6551
Central Appointments	570	SGARO	7-1847	Base Account Section	8007D	MAK	7-6936
Appointments/Active Military	570	SGARO	7-4061	Munitions Control Section	8007D	MAO	7-7715
Appointments/Long Distance	570	SGARO	7-4031	CAS-B Section	800	MAO	7-2850
APPT CANCELLATION 24 HRS	570	SGARO	7-7337	Munitions Processing Section	1377	MAP	7-5770
CHAMPUS Advisor	570	SGARO	7-7036	Inspection Section	2148	MAP	7-5466
Health Benefits Advisor CHAMPUS	570	SGARO	7-7036	Maintenance Section	2214	MAP	7-5847
Outpatient Records	570	SGARO	7-6207	Receiving Section	1377	MAP	7-3152
Readiness Center	1295	SGAX	7-3860	Shipping Section	1377	MAP	7-5818
Bioenvironmental Engineering	249	SGB	7-4551	Munitions Storage Section	1627	MAS	7-5444
PHOENIX	249	SGB	7-4769	Base Storage Section	1627	MAS	7-3625
Dental Appointments	570	SGD	7-1846	Depot Storage Section	1627	MAS	7-4841
Dental Appointments	570	SGD	7-7011	Munitions Handling Section	1627	MAS	7-0997
Dental Appointments	570	SGD	7-7921	Stamp/Strap Section	1622	MAS	7-7805
Dental Surgeon (OIC)	570	SGD	7-5815	Test & Evaluation Section	1622	MAT	7-7361
Supt Dental Services	570	SGD	7-5816	Small Component Section	1642	MAT	7-7832
Dental Supply	570	SGD	7-8475	Munitions Test Section	2405	MAT	7-5605
Hospital Services	570	SGH	7-4553	649 OPERATIONS SUPPORT SQUADRON			
Emergency Room	570	SGHE	7-5285	Commander	1	CC	7-2161
Primary Care/Family Practice	570	SGHG	7-6606	Secretary	1	OSS	7-2162
EKG	570	SGHG	7-6210	Orderly Room	1	OSQ	7-2163
Surgery Clinic	570	SGHG	7-6721	Chief, Air Traffic Ctrl Ops	1	OSA	7-2909
Immunization Clinic	570	SGHGA	7-5209	Chief, Air Traffic Training	1	OSAG	5-3029
Optometry Services	570	SGHGO	7-4832	Radar Final Control Operations	10	OSAR	5-3016
Laboratory Services	100	SGHL	7-7034	Chief Controller, Tower	1	OSAT	7-3745
Mental Health Clinic	1295	SGHMA	7-7909	Chief, Air Traffic Stan/Eval	1	OSAV	5-3030
EFMP	1295	SGHMA	7-3497	Flight Management Branch	1	OSC	7-2944
Family Advocacy Office	1295	SGHMA	7-3497	Current Operations Flight	1	OSC	7-2161
Pediatric Clinic	570	SGHMC	7-6214				

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Base Life Support	5	OSCL	7-3104	NCOIC, Plans & Programs	1219	SPOLP	7-8113
Base Operations	1	OSCM	7-1861	Security Police Manager	1219	SPOLP	7-8627
Quality Assurance Branch	2	OSCT	7-3811	Traffic Planner	1219	SPOLP	7-6588
Transient Aircraft Maintenance	20	OSCT	7-3956	Training Section	1219	SPOT	7-8679
WEATHER FLIGHT				TENANTS			
COMMANDER, WEATHER FLIGHT	1	OSW	7-3629	ARMY/AIR FORCE EXCHANGE SERVICE			
Weather, Operations	1	OSWF	7-3519	Oasis BX	40080	BX	7-1538
Weather Fcstr Aircrews Only	1	OSWF	7-2018	BX Main Store	430	DMCR-UT	773-1207
Wing Weather Office (388FW)	1	OSWL	7-9460	BX Customer Service	430	DMCR-UT	825-1466
Weather Observer	1	OSWO	7-2063	BX General Manager-Hill AFB	146	DMCR-UT	776-0277
UTTR Staff Meteorologist	1	OSWT	7-1714	BX Admin Office	146	DMCR-UT	776-0277
649 RANGE SQUADRON (OASIS)				BX Personnel Office	146	DMCR-UT	776-4163
COMMANDER	40020	CC	7-1550	BX Barber Shop	430	DMCR-UT	773-4602
Operations/Executive Officer	40020	CCE	7-1578	BX Beauty Shop	430	DMCR-UT	773-4076
Medical Station	40020	SG	7-1525	BX Classic Nails, Etc	430	DMCR-UT	773-9755
Munitions	40020	SUA	7-1539	BX Class VI Store	308	DMCR-UT	7-2169
Orderly Room	40020	SUAA	7-1526	BX Flower Shop	430	DMCR-UT	773-2152
Oasis Billeting	40020	SUAB	7-1553	BX Furniture Store	430	DMCR-UT	825-1759
Oasis Dining Hall	40020	SUAB	7-1528	BX Laundry/Dry Cleaners	332	DMCR-UT	773-3823
Fuels	40020	SUAF	7-1564	BX Service Station	454	DMCR-UT	7-2638
Supply	40020	SUAS	7-1533	BX Military Clothing Sales	332	DMCR-UT	7-3914
CE Supply	40011	SUAS	7-1548	BX Optical Shop	430	DMCR-UT	776-3368
CE Shops	40033	SUAS	7-1554	BX Personnel Office	146	DMCR-UT	776-4163
Civil Engineering Branch	40030	SUE	7-1545	BX Pizza (Anthonys Pizza)	430	DMCR-UT	825-1866
Water Treatment Plant	40010	SUEO	7-1543	BX Service Station	454	DMCR-UT	7-2638
Electric Shop	40033	SUEO	7-1554	BX Service Station	454	DMCR-UT	773-3600
Heat/Refrigeration	40033	SUER	7-1554	BX Shoppette	457	DMCR-UT	773-4673
Building Maintenance	40033	SUER	7-1554	BX Food Court	430	DMCR-UT	825-1866
Resources Office	40030	SUER	7-1579	BX Stereo Department	430	DMCR-UT	825-1996
Fire Department Branch	40020	SUF	7-1555	BX Theater (Recording)	441	DMCR-UT	7-3394
Oasis Police	40020	SUS	7-1524	AIR COMBAT COMMAND			
Oasis Police	40020	SUS	7-1522	F-16 ACC Liaison Office	1212	F16 ACCLLO	7-4816
Vehicle Control Officer	40020	SUV	7-1614	ACC/LGS Liaison Officer	1223		7-6883
Vehicle Maintenance Branch	40065	SUV	7-1561	ACC Training Sys Liaison Ofcr	1226	ACCLLO	7-5766
649 SECURITY POLICE SQUADRON				AIR FORCE AUDIT AGENCY			
COMMANDER	1219	CC	7-7975	Air Force Audit Agency Office	1205	AFAA	7-6272
Chief, Security Police	1219	CC	7-7975	Air Force Audit Agency Office	1205	AFAA	7-7217
Orderly Room	1219	CCQ	7-5533	AMERICA FIRST CREDIT UNION			
First Sergeant	1219	CCQ	7-7873	Credit Union Community Center	431		773-1392
ADMINISTRATION REPORTS BRANCH	1219	SPA	7-6671	Credit Union East Area	230		773-4666
Industrial Security	1219	SPAI	7-6616	Credit Union West Area	1235		773-4304
Security Clearances	1219	SPAI	7-5490	AFGE-FEDERAL EMPL LABOR UNION			
Classified Security Info	1219	SPAI	7-6616	AFGE Local 1592 Union	179	AFGE	7-3257
Security Education Motivation	1219	SPAI	7-6616	Federal Employees Labor Union	179	AFGE	7-3322
Resource Protection	1219	SPAI	7-6616	AFLSC-JUDICIARY AREA DEF CNSL			
Identification Cards-Military	180	SPAP	7-2863	Judiciary Area Defense Counsel	146	ADC	7-2940
Pass & Identification	1219	SPAP	7-1853	Judiciary Area Def Counsel	146	ADC	7-2702
Pass & Registration	1219	SPAP	7-6614	Judiciary Area Def Counsel	146	ADC	7-3748
Vehicle Registration	1219	SPAP	7-5480	AF OFC OF SPECIAL INVESTIGATION			
Reports & Analysis	1219	SPAR	7-6615	Office of Special Investigation	1219	OSI	7-1852
Combat Arms Training/Maint	743	SPC	7-2754	OSI/Det 113	1219	OSI	7-6848
OPERATIONS BRANCH	1219	SPO	7-5531	DRUG Hot Line (OSI)	1219	OSI	5-3784
Crime Prevention	1219	SPO	7-6588	AIR FORCE SPACE COMMAND			
Supply	1219	SPOA	7-1230	AF SPACE COMMAND MISSILE TNG	1218	DOMT	5-2908
Armory	1219	SPOA	7-7916	AF SPACE COMMAND SYSTEMS SPT OF	1256	ISSO	7-4336
K-9	1780	SPOK	7-6665	AF Space Command Sys Spt Office	1256	ISSO	7-4329
Desk Sergeant	1219	SPOL	7-3056				
Supt Law Enforcement Section	1219	SPOL	7-5550				
Visitor Ctl Ctr South Gate	553	SPOL	7-2394				
Visitor Ctl Ctr West Gate	1296	SPOL	7-7833				
Roy Gate	1960	SPOL	7-4229				
Southwest Gate (Truck)	886	SPOL	5-3031				
Correction/Security Police	1219	SPOLP	5-2627				
Investigations	30	SPOLP	7-7891				
NCOIC Mobility	1219	SPOLP	7-8114				

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
AMERICAN RED CROSS				Commercial Services Division 1239 FS 7-4941			
American Red Cross Duty Hours	308	LC	7-1855	Central Procurement Spt Branch	1239	FSC	7-5063
0800-1500	308	LC	7-3850	FMS Direct Site Support Branch	1239	FSF	7-4851
CORPS OF ENGINEERS-US ARMY				FMS Recon Division 1239 FSR 7-8690			
US Army Corps of Engineers	366	COE	7-2206	Stock & Ind Fund Support Div	1239	FSW	7-4941
CONTRACTORS ON HILL AFB				Travel Accounting Division 1238 FT 7-5522			
Aerospace Support Technology	555	TIPE(3)	7-1213	Civilian Pay Division	1238	FV	7-7775
Atlantic Research	1254		825-4247	DEF CONTRACT AUDIT AGCY (DCAA)			
Allied Management of Texas	1	MAMM	7-3886	Defense Contract Audit Agency	1289	PLA	7-7561
Benico Enterprise	5		825-5035	DeCA-AIR FORCE COMMISSARY SRVC			
Bionetics PMEL Operations	2148	PKOES	7-3379	Commissary Resale Store	400	DeCA	7-2300
Bionetics PMEL Prod Control	214	PKOES	7-8047	Commissary Office	400	DeCA	7-2175
Boeing SMIC	1203		776-0960	Receiving Warehouse	400	DeCA	7-2176
Boeing PKIF	1530		776-0989	Troop Warehouse	820A	DeCA	7-5348
CAE Link	118	OSTS	7-3969	DET 8, 2 COMBAT CAMERA SQUADRON			
CAE-LINK CORP	1264	LIRB	7-6705	COMMANDER	1269	CC	7-4955
CAE-LINK CORP	1264	LIRB	7-5638	Materiel Control	1269	CCS	7-0161
Computer Science (Personnel)	1285	XRCL	7-9531	Interactive Video Design/Dev	1269	DO	7-0713
Computer Science Corp ACMI	3	TR	7-9018	OPERATIONS	1269	DOP	7-0143
Computer Science POD Shop	1A	XRCL	7-9066	Producer/Directors	1269	DOP	7-7505
Fort Walton	891	SCSR	7-2822	Videotape Library	1269	DOPL	7-6807
General Dynamics	225	LAO	7-2269	First Sergeant	1269	DOPO	7-4855
General Dynamics AIS	1147		776-5555	Production Superintendent	1269	DOPO	7-4855
Interwest Auto Parts	1243		774-8186	Combat Camera	1269	DOPO	7-0155
JSA	249	SGPO	7-1155	Technical Services	1269	DOS	7-4968
KONCAR BITS	820	MSIAM	7-2855	Maintenance	1269	DOSO	7-0151
KONCAR PDO Office	820	MSIPD	7-6849	Information Management	1269	IM	7-4955
KONCAR Tech Order	820	MSIPT	7-5356	DEFENSE INVESTIGATIVE SERVICE			
KONCAR PSC (Postal Service Ctr)	332	MSIAP	7-2509	Investigative Resident Agency	1219	DIS	7-1024
Kay & Associates Inc H-1 Maint	1	MAOB	7-9945	Senior Resident Agent	1219	DIS	7-1016
Lockheed	0	CONTRAC	776-5555	DEFENSE INFO SERVICES ORG			
LOGICON HETF	1540	LMSI	7-7484	Deputy Director	891	UFH	7-2951
MAGIC Office	849	TICA	7-1219	HUMAN RESOURCES SUPPORT DIV	891	UFHE	7-2935
MARTEC	1140	PK	7-4733	Learning Center	891	UFHE	7-0398
Martin-Marietta	1265	L MSP	7-6793	Training	891	UFHE	7-2739
MDASO (F-16 Simulator Instruct)	118	OSTS	773-9875	OPERATIONS DIVISION	891	UFHO	7-2660
MDASO F-16 Simulator Instructor	118	OSTS	7-3085	Visitor Control	891	UFHO	7-0249
Modern Technologies	849	TICA	7-1219	Computer Operations Spt Team	891	UFHOC	7-1656
Motorola (Land Mobile Radio)	891	SCSR	7-5160	Network Control Center Team	891	UFHOD	7-0229
REDCON	1622		776-8121	Network Control Center	891	UFHOD	7-3282
Robbins-Gioia Inc	891	UFH	7-7338	Production Control Scheduling	891	UFHOS	7-7176
Rockwell International	1206		825-1645	Production Mgt Control Team	891	UFHOS	7-3637
SCIEN TECH Inc	1204	LMSIA	7-4424	649 CCSG Control Center	891	UFHOS	7-7176
Sikorsky Aircraft	1	CC	7-3112	Production Data Mgt Team	891	UFHOS	7-3637
Southwest Research Inst	245	TIU	5-2065	BUSINESS DIVISION	891	UFHR	7-3053
Support Systems Associates Inc	100	TISE	7-7703	Resources Planning Team	891	UFHRA	7-2414
Support Systems Associates Inc	100	TIST	7-7411	Contract Administration Team	891	UFHRE	7-2259
TRW Ogden Engrg Ops Manager	1258		825-9747	Facility Manager	891	UFHRE	7-0396
TRW Ground Engrg Lab Manager	1256		776-1624	Security Administration Team	891	UFHRS	7-1634
TRW Systems Engrg Lab Manager	1227		776-1410	SYSTEMS ENGINEERING DIVISION	891	UFHS	7-3327
U.S. Eagle (Garbage Pick-Up)	2	CEX	7-3477	Special Opr Sys Software Team	891	UFHSA	7-1630
Univ of Cincinnati/Medical	249	SGPM	7-1064	Comp Performance/Eval Team	891	UFHSC	7-3868
Westinghouse Electric	584	LGRV	7-1221	Arch Tech Plan & Engr Team	891	UFHSP	7-2511
Winward Telecom	891	SCNN	5-4935	Sys Software Mgt & Control Team	891	UFHSS	7-3915
DEFENSE ACCOUNTING OFFICE				DEFENSE LOGISTICS AGENCY			
Defense Accounting Office	1239	F	7-4833	Liaison Officer - DLA	1209	FMM-DLA	7-6654
Accounts Control Division	1239	FA	7-5179	DEFENSE DEPARTMENT OGDEN UTAH			
Cost Accounting Division	1239	FC	7-9129	Computer Team	849	TH	7-4440
Maintenance Cost Branch	1239	FCM	7-2860	ASM Computer Team	849	TH	7-7920
DMIF Reporting Branch	1239	FCR	7-9125	AWS Computer Team	845	TH	7-1211
Materiel Division	1239	FM	7-7445	Facility Engineering	849	TH	7-1460
Base & Tenant Support Branch	1239	FMA	7-7797				
Stock Fund Accounting Branch	1239	FMS	7-7266				
Paying & Collecting Division	1238	FP	7-7876				
Accounting Quality & Sys Div	1239	FQ	7-5148				

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
WAREHOUSING DIVISION HILL	849	TH	7-7008	FEDERAL AVIATION ADMINISTRATION			
Auto Storage MOD (ASM) Branch	849	THB	7-7040	Transmitter Site	768	FAA	7-3559
Team #1	849	THBB	7-7097	Asst Manager for Military Ops	SLCTOWR	SLC	539-3235
Team #2	849	THBD	7-7097				
Team #3, Grave	849	THBE	7-7097	FIRST SECURITY BANK OF UTAH			
Warehouse #4	840	THBF	7-7931	First Security Bank East	442	FSB	773-8000
Team #5, Swing	849	THBG	7-7097	First Security Bank West	1235	FSB	773-3872
Auto Whse Sys (AWS) Branch	845	THC	7-7961				
Warehouse 22 Team A	845	THCC	7-7050	GENERAL RAIL SHOPS BRANCH			
Warehouse 22 Team A (Grave)	845	THCD	7-7050	Rail & Spec Equip Branch Office	1701	SDSTE-MAIR	7-5913
Warehouse 22 Team C/D	845	THCE	7-7050	Rail & Spec Equip Foreman	1701	GRSB	7-5919
Warehouse 22 Team C/D (Swing)	845	THCF	7-7050	Rail & Spec Equip/Millwrights	1701	GRSB	7-7946
Classified	845	THCG	7-6986	Rail & Spec Equip/Electrical	1723	SDSTE-MAIR	7-5930
Weapons	845	THCG	7-7468	Rail & Spec Equip Br Specialist	1701	SDSTE-MAIR	7-5919
Conventional Storage Branch	850	THD	7-8580	Rail & Spec Equip/MRP/Whse Ofc	1722	SDSTE-MAPM	7-7984
Conventional Storage Section 1	850D	THDB	7-7980	Rail & Spec Equip/MRP/PP&C Ofc	1701	SDSTE-MAPM	7-4608
Warehouse 21 A/G Team (Grave)	850C	THDB	7-4972	Rail & Spec Equip Qlty Sec/Insp	1701	SDSTE-MAPR	7-5911
Warehouse 21, B Team	850	THDBB	7-7491				
Warehouse 21 A/C Team	850C	THDBC	7-4972	US NAVY			
Warehouse 21 D/E Team	850D	THDBD	7-7541	Naval Air Systems Command Det	1226	NASC DE	7-2543
Warehouse 21 F/G Team	850F	THDBE	7-7927				
Conventional Storage Sec 2	820	THDC	7-6589	OGDEN SOFTWARE DEVELOPMENT AVTY			
Warehouse 20	843	THDCB	7-6590	ACQUISITION/DEVELOPMENT DIV	891	SO	7-2293
Warehouse 7/9	8009C	THDCC	7-7551	Data Base Administration Team	891	SO	7-7559
Warehouse 14	273	THDCD	7-2258	Systems Development Team #1	891	SO	7-2663
Warehouse 23	915	THDCE	7-6069	Systems Development Team #2	891	SOC	7-2220
Warehouse 6A	810	THDCF	7-4265	Tech Customer Support Team	1289	SOD	7-3455
Packing Branch	849	THE	7-4022	Systems Development Team #3	891	SOE	7-5386
Off Base Packing	849	THEB	7-7883				
Heavy Crating & Fabrication	849	THEC	7-4587	PACAF LIAISON OFFICE			
Bulk Processing Branch	849	TRQ	7-7018	PACAF LGS Liaison	1223	PACAFLL0	7-6883
Transport Team	849	TRQB	7-7898				
Dear John Bay (Receiving)	849	TRQB	7-7744	PS-DEFENSE PRINTING SERVICES			
Small Item Processing Branch	849	TRS	7-7810	PRINTING MANAGEMENT BRANCH	1229	PS	7-7629
Doc Processing Branch	849	TRT	7-7470	Printing Section	1229	PS	7-7707
Document/Record Processing Team	849	TRTD	7-4932	Accounting Function	1229	PSA	7-7647
Records & Reports Team	849	TRTE	7-7914	Printing Scheduling	1229	PSA	7-6794
Freight Processing Branch	849	TTT	7-5705	Copier Management Section	1229	PSA	7-7708
Freight Processing Section	849	TTTB	7-7460	Printing Binding Section	1229	PSB	7-7707
Packing,Address,Labeling Sys Se	849	TTTC	7-7649	Microform Production Facility	1229	PSM	7-3740
Planning & Scheduling Section	849	TTUB	7-5175				
Transportation Support Section	849	TTUC	7-5175	USAF-AIR WARFARE CENTER			
Com'l Routing & Billing Section	849	TTUD	7-4546	USAFAWC/TN OLAH	1264	OLAH 29TSS	7-3086
Transportation Division	849	TTZ	7-4996	F-16 Development Tech Team(DTT)	1264	OLAH 29TSS	7-3086
Distribution Manager	849	TZ	7-4581				
Operations Division	849	TZO	7-1113	USAFE LIAISON OFFICE			
Training Coordinator	849	TZO	7-7038	USAFE Liaison	1223	USAFELLO	7-6883
Denial Research/ROD Office	845	TZO	7-7059				
Denial Team 1	850D	TZOA	7-0920	US POSTAL SERVICE			
Denial Team 2	849	TZOB	7-4904	US POSTAL SERVICE	332		7-3507
Vehicle Control Office	849	WEA	7-1460				
Facility Engineering	849	WIC	7-1460	4TH FIGHTER SQUADRON			
				FS COMMANDER	119	CC	7-0981
DEF PLANT REPRESENTATIVE OFFICE				Adjutant/Section Commander	119	CC	7-0981
DPRO/THIOKOL, Brigham City, UT	A-3	RR	863-2562	Resource Advisor	119	CC	7-0963
COMMANDER DPRO/Thiokol	A-3	RRD	863-2562	Career Advisor	119	CC	7-0963
				First Sergeant	119	CCQ	7-0981
DEFENSE REUTILIZATION/MARKETING				Orderly Room	45	CCQ	7-9895
Def Reutilization & Marketing	890	WHC	7-7422	Squadron Administration	119	CCQ	7-0965
Administration Branch	890	WHC	7-6657	Mobility Office	45	CCX	7-4204
System Administration	890	WHC	7-6957	Operations Officer	119	DO	7-0970
Environmental Branch	890	WHCB	7-8028	A Flight Commander	119	DO	7-3027
Receiving Section	896	WHCPR	7-6658	B Flight Commander	119	DO	7-3027
Bulk Receiving	896	WHCPR	7-6559	C Flight Commander	119	DO	7-3027
Recycling Section	896	WHCPS	7-0097	D Flight Commander	119	DO	7-3027
Warehouse Section	897	WHCPW	7-8044	Duty Desk	119	DOF	7-3027
Distribution Branch R/T/D	890	WHCR	7-6457	Flight Management	119	DOF	7-3692
Distribution Branch-Sales	890	WHCR	7-6557	Life Support	119	DOL	7-0976

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ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Programming	119	DOO	7-2998	TDY Scheduling	1283	TOA	7-2469
Training	119	DOT	7-1150	Chief, ARSR-4 Radar Section	1283	TOAG	7-5259
Standardization/Evaluation	119	DOV	7-0967	Chief, Fixed Radar Section	1283	TOAG	7-5210
Weapons & Tactics	119	DOW	7-0978	Chief, Photographic Section	1283	TOAP	7-2695
Flight Surgeon	569	FS	7-4710	Chief, Proj/Studies/Software Br	1283	TOAP	7-5224
Intelligence	119	IN	7-3737	Engineering Studies Section	1283	TOAP	7-3194
Maintenance Officer	45	MA	7-3001	Weather Services Section	1283	TOAP	7-3920
Maintenance Superintendent	45	MA	7-4114	Computer Services Section	1283	TOAPC	7-5013
Asst Maint Officer/Superintend	45	MAA	7-2677	Site Surveyors Section	1283	TOAPS	7-5090
APG A Flight	45	MA	7-2544	Chief, Radar Analysis Section	1283	TOAR	7-6366
APG B Flight	45	MA(2)	7-2544	Chief Enlisted Manager	1283	TOAT	5-2012
Asst Maint Officer/Superintend	45	MAB	7-4104	Plans, Schedules & Resources Br	1283	TOATS	7-2347
Debrief	45	MAB	7-2960	Training Section	1283	TTA	7-2445
Inspection Flight	45	MA	7-3805	School Commandant	1283	TTA	7-5350
Specialist Flight	45	MAS	7-2034	Chief, Reports Production Fl	1283	TVA	7-5040
Support Flight	45	MAU	7-2010	Reports Production Office	1283	TVA	7-2895
Weapons Flight	45	MAW	7-3803	Graphics	1283	TVA	7-5029
Maint Plans & Scheduling	45	MAX	7-3164	Library/Vault	1283	TVA	7-5079
Safety Office	45	SE	7-9891	Procedures/Standards	1283	TVA	7-5028
34TH FIGHTER SQUADRON				151 AIR REFUELING GROUP (ANG)			
FS COMMANDER	5	CC	7-3003	SAC Alert Facility	777	DOCAF	7-3135
Safety	40	CC	7-7120	Alert Facility Manager	777	DOXAF	7-1134
First Sergeant	5	CCQ	7-6635	151 CAMS Maintenance	774	MOA	7-2347
Section Commander	5	CCQ	7-3003	299 RANGE CONTROL SQUADRON			
Squadron Administration	5	CCQ	7-3106	COMMANDER	1276	CC	7-9444
Readiness	40	CCQ	7-7819	Receptionist	1276	CC	7-9443
Maintenance Administration	40	CCQM	7-7120	First Sergeant	1276	CCF	7-9450
Operations Officer	5	DO	5-3441	Unit Security	1276	CCS	7-9618
Operations (Sched Recording)	5	DO	7-3107	Unit On-the-Job Training	1276	CCT	7-9562
Flight Management	5	DO	7-3247	Maintenance Training	1276	CCT	7-9327
Programming	5	DO	7-2403	Air Traffic Training	1276	CCT	7-9562
Training	5	DO	7-3012	Weapons Control Training	1276	CCT	7-9433
Standard/Evaluation	5	DO	7-3013	Unit Safety/Envir Hazardous Mat	1276	SEF	7-9334
Weapons	5	DO	7-3014	Telephone Control Officer	1276	TCO	7-9211
Life Support	5	DOL	7-3838	ADMINISTRATION	1276		7-9450
Maintenance Officer	5	MA	5-3442	CHIEF OF MAINTENANCE	1276	DC	7-9443
Maintenance Superintendent	5	MA	5-3442	Maintenance Superintendent	1276	DC	7-9326
Asst MA Officer	40	MA	7-7009	DET-1 WEST RANGE BRANCH	3917	DCF	7-9228
Dispatch	40	MA	7-3539	Wendover Comm Maint Section	3917	DCFC	7-9440
Assistant NCOIC	40	MA	7-7009	Radar Maintenance Section	3917	DCFR	7-9440
Debrief	40	MA	7-6241	East Range Maintenance Branch	1276	DCG	595-2328
A Flt-APG	42	MA(1)	7-6587	Cedar Mountain Site	1276	DCGC	7-4079
B Flt-APG	42	MA(2)	7-5172	Grassy Comm Facility	1274	DCGC	7-9322
F Flt-Inspection	25	MAE	7-4180	Francis Peak		DCGC	7-9622
C Flt-Spectst	42	MAS	7-6555	Logistics	1276	DCL	7-9329
E Flt-Support	42	MAU	7-6409	Unit Supply	1276	DCL	7-9329
D Flt-Weapons	42	MAW	7-3890	Air Operations Maintenance Br	1276	DCO	7-9319
67 AERIAL PORT SQUADRON				Maintenance Superintendent	1276	DCO	7-9326
COMMANDER 67APS	841	CC	7-2507	Tech Support Office	1276	DCO	7-9211
First Sergeant	841	CC	7-3386	Comm Maintenance Section	1276	DCOC	7-9319
Squadron Operations Officer	841	CC	7-3270	Comm Equipment Room	1276	DCOC	7-9212
Unit Administration	841	CCA	7-2507	Air Ops Comm Section	1276	DCOC	7-9211
84 RADAR EVALUATION SQUADRON				Air Ops Computer Section	1276	DCOD	7-9211
COMMANDER	1283	CC	7-3712	Computer Maintenance Section	1276	DCOD	7-9211
Chief, Information Mgt Branch	1283	CC	7-5068	Maintenance Liaison	1276	DCOP	7-9319
CD Van	1283	CC	7-9084	Air Ops Radar Section	1276	DCOR	7-9211
First Sergeant	1283	CCF	7-5069	Radar Maintenance Section	1276	DCOR	7-9211
Orderly Room	1283	CCQ	7-3711	Maintenance Support Branch	1276	DCQ	7-9220
Supply Section	1283	LGS	5-2348	Quality Assurance Section	1276	DCQA	7-9334
OPERATIONS ADMINISTRATION	1283	TOA	7-2448	Facilities Support Utilities	1276	DCU	7-9335
Commander Operations Flight	1283	TOA	7-2047	Power Production	1276	DCU	7-9335
Chief, Radar Evaluation Branch	1283	TOA	7-5080	Plans & Programs	1276	DCX	7-9329
Chief, Special Radar Section	1283	TOA	7-5210	Budget Analysis	1276	DCX	7-9329
Chief, JSS Radar Section	1283	TOA	7-6367	Air Operations Center	1276	DO	7-4930
Chief, Counternarcotics Radar	1283	TOA	7-5105	Mission Briefing	1276	DO	7-4930
				Mission Briefing	1276	DO	7-7575

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Chief of Air Operations	1276	DO	7-9415	TO Distribution Library	36	LGQ	7-2023
Air Operations Branch	1276	DO	7-9415	CORE Program	36	LGQ	7-2023
Watch Supervisor A Crew	1276	DOCA	7-4930	Deficiency Reports	36	LGQ	7-2023
Watch Supervisor B Crew	1276	DOCB	7-9615	Environmental Section	36	LGQ	7-2025
Watch Supervisor C Crew	1276	DOCC	7-9619	QA FCF/Weight & Balance	36	LGQ	7-2028
Watch Supervisor D Crew	1276	DOCD	7-9433	QA Chief Inspector	36	LGQ	7-2025
Weapons Control Standard/Eval	1276	DOV	7-9619	Flight Controls/Int Avionics	58	AFETS	7-3656
				Weapons/APG	58	AFETS	7-2439
368 USAF RECRUITING SQUADRON				388 LOGISTICS SUPPORT SQUADRON			
Commander	1532	CC	7-8488	LSS COMMANDER	37	CC	7-2324
Superintendent	1532	CCU	7-8488	Squadron Administration	37	CCQ	7-2705
Logistics	1532	RSRL	7-7417	Plans Branch	36	LSOP	7-2406
Personnel	1532	RSRP	7-7385	Programs Branch	36	LSOR	7-2085
				Facilities Manager	36	LSOR	7-2085
372 USAF RECRUITING GROUP							
Commander	1205	CC	7-1494	Manning	36	LSOR	7-2412
Deputy Commander	1205	CD	7-1493	Resource Advisor	36	LSOR	7-2412
Superintendent	1205	CCU	7-8108	Cmdr, Maint Training Flight	37	LST	7-0846
Computer Systems	1205	RSI	7-8331	Asst Supt, Maint Tng Flt	37	LST	7-0848
Operations	1205	RSOP	7-8335	Sup, Maint Tng Flt	37	LST	7-0844
Training	1205	RSOT	7-8333	NCOIC, Maint Tng Flt Admin	37	LST	7-0849
Information Management	1205	RSRI	7-8083	APG Instructor	37	LSTD	7-0850
Logistics	1205	RSRL	7-8083	Engine Instructor	37	LSTD	7-0854
Personnel	1205	RSRP	7-8014	Weapons Instructor	37	LSTD	7-0855
				Chief, Development Element	37	LSTD	7-0860
388 FIGHTER WING							
COMMANDER	120	CC	7-3881	Chief, Applications Element	37	LSTD	7-0860
Secretary	120	CC	7-3881	AGE Instructor	37	LSTD	7-0857
VICE COMMANDER	120	CV	7-3881	34FS Training Manager	37	LSTT	7-0842
Supervisor of Flying	10	CC	7-0020	4FS Training Manager	41	LSTT	7-0864
Executive Officer	120	CCE	7-3882	388MS Training Manager	37	LSTT	7-0841
Executive Administration	120	CCEA	7-3035	421FS Training Manager	41	LSTT	7-0871
Protocol Office	120	CCP	7-2552	LSS Training Manager	37	LSTT	7-0841
Senior Enlisted Advisor	120	CCS	7-3654	NCOIC, Training Administration	37	LSTT	7-0843
FOD Monitor	36	CVF	7-2028	Maintenance Tng Scheduler	37	LSTT	7-0862
Wing Plans & Exercises	120	CVX	7-2659	CAMS	41	LSTT	5-4106
Financial Management	120	FM	5-2630	Environmental Management	36	LSW	5-2980
Financial Analysis	120	FMA	7-3328	Combat Plans & Mobility	36	LSW	7-4179
History Office	120	HO	7-2920	Combat Plans & Mobility	36	LSX	7-4179
Chief, Information Management	120	IM	7-2285	388 MAINTENANCE SQUADRON			
Administrative Communications	120	IMA	7-2285	Commander	58	CC	7-7520
Records Management	120	IMD	7-2285	Secretary	58	CC	7-7520
Publications/Forms Management	120	IMP	7-2285	Chief, Information Management	58	CC	7-5796
Publications/Forms Distribution	120	IMPD	7-2285	First Sergeant	58	CCF	7-7520
Plans & Programs	120	IMX	7-2285	Dorm	523	CCF	7-2460
Manpower Office	120	MO	7-3989	Squadron Section Commander	58	CCQ	7-7521
Public Affairs Office	120	PA	7-3200	Orderly Room	58	CCQ	7-7520
Quality Improvement Office	120	QI	7-2992	Maintenance Super	58	MA	7-6735
CHIEF OF SAFETY	120	SE	7-2516	Manning/Self Insp	58	MA	7-5433
Safety Administration	120	SE	7-2983	Tech Admin	58	MA	7-6735
Chief of Flight Safety	120	SEF	7-2516	Accessory Flight	39	MAC	7-2009
Flight Safety/NCO	120	SEF	7-2516	ECS/ELEC	39	MACE	7-2117
Ground Safety	120	SEG	7-3402	Fuels	43	MACF	7-2208
Weapons Safety	120	SEW	7-3704	Egress	25	MACG	7-3139
IG Complaints/FW&A	120	SL	7-3620	Pneud	39	MACP	7-2001
Social Actions Liaison	120	SL	7-3620	Fabrication Flight	39	MAF	7-6525
Security Police Liaison	120	SPL	7-4921	Surv Equipment	40	MAFE	7-2091
				Metal Tech	39	MAFM	7-2370
388 LOGISTICS GROUP							
COMMANDER	41	CC	7-3130	NDI	39	MAFN	7-2832
DEPUTY COMMANDER	41	CD	7-2736	Structural Repair	39	MAFS	7-3033
Maintenance Superintendent	41	CC	7-3130	AGE Flight	56	MAG	7-7948
Secretary	41	CC	7-3130	4 CAT	62	MAGA	7-7938
Executive Officer	41	CCE	7-2736	34 CAT	56	MAGB	7-0690
Administration Section	41	CCEA	7-6872	421 CAT	55	MAGC	7-5610
EPR/Decorations/Awards	41	CCEA	7-6872	Production Support	62	MAGS	7-7928
Quality Assurance OIC/NCOIC	36	LGQ	7-2025	Maintenance Flight	25	MAM	7-2938
QA Administration	36	LGQ	7-2025	R&R Whl/Tire	25	MAMR	7-2938
				Munitions Flight	58	MAN	7-7606

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ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
4 CMU	960	MANA	7-1013	Simulator	118	OSTS	7-3085
34 CMU	937	MANB	7-6550	Training	120	OSTT	7-2252
421 CMU	988	MANC	7-3467	Operations Plans	120	OSTX	7-3511
CSU	1621	MANS	7-7021				
Propulsion Flight	295	MAP	7-4907	405TH COMBAT LOG SUPPORT SQ			
Accessory Repair	295	MAPA	7-5122	COMMANDER	295	CC	7-3109
Shop Support	295	MAPE	7-2630	649CLSS Reserve Advisor	295	CC	7-2335
JEIM	295	MAPJ	7-5106	Information Mgt ART	295	CC	7-2335
Test Cell	8	MAPT	7-2626	Training Tech ART	295	CC	7-2380
Armament Flight	54	MAR	7-3801				
Maintenance	54	MAR	7-3828	419 FIGHTER WING			
4 CAST	54	MARA	7-3800	COMMANDER	593	CC	7-3119
34 CAST	54	MARB	7-3800	Secretary	593	CC	7-3119
421 CAST	54	MARC	7-3800	VICE COMMANDER	593	CV	7-3119
AME	890	MARM	7-3819	Senior Enlisted Advisor	593	CC	7-2623
Support	54	MARS	7-3825	Executive Officer	593	CCQ	7-2214
Avionics Flight	58	MAV	7-5492				
TMDE	58	MAV	7-7818	OPERATIONS GROUP			
EW	5	MAVE	7-3556	Operations Officer	593	CC	7-3505
Lantirn/Sensor	35	MAVS	5-2020	Command Post	593	CC	7-1044
Test Station	5	MAVT	7-5394	Intelligence Section	593	CC	7-3395
Data Collection	5	MAVT	7-9490	Life Support	594	CC	5-2606
Mobility	58	ML	7-7577	Training Officer	593	CC	7-2265
Training	58	MT	5-3194	Training	590	CC	7-9663
Quality Improvement	58	QI	7-7816	WG Stan/Eval Office	594	CC	7-3264
Resource Advisor	58	RA	7-5843	Budget Office	593	FMA	7-3951
Safety	58	SE	7-5377	Budget Officer	593	FMA	7-3951
Vehicle Control	58	VCO/VCNCO	7-5377	Payroll	593	FMFP	7-3674
				Historian Office	593	HO	7-2214
388TH MAINT TRAINING FLIGHT				Judge Advocate	593	JA	7-4365
COMMANDER	125	CC	7-0762	Public Affairs	593	PA	7-2713
Academics	295	ACA	7-5108	Chief Of Safety	593	SE	7-3657
Superintendent	125	CCS	7-0764	Chief of Plans	593	XP	7-0209
Courseware Production	125	CWP	7-2788	Plans Supt	593	XP	7-0208
Information Management	125	IM	7-0763	Plans Office	593	XP	7-0209
Training Systems Support	125	TSS	7-0893				
				419 CIVIL ENGINEERING SQUADRON			
388 OPERATIONS GROUP				COMMANDER	591	CC	7-3995
GROUP COMMANDER	36	CC	7-3884	Program Manager	591	CC	7-2697
Secretary	36	CC	7-3884	Asstistant Program Manager	591	CC	7-9650
DEP COMDR FOR OPERATIONS GROUP	36	CD	7-3884	Orderly Room	591	CC	7-9639
Executive Officer	36	CCE	7-3884	Site Development/Conference Rm	591	CC	7-9637
Administrative Support	36	CCEA	7-2982	Heavy Equipment	591	CC	7-9635
Resource Advisor	36	CCR	7-9942	Career Advisor	591	CC	7-9669
RSD	36	CCR	7-2591	Ancillary Training	591	CC	7-9627
Superintendent	36	CD	7-0697	Mechanical Section	590	CC	7-9606
Quality Assurance Office	36	OGQ	7-2410	Supply	591	CC	7-9604
Standardization/Evaluation	36	OGV	7-3434	Disaster Preparedness	591	CC	7-0071
Weapons Manager	36	OGW	7-2798				
Weapons Standardization Flight	37	OGWL	7-3621	419 COMMUNICATIONS FLIGHT			
				COMMANDER	513	CC	7-3734
388 OPERATIONS SUPPORT SQUADRON				Secretary	513	CC	7-3734
OSS Commander	120	CC	7-3937	Comm Spec	513	CCE	7-7087
Resource Advisor	120	CC	7-2861	First Sergeant	513	CCF	7-2303
First Sergeant	120	CCQ	7-3401	Operations	513	DO	7-2510
Squadron Administration	120	CCQ	7-3653	Communications Sq Maintenance	513	LG	7-3768
Intelligence Flight	120	IN	7-2991				
Intelligence Flight	120	IN	7-2994	419 LOGISTICS GROUP			
Maintenance Operations Flight	36	OSM	7-2536	Logistics Group Commander	590	CC	7-2266
Maintenance Operations Center	36	OSMM	7-2536	Deputy Commander	590	CD	7-0045
Current Operations Flight	120	OSO	7-2541	Administration	590	CCEA	7-0044
Deficiency Analysis	120	OSOA	7-2606	Quality Assurance Branch	590	LQG	7-0057
Production Analysis	120	OSOA	7-2521				
Data Base Management	120	OSOA	7-3593	419 LOGISTIC SUPPORT SQUADRON			
Scheduling Branch	120	OSOS	7-2541	Logistics Maintenance Supers	590	LGL	7-0040
Scheduling/Documentation	120	OSOS	7-0089	Product Analysis Section	590	LGLA	7-2980
Weapons & Training Flight	120	OST	7-2017	Materiel Control Section	590	LGLM	7-2475
Air Space Management	120	OSTA	7-6926	Programs & Mobility	590	LGLM	7-3305

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ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Logistics Resource Center	590	LGLO	7-2559	419 SECURITY POLICE FLIGHT			
Maintenance Operations	590	LGLO	7-2559	COMMANDER	513	CC	7-0072
Maintenance Training	590	LGLT	7-0781	Security Police Flight	513	SPF	7-2585
				Secretary	513	SPF	7-2501
419 MEDICAL SQUADRON				419 SUPPORT GROUP			
COMMANDER	568	SG	7-2622	COMMANDER	590	CC	7-0206
Administrator	568	SGA	7-8077	Orderly Room	590	CC	7-2979
Health Svs Asst	568	SGA	7-0307	First Sergeant	590	CCF	7-2978
Med Records Tech	568	SGA	7-8077	Executive Officer	590	CE	7-2978
				CHAPLAIN	590	HC	5-2646
419 MAINTENANCE SQUADRON				Admin Off	593	IM	7-2538
Commander 419MS	590	CC	7-2266	Supply NCOIC	590	LGS	7-3781
Equip Maintenance Branch	590	CC	7-3632	Trans NCOIC	590	LGT	7-2437
Support Equip Storage	588	CC	7-8440				
Maintenance Sq Superintendent	597	LGM	7-2020	421 FIGHTER SQUADRON			
Structural Repair Shop	590	LGMFC	7-7674	COMMANDER	5	CC	7-5670
Corrosion Control Shop	590	LGMFC	7-0061	Section Commander	5	CC	7-3038
Metal Processing Shop	590	LGMFM	7-0060	Career Advisor	5	CC	7-3038
NDI	597	LGMFN	7-2083	Resource Advisor	5	CC	7-3038
Survival Shop	590	LGMFS	7-2257	Secretary	5	CC	7-5670
Power AGE Flight	592	LGMG	7-1930	Squadron Training Manager	45	CC	7-1119
Support Equipment	592	LGMG	7-1931	Mobility NCO	45	CC	7-3262
AGE Supply	592	LGMG	7-1930	Mobility Officer	45	CC	7-3164
Power Spt Equip-AGE Flight Supv	592	LGMG	7-1932	Safety NCO	45	CC	5-2102
Nonpowered Support Equipment	592	LGMG	7-1931	Safety Officer	45	CC	5-2102
Munitions Flight	597	LGMW	7-2648	First Sergeant	45	CCF	7-9896
Munitions Control	590	LGMW	7-7064	Orderly Room NCOIC	5	CCQ	7-3038
Armament Systems	597	LGMWA	7-0039	Tech Admin	5	CCQ	7-1128
Maintenance & Storage	590	LGMWM	7-9226	Operations Officer	5	DO	7-2636
Accessory Maint Flight NCOIC	597	LGRA	7-2026	A Flight Commander	5	DO(3)	7-2284
Electric Shop	597	LGRAB	7-2835	B Flight Commander	5	DO(3)	7-2218
Environmental Shop	597	LGRAB	7-2835	C Flight Commander	5	DO(3)	7-2578
Egress	590	LGRAE	7-3245	D Flight Commander	5	DO(3)	7-7756
Fuel Systems Shop	576	LGRAE	7-2853	Scheduling	5	DO	7-2636
Pneudraulic Shop	590	LGRAP	7-3244	Training	5	DO	7-2636
Propulsion Flight NCOIC	589	LGRP	7-2723	Flight Management	5	DO	7-2636
JEIM	589	LGRPE	7-2924	Stan/Eval	5	DO	7-6110
Engine Management	589	LGRPM	7-8084	Life Support	5	DOL	7-2363
Test Cell	589	LGRPT	7-8081	Intelligence	5	IN	7-2709
Avionics Flight NCOIC	584	LGRV	7-1018	Assist Maint Officer	45	MA	7-3573
AIS Supervisor	584	LGRVA	7-2579	Maintenance Officer	5	MA	7-2636
AIS Shop	584	LGRVA	7-1986	Maint Support Officer	45	MA	7-1128
ECM Supervisor	584	LGRVE	7-1246	Maint Superintendent	45	MA	7-1128
PMEL	584	LGRVL	7-2157	Asst Maint Superintendent	45	MA	7-1128
				Debrief	45	MA	7-1119
419 MISSION SUPPORT SQUADRON				APG A Flight	45	MA(1)	7-4331
Chief of Information Management	593	MSI	7-2538	APG B Flight	45	MA(2)	7-0614
Records Management	593	MSID	5-2300	Maint Production Officer	45	MAA	7-1128
Orders Management	593	MSID	5-2602	Production Superintendent	45	MAA	7-1128
Forms Management	593	MSIP	5-2603	Inspection Flight	25	MAE	7-4779
Publications Management	593	MSIP	5-2603	Specialist Flight	45	MAS	7-3448
Publications/Forms Distribution	593	MSIPD	7-8166	MSL	45	MAU	7-3129
Director Of Personnel	593	MSM	7-3310	Support Flight	45	MAU	7-3225
Personnel Program	593	MSM	5-2611	Weapons	5	MAW	7-2709
Customer Assistance	593	MSMAC	7-0023	Weapons Flight	45	MAW	5-3009
Career Advisor	593	MSMAH	5-2613	Scheduling/Documentation	5	MAX	7-2322
Quality Force	593	MSMAQ	5-2612				
Personnel Sys Mgr	593	MSMD	7-2842	466 FIGHTER SQUADRON			
Information Management	593	MSME	7-3310	COMMANDER	593	CC	7-3505
Career Programs/Training Mgt	593	MSMP	5-2610	Operations Officer	593	DO	7-3505
Reserve Training	593	MSMPT	5-2609	Supervisor of Flying	593	DO	7-2524
Personnel Utilization	593	MSMPU	7-3314	Flying Squadron Superintendent	590	DOM	7-1039
				Flying Sq Maintenance Unit	592	DOM	7-1038
419 RECRUITING SQ (RESERVE)				Inspection Section	590	DOM	7-2267
SR Recruiter	593	RS	7-3330	A Flight	592	DOMGA	7-1029
Secretary	593	RS	7-3330	B Flight	592	DOMGB	7-1028
Office Mgr	593	RS	7-3959	C Flight	592	DOMGC	7-1030
Recruiter	593	RS	7-2074				

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ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Plans & Scheduling	590	DOMGF	7-0050	Chief Enlisted Manager	1	MA	7-2828
Documentation	590	DOMGF	7-0051	Superintendent Acft Maint Sec	1	MA	7-0750
TCTO Section	590	DOMGF	7-0049	Test Support Section	1A	MA	7-2902
Attack Control Shop	590	DOMGS	7-3000	Control Radar Unit	1A	MA	7-3031
Flight Control/Instrument Shop	590	DOMGS	7-3000	RPV Unit	1A	MA	7-3660
Comm/Nav/Pen Aids	590	DOMGS	7-3000	Fabrication Unit	1	MA	7-3360
Weapons Flight/Loading Chief	590	DOMGW	7-9199	Management Information Section	1	MAA	7-2428
Weapons Loading Shop	590	DOMGW	7-9197	Component Repair Section	1	MAC	7-9062
Loading Stdn Crew (LSC)	590	DOMGW	7-9240	AGE Unit	1A	MAC	7-2423
Flying Squadron Maint Tool Crib	590	DOMIG	7-7066	Pneudraulic Unit	206	MACB	7-2631
Intelligence Officer	593	DOOI	7-3395	Electrical/Environmental Unit	1A	MACE	7-3416
Life Support	593	DOOL	7-3535	Fuel Unit	206	MACF	7-2631
Scheduling Officer	593	DOS	7-2265	Avionics Guidance Con Sys Unit	1A	MACI	7-3846
Training Officer	593	DOT	7-2265	Com/Nav Unit	1A	MACN	7-2503
Stan/Eval	593	DOV	7-3264	Structural Repair Machine Unit	1A	MACS	7-3628
Range Officer	593	DOW	7-3214	Programs & Mobility Section	1	MAL	7-1224
Weapons/Tactics	593	DOW	7-3214	Maintenance Control Section	1	MAM	7-2554
501 RANGE SQUADRON				Analysis Unit	1	MAMA	7-2204
COMMANDER	1284	CC	7-5715	Job Control Unit	1	MAMJ	7-2554
Secretary	1284	CC	7-5715	Materiel Control Unit	1	MAMM	7-3294
Technical Advisor	1284	CA	7-9753	Plans & Scheduling Unit	1	MAMP	7-2005
Administrative Assistant	1284	CA	7-9336	Organizational Maintenance Sec	1	MAO	7-9063
Airspace/Govt Affairs	1284	CX	7-9775	C-130 A Unit	1	MAO	7-3374
Director of Operations	1284	DO	7-5715	Support Equipment Unit	1A	MAO	7-3332
Instrumentation Support Branch	1284	IS	7-4593	Quality Assurance Section	1	MAO	7-9063
ACMI Training	3	IS	7-9021	C-130 Airframe/Powerplant	1	MAOC	7-2478
Target Manager	1274	IS	7-9025	Training Section	1	MAT	7-3240
Target Support, North	40041	IS	7-1523	533 FIELD TRAINING DETACHMENT			
Data Operations Branch	1274	KR	7-9281	DETACHMENT CHIEF	125	FTD	7-2084
Products & Analysis	1274	KRA	7-7416	Secretary	125	FTD	7-2274
Computer Operations	1274	KRD	7-9507	Instructors	125	FTD	7-2841
Quality Assurance	1284	QA	7-8140	Scheduling Unit	125	FTD	7-2575
Range Control/Scheduling Branch	1276	RC	7-9384	545 TEST GROUP			
Current Ops Scheduling	1276	RC	7-9386	COMMANDER	1A	CC	7-5072
Future Ops Scheduling	1276	RC	7-9385	Deputy Commander	1A	CD	7-5072
Operations Assistant (DPG)	40048	RO	522-5343	Technical Director	1A	CA	7-9575
UTTR Photo Optics HAMSTER (DPG)	40085	RO	522-5458	299th Maintenance Section	1276	CC	7-9444
UTTR Range Operations Br (DPG)	40085	RO	522-5343	First Sergeant	1A	CCF	7-3649
Range Operations Deputy (DPG)	40085	ROD	522-5104	Group Information Management	1A	CCI	7-3646
Vehicle Maintenance (DPG)	40085	ROEM	522-5100	Orderly Room	1A	CCQ	7-3649
Supply (DPG)	40085	ROES	522-5364	TQM Office	1	CCT	7-2016
Photo Optics North (Oasis)	40048	ROPN	7-1556	ENGINEERING DIVISION	1285	EN	7-6043
Photo Optics South (DPG)	40085	ROPS	522-5122	Computer Acquisition Section	1284	ENAC	7-9785
Video Office	40048	ROPS	522-5139	Acquisition Management Section	1284	ENAM	7-9793
Test Operations Branch	1274	TE	7-9651	Range Acquisition Section	1285	ENAR	7-9804
Training Operations Branch	1274	TR	7-9205	Test Acquisition Section	1285	ENAT	7-6029
Eagle Range	40041	TRE	7-1515	Test Engineering Branch	1A	ENT	7-3909
Eagle Range Flight Operations	40041	TREO	7-1516	Mission System Section	1A	ENTA	7-3242
514TH TEST SQUADRON				Flight Systems Section	1A	ENTF	7-4797
COMMANDER	1A	CC	7-3865	Launch & Recovery Sys Section	1A	ENTL	7-4797
FIRST SERGEANT	1A	CC	7-3649	Test Support Section	1A	ENTS	7-2496
CHIEF OF OPERATIONS	1A	DO	7-3909	Instrumentation	1A	ENTSI	7-3601
Assistant Operations Officer	1A	DO	7-3909	Safety Office	1A	SE	7-5192
Chief, C-130 Ops	1A	DOF	7-3909	Directorate of Test Forces	1A	TF	7-3242
C-130 Operations Section	1A	DOFB	7-2138	PLANS, PROGRAMS & RESOURCES DIV	1A	XR	7-3802
Unmanned Vehicle Ops	1A	DOFD	7-8000	Contract Management Branch	1285	XRC	7-9276
Operations	1A	DOJ	7-2494	Resource Management	1285	XRCC	7-5220
Plans & Scheduling	1A	DOJ	7-2593	LMCA	1285	XRCL	7-5391
Scheduling/Current Ops	1A	DOO	7-3905	Vehicle Maintenance	1285	XRCV	7-9812
Flight Manual Office	1A	DOP	7-3378	Resource Management Branch	1A	XRF	7-9428
Chief H-1 Operations	1A	DOR	7-9320	Information Systems	1A	XRFI	7-4792
H-1 Operations	1A	DORH	7-9320	Manpower	1A	XRMM	7-7619
Training	1	DOT	7-3592	Career Development	1A	XRMO	7-1318
Standardization/Evaluation Sec	1	DOV	7-2915	Security	1A	XRO	7-7503
CHIEF OF MAINTENANCE	1	MA	7-2828	Classified Security	1A	XROS	7-2313
Maintenance	233	MA	7-1378	Plans & Programs Branch	1A	XRP	7-7852

ORGANIZATIONAL LISTING SECTION

ORGANIZATION	BLDG	OFFICE	EXTENSION	ORGANIZATION	BLDG	OFFICE	EXTENSION
Graphics Section	1A	XRPG	7-3320	Life Support	1910	LGXS	7-0667
Marketing	1A	XRPM	7-7852	Services	1910	LGXS	7-0659
651 MUNITIONS SQUADRON DET 1							
Munitions	935	MNH	5-3779				
Munitions	935	MNH	5-3780				
729 AIR CONTROL SQUADRON							
COMMANDER	1938	CC	7-5008				
Executive Officer	1938	CCE	7-0686				
First Sergeant	1938	CCF	7-7790				
Charge of Quarters	349	CCF	7-0745				
Medics	1938	CCM	7-0658				
Chief of Administration	1938	CCQ	7-5008				
Orderly Room	1938	CCQ	7-5008				
Unit OJT Manager	1938	CCT	7-0684				
Director of Combat Support	1938	CS	7-0638				
Disaster Preparedness	1938	CSDP	7-0655				
Combat Support Security	1938	CSS	7-0655				
Director of Operations	1938	DO	7-0669				
Assistant Director of Ops	1938	ADO	7-0235				
Chief, Current Operations	1938	ADO	7-0706				
Operations Administration	1938	DOA	7-0647				
Crew Commander	1938	DOC	7-9469				
Crew Chief	1938	DOC	7-0631				
Crew Operations	1938	DOC	7-0637				
Message Processing Center	1938	DOC	7-0654				
Chief of Communications Ops	1938	DOK	7-0657				
NCOIC Communications Operations	1938	DOK	7-0620				
COMSEC Accounts	1938	DOKC	7-0662				
Systems Control	1938	DOKI	7-0622				
Teletype/Telephone Comm Ops	1938	DOKO	7-0648				
Small Computers Manager	1938	DOKO	7-0682				
Chief of Operations	1938	DOS	7-0668				
Chief of Operations Training	1938	DOT	7-0652				
Standardization/Evaluations	1938	DOV	7-0633				
Chief, Weapons & Tactics	1938	DOW	7-0708				
Checkered Flag/Intelligence	1938	DOWI	7-5479				
Chief of Maintenance	1938	LG	7-7698				
Air Force Engrs Tech Service	1938	LG	7-0680				
LG Administration	1938	LGA	7-7757				
Comm Branch Chief	1938	LGC	7-0629				
Superintendent, Ground Radio	1938	LGCG	7-0681				
Ground Radio	1938	LGCG	7-0621				
SATCOM	1938	LGCR	7-0306				
Wideband	1938	LGCR	7-7240				
Secure Communications Maint	1938	LGCT	7-0627				
Digital System Branch	1938	LGD	7-0624				
Digital System Branch	1938	LGD	7-0679				
Maintenance Superintendent	1938	LGK	7-7767				
Chief, Maintenance Control	1938	LGM	7-0660				
Maint Control Superintendent	1938	LGM	7-0683				
Job Control	1938	LGMJ	7-0666				
Job Control	1938	LGMJ	7-0676				
Acquisitions	1938	LGML	7-0660				
Materiel Control	1910	LGMM	7-7246				
Plans & Scheduling	1938	LGMP	7-0660				
Superintendent, QA	1938	LGQ	7-0672				
Quality Assurance	1938	LGQ	7-0673				
NCOIC, Radar Maintenance	1938	LGR	7-0626				
Radar Maintenance Bays	1938	LGR	7-0628				
Aerospace Ground Systems	1938	LGSA	7-7229				
Vehicle Maintenance	1938	LGT	7-7227				
Vehicle Maintenance Bays	1938	LGT	7-4552				
Vehicle Maint Control & Analy	1938	LGT	7-0572				
Vehicle Operations	1938	LGT	7-0674				
Logistics Plans	1938	LGXS	7-0643				
Mobility	1938	LGXS	7-0675				

