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Examining the Impact of Quality Assurance Manning Practices in USAF Aircraft Maintenance Units

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EXAMINING THE IMPACT OF QUALITY ASSURANCE MANNING PRACTICES IN USAF AIRCRAFT MAINTENANCE UNITS

THESIS

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AFIT/GLM/ENS/05-18

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Chief Master Sergeant, USAF

March 2005

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Abstract

Sponsored by Air Combat Command (ACC), the purpose of this research was to examine the impact that current USAF Quality Assurance (QA) manning practices has on key aircraft wing- and unit-level metrics.

Interviews and surveys culminated in development of a QA Manning Effectiveness Matrix. We then used the matrix to calculate historical QA manning effectiveness at 16 ACC bases. Effectiveness scores were regressed with associated historical data for 26 metrics derived from a Delphi survey. Nine metrics were deemed statistically significant, including break rates, cannibalization rates, flying schedule effectiveness rates, key task list pass rates, maintenance scheduling effectiveness rates, quality verification inspection pass rates, repeat rates, dropped objects counts and safety/technical violations counts. An example benefit cost analysis for changes in QA manning effectiveness was performed, using reasonable cost values. The results present compelling evidence for aircraft maintenance managers to carefully weigh decisions to leave QA manning slots empty, or to assign personnel possessing other than authorized credentials. Furthermore, aircraft maintenance managers can use this tool to help determine mitigating strategies for improving unit performance with respect to the nine metrics.

AFIT/GLM/ENS/05-18

This goes to all the devoted maintainers on the Flight line and in the Maintenance Shops.

Acknowledgments

First and foremost, I thank my parents whose patience, unconditional love, support, and understanding were crucial to my every success. I also thank my children for their love and support, and for the motivation they inspire in me every day. Your sacrifices and smiles, although not duly recognized by me on every occurrence, was the fuel that they kept me going. I'm truly blessed to have such a great family!

I would also like to thank Terry Sampson and Bill Stamps from AFIT/SC for their hard work creating their "most complicated survey instrument to date." You gentlemen put a world-class face on the Delphi and made a complicated process seem much less so.

My sincere appreciation goes out to all of the maintenance experts who stuck it out to the end on the Delphi panel – every time I look back at what you accomplished building the QA Manning Effectiveness Matrix, I am in awe of the patience you must have had with me. I'm also greatly indebted to all the maintenance professionals who took the time to compile, parse, and send the reams of metric data I asked for – without it, this research study would have been a "ground abort."

I wish to thank Dr. Michael Rehg, for believing in the utility of the study even when things weren't going smoothly, and Dr. Mike Hicks for his great enthusiasm and superhuman skills with statistical software. Last but not least, I thank Dr. Alan Johnson, for his sage advice, unwavering patience, and clear thought processes. You helped me gain an understanding on how to sensibly bound the research while still squeezing the maximum amount of utility from it. Thanks for keeping me on track.

Terry Moore

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EXAMINING THE IMPACT OF QUALITY ASSURANCE MANNING PRACTICES IN USAF AIRCRAFT MAINTENANCE UNITS

I. Introduction

Overview

USAF combat aircraft flying units are the main focus of this research. These flying units require thousands of maintenance technicians, all performing a myriad of distinctive and specialized functions in order to safely execute launch, recovery, servicing, re-arming, and modification operations. Key to ensuring that the countless critical steps involved in these activities are executed according to written direction is having proactive and involved leadership and management at all levels of execution. However, since the effective reach of unit leaders and managers is extremely limited, they rely heavily on a highly structured cadre of experienced and skilled technicians who provide daily oversight, an on-the-spot correction capability, training, an investigative capacity, and a mechanism for formal feedback to leadership to use for analysis and possible future mitigation of underlying causal factors. This cadre of experts is formally known as the Maintenance Group Quality Assurance Flight.

Problem Statement

Mid-level Air Force managers and leaders in aircraft maintenance units need to know the potential mission impact of leaving validated Unit Manpower Document (UMD) authorized Quality Assurance (QA) manpower positions unfilled or of assigning personnel with mismatched Air Force Specialty Codes (AFSC) against these positions. This research will attempt to systematically identify and quantify possible impacts and consequences that leaving QA manpower positions unfilled or "mismatching" personnel against QA manpower slots designated on the Unit Manpower Document (UMD) could have on safety, quality, and mission capability factors in order to assist Air Force maintenance managers when making these important QA manning decisions.