CLASSIFIED LISTING SECTION

ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
372 USAF RECRUITING GROUP	1205	372USAFRG	7-8014	Air Operations Center Supr	1276	299RCS	7-4931
649 ABG COMMANDER	180	649ABG/CC	7-2181	Air Ops Administration	1276	299RCS	7-9414
A				Air Ops Maintenance Branch	1276	299RCS	7-9319
A Flight	592	466FS	7-1029	Air Passenger Terminal Team	405	DDOU	7-2887
A Flight Commander 421FS	5	421FS	7-2284	Air Space Management	120	388OSS	7-6926
A Flight Commander 4FS	119	4FS	7-3027	Air Terminal Section	900	649ABG/LGT	7-3088
A/C Workload Support Team	1224	ALC/LA	7-5481	Air Traffic Control Tower	10	649OSS	7-2909
ABDR Branch	237	649CLSS	7-8065	Air Traffic Training	1276	299RCS	7-9558
ACC/Tng Sys Liaison Officer	1226	ACC	7-5766	Air Warfare Center	1264	USAF-AWC	7-3086
Accessory Flight	39	388MS	7-2009	Airborne Sensore Repair Section	100A	ALC/LI	7-2530
Accessory Maint Flight NCOIC	597	419MS	7-2026	Airborne Sensore Rqmts Branch	1226	ALC/LI	7-6014
Accessory Repair	295	388MS	7-5122	Aircraft Administration	1233	ALC/LA	5-2290
Accounting & Finance Division	1239	DAO-DE HILL	7-4833	Aircraft Avionics	1233	ALC/LA	7-5760
Accounting Quality & Sys Team	1239	DAO-DE HILL	7-5148	Aircraft Avionics Branch	5	ALC/LA	7-3513
Accounts Control Branch	1239	DAO-DE HILL	7-5179	Aircraft Battle Damage Repair	237	649CLSS	7-8065
Acft Ordnance Release	509	ALC/LI	7-0733	Aircraft Contracting Division	1233	ALC/LA	7-6800
Acft Workload/Planning Unit	1224	ALC/LA	7-6660	Aircraft Directorate	100	ALC/LA	7-3815
ACMI Training	3	501RS	7-9021	Aircraft Engineering	1212	ALC/LA	7-5195
ACPS/REPRO	1289	ALC/PK	7-4754	Aircraft Inventory	849	DDOU	7-7386
Acquisition Law Services Div	1278	ALC/JA	7-6753	Aircraft Operations Division	225	ALC/LA	7-3766
Acquisition Planning & Mod Rev	1289	ALC/CR	7-1341	Aircraft Pricing	1233	ALC/PK	7-6095
Acquisition/Development Div	891	OL-AD MSC	7-2293	Aircraft Product Ctr Spt A	849	DDOU	7-7752
Action Line (Code A Phone)	1102	ALC/IG	7-7000	Aircraft Radar/Airframe	1233	ALC/LA	7-8640
Action Line (To Receive Answer)	1102	ALC/IG	7-5306	Aircraft Services	1233	ALC/LA	7-5399
Active Duty Line (Hosp Appt)	570	649MG	7-4061	Aircraft Software Dev Sec	100	ALC/TI	7-6145
Adjutant/Section Commander-4FS	119	4FS	7-0981	Aircraft Software Dev Unit	100	ALC/TI	5-2054
Admin, Safety, Training	238	ALC/LA	5-3120	Aircraft Support Unit	225	ALC/LA	7-3985
Admin-OIC	40030	649RANS	7-1545	Aircraft Systems Tng & Dev	250	ALC/TI	7-0460
Administration 4FS	119	4FS	7-0965	Aircraft Transfers	25	388OSS	7-0441
Administration Comm Dist Sec	820	649ABG/MS	7-3358	Aircrew Training Device Branch	118	388OSS	7-3085
Administration Support Unit	1258	ALC/LM	7-1296	Airline Ticket Office	1238	ALC/TI	7-4677
Administration Unit	225	ALC/LA	7-2603	Airman Leadership School	385	ALC/DP	7-2913
Administration-299RCS	1276	299RCS	7-9450	Airmen's Dining Hall	519	649ABG/SV	7-3428
Administration-421TFS	5	421FS	7-3038	Airspace/Govt Affairs	1284	501RS	7-9775
Administrative Assistant/501RS	1284	501RS	7-9336	AIS Shop	584	419MS	7-1986
Administrative Branch	1215	ALC/LI	7-6011	AIS Supervisor	584	419MS	7-2579
Administrative Communications	120	388FW	7-2285	ALC COMMANDER	1102	ALC/CC	7-5111
Administrative Communications	820	649ABG/MS	7-3726	Alert Center (ALC/LM)	843	ALC/LM	7-6072
Administrative Plans & Programs	120	388FW	7-2285	All American Tech Rep	1A	514TS	7-9356
Administrative Services	1289	ALC/TI	7-4051	AME	54	388MS	7-3819
Administrative Services	1781	649CES	7-9051	Amer Fed of Govt Emp Local 1592	179	AFGE	7-3257
Administrative Support Section	1234	ALC/LI	7-5862	AMERICA FIRST CREDIT UNION COMM	431	AFCU	773-1392
ADPE/Systems	1217	ALC/LI	7-4141	AMERICA FIRST CREDIT UNION EAST	230	AFCU	773-4666
AFETS	58	388LG	7-2439	AMERICA FIRST CREDIT UNION WEST	1235	AFCU	773-4304
Affirmative Emp Branch (Civ)	1244	ALC/DP	7-6808	American Red Cross	308	ARC	7-1855
AFGE Local 1592	179	AFGE	7-3257	Americas/Pacific	1222	ALC/LA	7-2959
AFSC Missile Trainer Program Of	1218	AFSC	5-2908	Analysis	120	388OSS	7-2606
AFSC Systems Spt Office	1256	AFSC	7-4329	Analysis Unit	1	514TS	7-2204
AFSC Systems Spt Office	1256	AFSC	7-4336	ANG Advsr to Comdr Opr/Log ARF	1222	ALC/CC	7-5031
AGCS/Instrument Shop	1A	514TS	7-3846	APG A Flight 421FS	45	421FS	7-4331
AGE 34th Combat AGE Team	56	388MS	7-0690	APG A Flight 4FS	45	4FS	7-2544
AGE 421st Combat AGE Team	55	388MS	7-5610	APG B Flight 421FS	45	421FS	7-4331
AGE 4th Combat AGE Team	62	388MS	7-7938	APG B Flight 4FS	45	4FS	7-2544
AGE Flight Office	56	388MS	7-7948	APG Branch	237	649CLSS	7-8071
AGE Production Support	62	388MS	7-7928	Appointment Desk (Active Duty)	570	649MG	7-4061
AGE Supply	62	388MS	7-7843	Appointments (Legal Assistance)	1278	ALC/JA	7-6625
AGE Support Equipment Storage	588	419MS	7-8440	Appointments-Dependents/Retired	570	649MG	7-1847
AGE Unit	1A	514TS	7-2423	Appropriated Funds Branch	1209	ALC/FM	7-7181
Aide De Camp	1102	ALC/CC	7-5111	APPT CANCELLATION 24 HRS	570	649MG	7-7337
AIM-9 In/Final Team	100K	ALC/LI	7-3981	Aquatic Center #1 (Hess Gym)	520	649ABG/SV	7-4617
Air Force Aid Society	308	649ABG/MS	7-4681	Aquatic Center #2 (NCO Pool)	462	649ABG/SV	7-6010
Air Force Audit Agency Office	1205	AFAA	7-7217	Aquatic Center #3 (Officers)	483	649ABG/SV	7-2165
Air Force Audit Agency Office	1205	AFAA	7-6272	Arch Tech Plan & Engr Team	891	DISO	7-2511
Air Force Reserve Recruiting	593	419RS	7-3330	Area Defense Counsel	146	AFLSC	7-2940
Air Missile Testing Section	1424	ALC/LI	7-4905	Armament & Tank Repair Branch	509	ALC/LI	7-7964
Air Operations Branch	1276	299RCS	7-9415	Armament Branch	1247	ALC/LI	7-5694
				Armament Division	1247	ALC/LI	7-5432
				Armament Flight	54	388MS	7-3801

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Armament Operations Unit	1246	ALC/LI	7-5516	Base Life Support	5	6490SS	7-3104
Armament Shop Chief	597	419MS	7-0039	Base Locator	891	649CCSG	7-1841
Armament Systems	590	419MS	7-7012	Base Mail Distribution Office	820	649ABG/MS	7-2855
Armory (Security Police)	1219	649SPS	7-7916	Base Maint Repair Controller	1253	649ABG/LGT	7-9172
Army GLO 388FW	120	388FW	7-2017	Base Maintenance Repair	1253	649ABG/LGT	7-4535
Arts & Crafts	534	649ABG/SV	7-2649	Base Operations	1	6490SS	7-1861
ASM Computer Team	849	DDOU	7-7762	Base Plans Division	180	649ABG/XP	7-5623
ASM Team	845	DDOU	7-1211	Base Postal Officer	820	649ABG/MS	7-2488
ASM/Computer Operation Convl	849	DDOU	7-7848	Base Restaurant "Crosswinds"	230	649ABG/SV	7-4165
Assistant Maint Officer	45	421FS	7-3573	Base Restaurant "Den"	849	649ABG/SV	7-6219
Assistant Maint Superintendent	45	421FS	7-3573	Base Restaurant "Falcon Roost"	590	649ABG/SV	5-3363
Assistant Operations Officer	119	4FS	7-0970	Base Restaurant "The Loft"	507	649ABG/SV	7-0780
Asst Maint Officer/Superintend	45	4FS	7-4114	Base Restaurant "Westside"	1235	649ABG/SV	7-8161
Asst Maint Officer/Superintend	45	4FS	7-4104	Base Restaurant (100)	100	649ABG/SV	7-9058
AT&T Mini Computers (3B2)	891	649CCSG	7-0601	Base Restaurant (1289)	1289	649ABG/SV	7-5101
ATCALS Maintenance Team	798	649CCSG	7-2343	Base Restaurant (225N)	225N	649ABG/SV	7-9924
ATE/Instrument Fabrication Sec	214	ALC/TI	7-3317	Base Restaurant (225S)	225S	649ABG/SV	7-0202
ATE/Radiac Repair Sec	214	ALC/TI	7-2548	Base Restaurant (45)	45	649ABG/SV	7-0615
Athletic Director	520	649ABG/SV	7-9377	Base Restaurant - Menu Line	230	649ABG/SV	7-1192
Attack Control Shop	590	466FS	7-3000	Base Restaurant Manager	230	649ABG/SV	7-2043
Audiovisual Library	1267	649CCSG	7-7140	Base Safety Office	383	ALC/SE	7-3333
Auto Hobby Shop	534	649ABG/SV	7-3476	Base Storage Team	1627	649MMTS	7-3625
Auto Parts (Interwest)	1243	CONTRACTOR	774-8186	Base Taxi	1138	649ABG/LGT	7-1843
Auto Sales Lot	534	649ABG/SV	7-3476	Base Theater (Recording)	441	AAFES	7-3394
Automated Storage Module (ASM)	849	DDOU	7-7097	Base Tours	1102	ALC/PA	7-7400
Avionics Engineering	1213	ALC/LA	7-5185	Base Transition Flight	521	649ABG/CC	7-2153
Avionics Flight	58	388MS	7-5492	Base/Range Frequency Manager	891	DISO	7-2015
Avionics Flight NCOIC	584	419MS	7-1018	Battery Shop Sec	276	ALC/TI	7-2763
Avionics Shop	237	649CLSS	7-8072	Battle Damage Repair (Aircraft)	237	649CLSS	7-8066
Avionics Software Test Sec	1515	ALC/TI	5-2829	Belgium Liaison Office	1224	ALC/LA	7-5647
Avionics Sys & Radio Freq	5	ALC/LA	7-4554	Bench Stock	820	649CES	7-2093
Avionics, Instms & Photonics Rp	214	ALC/LI	7-0702	Bid & Proposal Branch	1102	ALC/FM	7-7111
Avionics/Anti-Skid/Radios	5E	ALC/LI	7-3054	Bid Opening	1289	ALC/PK	7-5071
Avionics/Elec Branch	237	649CLSS	7-3025	Billeting Reservations-Oasis	40020	649RANS	7-1553
Avionics/Elec Section	237	649CLSS	7-8072	Bioenvironmental Engr Services	249	649MG	7-4551
Awards (Civilian)	1245	ALC/DP	7-7791	Bioenvironmental PHOENIX	249	649MG	7-4769
Awards (Military)	180	ALC/DP	7-2104	Body Shop	1133	649ABG/LGT	5-2713
AWLS-ASN & C-141	214	ALC/LA	7-3278	Bomb Support Team	1257	ALC/LI	7-7607
AWS Computer Team	845	DDOU	7-1211	Bomb/Ground Support Team	1257	ALC/LI	7-7380
AWS Team	1214	DDOU	7-7050	Bomber/Cargo Section	1246	ALC/LI	7-4646
AWS Warehouse	845	DDOU	7-7961	Bomber/Cargo Team	1247	ALC/LI	7-4646
AWS/Computer Op & Convl Stor	845	DDOU	7-7961	Bovine Radar Site	1276	299RCS	7-4099
B				Bowling Center	525	649ABG/SV	7-6565
B Flight	592	466FS	7-1028	Bowling Lanes Snack Bar	525	649ABG/SV	7-9911
B Flight Commander	5	421FS	7-2218	Boy Scout Hut	696	649ABG/SV	7-3723
B Flight Commander 4FS	119	4FS	7-3027	Brake Assembly/Disassembly Unit	507	ALC/LI	7-1320
B-2, B-52, VE3, E6, E8 Prod Sec	1225	ALC/LI	7-4711	Budget Analysis	1276	299RCS	7-9329
Bakery Orders/Base Restaurant	230	649ABG/SV	7-2043	Budget Analysis-84RADES	1283	84RADES	7-3605
Barber Shop/BX	430	AAFES	773-4602	Budget Office 419TFW	593	419FW	7-3951
Barber Shop/NCO	450	AAFES	774-0061	Budget/Funds Team	1223	ALC/LA	7-9341
Barber Shop/Officers Club	150	649ABG/SV	7-2523	Budget/Logistics	100	ALC/LA	5-3125
Base & Tenant Support Section	1239	DAO-DE HILL	7-7797	Bulk Processing Team	849	DDOU	7-7018
Base Account Team	800D	649MMTS	7-6934	Bulk Team	845	DDOU	7-7923
Base Career Advisor (Military)	180	ALC/DP	7-2854	Bulletin 00-ALC	180	649ABG/MS	7-3913
Base Civil Engineer	15	649CES	7-3072	Business Division	891	DISO	7-3053
Base Comm Center	891	DISO	7-3350	Business Enhancement Division	1219	ALC/FM	7-5182
Base Comm Ctr, Chief	891	DISO	7-2409	Business Management Branch	1209	ALC/FM	5-2159
Base Comm Ctr, NCOIC	891	DISO	5-3297	BX Admin Office	146	AAFES	776-0277
Base Comm Ctr/Message Dist	891	DISO	7-1863	BX Barber Shop	430	AAFES	773-4602
Base Comm Ctr/Prog & Analysis	891	DISO	7-9354	BX Beauty Shop	430	AAFES	773-4076
Base Comm Ctr/Traffic Analysis	891	DISO	7-3944	BX Classic Nails, Etc	430	AAFES	773-9755
Base COMSEC Account 624008	891	649CCSG	7-3557	BX Customer Service	430	AAFES	825-1466
Base COMSEC/TEMPEST Manager	891	649CCSG	7-0362	BX Flower Shop	430	AAFES	773-2152
Base ETAP Manager	891	649CCSG	7-5162	BX Food Court	430	AAFES	825-1866
Base IMA Administrator	180	ALC/DP	7-3502	BX Furniture Store	430	AAFES	825-1759
Base Library	440	649ABG/SV	7-2533	BX General Manager	146	AAFES	776-0277
				BX Laundry/Dry Cleaners/Alter	332	AAFES	773-3823
				BX MAIN STORE	430	AAFES	773-1207

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
BX Military Clothing Sales	332	AAFES	7-3914	Chaplain-Non Duty Hours	133	ALC/HC	7-3007
BX Optical Shop	430	AAFES	776-3368	Chemical Analysis	100	ALC/TI	7-2826
BX Personnel Office	146	AAFES	776-4163	Chemical Science Lab Section	100E	ALC/TI	7-2302
BX Pizza	430	AAFES	825-1866	Chief 419FW	593	419MSSQ	5-2609
BX Service Station	454	AAFES	7-2638	Chief 419FW Tng Section	593	419MSSQ	7-2256
BX Service Station	457	AAFES	773-3600	Chief ATC	1276	299RCS	7-9559
BX Shoppette	457	AAFES	773-4673	Chief EEO Counselor	1245	ALC/CC	7-4856
BX Stereo Department	430	AAFES	825-1996	Chief Enlisted Manager	237	649CLSS	7-6130
BX Theater	441	AAFES	7-2328	Chief Inspector/QA	36	388LG	7-2024
				Chief Maintenance Branch	1	514TS	7-2828
				Chief of Air Operations	1276	299RCS	7-9415
				Chief of Maintenance	1276	299RCS	7-9443
				Chief of Maintenance	237	649CLSS	7-2069
				Chief of Maintenance	1938	729ACS	7-7698
				Chief of Operations	1938	729ACS	7-0668
				Chief of Plans	593	419FW	7-0209
				Chief Operations	1246	ALC/LI	7-4685
				Chief, Air Traffic Con Stan/Eva	1	649OSS	5-3030
				Chief, ARSR-4 Radar Section	1283	84RADES	7-5259
				Chief, ATC Training	1	649OSS	5-3029
				Chief, Base Communications Ctr	891	DISO	7-2409
				Chief, Counternarcotics Radar	1283	84RADES	7-5259
				Chief, Fixed Radar Section	1283	84RADES	7-5210
				Chief, Information Management	58	388MS	7-5796
				Chief, Information Management	120	388FW	7-2285
				Chief, Information Mgt Branch	1283	84RADES	7-5068
				Chief, JSS Radar Section	1283	84RADES	7-6367
				Chief, Manpower Office	1254	ALC/MO	7-4301
				Chief, Office of History	1295	ALC/HO	7-4002
				Chief, Operations Flight	15	649CES	7-3076
				Chief, Photographic Section	1283	84RADES	7-2695
				Chief, Proj, Studies & Software	1283	84RADES	7-5224
				Chief, Radar Analysis Section	1283	84RADES	7-6366
				Chief, Radar Evaluation Branch	1283	84RADES	7-5080
				Chief, Reports Production Br	1283	84RADES	7-5040
				Chief, Security Police	1219	649SPS	7-7975
				Chief, Special Radar Section	1283	84RADES	7-5210
				Child Development Center	470	649ABG/SV	7-6321
				Circuit Card Manufacturing	100	ALC/TI	7-0016
				Civ Dispensary	249	649MG	7-1159
				Civ Internal Job Info (Rec)	1244	ALC/DP	7-6487
				Civ Locator	891	649CCSG	7-1841
				Civ Personnel Division	1245	ALC/DP	7-5508
				Civ/Mil Equipment Checkout	524	649ABG/SV	7-2225
				Civil Air Patrol	295	ALC/TI	7-3425
				Civil Air Patrol(Emergency only)	295	ALC/TI	776-5424
				Civil Engineer Liaison	36	388LSS	7-4179
				Civil Engineering (Oasis)	40030	649RANS	7-1547
				Civil Engineering Squadron	15	649CES	7-3071
				Civil Law Branch	1278	ALC/JA	7-6627
				Civilian 201 Files	1244	ALC/DP	7-7597
				Civilian Community Activities	564	649ABG/SV	7-3661
				Civilian Dispensary	249	649MG	7-1159
				Civilian Job Info (Recorded)	555	ALC/DP	777-3762
				Civilian Payroll Branch	1238	ALC/FM	7-6853
				Civilian Recreation	564	649ABG/SV	7-3661
				Claims Division	1278	ALC/JA	7-7255
				Class VI Store	308	AAFES	7-2169
				Classification Branch/Civilian	1254	ALC/DP	7-2279
				Classified Security Information	1219	649SPS	7-6616
				Classified/Weapons Team	845	DDOU	7-7468
				Clean/Blast E & I Unit	507	ALC/LI	7-1223
				Cleaners	332	AAFES	773-3823
				Clothing Sales (Military)	332	AAFES	7-3914
				Clover Control Supr	1276	299RCS	7-7575
				CMU 34TH	937	388MS	7-6550
				CMU 421ST	988	388MS	7-3467
				CMU 4TH	960	388MS	7-1013

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
College of Tech & Ind Skills	250	ALC/TI	7-8702	Computer Systems	15	649CES	7-3074
Combat Arms Marksmanship	743	649SPS	7-2754	Computer Technology Flight	891	649CCSG	7-2413
Combat Camera	1269	DET 8	7-0155	COMSEC Account 624008	891	649CCSG	7-3557
Combat Log Support Sq (AFRES)	295	405CLSS	7-2335	COMSEC Accounting	891	649CCSG	7-3557
Combat Operated Supply Support	39	388LSS	7-1235	COMSEC Accounting NCOIC	891	649CCSG	7-9136
Combat Plans & Mobility	120	388LSS	7-3831	COMSEC Manager	891	649CCSG	7-0362
Comm/Nav Unit	1A	514TS	7-2503	Configuration Management	1223	ALC/LA	7-5871
Comm/Nav/Pen Aids	590	466FS	7-3000	Construction Contracting	1289	ALC/PK	7-0187
Command Post 419FW	593	419FW	7-1044	Contract Administration Team	891	DISO	7-2259
Command Post AFMC (HCCP)	133	649ABG/CP	7-3007	Contract Closeout	1289	ALC/PK	7-3115
Command Post Liaison 3880SS	133	649ABG/CP	7-9752	Contract DMIF Branch	1209	ALC/FM	5-2168
Command Support Team	1102	ALC/FM	7-5961	Contract Law	1278	ALC/JA	7-6753
Commander Sq Section	120	3880SS	7-3653	Contract Planning Section	15	649CES	7-2145
Commander-15TS	1A	514TS	7-2872	Contract Support	1297	ALC/TI	7-7355
Commander-299RCS	1276	299RCS	7-9444	Contracting	1215	ALC/LI	7-6360
Commander-34FS	5	34FS	7-3003	Contracting Directorate	1289	ALC/PK	7-6000
Commander-388FW	120	388FW	7-3881	Contracting Division	1289	ALC/PK	7-7517
Commander-388MS	58	388MS	7-7520	Contracting/Ldg Gear/Photo/Whls	1215	ALC/LI	7-6351
Commander-388MTF	125	388MTF	7-0762	Contracts Airmunitions Branch	1215	ALC/LI	5-2098
Commander-388OSS	120	388OSS	7-3937	Contracts Training Devices Br	1215	ALC/LI	7-4705
Commander-405CLSS	295	405CLSS	7-3109	Control Center Expl Ord Disp	1781	649CES	7-5501
Commander-419FW	593	419FW	7-3119	Control Radar Unit-514TS	1A	514TS	7-3031
Commander-421FS	5	421FS	7-5670	Control Room	225	ALC/LA	7-2812
Commander-466FS	593	466FS	7-3505	Control Tower Operations Team	1	649OSS	7-2909
Commander-4FS	119	4FS	7-0981	Controlled Area Entrance Desk	1515	ALC/TI	7-0345
Commander-501RS	1284	501RS	7-5715	Conventional & NC Unit	510	ALC/LI	7-2811
Commander-514TS	1A	514TS	7-3865	Conventional Munitions	1246	ALC/LI	7-5694
Commander-545TG	1A	545TG	7-5072	Copier Manager	180	649ABG/MS	7-9441
Commander-649 SPTG	180	649ABG/CC	7-2181	CORE Program	36	388LG	7-2023
Commander-649CES	15	649CES	7-3071	Correctional Custody Facility	521	649ABG/CC	7-2153
Commander-649CLSS	237	649CLSS	7-2121	Corrections/Security Police	1219	649SPS	5-2627
Commander-649MMS	800	649MMS	7-6680	Corrosion Control Shop	590	419MS	7-0061
Commander-649RANS	40020	649RANS	7-1550	Cost Analysis Branch	1239	ALC/FM	7-9054
Commander-67APS	841	67APS	7-2507	Crane Service	1138	649ABG/LGT	7-1843
Commander-729ACS	1938	729ACS	7-5804	Crash Damage Repair Section	295	649CLSS	7-3348
Commander-84RADES	1283	84RADES	7-3712	Crash Damage Repair Supply	237	649CLSS	7-2352
Commander-ALC	1102	ALC/CC	7-5111	Crash Damage Repair Systems	237	649CLSS	7-1241
Commander-ALC/SE	383	ALC/SE	7-3333	Crash Damage Repair Tool Room	237	649CLSS	7-1174
Commander-Det 113	1219	AFOSI	7-6745	Credit Union Community Center	431	AFCU	773-1392
Commander-Det 8, 2CTCS	1269	DET 8	7-4955	Credit Union East Area	230	AFCU	773-4666
Commander-Hospital	570	649MG	7-5457	Credit Union West Area	1235	AFCU	773-4304
Commander-Ogden ALC	1102	ALC/CC	7-5111	Crime Prevention	1219	649SPS	7-6588
Commander-Vice ALC	1102	ALC/CC	7-5111	Crime Stop	1219	649SPS	7-1100
Commander-Weather Flight	1	649OSS	7-3629	Crypto Maint (Secure Comm)	891	649CCSG	7-3700
Commercial Services Branch	1239	DAO-DE HILL	7-4941	CSU	1621	388MS	7-7021
Commissary Office	400	DeCA-SW HILL	7-2175	Current Operations Flight-649OS	1	649OSS	7-2161
Commissary Resale Store	400	DeCA-SW HILL	7-2300	Current Ops Scheduling	1276	501RS	7-9386
Commodities Contracting	1289	ALC/PK	7-5019	Customer Accounts	15	649CES	7-3091
Commodities Directorate	1234	ALC/LI	7-5712	Customer Assist 419FW	593	419MSSQ	7-0023
Commodities Pricing	1215	ALC/PK	7-6992	Customer Service CE	21	649CES	5-3058
Communications Cable Plant	891	649CCSG	7-6464	Customer Spt Tool, Die & Fixtur	510	ALC/LI	7-3420
Communications Center	891	DISO	7-3350	Customer/Product & Rqmts Branch	1216	ALC/LI	7-7856
Communications Center	891	DISO	7-3675				
Communications Center	891	DISO	7-2665	D			
Communications Flight (419th)	513	419CF	7-3768	D Flight Commander	5	421FS	7-7756
Community Relations	1102	ALC/PA	7-5333	D Flight Commander 4FS	119	4FS	7-3027
Comp Manufacturing/NC Unit	510	ALC/LI	7-3698	Daily Bulletin	180	649ABG/MS	7-3913
Compass Transmitters Section	751	ALC/LI	7-4969	Data Analysis & Development	1298	ALC/TI	7-9210
Competition Advocacy Director	1289	ALC/CR	7-7594	Data Base Administration Team	891	OL-AD MSC	7-7559
Competition Plan & Reporting	1289	ALC/CR	7-1341	Data Base Manager	120	388OSS	7-3593
Competitive Manufacturing Sect	510	ALC/LI	7-8073	Data Base Manager	120	388OSS	7-0625
Complaints/FW&A (388FW)	120	388FW	7-3620	Data Collection	5	388MS	7-9490
Complaints/FW&A (ALC/IG)	1102	ALC/IG	7-5305	Data Operations Branch	1274	501RS	7-9281
Component Repair Section	5	ALC/LI	7-2213	DCAA-Def Contr Audit Agency	1289	DCAA	7-7561
Computer Operations	1274	501RS	7-9507	Dear John Bay (Receiving)	849	DDOU	7-7744
Computer Operations Spt Team	891	DISO	7-1656	Debrief	45	421FS	7-1119
Computer Performance/Eval Team	891	DISO	7-3868	Debrief 4FS	45	4FS	7-2960
Computer Services Section	1283	84RADES	7-5013				

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Def Reutilization & Marketing	890	DLA/DRMO	7-7422	Dorm 365 Manager ALC/DS	365	649MMS	7-0746
Defense Contract Audit Agency	1289	DCAA	7-7561	Dorm 517 2nd Floor	517	649ABG/SV	7-3701
Defense Investigative Service	1219	DIS	7-1024	Dorm 517 3rd Floor	517	649ABG/SV	7-8598
Defense Logistics Agency - DLA	1209	DLA-FMM	7-6654	Dorm 517 649SPTG	517	649ABG/SV	7-2751
Deficiency Analysis	120	388OSS	7-2606	Dorm 518 388FW-UNCOQ	518	649CES	7-3510
Denial Research Team 1	850	DDOU	7-0920	Dorm 518 Manager	518	649ABG/SV	7-2682
Denial Research Team 2	849	DDOU	7-4904	Dorm 521 (UNCOQ) 1st Floor	521	649ABG/SV	7-2222
Denmark AF Liaison Office	1224	ALC/LA	7-5981	Dorm 521 (UNCOQ) 2nd Floor	521	649ABG/SV	7-3376
Dental Appointments	570	649MG	7-1846	Dorm 523 1st Floor 388MS	523	649ABG/SV	7-3029
Dental Appointments	570	649MG	7-7011	Dorm 523 388FW, Manager	523	649ABG/SV	7-2460
Dental Appointments	570	649MG	7-7921	DPEM Budget	1258	ALC/LM	7-6212
Depot Records Team	800D	649MMS	7-6551	DPRO/Thiokol Commander	A-3	DLA/DPRO	863-2562
Depot Storage Team	1627	649MMS	7-4841	Drivers Training	383	ALC/SE	7-2933
Deputy Chief, Operations Flight	15	649CES	7-3077	Drug & Alcohol Abuse MIL	555	ALC/DP	7-3407
Deputy Comdr for Operations	593	419FW	5-2604	Drug HOT LINE (OSI)	1219	AFOSI	5-3784
Deputy Comdr-419LG	590	419LG	7-0045	Duty Desk 4FS	119	4FS	7-3027
Deputy Commander-649 SPTG	180	649ABG/CC	7-2181				
Deputy Engineering Division	1285	545TG	7-6170	E			
Deputy Fire Chief	9	649CES	7-3022	E & J Unit	507	ALC/LI	7-1026
Deputy/Contracting	1289	ALC/PK	7-6000	E-35 Test Section	100	ALC/TI	7-3981
DET 1 West Range Branch	3917	299RCS	7-9228	Eagle Range	40041	501RS	7-1515
DET 8 2nd Combat Camera Sq	1269	DET 8	7-4955	Eagle Range Flight Operations	40041	501RS	7-1516
Detachment Chief FTD 533	125	533FTD	7-2084	Ear Nose & Throat Clinic (ENT)	570	649MG	7-8395
Development Support	1227	ALC/LM	7-1261	East Range Maintenance Branch	1276	299RCS	595-2328
Development Support Branch	1227	ALC/LM	7-9159	EAST ZONE	21	649CES	7-7950
Dial-A-Menu	519	649ABG/SV	7-4946	ECM Supervisor	584	419MS	7-1246
Dining Hall	519	649ABG/SV	7-3428	ECS/ELEC	39	388MS	7-2117
Direct Customer Support Team	1289	649CCSG	7-0603	Education Office	383	ALC/DP	7-2710
Director Base Medical Services	570	649MG	7-5457	Education Services Division	383	ALC/DP	7-2710
Director of Combat Support	1938	729ACS	7-0638	EEO Counselor	1245	ALC/CC	7-4856
Director of Logistics	237	649CLSS	7-6130	EFMP	1295	649MG	7-3497
Director of Operations	1289	ALC/PK	7-6000	Egress	25	388MS	7-4789
Director of Operations	1283	84RADES	7-2047	Egress Shop	590	419MS	7-3245
Director of Operations	1938	729ACS	7-0669	Egress Shop	237	649CLSS	7-3902
Director Of Operations 501RS	1284	501RS	7-5715	Egyptian AF Liaison Office	1201	ALC/LA	7-6744
Directorate of Contracting	1289	ALC/PK	7-6000	Elec Mech/Optical Dimensional	214	ALC/TI	7-3100
Directorate of Envmtl Mgt	5U	ALC/EM	7-6917	Elec/Num/Con/PC Rpr Spt Team	265	ALC/TI	7-2545
Directorate of Specialized Mgt	1232	ALC/QL	7-6371	Electric Enviromental Shop	597	419MS	7-2835
Directory Clerk	891	649CCSG	7-5575	Electric Shop	237	649CLSS	7-8072
Disassembly Team	220	ALC/LA	7-2666	Electrical Checkout Unit (ECO)	225	ALC/LA	7-2215
Disaster Preparedness (CE)	133	649CES	7-4184	Electrical Harness Asbly	5E	ALC/LI	7-3589
Disaster Preparedness Ofc/Base	133	649CES	7-4184	Electrical Power Production	30	649CES	7-2006
Disaster Preparedness-388LSS	36	388LSS	7-6450	Electrical/Environmental Unit	1A	514TS	7-3416
Discrimination Complaints	1245	ALC/CC	7-4856	Electro Mail	820	649ABG/MS	7-3358
Dispatcher (Motor Pool)	1138	649ABG/LGT	7-1843	Electronic Counter Measure	584	419MS	7-1246
Distribution Branch R/T/D	890	DLA/DRMO	7-6457	Electronic Devices Dev Sec	100	ALC/TI	5-2047
Distribution Sales	890	DLA/DRMO	7-6557	Electronics Unit	20	649CES	7-1190
DLA Readiness Spt Representativ	1209	DLA-FMM	7-6654	Embry Riddle Aeronautical Univ	383	ALC/DP	7-0952
DMIF Contract Spt Coordinator	250	DDOU	7-1364	EMCS Operations Section	15	649CES	7-3988
DMIF Eng/Planning Coordinator	250	DDOU	7-2217	EMO (Equipment Management Offic	830	649ABG/LGS	7-2588
DMIF Project Unit B	15	649CES	7-2087	Employee Development Branch	1279	ALC/DP	7-9150
DMIF Project Unit C	15	649CES	7-2087	Employee Relations Section (Civ	1245	ALC/DP	7-7205
DMIF Reporting Branch	1239	DAO-DE HILL	7-9125	Employment Verification(Civ)Rec	1244	ALC/DP	7-6067
DMIF Resource/Budget/TDY	1234	ALC/LI	7-7107	Engine Management	589	419MS	7-8084
DMIF Resource/G017 Equip Mgt	1234	ALC/LI	7-9108	Engineering	1246	ALC/LI	7-6196
DMIF Resource/Workloaders	1234	ALC/LI	5-2260	Engineering & Planning	849	ALC/TI	7-4258
DMMIS Project Office	507	ALC/FM	7-7125	Engineering & Technical Branch	849	ALC/TI	7-3285
Doc/Record Processing Function	849	DDOU	7-4932	Engineering Branch	507	ALC/LI	7-3946
Document Processing Team	849	DDOU	7-7470	Engineering Data Management	1288	ALC/TI	7-7714
Documentation Section	590	466FS	7-0051	Engineering Flight	15	649CES	7-2664
Documentation Staging Area	820	649ABG/MS	7-5359	Engineering Studies Section	1283	84RADES	7-3194
Dorm 345 US ARMY,CLSS	345	729ACS	7-0745	Engineering Sub-Unit	225	ALC/LA	7-2042
Dorm 348 Day Room	348	729ACS	7-0745	Engineering/Planning Team	250	DDOU	7-2806
Dorm 349 Manager, 729ACS	349	729ACS	7-0745	Engineering/Technology Dev Br	100	ALC/LI	7-3055
Dorm 357 Manager 649CES	357	649ABG/SV	7-8162	Engines Branch	272	ALC/LA	7-2517
Dorm 358 Manager	358	649ABG/SV	7-9194	Engrg & Planning Structural	238	ALC/LA	7-3397
Dorm 361 RADES,514,EOD	361	649ABG/SV	7-8162	Engrg Div Silo-Based ICBM SPO	1255	ALC/LM	7-1265
Dorm 363 649CCSG, HOSP	363	649MMS	7-0746				

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	
Engrg Services/Mod/Rpr Branch	1258	ALC/LM	7-0912	F-16 Production Unit	225	ALC/LA	7-2489	
Enlisted Chief, Operations Br	1283	84RADES	7-2012	F-16 Program Mgt Div	1223	ALC/LA	7-5873	
Entitlements/Benefits (Civ)	1245	ALC/DP	7-6142	F-16 Rqmts Mechanical/Structure	1212	ALC/LA	7-9340	
Entomology	859	649CES	7-4427	F-16 Scheduling Team	225	ALC/LA	7-2515	
Environmental (LGT)	1253	649ABG/LGT	7-9044	F-16 Sheet Metal Sub-Unit	225	ALC/LA	7-2491	
Environmental Analysis	100	ALC/TI	7-3430	F-16 Special Project Programs	1224	ALC/LA	7-1382	
Environmental Branch	890	DLA/DRMO	7-8028	F-16 SRU-DIG	5	ALC/LA	7-3248	
Environmental Engineer	15	649CES	7-4924	F-16 System Program Management	1223	ALC/LA	7-5644	
Environmental Engineering (EME)	5U	ALC/EM	7-0359	F-16 System Safety	1212	ALC/LA	7-4816	
Environmental Law Branch	1278	ALC/JA	7-7457	F-16 System Support Director	1223	ALC/LA	7-5873	
Environmental Management (EM)	5U	ALC/EM	7-6917	F-16 Technical Coordination Gp	1201	ALC/LA	7-6746	
Environmental Management 388LSS	36	388LSS	5-2980	F-16 Wings (Swing)	238	ALC/LA	7-3784	
Environmental Planning (EMX)	5U	ALC/EM	7-7651	F-16/BI Radar Section	100	ALC/LA	7-2105	
Environmental Public Affairs	5U	ALC/PA	7-0359	F-4 AG/AR Sub-Unit	225	ALC/LA	7-3321	
Environmental Restoration (EMR)	5U	ALC/EM	7-8790	F-4 Flight Safety	100	ALC/LA	7-7345	
Environmental Shop	597	419MS	7-2835	F-4 IM Rqmts A/C Exch Rpr	100	ALC/LA	7-6240	
EPR/Decorations/Awards/TDY	41	388LG	7-6872	F-4 Mechanical Engineering	100	ALC/LA	7-5606	
Equal Opportunity & Treatment	555	ALC/DP	7-3663	F-4 Planning Team	225	ALC/LA	7-3169	
Equipment Checkout	524	649ABG/SV	7-2225	F-4 Production Unit	225	ALC/LA	7-2489	
Equipment Maintenance Unit	10	ALC/TI	7-7686	F-4 Scheduling Team	225	ALC/LA	7-2515	
Equipment Management	1781	649CES	7-4139	F-4 Sheet Metal Sub-Unit	225	ALC/LA	7-3321	
Estimating Branch	1287	ALC/PK	7-1328	F-4 Structural Engineering	100	ALC/LA	7-0535	
ETAP Manager	891	649CCSG	7-5162	F-4 Sys Program Mgt Division	100	ALC/LA	7-6165	
EW	5	388MS	7-3556	F-4 System Engineering Branch	100	ALC/LA	7-5291	
Exam/Inventory (E&I)	225	ALC/LA	7-2775	F-4 Technical Coordination Grou	1201	ALC/LA	7-6175	
Exchangeable Repair	1224	ALC/LA	7-6541	F-4 Technical Data	1222	ALC/LA	7-5131	
Excution/Integration Division	1258	ALC/LM	5-2187	F-4 Weapon System Support Branc	100	ALC/LA	7-5144	
Executive Administration	120	388FW	7-3035	F-4/A-7/A-10/F-16/F-22 UTD Sect	1218	ALC/LI	7-8682	
Executive Assistant ALC	1102	ALC/CC	7-5111	Fabrication Flight	39	388MS	7-6525	
Executive Officer	120	388FW	7-3881	Fabrication Shop	1	514TS	7-3360	
Executive Officer-419FW	593	419FW	7-3615	Facilities & Workloading	849	DDOU	7-4943	
Executive Officer-649 SPTG	180	649ABG/CC	7-3309	Facilities Integration Branch	1530	ALC/LM	7-5431	
Executive Officer-729ACS	1938	729ACS	7-0686	Facilities Support Utilities	1276	299RCS	7-9335	
Exercise Planning & Evaluation	1102	ALC/IG	7-7001	Family Advocacy Office	1295	649MG	7-3497	
Explosive Ordnance Disposal Fl	1781	649CES	7-9048	Family Services	308	649ABG/MS	7-2301	
Exterior Electric	30	649CES	7-3479	Family Support Center	308	649ABG/MS	7-4681	
External Employment Sec (Civ)	1244	ALC/DP	7-3970	Fast Fighter	225	ALC/LA	7-7516	
F				FCF/Weight & Balance	36	388LG	7-2025	
F-100	272	ALC/LA	7-2517	Field Training Detachment	533	125	533FTD	7-2084
F-100 Engine Tracking/CEMB	295	388LSS	7-5050	Fighter Team	1246	ALC/LI	7-4691	
F-111 ACMI, ATF Section	1218	ALC/LI	7-6114	Film Library (Visual Info)	1267	649ABG/MS	7-7140	
F-15 Section	1218	ALC/LI	7-5882	Financial Analysis	120	388FW	7-3328	
F-15/F-16 Analog	5	ALC/LA	7-0017	Financial Counselor	308N	649ABG/MS	7-4682	
F-16 34FS	5	34FS	7-3247	Financial Management	120	388FW	5-2630	
F-16 A/B Program Management	1202	ALC/LA	5-2574	Financial Management	15	649CES	7-3091	
F-16 ACC Liaison Ofc (Avionics)	1212	ACC	7-6711	Financial Management Dir	1209	ALC/FM	7-5076	
F-16 ACC Liaison Office	1212	ACC	7-4816	Financial Services Division	1238	ALC/FM	7-7788	
F-16 Administration	1223	ALC/LA	5-3298	Financial Services Section	1217	ALC/LI	7-2114	
F-16 AG/AR Sub-Unit	225	ALC/LA	7-3729	Fire Chief	9	649CES	7-2817	
F-16 AG/AR Sub-Unit	225	ALC/LA	7-3722	Fire Department Supply	16	649CES	7-0379	
F-16 Avionics Intmed Shop Sec	1231	ALC/TI	7-6040	Fire Protection (Oasis)	40020	649RANS	7-1517	
F-16 Avionics/Software Programs	1213	ALC/LA	7-6636	Fire Protection Engineer	9	649CES	7-2834	
F-16 Budget Funds	1223	ALC/LA	7-4059	Fire Protection Flight	9	649CES	7-3021	
F-16 Computer Inertial System	100	ALC/LA	7-3736	Fire Reporting (Little Mt)	4301	649CES	777-8270	
F-16 Customer Support	1223	ALC/LA	7-4172	Fire Station (Little Mt)	4301	649CES	777-8222	
F-16 Dev Tech Team (DTT)	1264	USAF-AWC	7-3086	Fire Station II	1151	649CES	7-5456	
F-16 Display Indicator	5	ALC/LA	7-4554	Fire Technical Services Section	9	649CES	7-0236	
F-16 DTT	1264	USAF-AWC	7-3086	First Artical Branch	849	ALC/TI	7-6703	
F-16 Engine Tracking, Rcrds Sec	295	388LSS	7-6930	First Artical Team	849	ALC/TI	7-7566	
F-16 HW/SW Support Equip Team	1224	ALC/LA	7-6264	First Security Bank East	442	FSB	773-8000	
F-16 Inventory Managers	1213	ALC/LA	7-6763	First Security Bank West	1235	FSB	773-3872	
F-16 Logistics Support	1223	ALC/LA	7-4172	First Sergeant-299RCS	1276	299RCS	7-9450	
F-16 Middleast Program Mgt	1222	ALC/LA	7-2959	First Sergeant-34FS	5	34FS	7-6635	
F-16 Planning Team	225	ALC/LA	7-3396	First Sergeant-388MS	58	388MS	7-7520	
F-16 Plans & Policy	1223	ALC/LA	7-4756	First Sergeant-388OSS	1295	388OSS	7-3401	
F-16 Production Unit	225	ALC/LA	7-2489	First Sergeant-419CF	513	419CF	7-2303	
				First Sergeant-421FS	5	421FS	7-9896	
				First Sergeant-4FS	119	4FS	7-0981	

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
First Sergeant-514TS	1	514TS	7-3649	Golf Course Halfway House	708	649ABG/SV	7-2090
First Sergeant-545TG	1A	545TG	7-3649	Golf Course Maintenance	710	649ABG/SV	7-3500
First Sergeant-649CCSG	891	649CCSG	7-1940	Golf Course Pro Shop	720	649ABG/SV	7-3272
First Sergeant-649CES	15	649CES	7-2373	Government Drivers Licensing	1138	649ABG/LGT	7-5452
First Sergeant-649CLSS	237	649CLSS	7-2121	Graphics	1267	649ABG/MS	7-5011
First Sergeant-649MMTS	8007D	649MMTS	7-1982	Graphics	1283	84RADES	7-5029
First Sergeant-67APS	841	67APS	7-3386	Grassy Mountain Site	1274	299RCS	7-9322
First Sergeant-729ACS	1938	729ACS	7-7790	Green House Holding Area	916	649CES	7-4545
First Sergeant-84RADES	1283	84RADES	7-5069	Grinding Shop Unit	507	ALC/LI	7-2967
First Sergeant-Det 8	1269	DET 8	7-0579	Ground Mechanical Repair Sectio	847	ALC/LM	7-3910
Fixed Wing Section	1A	514TS	7-3909	Ground Mechanical Systems Branc	1256	ALC/LM	7-6841
Flight Control/Instrument Shop	590	466FS	7-3000	Ground Radio	1938	729ACS	7-0621
Flight Control/Int Avionics	58	388LG	7-3656	Ground Support & Cartridge Team	1247	ALC/LI	7-7804
Flight Kitchen	519	649ABG/SV	7-1010	Ground Support Req Section	1257	ALC/LI	7-7804
Flight Line Barber Shop	45	AAFES	7-0600	Grounds Unit/Tree Farm	916	649CES	7-3997
Flight Management	5	421FS	7-2636	Guidance Branch	1227	ALC/LM	7-4715
Flight Management 4FS	119	4FS	7-3692	Guided Weapons Branch	1257	ALC/LI	7-7679
Flight Management Branch	1	649OSS	7-2944	Guided Weapons/Components Sect	1257	ALC/LI	7-7607
Flight Management-34FS	5	34FS	7-3247	Gun Repair Accessories	509	ALC/LI	7-1717
Flight Records	120	388OSS	7-6994	Gymnasium (HESS Fitness Center)	520	649ABG/SV	7-2761
Flight Safety Office	383	ALC/SE	7-2932				
Flight Service Center	39	388LSS	7-6092	H			
Flight Test Team	2405	649MMTS	7-5605	H-1 Operations Unit	1A	514TS	7-9320
Flight Test Unit	233	ALC/LA	7-3075	H-1 Unit Maintenance Unit-514TS	1	514TS	7-9945
Flower Shop (BX)	430	AAFES	773-2152	HAFB Thrift Shop, Inc	CLFD	CONTRACTOR	774-7408
Flying Safety-388FW	120	388FW	7-2516	Halfway House	708	649ABG/SV	7-2090
Flying Squadron Maint Tool Crib	590	466FS	7-7066	Hardware Tech Team	5	ALC/TI	7-1709
Flying Squadron Superintendent	590	466FS	7-1039	Hazardous Materiels Specialist	9	649CES	7-0236
FMS Direct Site Support Section	1239	DAO-DE HILL	7-4851	Hazardous Waste Control Facilit	5U	ALC/EM	7-3124
FMS Policy & Procedures Office	1209	ALC/FM	7-2320	Hazardous Waste Division (EMH)	5U	ALC/EM	7-2693
FOD Monitor	120	388FW	7-2028	HCCP (Console)	133	649ABG/CP	7-3007
Food Service Branch	332	649ABG/SV	7-3686	Health Benefits Advisor CHAMPUS	570	649MG	7-7036
Foreign Disclosure & Policy Off	1209	ALC/FM	7-6857	Heat & Refer Unit A	21	649CES	7-2012
Forms & Records Team	225	ALC/LA	7-2645	Heat & Refer Unit B	21	649CES	7-2098
Forms Distribution	820	649ABG/MS	7-6849	Heat Ops/Steam Distribution	859	649CES	7-5581
Forms Management	180	649ABG/MS	7-3913	Heavy Crating Subfnction	849	DDOU	7-4587
Forms Management (419FW)	593	419MSSQ	5-2300	Heavy Repair Section	21	649CES	7-3875
Forms/LGOI Monitor	41	388LG	7-6872	Heavy Repair Vertical	20	649CES	7-3875
Francis Peak		299RCS	7-9622	Heritage Program	1955	649ABG/XP	7-6818
Fraud, Waste & Abuse	1102	ALC/IG	7-5305	HESS Athletic Director	520	649ABG/SV	7-9377
Fraud, Waste & Abuse	1102	ALC/IG	7-7000	HESS Fitness Center	520	649ABG/SV	7-2762
Freedom of Information Act Func	180	649ABG/MS	7-3409	HESS Gymnasium	520	649ABG/SV	7-2761
Freight Processing	849	DDOU	7-7460	HESS Intramural Director	520	649ABG/SV	7-7772
Frequency Manager, Base/Range	891	DISO	7-8364	Hill AFB Museum	1955	649ABG/XP	7-8623
Fuel System Shop	576	419MS	7-2853	Hill AFB Museum	1955	649ABG/XP	7-6818
Fuel Systems Maintenance	43	388MS	7-2208	Hill Consolidated Command Post	133	649ABG/CP	7-3007
Fuel Systems Shop	237	649CLSS	7-1242	Hill Field Elementary School	CLFD	CONTRACTOR	774-7408
Fuel Tank Repair Section	265	ALC/LI	7-3351	Hill Resident COE	366	CESPK-UR	7-2206
Fuel Unit	206	514TS	7-2631	Hill Rod & Gun Club	1506	649ABG/SV	7-6767
Fuels 388MS	43	388MS	7-2208	Hill TV Production Center	1269	DET 8	7-4955
Funds Management	849	ALC/TI	7-6428	Hillcrest Dining Hall	519	649ABG/SV	7-3428
Furnishings Warehouse	5	649CES	7-3373	Hillhaus	460	649ABG/SV	621-2202
Future Ops Scheduling	1276	501RS	7-9385	Hillhaus (Reservations)	460	649ABG/SV	7-3525
FX2027 SRAN	1232	ALC/QL	7-6371	Hilltop Times	1102	ALC/PA	7-4598
G				Historian Office 419FW	593	419FW	7-2214
Garbage (Housing large items)	15	649CES	7-1218	History Office 388FW	120	388FW	7-2920
Garbage Pick-Up U.S. Eagle Inc	1218	649CES	7-3477	Hobby Shop-Auto	534	649ABG/SV	7-3476
Gas Station	454	AAFES	773-3600	Hobby Shop-Wood	534	649ABG/SV	7-2649
Gen Purp Equip Rpr Controller	1253	649ABG/LGT	7-4140	Holding/Receiving/Residual	820	649CES	7-4914
Gen Purpose Equip Repair	1253	649ABG/LGT	7-7567	Honor Guard	351	649ABG/SV	7-3967
General Law Division	1278	ALC/JA	7-4886	Hosp Administrative Services	570	649MG	7-5426
General Manager (Exchange)	146	AAFES	776-0277	Hosp Administrator	570	649MG	7-5458
German AF Liaison Office	1201	ALC/LA	7-5743	Hosp Admissions & Dispositions	570	649MG	7-7037
Gerrity Memorial Library	440	649ABG/SV	7-2533	Hosp Aero Medical Services	569	649MG	7-7932
Girl Scout Hut	629	649ABG/SV	7-2520	Hosp Air Medical Evacuation	570	649MG	7-7906
Golf Course	720	649ABG/SV	7-3272	Hosp Appointments (Active Duty)	570	649MG	7-4061
				Hosp Appointments (Central)	570	649MG	7-1847

CLASSIFIED LISTING SECTION

ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Hosp Appointments (Off Base)	570	649MG	776-0093	Housing Assistance Section	180	649CES	7-2963
Hosp Appointments (Off Base)	570	649MG	776-0098	Housing Facilities Section	180	649CES	7-2963
Hosp Appt Cancellation 24 Hrs	570	649MG	7-7337	Housing Flight	180	649CES	7-2963
Hosp Base Dental Surgeon (OIC)	570	649MG	7-5815	Housing Maintenance	3303	649CES	7-6230
Hosp Bioenvironmental Section	249	649MG	7-8148	Housing Management Branch	180	649CES	7-2963
Hosp Central Supply	570	649MG	7-4538	Housing Office	180	649CES	7-2963
Hosp CHAMPUS Advisor	570	649MG	7-7036	Housing Referral Office	180	649CES	7-1840
Hosp Chief Admin Support Branch	570	649MG	7-4052	Hq AFMC Contracting Lab	1289	ALC/PK	7-9011
Hosp Chief Nurse	570	649MG	7-5429	Human Relations/Social Actions	555	ALC/DP	7-3680
Hosp Chief, Bio Engr Services	249	649MG	7-4543	Human Resources Support Div	891	DISO	7-2935
Hosp Chief, Clinical Support	570	649MG	7-5504	Human Resources	15	649CES	7-3581
Hosp Commander	570	649MG	7-5457	Human Resources Branch	100F	ALC/LA	7-3515
Hosp Dental Appointments	570	649MG	7-1846	Human Resources Section	1234	ALC/LI	5-2259
Hosp Dental Supply	570	649MG	7-8475	HVAC Engineer	15	649CES	7-3061
Hosp Dietician	570	649MG	7-4534	Hydro-Static	257	ALC/LA	7-2753
Hosp Dir of Ambulatory Services	570	649MG	7-6607				
Hosp Director Base Medical Serv	570	649MG	7-5457	I			
Hosp Ear Nose & Throat Clinic	570	649MG	7-6210	ICBM Contracting Division	1258	ALC/LM	7-4106
Hosp Educational Coordinator	570	649MG	7-6217	ICBM Product Directorate	1258	ALC/LM	7-0128
Hosp Emergency Room	570	649MG	7-5285	ICBM Propulsion	1228	ALC/LM	5-2149
Hosp Environmental Health	249	649MG	7-1166	ICBM Spares Contract Admn	1258	ALC/LM	7-0128
Hosp Epidemiology	570	649MG	7-7330	ICP Liaison Office	1238	ALC/FM	7-7094
Hosp Facility Manager	570	649MG	7-4530	Identification Cards-Military	180	649SPS	7-2863
Hosp First Sergeant	570	649MG	7-6205	IMA Administration Team	180	ALC/CC	7-3502
Hosp Flight Medicine	569	649MG	7-7932	Imaging/Processing Repair Sec	100A	ALC/LI	7-2530
Hosp Food Service	570	649MG	7-4536	Imaging/Processing Rqmts Branch	1226	ALC/LI	7-4824
Hosp Health Promotion Office	1295	649MG	7-1215	Incoming Team	287	ALC/LA	7-3161
Hosp Hearing Clinic	249	649MG	7-1069	Individual Equipment	830-5A	649ABG/LGS	7-3110
Hosp Housekeeping Section	570	649MG	7-6204	Indonesian AF Liaison Office	1201	ALC/LA	7-2227
Hosp Immunizations	570	649MG	7-5209	Industrial Waste Treatment Plan	575	649CES	7-3189
Hosp Information - Duty Hours	570	649MG	7-7037	Information & Computer Mgmt	15	649CES	7-2270
Hosp Internal Medicine	570	649MG	5-4513	Information Center	891	649CCSG	7-7101
Hosp Laboratory Services	570	649MG	7-5130	Information Management	1269	DET 8	7-4955
Hosp Library	570	649MG	7-5449	Information Management	180	649ABG/MS	7-2191
Hosp Medical Maintenance	570	649MG	7-7204	Information Management-388MTF	125	388MTF	7-0763
Hosp Medical Supply	570	649MG	7-4501	Information Management-419FW	593	419MSSQ	7-2538
Hosp Mental Health Clinic	1295	649MG	7-7909	Information Mangement Team	1622	649MMTS	7-7805
Hosp Multi Service Unit	570	649MG	7-6905	Information Mgt 419FW	593	419MSSQ	7-3310
Hosp OB/GYN Clinic	570	649MG	7-7776	Inside Plant	1214	649CCSG	7-6969
Hosp Obstetrical Nursing Unit	570	649MG	7-6932	Inside Plant Chief	1214	649CCSG	7-8590
Hosp Occupational Health Educ	249	649MG	7-1170	Inspection Flight	25	421FS	7-4779
Hosp Optometry Services	570	649MG	7-4832	Inspection Flight 4FS	45	4FS	7-3805
Hosp Orderly Room	570	649MG	7-6205	Inspection Section	590	466FS	7-2267
Hosp Orthopedic Clinic	570	649MG	7-3016	Inspection Support	120	388OSS	7-3165
Hosp Outpatient Records	570	649MG	7-6207	Inspection Team	2148	649MMTS	7-5466
Hosp Patient Administration	570	649MG	7-7906	Inspector General	1102	ALC/IG	7-5305
Hosp Pediatrics Clinic	570	649MG	7-6214	Installation Restoration Prgm	5U	ALC/EM	7-8790
Hosp Personnel & Admin Svc	570	649MG	7-5426	Installation Support Team	265	ALC/TI	7-3575
Hosp Pharmacy Services	570	649MG	7-5463	Instructors	125	533FTD	7-2084
Hosp Physical Examination	569	649MG	7-7934	Instrument Photo Avionics Sec	100	ALC/TI	7-7531
Hosp Physical Therapy	570	649MG	7-5401	Instruments Repair Section	214	ALC/LI	7-3912
Hosp Plant Management	570	649MG	7-4530	Insurance, Health & Life (Civ)	1245	ALC/DP	7-8477
Hosp Primary Care/Family Pract	570	649MG	7-6606	Integration Branch	507	ALC/LI	7-3241
Hosp Quality Assurance	570	649MG	7-1004	Integration Facility	1203	ALC/LM	7-7123
Hosp Radiology Department	570	649MG	7-5424	Integration Facility	1538	ALC/LM	7-6436
Hosp Readiness Center	1295	649MG	7-3860	Intelligence 421FS	5	421FS	7-2709
Hosp Records	570	649MG	7-6207	Intelligence 466FS	593	466FS	7-3395
Hosp Records (Inpatient Only)	570	649MG	7-7904	Intelligence 4FS	119	4FS	7-3737
Hosp Resource Management	570	649MG	7-5406	Intelligence Admin/NCOIC-388FW	120	388OSS	7-2993
Hosp Services	570	649MG	7-4553	Intelligence Flight	120	388OSS	7-2993
Hosp Squadron Commander	570	649MG	7-6205	Intelligence Section 419FW	593	419FW	7-3395
Hosp Superintendent	570	649MG	7-5440	Intelligence Support	120	388OSS	7-2991
Hosp Supt Dental Services	570	649MG	7-5816	Interactive Video Design/Dev	1269	DET 8	7-0713
Hosp Surgical Clinic	570	649MG	7-6721	Interface Engineering	1276	299RCS	7-9334
Hosp Surgical Suite	570	649MG	7-6223	Internal Plans & Programs	1102	ALC/PA	7-4438
Hosp X-Ray	570	649MG	7-5424	International Division	1201	ALC/LA	7-6674
Household Goods (Inbound TMO)	180	649ABG/LGT	7-1848	International Programs Branch	1247	ALC/LI	7-5120
Household Goods (Outbound TMO)	180	649ABG/LGT	7-1849				

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Intramural Sports Director	520	649ABG/SV	7-7772	Little Mt Msl Test Equip	4301	ALC/II	777-8261
Investigative Resident Agency	1219	DIS	7-1024	Little Mt Test Annex Civ Engrs	1205	649CES	777-8225
Israel Liaison Office	1201	ALC/LA	7-7360	Little Mt Test Annex Fire Stn	4301	649CES	777-8222
Item Management Section	1216	ALC/LI	7-7278	LM Production Mgt System Office	5	ALC/FM	7-6653
J				LMCA	1285	545TG	7-5391
J-79	272	ALC/LA	7-2517	Loading Standardization Crew	590	466FS	7-9240
JEIM	295	388MS	7-5106	Local Purchase (Country Store)	830-5A	649ABG/LGS	7-3103
Job Control	1938	729ACS	7-0676	Locator	891	649CCSG	7-1841
Job Control 514TS	1	514TS	7-2554	Lock Smith (Civil Engineer)	20	649CES	7-2454
Judge Advocate	1278	ALC/JA	7-6625	Lodging Front Desk	146	649ABG/SV	7-2601
K				Lodging Front Desk	146	649ABG/SV	7-1844
K-9 (SPS)	1780	649SPS	7-6665	Lodging Mgr	146	649ABG/SV	7-3999
Korean Liaison Office	1201	ALC/LA	7-7724	Lodging Reception Desk	146	649ABG/SV	7-1844
L				Lodging Reservations	146	649ABG/SV	7-0802
LA Directorate Business Office	100	ALC/LA	7-2766	Log Cabin	804	649ABG/SV	7-9132
LA Directorate Business Office	100	ALC/LA	7-8080	Logistics	1276	299RCS	7-9329
LA Production Mgt System Ofc	225	ALC/FM	7-4988	Logistics & Financial Mgt Tng	1231	ALC/FM	7-7395
Labor Law Branch	1278	ALC/JA	7-7455	Logistics Gp/Resource Advisor	41	388LSS	7-2628
Labor Relations Office	849	ALC/II	7-5253	Logistics Group Administration	590	419LG	7-0044
Labor Relations Sec (Civilian)	1245	ALC/DP	7-7128	Logistics Group Commander	41	388LG	7-2736
Labor Reln Empl Mgt Br (Civ)	1245	ALC/DP	7-7128	Logistics Group Commander-419LG	590	419LG	7-2266
Labor Union Local 1592	179	AFGE	7-3257	Logistics Group Deputy Commande	41	388LG	7-3130
Land Mobile Radio	891	649CCSG	7-2015	Logistics Group Personnel Mgr	36	388LSS	7-2412
Landing Gear Division	507	ALC/LI	7-4566	Logistics Maintenance Supers	590	419LSSQ	7-0040
Landing Gear Whls, Brks Section	507	ALC/LI	7-2797	Logistics Plans	1938	729ACS	7-0643
Lantirn/Sensor	35	388MS	5-2020	Logistics Plans Flight-388LSS	120	388LSS	7-2323
Laundry/Dry Cleaning	332	AAFES	773-3823	Logistics Resource Center	590	419LSSQ	7-2559
Law Center	1278	ALC/JA	7-6756	Logistics Section CES	820	649CES	7-1650
Ldg Gear Plating Aircraft X-Ray	507	ALC/II	7-3893	Logistics Support	1216	ALC/LI	7-7278
Learning Center	849	ALC/II	7-8341	Logistics Support Team	100F	ALC/LA	7-7104
Learning Center	225	ALC/II	5-3364	M			
Learning Center-SC	891	DISO	7-0398	Machine Shop	590	419MS	7-7674
Legal Assistance Branch	1278	ALC/JA	7-6625	Machine Shop Unit	507	ALC/LI	7-2968
Legal Office	1278	ALC/JA	7-6756	MAGIC	849	649CCSG	7-4795
Legal Office NCOIC (419FW)	593	419FW	7-5242	Mail Delivery	820	649ABG/MS	7-2855
Leisure Travel	460	ALC/II	7-1322	Mail Room (Pubs/Forms)	15	649CES	7-2359
LG Administration	41	388LG	7-6872	Maint Flight	25	388MS	7-2938
LG Administration	1938	729ACS	7-7757	Maint Plans & Scheduling 4FS	45	4FS	7-3164
LI Business & Development Ofc	1234	ALC/LI	5-3320	Maint Supply Liaison	36	388LSS	7-3155
LI Control Center	1225	ALC/LI	7-7753	Maintenance	54	388MS	7-3828
LI Production Mgt System Ofc	507	ALC/FM	7-7095	Maintenance Branch	843	ALC/LM	7-3911
LI Safety Office	507	ALC/LI	7-3596	Maintenance Control Liaison	1276	299RCS	7-9319
Liaison Office-Belgium	1224	ALC/LA	7-5647	Maintenance Control Section	1	514TS	7-0750
Liaison Office-Denmark	1224	ALC/LA	7-5981	Maintenance Cost Acct Team	1239	DAO-DE HILL	7-2860
Liaison Office-Netherlands	1224	ALC/LA	7-7741	Maintenance Engineer	15	649CES	7-3081
Liaison Office-Norwegian	1224	ALC/LA	7-5159	Maintenance Engineering	15	649CES	7-2098
Liaison Officer/DLA	1209	DLA-FMM	7-6654	Maintenance Officer	5	421FS	7-2636
Library Films	1267	649ABG/MS	7-7140	Maintenance Officer 4FS	45	4FS	7-3001
Library Master Publications	180	649ABG/MS	7-3586	Maintenance Operations Center	36	388OSS	7-2536
Library/Base	440	649ABG/SV	7-3833	Maintenance Operations Center	36	388OSS	7-2546
Library/Vault	1283	84RADES	7-5079	Maintenance Operations Flight	36	388OSS	7-2536
Life Support 34FS	5	34FS	7-3838	Maintenance Operations Flight	36	388OSS	7-3223
Life Support 421FS	5	421FS	7-2363	Maintenance Ops Flight Cmdr	36	388LSS	7-9476
Life Support 4FS	119	4FS	7-0976	Maintenance Production Officer	45	421FS	7-1128
Life Support Branch	120	388OSS	7-2354	Maintenance Sq Superintendent	597	419MS	7-2020
Life Support Section 466FS	593	466FS	7-3535	Maintenance Super	58	388MS	7-6735
Light Aircraft Operations Unit	1A	514TS	7-3378	Maintenance Superintendent	237	649CLSS	7-3028
Linen Exchange	332	649ABG/SV	7-3196	Maintenance Superintendent	41	388LG	7-3130
Liquid Fuel Unit	860	649CES	7-9576	Maintenance Superintendent	45	421FS	7-1128
Liquid Rocket System	2016	ALC/LM	7-7440	Maintenance Superintendent	1276	299RCS	7-9326
LITTLE MOUNTAIN ZONE	LT MOUN	649CES	777-8225	Maintenance Superintendent 4FS	119	4FS	7-2011
Little Mt Annex Operations	1205	ALC/LM	777-8224	Maintenance Supervision	800	649MMTS	7-1982
				Maintenance Support	891	649CCSG	7-2230
				Maintenance Support Branch	1276	299RCS	7-9334
				Maintenance Support Officer	45	421FS	7-1128
				Maintenance Team	2214	649MMTS	7-5847

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Maintenance Training	590	419LSSQ	7-0781	Military Retiree Acty Desk	308N	649ABG/CC	7-5735
Maintenance Training	45	421FS	7-3852	Military Support Flight	180	649ABG/SV	7-9954
Maintenance-DET 8	1269	DET 8	7-0151	Millwright Support Team	265	ALC/TI	7-6570
Management Advisor	1289	ALC/CR	7-7594	Miscellaneous	238	ALC/LA	7-2725
Management Info Team	100F	ALC/LA	5-3128	Missile	1258	ALC/PK	5-2264
Management Information Section	1	514TS	7-2428	Missile Cable Shop	1208	ALC/LM	7-4004
Management Operations	1258	ALC/LM	5-2863	Missile Handling	843	ALC/LM	7-6574
Management Services	1289	ALC/PK	7-6720	Missile Industrial Operational	843	ALC/LM	7-1975
Management Services Division	1209	ALC/FM	7-5182	Missile Launchers Rpr Section	509	ALC/LI	7-9513
Management Services Division	1258	ALC/LM	7-1980	Missile Maintenance	970	ALC/LM	7-2356
Manning/Self Insp	58	388MS	7-5433	Missile Sys Software Dev Sec	1530	ALC/TI	7-5677
Manpower	849	ALC/TI	7-5157	Missile Sys/E35/ATE Software Sp	11	ALC/TI	5-2032
Manpower & Organization Branch	1254	ALC/MO	7-5264	Missile Test Equip East Sec	100K	ALC/TI	5-2082
Manpower Office	120	388FW	7-3989	Missile Test Equip PME Room Sec	100	ALC/TI	7-2447
Marketing Office	1209	ALC/FM	7-5851	Missile Test Equip West Sec	1530	ALC/TI	7-5685
Mat Handling Equip Repair Con	1243	649ABG/LGT	7-9162	Missiles Section	1247	ALC/LI	7-7679
Materiel Analysis Section	100	ALC/TI	7-2874	Missiles Systems Software Dev B	100	ALC/TI	7-9683
Materiel Branch	1239	DAO-DE HILL	7-7445	Mission Briefing	1276	299RCS	7-7575
Materiel Control (LGT)	1243	649ABG/LGT	7-6940	Mission Briefing	1276	299RCS	7-4930
Materiel Control-388LSS	36	388LSS	7-3155	Mission Support System Branch	1218	ALC/LI	7-7587
Materiel Control-514TS	1	514TS	7-3294	Mobile Food Trucks	230	649ABG/SV	7-2043
Materiel Control-CLSS	237	649CLSS	7-2539	Mobility 4FS	45	4FS	7-4204
Materiel Control-DET 8	1269	DET 8	7-0161	Mobility Liaison	120	388OSS	7-3604
Materiel Control-SC	891	649CCSG	7-1415	Mobility NCO	45	421FS	7-3662
Materiel Handling Equip Repair	1243	649ABG/LGT	7-5316	Mobility Officer	45	421FS	7-3262
Materiel Processing Unit	849	DDOU	7-4581	Mobility Operations	830	DDOU	7-6335
Materiel Resource Team	265	DDOU	7-8010	Mobility Operations (LGT)	830-5A	649ABG/XP	7-6335
Materiel Storage	849	DDOU	7-7008	Mobility Planning & Evaluation	1102	ALC/IG	7-8626
Materiel Support Branch	1217	ALC/LI	7-4601	Mobility Training 388LSS	120	388LSS	7-2323
Materials Science Lab Team	100E	ALC/TI	7-2874	Mobility-388MS	58	388MS	7-7577
Maverick Missile Guidance	5	ALC/LI	7-2213	Mobility/Plans 421Fs	5	421FS	7-3613
MCP Project Unit A	15	649CES	7-2089	MOCC 388 Job Control	36	388OSS	7-3795
Mechanical Engineer	15	649CES	7-3062	MOCC 388 Maint Ops Ctrl Ctr	36	388OSS	7-3793
Mechanical Support Team	274	ALC/TI	7-3990	Mod/Kit Management Team	1224	ALC/LA	7-6051
Mechanical Team	1212	ALC/LA	7-6711	Modification Software Mgt Team	1224	ALC/LA	7-6051
MEDEVAC Air Medical Evacuation	570	649MG	7-7906	Mortuary Affairs	180	649ABG/SV	7-9982
Media Relations	1102	ALC/PA	7-4435	Motor Pool	1138	649ABG/LGT	7-1843
Medical Food Inspection	400	649MG	7-7817	MPF Career Advisor	180	ALC/DP	7-3571
Medical Section 419FW	568	419MEDS	7-2622	MPF Chief	180	ALC/DP	7-3205
Message Distribution Center	891	DISO	7-1863	MPF NCOIC	180	ALC/DP	7-3612
Metal Fabrication	30	649CES	7-3209	MSL	45	421FS	7-3129
Metal Process Section	505	ALC/LI	7-0203	Msl X-Ray Comp Tomography Sec	2113	ALC/TI	7-6080
Metal Tech	39	388MS	7-2370	Msle Ground Electronics Rpr Sec	100	ALC/LM	7-3750
Metals Processing Unit	507	ALC/LI	7-2137	Multi National Force Program	1224	ALC/LA	7-8102
MFG/Reconditioning Spt Team	265	ALC/TI	7-2334	Munitions Acct & Inv Sub-Unit	800D	649MMTS	7-2911
MGG/MOQ/MQW/MWW DMSC Sub-Unit	1621	649ABG/LGS	7-5022	Munitions Control CAS B Team	800	649MMTS	7-0996
Mil Customer Service	180	ALC/DP	7-1845	Munitions Flight	58	388MS	7-7606
Mil Employment	180	ALC/DP	7-3498	Munitions Handling Team	1627	649MMTS	7-0997
Mil Evaluations	180	ALC/DP	7-1705	Munitions Maint Flight Chief	597	419MS	7-2648
Mil Information Mgt (MPF)	180	ALC/DP	7-2612	Munitions Processing Sub-Unit	1377	649MMTS	7-5770
Mil Outbound Assignments	180	ALC/DP	7-3171	Munitions Spt Unit/649MMTS	800	649MMTS	7-6680
Mil Personal Affairs Team	180	ALC/DP	7-2104	Munitions Storage Sub-Unit	1627	649MMTS	7-5444
Mil Personnel Programs	180	ALC/DP	7-3138	Museum	1955	649ABG/XP	7-8623
Mil Personnel Readiness	180	ALC/DP	7-3498				
Mil Personnel Systems Managemen	180	ALC/DP	7-3131	N			
Mil Personnel Utilization	180	ALC/DP	7-0387	NAF Accounting	180	649ABG/SV	7-3046
Mil Promotions	180	ALC/DP	7-2916	NAF Human Resources Office	180	649ABG/SV	7-2791
Mil Seperations/Retirements	180	ALC/DP	7-2854	NAF Oversight	180	649ABG/SV	7-2333
Mil Special Actions	180	ALC/DP	7-2916	NAF Procurement	180	649ABG/SV	7-3404
Mil/Civ Equipment Checkout	402	649ABG/SV	7-2225	Naval Air Systems Command Det	1226	NAVY	7-2543
Military Clothing Sales Store	332	AAFES	7-3914	Navigational Systems	100	ALC/LA	7-3736
Military Justice Branch	1278	ALC/JA	7-7441	NCO Club Barber Shop	450	649ABG/SV	774-0061
Military Locator	891	649CCSG	7-1841	NCO Open Mess	450	649ABG/SV	773-3166
Military Newcomers Receipt Ctr	146	649ABG/SV	7-2601	NCO Swimming Pool	462	649ABG/SV	7-6010
Military Newcomers Receipt Ctr	146	649ABG/SV	7-1844	NCOIC 419FW	593	419MSSQ	7-3310
Military Pay Branch	1238	ALC/FM	7-1851	NCOIC Base Comm Center	891	DISO	7-3675
Military Personnel Div	180	ALC/DP	7-3205	NCOIC Chapel	445	ALC/HC	7-1725
Military Retiree Activities Off	308N	649ABG/MS	7-5735				

CLASSIFIED LISTING SECTION

ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
NCU Repair	100	ALC/LM	7-2732	OJT Section 419FW	593	419MSSQ	7-2256
NDI	39	388MS	7-2832	OL-HD Missile Trainer Program	1218	AFSC	5-2908
Netherlands Liaison Office	1224	ALC/LA	7-7741	On-the-Job Training 299RCS	1276	299RCS	7-9562
Network Control Center	891	DISO	7-3282	OO-ALC Bulletin	180	649ABG/MS	7-3913
Network Control Center Team	891	DISO	7-0229	Op Fligh Prgm Test Stand Dev	1515	ALC/TI	7-0344
Network Systems Flight	891	649CCSG	7-2946	Operational Contracting Div	1289	ALC/PK	7-7517
Neural Eng Research & Dev Sec	100	ALC/TI	7-8775	Operational Flight Prgm Dev Br	1515	ALC/TI	7-0513
Non Term Storage	180	ALC/TI	7-6462	Operational Flight Program	1515	ALC/TI	5-2820
Nonappropriated Funds Team	180	649ABG/SV	7-2791	Operational Flight Program Br	1515	ALC/TI	7-0513
Nondestructive Insp Test Branch	507	ALC/TI	7-1718	Operational Flight Program Sec	1515	ALC/TI	7-0348
Nonpowered Sup Equip AGE Flight	592	419MS	7-1931	Operational Flight Program Team	1515	ALC/TI	7-0327
Norwegian Liaison Office	1224	ALC/LA	7-5159	Operational Flight Support Unit	1515	ALC/TI	7-7518
Nuclear Certification	1213	ALC/LA	5-2622	Operational Ground Elec Rpr Sec	100	ALC/LM	7-3267
				Operational Ground Elec Unit	830	ALC/LM	5-2248
O				Operational Support	1289	ALC/PK	7-2002
O&M Eng/Planning Coordinator	849	ALC/TI	7-4294	Operations	1A	514TS	7-2494
O&M Project Unit A	15	649CES	7-0983	Operations (Sched Recording)	5	34FS	7-3107
O&M Project Unit B	15	649CES	7-3082	Operations Administration	1283	84RADES	7-2448
O&M/DMIF Project Section	15	649CES	7-4177	Operations Administration	1938	729ACS	7-0647
O&M/MCP Projects Section	15	649CES	7-3595	Operations Assistant (DPG)	40085	501RS	522-5343
Oasis Billeting	40020	649RANS	7-1553	Operations Branch	1234	ALC/LI	7-8343
Oasis Building Maintenance	40033	649RANS	7-1554	Operations Branch (SPS)	1219	649SPS	7-5531
Oasis BX	40080	AAFES	7-1538	Operations Branch-514TS	1A	514TS	7-3909
Oasis CE Operations	40030	649RANS	7-1546	Operations Desk 421FS	5	421FS	7-2636
Oasis CE Shops	40033	649RANS	7-1554	Operations Division	891	DISO	7-2660
Oasis CE Supply	40011	649RANS	7-1548	Operations Officer	593	466FS	7-3505
Oasis Civil Engineering Branch	40030	649RANS	7-1545	Operations Officer 388OSS	120	388OSS	7-2247
Oasis Commander	40020	649RANS	7-1550	Operations Officer 421FS	5	421FS	7-2636
Oasis Dining Hall	40020	649RANS	7-1528	Operations Officer 4FS	119	4FS	7-0970
Oasis Electric Shop	40033	649RANS	7-1554	Operations Plans	120	388OSS	7-3831
Oasis Fire Department	40020	649RANS	7-1555	Operations Plans 388OSS	120	388OSS	7-3511
Oasis Fuels	40020	649RANS	7-1564	Operations Plans Team	1102	ALC/FM	7-5218
Oasis Heat/Refrigeration	40033	649RANS	7-1554	Operations Section Fire Station	9	649CES	7-3021
Oasis Lounge (UTTR)	40055	649ABG/SV	7-1573	Ops Officer	593	419FW	5-2604
Oasis Medical Aid Station	40020	649RANS	7-1525	Optical Shop	430	AAFES	776-3368
Oasis NCO Club Annex (UTTR)	40055	649ABG/SV	7-1540	Orderly Room (Hospital)	570	649MG	7-6205
Oasis Ops/Executive Officer	40020	649RANS	7-1578	Orderly Room (HQ SQ 649 SPTG/CC)	180	649ABG/CC	7-2456
Oasis Orderly Room	40020	649RANS	7-1526	Orderly Room 34FS	5	34FS	7-3106
Oasis Police	40020	649RANS	7-1524	Orderly Room 388MS	58	388MS	7-7520
Oasis Police	40020	649RANS	7-1522	Orderly Room 388OSS	120	388OSS	7-3148
Oasis Resources Office	40030	649RANS	7-1579	Orderly Room 4FS	45	4FS	7-9895
Oasis Safety	40020	649RANS	7-1581	Orderly Room 649CCSG	891	649CCSG	7-2131
Oasis Security	40020	649RANS	7-1522	Orderly Room 649CES	15	649CES	7-2373
Oasis Services	40020	649RANS	7-1553	Orderly Room 649CLSS	237	649CLSS	7-2123
Oasis Supply	40020	649RANS	7-1533	Orderly Room 649MMTS	800	649MMTS	7-3236
Oasis Support Sq Commander	40020	649RANS	7-1550	Orderly Room 649RANS	40020	649RANS	7-1526
Oasis Vehicle Control Officer	40020	649RANS	7-1614	Orderly Room 649SPS	1219	649SPS	7-5533
Oasis Vehicle Maintenance	40065	649RANS	7-1561	Orderly Room 729ACS	1938	729ACS	7-5008
Oasis Water Treatment Plant	40010	649RANS	7-1543	Orderly Room 84RADES	1283	84RADES	7-3711
Observer	1	649OSS	7-2063	Orders Management 419FW	593	419MSSQ	5-2602
Occupational Med Appointments	249	649MG	7-1159	Organic DMIF Budget Branch	1209	ALC/FM	7-7896
Occupational Medicine Admin	249	649MG	7-1152	Organizational Maintenance Sec	1	514TS	7-9063
Occupational Safety Branch	383	ALC/SE	7-3333	Orthopedic Clinic	570	649MG	7-3016
Off-Base Packing Subfunction	849	DDOU	7-4993	OSI/Det 113	1219	AFOSI	7-1852
Office Of Competition Advocacy	1289	ALC/CR	7-7594	Outdoor Firing Range	743	649SPS	7-2754
Office of History	1295	ALC/HO	7-4006	Outdoor Recreation	402	649ABG/SV	7-2225
Office of History (STU III)	1295	ALC/HO	7-9009	Outside Plant/Chief	891	649CCSG	7-9052
Office of Special Investigation	1219	AFOSI	7-1852	Overseas Liaison	238	ALC/LA	7-9988
Office Vision	891	649CCSG	7-2160				
Officers Barber Shop	150	649ABG/SV	7-2523	P			
Officers Club	150	649ABG/SV	7-2809	P A Systems	891	649CCSG	7-2669
Officers Open Mess	150	649ABG/SV	773-4924	P C Technical Support	849	649CCSG	7-5252
OPF Support Section	1515	ALC/TI	7-7518	P C Technical Support	891	649CCSG	7-1635
OGDEN ALC COMMANDER	1102	ALC/CC	7-5111	PACER Intergrate/Aircraft	5	DDOU	7-2108
Ogden ALC Executive Assistant	1102	ALC/CC	7-5111	Paint & Sign	12	649CES	7-2097
Ogden ALC Sr Enlisted Advisor	1102	ALC/CC	7-5567	Paint Team	220	ALC/LA	7-2666
Ogden ALC Vice Commander	1102	ALC/CC	7-5111	Paint/Bead Blast	266	ALC/LA	7-3552

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ALPHABETICAL LISTING				ALPHABETICAL LISTING			
	BLDG	ORGANIZATION	EXTENSION		BLDG	ORGANIZATION	EXTENSION
Paint/Bead Blast	238	ALC/LA	5-3411	Power Production	1276	299RCS	7-9335
Paper Recycle (Pickup)	1248	649ABG/SV	7-9007	Power Support Equip-AGE-Supvr	592	419MS	7-1932
PAR	10	649OSS	5-3016	PRAM/RAMTIP Office	849	ALC/RA	7-2307
Parachute/Textile Sec	5F	ALC/TI	7-2571	Prep & Paint Sub-Unit	220	ALC/LA	7-3175
Park College	383	ALC/DP	7-9992	Prep for Flight Sub-Unit	233	ALC/LA	7-3075
Pass & Identification	1219	649SPS	7-1853	Preservation & Packaging	849	DDOU	7-4022
Pass & Registration	1219	649SPS	7-1853	Preservation Subfunction	849	DDOU	7-7858
Passenger Travel Office	1238	649ABG/LGT	7-4247	Pricing Support	1289	ALC/PK	7-6991
Pavements & Equipment	916	649CES	7-2929	Prime BEEF Equipment & Supplies	30	649CES	7-4909
Paying & Collecting Branch	1238	DAO-DE HILL	7-7876	Prime BEEF Manager	30	649CES	7-4909
Payroll/Civilian	1238	DAO-DE HILL	7-6246	Prime BEEF NCO	30	649CES	7-4909
Peacekeeper Test	1530	ALC/LM	7-5678	Prime RIBS Mobility NCOIC	180	649ABG/SV	7-9982
Pers Sys Mgr 419FW	593	419MSSQ	7-2842	Printing	1229	PS	7-7707
Pers Utilization 419FW	593	419MSSQ	7-3314	Printing (Screen)	1229	PS	5-3219
Personnel Data Sys Branch (Civ)	1245	ALC/DP	7-7309	Printing Management Branch	1229	PS	7-7629
Personnel Directorate	1245	ALC/DP	7-6149	Printing Scheduling	1229	PS	7-6794
Personnel Records 419th Reserve	593	419MSSQ	7-0024	Privacy Act Information	180	649ABG/MS	7-3296
Personnel Support (PK ONLY)	1289	ALC/PK	7-7323	Procedures/Standards	1283	84RADES	7-5028
Personnel-Base Exchange	146	AAFES	776-4163	Process Engineering Section	507	ALC/LI	7-3357
Pest Control	859	649CES	7-4427	Process/Warehouse Support	849	DDOU	7-7047
Pharmacy	570	649MG	7-5463	Processor Pneumatic	100	ALC/LA	7-0701
Phase Dock	25	388MS	7-3844	Producer/Directors	1269	DET 8	7-7505
PHOENIX	249	649MG	7-4769	Product Distribution	891	DISO	7-1800
Photo Optics North (Oasis)	40048	501RS	7-1556	Product Engineering Section	1217	ALC/LI	7-4050
Photo Optics South (DPG)	40085	501RS	522-5122	Product Management Section	1216	ALC/LI	7-4196
Photographic Laboratory	1267	649ABG/MS	7-7615	Product Support Section	1217	ALC/LI	7-4602
Physiological Tnr Repair Sectio	5B	ALC/LI	7-5294	Product Support/Budget Rqmts Br	1226	ALC/LI	5-2267
Placement Support (Civ)	1244	ALC/DP	7-5506	Production	5	ALC/LI	7-8048
Planning & Scheduling Section	100	ALC/LI	7-3981	Production Analysis	120	388OSS	7-2521
Planning Section	507	ALC/LI	7-3255	Production Analysis Section	590	419LSSQ	7-2980
Planning Unit	15	649CES	7-3096	Production Branch	507	ALC/LI	7-2597
Plans & Force Management Flight	180	649ABG/SV	7-9982	Production Data Mgt Team	891	DISO	7-3637
Plans & Programs 649CLSS	237	649CLSS	7-8019	Production Mgt Control Team	891	DISO	7-3637
Plans & Programs SPS	1219	649SPS	7-5531	Production Superintendent	45	421FS	7-1128
Plans & Programs-299RCS	1276	299RCS	7-9329	Production Support (PAO)	225	ALC/LA	7-2096
Plans & Programs-Public Affairs	1102	ALC/PA	7-4438	Production Support Section	1911	ALC/LI	7-0712
Plans & Project Branch	1102	ALC/FM	7-5961	Production Support Sub-Unit	225	ALC/LA	7-2215
Plans & Readiness Flight (LGT)	1135	649ABG/LGT	7-9068	Production Support Support	507	ALC/LI	7-7149
Plans & Scheduling	1781	649CES	7-5502	Productivity Studies Branch	1254	ALC/MO	7-4301
Plans & Scheduling - 514TS	1	514TS	7-2005	Products & Analysis	1274	501RS	7-7416
Plans & Scheduling-466FS	590	466FS	7-0050	Program & Analysis	849	DDOU	7-6511
Plans Supt	590	419FW	7-0208	Program Control	1258	ALC/LM	7-1980
Plans, Schedules & Resources Br	1283	84RADES	7-2347	Program Control Division	1234	ALC/LI	7-8343
Plant Engr/Tech Support Branch	507	ALC/LI	7-2341	Program Integration & Services	1201	ALC/LA	5-2571
Plant Management Division	849	ALC/TI	7-8064	Program Integration Team	225	ALC/LA	7-1093
Plastic Manufacture & Repair	257	ALC/LA	7-2753	Program Integration Team	225	ALC/LA	7-2629
Plastics/Canopies/C-130	225	ALC/LA	7-3283	Programming	5	34FS	7-2403
Plastics/Hydrostatics/Radomes	257	ALC/LA	7-0257	Programming 421FS	5	421FS	7-2858
Plating Shop Unit	505	ALC/LI	7-2782	Programming 4FS	119	4FS	7-2998
PMEL	584	419MS	7-2157	Programs & Mobility	590	419LSSQ	7-3305
PMEL Branch	214	ALC/TI	7-2250	Programs & Mobility-514TS	1	514TS	7-1224
Pneudraulic Shop-388MS	39	388MS	7-2001	Programs Monitor	15	649CES	7-1148
Pneudraulic Shop-419MS	590	419MS	7-3244	Project Dev & ALC Storage	849	DDOU	7-7049
Pneudraulic Shop-CLSS	237	649CLSS	7-1241	Project Unit B	15	649CES	7-3082
Pneudraulic Unit	1	514TS	7-0730	Propellant Lab Team	1917	ALC/LM	7-5554
Pneudraulic/Hyd Rpr Section	1913	ALC/LI	7-5933	Propulsion Flight	295	388MS	7-4907
Pneudraulic/Hyd Rpr/F-16 EPU	2013	ALC/LI	7-0929	Propulsion Flight NCOIC	589	419MS	7-2723
Pneudraulic/Hyd/Tnr Repair Sec	1911	ALC/LI	7-9314	Propulsion JEIM Shop	589	419MS	7-2924
Pneudraulic/Hydraulic	1915	ALC/LI	7-4623	Protocol Officer	1102	ALC/CC	7-5565
POE Conference Center	1295	ALC/FM	7-4704	Provisioning	1297	ALC/TI	7-7364
Policy & Procedure	1289	ALC/PK	7-6498	Public Affairs, 388FW	120	388FW	7-3200
Policy & Procedures Branch	1209	ALC/FM	7-0556	Public Affairs, 419FW	593	419FW	7-2713
Policy, Rpts & Sys Analy Team	1209	ALC/FM	7-4604	Public Affairs, Base	1102	ALC/PA	7-5201
Pollution Prevention Division	5U	ALC/EM	7-3568	Publications Dist Officer	820	649ABG/MS	7-4953
Post Office-Military	332	649ABG/MS	7-2509	Publications Distribution	820	649ABG/MS	7-4953
Post Office-US	332	USPS	7-3507	Publications Library Master	180	649ABG/MS	7-3586
Postal Service Center-Military	332	649ABG/MS	7-2509	Publications Management	593	419MSSQ	5-2300
Power AGE	592	419MS	7-1930				

CLASSIFIED LISTING SECTION

ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Q							
QA Administration	36	388LG	7-2025	Records & Reports Team	849	DDOU	7-7914
QA Chief Inspector	36	388LG	7-2025	Records Management	180	649ABG/MS	7-2504
QA FCF/Weight & Balance	36	388LG	7-2028	Records Management (419FW)	593	419MSSQ	5-2300
QP4 Center Unit	225	ALC/LA	7-0426	Records Management-388FW	120	388FW	7-2285
Quality & Improvement	1289	ALC/PK	5-2115	Records Section (Civ Personnel)	1244	ALC/DP	7-6605
Quality Assurance	820	649ABG/MS	7-2488	Records Section 419FW	593	419MSSQ	7-0024
Quality Assurance	1781	649CES	7-9050	Records Storage	820	649ABG/MS	7-5359
Quality Assurance Branch	2	6490SS	7-3811	Records Unit	900	649ABG/LGT	7-2556
Quality Assurance Branch-501RS	1284	501RS	7-8140	Recreation Support Flight	180	649ABG/SV	7-3611
Quality Assurance CE	15	649CES	7-3845	Recruiter (Air Force Reserve)	593	419RS	7-2074
Quality Assurance Hosp	570	649MG	7-1004	Recruiting (AF Reserve) 419FW	593	419RS	7-3330
Quality Assurance Program	36	388LG	7-2024	Recycling RRRP (Household type)	1248	649ABG/SV	7-9007
Quality Assurance Section	1276	299RCS	7-9334	Recycling Section (Industrial)	896	DLA/DRMO	7-0097
Quality Assurance Section-514TS	1	514TS	7-9063	Red Cross-0800-1500	308	ARC	7-3850
Quality Assurance Supt	36	388LG	7-2025	Red Cross-Duty Hours	308	ARC	7-1855
Quality Assurance-419LG	590	419LG	7-0057	Red Stake	15	649CES	7-1995
Quality Assurance-729ACS	1938	729ACS	7-0673	Reduction-in-Force Monitor (Civ)	1244	ALC/DP	7-4321
Quality Assurance/Chief	36	388LG	7-2025	Refueling Vehicle Repair Shop	911	649ABG/LGT	7-7048
Quality Force 419FW	593	419MSSQ	5-2612	Religious Education Center	445	ALC/HC	7-6327
Quality Improvement	58	388MS	7-7816	Reports Production Office	1283	84RADES	7-2895
Quality Improvement Office	120	388FW	7-2992	Requirements	1213	ALC/LA	7-5186
Quality Liaison Office (SPOCO)	1289	ALC/TI	7-5059	Requirements Support Team	1213	ALC/LA	7-7137
Quality Office, Total	1289	ALC/TQ	7-4391	Requirements Team	849	DDOU	7-4575
Quality Program Monitor	15	649CES	7-2794	Res Management Unit	849	ALC/TI	7-5165
Quality Programs-CLSS	237	649CLSS	7-8067	Reserve Affairs	180	ALC/CC	7-7889
Quality Services Unit	225	ALC/LA	7-3180	Reserve Pay 419FW	593	419FW	7-3674
Quality Support Division	225	ALC/LA	7-9816	Reserve Program Coordinator	1102	ALC/CC	7-5566
Quality-419LG	590	419LG	7-0059	Reserve Recruiting 419RS	593	419RS	7-3330
				Reserve Training (419FW)	593	419MSSQ	5-2609
R				Resource & Materiel Mgt Branch	265	ALC/TI	7-8010
R&R Whl/Tire	25	388MS	7-2938	Resource Advisor	58	388MS	7-5843
Radar	5	ALC/LA	7-2795	Resource Advisor 388OSS	120	388OSS	7-2861
Radar Eval Weather Services Sec	1283	84RADES	7-3920	Resource Advisor 4FS	119	4FS	7-0963
Radar/ATE Sub-Unit	233	ALC/LA	7-2471	Resource Management Branch	1209	ALC/FM	7-5182
Radio Maintenance Team	891	649CCSG	7-2669	Resource Management Flight	180	649ABG/SV	7-3047
Rail & Spec Equip Br	1701	GRSB	7-5913	Resource Manager	237	649CLSS	7-2055
Rail & Spec Equip Br Office	1701	GRSB	7-5913	Resource Protection	1219	649SPS	7-6616
Rail & Spec Equip Br PP&C Ofc	1701	GRSB	7-4608	Resource Recovery Recycle Prgm	1248	649ABG/SV	7-9007
Rail & Spec Equip Br/Electrical	1723	GRSB	7-5930	Resources Flight	15	649CES	7-4926
Rail & Spec Equip Foreman	1701	GRSB	7-5919	Resources Management Branch	849	ALC/TI	7-5318
Rail & Spec Equip Qlty Sec/Insp	1701	GRSB	7-5911	Resources Management Division	100	ALC/LA	5-2249
Rail & Spec Equip Specialist	1701	GRSB	7-5919	Resources Planning Team	891	DISO	7-2414
Rail & Spec Equip/Millwrights	1701	GRSB	7-7946	Resources Work Team	100	ALC/LA	7-3465
Rail & Spec Equip/MRP/Warehouse	1722	GRSB	7-7973	Retirement (Civilian)	1245	ALC/DP	7-8478
Rail & Spec Equip/MRP/Whse Ofc	1722	GRSB	7-7984	Retreat-Community Center	460	649ABG/SV	7-1324
Rail Operations Team	1132	649ABG/LGT	7-6888	Rivet Mile Unit	1228	ALC/LM	5-2129
Railroad Ops/Materiel Handling	1132	649ABG/LGT	7-6888	RPV Unit	1A	514TS	7-3660
Railroads Unit	1132	649CES	7-5448	Rqmts & Budget Integration Div	1209	ALC/FM	7-5042
Range Control/Scheduling Branch	1276	501RS	7-9384	RRRP (Recycling Program)	1248	649ABG/SV	7-9007
Range Officer	593	466FS	7-3214	Rubber Repair Sec	5F	ALC/TI	7-2249
Range Operations Deputy (DPG)	40085	501RS	522-5104	RV Storage	1138	649ABG/LGT	7-1843
React	830	ALC/LM	5-2238	S			
Readiness	40	34FS	7-7819	SABER	15	649CES	7-7195
Readiness Flight	30	649CES	7-4185	SAC Alert Fclty/Alert Force	777	151AREFG	7-3135
Readiness Mgt Section, OIC	30	649CES	7-4910	SACSO	1256	AFSC	7-4336
Readiness Plans & Project Div	1102	ALC/FM	7-5961	Safety 34FS	40	34FS	7-7120
Readiness Plans Team	1102	ALC/FM	7-5218	Safety 421FS	5	421FS	7-2218
Real Estate	15	649CES	7-2500	Safety Branch	1246	ALC/LI	7-7300
Receiving (Dear John Bay)	849	DDOU	7-7744	Safety Branch	1256	ALC/LM	7-1278
Receiving Section-DRMO/WHCPR	896	DLA/DRMO	7-6658	Safety Engineering Branch	383	ALC/SE	7-2125
Receiving Team	1377	649MMS	7-5782	Safety Glasses	249	649MG	7-1065
Receiving Warehouse	400	DeCA-SW HILL	7-2176	Safety LA	225	ALC/LA	7-2603
Reclamation Team	261	ALC/LA	7-5899	Safety Monitor	15	649CES	7-6595
Reclamation Team	840	DDOU	7-9064	Safety NCO	237	649CLSS	7-2122
				Safety NCO 388OSS	120	388OSS	7-3149
				Safety NCO 421FS	45	421FS	5-2102

CLASSIFIED LISTING SECTION

ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Safety Office 388FW	120	388FW	7-3402	Shipping Team	1377	649MMTS	7-5818
Safety Office 419FW	593	419FW	7-3657	Shop Support	295	388MS	7-2630
Safety Office 4FS	45	4FS	7-9891	Shoppette	457	AAFES	773-4673
Safety Office Commander	383	ALC/SE	7-0957	Shuttle Bus/Taxi (Motor Pool)	1138	649ABG/LGT	7-1843
Safety Officer 421FS	45	421FS	7-3805	Sidewinder AIM-9 L/M Section	100K	ALC/LI	7-3981
Safety Training	383	ALC/SE	7-1431	Sikorsky Tech Representative	1	CONTRACTOR	7-3112
Safety/Envir Hazardous Material	1276	299RCS	7-9334	Silo-Based ICBM Sys Prgm Ofc	1258	ALC/LM	7-8644
Sanitation (Garbage Pick-Up)	1218	649CES	7-3477	Simulator Training	118	388OSS	7-3085
SATO	1238	ALC/TI	7-4677	Singapore Liaison Office	1201	ALC/LA	7-7197
Scheduled Airlines Ticket Ofc	1238	ALC/TI	7-4677	Site Development & Drafting	15	649CES	7-2288
Scheduling & Materiel Avionics	5	ALC/LA	7-3732	Site Surveyors Section	1283	84RADES	7-5090
Scheduling 15TS	1A	545TG	7-2593	Skills Development Center	534	649ABG/SV	7-2649
Scheduling 421FS	5	421FS	7-2636	Small Arms Marksmanship	743	649SPS	7-2754
Scheduling 533FTD	125	533FTD	7-2575	Small Business Administration	1289	ALC/BC	7-4150
Scheduling Branch	120	388OSS	7-2541	Small Business Office	1288	ALC/BC	7-4143
Scheduling Current Ops/514TS	1A	514TS	7-3905	Small Component Team	1642	649MMTS	7-7832
Scheduling Integration Sub-Unit	225	ALC/LA	5-2570	Small Computers	120	388OSS	7-3307
Scheduling Officer	593	466FS	7-2265	Small Dollar Pricing Support	1289	ALC/PK	7-9974
Scheduling Team	220	ALC/LA	7-3175	Small Item Processing Function	849	DDOU	7-7810
Scheduling Team	233	ALC/LA	7-3281	Small Missile Test Equip Sec	100	ALC/TI	7-2795
Scheduling/Documentation	5	421FS	7-2322	Snack Bar	430	AAFES	825-1866
Scheduling/Documentation 388OSS	120	388OSS	7-0089	Social Actions Division	555	ALC/DP	7-3407
School Commandant	1283	84RADES	7-5350	Social Actions EOT	555	ALC/DP	7-3663
Sci, Tech & Env Services Div	849	ALC/TI	5-3863	SOF-HELO Section	1225	ALC/LI	7-1017
Science & Engineering Lab Br	100E	ALC/TI	7-3636	Softswitch P C Technial Spt	891	649CCSG	7-1695
Screen Printing	1229	PS	5-3219	Software Branch	1256	ALC/LM	7-1273
Seat Shop/Pylons Rpr Section	509	ALC/LI	7-3337	Software Control Center	1202	ALC/TI	7-4201
Secretary 421FS	5	421FS	7-5670	Software Support Division	100	ALC/TI	7-2615
Secretary 649CLSS	237	649CLSS	7-2121	Software Tech Spt Ctr Sec	100	ALC/TI	7-8068
Secretary-388OSS	120	388OSS	7-3937	Solicitations	1237	ALC/PK	7-5495
Section Commander-34FS	5	34FS	7-3146	Source Development Div Staff	1289	ALC/BC	7-9993
Secure Comm Sys Maint Team	891	649CCSG	7-3700	SOUTH GATE	553	649SPS	7-8631
Security Administration Team	891	DISO	7-1634	South Gate Reception Center	553	649SPS	7-2394
Security Clearances	1219	649SPS	7-5490	Southwest Gate (Truck)	886	649SPS	5-3031
Security Education Motivation	1219	649SPS	7-6616	Spec Purp Equip Repair Con	1243	649ABG/LGT	7-4149
Security Police (Oasis)	40020	649RANS	7-1524	Special Activities	1232	ALC/PK	7-7353
Security Police (Oasis)	40020	649RANS	7-1522	Special Opr Sys Software Team	891	DISO	7-1630
Security Police 419FW	513	419SPS	7-2585	Special Purp Equip Repair	1243	649ABG/LGT	7-9163
Security Police Desk Sergeant	1219	649SPS	7-3056	Special Tng & Administration	250	ALC/TI	7-3316
Security Police Investigations	30	649SPS	7-7891	Specialist Flight	45	421FS	7-3448
Security Police Liaison-388FW	120	388FW	7-4921	Specialist Flight 4FS	45	4FS	7-2034
Security Police Manager	1219	649SPS	7-5534	SPOCO	1289	ALC/TI	7-5059
Security Police Operations	1219	649SPS	7-5531	Sports Loan	402	649ABG/SV	7-2225
Security Police Training	1219	649SPS	7-8679	Sq Operations Codaphone	237	649CLSS	7-7332
Self Help Center (Work Centers)	820	649CES	7-1244	Sq Sec Commander 388MS	58	388MS	7-7521
Self-Help Center/Housing Maint	3303	649CES	7-6230	Squadron Administration-388OSS	120	388OSS	7-3401
Self-Inspection	36	388LG	7-2025	Squadron Operations	237	649CLSS	7-2639
Senior Engineering Staff Sectio	849	ALC/TI	7-2977	Squadron Operations Officer	841	67APS	7-3270
Senior Enlisted Advisor 388FW	120	388FW	7-3654	Squadron Section Commander	120	388OSS	7-3653
Senior Enlisted Advisor 419FW	593	419FW	5-2426	Squadron Training Manager	45	421FS	7-2172
Senior Enlisted Advisor ALC	1102	ALC/CC	7-5567	Stable/Riding Club	1725	649ABG/SV	7-3076
Senior Resident Agent	1219	DIS	7-1016	Staff Function	1255	ALC/LM	7-2690
Separations & Retirement	180	ALC/DP	7-2854	Staff Judge Advocate	1278	ALC/JA	7-6756
Service Contracts Unit	15	649CES	7-1218	Stan/Eval	1938	729ACS	7-0633
Service Station	454	AAFES	773-3600	Stan/Eval 421FS	5	421FS	7-6110
Service Station (Military Veh)	924	649ABG/LGS	7-2881	Stan/Eval 466FS	593	466FS	7-3264
Services Contracting	1289	ALC/PK	7-2395	Stan/Evaluation Section-514TS	1	514TS	7-2915
Services Data Automation Div	146	649ABG/SV	7-0800	Standard/Evaluation	5	34FS	7-3013
Services Division	180	649ABG/SV	7-3611	Standardization-Evaluation 4FS	119	4FS	7-0967
Services Funds Management	180	649ABG/SV	5-2403	Standards	849	DDOU	7-0530
Services Marketing/Publicity	564	649ABG/SV	5-2084	START Office	1552	ALC/LM	7-9713
Services Supply	524	649ABG/SV	7-9495	Station 12/99 Team	225	ALC/LA	7-9271
Services Support	849	ALC/TI	7-4023	STINFO	849	ALC/TI	7-2518
Services Support	1223	ALC/LA	7-4756	Stock & Ind Fund Support Sectio	1239	DAO-DE HILL	7-4941
Services Unit	225	ALC/LA	7-3193	Stock Control	849	649ABG/LGS	7-5101
Sheet Metal Shop	590	419MS	7-0060	Stock Control & Distribution	849	DDOU	7-7696
Sheetmetal	265	ALC/LA	7-1344	Stock Fund Accounting Section	1239	DAO-DE HILL	7-7266
Shipment Planning	849	DDOU	7-9585	Stock Fund Branch	1209	ALC/FM	7-5042

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ALPHABETICAL LISTING		BLDG	ORGANIZATION EXTENSION	ALPHABETICAL LISTING		BLDG	ORGANIZATION EXTENSION
Storage C Function	843	DDOU	7-6580				
Storage C Subfunction 1	850	DDOU	7-7980				
Storage Support Function	845	DDOU	7-7059				
Strategic Systems Branch	1225	ALC/LI	7-5698	T-56/T-76	272	ALC/LA	7-2517
Structural Engineer	15	649CES	7-2454	Tactical Systems Branch	1218	ALC/LI	7-5656
Structural Repair	237	649CLSS	7-8070	Target Manager	1274	501RS	7-9025
Structural Repair	238	ALC/LA	7-2561	Target Support, North	40041	501RS	7-1523
Structural Repair 388MS	41	388MS	7-4322	Targets Intelligence	120	388OSS	7-2992
Structural Repair Machine Unit	1A	514TS	7-3628	Taxi Service-Shuttle Bus	1138	649ABG/LGT	7-1843
Structural Repair Section	590	419MS	7-7674	TCTO Section	590	466FS	7-0049
Structural Team	1212	ALC/LA	7-5195	TDY Scheduling	1283	84RADES	7-2469
Structural Unit C	21	649CES	7-4580	Tech Admin	5	421FS	7-1128
Strut Assembly Unit	507	ALC/LI	7-8302	Tech Administration	58	388MS	7-6735
Student Development/Services	250	ALC/TI	7-4319	Tech Data Section	1781	649CES	7-4119
Suggestion Office (ACC)	120	388FW	7-3834	Tech Mgt & Analysis Section	5	ALC/TI	7-3312
Suggestion Program	1254	ALC/MO	7-6902	Tech Order Branch	1236	ALC/PK	7-8421
Suggestion Program Division	1254	ALC/MO	7-6901	Tech Order/Dist Warehouse	820	649ABG/MS	7-5356
Superintendent Acft Maint Sec	1	514TS	7-0750	Tech Programs Development Branc	1211	ALC/FM	7-9362
Superintendent FT0533	125	533FTD	7-2084	Tech Review Barriers to Comp	1289	ALC/CR	7-1340
Superintendent-388MTF	125	388MTF	7-0764	Tech Rpr & Photonics Division	1226	ALC/LI	5-2265
Superintendent/Law Enforcement	1219	649SPS	7-5550	Tech Services Section	1216	ALC/LI	7-4195
Supervisor of Flying	593	466FS	7-2524	Tech Spt Staff, J&A	1289	ALC/CR	7-9996
Supervisor of Flying	10	388FW	7-0020	Tech Spt Staff, J&A	1289	ALC/CR	7-9998
Supply (Base)	849	649ABG/LGS	7-5124	Tech Tng & Development	250	ALC/TI	5-3242
Supply (DPG)	40085	501RS	522-5364	Technical Advisor	1284	501RS	7-9753
Supply (Oasis)	40020	649RANS	7-1533	Technical Repair Division	238	ALC/LA	7-2553
Supply Section	1283	84RADES	5-2348	Technical Services Section	1216	ALC/LI	7-4195
Supply Section	1781	649CES	7-6861	Technical Services-DET 8	1269	DET 8	7-0161
Supply Warehouse	5	649CLSS	7-7953	Technical Services-LA	1212	ALC/LA	7-5002
Supply/Transportation	237	649CLSS	7-6131	Technical Spt & Reliability Uni	1201	ALC/LA	7-6746
Support	54	388MS	7-3825	Technical Support Branch	238	ALC/LA	5-2256
Support Branch	100	ALC/TI	7-1789	Technical Support Division	214	ALC/TI	7-2995
Support Equipment Unit	1A	514TS	7-3332	Technical Training	250	ALC/TI	7-0608
Support Flight	45	421FS	7-3225	Technical/Administrative Team	8000	649MMS	7-2767
Support Flight 4FS	45	4FS	7-2010	Technology & Ind Support Dir	849	ALC/TI	7-4504
Support Group Commander 419SPTG	590	419SPTGP	7-0206	Technology Advancement Section	849	ALC/TI	7-3285
Support Programs	120	388OSS	7-6897	Telecomm Center (AFAMPE)	891	DISO	7-3675
Support Section	1202	ALC/TI	7-4201	Telecomm Center (AFAMPE)	891	DISO	7-3350
Support Software Sec	1515	ALC/TI	7-0348	Telephone Chief Operator	891	649CCSG	7-9245
Support System Sec	100	ALC/TI	7-9926	Telephone Control Officer	1276	299RCS	7-9211
Support TNG 419FW	593	419MSSQ	7-2256	Telephone Directory Clerk	891	649CCSG	7-5575
Support/Sustain Analysis	1223	ALC/LA	7-9648	Telephone Inside Plant	1214	649CCSG	7-6969
Surface Freight Shipping	849	DDOU	7-5175	Television Production	1269	DET 8	7-4855
Surgical Clinic	570	649MG	7-6721	TEMPEST Manager	891	649CCSG	7-0362
Surv Equipment	40	388MS	7-2091	Tenant Support	830-5E	649ABG/LGS	7-4053
Survivability/Vulnerability Int	847	ALC/LM	7-3953	Test & Evaluation Sub-Unit	1622	649MMS	7-7361
Survival Shop	590	419MS	7-2257	Test Cell-419MS	589	419MS	7-8081
Swimming Pool #1(Hess Fitness)	520	649ABG/SV	7-4617	Test Cells	268	ALC/LA	7-3039
Swimming Pool #2 (NCO)	462	649ABG/SV	7-6010	Test Instrumentation	1540	ALC/LM	7-4788
Swimming Pool #3 (Officers)	483	649ABG/SV	7-2165	Test Operations Branch	1274	501RS	7-9651
Swing Supervisor	272	ALC/LA	7-2517	Test Station	5	388MS	7-5394
Sys Software Mgt & Control Team	891	DISO	7-3915	Test Support QA Unit	1A	514TS	7-2891
System Administration	890	DLA/DRMO	7-6957	Test Support Section	1A	514TS	7-2602
System Engineering Division	1255	ALC/LM	7-1265	Theater	441	AAFES	7-2328
System Engineering Unit	1212	ALC/LA	7-5002	Thiokol/DPRO Commander	A-3	DLA/DPRO	863-2562
System Support Team	849	ALC/TI	7-7419	Thornton Community Center	460	649ABG/SV	7-3525
Systems (Maintenance)	849	DDOU	7-9818	Thrift Shop	308	CONTRACTOR	825-1026
Systems (Transportation)	849	DDOU	7-4515	TI Production Mgt System Ofc	849	ALC/FM	7-4454
Systems Branch	237	649CLSS	7-3902	Ticket & Tours	460	649ABG/SV	7-3525
Systems Development Team #1	891	OL-AD MSC	7-2663	Tire Shop	1135	649ABG/LGT	7-4047
Systems Development Team #2	891	OL-AD MSC	7-2220	TMDE	58	388MS	7-7818
Systems Development Team #3	891	OL-AD MSC	7-5386	TMO (Inbound Household Goods)	180	649ABG/LGT	7-1848
Systems Engineering Division	891	DISO	7-3327	TMO (Outbound Household Goods)	180	649ABG/LGT	7-1849
Systems Management	1289	ALC/PK	7-5979	TO Distribution Library	36	388LG	7-2023
Systems Support	100	DDOU	7-2749	TO Distribution Unit	820	649ABG/MS	7-5356
Systems/Programs Div	1211	ALC/FM	7-9362	Tool Crib & Equipment Ops Team	225	ALC/LA	7-2243
Systems/Programs Mgt & Dev Br	1211	ALC/FM	7-9362	Tower	1	649OSS	7-2909
				Traffic Management Flight (LGT)	900	649ABG/LGT	7-0775

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ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION	ALPHABETICAL LISTING	BLDG	ORGANIZATION	EXTENSION
Traffic Management Team	180	649ABG/LGT	7-6398	UTTR Eagle Range Flight Ops	40041	501RS	7-1516
Traffic Safety Training	383	ALC/SE	7-1431	UTTR Photo Optics HAMSTER (DPG)	40085	501RS	522-5458
Training	5	34FS	7-3012	UTTR Quality Assurance	1284	501RS	7-9217
Training	58	388MS	5-3194	UTTR Range Control/Sched Branch	1276	501RS	7-9384
Training 421FS	5	421FS	7-2636	UTTR Range Operations Br (DPG)	40085	501RS	522-5343
Training 4FS	119	4FS	7-1150	UTTR Staff Meteorologist	1	649OSS	7-1714
Training 545TG	1	514TS	7-3240				
Training 649CLSS	237	649CLSS	7-2068	V			
Training Branch	120	388OSS	7-2252	Vehicle Control	58	388MS	7-5377
Training Function	849	DDOU	7-7038	Vehicle Control Office/SPS	1219	649SPS	7-1230
Training Management	250	ALC/TI	7-2077	Vehicle Fleet Management Unit	1138	649ABG/LGT	7-5820
Training Manager	120	388OSS	7-2861	Vehicle Integrated Mgt (VIMS)	1243	649ABG/LGT	7-7368
Training Monitor (Civilian)	15	649CES	7-6303	Vehicle Maintenance (DPG)	40085	501RS	522-5100
Training Monitor (Military)	32	649CES	7-1147	Vehicle Maintenance Br (Oasis)	40065	649RANS	7-1561
Training NCO (649MMTS)	800	649MMTS	7-2298	Vehicle Maintenance QAS	1243	649ABG/LGT	7-5312
Training Officer (419FW)	593	419MSSQ	5-2609	Vehicle Maintenance Section	1253	649ABG/LGT	7-9170
Training Officer (466FS)	593	466FS	7-2265	Vehicle Operations	1781	649CES	7-5505
Training OJT	225	ALC/LA	7-2396	Vehicle Operations Section	1138	649ABG/LGT	7-5452
Training Operations Branch	1274	501RS	7-9025	Vehicle Ops & Maint Flight	1138	649ABG/LGT	7-5452
Training PK Library	1289	ALC/PK	5-5308	Vehicle Registered Equip Mgt Sy	1138	649ABG/LGT	7-9139
Training Section	1781	649CES	7-9189	Vehicle Registration	1219	649SPS	7-5480
Training Section 649EODS	1781	649CES	7-9189	Vending Machine Troubles	230	649ABG/SV	7-2043
Training Section-Fire Dept	9	649CES	5-3230	Venezuela AF Liaison Office	1201	ALC/LA	7-7174
Training Systems Mgt Division	1225	ALC/LI	7-4721	Verification Laboratories	100	ALC/TI	7-1094
Training Team	1289	ALC/PK	7-7806	Veterinary (Animal Clinic Appt)	401	HSHG/VSH	7-2611
Training Tech ART (405th)	295	405CLSS	7-2380	Veterinary Service	401	HSHG/VSH	7-2969
Training-SC	891	DISO	7-2739	Vice Commander 419FW	593	419FW	7-3119
Transient Aircraft Maintenance	2	649OSS	7-3956	Vice Commander-388FW	120	388FW	7-3881
Transient Alert Proj Manager	2	649OSS	7-3885	Video Office	40085	501RS	522-5139
Transient Qtrs	146	649ABG/SV	7-2601	Video Teleconference Center-VTC	1102	ALC/FM	7-0926
Transition Assistance Program	308	649ABG/MS	7-4682	Videotape Library	1269	DET 8	7-6807
Transition Barracks	521	649ABG/CC	7-2153	Visiting Transient Qtrs	146	649ABG/SV	7-2601
Transport Team	849	DDOU	7-7898	Visitor Control Center	100F	ALC/LA	7-2735
Transportation (In Household)	180	649ABG/LGT	7-1848	Visitor Control South Gate	553	649SPS	7-2394
Transportation (Out Household)	180	649ABG/LGT	7-1849	Visitor Control West Gate	1296	649SPS	7-7833
Transportation Liaison-388LSS	36	388LSS	7-4179	Visitor Control/SC	891	DISO	7-0249
Transportation Operations	849	DDOU	7-4996	Visual Information Film Library	1267	649ABG/MS	7-7140
Transportation Section	1246	ALC/LI	7-5110	Visual Information Graphics	1267	649ABG/MS	7-5011
Transportation Team	225	ALC/LA	7-2760	Visual Information Manager	1267	649CCSG	7-0809
Transportation/Handling Mech	847	ALC/LM	7-3910	Voice Mail Box (TI)	180	ALC/TI	7-5454
Travel Branch	1238	ALC/FM	7-5842	Volunteer Resource Program	308	649ABG/MS	7-4681
Travel Pay Accounting Team	1238	DAO-DE HILL	7-5522				
Travel Pay Customer Service	1238	ALC/FM	7-1858	W			
Troop Warehouse	820A	DeCA-SW HILL	7-5348	Warehouse 14 Team	273	DDOU	7-2258
Trouble Line Office Equipment	1287	ALC/PK	7-6731	Warehouse 20	843	DDOU	7-6590
Trout Creek Radar Site	1276	299RCS	7-4078	Warehouse 21 A/C Grave Team	850	DDOU	7-4972
Tubing	268	ALC/LA	7-2925	Warehouse 21 A/C Team	850	DDOU	7-4972
Turkish Liaison Office	1201	ALC/LA	7-7681	Warehouse 21 B Team	850	DDOU	7-7491
TV Maverick/GBU/Paveway Team	5D	ALC/LI	7-2795	Warehouse 21 D/C Team	850	DDOU	7-7541
Typewriter/Office Equip Repair	1287	ALC/PK	7-6731	Warehouse 21 F/G Team	850	DDOU	7-7927
				Warehouse 23	915	DDOU	7-6069
U				Warehouse 4 & Lots Team	840	DDOU	7-7931
Ultrasonic/Eddy Current Sec	225	ALC/TI	7-0309	Warehouse 6A Team	810	DDOU	7-4265
Unclassified Mail Function	820	649ABG/MS	7-2855	Warehouse 7/9 Team	800	DDOU	7-7551
UNCOQ 521 Housing Office Mgr	180	649CES	7-2963	Warehouse Section	897	DLA/DRMO	7-8044
Union Office/Local 1592	179	AFGE	7-3257	WASSO	891	DISO	7-4400
Unit Administration	841	67APS	7-2507	Watch Supervisor A Crew	1276	299RCS	7-4930
Unit Career Advisor	120	388OSS	7-3149	Watch Supervisor B Crew	1276	299RCS	7-9615
Unit Mobility 388OSS	120	388OSS	7-3604	Watch Supervisor C Crew	1276	299RCS	7-9619
Unit Security 299RCS	1276	299RCS	7-9618	Watch Supervisor D Crew	1276	299RCS	7-9433
Unit Supply	1276	299RCS	7-9329	Weapon System Support	1223	ALC/LA	7-6234
United Parcel Service	332	USW	776-4577	Weapons	5	34FS	7-3014
Unmanned Vehicle Ops Unit	1A	514TS	7-8000	Weapons & Tactics	120	388OSS	7-2017
US Army Corps of Engineers	366	CESPK-UR	7-2206	Weapons & Tactics 4FS	119	4FS	7-0978
US Post Office	332	USPS	7-3507	Weapons & Training Flight	120	388OSS	7-2017
Utility Section	30	649CES	7-3647	Weapons 421FS	5	421FS	7-2709
UTTR Eagle Range	40041	501RS	7-1515				

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Weapons Control Standard/Eval	1276	299RCS	7-9433				
Weapons Control Training	1276	299RCS	7-9433				
* Weapons Flight	45	421FS	5-3009				
Weapons Flight 4FS	45	4FS	7-3803				
Weapons Flight/Loading Chief	590	466FS	7-9199				
Weapons Loading Shop	590	466FS	7-9197				
* Weapons Safety Division	45	ALC/SE	5-2102				
Weapons/APG	58	388LG	7-2439				
Weapons/Tactics	593	466FS	7-3214				
Weather Fcstr for Aircrews Only	1	649OSS	7-2018				
Weather Observer	1	649OSS	7-2063				
Weather Operations	1	649OSS	7-3519				
Weather Recorded Forecast	1	649OSS	7-2643				
West Area Fitness Center	1277	649ABG/SV	7-8360				
West Gate	1296	649SPS	7-7833				
West Gate Reception Center	1296	649SPS	7-7833				
WEST ZONE	1268	649CES	7-7144				
Wheel Assembly Unit	507	ALC/LI	7-1212				
Wideband	1938	729ACS	7-7240				
Wing Career Advisor 419FW	593	419MSSQ	5-2613				
Wing Mobility, 388LSS	120	388LSS	7-3733				
Wing Mobility, 419FW	593	419FW	7-0208				
Wing Plans & Exercises	120	388FW	7-2659				
Wing Pub/Forms Management	120	388FW	7-2285				
Wing Public Affairs	120	388FW	7-3200				
Wing Pubs/Forms Distribution	120	388FW	7-2285				
Wing Support Flight	36	388LSS	7-3232				
Wing Weather Officer (388FW)	1	649OSS	7-9460				
Wire Maintenance Team	891	649CCSG	7-4411				
Wood Hobby Shop	534	649ABG/SV	7-2649				
Woodmill	265	ALC/TI	7-2379				
Workload Team	225	ALC/LA	7-1093				
Workman's Comp	249	649MG	7-1160				
Wrecker Services	1138	649ABG/LGT	7-1843				
X							
X-Ray	570	649MG	7-5424				
Y							
Youth Activities Center	883	649ABG/SV	7-2419				
Youth Programs Flight	180	649ABG/SV	7-3611				
Z							
Zero Overpricing Hot Line	1289	ALC/PK	7-9999				

Document Separator

HILL 2020

An Executive Summary of the Hill Air Force Base Facility Improvement Strategy

**Prepared By
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Commercial 801-777-2145**

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Epilogue



Plant Repl Value Val
\$3.7 Mil ?