Background

Recent research conducted at the Air Force Institute of Technology revealed a statistical correlation between aircraft mission capable rates (the primary metric in the USAF that measures the percentage of assigned aircraft capable of meeting their primary mission), and manning levels along with experience levels of assigned aircraft maintenance personnel (Oliver, 2001). This study attempts to build on this premise by focusing on one high-demand; low-density manpower resource – the aircraft/munitions maintenance quality assurance (QA) flight.

A 1996 General Accounting Office (GAO) report to the U.S. Senate Subcommittee on Acquisition and Technology, Committee on Armed Services stated that *Based on studies performed for DOD, we estimate that it spends more than $1.5 billion annually beyond what is necessary to support its quality assurance approach* (GAO, 1996). Furthermore, traditional quality assurance techniques have historically relied upon many after-the-fact inspections, increasing costs in both time and money. To remain profitable, manufacturers switched from detection, to prevention-based quality strategies which replaced end-item inspections. Although the approach in the GAO report is primarily procurement and acquisition-related, prevention-based quality strategies has not become a reality in the United States Air Force (USAF). More specifically, we in the Air Force still rely heavily on our traditional QA as a detection function to catch problems before they escalate.

Furthermore, *the GAO's analysis of data reported by all services showed that human error contributed to seventy-three percent of Class A flight mishaps in Fiscal Years 1994 and 1995. In Air Force mishaps, human error was a factor seventy-one percent of the time. For the Army, the figure was seventy-six percent. According to the Naval Safety Center, human error was a factor in eighty percent of the Navy and Marine Corps Class-A mishaps for Fiscal Years 1990 through 1994. The fact that nearly three-fourths of accidents have a human error factor doesn't necessarily mean that the human caused the problem. Often, some other problem occurs, but at some point the human could have or should have intervened to change the course of events--and that someone is not always the pilot. It could be anyone from the air traffic controller, to the maintenance crew* (GAO, 1996).

This point was tragically highlighted in May 1995, when an F-15 pilot was killed shortly after takeoff from one of our air bases. According to a 1998 "Aerospace World" report, the accident investigation revealed that *a mechanic accidentally crossed flight control rods in the aircraft while reinstalling them and another mechanic failed to catch the miscue which made the jet impossible to control in the air* (Grier, 1998). Also according to the same report, *several previous incidents in which other mechanics made the same mistakes should have alerted the Air Force to a potential problem.* In fact, *the review board noted that similar crossed-rod cases occurred at least twice before, but in both instances, the problem was caught before takeoff. Although the Air Force has since taken steps to ensure this mistake doesn't happen again by color-coding the control rods* *and adding a warning to the technical manuals* (Grier, 1998), catching these types of design issues and ensuring flight-critical inspections are performed correctly are fundamental to the QA function.

Figure 1 – F-16 Maintenance-Related Mishap (Photo Courtesy of USAF Safety Center)

In several recent incidents, the impact of improper maintenance was deeply felt. In the first case, an airman was performing an F-16 engine run at one of our bases when it "jumped" over the wooden wheel chocks designed to keep the aircraft from moving (see Figure 1). The F-16 subsequently came to rest on its side damaging its right wing, nose gear, and right landing gear. In a review of the mishap's factual data by the Air Force Safety Center's aircraft maintenance expert, the following maintenance-related facts were foundational to this mishap (Moening, 2005):

- *Using bad chocks (training and lack of management oversight).*

- *A temperature condition that provided more thrust than expected (training).*
- *The technician had no previous training on what to do if the jet jumped chocks; the technician was following all unit procedures, but unit supervision chose to allow engine runs on packed snow and ice and didn't think the "jump chocks training" was important (gross leadership failure)* (Moening, 2005).

Figure 2 – F-15 Maintenance-Related Mishap (Photo Courtesy of USAF Safety Center)

Another incident provides further proof of the value of correct maintenance. In this case an F-15 aircraft was extensively damaged when an avionics access door came unlatched in flight (see Figure 2). In a review of the mishap's factual data by the Air Force Safety

Center's aircraft maintenance expert, the following maintenance-related facts were foundational to this mishap (Moening, 2005):

- *During Phase inspection, the securing rings for the fasteners were not installed (training, procedural error, and lack of management oversight).*
- *The panel was incorrectly secured after "red ball" maintenance (training, procedural error, and lack of management oversight)* (Moening, 2005).

A final example tries to answer a famous physics question: What happens when an irresistible force meets an immovable object? In this case, the aircraft was on the losing end and a multi-million dollar fighter jet was severely damaged (see Figure 3).