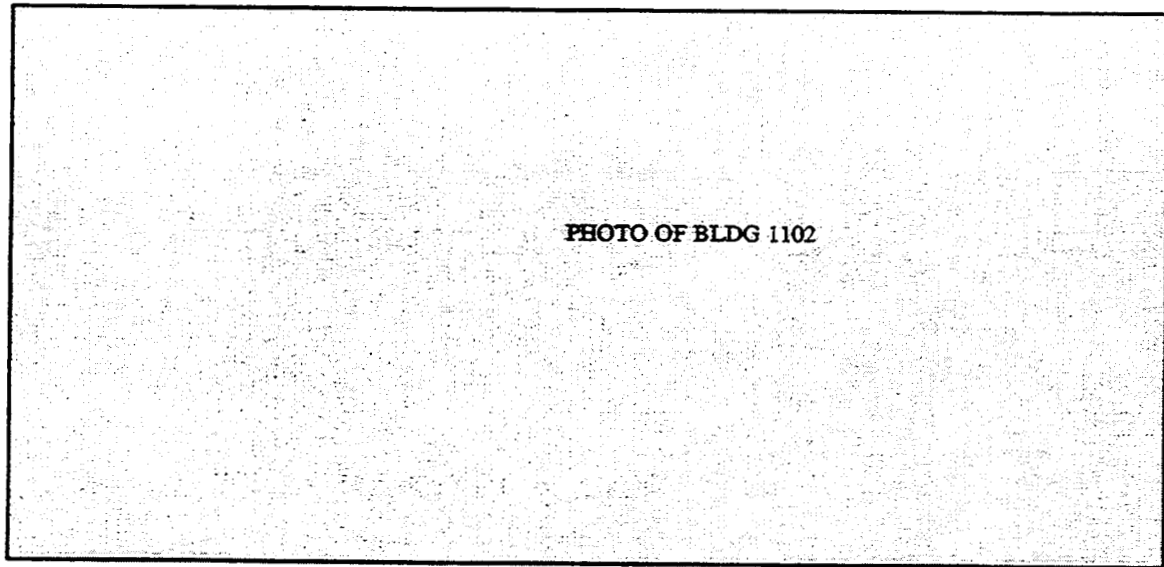


PHOTO OF BLDG 1102

Ogden Air Logistics Center Headquarters Building

PURPOSE

- **Clear Expression of Strategies**

Common Objectives

Direct Effort

Commitment

- **Context in Which to Base Daily Decisions**

Mission Support

Common Objectives

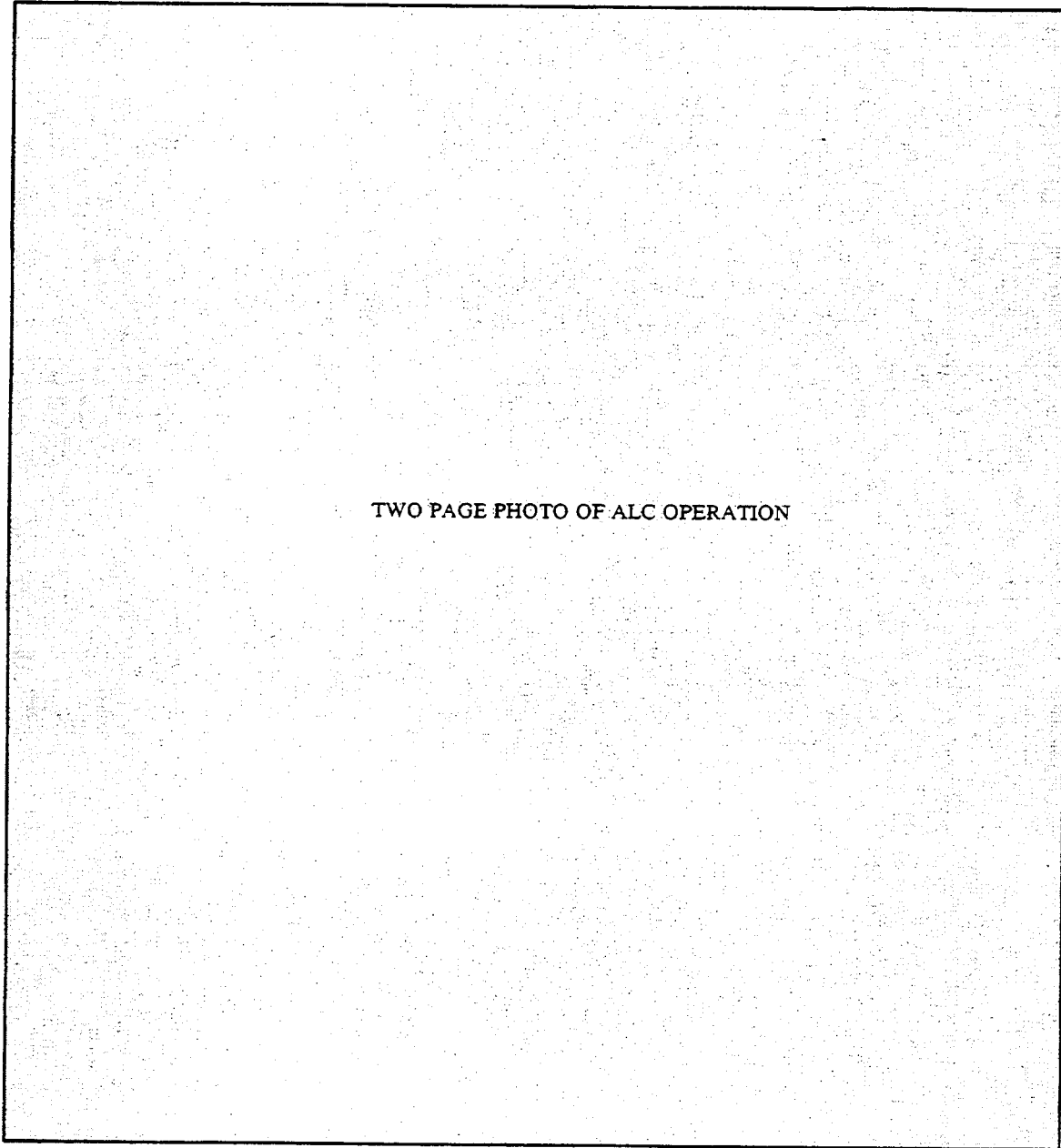
Higher Quality of Life

- **Marketing Tool**

Obtain Needed Investments

Raise Commander Awareness Basewide





TWO PAGE PHOTO OF ALC OPERATION

The Ogden Air Logistics Center is the sole maintenance depot for air munitions



TWO PAGE PHOTO OF ALC OPERATIONS

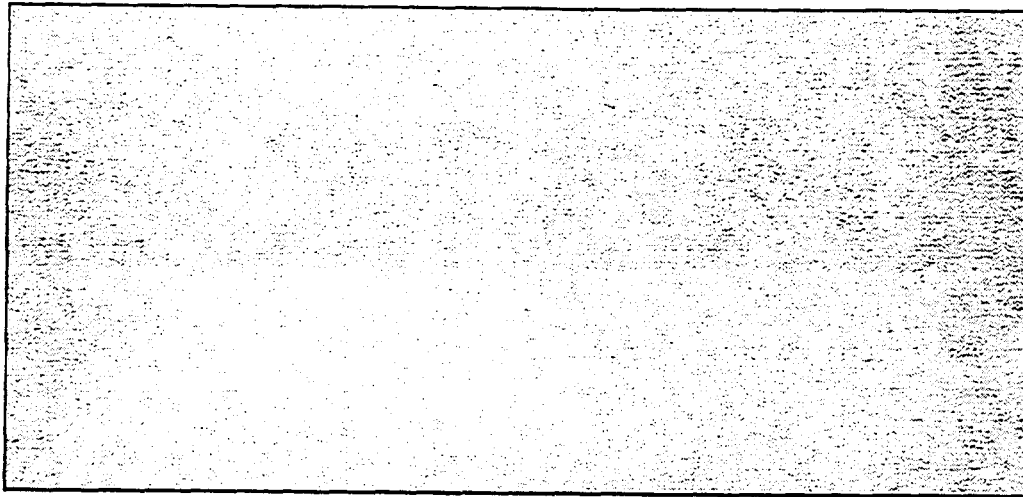


Base History

- **Activation**
- **WWII Mission**
- **Postwar Drawdown**
- **Build-Up**



Base History



F-84 repair was some of the early maintenance work performed at Hill Field

Activation

In 1939 President Roosevelt directed construction of military depots in strategic regions. A 3,000 acre site was selected adjacent to the Army's Ogden Ordnance Depot. A year later, in 1940, Hill Field opened.

WWII Mission

As facilities were constructed almost over the heads of its people, Hill Field overhauled seven types of aircraft and provided supply support to one of the largest military geographic areas.

Early in 1942, under Hill's care and jurisdiction, Wendover Field and its associated Bombing Range were activated in the vast and isolated desert of Western Utah. Twenty-one Bombardment Groups trained there. One of them, the 509th Composite Group, dropped the atomic bombs on Nagasaki and Hiroshima, Japan, effectively ending WWII.

From 1942 until 1947, Wendover Field and Range were prominent research and development

sites for guided missiles, munitions, pilotless aircraft (drones) and several types of remotely controlled bombs.

Postwar Drawdown

In the five years between WWII and the Korean Conflict, only 2,800 Hill personnel remained to preserve and store over 1,200 aircraft and support equipment items.

The massive personnel layoffs had shaken public confidence in working for the military. Hill rose to the challenge by organizing training classes and offering job incentives in the local schools. The effort was to pay off very soon.

Build-Up

In 1948, Hill Field became Hill Air Force Base. Its task, dictated by emerging tensions overseas, was to rebuild its workforce; reactivate hundreds of aircraft; and provide supply support to over four million square miles of area.



Base History

continued

- **Specialization**

Munitions

Missiles

Test and Training

Aircraft



Base History

Specialization

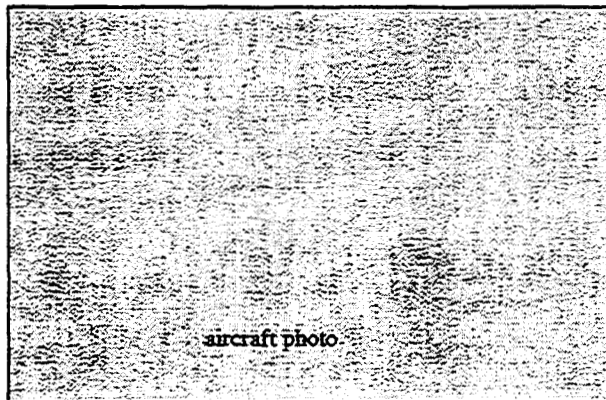
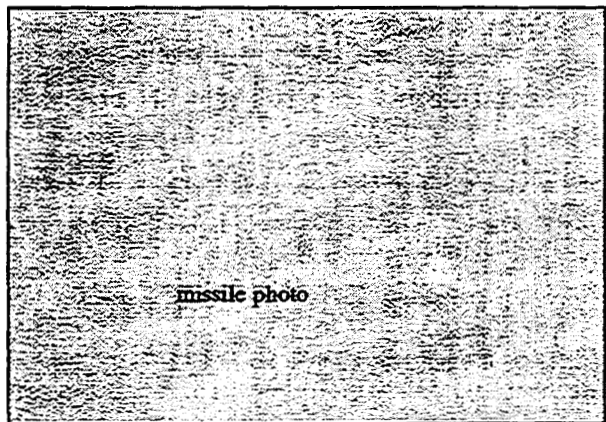
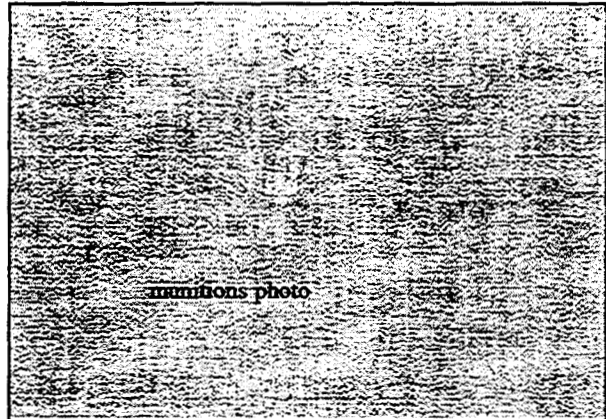
Munitions In 1955 the Air Force developed its own air munitions capability by combining Hill with the adjacent Army Ordnance Depot. Five years later, Hill became the air munitions manager for the Air Force.

Missiles In 1959, Hill became one of the first AF installations to manage missile programs. From the early "Skybolt" through the "Bomarc" to the "Minuteman" and the "Peacekeeper" in the 90's, Hill remains at the forefront of missile maintenance.

Test and Training In 1958 and 1959, Hill acquired over two million acres of airspace and nearly one million acres of land in Western Utah. This area evolved into the Utah Test and Training Range (UTTR), an ideal location for munitions, missile, and aircraft testing and training.

Aircraft During WWII Hill rehabilitated the B-17, B-24, B-29, P-40, P-47, P-61 and A-20 aircraft. During the Korean War, the B-26 and B-29 were renovated at Hill. The Jet Age came in the early 50's with work on the F-84, F-89 and F-101. Hill became the logistics manager for the F-4 in 1974. The arrival of the first operational F-16 to the 388 TFW at Hill was in 1979. By 1980, Hill's 13,500 foot single runway was the busiest in the Air Force. Hill picked up work on the F-16 in 1982 and the C-130 in 1989. In 1994 the Navy sent the F/A-18 to Hill.

Other Over time other significant missions have come to Hill: Two fighter wings, the 388 FW and 419 FW; overhaul and repair of 70 percent of DOD's landing gear; photographic and reconnaissance equipment repair; and providing simulators and training devices.

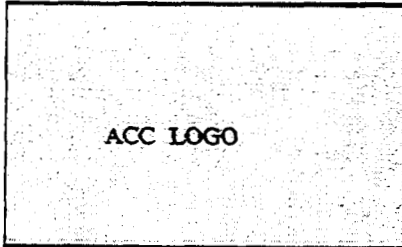


Base Mission

- **Current Status**
- **Ogden Air Logistics Center**
- **Ogden ALC Mission**

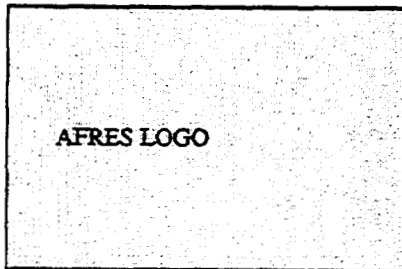


Major Tenants



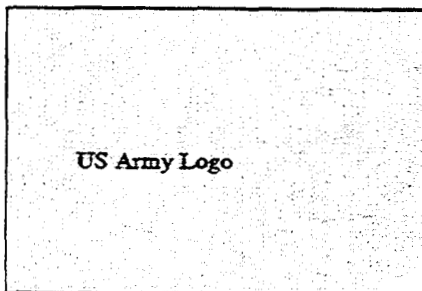
Air Combat Command (ACC)

The 388 Fighter Wing is the largest tenant on Hill Air Force Base. It is the only ACC fighter wing stationed at an AFMC base. The wing has been at Hill AFB since its return to CONUS from Korat Royal Thai Air Base, Thailand in 1975. The wing was the first in the Air Force to fly the F-16 "Fighting Falcon" and continues to do with precision and distinction, as shown by their placing as Top Active Duty Unit in the 1991 and 1993 Gunsmoke flying competitions.



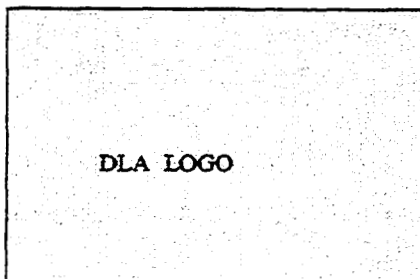
Air Force Reserve (AFRES)

The 419 Fighter Wing is the largest Reserve unit in Utah. In 1984 they became the first Air Force Reserve F-16 Wing. The wing flies five days a week with the support of a full-time cadre of Air Force Reserve technicians who provide continuity between normal training periods. They have received numerous honors in Air Force gunnery meets.



United States Army (U.S. Army)

The Nontactical Generator and Rail Shops at Hill AFB are the only U.S. Army owned and operated railroad shops in the United States. They remanufacture and perform depot level maintenance on all locomotives and rolling stock used by the Army and Air Force. They also maintain generators for the Army Corps of Engineers and the U.S. Navy, which are sent world-wide on request.



Defense Logistics Agency (DLA)

DLA maintains a large warehousing system on the base. The Defense Fuels Agency maintains the base bulk fuel storage system. Also, the Defense Reutilization and Marketing Office is here to arrange the final disposition of excess and surplus government property.

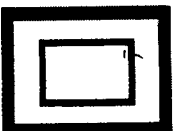


Existing Conditions

- **Discussion**
- **Key Areas of Concern**

Aging Facilities

Deteriorating Infrastructure



Existing Conditions

Factors such as aging facilities and deteriorating infrastructure present a continuous challenge to keep Hill's facilities as usable, functional and attractive as possible. Key areas of concern associated with using and adapting existing facilities and land to meet present and projected mission requirements are discussed below.

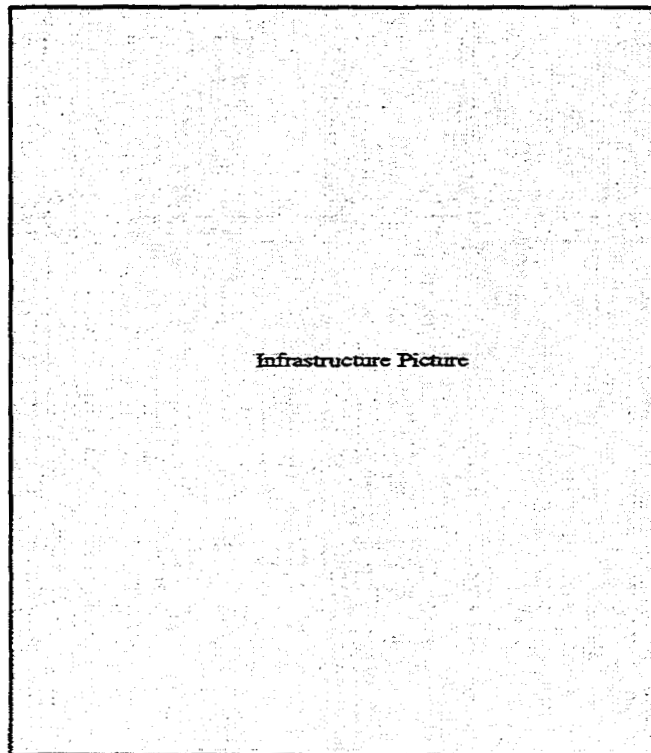
Key Areas of Concern

AGING FACILITIES

Although a portion of Hill's buildings date from the early 1930's and 1940's, considerable effort has been made to ensure these older facilities are kept in good repair. Judging by the results of the initial Commander's Facility Assessment, only about 15% of the buildings do not meet today's standards and have low mission capabilities. Those buildings rated degraded or unsatisfactory will require a great deal of work and improvement dollars to bring the building systems and the buildings themselves up to standards.

DETERIORATING INFRASTRUCTURE

In spite of an aggressive program to maintain the bases infrastructure, age, corrosion and excessive usage have led to overburdening and deterioration of the infrastructure system. Parts of the water, sewer, and electrical system are well over half a century old and need to be upgraded or replaced to safely and efficiently meet Hill's current and future needs. Of particular concern are the industrial wastewater treatment plant (IWTP), which needs substantial upgrade to avoid noncompliance with environmental regulations and the fire suppression systems in the aircraft hangers, which due to their age have deteriorated to the point they may be difficult to operate in the case of a fire.



Corrosion of caustic tanks at the IWTP could lead to serious problems if not replaced



Existing Conditions

continued

- **Key Areas of Concern**

Incompatible Land Use

Environmental Management



Planning Strategies

The following is a presentation of Hill's Planning and Facility Improvement Strategy. The strategy relates to the Ogden Air Logistics Center Strategic Plan to set a broad framework for decision making and policies, which provide a course of action to pursue in attaining and realizing AFMC goals.

Goals

The Hill Air Force Base Planning and Facilities Improvement Strategy is based on the fundamental AFMC goal to operate quality installations. This goal and the following objectives form the basis for directing base development and facility improvement in a logical and orderly fashion.

PERFORM THE MISSION

Provide maximum operational/support capability to perform assigned, proposed, or potential missions.

ENHANCE THE QUALITY OF LIFE OF OUR PEOPLE

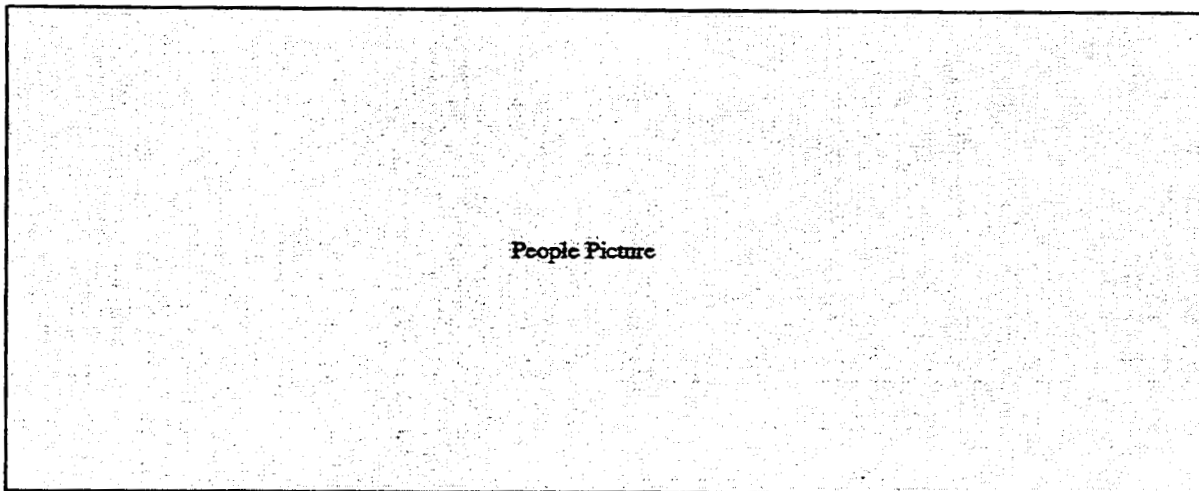
Continuously improve facilities, infrastructure, services and work environment to satisfy peoples' needs and priorities.

DEMONSTRATE ENVIRONMENTAL LEADERSHIP

Properly plan and execute pollution prevention, restoration, compliance and waste disposal programs.

BE A GOOD NEIGHBOR

Enhance community relationships by promoting land use/airspace compatibility with off-base areas which affect or may be affected by base development and operations.



Self Help projects improve the quality of life for base personnel

Planning Strategies

continued

- **Policies**

Total Quality Management

Senior Leadership Involvement

User Involvement

Emphasis on Infrastructure

ARCHITECTURAL COMPATIBILITY

Hill Air Force Base is a young base (1940) compared to other bases. At the beginning of World War II a major construction effort was started at Hill Field. Buildings considered to be permanent were constructed of concrete and brick. Temporary buildings, typically, were constructed with wood frames, shiplap siding and low gabled roofs. Foundations were spot footings and piers. Continuous foundations were not required. Insulation was not used at all.

The base is a loose knit group of buildings tied together by the military theme. The architecture is a wide variety of styles influenced by the fads in style since the forties.

Our recently published Architectural Compatibility Standard was written to provide guidance in design through materials, form, exterior colors, landscaping, lighting and other items in an attempt to unify the base and give it a planned corporate image. The goal is to allow the existing styles to remain but unify the base with specific treatment of certain elements which will be consistent across the base.

REGIONAL INFLUENCES

The regional influence of the base is of the historical period of our early buildings mentioned above and one obvious architectural feature -- yellow brick. Many of the permanent administrative buildings have the yellow colored brick veneer.

ARCHITECTURAL DISTRICTS

Distinct areas are not defined clearly by architecture but rather by use or function of the area. Thus these areas have been defined compatible due to their functional characteristics. Several different styles of architecture can be seen in any of the areas. The base map shows the general area of each group. The four groups - Industrial, Support, Administrative, and Housing are described in the following paragraphs.

Industrial Group: The industrial group consists of the large hanger buildings and their support structures. Typically, these buildings are metal clad, masonry or concrete buildings with flat roofs. The majority of these buildings are all located near the runway.

Support Group: The support group serves the people who live on base. The commissary, theater, dorms, chapel and other such buildings would be considered in this group. They typically are brick, jumbo block or aluminum sided buildings with flat roofs. Most of these buildings are located along or near Sixth Street.

Administrative Group: The administrative buildings house office space or similar functions and are brick buildings of similar form and size. The 1200 zone contains the majority of these buildings but other administrative functions are located elsewhere on base.

Housing Group: The housing group consists of individual family units of base housing and their support facilities such as garages, sheds, etc. They typically are brick and aluminum sided frame structures with gabled shingle roofs. They are located in one large concentrated area and three other smaller areas.

COLOR SCHEME

The base color scheme, Spruce Log, was established in a study produced in 1984 by a local design firm. The result of that study was the Architectural Environmental Standards which included the spruce log colors. The color pallet included six major colors and four trim colors. Over the years since its inception the various OO-ALC Commanders have deleted colors limiting the range to two colors. Federal color number 30099, a dark brown, and number 23617, a light tan, are acceptable colors.

Planning Strategies

- **Goals**

Perform the Mission

Enhance the Quality of Life of Our People

Demonstate Environmental Leadership

Be a Good Neighbor

LIMITED RESOURCES

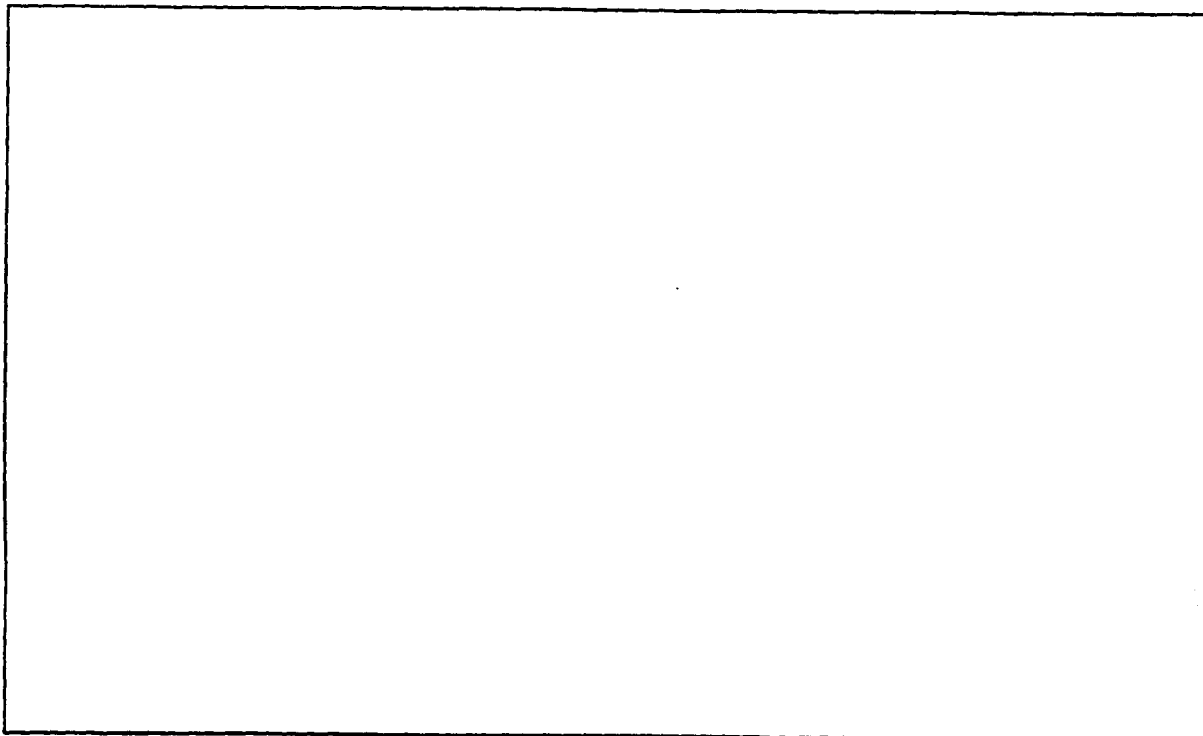
Meeting the facility needs of current and future missions is becoming a greater challenge . Today, with budget and manpower cuts, we are operating with 50% of the funds and 75% of the manning of only a few years ago. To meet this resource challenge, top management has committed to policies such as increased facility consolidation, reduced levels of facility maintenance, and use of alternative funding sources for facility projects. However, planning efforts must remain focused toward wise use of existing resources so that assets are used in a manner that achieves the most return on investment.

URBAN ENCROACHMENT

An analysis of off-base land use areas show that Hill is relatively free from encroachment. State and local governments have acknowledged Hill's mission needs in their community master plans and have enacted support initiatives such as major zoning and building code changes and a \$10.2 million dollar easement purchase plan to prohibit encroachment and incompatible land development around Hill AFB.

BASE HOUSING

Hill AFB continues to have an award winning housing program. The multi-phase project to replace housing located near the airfield environment is progressing. The first 212 replacement units are nearly complete and the construction of the final 138 units is about ready to start. Maintaining the best military family housing in the Air Force is our standard.



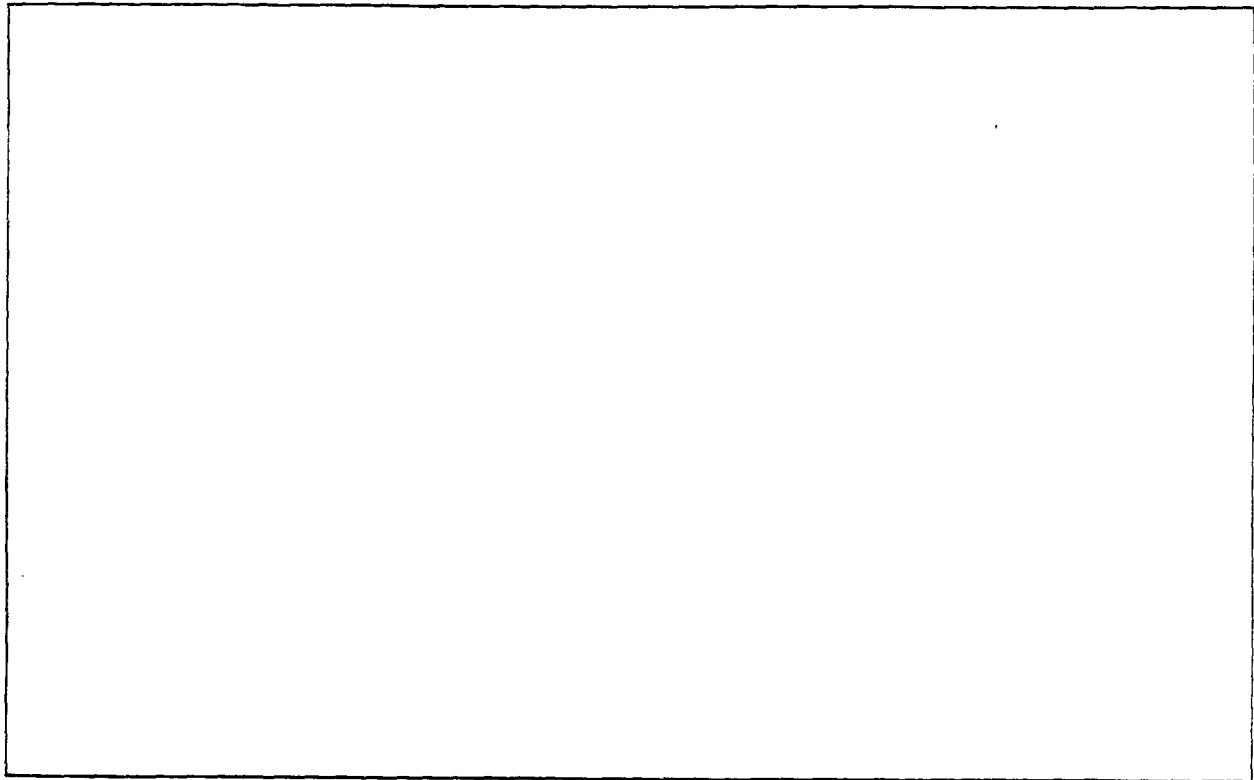
Replacement housing for the Wherry housing units

Existing Conditions

continued

- **Key Areas of Concern**

Architectural Compatibility



The Wherry housing area lies within the runway clear zone

INCOMPATIBLE LAND USE

The base had developed relatively well defined areas of compatible land use. There are, however, cases of incompatible land use which should be corrected when the opportunity arises. The 1950's Wherry housing development is located on the east side of the runway within the runway clear zone (high accident potential), endangering both the housing occupants and the aircraft. A phased project is currently underway to construct replacement housing for the Wherry occupants. The project should be completed in FY 96.

ENVIRONMENTAL MANAGEMENT

Hill is known for its proactive and responsive methods to managing the environment and preventing pollution as demonstrated by the receipt of the 1993 Department of Defense Environmental Quality Award and the 1993 Air Force Pollution Prevention Award

Conducting daily operations in an environmentally correct manner and cleaning up after past environmental mistakes continues to be a challenge. Since environmental cleanup costs much more than pollution prevention, every effort is being made to reduce the use of pollutants through operation modifications, recycling and alternative technology assessments. However, numerous areas of the base are unavailable for use due to past environmental contamination. These areas will not be available for construction until proper investigation and cleanup efforts are completed.

Existing Conditions

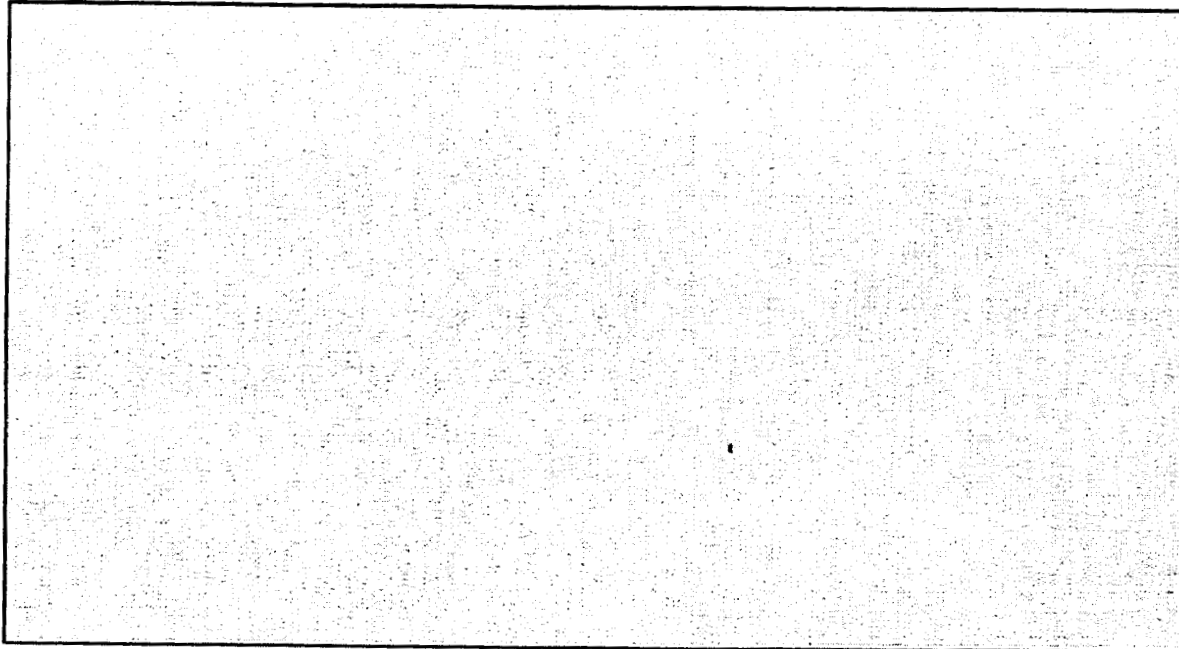
continued

- **Key Areas of Concern**

Limited Resources

Urban Encroachment

Base Housing



Base Mission

Current Status

Hill AFB is the largest employer in the state of Utah with over 13,000 civilian and military members on the payroll. Over 50 different organizations are housed on Hill AFB. The Ogden Air Logistics Center (ALC) has command jurisdiction over the installation.

Ogden ALC

The Ogden ALC is one of five Logistics Centers in Air Force Material Command (AFMC), providing support to U.S. and treaty organizations around the world. Fifty-six Air Force activities in the western U.S., Canada, and Alaska rely on the center for logistical support beyond their local resources.

Ogden ALC Mission

This ALC has worldwide logistic management, maintenance support, and depot support responsibilities for some of the Air Force's most sophisticated weapon systems, including the Minuteman and Peacekeeper missiles and the Emergency Rocket Communications Systems.

The center is the logistics manager for all conventional airmunitions, solid propellants and explosive devices used throughout the Air Force. The ALC also is program manager for the F-4 "Phantom" and the F-16 "Fighting Falcon" along with performing depot maintenance on the F-4, F-16, F/A-18 "Hornet" and C-130 "Hercules". The center also is responsible for Air Force-wide item management, depot level overhaul and repair for all types of landing gear, wheels, brakes and tires and all Air Force photographic and reconnaissance equipment.

The Utah Test and Training Range west of the Great Salt Lake is used to test munitions and propellants as well as a training ground for operational devices employed world wide to train aircraft and missile crews.

Major Tenants

- **Air Combat Command**
- **Air Force Reserve**
- **United States Army**
- **Defense Logistics Agency**

Policies

The following policy statements articulate the manner in which base officials desire future development and improvements to occur. These policies will be incorporated in the development and implementation of individual plans and programs.

TOTAL QUALITY MANAGEMENT

The principles of Total Quality Management will continue to be used in all future development and improvements on Hill AFB. Experience has shown that when quality is maintained in facilities, environment and infrastructure, quality inevitably follows in lifestyle, morale, mission productivity and readiness.

SENIOR LEADERSHIP INVOLVEMENT

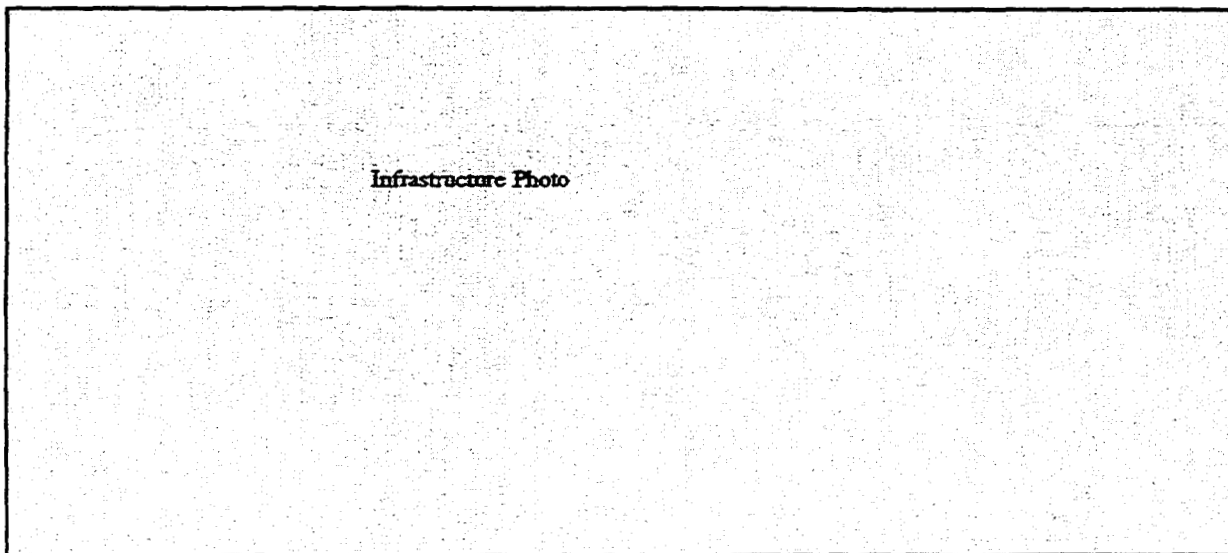
The Facility Board and other senior leaders will establish priorities and provide overall direction for facility and program improvement. Senior leaders will ensure that a comprehensive and balanced approach is taken to resource allocation which considers the entire base and its facility variables (including roads, utility systems and other infrastructure components).

USER INVOLVEMENT

Interaction between unit commanders, decision makers and project managers is essential at all stages of project development to ensure good project definition, design and execution. A continuous process of customer care is basic to providing complete and functional facilities that meet or exceed user requirements.

EMPHASIS ON INFRASTRUCTURE

An emphasis will be placed on maintaining and upgrading basic infrastructure and support systems including "hidden" infrastructure such as utility systems, fire suppression systems, environmental controls and structural integrity of buildings. Ultimately, an amount equal to 1.5% of the real property value of the base will be spent on infrastructure per year, as compatible functions are further consolidated and inefficient facilities are eliminated.



Emphasis is placed on maintaining and repairing the base infrastructure



Planning Strategies

continued

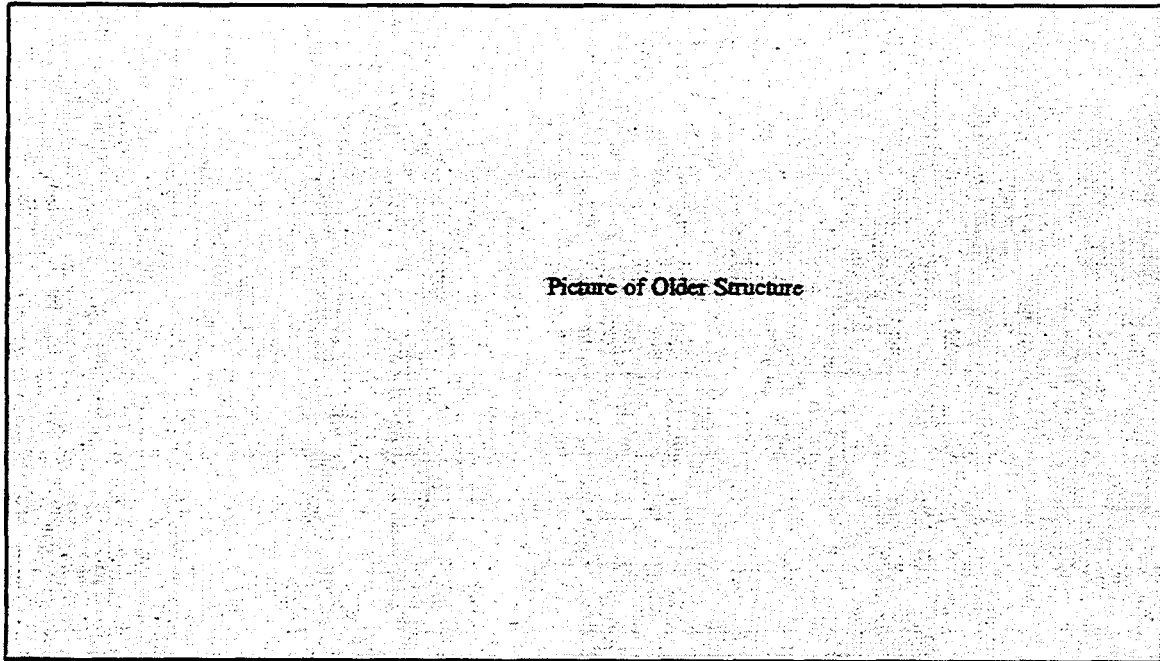
- **Policies**

Environmental Responsibility

Compatible Land Use

Eliminate Inefficient Facilities





Picture of Older Structure

Projects like the Depot Procurement Consolidation eliminate major inefficiencies in older buildings

ENVIRONMENTAL RESPONSIBILITY

Future development at Hill Air Force Base will continue to consider the environmental consequences of proposed buildings and renovation projects. This may involve the analysis and monitoring of proposed sites, potential cleanup of sites requiring restoration, and the protection of environmentally sensitive areas such as the underground aquifers, wildlife habitats, wetlands, and historical buildings.

COMPATIBLE LAND USE

The approved Land Use Component Plan will be used as a guide for siting new facilities and relocating organizations to existing facilities. The purpose of this plan is to encourage the development of desirable land use areas consisting of an appropriate mix of compatible uses and separation of incompatible uses. Siting within each area will be based upon sound planning principles. Sitings in which development would violate Air Force siting criteria, create traffic problems, damage the environment, or otherwise adversely impact the base and its systems will be avoided whenever feasible alternatives exist.

ELIMINATE INEFFICIENT FACILITIES

An aggressive program will be implemented to remove or replace WWII era woodframe, metal, delapidated structures, and any facilities which are too expensive to operate and maintain. Major rehabilitation and upgrade efforts will take place only in structures that are worth retaining. Structures not worth retaining will be demolished.



Planning Strategies

continued

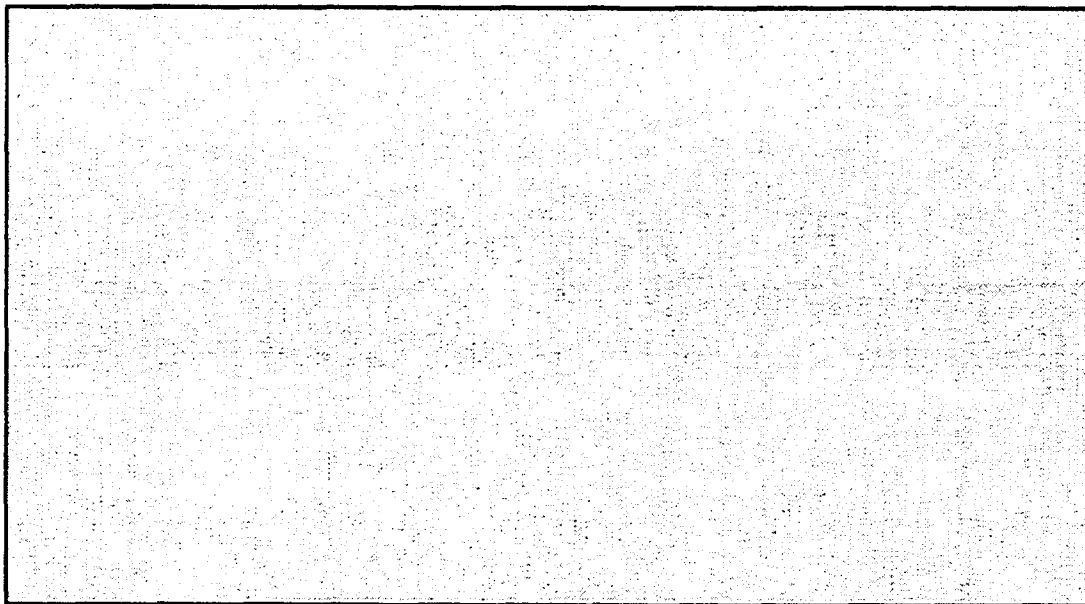
- **Policies**

Architectural Compatibility

Directed Consolidation and Growth

Encourage Community Relations





Blending administration and hangar space together in an architecturally compatible way.

ARCHITECTURAL COMPATIBILITY

The Hill Air Force Base Architectural Environmental Standards will be used as a guide in all future facility design. These standards provide short and long term guidance for creating functional, safe and pleasant places to live and work while expressing "harmony, quality, sensitivity and excitement" in the base environment.

DIRECTED CONSOLIDATION AND GROWTH

Future development will aim toward centralizing base level functions so they make better use of their resources. Areas adjacent to the flightline are planned for flying orientated facilities while family housing will be consolidated in the southwestern area of the base. Due to existing conditions of traffic congestion, lack of parking, utility constraints, and limited resources, every effort must be made to direct and control consolidation of functions on and growth of this installation. Consolidation of compatible functions needs to be aimed towards the more energy efficient and infrastructure reliable facilities. New construction needs to be in modern, efficient facilities which provide the necessary space and functional design required by the user.

COMMUNITY RELATIONS

Hill Air Force Base will continue to work closely and coordinate appropriate actions with local communities, government agencies, and citizens in an effort to ensure future compatibility between the base and neighboring areas. Positive relationships, like those formed with the Wasatch Front Regional Council during development of a Compatible Land Use Plan and the state government during development of the Air Force Museum on Hill Air Force Base, will be continued and strengthened. The resulting benefits of this will permit the base to perform its mission with minimum adverse impacts on its neighbors.



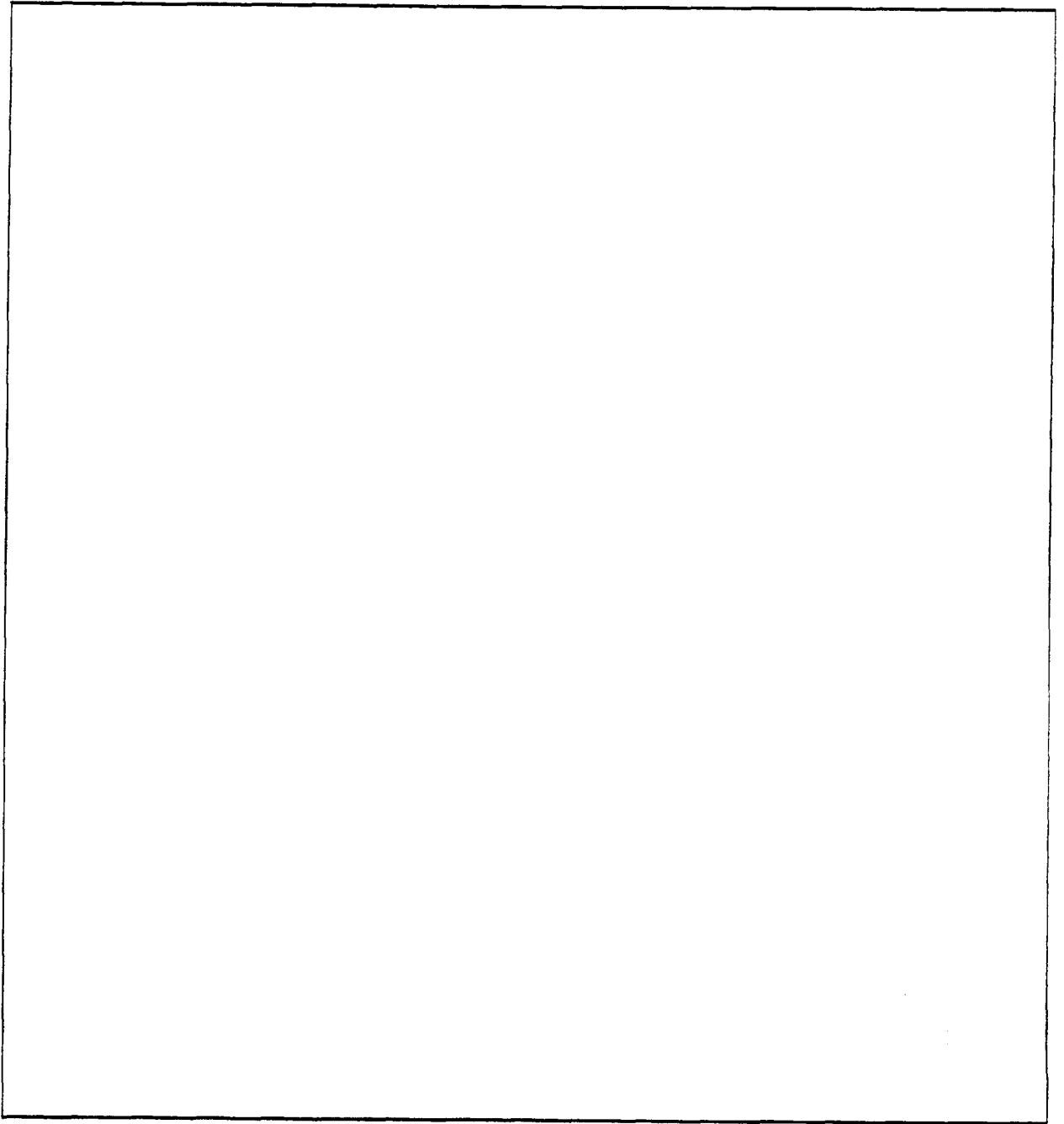
Planning Strategies

continued

- **Policies**

Architectural Color Schedule





Hill AFB Architectural Color Schedule



A LOOK INTO THE FUTURE

Hill's five year facility improvement plan involves hundreds of small and large scale projects to construct, upgrade, repair and maintain our assets. The list below and the perspective drawings on the following pages provide a look at many of our major programmed projects. These Fiscal Year 1995-2000 projects form the foundation for future programming through the year 2000 and beyond. Additions and adjustments will be made from time to time in order to keep pace with changing conditions.

AIRCRAFT/AIRSPACE/AIRFIELD

Replace Rigid Taxiway #6 FY 95 - \$1,226
Repair East Apron PCC Slab FY 95 - \$1,166
Add/Alter Corrosion Control FY 98 - \$1,550
Construct Hot Pads FY 00 - \$15,300
Add/Alter Flight Test FY 00 - \$2,800*

INDUSTRIAL

Repair Roof, Bldg 507 FY 95 - \$785
Munitions Handling Equipment & Support FY 98 - \$1,500*
Upgrade Structural Repair Facility FY 00 - \$1,900

WEAPON SYSTEM SUPPORT

Peacekeeper Storage Facilities (UTTR) FY 98 - \$7,500*
CAD/PAD Spares Storage FY 99 - \$5,100
Munitions Shipping & Receiving FY 99 - \$1,550
Munitions Control Facility FY 00 - \$2,400

ADMINISTRATION & HOST OPERATIONS

Upgrade BCE Facility FY 95 - \$437
Add/Alter Main Fire Station FY 98 - \$1,150*

Note: Dollars in thousands

* denotes projects shown in perspective drawings



A LOOK INTO THE FUTURE

INFRASTRUCTURE

Asbestos Removal FY 95 - \$1,000
Replace Nat Gas lines, East Area FY 95 - \$708
Replace Ballasts, Bldg 21 FY 95 - \$630
Repair HVAC Bays C/D FY 95 - \$609
Maintain Base Roads FY 95 - \$563
Correct Fire Deficiencies, Bldg 214 FY 95 - \$403
Repair Interior Elec Syst (Multi Bldg) FY 96 - \$500
Upgrade Industrial Waste Water Collection Mains FY 96 - \$6,200
Repair Water System (UTTR) FY 96 - \$500
Water Recycling FY 98 - \$4,000
Upgrade Steam Distribution System FY 98 - \$2,300
Automate Steam Plants FY 98 - \$9,000
Fire Protection Deficiency Corrections FY 98 - 3,300
Air Pollution Monitoring & Control FY 98 - \$3,000
Upgrade Heating Oil Tanks FY 99 - \$5,000
Add/Alter Water System FY 99 - \$1,600
Electrical Distribution System (UTTR) FY 99 - \$1,300
Alter Fire Sprinkler System FY 99 - \$5,300
Install Infrared Heating Systems FY 00 - \$640
Upgrade Heating Facilities FY 00 - \$500
Absorption Chiller Replacements FY 00 - \$8,000
Upgrade Fire Protection (Multiple Buildings) FY 00 - \$8,000
Fire Protection Depot Warehouses FY 00 - \$13,400



A LOOK INTO THE FUTURE

COMMUNITY

Repair Chapel FY 95 - \$155

Construct Clinics/Alter Hospital FY 96 - \$2,800*

Repair Dining Hall FY 96 - \$2,000

Add/Alter Fitness Center FY 98 - \$4,850*

Add/Alter Range Management Complex FY 99 - \$3,000*

Composite Medical Facility FY 00 - \$20,000*

Add/Alter Library FY 00 - \$600

HOUSING

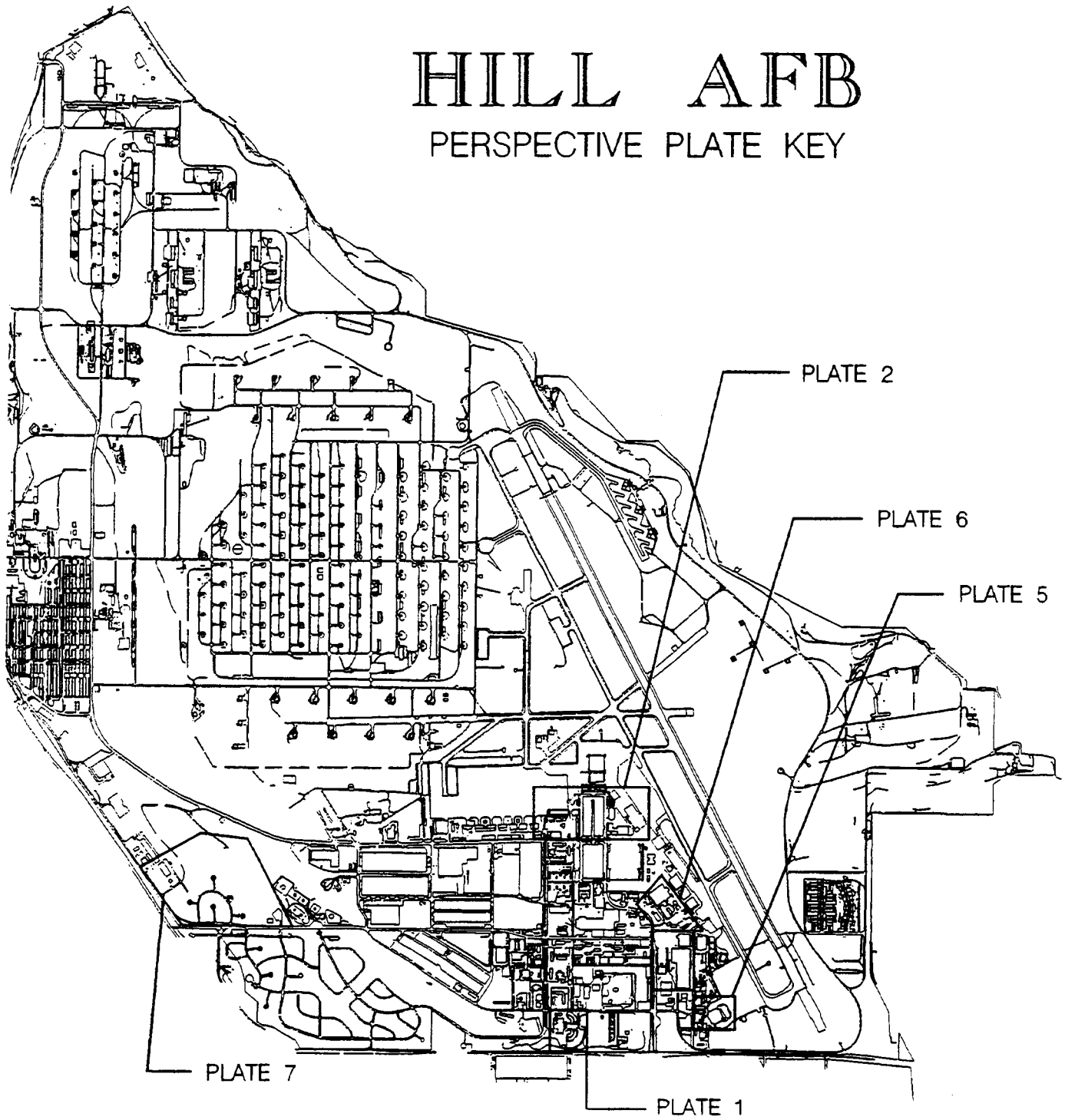
Replace Cabinets, Area F FY 95 - \$546

Military Family Housing Phase III FY 96 - \$11,427*



HILL AFB

PERSPECTIVE PLATE KEY



**NOTE: PLATES 3 AND 4 NOT SHOWN ON THIS MAP

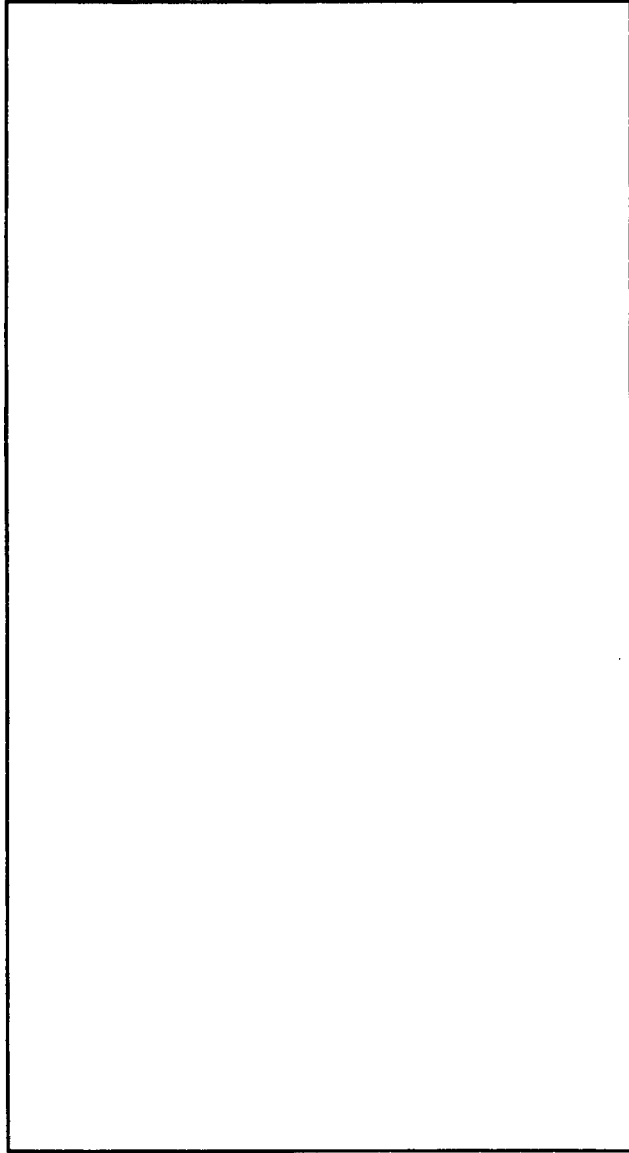




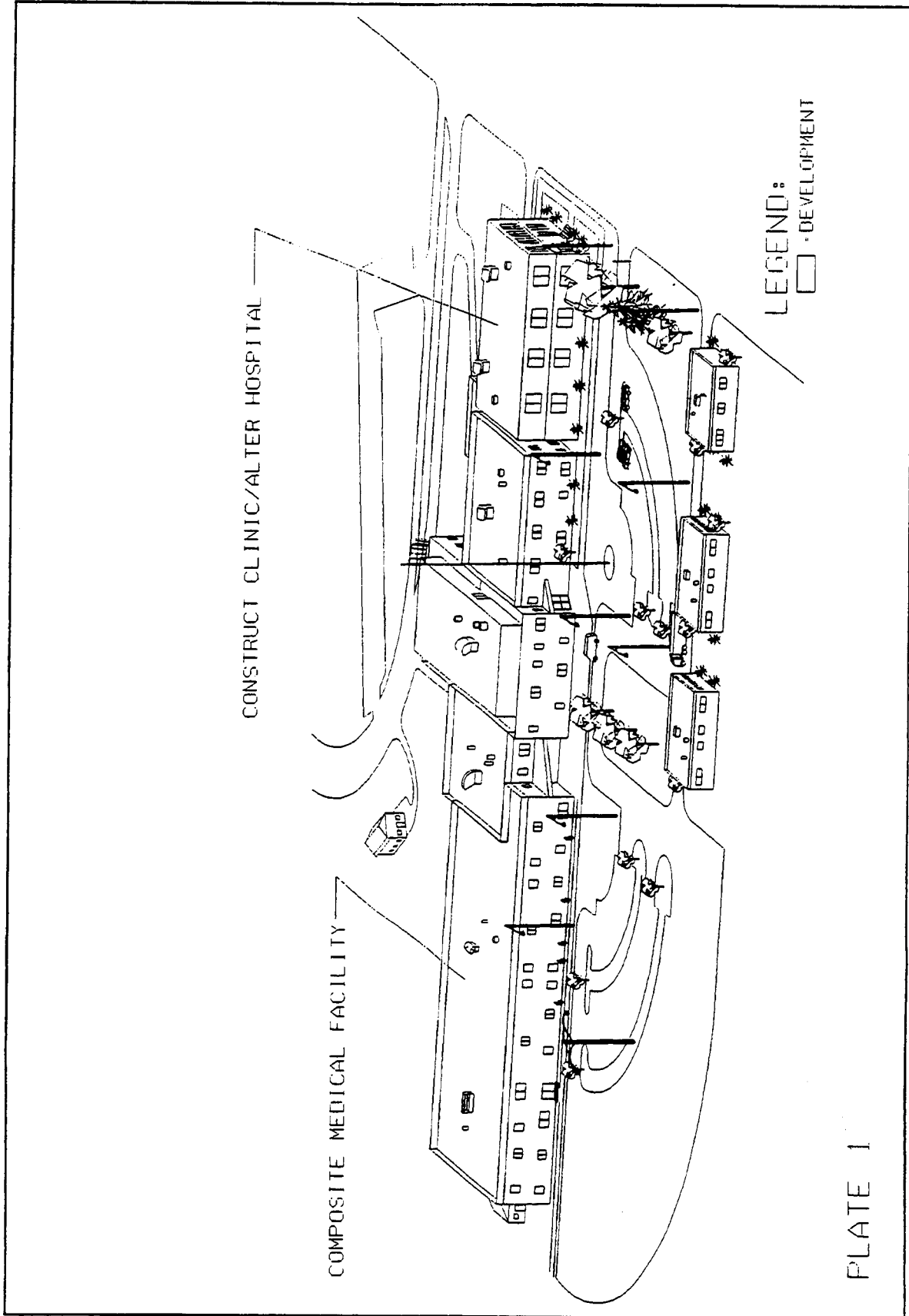
A LOOK TO THE FUTURE

PLATE 1

COMPOSITE MEDICAL FACILITY - FY 00: Add 93,000 SF to Bldg 570 to upgrade hospital to meet standards set by the Western Regional Health Facilities Office.



Hill AFB Hospital



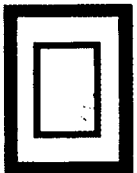
CONSTRUCT CLINIC/ALTER HOSPITAL

COMPOSITE MEDICAL FACILITY

LEGEND:
□ DEVELOPMENT

PLATE 1



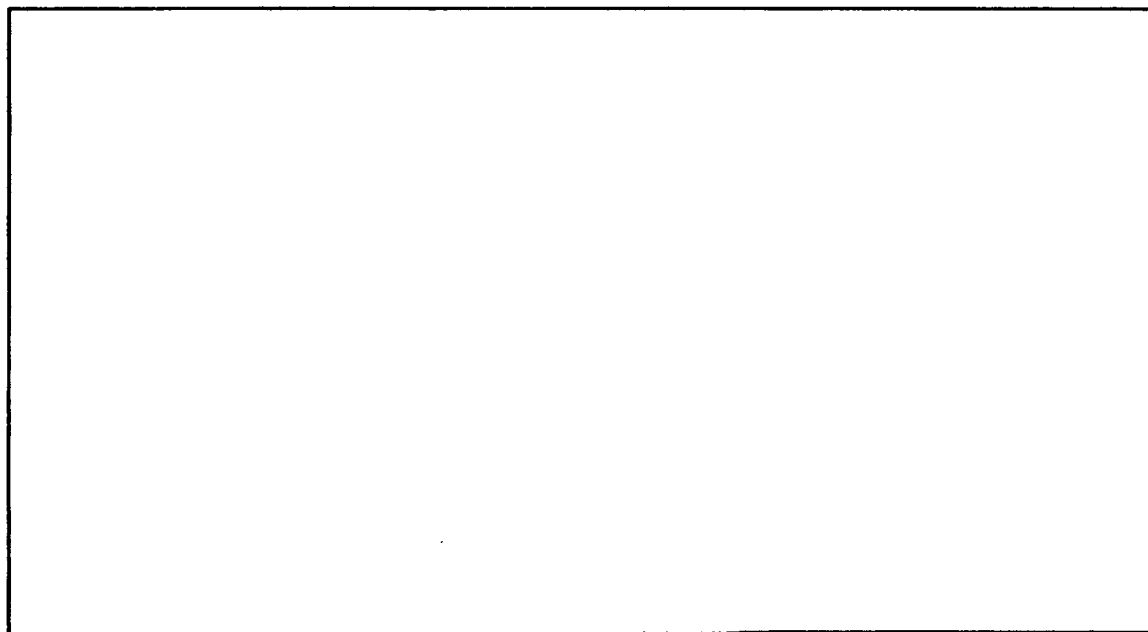


A LOOK TO THE FUTURE

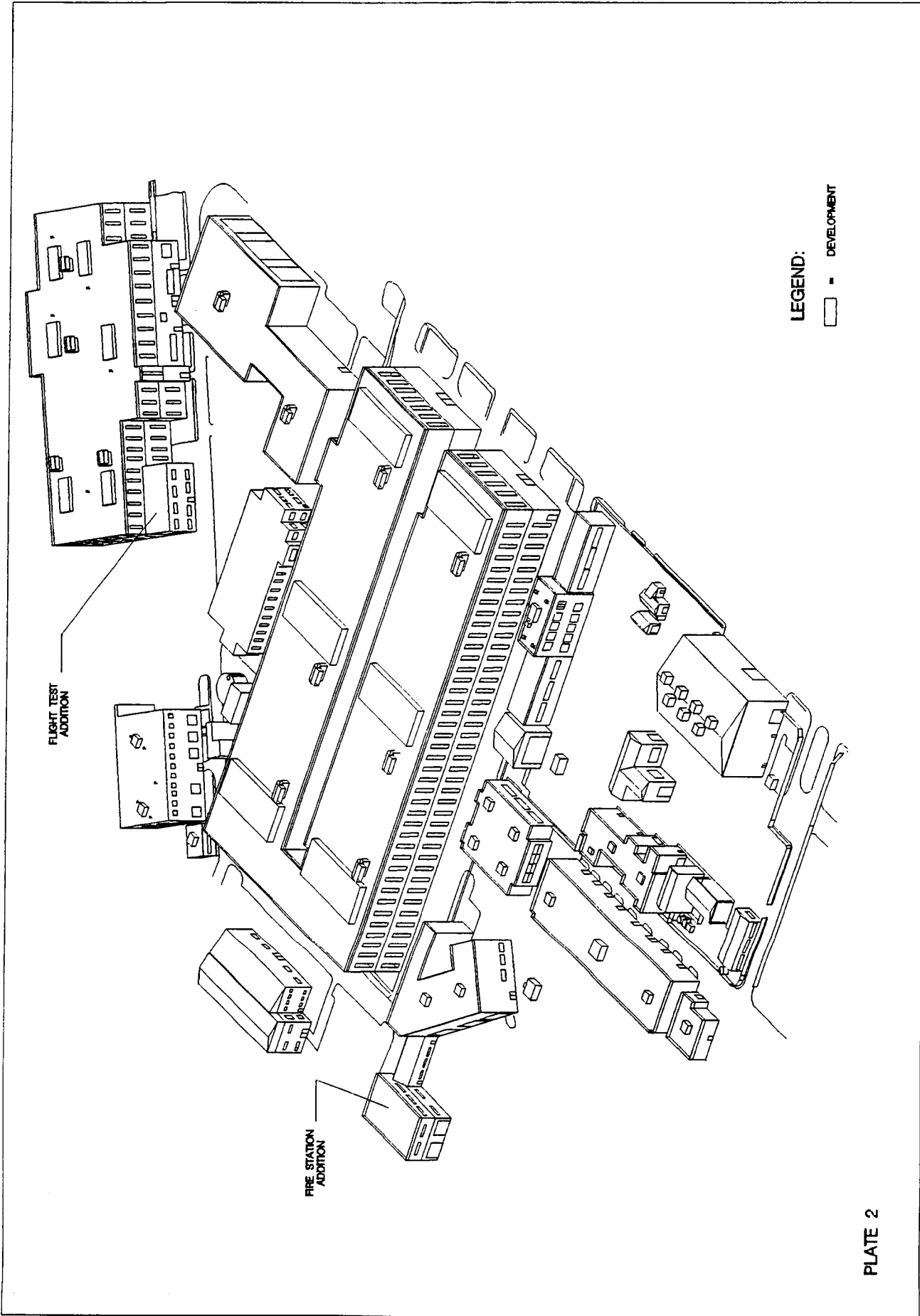
PLATE 2

ADD/ALTER MAIN FIRE STATION - FY 98: Add 5,400 SF to Bldg 9 in support of new and larger fire fighting vehicles.

ADD/ALTER FLIGHT TEST - FY 00: Add 10,700 SF to Bldg 233 for additional pilot offices, avionics test equipment storage and worker's lockers.



New, larger fire trucks will not fit in existing bays



LEGEND:
 — — — — — DEVELOPMENT

FLIGHT TEST
 ADDITION

FIRE STATION
 ADDITION

PLATE 2





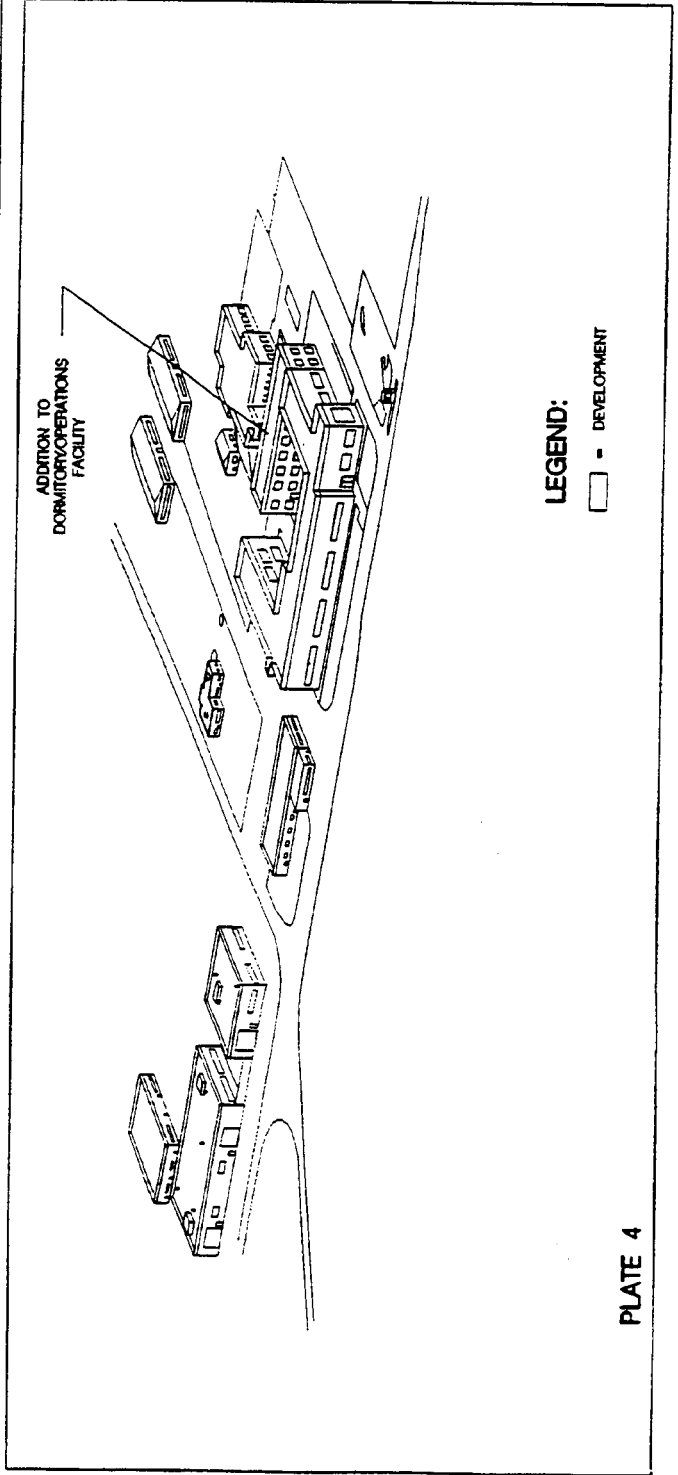
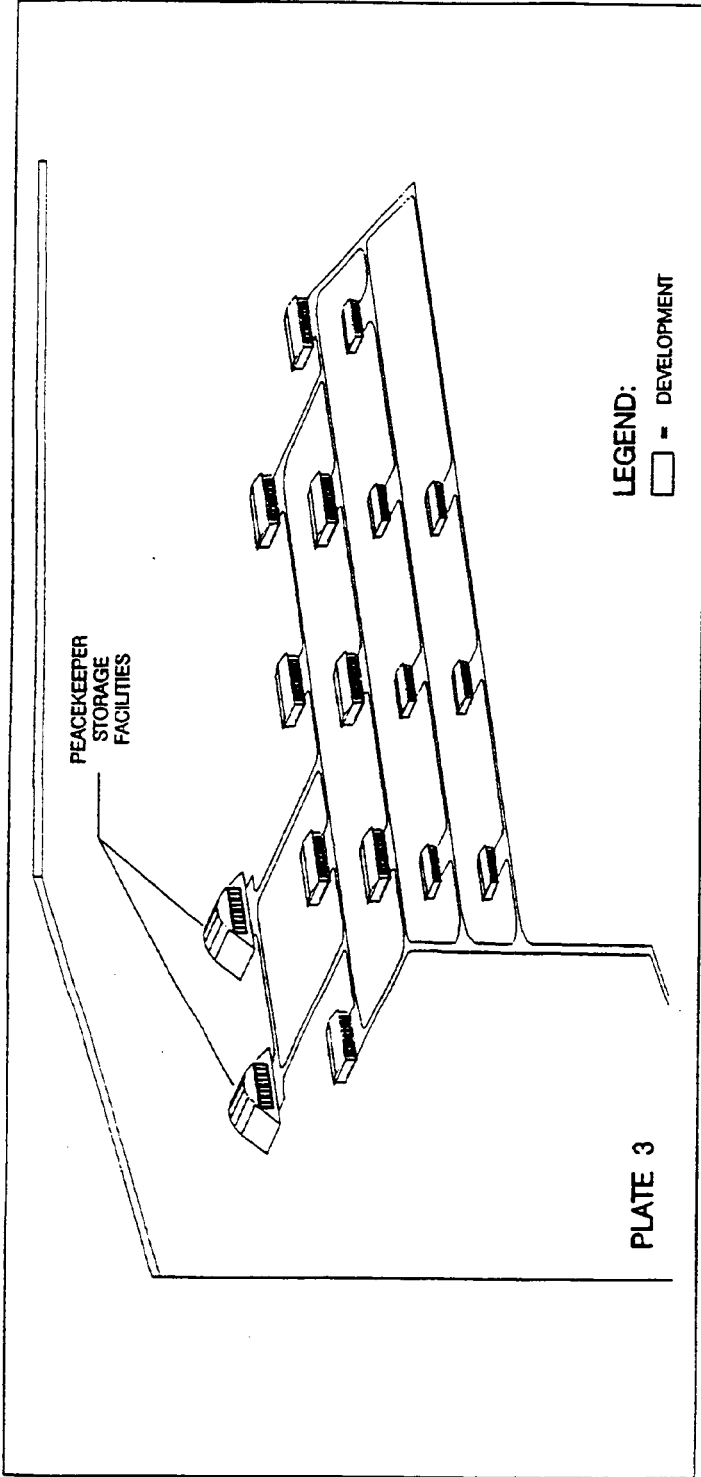
A LOOK TO THE FUTURE

PLATE 3

PEACEKEEPER STORAGE FACILITIES (UTTR) - FY 98: Construct two 12,300 SF earth-covered rocket motor storage facilities to house Stage II and Stage III motors.

PLATE 4

ADD/ALTER RANGE MANAGEMENT COMPLEX - FY 99: Add 28 rooms to the existing dormitory at the UTTR to house people working at the Oasis Compound.

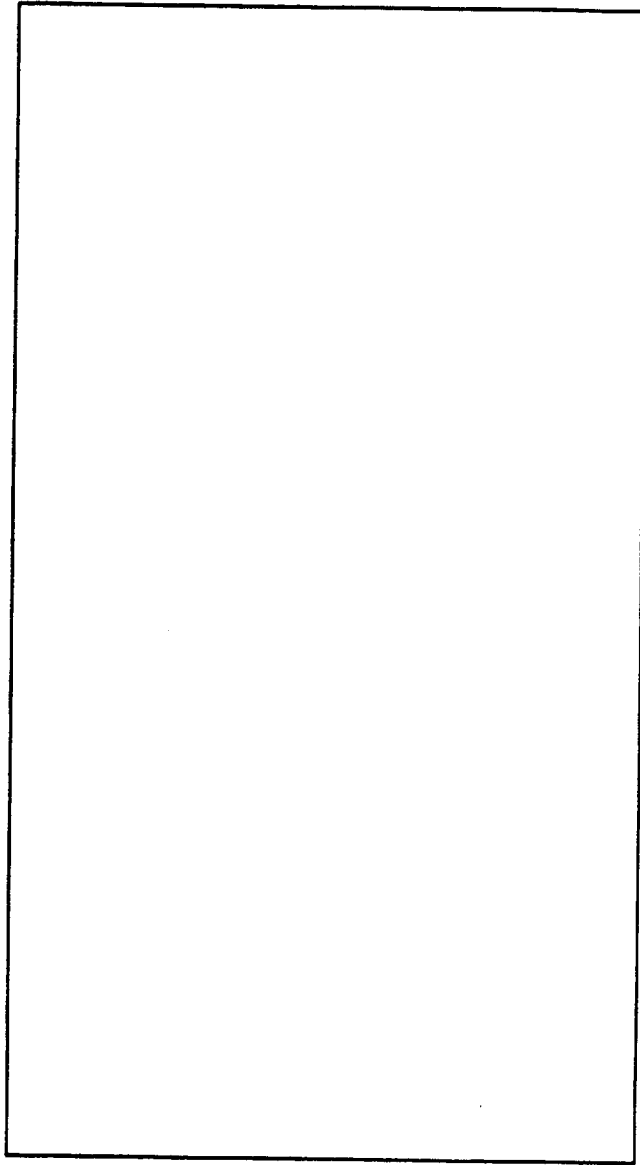


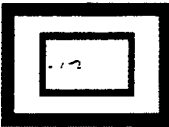
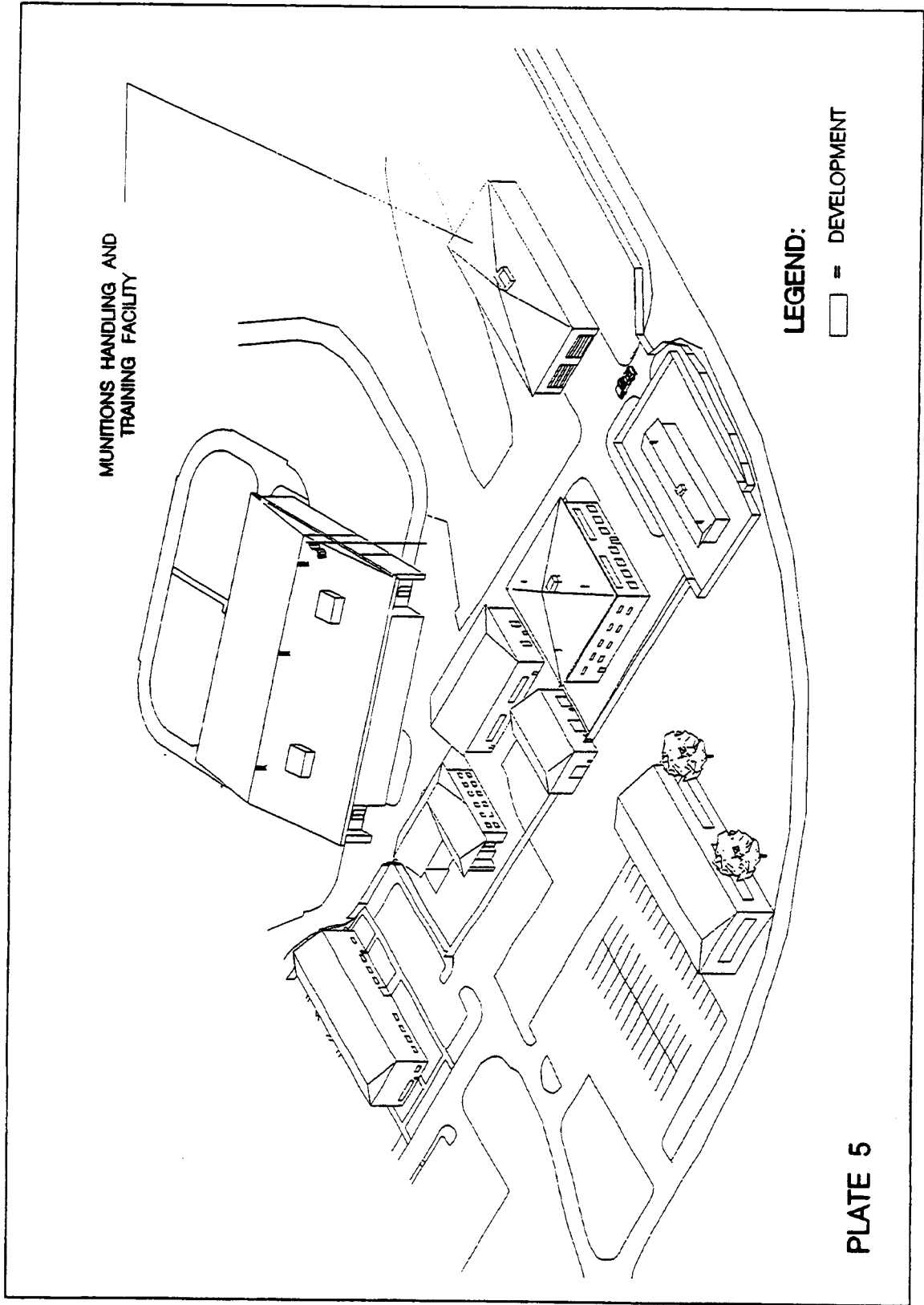


A LOOK TO THE FUTURE

PLATE 5

MUNITIONS HANDLING EQUIPMENT & SUPPORT - FY 98: Construct an 11,000 SF facility for maintenance and storage of munitions handling equipment and inert munitions training shapes and munitions personnel training.



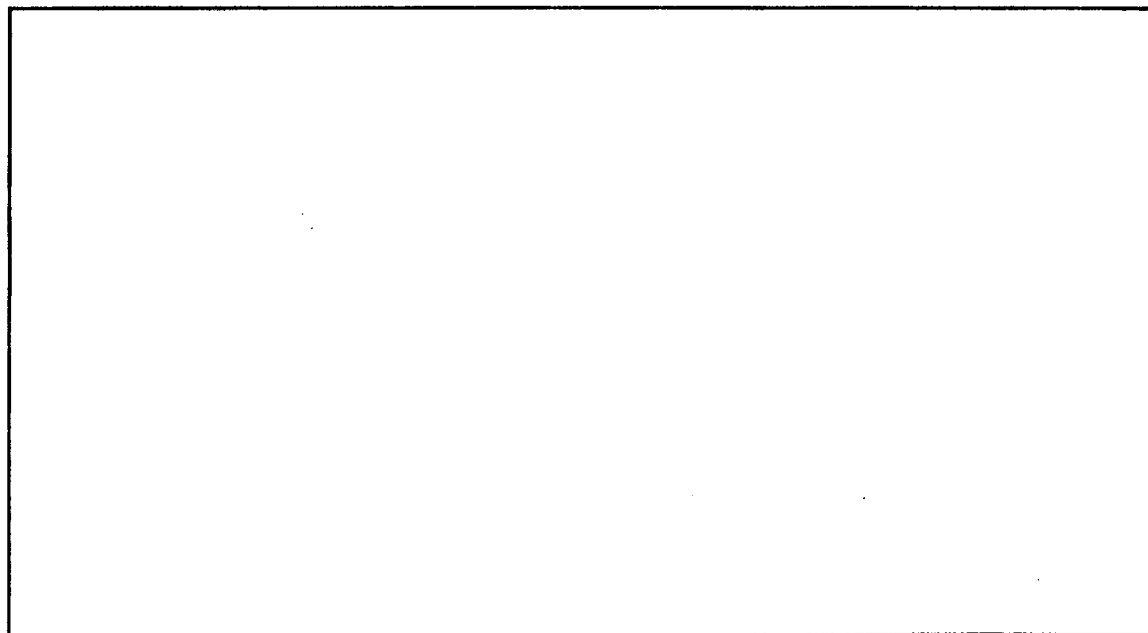




A LOOK TO THE FUTURE

PLATE 6

ADD/ALTER FITNESS CENTER - FY 98: Add 16,800 SF to Bldg 520 for basketball/volleyball, two racquetball courts, and an addition to the swimming area.



Physical fitness and sports are more popular than ever

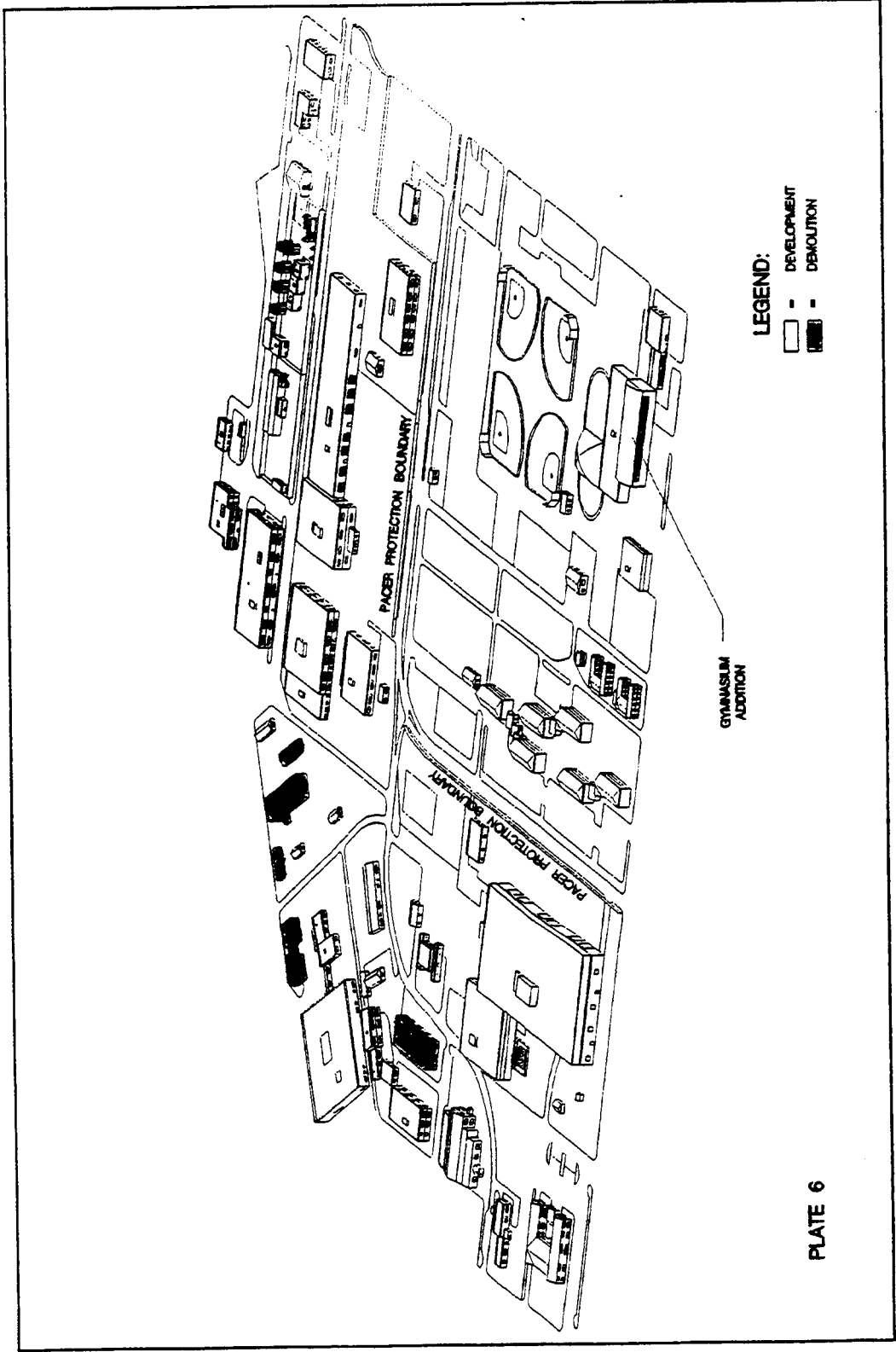


PLATE 6

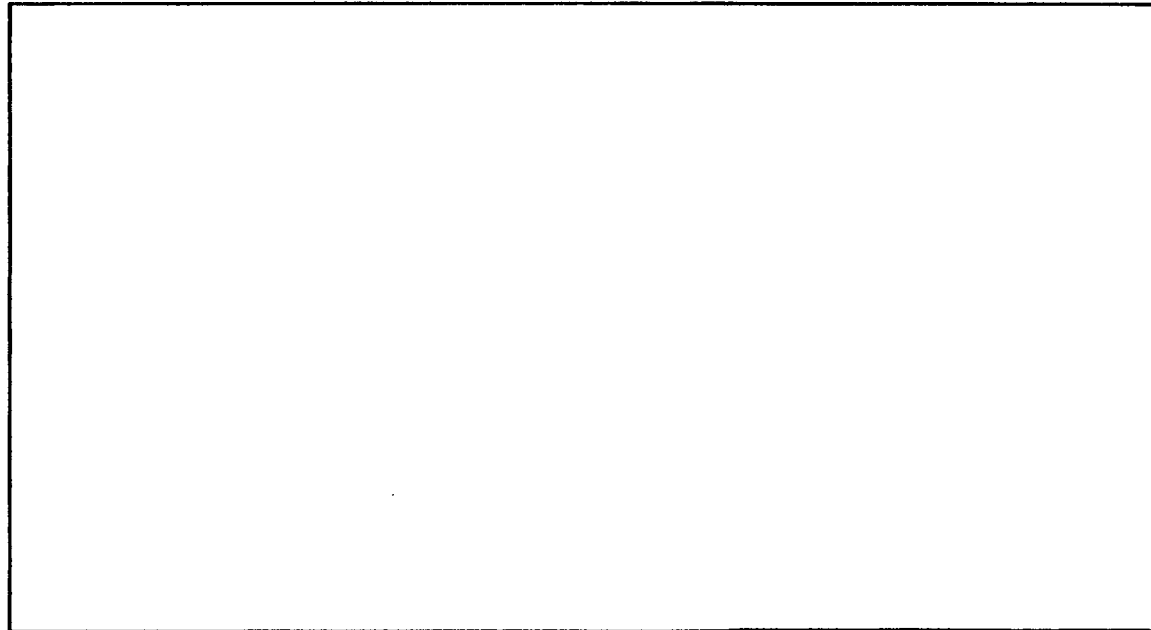




A LOOK TO THE FUTURE

PLATE 7

MILITARY FAMILY HOUSING PHASE III - FY 96: Construct 138 two and three bedroom military family housing units to replace the 350 Area C units.



Military family housing is an investment in the health and morale of our military members

MILITARY FAMILY
HOUSING REPLACEMENT
AREA "G"

PHASE 1

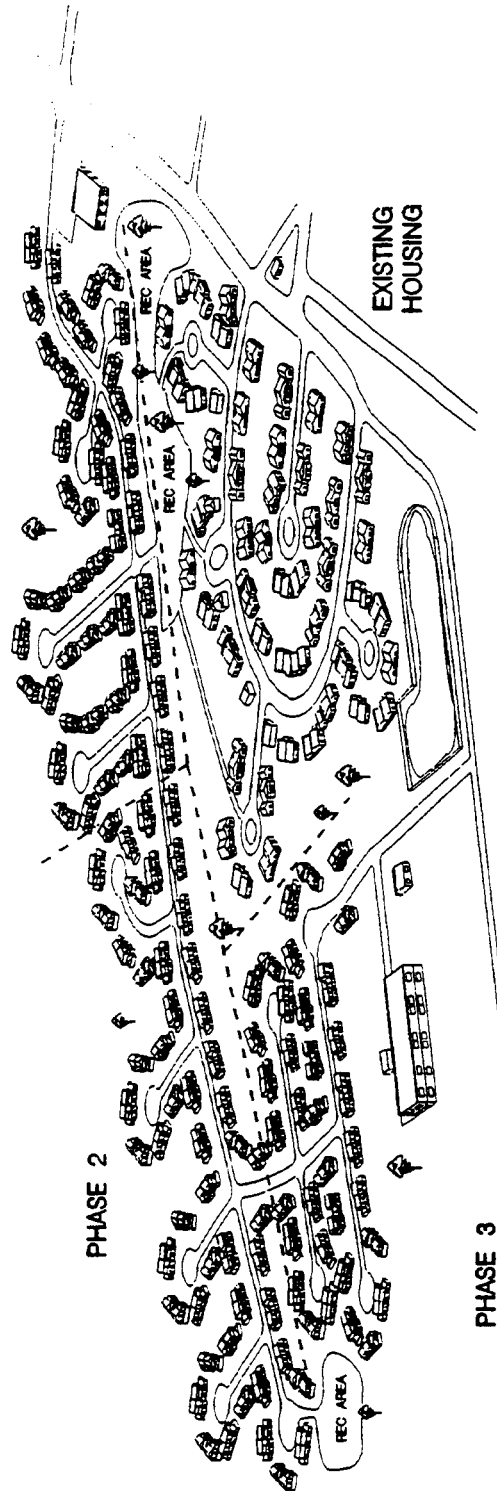
PHASE 2

PHASE 3

EXISTING
HOUSING

LEGEND :
□ - DEVELOPMENT

PLATE 7



A LOOK INTO THE FUTURE

5-Year Demolition Plan

FY 95	57 Buildings	261,156 SF
FY 96	27 Buildings	132,308 SF
FY 97	9 Buildings	110,624 SF
FY 98	1 Building	1,750 SF
FY 99	21 Buildings	499,372 SF



Epilogue

Our vision of development at Hill Air Force Base is a facility improvement plan that supports the AFMC goal to operate quality installations while recognizing our concerns for environmental management, incompatible land use, urban encroachment and limited resources. This booklet is a window for decision makers to view our Base Planning and Facility Improvement Strategy and facility improvement projects programmed to implement that strategy. Our visions, combined with sound development principles, will ensure our facilities will serve us well through 2020.



Document Separator

- 224 Sking is AUP includes unless cost benefit plus covered up flow by joint level maint comit
- Patent/House transfer would lead to TOAN
- Guidance Comit to Hill
- Ground Com L. TOAN

What is more private should be completed because it is not core

WHITE PAPER

ON

HILL AFB

TACTICAL MISSILE CONSOLIDATION

AND COBRA DATA

As Above 20% more faster
 270 O/S TAC

65,000 square feet of storage
 at L-EPD currentes
 verify

2214 app roll 70 Km
 560 K

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WHITE PAPER
ON
Hill AFB
TACTICAL MISSILE CONSOLIDATION
AND COBRA DATA

INTRODUCTION

The 1995 Base Realignment and Closure Commission is tasked to identify the best option to DoD to support the tactical missile mission. Consolidation of tactical missile maintenance is the option that will provide the best in service, cost, and support to DoD. This paper provides data on consolidation at Hill AFB, including, personnel, training, explosive storage, MILCON, and equipment transfer.

BACKGROUND

In an effort to openly provide information that will be used to recommend a site for tactical missile consolidation, a tactical missile evaluation team from the Army, OSD, and Air Force visited Hill AFB on 1-2 May 1995 to review the proposed tactical missile consolidation. A reciprocal visit to confirm Letterkenny Army Depot (LEAD) analysis and requirements has not been approved to date. Information used to accomplish this analysis is based on extensive research with System Program Managers, LEAD Tactical Missile Transition Plans, and expertise residing in this command.

SCOPE

This white paper covers realignment to Hill AFB of all tactical missile workload currently performed at LEAD. The closure of the LEAD depot maintenance facility will result in the realignment of the tactical missile workload either to Tobyhanna Army Depot (TOAD) /Anniston Army Depot (ANAD) or Hill AFB. The tactical missile workload, defined by Hill AFB, includes the workload originally planned for consolidation by 1993 BRAC plus what is currently being performed (Patriot, HAWK, and some all-up rounds (AURs)) at LEAD. Presently, 13 system workloads are listed as being in-place at LEAD. Moving the tactical missiles to Tobyhanna/Anniston Army Depots will require all the equipment, assets, and parts be relocated. By consolidating at Hill AFB, the two largest tactical missile guidance and control section (GCS) workloads, Sidewinder and Maverick, will not require relocation. Work associated with the Patriot and HAWK (primarily launch systems), which is over and above that addressed by the 1993 BRAC tactical missile consolidation, will also be moved to Hill AFB. This workload consist of approximately 509K direct labor hours (DLH) of work.

This white paper addresses the following areas:

1.0 Personnel - Costs included in the tactical missile consolidation are driven in part by the number of personnel that are projected to transfer from LEAD. In this document, we (Hill AFB) will present our rationale as to what data is entered into the COBRA model, and why our results may differ from the data generated by the Army COBRA model. Historical performance and the associated rationale provided will more accurately project the true permanent change of station (PCS) transfer number which results in significantly lower costs. These more appropriate numbers should be used to determine transfer rate, training, and PCS costs.

2.0 Training - The training costs for consolidation used in the Army COBRA model are significantly higher than those calculated by Hill AFB personnel. We have included data and rationale to demonstrate the validity of the Hill AFB tactical missile workload consolidation training costs.

3.0 Military Construction (MILCON) - The MILCON costs associated with the tactical missile workload consolidation appear greatly overstated and include construction requirements that are not applicable to the workload consolidation analysis. We will show the rationale and demonstrate the MILCON requirements of the tactical missile workload consolidation, including, facilities (depot and storage), and personnel housing (military and civilian).

3.1 Explosive Storage - A requirement for 1M square feet of explosive storage space has been stated. This document will demonstrate that the actual storage requirement is significantly less, and that explosive storage available at Hill AFB is adequate. Our storage methodology will result in an overall reduction in the required storage space thereby eliminating construction costs.

3.2 Army Tactical Missile System (ATACMS) Facility - Building 2214 can be feasibly and economically modified to handle the full capability of the ATACMS All Up Round (AUR) repair and maintenance requirement.

3.3 PATRIOT and HAWK Radar Test Range - Both the Patriot and HAWK require a special radar range that would be required at any of the proposed sites for the tactical missile workload. Hill AFB cost to establish this facility is approximately 2.0M. Cost for land acquisition at Hill AFB is not required.

3.4 Facilities Modifications - Several production and repair facilities require some minor facility modifications

4.0 Equipment Transfer - Using various data sources, we established requirements to verify equipment transfer costs for the consolidation at Hill AFB. Our purpose is to show realistic costs and details to support the costs.

5.0 COBRA Model data - A series of COBRA realignment calculations were made using the COBRA v5.08 program. Data entered into the model was obtained from LEAD as well as data developed concerning the realignment of the tactical missile consolidation workload to Hill AFB. From these calculations (3), it was determined that the proposed workload transfer is both feasible and cost effective in terms of showing a immediate return on investment. These COBRA calculations include system-specific training costs for approximately 670 people and one-time costs associated with construction (\$2.8M) and equipment movements (\$3.7M).

5.1 LEAD, Ogden ALC Realignment (LEAD FY95 Personnel Baseline, 505 PE with Reduced PCS). This scenario moves all tactical missile, guidance and control and launcher repair to Ogden Air Logistics Center (OO-ALC). The personnel used in this simulation are the FY95 personnel actually assigned to LEAD for tactical missiles. The personnel baseline used in the COBRA model are altered for this simulation (505 PE). The factor for "civilian personnel not willing to move" from LEAD was 70% is used to simulate a more realistic number of personnel that would transfer from LEAD to Ogden ALC. This simulation also provides an opportunity to transfer a few of the most qualified from LEAD and hire locally from laid off personnel formerly employed by Hercules and Thiokol. Local hires for such missile manufacturers will require less training to meet the requirements of the tactical missile repair workloads. **Return on Investment (ROI) for this scenario is "Immediate" and the 1-Time Cost is \$76,125,000. Refer to the COBRA attachments for further detail.**

5.2 LEAD, Ogden ALC Realignment (Army LEAD Personnel Baseline, 923 PE). This scenario moves all tactical missile, guidance and control and launcher repair to Ogden Air Logistics Center (OO-ALC). The personnel used in this simulation are the FY99 authorizations for LEAD to accomplish tactical missiles. The personnel inputs used in the COBRA model are identical to the inputs used by the Army in this simulation (923 PE). The factor used for "civilian personnel not willing to move" from LEAD was 6% which is the same factor the Army used. **Return on Investment (ROI) for this scenario is "Immediate" and the 1-Time Cost is \$93,093,000. Refer to the COBRA attachments for further detail.**

5.3 LEAD, Ogden ALC Realignment (Army LEAD Personnel Baseline, 923 with Reduced PCS). This scenario moves all tactical missile, guidance and control and launcher repair to Ogden Air Logistics Center (OO-ALC). The personnel used in this simulation are the FY99 authorizations for LEAD to accomplish tactical missiles. The personnel inputs used in the COBRA model are identical to the inputs used by the Army in this simulation (923 PE). The major difference in the simulation in section 5.1 and section 5.2 is the factor used for "civilian personnel not willing to move" from LEAD. In this simulation a factor of 70% is used to reduce the number of personnel that would transfer from LEAD to Ogden ALC. This simulation provides an opportunity to transfer a few of the most qualified from LEAD and hire locally from laid off personnel formerly employed by Hercules and Thiokol. Local hires for such missile manufacturers will require less training to meet the requirements of the tactical missile repair workloads. **Return on Investment (ROI) for this scenario is "Immediate" and the 1-Time Cost is \$90,439,000. Refer to the COBRA attachments for further detail.**

1.0 PERSONNEL

ISSUE. Extremely high PCS costs are included in the Army's COBRA model output for the tactical missile consolidation due to an excessive number of people transferring.

PURPOSE. The purpose of the document is to demonstrate that personnel required to accomplish the tactical missile workload consolidation are available at Hill AFB. This document also shows that the number of personnel projected to transfer by Hill AFB is significantly less than the number projected by LEAD.

SOURCE. Larry Sugihara, OO-ALC/FMCB-1, 777-8456; Tactical Missile Consolidation Plan, 06 May 1994; Tactical Missile Consolidation IPR Brief TMC-JSWG, 4 May 1995; COBRA guidelines, Revision 5.1; LEAD SDSLE-R, 3 May 1995 memo, Maintenance Mission Workload New Order Base briefing chart, 24 April 1995.

METHODOLOGY. A variety of similar workload and system specific data was reviewed to determine the number of personnel and skills required for each of the tactical missile systems maintenance workloads identified for transfer. Data obtained from various documents outlining workloads at LEAD and released via briefings to the BRAC and during Tactical Missile Consolidation Joint Working Group Meetings, were evaluated to determine the number and skills of the personnel required to perform the tactical missile workload. Once the skills required to support the LEAD workload were identified, a comparative analysis of those skills and the skills available at Hill AFB was completed to determine the similarity. This process was used to determine the skills, if any, that would have to be acquired either through employee transfer from LEAD or new hire and training.

Requirements of the COBRA model, in conjunction with the planned versus actual transfers that occurred as part of the tactical missile consolidation at LEAD were reviewed. The actual data includes transfers as a result of previous workload realignments and base closures.

Once the number of personnel by skill category was established, it was possible to use these numbers in the COBRA model to calculate the costs associated with personnel transfer and training. The personnel gains associated with each workload to be moved were placed in the year the workload was projected to transfer to Hill AFB to develop our workload transfer schedule.

ASSUMPTIONS.

1. Our review of the workload requirements and processes indicates the workload at LEAD falls within the same criteria as that transferred to LEAD under the 1993 BRAC consolidation decision. Specifically, it is a transfer of workload, not a transfer of function, as defined by FPM Supplement 351-1. Therefore, personnel transferred are based on selection by the gaining organization rather than by personal desire or as a result of the BRAC process. Our plan is to not exceed 20 percent of the direct labor personnel presently assigned to the tactical missile workload.

2. It is believed that due to the higher unemployment rate throughout the United States, employees will be more willing to relocate to ensure employment at a good wage. Historically, this assumption has not proven valid. In the case of the tactical missile consolidation, an approximately 17 percent rate has been demonstrated. Based on actual performance, we again believe the valid personnel (faces) relocation rate will not exceed 20 percent with the consolidation of the tactical missile workload at Hill AFB.

3. The personnel transfer from LEAD will not exceed 20 percent of the direct labor personnel (faces) assigned to the workloads and in place during the year workload is scheduled to transfer to Hill AFB.

4. The cadre of personnel selected to transfer will include the direct personnel working the tactical missile workload, but will not include personnel from overhead, backshop, or facility support. Indirect personnel are not considered for transfer in base closures or workload relocation.

5. Weapons system management and engineering will continue to operate at their present location. While space is available at Hill AFB for collocation if desired, neither the physical location of the weapon system management team nor the cost associated with possible relocation is a part of this analysis.

6. The depot maintenance personnel are primarily civilian, as such, our analysis is based on civilian employment. The number of military personnel that will transfer, if any, will be minimal. However, housing and privileges for military personnel are immediately available either on base or in the local community.

7. DoD personnel transfer and hiring policies will be followed for obtaining personnel not in place at Hill AFB to support this workload, including the Priority Placement Program (PPP).

8. Due to the geographical locations of LEAD and Hill AFB, each are in a different PPP zone. Therefore, the LEAD personnel will qualify for placement through the Eastern Zone and would not appear as potential candidates on the Western Zone listing without special intervention.

9. The man-year requirements documented in the LEAD SDSLE-R, 3 May 95 memo, Maintenance Mission Workload New Order Base briefing chart, 24 Apr 95, are accurate and reflect those presently assigned to the tactical missile workload at LEAD and project those that will be assigned in the out years. Further, those personnel not presently assigned will need to be hired by LEAD to support future requirements unless the workload is transferred to Hill AFB.

10. All actions associated with tactical missile consolidation at LEAD will be stopped immediately if the 1995 BRAC decision is to change the consolidation site to Hill AFB.

How many do you need All managers and support Staff by Siedle 2

They also need to do hiring

CONCLUSION. Workload similar to that identified for the tactical missile consolidation is worked at both Hill AFB and LEAD. This workload consists of approximately 509K direct labor hours (DLH) of work which is totally compatible with the launcher, missile transporter and radar workloads being accomplished at Hill AFB for the strategic missile systems (Minuteman and Peacekeeper) and aircraft. Therefore the analysis and rationale used in determining the criteria for personnel transfer for the original consolidation at LEAD would be the same if the workload is transferred to Hill AFB. Specifically, the criteria establishes this as a workload transfer rather than a functional transfer. As such, the personnel assigned to the workloads are not given the option to transfer to the gaining agency as part of the transfer process. Rather, they would be given an opportunity to apply for employment, interviewed, and if selected, hired.

Our data indicates an actual transfer rate of 17 percent (Table 1-1) on the workload transferred to LEAD. Based on the actual transfer rate, our selected 20 percent rate is reasonable. The number of actual personnel that would be considered for transfer in the 20 percent threshold is also impacted by the proposed transfer schedule.

Table 1-1. Personnel Transfer Rate to LEAD

Total Personnel	Actual Transfer	Percent
222	37	17

There is a flaw in the proposal. A.F.S. says 90% must be considered. Comment

Direct Labor. The total personnel requirements are based on the number of direct labor personnel required to support the documented workload hours from the Tactical Missile Transition Meeting minutes and HAWK and Patriot data provided by LEAD personnel during their 1-2 May 1995 visit to Hill AFB. There is a demonstrated difference between our supported hours and the manpower projected on the LEAD Maintenance Mission Workload New Order Base chart, 24 April 1995. The difference in direct labor indicates either the total hours were not provided or the LEAD document is based on a yield rate lower than the 1615 hour/PE (DoD standard yield rate) used in our analysis. Further, the personnel included in the LEAD document include the additional personnel required for the increase in the existing Patriot workload in FY98-FY99. Our schedule transfers the Patriot during FY97, therefore, the personnel increase will be realized through new hires at Hill AFB and not LEAD. This will result in hiring costs for Hill AFB but will greatly reduce the number of personnel that would need to be severed from LEAD if the workload transfer were delayed until FY99.

Indirect Labor and Base Operating Support (BOS). The indirect personnel requirements are computed at a rate of 17 percent of the required direct labor personnel. Hill AFB has an established infrastructure to support up to 20K personnel. Even though a major downsizing of the depot and associated tenants has been on-going for the past several years, the services and personnel to sustain the basic infrastructure required are and will remain in place, e.g., security, hospital, administration, etc. This allows Hill AFB to accept the additional workload with an increase of 2 percent of the sum of the direct and indirect personnel hours required for this workload.

*Air Force
Say 80% BOS TAIL*

Military. While we don't anticipate a military personnel requirement, it is our understanding there may be about 14 military personnel associated with the tactical missile workload at LEAD. As host to the 388th Fighter Wing, the 419th Fighter Wing (Air Force Reserve) and other military tenants, we provide a base infrastructure to support the full service requirements of a military contingency, e.g., hospital, base exchange, college and university classroom education, recreation (swimming, golf, theater), personal and family counseling. Housing is available on base or in the adjacent communities. Our existing infrastructure could easily accommodate this small number of military personnel. Therefore, MILCON is not required for personnel housing.

Personnel Availability. The availability of personnel to support the consolidated workload has been a concern expressed by those not familiar with our infrastructure or local area. The ability to meet and sustain the manpower requirements is accomplished through a combination of several sources, skilled personnel transferring from LEAD, available from the local skills cadre, or projected personnel reductions resulting from the Dorn Memorandum on government downsizing. The number of personnel (faces) required for the consolidated workload by fiscal year is illustrated in Table 1-2. The required direct labor personnel provide the basis for the total personnel required as discussed in the Indirect Labor and Base Operating Support (BOS) paragraph above.

Table 1-2. Personnel Requirements

	FY96	FY97	FY98	FY99
Direct Labor Req.	216	331	155	64
Indirect Labor (17%)	37	56	26	11
BOS (2%)	5	8	4	2
Total Req.	258	395	185	77
PCS	43	66	31	13
Dorn Memorandum	59	370	159	249
Reinstate/Skills Cadre	494	265	174	51
Total Available	596	701	364	313
Remaining Cadre	338	306	179	236

The total personnel (faces) required to support the tactical missile consolidation at Hill AFB are available. Coupled with the 20 percent cadre that transfer with the workload, rapid ramp-up at low cost to the government is achievable.

596
258
338

2.0 TRAINING

ISSUE. The total training costs developed by Hill AFB to support the Tactical Missile Consolidation is significantly less than that projected by other sources.

PURPOSE. The purpose of this document is to demonstrate the validity of the training costs developed by Hill AFB.

SOURCE. OPR: Mr Martin Bender, Chief, Technical Training Branch,
Ogden Air Logistics Center, Logistics and Industrial Training Division,
(801-777-0608) In conjunction with Southwest Research (Training Contractor).
Mr. Gerald A Betournay, Chief, Armament Repair Branch
Ogden Air Logistics Center, Commodities Directorate

Validating the training costs was accomplished using data gathered from the following sources:

1. Consolidated Aircraft Maintenance System listing of current assigned resources located at Hill AFB (Lists all maintenance resources)
2. Directorate of Personnel listing of recently separated skills eligible to be rehired
3. Weber State University
4. Utah State University
5. University of Utah
6. Davis Applied Technology Center
7. Ogden/Weber Applied Technology Center
8. Community Colleges
9. Tactical Missile Maintenance Consolidation at LEAD, Final Implementation Plan, 6 May 94
10. LEAD White Paper on Tactical Missile Consolidation, April 1995
11. Dorn Memorandum for Downsizing Government

METHODOLOGY. A listing of required skills was developed from LEAD's data. A thorough analysis of the Army's training objective, means of meeting the objective and the cost of their program was accomplished. We then developed our training objective, determined a means of meeting that objective, and developed a budget. Using this as a base line we then determined the level and types of skilled technicians required and necessary training. Trained employees were identified within the community as cataloged in the current and prior year rehire registry. Local universities, colleges and technical training institutions were surveyed to identify the annual graduating class size whereby highly qualified individuals are available for employment. Technicians currently working on similar workloads are trained and have maintained their certification. These technicians would work with newly assigned employees to provide on the job training (OJT).

ASSUMPTIONS.

1. The skills-mix determination was based on the assumption that the skills required to support the LEAD workload are similar to those utilized at Hill AFB to accomplish:

- a. Tactical and strategic missile workloads to include Maverick, Sidewinder, ICBM, Peacekeeper command post systems, missile transportation vehicles, missile erectors, and control shelters.
- b. Aircraft radar, navigation, communication, reconnaissance optical, associated missile launching weapons systems and other highly technical systems.

2. It is assumed that less than 20% of personnel will agree to a Permanent Change of Station (PCS) transfer from LEAD (Ref the Personnel Section of this document). This is based upon recent transfer actions, the number of employees that transferred to LEAD from facilities losing workloads and the number of employees we have currently employed at Hill AFB.

CONCLUSION: It is our opinion that the training costs are excessive on Patriot and HAWK weapons systems. Using the proposed Army cost of \$22M, and assuming each of their present 328 Patriot and HAWK employees were trained, this computes to an average training cost of \$67K per student. Using a historical training cost of \$40,000, it would appear that \$4.84M is a more appropriate cost for Patriot and HAWK training (See Table 2-1). However, not having specific data concerning training costs on these two missile systems and taking the Army's information, we set our budget at \$42,000 per student for a total cost to train 327 technicians at \$13.756M. In our opinion we have over budgeted the training costs by almost \$9M.

How many HAWK (Patriot) employees will be LEAD not

Table 2-1.

FY	97	98	99	
NEW EMPLOYEES	253	44	33	
50% TRAINING LEVEL	126	44	33	
20% PCS IN FROM LEAD	50	18	14	
REQUIRES TRAINING	76	26	19	
\$40K/PE TRAINING COST	\$3.04M	\$1.04M	\$.76M	TOTAL \$4.84M

Due to the existing technical infrastructure, Hill AFB and the local community provide a strong skills base to support the Tactical Missile Consolidation workload. Skill requirements will be met by:

- a. Utilizing skilled employees available from internal sources.
- b. Transferring the 20 per cent cadre from LEAD.
- c. Utilizing these selected and highly qualified employees as OJT instructors.
- d. Acquiring equipment specific training from contractor.
- e. Reinstating skilled employees that have been removed due to RIF action.
- f. Hiring from the locally educated pool.
- g. Utilizing employees separated as a result of the Dorn Memorandum.

Our real strength comes from our skilled personnel. This includes the trained technicians available on base, those employees who through the Dorn Memorandum will become excess and the employees who through military downsizing have been removed. Additional skilled employees are available through the community education system. Total training costs has been determined to be \$17,351,000. Table 2-3 gives a FY breakdown of this figure: the technician requirements per FY; cumulative figures by FY; those 20 per cent employees that are transferred in from LEAD; those available for rehire; those direct labor technicians made available from the Dorn Memorandum; and the associated training costs are also listed in Table 2-3.

Table 2-3. PE MANPOWER REQUIREMENTS/TRAINING COSTS

	FY 1996	FY 1997	FY 1998	FY 1999	Total
PE REQUIREMENTS	216	331	155	64	766
TOTAL MANPOWER (CUM)	216	547	702	766	
TRANSFER FROM LEAD	43	66	31	13	153
REINSTATE/HIRE	183	265	174	51	673
DORN (DMBA NO.)	59	370	159	249	837
TRAINING COSTS	\$ 2,728 K	\$ 10,850 K	\$ 987 K	\$ 2,786 K	\$ 17,351 K

311 PEs are available for reinstatement FY 1995 (refer to Table 2-4).

640 PEs are available for hire FY 1995 (refer to Table 2-4).

Table 2-4 reflects the existing skills pool and the required skills for the tactical missile consolidation workload available from local resources. The number of personnel graduating from local training institutions, when coupled with the number of local personnel with these skills affected by existing force reduction actions, and those available from local defense industry downsizing (Thiokol, Hercules/Alliant TechSystems, and Williams International) demonstrates the ability of this depot to accommodate the consolidation of the workload here.

Table 2-4. EXISTING SKILL POOL

SKILL BASE	EXISTING (RIF,CLOSURE,ETC)	# GRADS PER YEAR	TOTALS
Advanced Electronics (4yrs)	66	79	145
Electronics (2yrs)	16	120	136
Welding	3	198	201
Sheet Metal	167	21	188
Mechanical Skills (Diesel/Heavy Mech)	37	100	137
Machinists	13	75	88
Air Conditioning	0	47	47
Pneudraulics	9	0	9
TOTALS	311	640	951

Table 2-2 outlines the required skills for the tactical missile consolidation. The Air Force job series has been noted beside the job title. The workload column identifies the workload presently worked at Hill AFB and which skills are utilized in the process. It also reflects that no unusual skills are required. Hill AFB provides the needed skills base to sustain the tactical missile consolidation.

Table 2-2. ORGANIZATIONS CURRENTLY USING REQUIRED SKILLS

REQUIRED SKILLS	WORKLOADS
Electronics Integrated Systems Mechanic (2610)	PMEL, Maverick, Sidewinder, Minuteman, ATE, Peacekeeper
Electronics Mechanic (2604)	Minuteman, Peacekeeper, Sidewinder
Optical/Instrument Mechanic (3359)	Maverick, PMEL, Sidewinder, Peacekeeper
Electrical Equipment Repair Mechanic (2854)	Minuteman, Aircraft, Peacekeeper
Ordnance Mechanic (6641)	Minuteman, Maverick, Sidewinder, ALCM, ACM, Peacekeeper
Aircraft Ordnance Systems Mechanic (6652)	Minuteman, Peacekeeper, Racks/Pylons/Adapters
Liquid Fuel Rocket Engine Mechanic (8675)	Minuteman, ALCM, ACM, Peacekeeper
Painter/Corrosion Control (4102)	All workloads
Machinist (3414)	All workloads
Welder (3703)	All workloads
Sheet Metal Mechanic (3806)	All workloads
Powered Support Systems Mechanic (5378)	All workloads
Heavy Mobile Equipment Mechanic (5803)	Minuteman, Peacekeeper
Pneudraulics (8255)	All workloads
Environmental Control Units (ECU) (5803)(5378)	Minuteman, Peacekeeper

Table 2-5 outlines the base wide certification program from the Consolidated Aircraft Maintenance System (CAMS). Hill AFB provides an in place, comprehensive certification program to ensure continued rapid support of the consolidated workload.

Table 2-5. EMPLOYEE CERTIFICATION

CERTIFICATION TITLE	PERSONNEL	TYPE CERTIFICATION
CRYOGENICS	43	BASE CERTIFICATION
WELDING	273	BASE CERTIFICATION
CORROSION CONTROL	231	BASE CERTIFICATION
SHOTPEEN (METALS PROCESS)	10	BASE CERTIFICATION
SOLDERING		
SURFACE MOUNT	20	MIL-2000
CERAMIC SUBSTRATE	13	MIL-2000
MICROMINIATURE	177	MIL-2000
MULTILAYER	114	MIL-2000
HIGH RELIABILITY	248	MIL-2000
NON-DESTRUCTIVE INSPECTION		
EDDY CURRENT	18	BASE CERTIFICATION
FLUORESCENT PENETRANT	68	BASE CERTIFICATION
HARDNESS TEST	19	BASE CERTIFICATION
MAGNETIC PARTICLE	32	BASE CERTIFICATION
X-RAY	24	BASE CERTIFICATION
TEMPER ETCH	17	BASE CERTIFICATION

3.0 MILITARY CONSTRUCTION (MILCON)

ISSUE. The Army's estimated of the MILCON costs associated with moving tactical missile workload consolidation to Hill AFB appear greatly overstated and include construction requirements that are not applicable to this workload analysis.

PURPOSE. The purpose of this document is to provide the rationale and demonstrate the MILCON requirements of the tactical missile workload consolidation, including depot and storage facilities.

SOURCE. See attached supporting documentation.

METHODOLOGY. See attached supporting documentation.

ASSUMPTIONS.

1. MILCON costs are based on FY95 data.
2. Facility modification costs may vary slightly because of no site survey visits.
3. Equipment purchased from BRAC 93 funds to support current tactical missile requirements will be made available.

CONCLUSION:

Explosive Storage

Narrative: Hill AFB has identified 187,000 sq ft of 1.1 explosive rated storage facilities available to support tactical missile consolidation. Hill AFB can accommodate the estimated 65,000 sq ft of LEAD's current tactical missile and component storage. The RRAD and other DoD AUR and storage requirements will remain in place (option 1) or move RRAD's storage requirement to Tooele AD and the AUR to Hill AFB (option 2). Additional information is provided in the attached Explosive Storage document.

Costs: Option 1 and 2 require no additional MILCON costs.

ATACMS (Building 2214 Upgrade)

Narrative: Limited modifications will be required to convert building 2214 to allow for ATACMS AUR and repair. These modifications will consist of expanding the current electrical power and compressed air requirements, refurbishing the environmental system, and enclosing the docking area. The attached document provides additional detailed information on building 2214 upgrade.

Costs: The cost to modify building 2214 is estimated at \$560.9K.

Patriot and HAWK Radar Range

Narrative: The cost to replicate the HAWK and Patriot radar range is estimated at \$2M. This is based on documents received from LEAD and conversations with their personnel. Since minimum data was provided to support a more detail assessment we must assume the estimate provided is accurate.

Costs: The estimated cost to construct the range is \$2M.

Facilities

Narrative: Our analysis concluded the facility requirements identified by LEAD for each of the weapon systems can be easily accommodated in the Hill AFB infrastructure. We have validated and certified each requirement to the best of our ability and systematically placed each workload, considering collocation where required. We have determined that consolidation at Hill AFB is not only possible but economical. The low total cost provides a rapid return on investment.