Figure 3 – F-16 Maintenance-Related Mishap (Photo Courtesy of USAF Safety Center)

The scenario involved an F-16 being towed during nighttime hours when it impacted an aircraft clear-water rinse structure. The jet's nose landing gear subsequently collapsed causing extensive damage to the nose landing gear, nose gear well, nose radome, and engine inlet structure. In a review of the mishap's factual data by the Air Force Safety Center's aircraft maintenance expert, the following maintenance-related facts were foundational to this mishap (Moening, 2005):

- *The tow team supervisor who had only been on base one month was improperly trained (training consisted of being told "here's the book, read it") (failure of leadership).*
- *The tow crew veered to the right of taxiway center line for no discernable reason resulting in the aircraft impacting the clear-water rinse structure (training and lack of management oversight)* (Moening, 2005).

These are all eye-opening examples of the importance of proper maintenance which further underscore the criticality of maintenance leadership, management, and oversight.

Maintenance-Related Mishaps, Recent History

Table 1 explains the three mishap classes used in the USAF for both Flight and Ground categories while Figures 4 through 6 provide a high-level view of the impact that improper maintenance has on USAF mission readiness (note the middle columns in each individual FY in Figures 4 through 6 indicate maintenance-related mishaps only).

Table 1 – Air Force Mishap Classifications

MISHAP CLASSIFICATIONS			
Category	**Results in ...**	**and/or...**	**and/or ...**
CLASS-A	> $1 million in damages	Permanent Disability	Destruction of an Aircraft
CLASS-B	$200 thousand to $1 million in damages	Permanent Partial Disability	Inpatient hospitalization for three or more personnel
CLASS-C	$20 thousand to $200 thousand in damages	An injury causing loss beyond the shift or day it occurred	Occupational illness or injury causing a permanent change of job

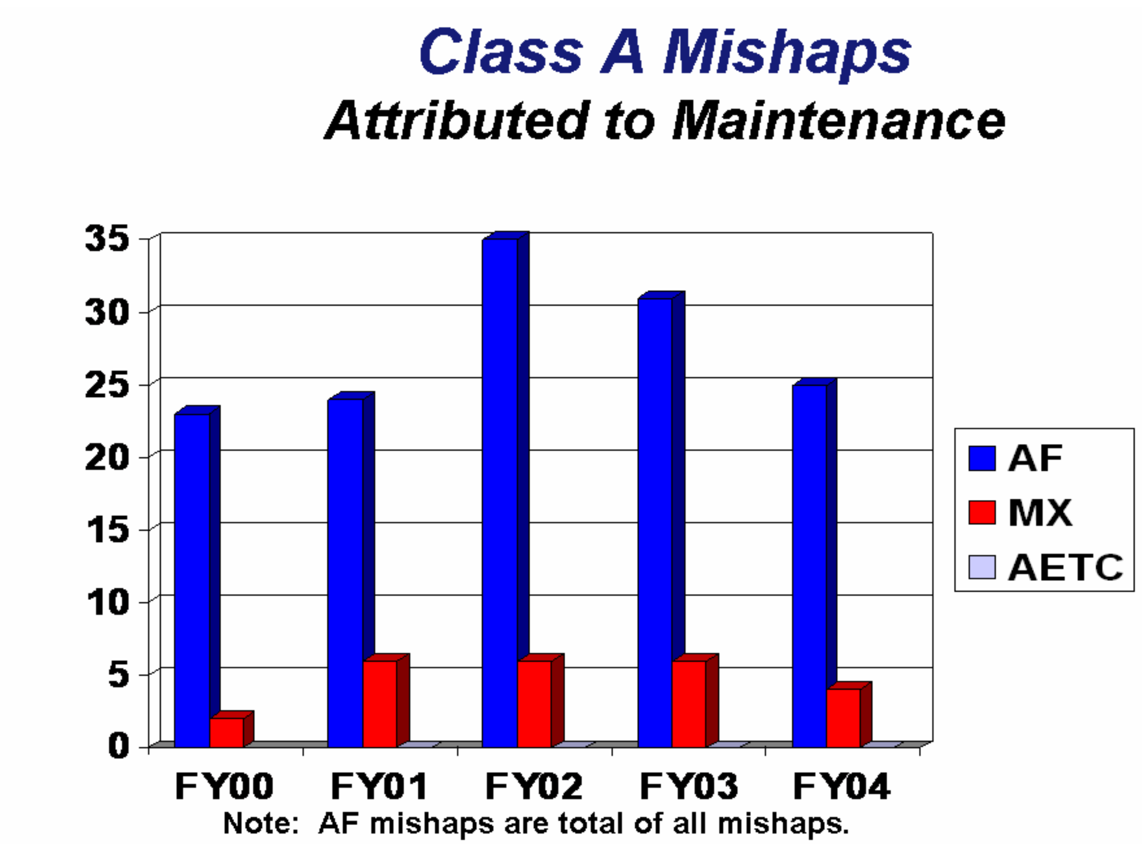


Figure 4 – Class-A Mishap Data (Source: USAF Safety Center)

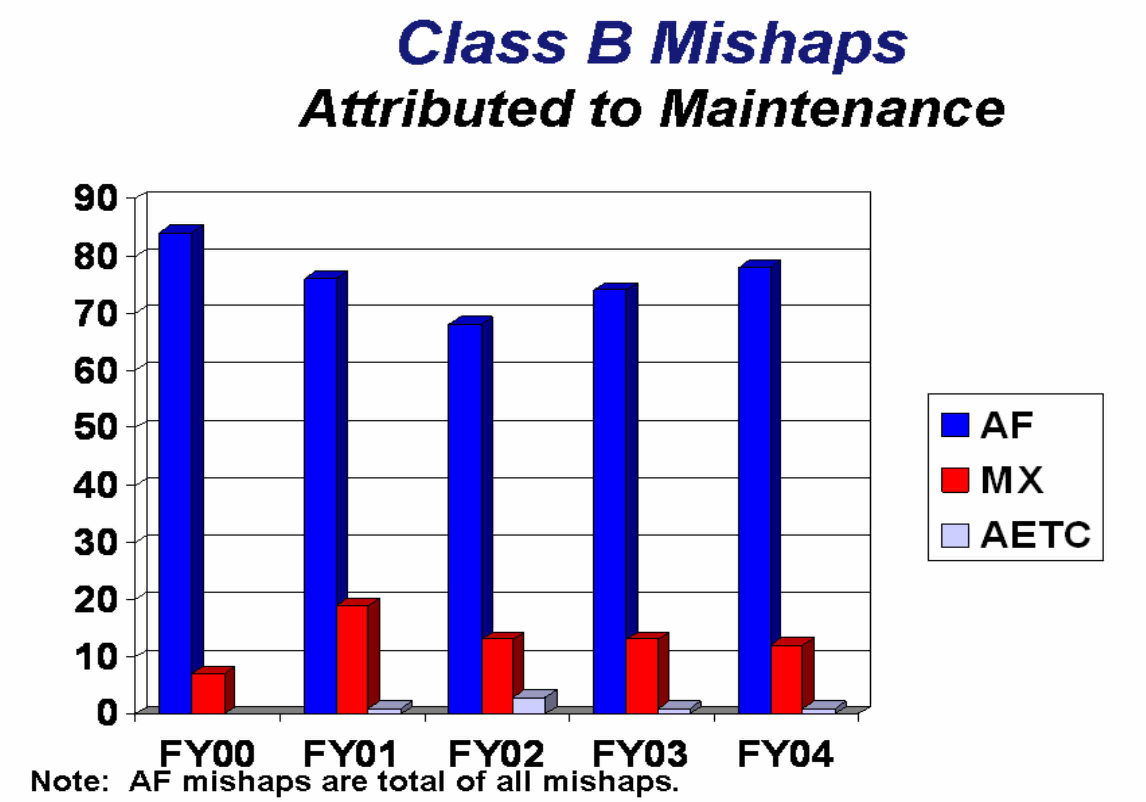


Figure 5 – Class-B Mishap Data (Source: USAF Safety Center)