Table 3-0. Summary of Equipment and Facility Cost

MILCON Category	Building Number	Equipment Costs	Minor Construction Costs	MILCON Costs	Total Cost
Explosive Storage Facilities	N/A			\$0.0	* \$0.0
ATACMS Facility	2214	\$210.6K		\$350.3K	\$560.9K
PATRIOT / HAWK Radar Range Complex	N/A			\$2.0M	\$2.0M
Facilities	5B		\$70.0K		\$70K
	5C		\$240.0K		\$240K
	5E		\$5.0K		\$5.0K
	5L				
	5P			\$440.0K	\$440.0K
	847	\$192.0K	\$187.9K		\$379.9K
	1913		\$50.0K		\$50.0K
	2026		\$280.0K		\$280.0K
	2202		\$70.0K		\$70K
	2406	\$14.0K	\$86.0K		\$100.0K
Total		\$416.0K	\$989.0K	\$2,790.3K	
O&M and OPA Equipment	---	**\$416.0K			
Facility Modification	---	---	\$989K		
MILCON	---	---	---	\$2.790M	

* Based on using option 1 and 2.

** In addition to \$2.8M agreed upon with LEAD.

3.1 Explosive Storage

ISSUE. The stated explosive storage required to support tactical missile workload consolidation is 1M square feet for 1.1 rated explosive.

PURPOSE. The purpose of this document is to demonstrate the actual explosive storage requirement, explosive storage availability at Hill AFB, and the cost / alternatives associated with meeting the stated explosive storage requirement for the tactical missile workload consolidation.

SOURCE.

1. One Stop Shopping Briefing - LEAD (2 Qtr FY95)
2. FAX from SDSRR May 95 - Ammo planning to John Lochner, OO-ALC / LIW
3. USAF storage requirements from various SPDs

Contact points:

AIM-7, Mr. Gerald McKinzie, WR-ALC

AIM-7/9 (Navy), Mr. Ray Seals

AIM-9 (USAF), Mr. Marty Connel, WR-ALC

AIM-9 (Navy), Mr. Charles D'Hulst, Navy Liaison to OO-ALC

AGM-88, Mr. Wally Welch, WR-ALC

AGM-65, Mr. Kyle Widdison, OO-ALC

Ammo Storage Personnel at RRAD

4. Letter AM SMC-PP (700(B)), 25 Apr. 94, TIER Depot Designation
5. Department of Defense, Report to the Defense Base Closure and Realignment Commission, Volume III, Department of the Army, Analyses and Recommendations, March 1995.

METHODOLOGY. Performed a system by system analysis of current storage locations and gathered missile weapon system specific data to determine the explosive storage requirements. Each of the LEAD Tactical Missile Consolidation documents and briefings were reviewed to extract appropriate data to determine how the \$117M storage facility MILCON cost listed in the Army's COBRA model costs were derived. Reviewed Joint Cross Service Group (JCSG) proposals and analyses.

ASSUMPTIONS.

1. The System Program Manager and owning Service know the strategic requirements for storage locations.
2. System Program Manager stores missiles to sustain mission.
3. Optimum storage utilization dictates igloos / magazines / bunkers will be filled to capacity by stacking.
4. Information is based on FY95 storage requirements and projected locations.
5. The Tiering storage process is the desired DoD method of storage.
6. All services desire storage of tactical missiles at Tier 1 storage depots.
7. Prior to implementation of the proposed single site storage for tactical missiles, agreement will be obtained from the weapon system program managers and owning services.

Source/6
FY99 → 3

8. Items with no explosive rating and those with explosive ratings of 1.4, e.g. Sidewinder GCS, will be stored in explosive rated warehouses, not 1.1 rated igloos / magazines / bunkers.
9. This assessment does not include munitions items outside of tactical missiles.
10. LEAD's "One Stop Shopping" concept is based on economical, strategic and/or logistics benefit.
11. The 1M sq ft tactical missile storage projection includes only LEAD's and RRAD's present missile requirement.

CONCLUSION: Storage consolidation for all DoD Tactical Missiles and components at one location was given by LEAD in a briefing provided during the 1995 BRAC visit. This issue has surfaced, in part, during the 1995 BRAC assessment. The amount of storage is dependent upon the number of missiles comprising a particular system and the storage methodology dictated by the war planners and /or the system program managers. Various storage concepts exist. Some missiles are stationed with the using activities at forward locations (for such systems, the need for depot storage is limited or not required); in the case of other systems, missiles are deployed to forward units and large reserves are held in storage depots for deployment as required during a contingency. This latter group requires a large amount of storage space with rapid outload capability.

The Army has adopted a "tiering concept" to manage ammunition storage facilities. This concept reduces the number of active storage sites and creates efficiencies by realigning the required and non-required stockpile into appropriate tier level. Three levels, or tiers, of installations are organized within the geographic region for identifying the level of activity an installation performs. Tier 1 supports a normal / full-up daily activity level with a stockage configuration of primarily required stocks and minimal non-required stocks for demilitarization. Tier 2 performs static storage of follow-on war reserve requirements and will eventually store production offset stocks and limited non-required demilitarization stocks. Tier 3 will be minimally staffed until the non-required stocks are completely reduced to a zero balance and the facility is closed.

Under present procedures, the Air Force and Army maintain missiles in forward storage and large reserve of tactical missiles in Army depots and ammunition storage locations. The Navy, on the other hand, maintains two storage / AUR facilities, one each on the west and east coasts. In some cases the Navy relies on Army facilities to store their overflow. The Navy only intends to store enough missiles and components at the depot to sustain the maintenance process and meet repair requirements. The storage and deployment philosophy of the tactical missile system program managers is demonstrated in Table 3-1 which illustrates the present location of AUR and storage functions.

Table 3-1 Tactical Missile All-Up Round and Storage Location as of 27 Jan 1995.

Service	Missile System Name	All-Up Round	Storage
Navy	Standard	NWS Seal Beach and NWS Fallbrook	NWS Seal Beach / Yorktown / Fallbrook
	Sidewinder	NWS Yorktown and NWS Fallbrook	NWS Yorktown and NWS Fallbrook
	Phoenix	NWS Yorktown and NWS Fallbrook	NSY Charleston
	Sparrow	NWS Yorktown and NWS Fallbrook	NWS Yorktown / Fallbrook NSY Charleston
AF / Navy	HARM	NWS Yorktown and NWS Fallbrook	NWS Yorktown and NWS Fallbrook
AF / Navy	Maverick	Hill AFB	RRAD / Tooele AD / Hill AFB / NWS Yorktown and Fallbrook
AF / Navy	AMRAAM	NWS Yorktown and NWS Fallbrook	NWS Yorktown / Fallbrook NSY Charleston
Air Force	Sparrow	LEAD	LEAD
	Sidewinder	LEAD	LEAD
Army	ATACMS	LEAD	LEAD
	Hellfire	Anniston AD (Government Own Contractor Operated)	Anniston AD
	*TOW	N/A	Anniston AD
	*Dragon	N/A	Anniston AD
	*Shillelagh	N/A	Anniston AD
	HAWK	RRAD (Government Own Contractor Operated)	RRAD
	Stinger	Hughes Contractor	RRAD
	PATRIOT	RRAD (Government Own Contractor Operated)	RRAD

* No All-Up Round or component maintenance.

Note: Does not include missiles in forward / user storage locations.

The Navy's AUR and storage facilities are located strategically and logistically to meet shipboard deployment requirements. Their east and west coast distribution points allows for effective and timely supportability and responsiveness. Duplication of effort at the different sites is almost certain but acceptable considering mission assignment. The Navy may use these weapon stations as training sites to support fleet training requirements. It is unlikely that consolidation of Navy tactical missiles at a single site would be advantages to DoD needs. Table 3-2 identifies those Navy missiles that should be excluded from consolidation.

Table 3-2 Navy Missiles Excluded from Consolidation.

Navy	Standard	HARM	AMRAAM
	Sidewinder	Maverick	Sparrow
	Phoenix		

All Navy Systems

Three of the eight Army missiles, e.g. TOW, Dragon, and Shillelagh, have no AUR requirement. The missiles are manufactured with the prospects of requiring no maintenance, only testing on the imbedded guidance system. The benefits of LEAD's "One Stop Shopping" concept only applies when there is synergism between AUR and storage at the same location. The missiles are currently stored at Anniston Army Depot which is not under consideration for closure. To move them from this consolidated site would provide no cost benefit unless closure was involved. The same argument could be said for Hellfire missile AUR operation at Anniston AD, without closure why move. Based on this assumption, these Army missiles (Table 3-3) are not candidates for consolidation.

Table 3-3 Army Missiles that have No All-Up Round Requirement.

Army	Stored at Anniston Army Depot	Have no All-Up Round Maintenance Requirement
	TOW	TOW
	Dragon	Dragon
	Shillelagh	Shillelagh
	Hellfire	

The Army has indicated a need for 1M sq ft of 1.1 explosive rated storage to facilitate the tactical missile consolidation at a single depot location. We can not validate this requirement. We estimate that the Army's stated requirement was not the total DoD tactical missile storage requirement, but rather only missiles stored at LEAD and RRADs. We assume Anniston AD tactical missiles were not considered because the depot is not under consideration for closure.

To determine how 1M sq ft was arrived, one must look at the Air Force and Army missile currently located at LEAD and RRAD. The Air Force's tactical missile requirement equates to 248K (single layer) container storage (Table 3-4). The remaining 750k sq ft (single layer) storage is estimate to be ATACMS, HAWK, Stinger, and Patriot missiles (Table 3-4). The minor differences in numbers we believe to be the components (both explosive and non-explosive) that LEAD stores in 1.1 explosive rated igloos. Table 3-4 provides stacked container sq ft numbers which equates to optimum storage utilization. Based on these projections we believe the total explosive storage sq ft. required to support LEAD and RRADs tactical missile consolidation is estimated at slightly more than 400K sq ft.

Table 3-4 Tactical Missile All-Up Round and Storage at LEAD and RRADs as of 27 Jan 1995.

Service	Missile System Name	Quantity	Qty per Container / Total Containers	Container Size in Sq. ft.	Sq. ft Storage (Single layer)	Container Stacking Limits	Calculated Stacking Limits	Stack Container Storage Sq. ft
AF	Maverick	*7110	1 / 7110	21.4	151,855	4	4	38,039
AF	HARM	**3000	2 / 1500	43.8	65,700	6	4	16,425
AF	Sparrow	16	4 / 4	56.3	225.2	9	4	56.3
AF	Sidewinder	2950	4 / 738	40.3	29,741	11	4	7,435.3
Sub-Total					247,521			61,955.6
Army	ATACMS	734 (FY98)	1 / 734		35,526	2	1	35,526
Army	HAWK	9000	1 / 9,000	43.2	388,800	2	2	194,400
Army	Stinger	20,000	1 / 20,000	6.1	121,000	4	4	30,250
Army	Patriot	3000	1 / 3000	48.6	145,800	2	2	72,900
Sub-total					691,126			333,076
Grand Total					938,647			395,032

* Maverick quantity is 11,000 total with over 3,000 stored at Tooele Army Depot.

** Temporary workload

Two options for tactical missile consolidation are provided for consideration.

Option 1. Consolidate LEAD's tactical missile AUR and explosive storage operations at Hill AFB. Retain RRAD's HAWK, Patriot, and Stinger missiles AUR and storage functions at RRAD / Lone Star Army Ammunition Plant.

Since there appears to be no reason to move the AUR and storage assignments from RRAD, only LEAD tactical missile explosive requirements need to be considered. It is estimated that the current LEAD tactical missile explosive requirement is 64,161 sq ft of stacked container storage (Table 3-5).

**Table 3-5 Current LEAD Explosive Storage Requirements for Tactical Missiles
(based on data received 4 May 95)**

	All-Up-Round	Warhead	Rocket Motor
<i>AF Sidewinder</i>			
Quantity	2950	2300	1500
Quantity per Container / Total Containers	4 / 738	2 / 1150	4 / 750
Container Stacking Limits	11	4	6
Calculated Stacking Limits	4	4	4
Stack Container Storage Required (sq ft)	7,435.3	288	934
<i>AF Sparrow</i>			
Quantity	16	1,000	60
Quantity per Container / Total Containers	4 / 4	1 / 1,000	1 / 60
Container Stacking Limits	9	6	6
Calculated Stacking Limits	4	4	4
Stack Container Storage Required (sq ft)	56.3	2,971	525
<i>Army TACMS</i>			
Quantity	734 (FY98)		
Quantity per Container / Total Container	1 / 734		
Container Stacking Limits	2		
Calculated Stacking Limits	1		
Stack Container Storage Required (sq ft)	35,526		
<i>AF HARM (Temporary)</i>			
Quantity	3000		
Quantity per Container / Total Containers	2 / 1500		
Container Stacking Limits	6		
Calculated Stacking Limits	4		
Stack Container Storage Required (sq ft)	16,425		
Total Sq. Ft.	59,443	3,259	1,459
Grand Total	**64,161		

** This does not include the estimated 6,000 AGM 45 missiles at LEAD scheduled to be demilitarized.

The Army has established a working relationship with the contractor at RRAD on HAWK, Stinger, and Patriot missile systems (Table 3-6). This option allows the contractor to retain responsibility for AUR operations while RRAD / Lone Star maintains storage requirements. This option provides the best most cost effective alternative to the storage issue.

Table 3-6 RRAD Missiles that have Contractor Operated All-Up Round Operations

Army	Patriot	Stinger
	HAWK	

Option 2. Consolidate LEAD's tactical missile AUR and storage requirements at Hill AFB. Move RRAD's AUR requirement to Hill and storage to Tooele Army Depot (a tier I storage depot).

Missiles would be relocated from RRAD to Tooele AD in this option. Tooele AD would provide the long term storage and Hill AFB all testing and repair of the missiles. Hill AFB would store on site Patriot, HAWK, and Stinger missiles that require only AUR maintenance. The missiles would be routed from Tooele AD, 70 miles north, to Hill AFB for the maintenance function and returned. The Army's Tiering concept should redistribute the munitions storage items across the depot storage installations including Tooele AD. This effort should free enough explosive storage at Tooele Army Depot to accommodate RRAD's tactical missiles. It is not difficult to establish the contractor and/or organic operation at Hill AFB assuming time is made available to assess the requirement. This approach provides total maintenance and storage of tactical missiles within 70 miles of each other. For the past 4 years this concept has been utilized by Hill AFB in reworking Maverick missiles and has proven to be highly effective. The program manager for the AF Sparrow and Sidewinder has indicated that the assets in long term storage could also be stored at Tooele AD. This would further decrease storage required at Hill AFB.

why change after 20+ years?
The current proposal utilizing LEAD, Anniston and Tobyhanna Army Depots fragments the tactical missile operation across the country to three different depots and neutralizes the synergism and cost benefits that BRAC 93 expected to obtain.

Hill AFB has identified 187,000 sq ft. of 1.1 explosive rated storage facilities available to support tactical missile consolidation. Hill AFB can consolidate the estimated 65,000 sq ft of current tactical missile and component storage at LEAD with the remaining square footage used to support missiles and components that transition to and from the maintenance functions. In concert with this consolidation it is assumed that current tactical missile storage at other DoD locations not addressed in options 1 and 2 will remain in place.

We believe that option 1 is the best alternative in meeting the DoD tactical missile consolidation effort. No MILCON is required.

*RRAD on call
no normal
Cruz
2000
proper
roads
if not
necessary*

*RRAD only 2
Anniston only 1
100-12
vehicle*

3.2 ATACMS (Building 2214 Upgrade)

ISSUE. A requirement exist to establish a ATACMS facility.

PURPOSE. Identify and validate the costs necessary to utilize building 2214 to support the Army's ATACMS weapon system.

SOURCE.

1. Hill AFB Civil Engineering
2. ATACM System Program Management Office
3. Army Tactical Missile System (ATACMS) Block I, Integrated Logistics Support Plan, July 1994

METHODOLOGY. Reviewed all information provided to determine weapon system specifications. Contacted weapon system program office for details and requirements. Site surveys were conducted. Contacted base civilian engineering to determine facility modification requirements and appropriate course of action to reduce costs. Reviewed recommendations with the system program facility engineering office.

ASSUMPTIONS.

1. All appropriate equipment necessary to support ATACMS would be made available to relocate.

CONCLUSION:

The Army Tactical Missile System (ATACMS) requires an explosive site facility for the testing, inspection, and disassembly/assembly of the AURs within a secured area. Hill AFB has selected Building 2214 for the location of ATACMS. Building 2214 is presently used for de-militarization of conventional munitions. Although this facility was considered at one time for disposal, this did not happen due to the unique capabilities of this facility. The decision to keep the facility was made during Dec. 94. It is located within the Missile Assembly Maintenance Shop (MAMS) II secured area, which is fenced and manned around the clock by Air Force security police. Other munitions systems are also stored within this fenced area.

Building 2214 was constructed during development of the base and has been utilized for various munitions maintenance and storage functions since its construction. The building is reinforced concrete and clay tile block construction with internal blast walls, and is cited for explosive operations. The limitation of 425 lbs 1.1 explosives per bay is driven by DoD 6055.9, DoD Ammunition and Explosive Safety Standards, and AFM 91-201 Air Force Explosives Safety Standards Table 4.1 which mirrors the DoD standards, and is applicable DoD wide. Larger amounts of explosive material can be placed in a bay but personnel will be restricted from working in an adjacent bay. There are sufficient bays available in building 2214 to accomplish requirement. This facility is licensed for an overall 1.1 NEW (Net Explosive Weight) capability of 9800 lbs, and this limit is driven by a gas metering station located 900 feet away. However, the gas metering

station is planned to be protected, and when this is accomplished the limit will be raised to 11,818 lbs 1.1 NEW.

Due to the decreasing munitions workload at Hill AFB, this building is available for the ATACMS workload. Operations presently in the building will be relocated to another location. Costs to move the current function are simply to move several truckloads of office furniture and shop equipment.

Hill AFB has obtained a shop layout of the ATACMS facilities at Wellerbach, Germany and LEAD, data was extracted from the ATACMS Integrated Support Plan. From the data available within the document, it was determined that Building 2214 can be utilized with minor modifications. The basic construction of Building 2214 is totally suited for explosive operations; it is 240 feet long by 50 feet wide, consisting of nine bays, each of which are separated by blast walls made of reinforced concrete. The outer wall construction is in accordance with guidance given in DoD 6055.9. These walls are within DoD and Air Force specifications. The current arrangement allows for the full range of all types of electrical testing of a missile AUR within the prescribed safety requirements for personnel. Equipment can be unloaded at ground level on the east side of the building, or on to a truck dock on the west side of the building.

Limited modifications will be required to convert the facility to allow for ATACMS' AUR and repair. These modifications will consist of expanding the current electrical power and compressed air requirements, updating the Intrusion Detection System (already programmed to be completed), refurbishing the environmental system, and enclosing the unloading area located on the east side of the building. The comment on ceiling height being inadequate is easily corrected by moving one steam pipe and two light fixtures. Since the building is oriented in a North/South direction, the installation of a true North reference station will be easily accommodated. The overhead crane shortfall is corrected by moving an existing hoist to this location. If required, one of the bays will accommodate an environmentally controlled clean room work area.

In addition to having industrial engineering personnel evaluate the building, personnel from munitions operations and maintenance have assessed the data made available, and also found no reasons why the workload should not be placed there. The Safety Office at Hill AFB has also examined the building and the proposed modifications, and have no objections. Requirements and proposed site were also reviewed with the System Program Manager's facility engineering staff.

The cost to modify Building 2214 is estimated at \$ 560.9K.

3.3 Patriot And HAWK Radar Range Complex

ISSUE. Letterkenny Army Depot (LEAD) indicated the need for a 28 acre complex to test HAWK and Patriot missile systems.

PURPOSE. To facilitate the move of tactical missile workload to Hill AFB the Patriot and HAWK radar range complex must be replicated.

SOURCE.

1. HAWK System Program Manager
2. LEAD Personnel, 1-2 May 1995 visit
3. Radar Evaluation Squadron Personnel, Hill AFB

METHODOLOGY. Hill AFB contacted the HAWK program manager and the Radar Evaluation Squadron at Hill AFB, to determine feasibility of relocating the HAWK radar test site at LEAD to Hill AFB. No problems were noted. Since no detail data was provided, we used LEAD's recommendations.

ASSUMPTIONS.

1. Data received from LEAD is accurate.
2. Equipment currently on hand at LEAD used to support both the HAWK and Patriot systems would transfer with the workload.

CONCLUSIONS. The cost to replicate the HAWK and Patriot radar range is estimated at \$2M. This is based on documents received for LEAD and conversations with their personnel. Since minimum data was provided to support a more detail assessment we must assume the estimate provide is accurate.

3.4 Facilities

ISSUE. The total facility costs developed by Hill AFB to support the Tactical Missile Consolidation is significantly less than reported by LEAD.

PURPOSE. The purpose of this document is to demonstrate the validity of the facility costs developed by Hill AFB.

SOURCE. Validating the facility costs was accomplished using data gathered from the following sources. OO-ALC points of contact are Rodney Peterson, LIWPS, DSN 777-1124, Emery Wood, LIWPS, DSN 777-1124.

1. LEAD Maintenance Directorate Production Engineering Division by Steve Miller, DSN 507-9501
2. Meetings held with LEAD at Hill AFB during 1-2 May 1995
3. LEAD White Paper dated April 1995
4. Hill AFB Civil Engineering
5. AF Forms 1178 were developed by Hill AFB facility engineers using Air Force Pricing Guides, Means Estimating Guides and historical data from like type construction contracts. Hill AFB points of contact MSgt Dempsey, LMSMT, DSN 777-4309, Gene Raymond, LMSMO, DSN 775-2122, Kaye Hansen, LICT, DSN 777-5642, and Robert Bird, LMST, DSN 777-3958
6. Executive Summary-LEAD - early 1991
7. Limited site visit to LEAD. Tactical Missile Consolidation - Joint Service Working Group (TMC-JSWG) 7-9 Feb 1995
8. Tactical Missile Maintenance Consolidation at LEAD Final Implementation Plan, 6 May 1994
9. LEAD Briefing material dated 23 March 1995

METHODOLOGY. Hill AFB facilities requirements were updated using above source data. A thorough analysis of LEAD's facility layout was accomplished. Workload was then fit into existing Hill AFB facilities using LEAD's facility layout. Additional requirements were identified for these facilities and AF Form 1178s were developed and certified for all potential facilities. From this exercise, adequate facilities were chosen with minimal cost of modification. Additional facilities are available if necessary.

ASSUMPTIONS.

1. If LEAD is closed, all associated support equipment obtained for or used to support this workload, will transfer to Hill AFB, e.g., cleanrooms, cranes, generators, etc.
2. The data supplied by LEAD concerning facility requirements is accurate and complete.

CONCLUSION: Our analysis concluded the facility requirements identified by LEAD for each of the weapon systems can be easily accommodated in the Hill AFB infrastructure. We have validated and certified each requirement to the best of our ability and systematically placed each workload, considering collocation where required. We have determined that consolidation at Hill AFB is not only possible but economical. The low total cost provides a rapid return on investment. The cost summary is found in Table 3-0, and the cost details are provided in the COBRA data at the end of this document.

4.0 EQUIPMENT TRANSFER

ISSUE. Additional cost to transfer HAWK and Patriot missile systems (not in BRAC 93 consolidation) to Hill AFB UT, was estimated at \$4.4 M.

PURPOSE. To identify, based on our analysis, what we estimate the cost to transfer the systems equipment.

SOURCES.

1. Base visit report, LEAD Defense Distribution Depot-LEAD, 24 Mar 95.
2. LEAD White Paper on Tactical Missile Consolidation, April 95
3. TMC at Hill AFB, OO-ALC/LIW, 03 May 95
4. Tactical Missile Maintenance Consolidation at Letterkenny Army Depot, Final Implementation Plan, 06 May 94.

METHODOLOGY. Our plan was to visit LEAD to validate cost estimates and to review the workload to be transferred. Since LEAD did not approve a reciprocal visit by the Air Force to determine equipment movement requirements, our method to determine the cost is based on a worst case scenario. Since we have limited information for both HAWK and Patriot systems, we determined the equipment transfer cost by conservatively estimating the transportation cost of the equipment. The remaining costs were determined by using comparable data on similar systems. The issue of older equipment problems being compounded by moving them was first identified to LEAD by the original losing organization and is not a new or valid issue. The program managers have accepted this as part of any workload transfer.

ASSUMPTIONS.

1. LEAD reported \$5.1M was budgeted to transport and install equipment from eight different sites (Source 1).
2. As of Apr 95, LEAD has transitioned 13 different missile systems which includes packing, transportation, unpacking, equipment set up, calibration and certification (Source 2), at a cost of \$3.75M. We assume this cost is accurate and supportable. *See IG Support*
3. Ogden ALC initial cost estimate to transfer HAWK and Patriot was estimated at \$116,000 (Source 3).
4. Will move all test equipment and anechoic chamber.
5. Only one or two pieces of equipment per truck (sizes of some equipment were unavailable).

CONCLUSIONS.

Our data estimates the transportation and set up costs. Using the Patriot Depot Maintenance Plan Equipment List (DMPE), we have conservatively estimated the cost of transporting the equipment as shown. The total pieces of test equipment identified are 24 secondary and 8 major items. The amount of HAWK equipment is assumed to be less but the same factors are applied for transportation estimates. The anechoic chamber cost is estimated at \$30,000 to transfer. We may be able to modify a local chamber for less than the shipping cost. A cost benefit analysis will be performed to determine what the best course of action will be. We assume, for this study, that we will move the current anechoic chamber. The total dollar cost of transportation is \$210,000; the remainder is used for unpacking, installation, equipment set up, and calibration.

Using LEAD's cost data, *1994-1997 System Requirements By Category for all Services* the equipment moving costs estimate was \$5.066M (Source 5). We deleted the systems that are still in place at Hill AFB, and deleted systems exempted by OSD. The balance for equipment transportation is \$2.946M. LEAD stated it would take another \$4.4M to transfer the equipment for the HAWK and Patriot system alone during their visit, 1-2 May 95. Our analysis supports a much lower estimate of transfer cost.

The estimated number of trucks required for the equipment transfer are:

Equipment	52 trucks
Inventory	4 trucks
Chamber	10 trucks
Misc.	<u>4 trucks</u>
TOTAL	70 trucks

Transportation costs: $\$1.50 \times 2000\text{miles} \times 70\text{trucks} = \$210,000$

Unpacking, assembly, and calibration = \$540,120

TOTAL = \$750,120

The total transportation and setup costs for HAWK and Patriot equipment transfer is \$750K.

TACTICAL MISSILE CONSOLIDATION

COBRA DATA

5.0 COBRA Model Data

A series of COBRA realignment calculations were made using the COBRA v5.08 program. Data entered into the model was obtained from LEAD as well as data developed concerning the realignment of the tactical missile consolidation workload to Hill AFB. From these calculations (3), it was determined that the proposed workload transfer is both feasible and cost effective in terms of showing an immediate return on investment. These COBRA calculations include system-specific training costs for approximately 670 people and one-time costs associated with construction (\$2.8M) and equipment movements (\$3.7M).

Three COBRA runs were made as follows:

- a. LEAD, Hill AFB Realignment (LEAD FY95 Personnel Baseline, 505 PE with Reduced PCS)
- b. LEAD, Hill AFB Realignment (Army LEAD Personnel Baseline, 923 PE)
- c. LEAD, Hill AFB Realignment (Army LEAD Personnel Baseline, 923 with Reduced PCS)

5.1 LEAD, Hill AFB Realignment (LEAD FY95 Personnel Baseline, 505 PE with Reduced PCS)

This scenario moves all tactical missile, guidance and control and launcher repair to Hill AFB. The personnel used in this simulation are the FY95 personnel actually assigned to LEAD for tactical missiles. The personnel baseline used in the COBRA model are altered for this simulation (505 PE). The factor for "civilian personnel not willing to move" from LEAD was 70% is used to simulate a more realistic number of personnel that would transfer from LEAD to Hill AFB. This simulation also provides an opportunity to transfer a few of the most qualified from LEAD and hire locally from laid off personnel formerly employed by Hercules and Thiokol. Local hires for such missile manufacturers will require less training to meet the requirements of the tactical missile repair workloads. **Return on Investment (ROI) for this scenario is "Immediate" and the 1-Time Cost is \$76,125,000. Refer to the COBRA attachments for further detail.**

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

Starting Year : 1996
 Final Year : 2000
 ROI Year : Immediate

NPV in 2015(\$K): -620,798
 1-Time Cost(\$K): 76,125

Net Costs (\$K) Constant Dollars	1996						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	2,065	513	211	0	0	0	2,790	0
Person	605	-5,239	-20,127	-32,365	-35,305	-35,524	-127,955	-35,524
Overhd	1,860	-982	-6,226	-11,210	-12,135	-12,979	-41,671	-12,979
Moving	30	2,280	2,103	7,926	0	0	12,340	0
Missio	0	0	0	0	0	0	0	0
Other	-3,418	-6,593	6,814	79	0	0	-3,118	0
TOTAL	1,143	-10,020	-17,224	-35,570	-47,439	-48,503	-157,614	-48,503

POSITIONS ELIMINATED	1996						Total
	1996	1997	1998	1999	2000	2001	
Off	0	0	2	3	3	0	8
Enl	0	0	5	5	5	0	15
Civ	216	331	155	50	0	0	752
TOT	216	331	162	58	8	0	775

POSITIONS REALIGNED	1996						Total
	1996	1997	1998	1999	2000	2001	
Off	0	1	2	0	0	0	3
Enl	0	14	2	0	0	0	16
Stu	0	0	0	0	0	0	0
Civ	142	444	386	42	0	0	1,014
TOT	142	459	390	42	0	0	1,033

Summary:

 Realign Letterkenny Army Depot by transferring Tactical Missile Workload including missile disassembly, storage, maintenance of guidance and control systems, launchers, Patriot, and Hawk to Ogden ALC (Hill AFB). Transfer ground support equipment and artillery maintenance workloads to Anniston Army Depot. Maintain an enclave at Letterkenny for conventional ammunition storage and tactical missile storage...command and control at Tobbyanna Army Depot. This senario uses 505 PE assigned to tactical missiles in FY95 at LEAD.

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

Costs (\$K)	Constant Dollars						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	2,065	513	211	0	0	0	2,790	0
Person	5,573	12,309	8,744	1,544	113	73	28,357	73
Overhd	3,288	3,940	3,660	2,566	2,138	1,298	16,891	1,298
Moving	30	2,305	2,109	7,926	0	0	12,370	0
Missio	0	0	0	0	0	0	0	0
Other	7,582	7,507	6,814	79	0	0	21,982	0
TOTAL	18,538	26,574	21,539	12,116	2,251	1,371	82,390	1,371

Savings (\$K)	Constant Dollars						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	0	0	0	0	0	0	0	0
Person	4,968	17,548	28,871	33,910	35,418	35,597	156,311	35,597
Overhd	1,428	4,922	9,886	13,776	14,273	14,277	58,562	14,277
Moving	0	24	6	0	0	0	30	0
Missio	0	0	0	0	0	0	0	0
Other	11,000	14,100	0	0	0	0	25,100	0
TOTAL	17,396	36,594	38,763	47,686	49,691	49,874	240,004	49,874

INPUT DATA REPORT (COBRA v5.08)
 Data As Of 20:35 12/23/1994, Report Created 19:05 05/22/1995

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL2.CBR
 Std Pctrs File : C:\COBRA3\LEADHILL.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: Yes

Base Name	Strategy:
-----	-----
Letterkenny Army Dep, PA	Realignment
Red River Army Depot, TX	Realignment
Anniston Army Depot, AL	Realignment
Ogden Air Log Center, UT	Realignment
Base X, US	Realignment
Tobyhanna Army Depot, PA	Realignment

Summary:

 Realign Letterkenny Army Depot by transferring Tactical Missile Workload including missile disassembly, storage, and maintenance of guidance and control systems to Ogden Air Logistics Center (Hill Air Force Base). Transfer ground support equipment and artillery maintenance workloads to Anniston Army Depot. Maintain an enclave at Letterkenny for conventional ammunition storage and tactical missile storage...command and control at Tobyhanna Army Depot.

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
-----	-----	-----
Letterkenny Army Dep, PA	Red River Army Depot, TX	692 mi
Letterkenny Army Dep, PA	Anniston Army Depot, AL	729 mi
Letterkenny Army Dep, PA	Ogden Air Log Center, UT	2,002 mi
Letterkenny Army Dep, PA	Base X, US	1,340 mi
Letterkenny Army Depot, PA	Tobyhanna Army Depot, PA	174 mi
Red River Army Depot, TX	Anniston Army Depot, AL	546 mi
Red River Army Depot, TX	Ogden Air Log Center, UT	1,800 mi
Red River Army Depot, TX	Base X, US	1,340 mi
Red River Army Depot, TX	Tobyhanna Army Depot, PA	1,164 mi
Anniston Army Depot, AL	Ogden Air Log Center, UT	889 mi
Anniston Army Depot, AL	Base X, US	1,340 mi
Anniston Army Depot, AL	Tobyhanna Army Depot, PA	907 mi
Ogden Air Log Center, UT	Base X, US	1,340 mi
Ogden Air Log Center, UT	Tobyhanna Army Depot, PA	2,101 mi
Base X, US	Tobyhanna Army Depot, PA	1,340 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from Letterkenny Army Dep, PA to Ogden Air Log Center, UT

	1996	1997	1998	1999	2000	2001
	----	----	----	----	----	----
Officer Positions:	0	0	0	0	0	0
Enlisted Positions:	0	0	0	0	0	0
Civilian Positions:	142	218	102	42	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SPF

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from Letterkenny Army Dep, PA to Base X, US

	1996	1997	1998	1999	2000	2001
	----	----	----	----	----	----
Officer Positions:	0	1	2	0	0	0
Enlisted Positions:	0	14	2	0	0	0
Civilian Positions:	0	226	284	0	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: Letterkenny Army Dep, PA

Total Officer Employees:	15	RPMA Non-Payroll (\$K/Year):	6,000
Total Enlisted Employees:	41	Communications (\$K/Year):	600
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	34,800
Total Civilian Employees:	3,335	BOS Payroll (\$K/Year):	14,200
Mil Families Living On Base:	100.0%	Family Housing (\$K/Year):	330
Civilians Not Willing To Move:	70.0%	Area Cost Factor:	1.02
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	8,336	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	42345
Enlisted VHA (\$/Month):	1		
Per Diem Rate (\$/Day):	66	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Red River Army Depot, TX

Total Officer Employees:	9	RPMA Non-Payroll (\$K/Year):	14,500
Total Enlisted Employees:	5	Communications (\$K/Year):	850
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	32,450
Total Civilian Employees:	3,665	BOS Payroll (\$K/Year):	13,250
Mil Families Living On Base:	100.0%	Family Housing (\$K/Year):	446
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.94
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	7,745	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	21	Activity Code:	48515
Enlisted VHA (\$/Month):	2		
Per Diem Rate (\$/Day):	73	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Anniston Army Depot, AL

Total Officer Employees:	7	RPMA Non-Payroll (\$K/Year):	3,862
Total Enlisted Employees:	5	Communications (\$K/Year):	818
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	20,887
Total Civilian Employees:	3,432	BOS Payroll (\$K/Year):	10,848
Mil Families Living On Base:	0.0%	Family Housing (\$K/Year):	36
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.77
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	8,482	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	01012
Enlisted VHA (\$/Month):	0		
Per Diem Rate (\$/Day):	68	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: Ogden Air Log Center, UT

Total Officer Employees:	841	RPMA Non-Payroll (\$K/Year):	6,020
Total Enlisted Employees:	5,527	Communications (\$K/Year):	2,402
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	16,024
Total Civilian Employees:	10,899	BOS Payroll (\$K/Year):	0
Mil Families Living On Base:	40.0%	Family Housing (\$K/Year):	9,588
Civilians Not Willing To Move:	10.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	13,772	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	AFB38
Enlisted VHA (\$/Month):	26		
Per Diem Rate (\$/Day):	98	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.10	Unique Activity Information:	No

Name: Base X, US

Total Officer Employees:	752	RPMA Non-Payroll (\$K/Year):	11,891
Total Enlisted Employees:	4,208	Communications (\$K/Year):	1,514
Total Student Employees:	1,121	BOS Non-Payroll (\$K/Year):	29,982
Total Civilian Employees:	2,709	BOS Payroll (\$K/Year):	21,877
Mil Families Living On Base:	55.0%	Family Housing (\$K/Year):	8,151
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	6,091	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	BASEX
Enlisted VHA (\$/Month):	26		
Per Diem Rate (\$/Day):	98	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Tobyhanna Army Depot, PA

Total Officer Employees:	30	RPMA Non-Payroll (\$K/Year):	13,130
Total Enlisted Employees:	253	Communications (\$K/Year):	419
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	5,920
Total Civilian Employees:	3,161	BOS Payroll (\$K/Year):	13,064
Mil Families Living On Base:	95.4%	Family Housing (\$K/Year):	373
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.20
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	4,231	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	59	Activity Code:	42780
Enlisted VHA (\$/Month):	49		
Per Diem Rate (\$/Day):	62	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: Letterkenny Army Dep, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	11,000	14,100	0	0	0	0
1-Time Moving Cost (\$K):	0	2,244	2,060	7,896	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	2,400					
					Perc Family Housing ShutDown:	100.0%

Name: Red River Army Depot, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
					Perc Family Housing ShutDown:	0.0%

Name: Anniston Army Depot, AL

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
					Perc Family Housing ShutDown:	0.0%

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: Ogden Air Log Center, UT

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	7,275	6,843	6,351	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Req'd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost (\$K):	0	0	0	0	0	0
Misc Recurring Save (\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0	Perc Family Housing ShutDown:				0.0%

Name: Base X, US

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Req'd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost (\$K):	0	0	0	0	0	0
Misc Recurring Save (\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0	Perc Family Housing ShutDown:				0.0%

Name: Tobyhanna Army Depot, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Req'd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost (\$K):	0	0	0	0	0	0
Misc Recurring Save (\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0	Perc Family Housing ShutDown:				0.0%

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: Letterkenny Army Dep, PA

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	-3	0	0	0	0
Enl Force Struc Change:	0	-3	0	0	0	0
Civ Force Struc Change:	0	-346	-48	-10	-8	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	-2	-3	-3	0
Enl Scenario Change:	0	0	-5	-5	-5	0
Civ Scenario Change:	-216	-331	-155	-50	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: Anniston Army Depot, AL

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	-24	-24	-23	-23	-23
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	0	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Name: Tobyhanna Army Depot, PA

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	-23	-24	-22	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	0	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

INPUT SCREEN SEVEN - BASE MILITARY CONSTRUCTION INFORMATION

Name: Ogden Air Log Center, UT

Description	Categ	New MilCon	Rehab MilCon	Total Cost(\$K)
Bldg 5P	OTHER	0	0	440
Bldg 2214	OTHER	0	0	350
Radar Range	OTHER	0	0	2,000

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL2.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	77.00%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	58.50%	Priority Placement Service:	60.00%
Enlisted Housing MilCon:	91.00%	PPS Actions Involving PCS:	50.00%
Officer Salary(\$/Year):	67,948.00	Civilian PCS Costs (\$):	28,800.00
Off BAQ with Dependents(\$):	7,717.00	Civilian New Hire Cost(\$):	1,109.00
Enlisted Salary(\$/Year):	30,860.00	Nat Median Home Price(\$):	114,600.00
Enl BAQ with Dependents(\$):	5,223.00	Home Sale Reimburse Rate:	10.00%
Avg Unemploy Cost(\$/Week):	174.00	Max Home Sale Reimburs(\$):	22,385.00
Unemployment Eligibility(Weeks):	18	Home Purch Reimburse Rate:	5.00%
Civilian Salary(\$/Year):	45,998.00	Max Home Purch Reimburs(\$):	11,191.00
Civilian Turnover Rate:	15.00%	Civilian Homeowning Rate:	64.00%
Civilian Early Retire Rate:	10.00%	HAP Home Value Reimburse Rate:	22.90%
Civilian Regular Retire Rate:	5.00%	HAP Homeowner Receiving Rate:	5.00%
Civilian RIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	19.00%
SF File Desc:	leadhill	RSE Homeowner Receiving Rate:	12.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

RPMA Building SF Cost Index:	0.93	Rehab vs. New MilCon Cost:	59.00%
BOS Index (RPMA vs population):	0.54	Info Management Account:	15.00%
(Indices are used as exponents)		MilCon Design Rate:	10.00%
Program Management Factor:	10.00%	MilCon SIOH Rate:	6.00%
Caretaker Admin(SF/Care):	162.00	MilCon Contingency Plan Rate:	7.00%
Mothball Cost (\$/SF):	1.25	MilCon Site Preparation Rate:	24.00%
Avg Bachelor Quarters(SF):	388.00	Discount Rate for NPV.RPT/ROI:	2.75%
Avg Family Quarters(SF):	1,819.00	Inflation Rate for NPV.RPT/ROI:	0.00%
APPDET.RPT Inflation Rates:			
1996: 2.90%	1997: 3.00%	1998: 3.00%	1999: 3.00%
		2000: 3.00%	2001: 3.00%

STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Person(Lb):	710	Equip Pack & Crate(\$/Ton):	0.20
HHG Per Off Family (Lb):	14,500.00	Mil Light Vehicle(\$/Mile):	700.00
HHG Per Enl Family (Lb):	9,000.00	Heavy/Spec Vehicle(\$/Mile):	284.00
HHG Per Mil Single (Lb):	6,400.00	POV Reimbursement(\$/Mile):	0.09
HHG Per Civilian (Lb):	18,000.00	Avg Mil Tour Length (Years):	2.90
Total HHG Cost (\$/100Lb):	35.00	Routine PCS(\$/Pers/Tour):	4,665.00
Air Transport (\$/Pass Mile):	0.09	One-Time Off PCS Cost(\$):	6,134.00
Misc Exp (\$/Direct Employ):	0.18	One-Time Enl PCS Cost(\$):	4,381.00

STANDARD FACTORS SCREEN FOUR - MILITARY CONSTRUCTION

Category	UM	\$/UM	Category	UM	\$/UM
Horizontal	(SY)	38	Optional Category A	()	114
Waterfront	(LF)	0	Optional Category B	()	175
Air Operations	(SF)	130	Optional Category C	()	120
Operational	(SF)	119	Optional Category D	()	100
Administrative	(SF)	106	Optional Category E	()	128
School Buildings	(SF)	104	Optional Category F	()	19,140
Maintenance Shops	(SF)	108	Optional Category G	()	0
Bachelor Quarters	(SF)	46,227	Optional Category H	()	0
Family Quarters	(SF)	96,040	Optional Category I	()	0
Covered Storage	(SF)	60	Optional Category J	()	0
Dining Facilities	(SF)	180	Optional Category K	()	0
Recreation Facilities	(SF)	0	Optional Category L	()	0
Communications Facil	(SF)	0	Optional Category M	()	0
Shipyard Maintenance	(SF)	0	Optional Category N	()	0
RDT & E Facilities	(SF)	139	Optional Category O	()	0
POL Storage	(BL)	0	Optional Category P	()	0
Ammunition Storage	(SF)	0	Optional Category Q	()	0
Medical Facilities	(SF)	0	Optional Category R	()	0
Environmental	()	0			

5.2 LEAD, Hill AFB Realignment (Army LEAD Personnel Baseline, 923 PE).

This scenario moves all tactical missile, guidance and control and launcher repair to Hill AFB. The personnel used in this simulation are the FY99 authorizations for LEAD to accomplish tactical missiles. The personnel inputs used in the COBRA model are identical to the inputs used by the Army in this simulation (923 PE). The factor used for "civilian personnel not willing to move" from LEAD was 6% which is the same factor the Army used. **Return on Investment (ROI) for this scenario is "Immediate" and the 1-Time Cost is \$93,093,000. Refer to the COBRA attachments for further detail.**

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

Starting Year : 1996
 Final Year : 2000
 ROI Year : Immediate

NPV in 2015(\$K): -726,403
 1-Time Cost(\$K): 93,093

Net Costs (\$K) Constant Dollars

	1996	1997	1998	1999	2000	2001	Total	Beyond
MilCon	2,108	482	200	0	0	0	2,790	0
Person	527	2,785	-2,762	-19,817	-36,727	-45,046	-101,039	-45,046
Overhd	3,950	2,397	-4,083	-12,670	-18,070	-19,729	-48,206	-19,729
Moving	4,957	13,945	13,725	13,275	2,765	0	48,666	0
Missio	0	0	0	0	0	0	0	0
Other	-3,504	-6,725	7,010	408	272	0	-2,538	0
TOTAL	8,037	12,884	14,090	-18,803	-51,760	-64,775	-100,327	-64,775

	1996	1997	1998	1999	2000	2001	Total
POSITIONS ELIMINATED							
Off	0	0	2	3	3	0	8
Enl	0	0	5	5	5	0	15
Civ	0	0	300	400	318	0	1,018
TOT	0	0	307	408	326	0	1,041

POSITIONS REALIGNED							
Off	0	1	2	0	0	0	3
Enl	0	14	2	0	0	0	16
Stu	0	0	0	0	0	0	0
Civ	258	621	469	77	0	0	1,425
TOT	258	636	473	77	0	0	1,444

Summary:

 Realign Letterkenny Army Depot by transferring Tactical Missile Workload including missile disassembly, storage, maintenance of guidance and control systems, launchers, Patriot, and Hawk to Ogden ALC (Hill AFB). Transfer ground support equipment and artillery maintenance workloads to Anniston Army Depot. Maintain an enclave at Letterkenny for conventional ammunition storage and tactical missile storage...command and control at Tobyhanna Army Depot. The personnel baseline for FY99 at LEAD was used at 923 PE. 6 percent not willing to move standard factor used.

Handwritten calculations:

$$\begin{array}{r} 25 \\ 1033 \\ \hline 392 \\ 505 \\ \hline 897 \end{array}$$

$$\begin{array}{r} 1444 \\ 1033 \\ \hline 411 \\ 505 \\ \hline 916 \end{array}$$

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

Costs (\$K) Constant Dollars	1996						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	2,108	482	200	0	0	0	2,790	0
Person	527	2,785	4,283	3,651	3,613	2,787	17,646	2,787
Overhd	4,050	4,331	4,482	3,664	3,094	1,564	21,185	1,564
Moving	4,957	13,969	13,731	13,275	2,765	0	48,696	0
Missio	0	0	0	0	0	0	0	0
Other	7,496	7,375	7,010	408	272	0	22,562	0
TOTAL	19,138	28,942	29,707	20,999	9,744	4,351	112,880	4,351

Savings (\$K) Constant Dollars	1996						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	0	0	0	0	0	0	0	0
Person	0	0	7,045	23,468	40,340	47,832	118,685	47,832
Overhd	100	1,934	8,565	16,334	21,164	21,293	69,391	21,293
Moving	0	24	6	0	0	0	30	0
Missio	0	0	0	0	0	0	0	0
Other	11,000	14,100	0	0	0	0	25,100	0
TOTAL	11,100	16,058	15,616	39,802	61,504	69,126	213,207	69,126

INPUT DATA REPORT (COBRA v5.08)
 Data As Of 20:35 12/23/1994, Report Created 18:23 05/22/1995

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: Yes

Base Name	Strategy:
-----	-----
Letterkenny Army Dep, PA	Realignment
Red River Army Depot, TX	Realignment
Anniston Army Depot, AL	Realignment
Ogden Air Log Center, UT	Realignment
Base X, US	Realignment
Tobyhanna Army Depot, PA	Realignment

Summary:

 Realign Letterkenny Army Depot by transferring Tactical Missile Workload including missile disassembly, storage, and maintenance of guidance and control systems to Ogden Air Logistics Center (Hill Air Force Base). Transfer ground support equipment and artillery maintenance workloads to Anniston Army Depot. Maintain an enclave at Letterkenny for conventional ammunition storage and tactical missile storage...command and control at Tobyhanna Army Depot.

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
-----	-----	-----
Letterkenny Army Dep, PA	Red River Army Depot, TX	692 mi
Letterkenny Army Dep, PA	Anniston Army Depot, AL	729 mi
Letterkenny Army Dep, PA	Ogden Air Log Center, UT	2,002 mi
Letterkenny Army Dep, PA	Base X, US	1,340 mi
Letterkenny Army Dep, PA	Tobyhanna Army Depot, PA	174 mi
Red River Army Depot, TX	Anniston Army Depot, AL	546 mi
Red River Army Depot, TX	Ogden Air Log Center, UT	1,800 mi
Red River Army Depot, TX	Base X, US	1,340 mi
Red River Army Depot, TX	Tobyhanna Army Depot, PA	1,164 mi
Anniston Army Depot, AL	Ogden Air Log Center, UT	889 mi
Anniston Army Depot, AL	Base X, US	1,340 mi
Anniston Army Depot, AL	Tobyhanna Army Depot, PA	907 mi
Ogden Air Log Center, UT	Base X, US	1,340 mi
Ogden Air Log Center, UT	Tobyhanna Army Depot, PA	2,101 mi
Base X, US	Tobyhanna Army Depot, PA	1,340 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from Letterkenny Army Dep, PA to Ogden Air Log Center, UT

	1996	1997	1998	1999	2000	2001
	----	----	----	----	----	----
Officer Positions:	0	0	0	0	0	0
Enlisted Positions:	0	0	0	0	0	0
Civilian Positions:	258	395	185	77	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from Letterkenny Army Dep, PA to Base X, US

	1996	1997	1998	1999	2000	2001
	----	----	----	----	----	----
Officer Positions:	0	1	2	0	0	0
Enlisted Positions:	0	14	2	0	0	0
Civilian Positions:	0	226	284	0	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: Letterkenny Army Dep, PA

Total Officer Employees:	15	RPMA Non-Payroll (\$K/Year):	6,000
Total Enlisted Employees:	41	Communications (\$K/Year):	600
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	34,800
Total Civilian Employees:	3,335	BOS Payroll (\$K/Year):	14,200
Mil Families Living On Base:	100.0%	Family Housing (\$K/Year):	330
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.02
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	8,336	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	42345
Enlisted VHA (\$/Month):	1		
Per Diem Rate (\$/Day):	66	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Red River Army Depot, TX

Total Officer Employees:	9	RPMA Non-Payroll (\$K/Year):	14,500
Total Enlisted Employees:	5	Communications (\$K/Year):	850
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	32,450
Total Civilian Employees:	3,665	BOS Payroll (\$K/Year):	13,250
Mil Families Living On Base:	100.0%	Family Housing (\$K/Year):	446
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.94
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	7,745	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	21	Activity Code:	42515
Enlisted VHA (\$/Month):	2		
Per Diem Rate (\$/Day):	73	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Anniston Army Depot, AL

Total Officer Employees:	7	RPMA Non-Payroll (\$K/Year):	3,862
Total Enlisted Employees:	5	Communications (\$K/Year):	818
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	20,987
Total Civilian Employees:	3,432	BOS Payroll (\$K/Year):	10,848
Mil Families Living On Base:	0.0%	Family Housing (\$K/Year):	36
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.77
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	8,482	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	01012
Enlisted VHA (\$/Month):	0		
Per Diem Rate (\$/Day):	68	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Department : AIR FORCE
Option Package : LEAD,RRAD,OO-ALC
Scenario File : C:\COBRA3\LEADHILL.CBR
Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: Ogden Air Log Center, UT

Total Officer Employees:	841	RPMA Non-Payroll (\$K/Year):	6,020
Total Enlisted Employees:	5,527	Communications (\$K/Year):	2,402
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	16,024
Total Civilian Employees:	10,899	BOS Payroll (\$K/Year):	0
Mil Families Living On Base:	40.0%	Family Housing (\$K/Year):	9,588
Civilians Not Willing To Move:	10.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	13,772	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	AFB38
Enlisted VHA (\$/Month):	26		
Per Diem Rate (\$/Day):	98	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.10	Unique Activity Information:	No

Name: Base X, US

Total Officer Employees:	752	RPMA Non-Payroll (\$K/Year):	11,891
Total Enlisted Employees:	4,208	Communications (\$K/Year):	1,514
Total Student Employees:	1,121	BOS Non-Payroll (\$K/Year):	29,982
Total Civilian Employees:	2,709	BOS Payroll (\$K/Year):	21,877
Mil Families Living On Base:	55.0%	Family Housing (\$K/Year):	8,151
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	6,091	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	BASEX
Enlisted VHA (\$/Month):	26		
Per Diem Rate (\$/Day):	98	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Tobyhanna Army Depot, PA

Total Officer Employees:	30	RPMA Non-Payroll (\$K/Year):	13,130
Total Enlisted Employees:	253	Communications (\$K/Year):	419
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	5,320
Total Civilian Employees:	3,161	BOS Payroll (\$K/Year):	13,064
Mil Families Living On Base:	95.4%	Family Housing (\$K/Year):	373
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.20
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	4,231	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	69	Activity Code:	42780
Enlisted VHA (\$/Month):	49		
Per Diem Rate (\$/Day):	82	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: Letterkenny Army Dep, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	11,000	14,100	0	0	0	0
1-Time Moving Cost (\$K):	0	2,244	2,060	7,896	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqcd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	2,400					
Perc Family Housing ShutDown:						100.0%

Name: Red River Army Depot, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqcd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
Perc Family Housing ShutDown:						0.0%

Name: Anniston Army Depot, AL

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqcd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
Perc Family Housing ShutDown:						0.0%

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: Ogden Air Log Center, UT

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	7,275	6,843	6,351	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					0.0%
						Perc Family Housing ShutDown:

Name: Base X, US

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					0.0%
						Perc Family Housing ShutDown:

Name: Tobyhanna Army Depot, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					0.0%
						Perc Family Housing ShutDown:

Department : AIR FORCE
 Option Package : LEAD,RRAD,00-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: Letterkenny Army Dep, PA

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	-3	0	0	0	0
Enl Force Struc Change:	0	-3	0	0	0	0
Civ Force Struc Change:	0	-346	-48	-10	-8	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	-2	-3	-3	0
Enl Scenario Change:	0	0	-5	-5	-5	0
Civ Scenario Change:	0	0	-300	-400	-318	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: Anniston Army Depot, AL

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	-24	-24	-23	-23	-23
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	0	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Name: Ogden Air Log Center, UT

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	0	0	0	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	59	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Name: Tobyhanna Army Depot, PA

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	-23	-24	-22	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	0	0	0	0	0
Off Change(No Sal Save):	0	0	0	0	0	0
Enl Change(No Sal Save):	0	0	0	0	0	0
Civ Change(No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Department : AIR FORCE
 Option Package : LEAD,RRAD,00-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN SEVEN - BASE MILITARY CONSTRUCTION INFORMATION

Name: Ogden Air Log Center, UT

Description	Categ	New MilCon	Rehab MilCon	Total Cost(\$K)
Bldg 5P	OTHER	0	0	440
Bldg 2214	OTHER	0	0	350
Radar Range	OTHER	0	0	2,000

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	77.00%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	58.50%	Priority Placement Service:	60.00%
Enlisted Housing MilCon:	91.00%	PPS Actions Involving PCS:	50.00%
Officer Salary(\$/Year):	67,948.00	Civilian PCS Costs (\$):	28,800.00
Off BAQ with Dependents(\$):	7,717.00	Civilian New Hire Cost(\$):	1,109.00
Enlisted Salary(\$/Year):	30,860.00	Nat Median Home Price(\$):	114,600.00
Enl BAQ with Dependents(\$):	5,223.00	Home Sale Reimburse Rate:	10.00%
Avg Unemploy Cost(\$/Week):	174.00	Max Home Sale Reimburs(\$):	22,385.00
Unemployment Eligibility(Weeks):	18	Home Purch Reimburse Rate:	5.00%
Civilian Salary(\$/Year):	45,998.00	Max Home Purch Reimburs(\$):	11,191.00
Civilian Turnover Rate:	15.00%	Civilian Homeowning Rate:	64.00%
Civilian Early Retire Rate:	10.00%	HAP Home Value Reimburse Rate:	22.90%
Civilian Regular Retire Rate:	5.00%	HAP Homeowner Receiving Rate:	5.00%
Civilian RIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	19.00%
SF File Desc:	leadhill	RSE Homeowner Receiving Rate:	12.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

RPMA Building SF Cost Index:	0.93	Rehab vs. New MilCon Cost:	59.00%
BOS Index (RPMA vs population):	0.54	Info Management Account:	15.00%
(Indices are used as exponents)		MilCon Design Rate:	10.00%
Program Management Factor:	10.00%	MilCon SIOH Rate:	6.00%
Caretaker Admin(SF/Care):	162.00	MilCon Contingency Plan Rate:	7.00%
Mothball Cost (\$/SF):	1.25	MilCon Site Preparation Rate:	24.00%
Avg Bachelor Quarters(SF):	388.00	Discount Rate for NPV.RPT/ROI:	2.75%
Avg Family Quarters(SF):	1,819.00	Inflation Rate for NPV.RPT/ROI:	0.00%
APPDET.RPT Inflation Rates:			
1996: 2.90% 1997: 3.00% 1998: 3.00%		1999: 3.00% 2000: 3.00% 2001: 3.00%	

STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Person(Lb):	710	Equip Pack & Crate(\$/Ton):	0.20
HHG Per Off Family (Lb):	14,500.00	Mil Light Vehicle(\$/Mile):	700.00
HHG Per Enl Family (Lb):	9,000.00	Heavy/Spec Vehicle(\$/Mile):	264.00
HHG Per Mil Single (Lb):	6,400.00	POV Reimbursement(\$/Mile):	0.09
HHG Per Civilian (Lb):	18,000.00	Avg Mil Tour Length (Years):	2.90
Total HHG Cost (\$/100Lb):	35.00	Routine PCS(\$/Pers/Tour):	4,665.00
Air Transport (\$/Pass Mile):	0.09	One-Time Off PCS Cost(\$):	6,134.00
Misc Exp (\$/Direct Employ):	0.18	One-Time Enl PCS Cost(\$):	4,381.00

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

STANDARD FACTORS SCREEN FOUR - MILITARY CONSTRUCTION

Category	UM	\$/UM	Category	UM	\$/UM
-----	--	----	-----	--	----
Horizontal	(SY)	38	Optional Category A	()	114
Waterfront	(LF)	0	Optional Category B	()	175
Air Operations	(SF)	130	Optional Category C	()	120
Operational	(SF)	119	Optional Category D	()	100
Administrative	(SF)	106	Optional Category E	()	128
School Buildings	(SF)	104	Optional Category F	()	19,140
Maintenance Shops	(SF)	108	Optional Category G	()	0
Bachelor Quarters	(SF)	46,227	Optional Category H	()	0
Family Quarters	(SF)	96,040	Optional Category I	()	0
Covered Storage	(SF)	60	Optional Category J	()	0
Dining Facilities	(SF)	180	Optional Category K	()	0
Recreation Facilities	(SF)	0	Optional Category L	()	0
Communications Facil	(SF)	0	Optional Category M	()	0
Shipyards Maintenance	(SF)	0	Optional Category N	()	0
RDT & E Facilities	(SF)	139	Optional Category O	()	0
POL Storage	(BL)	0	Optional Category P	()	0
Ammunition Storage	(SF)	0	Optional Category Q	()	0
Medical Facilities	(SF)	0	Optional Category R	()	0
Environmental	()	0			

5.3 LEAD, Hill AFB Realignment (Army LEAD Personnel Baseline, 923 with Reduced PCS)

This scenario moves all tactical missile, guidance and control and launcher repair to Hill AFB. The personnel used in this simulation are the FY99 authorizations for LEAD to accomplish tactical missiles. The personnel inputs used in the COBRA model are identical to the inputs used by the Army in this simulation (923 PE). The major difference in the simulation in section 5.1 and section 5.2 is the factor used for "civilian personnel not willing to move" from LEAD. In this simulation a factor of 70% is used to reduce the number of personnel that would transfer from LEAD to Hill AFB. This simulation provides an opportunity to transfer a few of the most qualified from LEAD and hire locally from laid off personnel formerly employed by Hercules and Thiokol. Local hires for such missile manufacturers will require less training to meet the requirements of the tactical missile repair workloads. **Return on Investment (ROI)** for this scenario is "Immediate" and the 1-Time Cost is \$90,439,000. Refer to the COBRA attachments for further detail.

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHIL3.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SPF

Starting Year : 1996
 Final Year : 2000
 ROI Year : Immediate

NPV in 2015(\$K): -729,114
 1-Time Cost(\$K): 90,439

Net Costs (\$K) Constant Dollars	1996						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	2,108	482	200	0	0	0	2,790	0
Person	4,208	11,590	7,972	-13,319	-32,681	-45,046	-67,276	-45,046
Overhd	3,950	2,397	-4,083	-12,670	-18,070	-19,729	-48,206	-19,729
Moving	0	2,280	2,073	7,896	0	0	12,249	0
Missio	0	0	0	0	0	0	0	0
Other	-3,504	-6,725	7,010	408	272	0	-2,538	0
TOTAL	6,761	10,024	13,173	-17,684	-50,479	-64,775	-102,981	-64,775

POSITIONS ELIMINATED	1996						Total
	1996	1997	1998	1999	2000	2001	
Off	0	0	2	3	3	0	8
Enl	0	0	5	5	5	0	15
Civ	0	0	300	400	318	0	1,018
TOT	0	0	307	408	326	0	1,041

POSITIONS REALIGNED	1996						Total
	1996	1997	1998	1999	2000	2001	
Off	0	1	2	0	0	0	3
Enl	0	14	2	0	0	0	16
Stu	0	0	0	0	0	0	0
Civ	258	621	469	77	0	0	1,425
TOT	258	636	473	77	0	0	1,444

Summary:

 Realign Letterkenny Army Depot by transferring Tactical Missile Workload including missile disassembly, storage, maintenance of guidance and control systems, launchers, Patriot, and Hawk to Ogden ALC (Hill AFB). Transfer ground support equipment and artillery maintenance workloads to Anniston Army Depot. Maintain an enclave at Letterkenny for conventional ammunition storage and tactical missile storage...command and control at Tobyhanna Army Depot. The personnel baseline for FY99 at LEAD was used at 923 PE. "70 percent not willing to move" standard factor used.