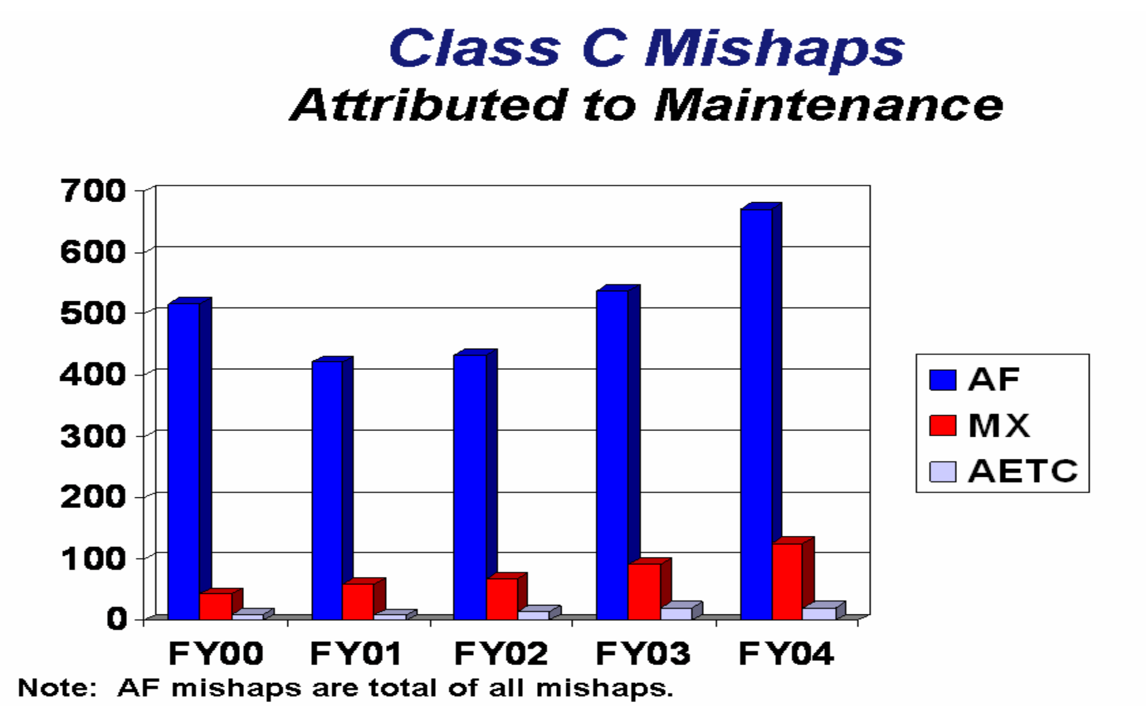


Figure 6 – Class-C Mishap Data (Source: USAF Safety Center)

Furthermore, in Fiscal Year 2004 alone, USAF maintenance-related mishaps cost U.S. taxpayers $24,573,947. The following is breakdown of those costs by mishap category:

- *Class A Mishaps - $10,433,572*
- *Class B Mishaps - $5,584,814*
- *Class C Mishaps - $8,555,561*

According to a 2005 USAF Safety Center Report, this is enough money to pay for

- *5.4 - F100-PW-229 Engines at $4.5 Million each, or…*
- *652 - GBU-31 JDAMS (Joint Direct Attack Munitions) at $37,670 each, or…*
- *722,763 – man-hours at $34 per hour*

Maintenance-related mishaps create a massive opportunity cost or more specifically loss! The following is a top-ten breakout of what caused these maintenance-related mishaps (Moening, 2005):

1) *Failure to follow published Technical Data or local instructions*
2) *Using an unauthorized procedure not referenced in Technical Data*
3) *Supervisors accepting non-use of Technical Data or failure to follow maintenance requirements*
4) *Failure to document maintenance in the AFTO Form 781 or engine work package*
5) *Inattention to detail/complacency*
6) *Incorrectly installing hardware on an aircraft/engine*
7) *Performing an unauthorized modification to the aircraft*
8) *Failure to conduct a tool inventory after completion of the task*
9) *Personnel not trained or certified to perform the task*
10) *Ground support equipment improperly positioned for the task*

Since QA functions have historically been a critical process within any effective maintenance organization, the key to a aircraft maintenance QA flight's effectiveness are the "qualities" of personnel assigned to the very limited manning slots. The criticality of this concept is best illustrated by examining the composition of an average active duty USAF aircraft flying wing.

In order to get the "right" personnel mix, the Air Force performs extensive manpower studies to determine with great precision the proper AFSC and skill level combinations needed to populate a QA shop to enable it to perform its duties to include all exercise, war, and peacetime tasks. However, because of resource constraints and a very high demand for this low-density, high-demand capability, maintenance managers and leaders are sometimes forced to make tradeoffs when deciding how to man QA manpower slots.

Faced with constricted manning resources, maintenance leaders responsible for staffing QA are often forced to make difficult decisions to deviate from the UMD and substitute AFSCs or possibly even leave a QA manning slot vacant. Although these substitution and vacancy decisions are not made in a vacuum, the potential impact of the "deal" is sometimes lost in the dilemma to either "fill a QA slot" or continue to produce maintenance on the flight line/in the maintenance shops. This is because no tool currently exists to help maintenance managers making these decisions. This means they must rely wholly on past experience and a "gut" feel which could become a problem for inexperienced maintenance managers.

The Research Question

This research seeks to answer the question: What effect does "mismatching" AFSCs or leaving unit manpower document (UMD) authorized manpower positions unfilled in wing aircraft maintenance QA units have on unit- or key wing-level measures?

The Investigative Questions

Multiple questions were addressed in order to answer the research question:

1) Which key unit- and wing-level metrics are most affected by an empty QA manning position or an AFSC mismatch?
2) How effective is a worker when assigned to a QA duty position requiring a different UMD-authorized AFSC (how good is the "fit")?
3) What is the relationship between QA manning effectiveness and key unit- and wing-level metrics?

Overview of Remaining Chapters

In this chapter we introduced the problem and provided some background information. In Chapter II, we review the literature examined to gain insight into the QA construct along with how the Air Force allocates and assigns manpower to QA flights. We also review some of the more important types of metrics found in Air Force maintenance organizations. In Chapter III, we examine the methodology used in the study. In Chapter IV, we create maintenance effectiveness ratings for the 16 bases participating in the study and in Chapter V, we apply these Effectiveness ratings to the different metric data types. Lastly, in Chapter VI, we provide conclusions and recommendations for future research.

II. Literature Review

Overview

This chapter summarizes the foundational literature this research used. Numerous publications are dedicated to employee performance but few investigate the link between Quality Assurance (QA) and employee performance and the ones that do, are oftentimes found in accident or incident reports. This research begins with an example of QA's importance in a commercial aviation setting. We then investigate the Air Force construct relating to QA.

The Commercial Aviation Industry Link

On May 11, 1996, ValueJet Flight 592, a DC-9-32 passenger aircraft caught fire in-flight and crashed into the Florida Everglades. The crash killed 110 people and was attributed to contract maintenance personnel improperly rendering safe and shipping oxygen cylinders in the cargo hold of the aircraft. The National Transportation Safety Board Investigation report cited numerous contributing factors behind the crash:

> *The continuing lack of an explicit requirement for the principal maintenance inspector of a Part 121 operator to regularly inspect or surveil Part 145 repair stations that are performing heavy maintenance for their air carriers is a significant deficiency… Improper maintenance activities and false entries pose a serious threat to aviation safety and must be curtailed.*

This observation is referring to the fact that ValueJet subcontracted their heavy maintenance work out to Sabre Tech who performed the maintenance on the oxygen canisters for ValueJet. The report then linked this observation to the need to have the right number of people in the right jobs with the following ruling:

> *In part because he was responsible for so many operators, the principal maintenance inspector assigned to oversee the Sabre Tech facility in Miami was*

unable to provide affective oversight of the ValueJet heavy maintenance operations conducted at the facility.

And finally, the report stated the reason for the crash was:

ValueJet failed to adequately oversee Sabre Tech and this failure was the cause of the accident. (NTSB, 1997).

Understanding the Quality Assurance Construct

The purpose of Quality Assurance within the Department of Defense (DoD) was initially established in the *former* DoD Directive 4155.1 which stated:

The primary purpose of quality assurance is the enforcement of technical criteria and requirements governing all materials, data, supplies, and services developed, procured, produced, stored, operated, maintained, overhauled, or disposed of by or for the DoD.

Although this directive no longer exists, the concept is still valid and quality assurance (previously known as quality control), continues to be a critical tool to a manager's ability to keep abreast of the health of their organization. L. Marvin Johnson, a Registered Professional Quality Engineer and author with forty-eight years of experience in quality assurance and related fields summed up the concept very succinctly:

Involved management and discipline is the key to quality. Evaluations are the investigations that determine the extent of an activity's ability to implement and maintain the self controls necessary to administer an effective quality program (Johnson, 1990).

"In the U.S. Navy, the process for ensuring adherence to maintenance standards involves a quality assurance function designed to perform inspections, audits and quality checks on flight equipment and maintenance processes" (OPNAVINST 4790, chap 14). The following excerpt overviews the purpose behind the Navy's QA program:

QA provides a systematic and efficient method for gathering, analyzing, and maintaining information on the quality characteristics of products, the source and *nature of defects, and their immediate impact on the current operation. It permits decisions to be based on facts rather than intuition or memory and provides comparative data which is useful long after the details of the particular time or events have passed. The objective of QA is to readily pinpoint problem areas in which management can:*

1) *Improve the quality, uniformity, and reliability of the total maintenance effort.*
2) *Improve the work environment, tools, and equipment used in the maintenance effort.*
3) *Eliminate unnecessary man-hour and dollar expenditures.*
4) *Improve training, work habits, and procedures of maintenance personnel.*
5) *Increase the excellence and value of reports and correspondence originated by maintenance personnel.*
6) *Effectively disseminate technical information.*
7) *Establish realistic material and equipment requirements in support of the maintenance effort* (OPNAVINST 4790.2H, 2001).