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL3.CBR
 Std Fctrs File : C:\COBRA3\LEADHILL.SFF

Costs (\$K)	Constant Dollars						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	2,108	482	200	0	0	0	2,790	0
Person	4,208	11,590	15,017	10,149	7,658	2,787	51,409	2,787
Overhd	4,050	4,331	4,482	3,664	3,094	1,564	21,185	1,564
Moving	0	2,305	2,079	7,896	0	0	12,280	0
Missio	0	0	0	0	0	0	0	0
Other	7,496	7,375	7,010	408	272	0	22,562	0
TOTAL	17,862	26,082	28,789	22,118	11,025	4,351	110,226	4,351

Savings (\$K)	Constant Dollars						Total	Beyond
	1996	1997	1998	1999	2000	2001		
MilCon	0	0	0	0	0	0	0	0
Person	0	0	7,045	23,468	40,340	47,832	118,685	47,832
Overhd	100	1,934	8,565	16,334	21,164	21,293	69,391	21,293
Moving	0	24	6	0	0	0	30	0
Missio	0	0	0	0	0	0	0	0
Other	11,000	14,100	0	0	0	0	25,100	0
TOTAL	11,100	16,058	15,616	39,802	61,504	69,126	213,207	69,126

INPUT DATA REPORT (COBRA v5.08)

Data As Of 20:35 12/23/1994, Report Created 18:23 05/22/1995

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN ONE - GENERAL SCENARIO INFORMATION

Model Year One : FY 1996

Model does Time-Phasing of Construction/Shutdown: Yes

Base Name	Strategy:
-----	-----
Letterkenny Army Dep, PA	Realignment
Red River Army Depot, TX	Realignment
Anniston Army Depot, AL	Realignment
Ogden Air Log Center, UT	Realignment
Base X, US	Realignment
Tobyhanna Army Depot, PA	Realignment

Summary:

 Realign Letterkenny Army Depot by transferring Tactical Missile Workload including missile disassembly, storage, and maintenance of guidance and control systems to Ogden Air Logistics Center (Hill Air Force Base). Transfer ground support equipment and artillery maintenance workloads to Anniston Army Depot. Maintain an enclave at Letterkenny for conventional ammunition storage and tactical missile storage...command and control at Tobyhanna Army Depot.

INPUT SCREEN TWO - DISTANCE TABLE

From Base:	To Base:	Distance:
-----	-----	-----
Letterkenny Army Dep, PA	Red River Army Depot, TX	692 mi
Letterkenny Army Dep, PA	Anniston Army Depot, AL	729 mi
Letterkenny Army Dep, PA	Ogden Air Log Center, UT	2,002 mi
Letterkenny Army Dep, PA	Base X, US	1,340 mi
Letterkenny Army Depot, PA	Tobyhanna Army Depot, PA	174 mi
Red River Army Depot, TX	Anniston Army Depot, AL	546 mi
Red River Army Depot, TX	Ogden Air Log Center, UT	1,800 mi
Red River Army Depot, TX	Base X, US	1,340 mi
Red River Army Depot, TX	Tobyhanna Army Depot, PA	1,164 mi
Anniston Army Depot, AL	Ogden Air Log Center, UT	889 mi
Anniston Army Depot, AL	Base X, US	1,340 mi
Anniston Army Depot, AL	Tobyhanna Army Depot, PA	907 mi
Ogden Air Log Center, UT	Base X, US	1,340 mi
Ogden Air Log Center, UT	Tobyhanna Army Depot, PA	2,101 mi
Base X, US	Tobyhanna Army Depot, PA	1,340 mi

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from Letterkenny Army Dep. PA to Ogden Air Log Center. UT

	1996	1997	1998	1999	2000	2001
	----	----	----	----	----	----
Officer Positions:	0	0	0	0	0	0
Enlisted Positions:	0	0	0	0	0	0
Civilian Positions:	258	395	185	77	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN THREE - MOVEMENT TABLE

Transfers from Letterkenny Army Dep, PA to Base X, US

	1996	1997	1998	1999	2000	2001
	----	----	----	----	----	----
Officer Positions:	0	1	2	0	0	0
Enlisted Positions:	0	14	2	0	0	0
Civilian Positions:	0	226	284	0	0	0
Student Positions:	0	0	0	0	0	0
Missn Eqpt (tons):	0	0	0	0	0	0
Suppt Eqpt (tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Heavy/Special Vehicles:	0	0	0	0	0	0

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: Letterkenny Army Dep, PA

Total Officer Employees:	15	RPMA Non-Payroll (\$K/Year):	6,000
Total Enlisted Employees:	41	Communications (\$K/Year):	600
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	34,800
Total Civilian Employees:	3,335	BOS Payroll (\$K/Year):	14,200
Mil Families Living On Base:	100.0%	Family Housing (\$K/Year):	330
Civilians Not Willing To Move:	70.0%	Area Cost Factor:	1.02
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	8,336	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	42345
Enlisted VHA (\$/Month):	1		
Per Diem Rate (\$/Day):	66	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Red River Army Depot, TX

Total Officer Employees:	9	RPMA Non-Payroll (\$K/Year):	14,500
Total Enlisted Employees:	5	Communications (\$K/Year):	850
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	32,450
Total Civilian Employees:	3,665	BOS Payroll (\$K/Year):	13,250
Mil Families Living On Base:	100.0%	Family Housing (\$K/Year):	446
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.94
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	7,745	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	21	Activity Code:	48515
Enlisted VHA (\$/Month):	2		
Per Diem Rate (\$/Day):	73	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Anniston Army Depot, AL

Total Officer Employees:	7	RPMA Non-Payroll (\$K/Year):	3,862
Total Enlisted Employees:	5	Communications (\$K/Year):	818
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	20,987
Total Civilian Employees:	3,432	BOS Payroll (\$K/Year):	10,848
Mil Families Living On Base:	0.0%	Family Housing (\$K/Year):	36
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	0.77
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	8,482	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	01012
Enlisted VHA (\$/Month):	0		
Per Diem Rate (\$/Day):	68	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN FOUR - STATIC BASE INFORMATION

Name: Ogden Air Log Center, UT

Total Officer Employees:	841	RPMA Non-Payroll (\$K/Year):	6,020
Total Enlisted Employees:	5,527	Communications (\$K/Year):	2,402
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	16,024
Total Civilian Employees:	10,899	BOS Payroll (\$K/Year):	0
Mil Families Living On Base:	40.0%	Family Housing (\$K/Year):	9,588
Civilians Not Willing To Move:	10.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	13,772	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	AFB38
Enlisted VHA (\$/Month):	26		
Per Diem Rate (\$/Day):	98	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.10	Unique Activity Information:	No

Name: Base X, US

Total Officer Employees:	752	RPMA Non-Payroll (\$K/Year):	11,891
Total Enlisted Employees:	4,208	Communications (\$K/Year):	1,514
Total Student Employees:	1,121	BOS Non-Payroll (\$K/Year):	29,982
Total Civilian Employees:	2,709	BOS Payroll (\$K/Year):	21,877
Mil Families Living On Base:	55.0%	Family Housing (\$K/Year):	8,151
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.00
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	6,091	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	0	Activity Code:	BASEX
Enlisted VHA (\$/Month):	26		
Per Diem Rate (\$/Day):	98	Homeowner Assistance Program:	No
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Name: Tobyhanna Army Depot, PA

Total Officer Employees:	30	RPMA Non-Payroll (\$K/Year):	13,130
Total Enlisted Employees:	253	Communications (\$K/Year):	419
Total Student Employees:	0	BOS Non-Payroll (\$K/Year):	5,920
Total Civilian Employees:	3,161	BOS Payroll (\$K/Year):	13,064
Mil Families Living On Base:	95.4%	Family Housing (\$K/Year):	373
Civilians Not Willing To Move:	6.0%	Area Cost Factor:	1.20
Officer Housing Units Avail:	0	CHAMPUS In-Pat (\$/Visit):	0
Enlisted Housing Units Avail:	0	CHAMPUS Out-Pat (\$/Visit):	0
Total Base Facilities(KSF):	4,231	CHAMPUS Shift to Medicare:	0.0%
Officer VHA (\$/Month):	69	Activity Code:	42780
Enlisted VHA (\$/Month):	49		
Per Diem Rate (\$/Day):	82	Homeowner Assistance Program:	Yes
Freight Cost (\$/Ton/Mile):	0.07	Unique Activity Information:	No

Department : AIR FORCE
 Option Package : LEAD,RRAD,CO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: Letterkenny Army Dep, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	11,000	14,100	0	0	0	0
1-Time Moving Cost (\$K):	0	2,244	2,060	7,896	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	2,400					
Perc Family Housing ShutDown:						100.0%

Name: Red River Army Depot, TX

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
Perc Family Housing ShutDown:						0.0%

Name: Anniston Army Depot, AL

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost(\$K):	0	0	0	0	0	0
Misc Recurring Save(\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
Perc Family Housing ShutDown:						0.0%

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN FIVE - DYNAMIC BASE INFORMATION

Name: Ogden Air Log Center, UT

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	7,275	6,843	6,351	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqcd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost (\$K):	0	0	0	0	0	0
Misc Recurring Save (\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
Perc Family Housing ShutDown:						0.0%

Name: Base X, US

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqcd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost (\$K):	0	0	0	0	0	0
Misc Recurring Save (\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
Perc Family Housing ShutDown:						0.0%

Name: Tobyhanna Army Depot, PA

	1996	1997	1998	1999	2000	2001
1-Time Unique Cost (\$K):	0	0	0	0	0	0
1-Time Unique Save (\$K):	0	0	0	0	0	0
1-Time Moving Cost (\$K):	0	0	0	0	0	0
1-Time Moving Save (\$K):	0	0	0	0	0	0
Env Non-MilCon Reqcd(\$K):	0	0	0	0	0	0
Activ Mission Cost (\$K):	0	0	0	0	0	0
Activ Mission Save (\$K):	0	0	0	0	0	0
Misc Recurring Cost (\$K):	0	0	0	0	0	0
Misc Recurring Save (\$K):	0	0	0	0	0	0
Land (+Buy/-Sales) (\$K):	0	0	0	0	0	0
Construction Schedule(%):	0%	0%	0%	0%	0%	0%
Shutdown Schedule (%):	0%	0%	0%	0%	0%	0%
MilCon Cost Avoidnc(\$K):	0	0	0	0	0	0
Fam Housing Avoidnc(\$K):	0	0	0	0	0	0
Procurement Avoidnc(\$K):	0	0	0	0	0	0
CHAMPUS In-Patients/Yr:	0	0	0	0	0	0
CHAMPUS Out-Patients/Yr:	0	0	0	0	0	0
Facil ShutDown(KSF):	0					
Perc Family Housing ShutDown:						0.0%

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: Letterkenny Army Dep, PA

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	-3	0	0	0	0
Enl Force Struc Change:	0	-3	0	0	0	0
Civ Force Struc Change:	0	-346	-48	-10	-8	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	-2	-3	-3	0
Enl Scenario Change:	0	0	-5	-5	-5	0
Civ Scenario Change:	0	0	-300	-400	-318	0
Off Change (No Sal Save):	0	0	0	0	0	0
Enl Change (No Sal Save):	0	0	0	0	0	0
Civ Change (No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

INPUT SCREEN SIX - BASE PERSONNEL INFORMATION

Name: Anniston Army Depot, AL

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	-24	-24	-23	-23	-23
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	0	0	0	0	0
Off Change (No Sal Save):	0	0	0	0	0	0
Enl Change (No Sal Save):	0	0	0	0	0	0
Civ Change (No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Name: Ogden Air Log Center, UT

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	0	0	0	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	59	0	0	0	0
Off Change (No Sal Save):	0	0	0	0	0	0
Enl Change (No Sal Save):	0	0	0	0	0	0
Civ Change (No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Name: Tobyhanna Army Depot, PA

	1996	1997	1998	1999	2000	2001
Off Force Struc Change:	0	0	0	0	0	0
Enl Force Struc Change:	0	0	0	0	0	0
Civ Force Struc Change:	0	-23	-24	-22	0	0
Stu Force Struc Change:	0	0	0	0	0	0
Off Scenario Change:	0	0	0	0	0	0
Enl Scenario Change:	0	0	0	0	0	0
Civ Scenario Change:	0	0	0	0	0	0
Off Change (No Sal Save):	0	0	0	0	0	0
Enl Change (No Sal Save):	0	0	0	0	0	0
Civ Change (No Sal Save):	0	0	0	0	0	0
Caretakers - Military:	0	0	0	0	0	0
Caretakers - Civilian:	0	0	0	0	0	0

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

INPUT SCREEN SEVEN - BASE MILITARY CONSTRUCTION INFORMATION

Name: Ogden Air Log Center, UT

Description	Categ	New MilCon	Rehab MilCon	Total Cost(\$K)
Bldg 5P	OTHER	0	0	440
Bldg 2214	OTHER	0	0	350
Radar Range	OTHER	0	0	2,000

STANDARD FACTORS SCREEN ONE - PERSONNEL

Percent Officers Married:	77.00%	Civ Early Retire Pay Factor:	9.00%
Percent Enlisted Married:	58.50%	Priority Placement Service:	60.00%
Enlisted Housing MilCon:	91.00%	PPS Actions Involving PCS:	50.00%
Officer Salary(\$/Year):	67,948.00	Civilian PCS Costs (\$):	28,800.00
Off BAQ with Dependents(\$):	7,717.00	Civilian New Hire Cost(\$):	1,109.00
Enlisted Salary(\$/Year):	30,860.00	Nat Median Home Price(\$):	114,600.00
Enl BAQ with Dependents(\$):	5,223.00	Home Sale Reimburse Rate:	10.00%
Avg Unemploy Cost(\$/Week):	174.00	Max Home Sale Reimburs(\$):	22,385.00
Unemployment Eligibility(Weeks):	18	Home Purch Reimburse Rate:	5.00%
Civilian Salary(\$/Year):	45,998.00	Max Home Purch Reimburs(\$):	11,191.00
Civilian Turnover Rate:	15.00%	Civilian Homeowning Rate:	64.00%
Civilian Early Retire Rate:	10.00%	HAP Home Value Reimburse Rate:	22.90%
Civilian Regular Retire Rate:	5.00%	HAP Homeowner Receiving Rate:	5.00%
Civilian RIF Pay Factor:	39.00%	RSE Home Value Reimburse Rate:	19.00%
SF File Desc:	leadhill	RSE Homeowner Receiving Rate:	12.00%

STANDARD FACTORS SCREEN TWO - FACILITIES

RPMA Building SF Cost Index:	0.93	Rehab vs. New MilCon Cost:	59.00%
BOS Index (RPMA vs population):	0.54	Info Management Account:	15.00%
(Indices are used as exponents)		MilCon Design Rate:	10.00%
Program Management Factor:	10.00%	MilCon SIOH Rate:	6.00%
Caretaker Admin(SF/Care):	162.00	MilCon Contingency Plan Rate:	7.00%
Mothball Cost (\$/SF):	1.25	MilCon Site Preparation Rate:	24.00%
Avg Bachelor Quarters(SF):	388.00	Discount Rate for NPV.RPT/ROI:	2.75%
Avg Family Quarters(SF):	1,819.00	Inflation Rate for NPV.RPT/ROI:	0.00%
APPDET.RPT Inflation Rates:			
1996: 2.90% 1997: 3.00% 1998: 3.00%		1999: 3.00% 2000: 3.00% 2001: 3.00%	

STANDARD FACTORS SCREEN THREE - TRANSPORTATION

Material/Assigned Person(Lb):	710	Equip Pack & Crate(\$/Ton):	0.20
HHG Per Off Family (Lb):	14,500.00	Mil Light Vehicle(\$/Mile):	700.00
HHG Per Enl Family (Lb):	9,000.00	Heavy/Spec Vehicle(\$/Mile):	284.00
HHG Per Mil Single (Lb):	6,400.00	POV Reimbursement(\$/Mile):	0.09
HHG Per Civilian (Lb):	18,000.00	Avg Mil Tour Length (Years):	2.90
Total HHG Cost (\$/100Lb):	35.00	Routine PCS(\$/Pers/Tour):	4,565.00
Air Transport (\$/Pass Mile):	0.09	One-Time Off PCS Cost(\$):	6,134.00
Misc Exp (\$/Direct Employ):	0.18	One-Time Enl PCS Cost(\$):	4,381.00

Department : AIR FORCE
 Option Package : LEAD,RRAD,OO-ALC
 Scenario File : C:\COBRA3\LEADHILL.CBR
 Std Fctrs File : C:\COBRA2\LEADHILL.SFF

STANDARD FACTORS SCREEN FOUR - MILITARY CONSTRUCTION

Category	UM	\$/UM	Category	UM	\$/UM
-----	--	----	-----	--	----
Horizontal	(SY)	38	Optional Category A	()	114
Waterfront	(LF)	0	Optional Category B	()	175
Air Operations	(SF)	130	Optional Category C	()	120
Operational	(SF)	119	Optional Category D	()	100
Administrative	(SF)	106	Optional Category E	()	128
School Buildings	(SF)	104	Optional Category F	()	19,140
Maintenance Shops	(SF)	108	Optional Category G	()	0
Bachelor Quarters	(SF)	46,227	Optional Category H	()	0
Family Quarters	(SF)	96,040	Optional Category I	()	0
Covered Storage	(SF)	60	Optional Category J	()	0
Dining Facilities	(SF)	180	Optional Category K	()	0
Recreation Facilities	(SF)	0	Optional Category L	()	0
Communications Facil	(SF)	0	Optional Category M	()	0
Shipyards Maintenance	(SF)	0	Optional Category N	()	0
RDT & E Facilities	(SF)	139	Optional Category O	()	0
POL Storage	(BL)	0	Optional Category P	()	0
Ammunition Storage	(SF)	0	Optional Category Q	()	0
Medical Facilities	(SF)	0	Optional Category R	()	0
Environmental	()	0			

Document Separator

Hill AFB

Tactical Missile Repair



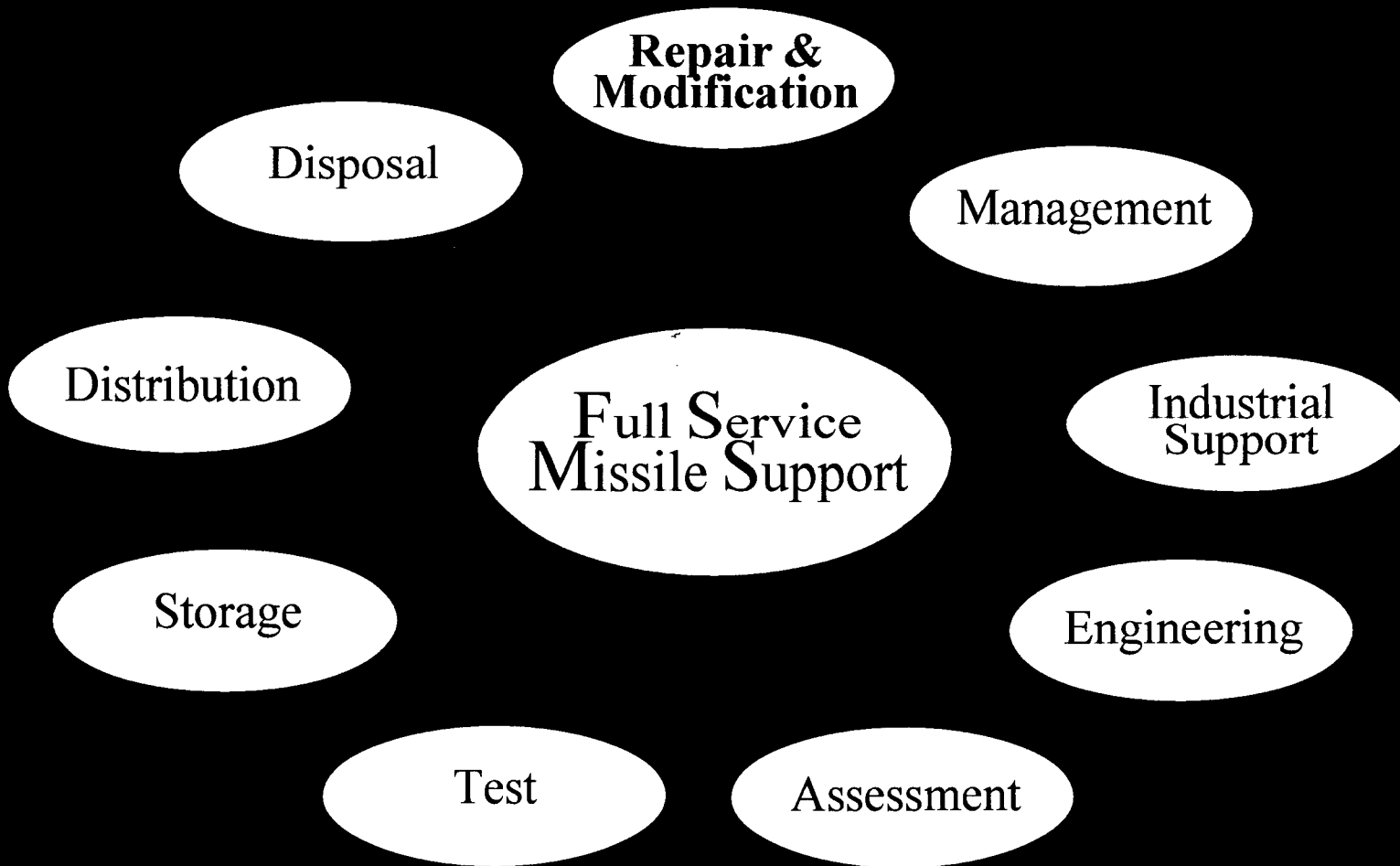
Jeannie Hathenbruck

24 May 1995

Integrating Tomorrow's Technology...Today

Hill AFB

Hill AFB Missile Support Capability



Integrating Tomorrow's Technology...Today

Hill AFB

Alternative Solution

Hill AFB Provides a Viable Alternative

35 Years of Missile Experience

USAF Consolidated Workload at Hill AFB 1970's

Significant Amount of DoD Organic Tactical
Missile Workload

- 122,000 DLH GCS (53% of DoD Tactical Missile)
 - Currently Produce 2700 Guidance Sections Annually
- 624,000 DLH Launcher, Vehicle, and All Up
Round Workload (Strategic and Tactical)

FULL SERVICE SUPPORT

Integrating Tomorrow's Technology...Today

Hill AFB

Bottom Line Costs



	Hill AFB	Army BRAC
MILCON	\$ 2.79 M	\$124.0M
Equipment Transfer	3.696M	7.3M
Inventory Transfer	3.106M	3.1M
FAT	1.063M	1.1M
Training	17.5 M**	28.0M
Facility Mod	.989M	7.8M
O&M & OPA Equip	3.216M	2.8M
PCS	5.4 M	51.0M
TOTAL	\$37.76 M	\$225.1M

**Conservative by About \$9M

ICS Not Included (Maverick - \$72M; Patriot \$84M)

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MILCON

Facilities

Patriot Radar Range	\$2.0 M
Bldg 5 Bay P Mezzanine	\$0.44 M
Bldg 2214 (ATACMS)	\$0.35 M

Total MILCON \$2.79M

Tactical Missiles of the Future Will Include
Stealth Technology

Storage - NO MILCON - Collocated Storage
Needed Only to Meet Repair Requirements

Integrating Tomorrow's Technology...Today

Hill AFB

Facilities and Capacity

Hill AFB has 187,000 Ft² of Explosive Storage

Repair Capacity

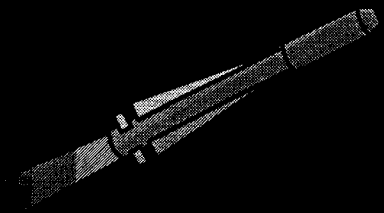
Current Inert	46,500 Ft ²
• Expandable to	368,320 Ft ²
Current Explosive	56,810 Ft ²
• Expandable to	108,310 Ft ²

Facility Upgrades Are Minor

Integrating Tomorrow's Technology...Today

Hill AFB

Power Projection



<u>Depot</u>	<u>Container</u>	<u>Break Bulk</u>	<u>Total</u>
ANAD	1,040 ST/Day	800 ST/Day	1,840
BGAD	2,080	3,760	5,840
CAAP	780	11,300	12,080
HWAAP	923	1,280	2,203
LEAD	520	3,480	4,000
MCAAP	3,900	5,560	9,460
RRAD	728	2,840	3,568
SEDA	104	1,060	1,164
SIAD	1,144	2,000	3,144
SVDA	1,989	1,700	3,689
TEAD	1,170	8,600	9,770

Integrating Tomorrow's Technology...Today

Hill AFB

Training

BRAC 93 Workload \$3.5M
(Except Patriot, HAWK, Sidewinder,
Maverick, and Standard) Common 1.9

5.4

PATRIOT and HAWK (LEAD) \$22.0M

- LEAD Training: \$67K per PE (328 PE)

Hill AFB Training Estimate: \$5.0M
\$40K per PE

- Train 50% PE (20% PCS, 30% Remain)
- Hill AFB ACM \$36K per PE

Total \$8.5M

Integrating Tomorrow's Technology...Today

Hill AFB

Personnel PCS

FY99 Workload Identified 922 PE

Programmed Releases and Available Local Skill
Base Enough to Cover Need

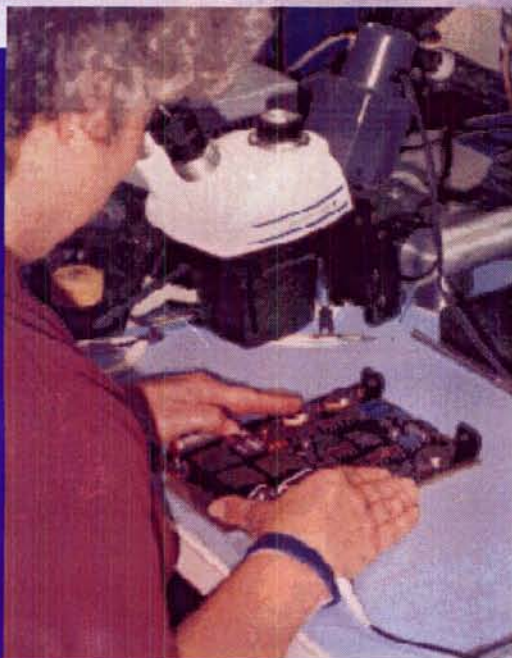
PCS

20% PCS When Workload Transfers: 153 PE

PCS Cost (\$35K per PE) \$5.4M

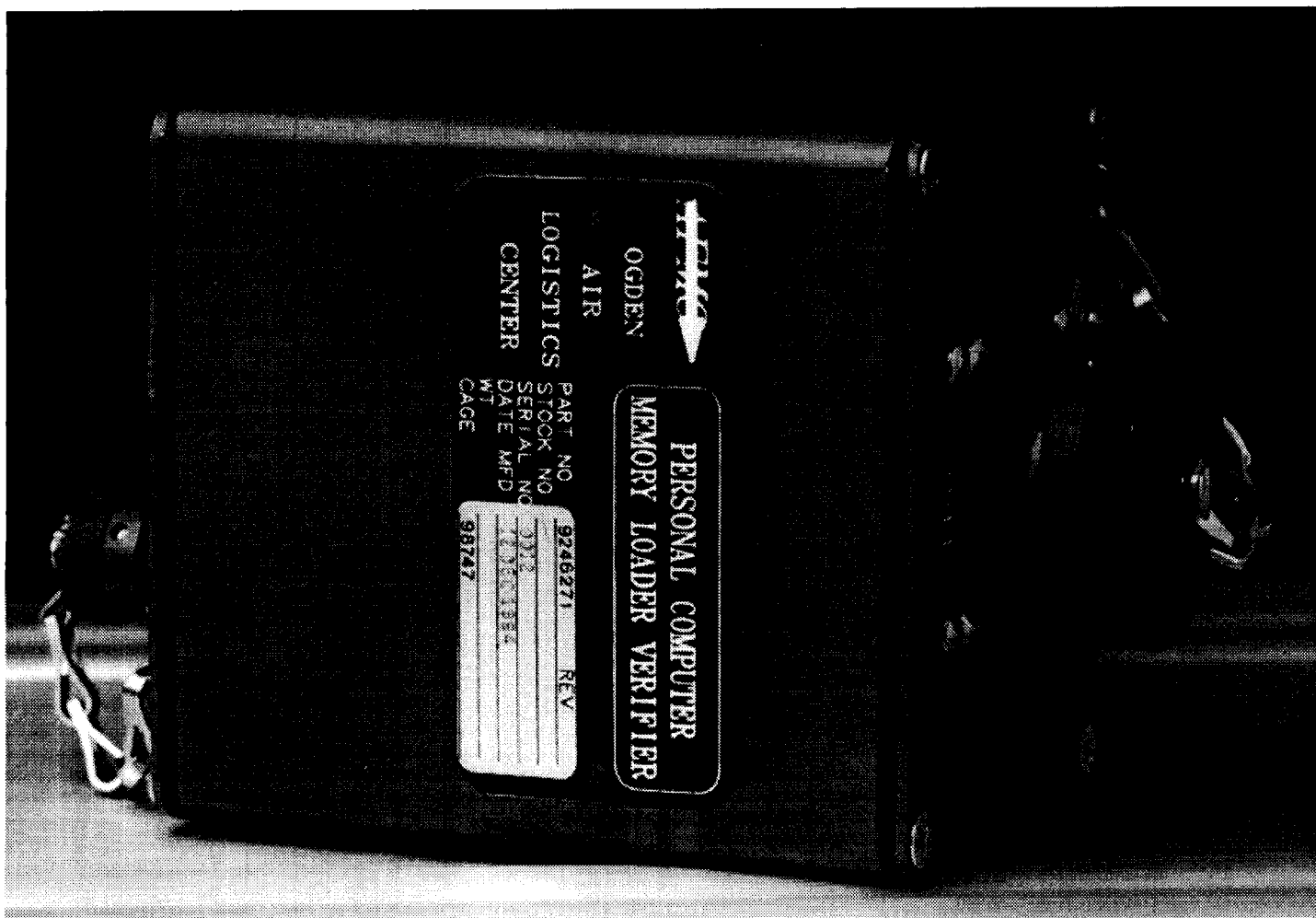
Integrating Tomorrow's Technology...Today

Hill Air Force Base Tactical Missile Consolidation 19 April 1995



PCMLV

Your next LRU could be *easy* to load.



shown actual size

It's possible! The Personal Computer Memory Loader Verifier (PCMLV) is changing the way military electronics are programmed by replacing all of the older, bulky Memory Loader Verifiers with one small package. The secret is the cutting edge technology of Field Programmable Gate Arrays (FPGA) which allows the hardware to be reconfigured on the fly. One minute the PCMLV can be loading an aircraft LRU, and then with a click of a mouse button, PCMLV can load a different weapons system. The PCMLV will make your equipment programming requirements easy.

OOALC\TI

7278 4th Street, Hill Air Force Base, Utah 84056-5205 ■ (801) 777-2272 ■ DSN 777-2272

PCMLV

Benefits

- ◆ Low cost solution for almost any loader/verifier function
- ◆ Quick turnaround on additional loader/verifier functions
- ◆ Serial interface allows PCMLV to be used on almost any computer
- ◆ Small light weight design can be carried by one operator
- ◆ Rugged design for reliability in almost any environment
- ◆ Easy to use Windows interface

Features

- ◆ Field Programmable Gate Array (FPGA) technology
- ◆ Microcontroller based system
- ◆ Wide range of power sources such as aircraft 28 Volts, battery, 110/220 VAC 50/60 Hz (using adapter), etc.
- ◆ 1553 capable

Target Systems and Applications

- ◆ F-4 fighter aircraft
- ◆ F-16 Blocks 5/10/15/25/30
- ◆ B-2 Bomber
- ◆ Electronic Warfare systems
- ◆ C-17 Transport
- ◆ C-130 Transport
- ◆ EF-111
- ◆ F-18
- ◆ F-14
- ◆ Most other programmable electronic systems



Specifications

Size and Weight

- ◆ 4.60" x 4.10" x 3.31"
- ◆ 2 lb (PCMLV only)
- ◆ 12 LB with case, cables and power supply

Environment

- ◆ Temperature 0°C to 40°C
- ◆ Humidity 5% to 95% (non-condensing)
- ◆ Shock 4 foot drop test

Power

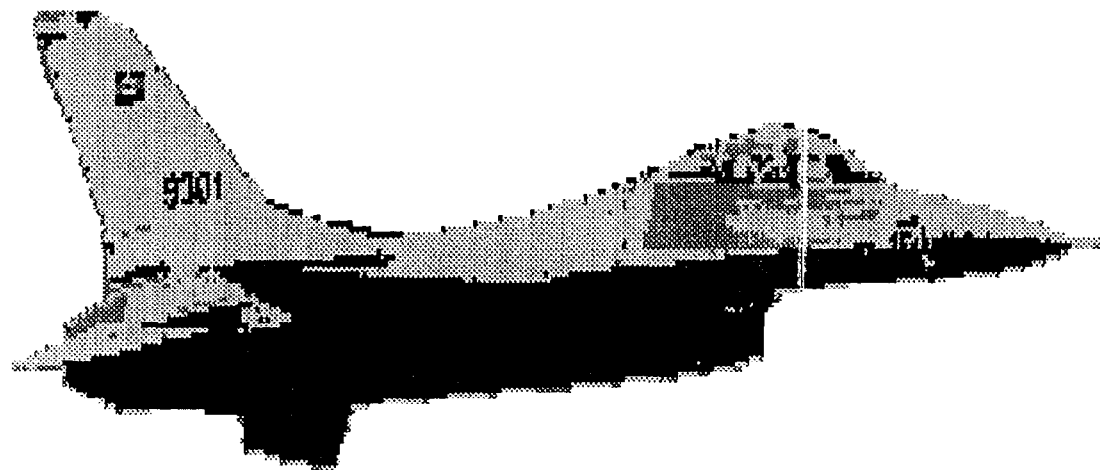
- ◆ 9 - 30 VDC or 7 - 21 VAC (RMS)
- ◆ < 10 Watts (Depending on LRU)

PCMLV Points of Contact

Ben Anderson (801) 775-5557
Nathan Stong (801) 777-2272
OOALC\TISMD FAX (801) 777-7969
7278 4th Street
Hill AFB, Utah 84056-5205

email: nathans@hardtech.hill.af.mil

Document Separator



**OGDEN AIR LOGISTICS CENTER
PRINTED CIRCUIT BOARD MANUFACTURING**

BRAC STAFFER'S TOUR

OO-ALC



PRINTED CIRCUIT BOARD MANUFACTURING



PCB WORKLOAD SOURCES

- **BUILD TO PRINT, MULTI-AGENCIES**
- **BUILD TO SPECIFICATIONS**
- **REVERSE ENGINEERED BOARDS-
DOCUMENTED DATA UNAVAILABLE**
- **BOARDS INVOLVED IN DEVELOPMENT
DESIGNS**
- **MISSION SOURCES DUE TO TIME AND COST
CONSTRAINTS, MULTI-AGENCIES**



PRINTED CIRCUIT BOARD MANUFACTURING



PCB CIRCUIT HISTORY

- **DESCRETE WIRING**
- **SINGLE SIDED BOARDS**
- **DOUBLE SIDED BOARDS**
- **MULTI-LAYER BOARDS, 4 LAYERS TO GREATER THAN 40 LAYERS**
- **MULTI-LAYER, HIGH DENSITY CIRCUIT BOARDS**



PRINTED CIRCUIT BOARD MANUFACTURING



ALC WORKLOAD BREAKDOWN

- **OO-ALC**
 - **4 LAYERS OR GREATER** **81%**
 - **6 LAYERS OR GREATER** **69%**
 - **8 LAYERS OR GREATER** **44%**
 - **10 LAYERS OR GREATER** **18%**
- **WR-ALC**
 - **DOUBLE SIDED OR LESS** **87.5%**
- **SM-ALC**
 - **DOUBLE SIDED OR LESS** **93.7%**



PRINTED CIRCUIT BOARD MANUFACTURING



SUBSTRATE CAPABILITY

- **G-10 Fiberglass**
- **FR-4 Fiberglass**
- **FR-5 Fiberglass**
- **GI Polyimide**
- **Kapton Flexible laminates**
- **Duroid**
- **Polysterine**
- **Teflon**



PRINTED CIRCUIT BOARD MANUFACTURING



WEAPON SYSTEMS

- C-141
- F-4
- F-16
- H-53 HELICOPTER
- GROUND SUPPORT TEST EQUIPMENT
- B-1 BOMBER
- ARMY'S M1 TANK
- NAVY'S TORPEDOS



PRINTED CIRCUIT BOARD MANUFACTURING



WEAPON SYSTEMS(CONT)

- **MISSILES**
 - **Aim-9**
 - **Minute Man**
 - **Maverick**



PRINTED CIRCUIT BOARD MANUFACTURING



STATE-OF-THE-ART BOARDS

- **HIGH DENSITY CIRCUIT BOARDS USING MULTICHIP MODULES(MCMs)**
 - **CIRCUIT BOARDS MANUFACTURED AT OO-ALC**
 - **MCM MODULES DESIGNED AT OO-ALC**
 - **MCM MODULES MANUFACTURED BY MICROMODULE SYSTEMS, INC.**
- **ONE MCM MODULE CAN REPLACE AS MANY AS TEN CIRCUIT BOARDS.**



PRINTED CIRCUIT BOARD MANUFACTURING



AIR FORCE WIDE RECOGNITION

- OGDEN DATA DEVICE(ODD)
- PLATING/RECLAIM PROCESS



PRINTED CIRCUIT BOARD MANUFACTURING



COMMAND WORKLOAD(CWL) FY94

- COMMAND WORKLOAD, Hrs 69,295
- OO-ALC's YIELD 1465
- PE's FOR COMMAND WORKLOAD 43
- WORK STATIONS, OO-ALC 61
- OO-ALC's EXCESS CAPACITY FOR CWL
 - ONE SHIFT 34%
 - TWO SHIFTS 67%
- NO ADDITIONAL EQUIPMENT NEEDED



PRINTED CIRCUIT BOARD MANUFACTURING



ENVIRONMENTAL

- DIRECT TIE TO INDUSTRIAL WASTE TREATMENT PLANT(IWTP)
- HEAVY METALS REGENERATED/RECYCLED
- CYANIDES ELIMINATED
- FLORIDES ELIMINATED
- BORON ELIMINATED
- REMAINING TWO SOLVENTS BEING ELIMINATED
- PROCESSES CONVERTED TO AQUIOUS, WATER SOLUABLE PROCESSES



PRINTED CIRCUIT BOARD MANUFACTURING



UTAH

- HIGH TECH AREA, LITTLE SILICON VALLEY
- MICRON BUILDING MEMORY CHIP PLANT
- OVER 1500 COMPUTER-ELECTRONICS-COMMUNICATIONS FIRMS
- UNIVERSITY CURRICULUM SUPPORTS ELECTRONIC ENGINEERING DEGREES
- FOUR UNIVERSITIES STRATEGICALLY LOCATED TO HILL AFB
- COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS(CRDAs)

**Electrical / Electronic TRC Assessment
Printed Circuit Board Production**

PARAMETER	HILL AFB OO-ALC	WARNER ROBINS AFB WR-ALC	McCLELLAN AFB SM-ALC
Yield	1465	1172	1134
94 PE's Direct-Mfg./Assembly	23	32	5
94 PE's Overhead-Mfg./Assembly	2.0	8	2
FY94 Production Output (Hours)	24,925	34,099	10,271
FY94 Production Output (Panels) (Boards)	1,656 3,924	1117 Not Provided	2474* Not Provided
Cost**	\$1,294,000	3,195,000	\$744,000
Actual Cost/Hr, Cost Dollars./Hour FY94	\$51.91	\$93.70	\$72.42
Cost to do Command Workload at Centers Yield. Command Workload = 69,295 Hours	\$3,597,103	\$6,492,941	\$5,018,344
Cost Savings-One Year at OO- ALC Over Indicated ALC	—	\$2,895,838	\$1,421,240
Cost Savings-Ten(10) Years at OO- ALC Over Indicated ALC	—	\$28,958,380	\$14,212,400
Cost Savings-Twenty(20) Years at OO-ALC Over Indicated ALC using the COBRA time frame to 2015.		\$57,116,760	\$28,124,800
One-Time Cost with PCSs based on COBRA and Gaining Center's Yield.	\$1,522,000	\$1,250,000	\$2,616,000
NPV to 2015 Based on COBRA using ALC's Yields with PCS's.	-\$13,956,000	-5,556,000	-\$2,713,000
FY94 Average Output per Manday.	5.91		
Facility Space, Sq. Ft.	17,487	23,287***	7,000
Product-Double Sided or Less		87.5%	93.7%
Product-Four Layers or Greater	81%		
Product-Six Layers or Greater	69%		
Product-Eight Layers or Greater	44%		
Product-Ten Layers or Greater	18%		
Excess Machine Capacity Over and Above Command Workload of 69,295 Hours -1 Shift (1)	34%(1)	68%(1)	56%
Excess Machine Capacity Over and Above Command Workload of 69,295 Hours-2 Shifts(1)	67%	84%	78%

*** Panel size basis unknown.**

**** Cost = RCC Operating Cost - Direct Material - G&A costs**

***** December briefing data for Gen. Yates had WR space at 19,295 Sq. Ft., presented with detailed drawings and itemized tables. Where did the extra 3,992 Sq. Ft. come from.**

(1) OO-ALC does not have visibility into WR-ALC's data. OO's limiting process is the same as WR's and OO's capacity for this process is greater than WR's.

POINTS OF INTEREST:

1. All analysis based on performance show OO-ALC/HILL AFB as the leader and center of choice.

2. OO-ALC/HILL AFB performs the majority of their work with multilayers; over 80% at 4 layers and above, 44% at 8 layers and above. Capability reaches 35 layers and boards up to 30 layers have been manufactured. This is the broadest in the command.

3. On a cost basis, using hourly cost rates for FY94, a cost savings based on FY94 dollars of \$57,116,760 will occur with consolidation at OO-ALC over WR-ALC.

4. Based on the data submitted to the TRC Team, OO-ALC has the broadest base of substrate capability. Sixteen(16) percent of the FY94 workload was with Kapton and Polyimide for six layers or greater. Another sixteen(16) percent of the workload was with FR-5 and layers up to eight(8) for both rigid and flex.

Document Separator

Hill AFB



Tactical Missile Repair

Jeannie Hathenbruck

19 April 1995

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Overview

Background

Alternative Solution

Full Service Support

Transition Plan

Conclusions

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Background

DoD Recommended Closing Letterkenny
(LEAD) in 1993

BRAC 93

Consolidated Tactical Missiles at LEAD

DMRD 908 “Tactical Missile Study”

Good Decision to Consolidate

Fundamentals Driving Decision Remain Valid

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- BRAC 93
 - DMRD 908 (Tactical Missile Study) was 1 of 11 consolidation studies to save \$.
 - BRAC 93 reviewed the recommendations from the study to make a determination for consolidation.
 - We believe the consideration for consolidation still has merit and should be based on most cost effective approach.

Background

Reduction in Labor Hours

Several Systems Now Excluded

Contractor Support Issues

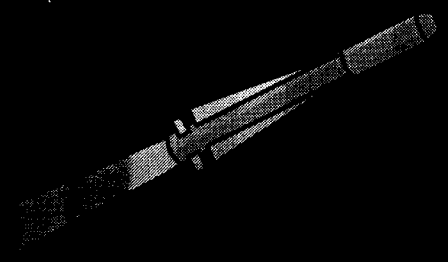
Retire In-Place

Deep Storage

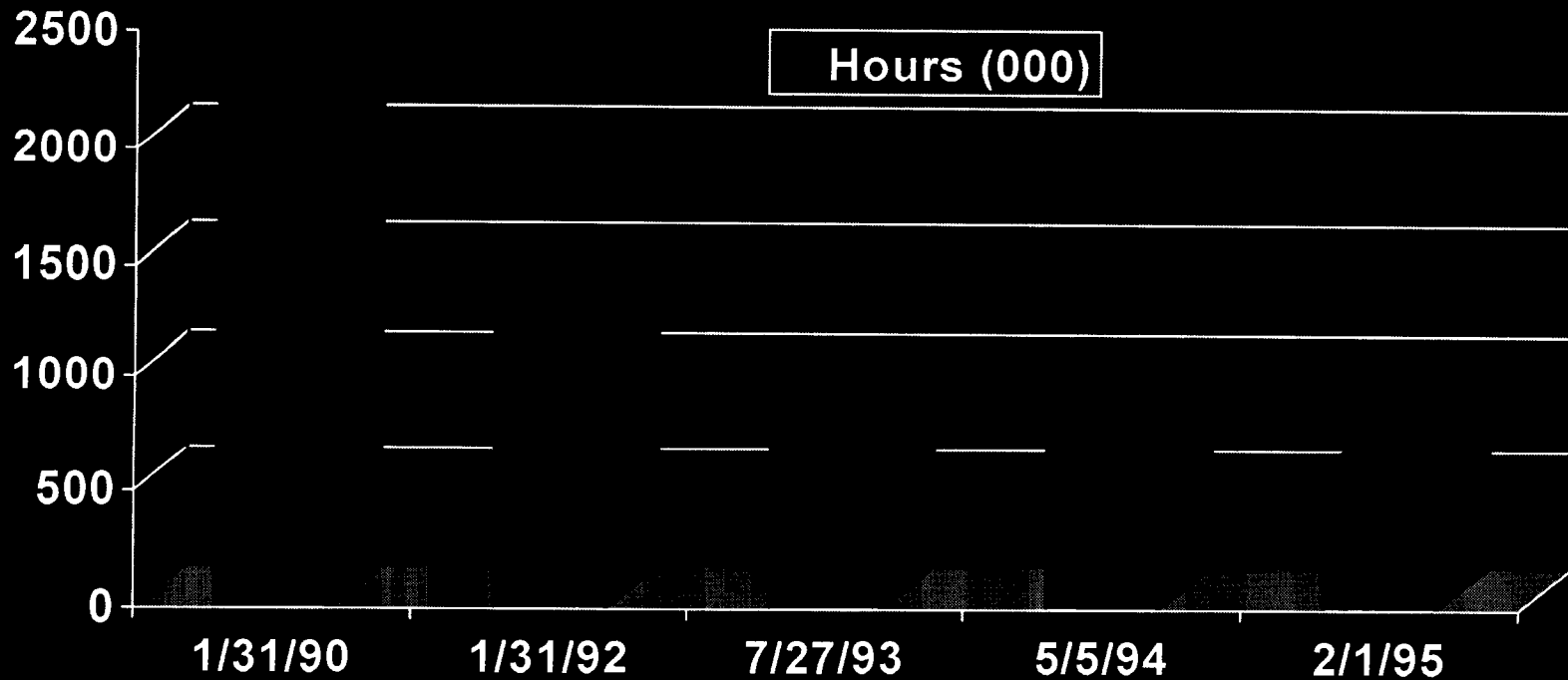
Service Retained

- Original Study included >2.2M DLH
- Dropped to 623K DLH
- Joint Cross Service Group Study identified additional opportunities for consolidation - 791K DLH
- Waivers from the original study
 - Army:
ANTSQ-73, Chaparral, Lance, Land Combat Support System, and Shillelagh.
 - Navy:
SHRIKE, SKIPPER, Standard, Walleye, Harpoon, Sidarm, and Penguin.
- Joint Cross Service Group recommended Hill AFB as the Guidance and Control consolidation site.

Background



Tactical Missiles Consolidation Workload Changes (LEAD)



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DoD Tactical Missile Workload

Present Tactical Missile Workload

<u>Depot</u>	<u>DL H (000)</u>
LEAD	623

Additional Workload

Red River (Vehicle and Launchers)	59
Crane (Fuzes)	38
Tobyhanna (Missile Components)	58
<u>Black World</u>	<u>13</u>
Subtotal	168

Total	791
--------------	------------

Background

Army Recommended Disestablishment of
LEAD Depot

1995 DoD Recommendations

Guidance & Control to Tobyhanna AD

Guidance & Control Plus Towed and Self-
Propelled Vehicles to Anniston AD

Hawk Missile System to Barstow USMC Depot

AUR & Storage For Four (4) Systems Remain at
Letterkenny AD

Nullifies 93 BRAC Consolidation Decision

- 1995 DoD Recommendations
 - Guidance and Control to Tobyhanna AD
 - Tobyhanna does not currently have GCS skills (to our knowledge)
 - AUR and Storage for four systems remain at Letterkenny AD
 - AUR still being done by all four services at multiple locations
- Reversed 93 BRAC Consolidation Decision
- Fragments original DMRD 908 “Tactical Missile Study”
- Counters the 1993 BRAC Commission Findings: “...the annual recurring savings to be realized from TMC at LEAD, would still be equivalent to savings achieved from the proposed LEAD realignment, if all missile maintenance workload, including that which is currently assigned to the private sector, transitions to LEAD.” Page 1-7

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Alternative Solution

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Alternative Solution

Hill AFB Provides a Viable Alternative

35 Years of Missile Experience

USAF Consolidated Workload at Hill AFB 1970's

Significant Amount of DoD Organic Tactical
Missile Workload

- 43% GCS
- 150,000 DLH Launcher and Vehicle Workload

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DoD Tactical Missile Guidance and Control Workload (000 DLH)*

Total	Hill Current	LEAD Current	Barstow Current	Future (Contract)
283.6	121.8	43.4	30	88.4
100%	43%	15%	11%	31%

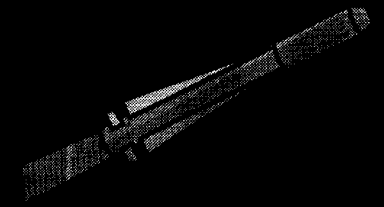
*Hours are Based on Projected FY99 Workload

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[122 will go to lettering]

total direct labor hours

Alternative Solution (Cont)



Capability Exists to Consolidate DoD Tactical Missile Workload

- Support Equipment
- GCS
- AUR
- Launchers
- Vehicles

Full Service Missile Support
Established Infrastructure

Hill AFB Designated Tier I Depot

Hill AFB

Hill AFB, A TIER I Base

Rated Tier I For Installation Military Value By
USAF

Rated Tier I For Depot Military Value By
USAF

Rated Tier I USAF Depot by DoD JCSG/DM

The Only AF Depot So Rated

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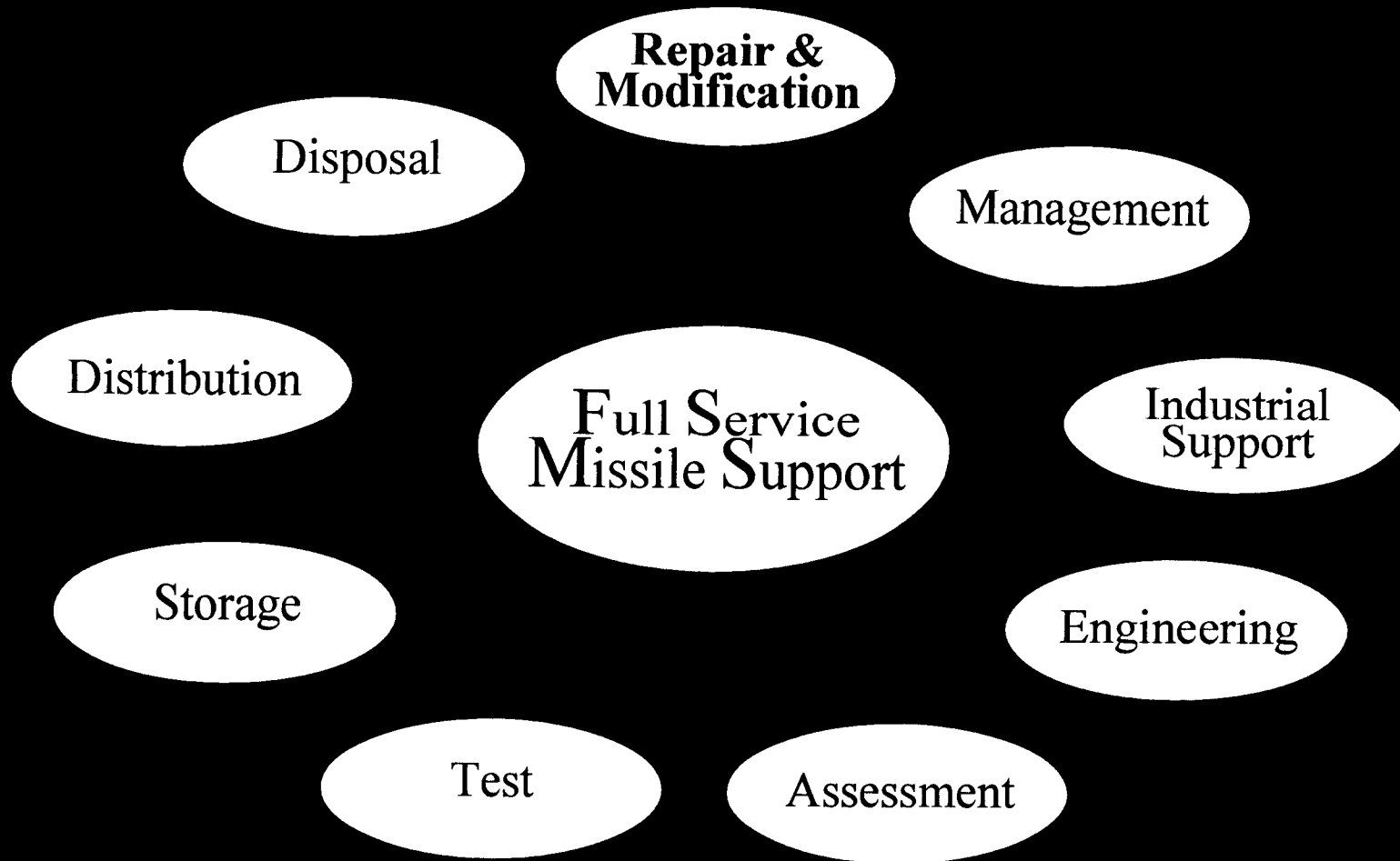
Hill AFB

Full Service Support

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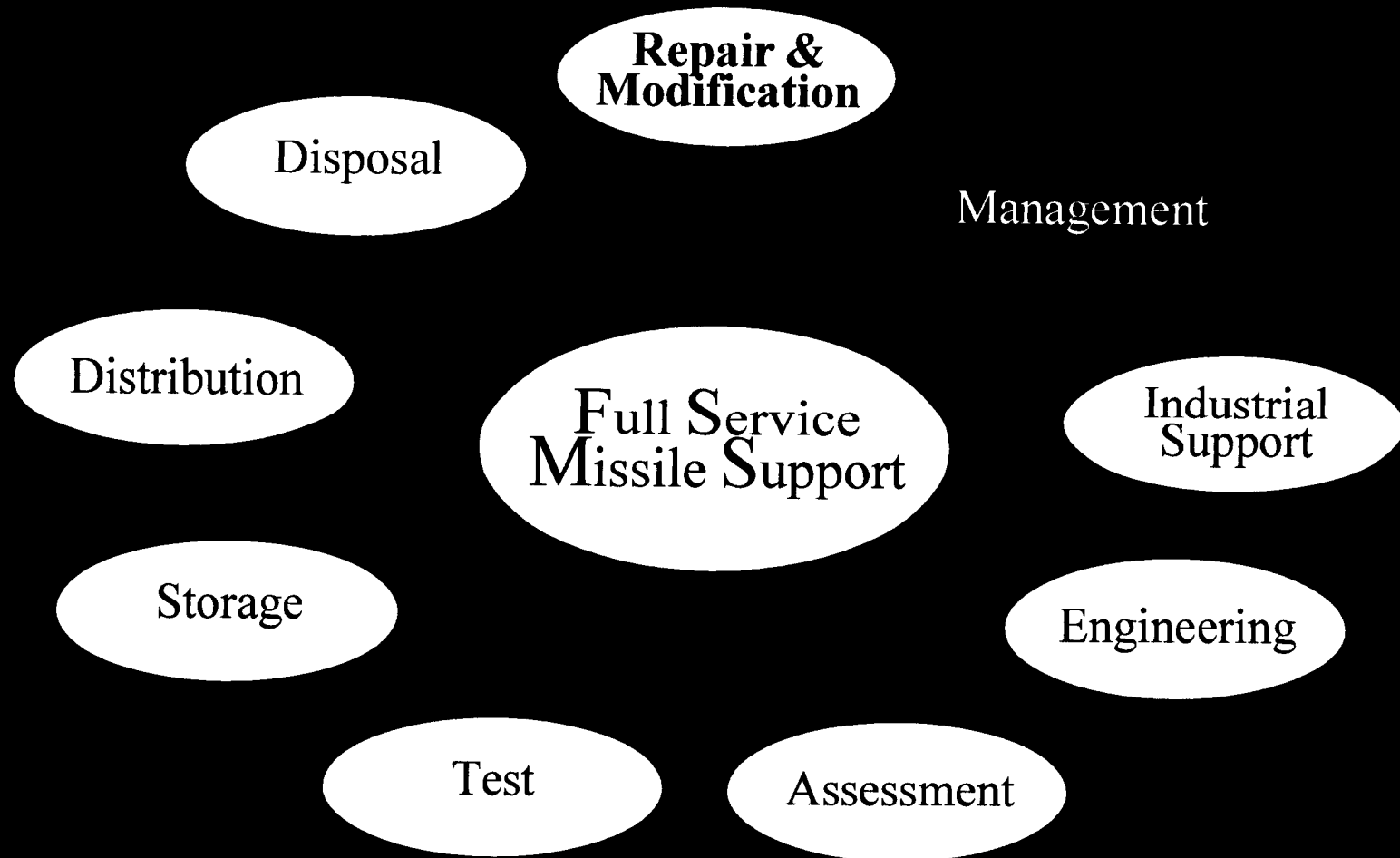
Hill AFB Missile Support Capability



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Hill AFB Missile Support Capability



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Management

System Acquisition

“Cradle to Grave” System Management

Integrated Weapon System Management (IWSM)

Product Group Manager (PGM) for all Air-to-Ground Munitions

Specialized Management

Silo-Based ICBM System Program Office

Maverick System Program Office

Missile Component and Container Managers

System, Supply, and Field Support

Explosives Experts

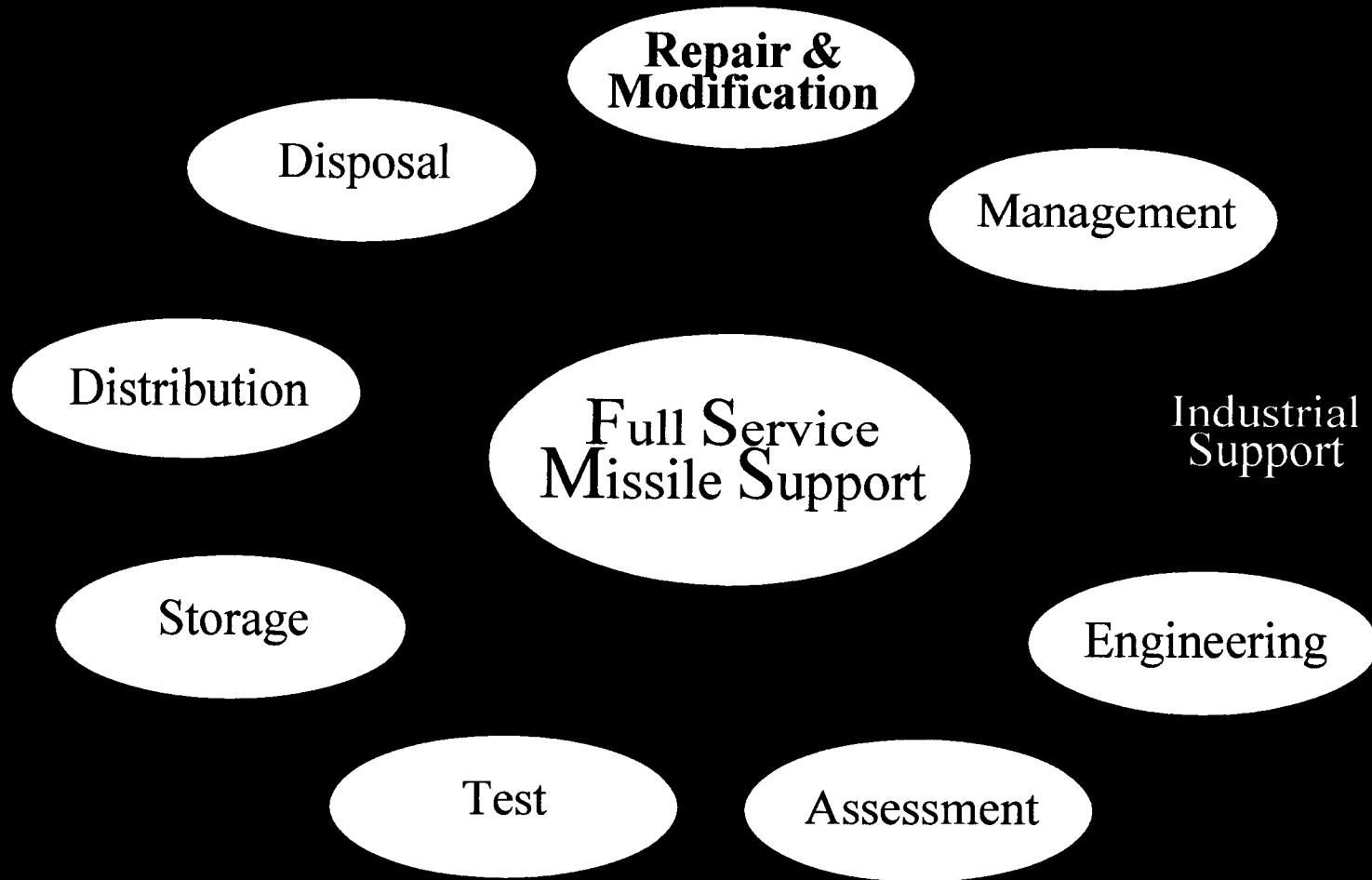
End Item and Spares Procurement

Integrating Tomorrow's Technology...Today

- Management:
 - Promotes synergism between Armament and ICBM program offices by sharing:
 - Weapons storage areas, Security control systems, Weapons repair and testing facilities
 - Test facilities, Safety training, Experience, Lessons learned
 - Specialized management capabilities
 - Silo-Based ICBM System Program Office
 - Awarded the “Hammer Award” by Vice President Gore as a “Hero of Government Reinvention”, Sept. 1994
 - USAF Air-to-Surface Product Group Manager
 - Ammunition Control Point - Focal point in USAF for wartime and peacetime management and movement of all explosives
 - System and supply
 - Explosives experts are employed at Hill AFB
 - Material and technical management functions are performed at Hill AFB.