OPNAVINST 4790.2H continues on to describe the Navy QA function as *a small group of experts who perform quality checks, inspections, and audits in order to collect data and monitor trends with the objective of improving processes*.

The Link Between Management, Experience, and Quality Results in the Workplace

In 1976, the Navy Personnel Research and Development Center conducted a study to determine the relationship between the "operational effectiveness of U.S. Navy ships and the manning level of selected enlisted ratings. The relationship between manning levels and ship performance were investigated on 105 naval ships for the period January 1972 to January 1975. Manning levels in the study were expressed as the ratio of the number of personnel allocated to the ships to the number authorized and scores achieved on final battle problems following refresher training were used as the measure of ship performance. Correlation coefficients were computed between manning level and performance for various combinations of the independent variables, and were tested for statistical significance. In general, an increase in the number of personnel in the lower pay grades tends to degrade ship performance and an increase in the number of personnel in the higher pay grades tends to improve ship performance." The study recommended:

> *…caution be used in reducing manpower allocated to ships, especially in the higher pay grades. To the extent possible, billets in the higher pay grades should not be filled with personnel in lower pay grades.* (Holzbach, 1991).

The results of this study underscore the concept that having more personnel with higher experience levels (i.e. those in higher pay grades) leads to higher level results.

In another study conducted by the Naval Surface Weapons Center, *a loss control system was described which employed management introspect for determining the underlying causes of accidents and hazardous situations, and to improve the overall effect of accident prevention activities. Monetary and productive waste and losses, as well as accidents, were reduced by using accidents and hazards as indicators to detect management failures. Further, procedures were outlined, together with examples to demonstrate how investigation of minor injuries and unsafe conditions can identify the management failures which are causing huge hidden losses as well as accidents. A logical method was given to track the primary cause of accidents and hazards back to the underlying management failures. Management failures were placed in general categories and summarized to determine and locate problem areas* (Fine, 1975). The process described here underscores the critical impact of management's oversight on safe task accomplishment by the workforce. Aircraft maintenance QA is this oversight.

A study conducted at the Naval Post Graduate School investigated Naval Aviation's efforts to reduce its mishap rate. *The study highlighted that management focus has logically expanded to include maintenance operations. It further stated that human error is accepted as a causal factor in at least eighty percent of all mishaps, with* *maintainer, line, or facility-related factors accounting for one out of five major mishaps* (Hernandez, 2001). Again, this underscores the concept that leadership and management understands the link between accidents and human frailty.

The following excerpt from a U.S. Army Safety Center-issued report directly supports this claim:

> *Accidents during maintenance activities are an indication of operational weaknesses that, in combat, would quickly deplete our maintenance capability and affect readiness. Maintenance, which keeps the troops on the move, is filled with risks. Eliminating or reducing those risks is a key part of carrying out the maintenance mission. The key to reducing risks to acceptable levels is training to standard and enforcing standards.* (USASC, 1991).

This report specifically focuses on the leading causes of accidents in maintenance operations and provides general countermeasures for those accidents.

Furthermore, the universality of the issues behind having the right types of manpower and getting desired results must not be overlooked. In the mid 1980s, the Turkish Air Force changed its centralized aircraft maintenance system to the combat oriented maintenance system for the F-16 implementation. They did this *to take advantage of the new system's inherent ability to contribute to operational readiness and sustainability and to allow more efficient management of manpower resources.* This was because they understood that efficient management of manpower becomes even more critical as a new program is implemented and a new weapon system becomes operational, and furthermore that enhanced supportability depends upon efficient and effective resource allocation. The research specifically addressed the impact of reliability and maintainability on maintenance manpower requirements and mission effectiveness (Akpinar, 1986).

How the Air Force Programs and Allocates Manpower to Units

Although this study is not meant to analyze how manpower is "earned" by the various QA units in ACC, having a basic working knowledge of the AF manpower system is essential to accepting one of the foundational assumptions that the study is based on. Specifically, this study assumes that each QA unit's UMD consists of the correct number of manpower authorizations required for the mission they are tasked to perform. What follows is a brief overview of the manpower determination process (see Figure 7).