Hill AFB

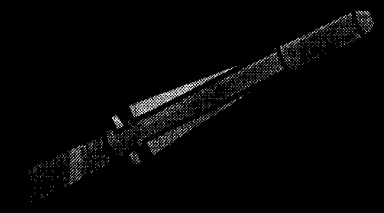
Hill AFB Missile Support Capability



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Industrial Support



Hill AFB Provides Extensive Infrastructure Capabilities

Optical Refurbishment

Radar Overhaul/Repair

Printed Circuit Board Manufacturing

Electrical Harness Repair

Investment Casting

Hazardous Waste Management System

Integrating Tomorrow's Technology...Today

- Industrial Support: OO-ALC has a one-of-a-kind industrial capability with its internal capabilities and its geographical collocation with local industry:
 - OO-ALC has unique design, prototyping, and competitive manufacturing expertise in the following:
 - Photonic components
 - Radar Overhaul/Repair
 - Indoor anechoic test complex (radar testing)
 - Printed circuit boards
 - Packaging systems
 - Metal Processing
 - Thermal spray coatings

Hill AFB

Industrial Support

Hill AFB Provides Extensive Infrastructure
(Cont)

Precision Measurement Equipment Lab

Physical Science Lab

- State and EPA Certified

Hydraulics/Electronics Support

Machine Shop

Automated Supply Distribution System

Major Missile Contractors in Local Area

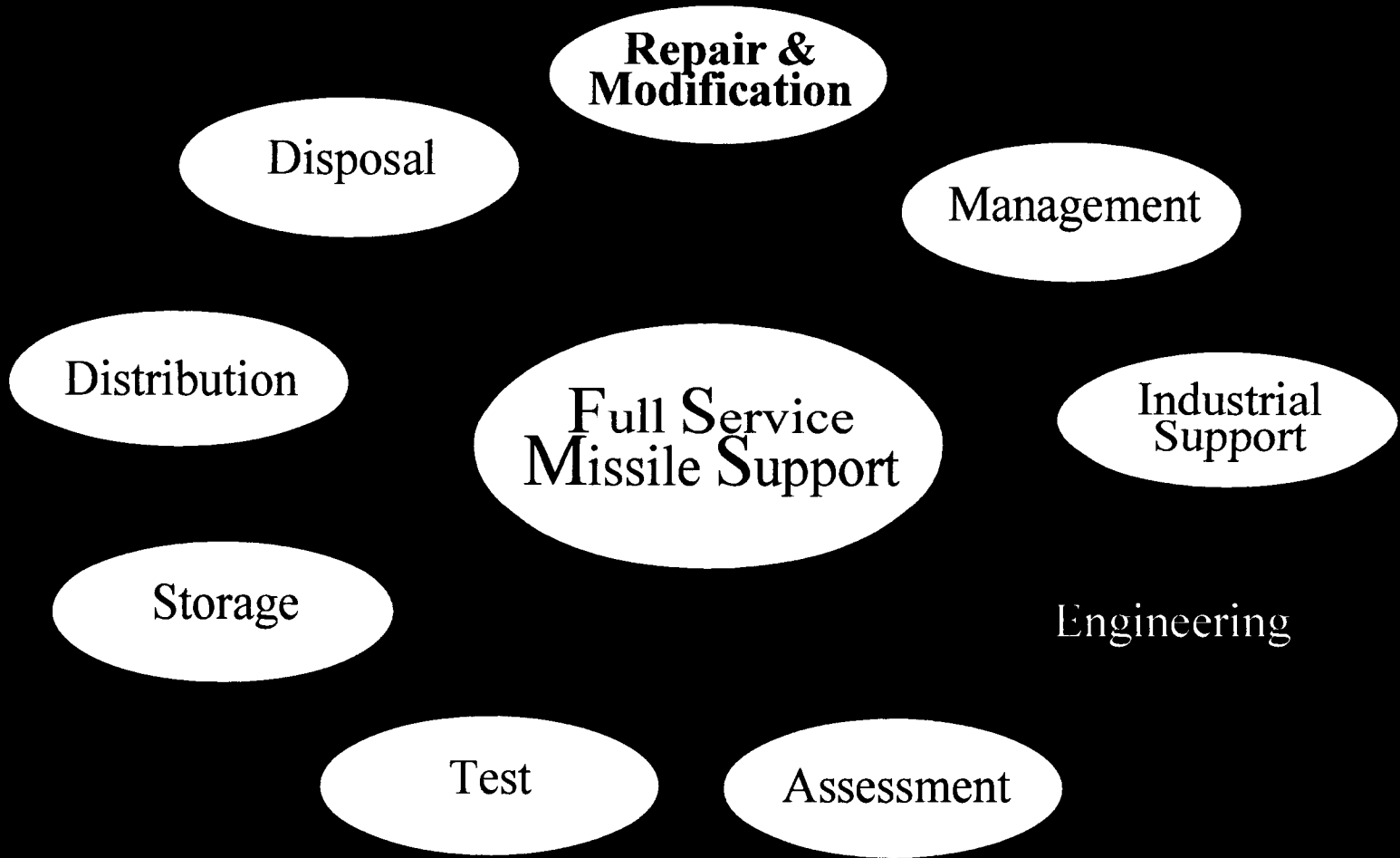
Hercules/Alliant, Thiokol, Williams International

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- Also provide typical industrial support functions
 - Hydraulics / electronics support:
 - Electro/hydraulic, Missile flight controls, Hydraulic actuators, and Missile shock isolators
 - Machine shop:
 - CNC milling, CAD/CAM design and programming, Tool and die and Mold making
 - Major missile contractors are located in local area from which OO-ALC can draw expertise
 - Hercules/Alliant Techsystems, Salt Lake City, produces rocket motors for HARM, Poseidon, Trident, Minuteman and Sidewinder
 - Thiokol, Ogden, UT, and Promontory, UT, produces rocket motors for Peacekeeper, Maverick, Minuteman and Trident
 - Williams International, Ogden, UT, produces Advanced Cruise Missile jet engine
 - Wasatch Front is the software version of Silicon Valley

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Hill AFB Missile Support Capability



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Engineering

Systems Engineering Support

Hardware/Software, Design, Development, Test,
and Integration Expertise "In-House"

Software-in-the-Loop Testing

Independent Software Verification
and Validation

Structural & Electrical Failure Analysis

Time Studies & Process Improvement

Probabilistic Modeling and Simulation for Tactical
Missiles and Aircraft

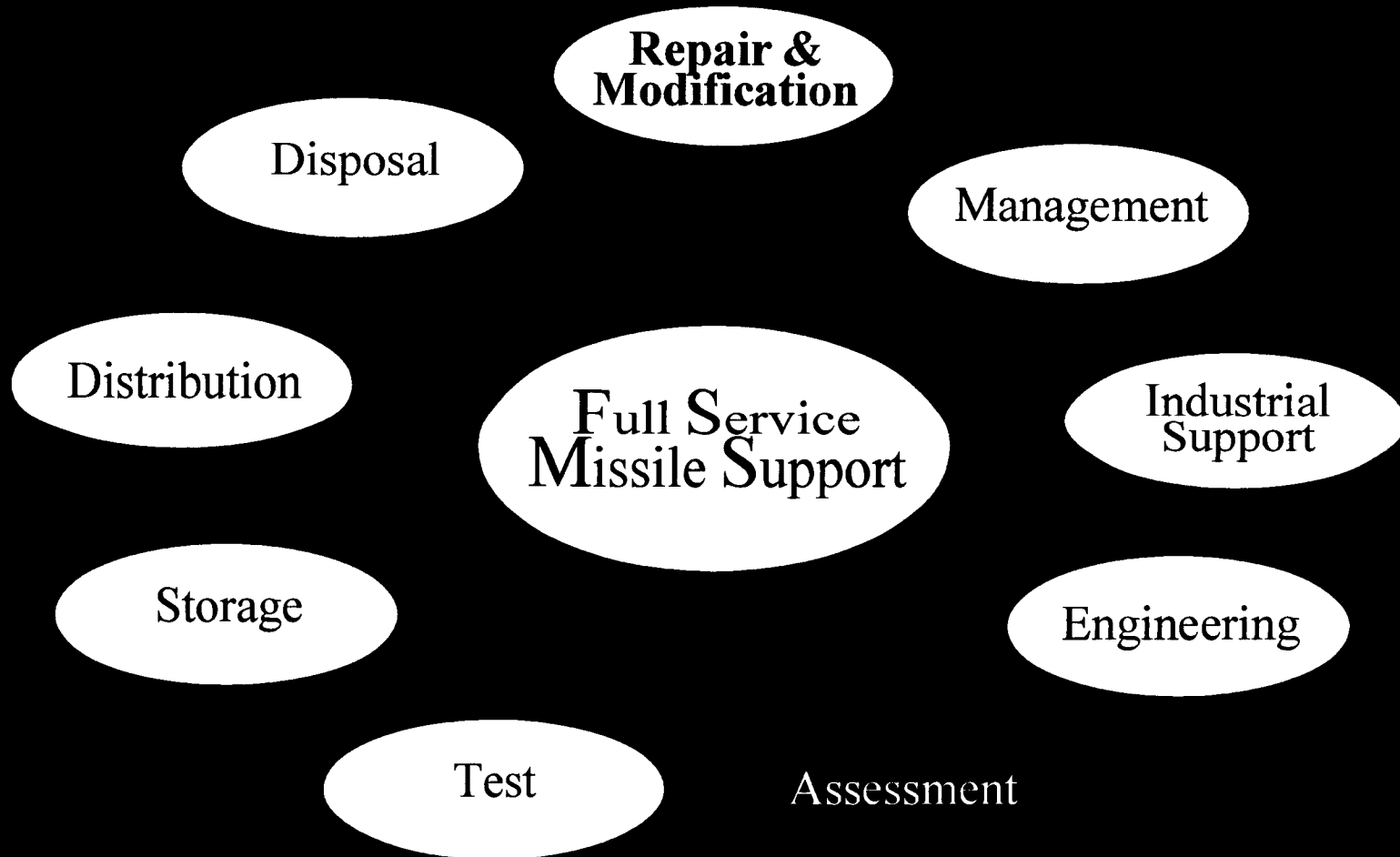
Provide Service to All Branches of the Armed
Services and FMS

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- Software Work performed:
 - Operational Flight Programs (OFPs) for Aircraft (F-16) and Strategic Missiles
 - Automatic Test Equipment (ATE) programming - Test Program Sets (TPS)
- System Engineering support expertise in-house
 - Hardware and software
 - Design
 - Development
 - Test
 - Integration
 - Independent verification and validation for software (IV&V)
- EPA certified chemical analysis (liquid, solid and explosive analyses)
 - Structural and electrical failure analysis
 - Environmental analysis
- Time studies and process improvement (improve production flow)
 - Modeling & Simulation

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Hill AFB Missile Support Capability



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Assessment

Explosives Analysis

High Energy X-Ray and Computed Tomography (CT)

Rocket Motor and Warhead Dissections

Chemical and Physical Analysis

EPA Certified Chemical Analysis

Survivability/Vulnerability Analysis

Radiation

Shock and Vibration

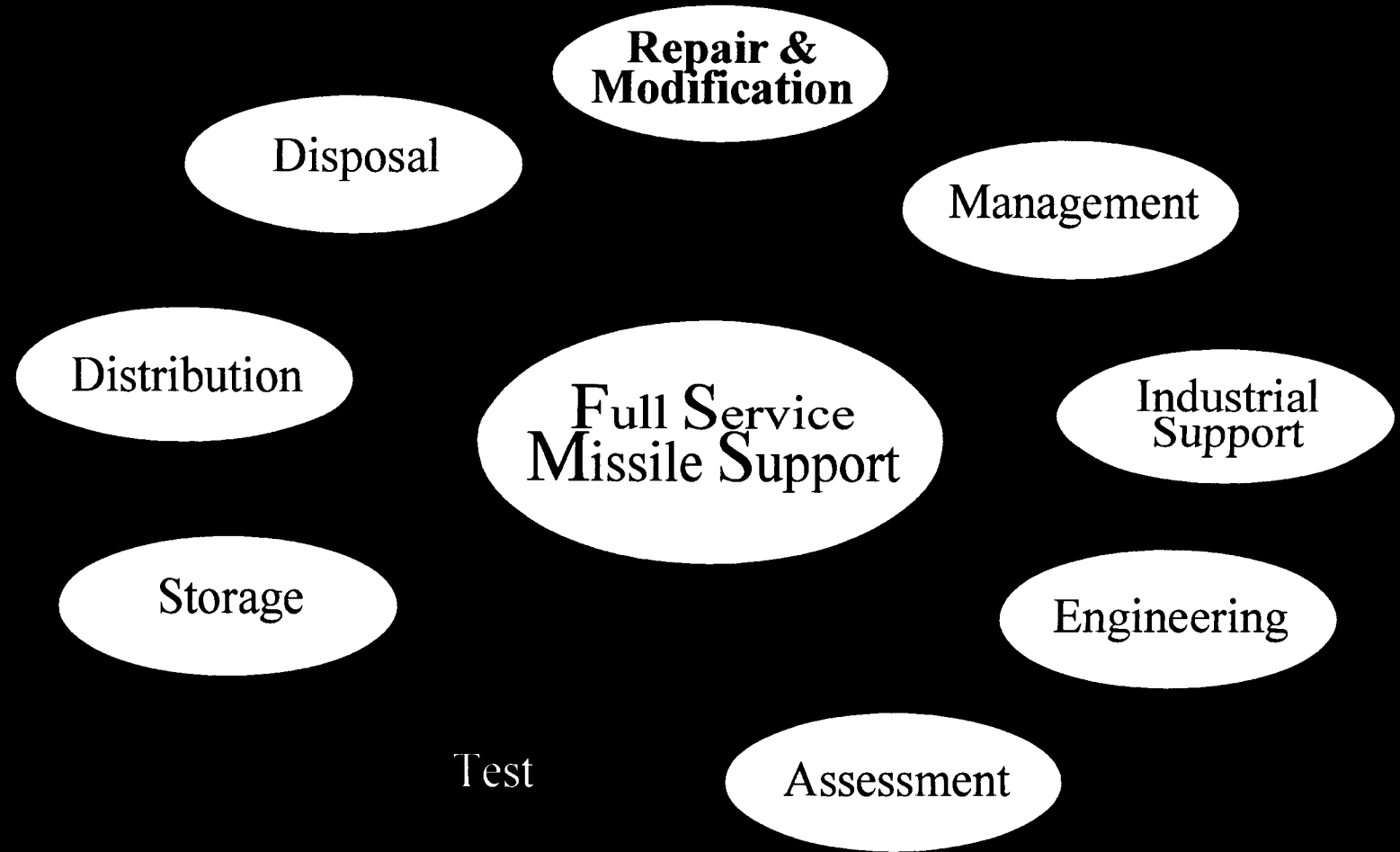
Electromagnetic Compatibility/Interference

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- CT provides three-dimensional view
- Explosives analysis
 - High Energy X-ray and computed tomography (CT), just opened largest CT in world
 - Bldg 2113 23,000 ft²
 - Rocket motor and warhead dissections (machining)
 - Bldg 1946 2,436 ft²
 - Chemical and physical analysis
 - Chemical: Bldg 1941 3,297 ft²
 - Physical: Bldg 1943 3,297 ft²
- Survivability / vulnerability analysis (Little Mountain Complex)
 - Radiation, shock and vibration, electromagnetic compatibility / interference.

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Hill AFB Missile Support Capability



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Test

Acquisition and Sustainment Testing
Aging and Surveillance of AUR and Explosive
Components

Service Life Predictions

Safety Assessments

Live and Static Firing

Warheads/Large Motors: UTTR

Small Motors/Components: On-Base

Propellant Dissection Lab

Chemical/ Physical Properties

Integrating Tomorrow's Technology...Today

- Aging and surveillance of explosive components
 - Service life predictions and safety assessments.
- Live and static firing
 - Warheads/large Motors: Utah Test and Training Range (UTTR)
 - Small motors/components on-base: 649 MUNS (Maintenance and Test Squadron)
 - Dugway Proving Grounds (Army)
- Close proximity to operational users
 - 388 Fighter Wing and 419 Fighter Wing (AFRES)
- 545 Test Group provides test services
 - Test Management, Flight Test Engineering, Test Plans, Final Test Report
 - Collocated with:
 - Buildup and storage facilities, Aircraft loading area, Mission Control Center (MCC), Integrated Product Team (IPT), and UTTR.
- Allows product engineers to track the test process at any stage and obtain real-time test data for decision-making

Hill AFB

Test (Cont)

Operational Users on Hill AFB

ALC - Analysis

545th Test Group - Weapon System Test

388th and 419th Fighter Wings - Operational
Flight

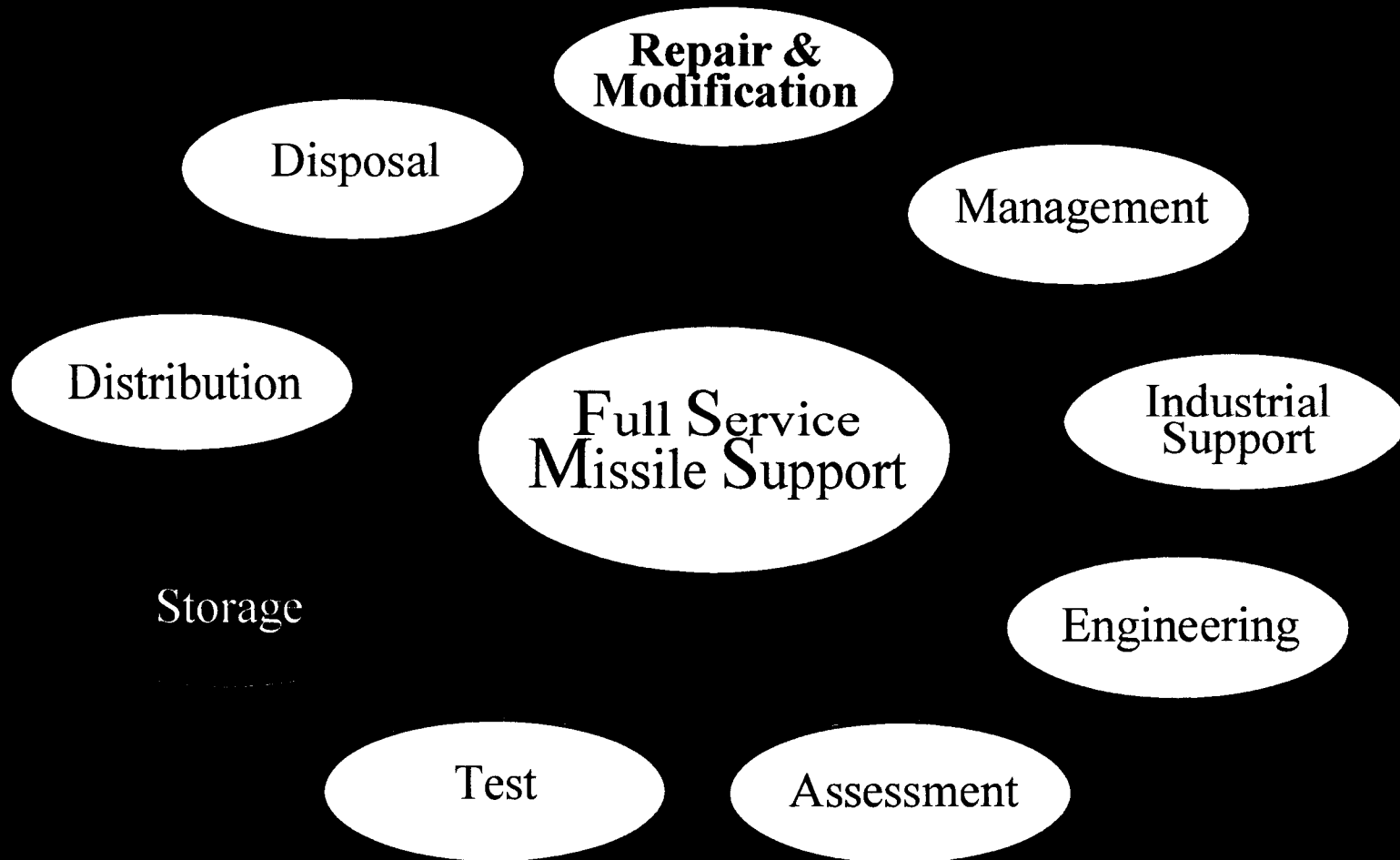
UTTR

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- AMRAAM:
 - Rocket Motor and Battery
- Maverick:
 - Breaklock Testing and Baseline Testing
- Ogden is tasking 388th FW to help develop component modifications for AIM-9. Collocation with the user allowed close cooperation and several iterations of design, implementation, test, checkout, and flight test. No delays due to geographical separation and personnel travel.

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Hill AFB Missile Support Capability



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Storage

Explosive Storage

Hill AFB Missile Assembly & Maintenance
Storage

- 247,000 ft²
- 259 Structures

400,000 Cubic Ft Adjacent to Hill AFB Runway
Oasis

- 108,000 ft²

Tooele AD

Non-Explosive Storage

Hill AFB Storage Area is 252,000 ft²

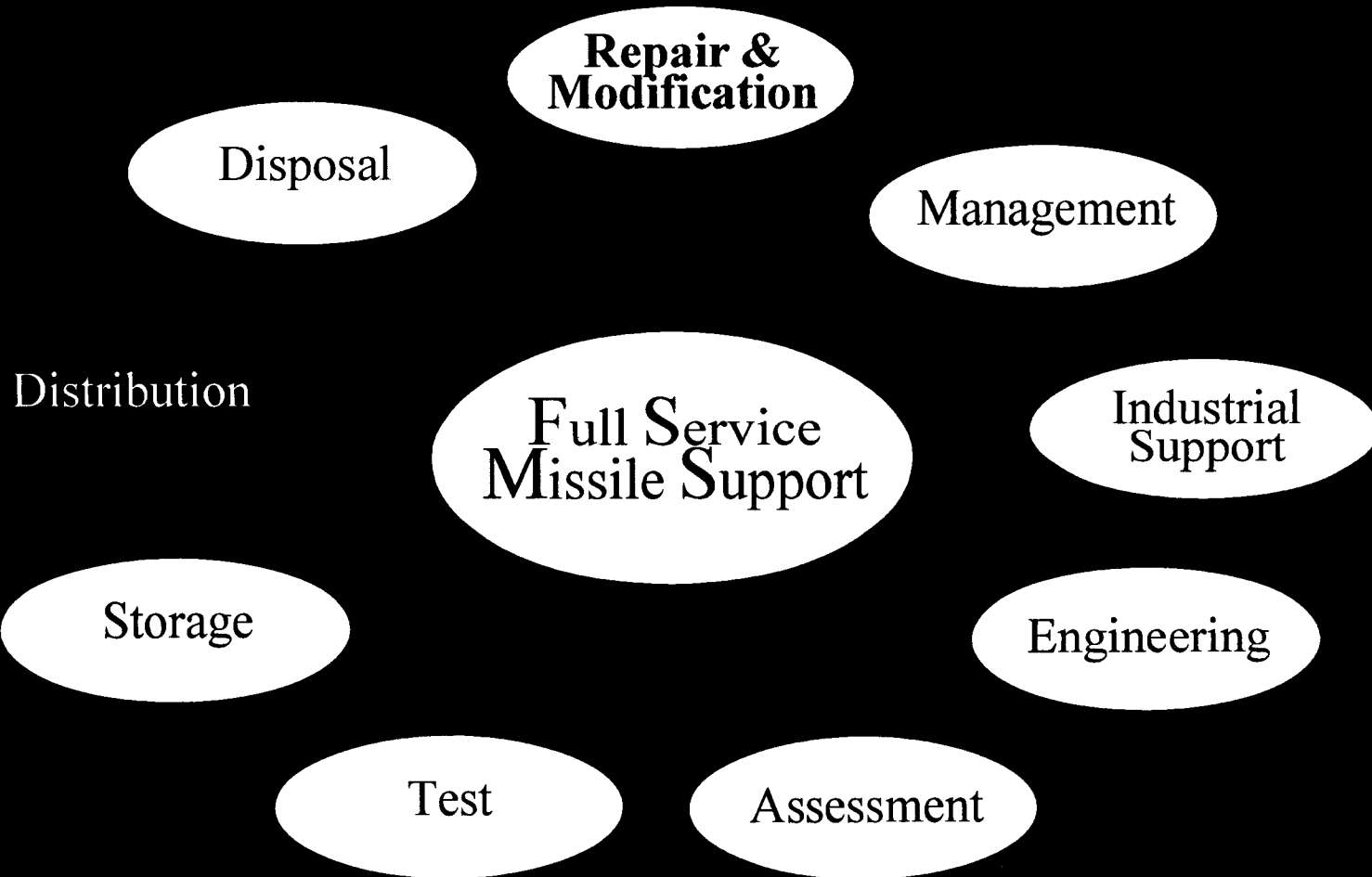
Defense Logistics Agency (DLA) Storage Area is
3.4M ft²

Integrating Tomorrow's Technology...Today

- Explosive storage
 - Hill AFB - Missile assembly and maintenance storage 259 facilities (247,000 ft²), 6692 Acres on Hill, 3200 Acres for Explosive Storage
 - Tooele North Storage Area 1,000,000 ft² , 41,000 ft² for OO-ALC assets >902 Structures
 - Oasis 108,000 ft²
- Non-explosive storage on-site
 - OO-ALC storage 252,000 ft²
 - DLA storage areas (largest in the U.S.) 3.4 M ft²
- Tooele AD “Best suited for Active Status”
 - LEAD “Best suited for Cadre Status”
 - Tooele AD, together with OO-ALC’s unique explosive airlift capability, can project great quantities of munitions quickly and efficiently.

Hill AFB

Hill AFB Missile Support Capability



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Hill AFB

Distribution

Ammunition Control Point for All
USAF Non-Nuclear Munitions

\$10 Billion Inventory

Manage over 9500 Stock Numbers for Tactical
Missiles

Processed Over 4165 Tons of Munitions (167
Boeing 707 Equivalents) During Two-Month
Period in Support of Desert Storm

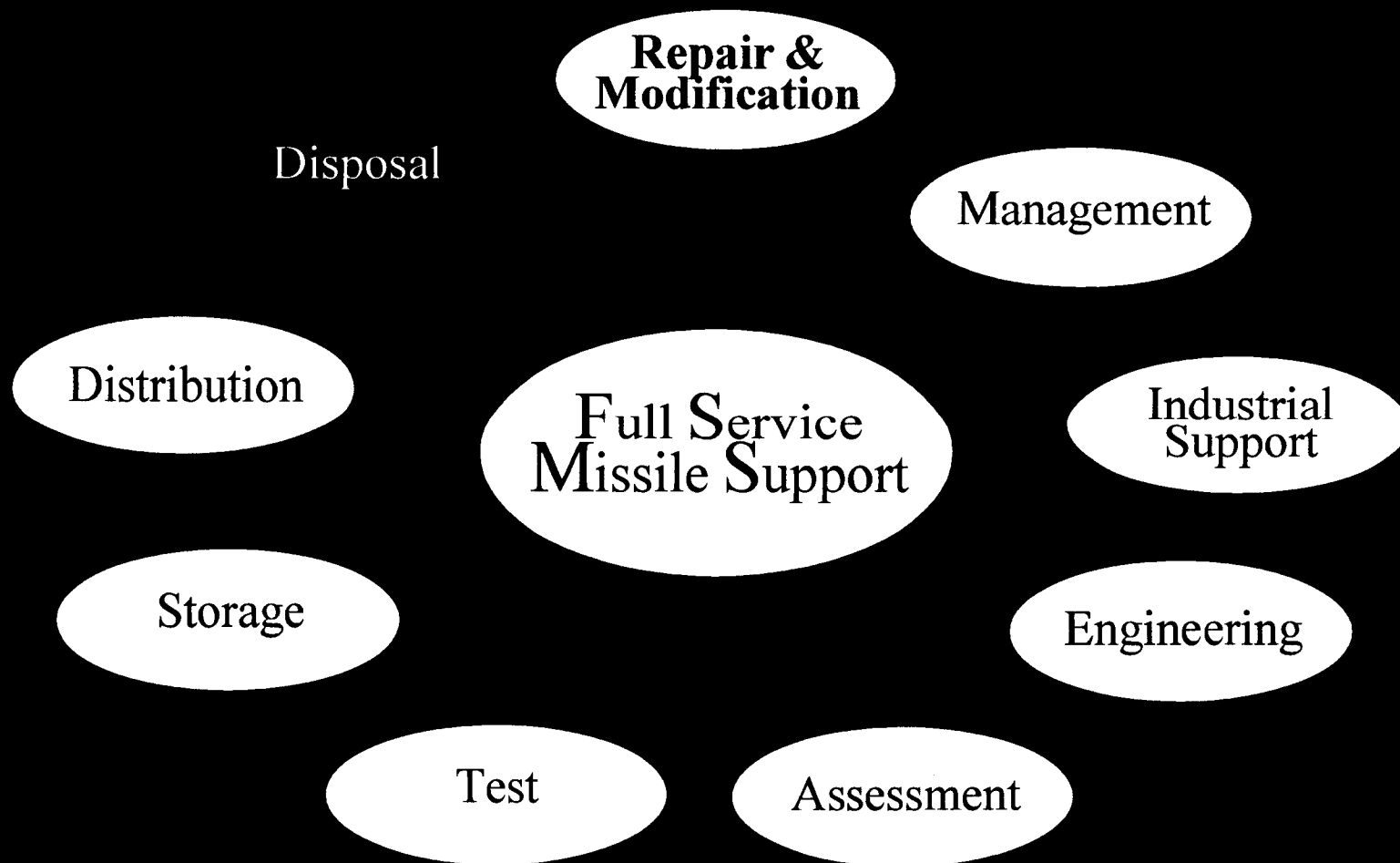
Located Near Major Transportation
Networks

Airfields, Interstates, & Rail Service

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Hill AFB Missile Support Capability



Integrating Tomorrow's Technology...Today

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Disposal

Explosive Ordnance Disposal (EOD) Division
Uses Thermal Treatment Unit at Utah Test and
Training Range (UTTR)

Capable of Disposing of Large Explosives While
Maintaining EPA Compliance

One of a Few Select Sites

Tooele AD Also Used for Demilitarization

Use of New Technologies

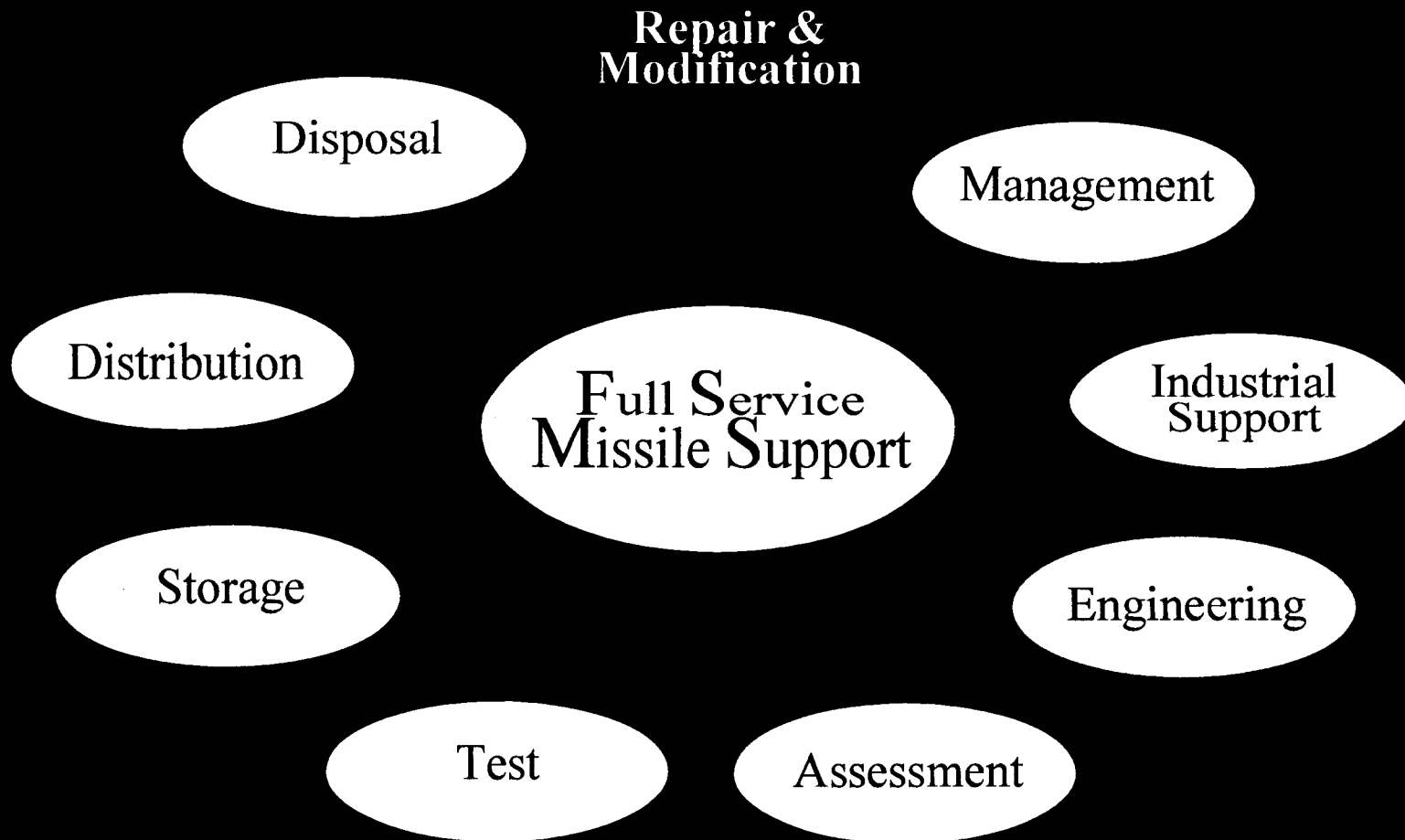
CRDA with USU and Thiokol for Rocket Motor
Washout to Reclaim AIM-9 Casings

Propellant Reclaimed for Commercial Use

Integrating Tomorrow's Technology...Today

Hill AFB

Hill AFB Missile Support Capability



Integrating Tomorrow's Technology...Today

Hill AFB

Repair and Modification

Repair and Modify Strategic and Tactical
All-Up-Round (AUR) Missiles

Minuteman ICBMs

Peacekeeper ICBMs

Maverick Missile

Air Launch Cruise Missiles (ALCM)

Advance Cruise Missile (ACM)

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- Repair and Modification: OO-ALC is the only USAF Technical Repair Center (TRC) for munitions, cruise missiles, launchers, aircraft guns, bomb racks, ejection seat explosive time charge, etc. OO-ALC currently has the capacity to consolidate DoD's tactical missile workload and has the following facilities for repair and modification vice LEAD:
 - Total of 56,810 ft² of 1.1 Class A-C Explosive rated maintenance facilities.
 - Total of 46,500 ft² inert repair capability expandable by an additional 165,000 ft² (Bldgs 5 and 100) with additional space available by rearranging workloads (enough for TMC).
 - Missile component and system-level repair
 - Analytical condition and repair inspections
- ACM Imaging Radar System (AIRS) is a DoD unique facility and an integral part of the maintenance concept for the ACM.

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Repair and Modification (Cont)

Guidance and Control Sections (GCS)

Maverick, Sidewinder, Surface Launch Attack
Missile (SLAM)

Field and Depot-Level Test Equipment

Hardware and Software

Missile Launch and Control Facilities

Integrating Tomorrow's Technology...Today

- OO-ALC explosive repair facilities:
 - Bldg 2026 All Up Round Maverick Repair Facility 22,750 ft²
 - Bldg 1424 ALCM/SRAM/ACM Repair Facility 34,060 ft²
- OO-ALC inert repair facilities:
 - Bldg 5 Missile Guidance Unit Repair Facility 21,600 ft²
 - Bldg 100 AIM-9 Sidewinder Repair Facility 24,900 ft²
 - Bldg 847 Vehicle Repair Facility 141,560 ft²
- Guidance and control systems overhaul
- All-up round integration and test
- Perform ground support equipment repair
 - Both hardware repair and software modification
 - Perform Missile and ground support equipment upgrades
 - Performance, reliability, and maintainability

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Repair and Modification (Cont)

Launcher Repair

Both Strategic and Tactical Missiles


Launch Control

Vehicle Repair

Strategic Missiles

Customers Include: USAF, Navy, Marines,
Foreign Military Sales

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- 
- Jul 31 - AIM-9 GCS scheduled to move and shut down
 - Aug 31 - Maverick GCS scheduled to move and shut down.
 - Launch vehicles are similar to Photo shelters being done by Hill AFB
launch Control shelters similar to Patriot.

Current Interservicing

Technical/Engineering

Maverick - (Navy, Marines, USAF)

Paveway - (Mod - Navy, Marines)

Harm - (Navy containers)

AIM-9 - (Navy, USAF)

Testing

Paveway - Maverick - AMRAAM (Navy, USAF)

HARM - (Navy, USAF)

Sparrow - (Navy, USAF)

Depot

Maverick - Sidewinder - Paveway - SLAM

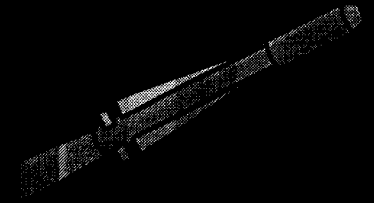
Launchers (Navy, Marines)

HARM Containers (Navy)

- Bomb Racks (Navy)
- Ammunition Handling System (Navy)
- 20mm Guns (Army, Navy)
- F-18 Ejection Seats (Navy)

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Missiles of the Future



Consolidation Decision Drives Future Repair Locations

Tactical Missiles of the Future Will Include Stealth Technology

Hill AFB Has Only Missile Stealth Capability in DoD Today

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USAF Investment

Significant Investment at Hill AFB to Consolidate Engineering, Test, and Repair

Allows:

Synergy Between Strategic Missiles and Tactical Missiles

Optimizes Customer Support By Sharing of Overhead Costs Between Missile Systems

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Tactical Missile Workload Transition Plan

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Transition Plan

Hill AFB Can Handle All DoD Workload

Existing Capability

- 56,810 ft² Expandable by 165,000 ft²

Skills Already in Place

No MILCON

Minor Upgrades

Move Equipment Not Already at Hill AFB

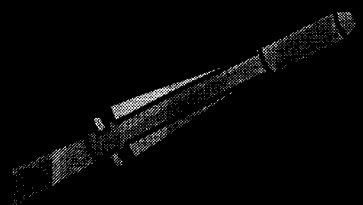
Meet BRAC 93 Schedule

Cost Savings - \$3M

Integrating Tomorrow's Technology...Today

- Hill AFB skills and capabilities
 - Guidance Control Section
 - Electrical, electronics, instrumentation
 - Inertial navigation
 - Infrared
 - Laser
 - Radar
 - All Up Round Missile
 - Explosive handling
 - Automatic test equipment operation
 - Radar absorbing coating material application
 - Electrical, electronics, hydraulics
 - Troubleshooting and diagnostics
 - Solder Certified

- Towed and self propelled vehicles
 - Engine overhaul and drive train operations
 - Sheetmetal, machining, welding
 - Hydraulics and pneudraulics
 - Stripping and Painting processes
 - Electronic/electrical component repair
 - Air conditioning and heating equipment overhaul
 - Missile Launch Control checkout and test



Cost Savings

Original BRAC Consolidation at LEAD	\$51M
Committed	<u>\$16M</u>
Remaining	\$35M

Consolidate 93 Workload At Hill	\$26M
JCSG/DM Consolidation	<u>6M</u>
• Red River (Vehicles and Launchers)	\$32M
• Tobyhanna (Missile Components)	
• Crane (Fuzes)	
• Black World	

Savings	\$3M
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Transition Plan

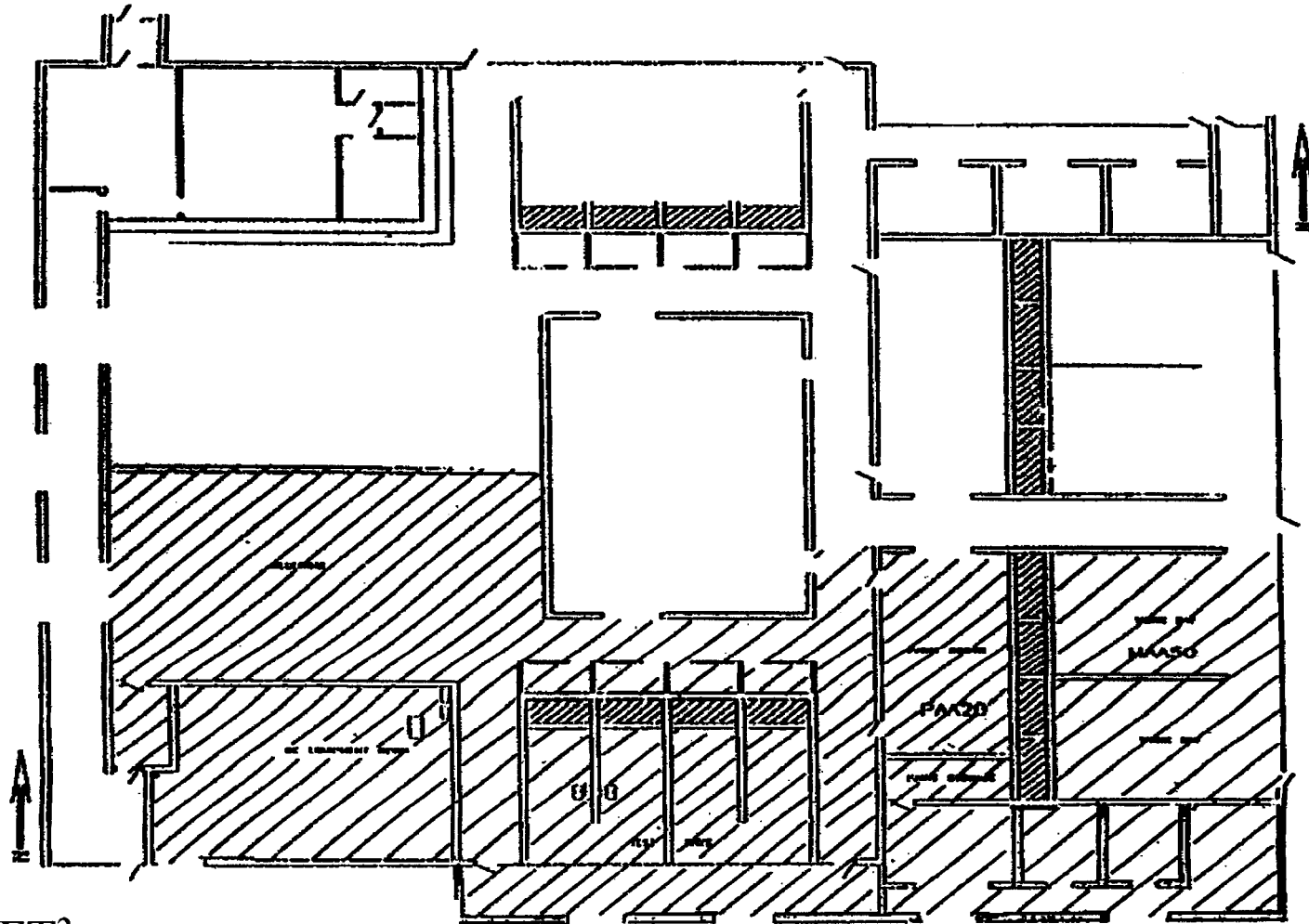
Integrate Immediately

No MILCON/Upgrade

Workload Already In-Place

Workload	Bldg
• AUR	2026
• Sidewinder (AF, Navy)	100
• Maverick (AF, Navy, USMC)	5
• Hellfire (Army)	5
• SLAM (Navy)	5

Integrating Tomorrow's Technology...Today



24,572 FT²
(Includes 1800 FT² Addition)

Bldg 2026

ALL UP ROUND

Integrating Tomorrow's Technology...Today

Transition Plan

Remaining Workload

No MILCON

Minor Upgrades

Common Skills

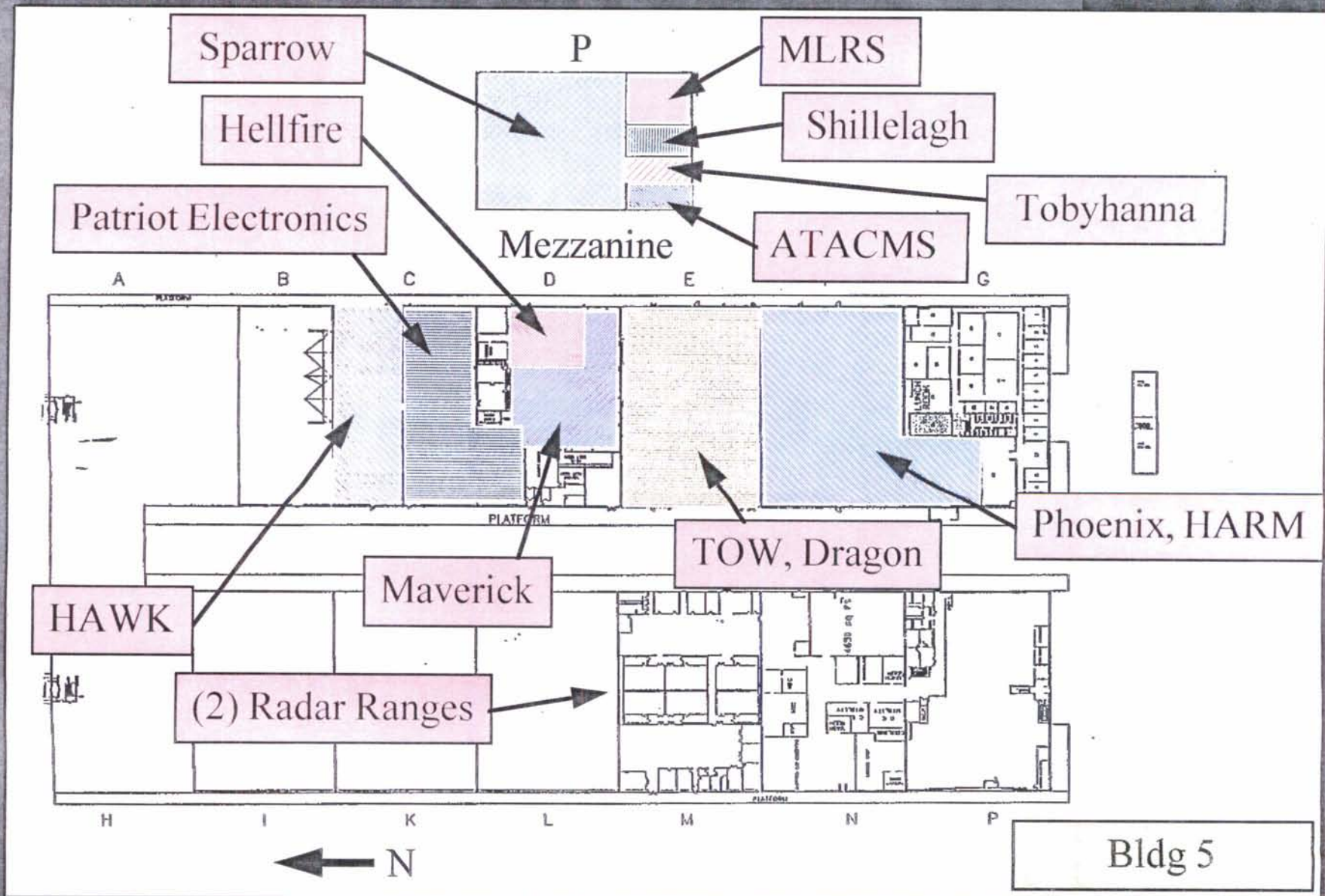
Workload

Bldg

- Dragon 5
- Phoenix 5
- Shillelagh 5
- Sparrow 5
- TOW II 5
- MLRS 5, 847
- LCSS 847
- TOW Launcher 847
- TOW BFVS 847

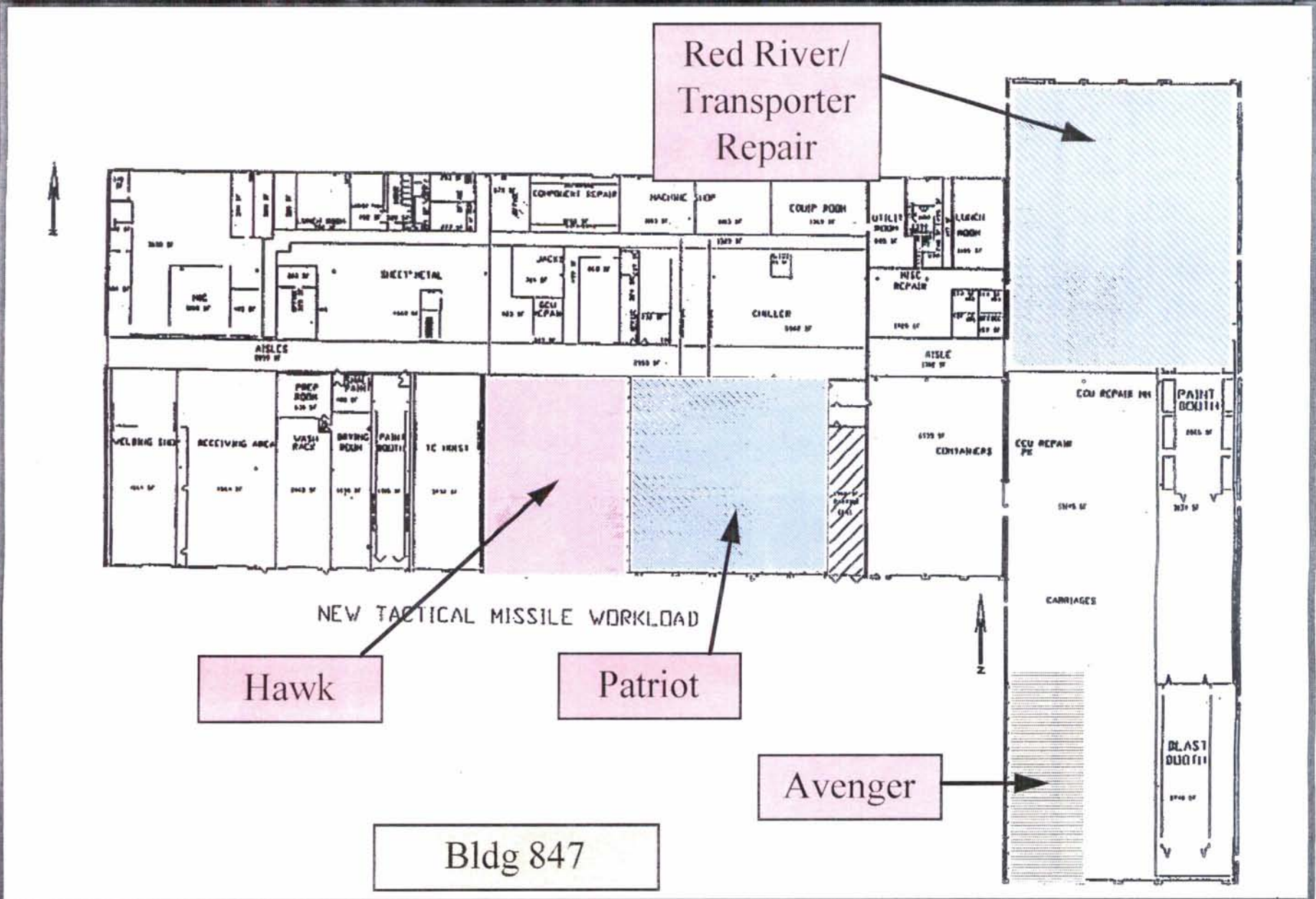
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Integrating Tomorrow's Technology...Today

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Integrating Tomorrow's Technology...Today

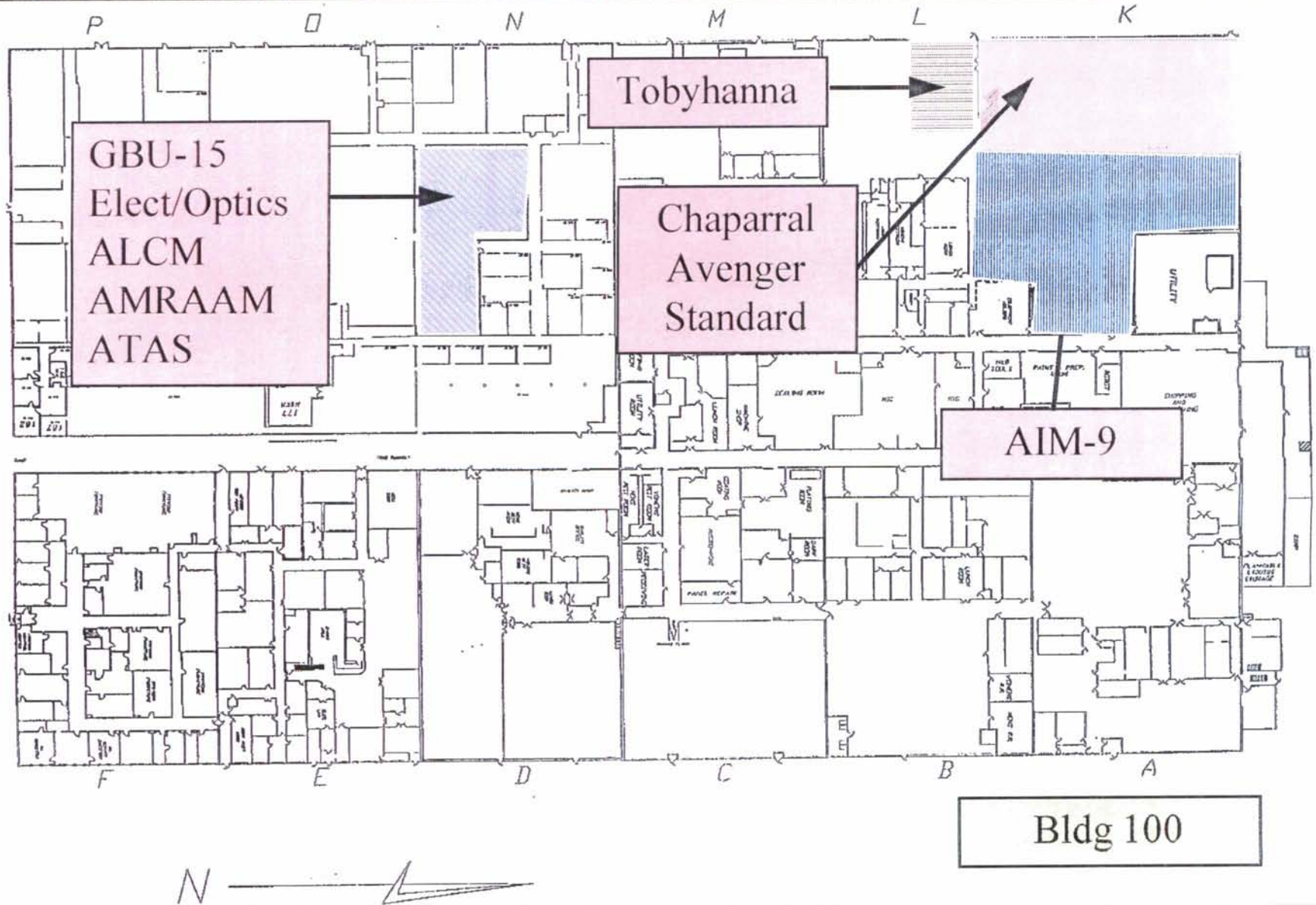
Transition Plan

Remaining Workload (Cont)

Workload*	Bldg
• AMRAAM	100
• Standard	100
• Avenger	100, 847
• Red River Workload	847
• Patriot	5, 847
• HAWK	5, 847
• Tobyhanna Workload	5, 100
• HARM	5
• ATACMS	5
• Crane Workload	509
• Black World	1515

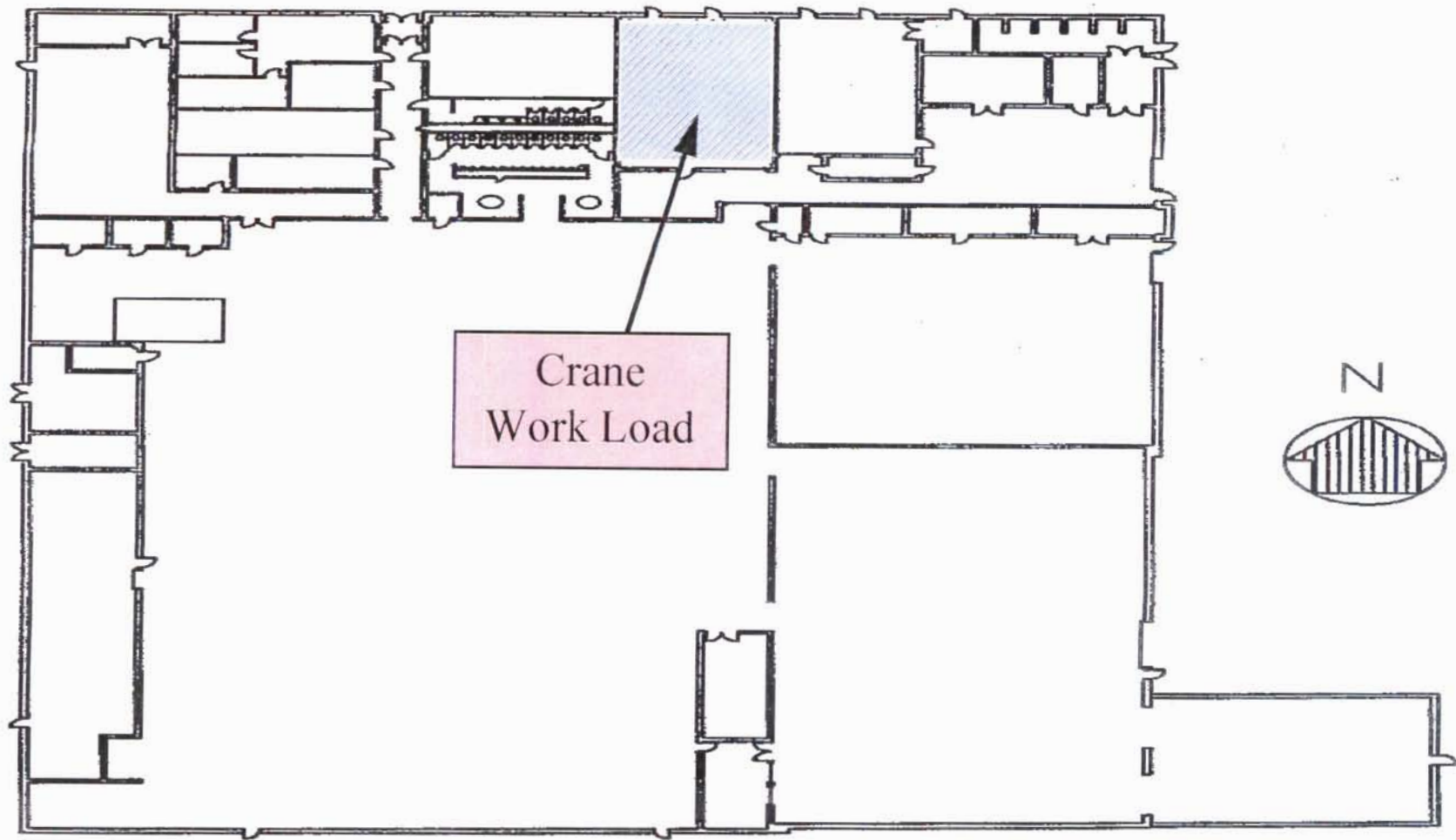
*Transition Must Start Immediately Upon BRAC 95 Decision

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BUILDING 509

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Conclusions

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→ COST (unit cost for life systems)
· guidance + compare
→ still (alternatives)
→ already ~~use~~ like
→ readiness ^{time} available
years to ^{start} get up to
→ start of capabilities

Hill AFB

Conclusions

Tactical Missile Consolidation Makes Sense at Hill AFB

Can Accommodate Entire DoD Workload

Provides Full Service Support

Postured for Future Technologies (Stealth)

Minimizes Impact to the Customer

Meet Original BRAC Schedule

Save Millions

Integrating Tomorrow's Technology...Today

need 600 ~~additional~~ people have 120 now



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