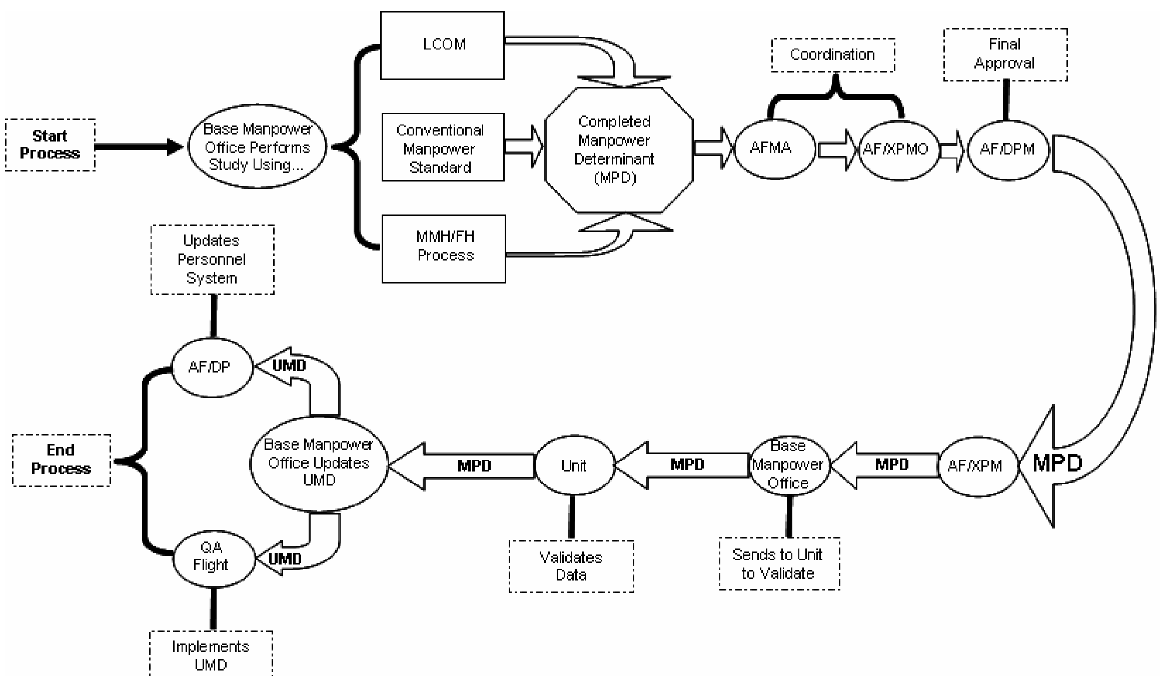


Figure 7 – Simplified Block Diagram Tracing Development of a Valid UMD

At the highest level, the AF Directorate of Manpower, Organization and Quality, Program Development Division (HQ USAF/XPMP) allocates programmed manpower resources to the commands directing implementation of approved programs. Next, each command translates these manpower resources into manpower authorizations by notifying the respective Manpower Office. The local Manpower Office notifies the unit and the unit is responsible to input the data to the manpower office to update the Unit Manpower Document (UMD) by organization, AFSC, grade, and program element code. The Manpower and Organization Office then provides this detailed identification to the respective organization and the personnel community (AFI 38-204).

Basis for UMDs

An Air Force Manpower Standard (AFMS) is the basis for all AF manpower requirements and AF manpower is based on man-hour requirements. Man-hour requirements are further determined in one of three ways, all of which are rooted in a systematic scientific process. The two most often used for Air Combat Command (ACC) aircraft maintenance/munitions units are the Logistics Composite Model (LCOM) and the conventional manpower standard. As a side note, each ACC base's Manpower Office is responsible for conducting each of these manpower determinant processes with the approval authority running from AFMA to AF/XPMO an finally to AF/DPM as final approval authority. The first determinant process uses the LCOM.

The LCOM is a discrete-event computer simulation used to model manpower and other logistical requirements by considering employment of different resources to help the user decide the best mix to support a given requirement. *Because LCOM studies can identify peacetime and wartime requirements, these studies provide a more defensible budget position and allow for effective use of available resources* (AFI 38-208, Vol 3, para 1). The second manpower requirements development process is the conventional manpower standard. The conventional manpower standard is a formula based on aircraft type and mission (e.g. every aircraft squadron equipped with 24, F-15Cs tasked with an air superiority mission have the same number of crew chiefs, avionics technicians, line expeditors, etc based on the standard). A third and final process to develop manpower requirements is provided for in AFI 38-210, para 2.6. The instruction states:

> *Commands may determine aircraft maintenance manpower requirements using aircraft specific maintenance man-hour per flying hour (MMH/FH) factors when more rigorous methods (conventional manpower standards or Logistics Composite Model manpower determinants) are not available* (AFI 38-210, para 2.6).

Although the MMH/FH process is also computationally grounded, it is not as rigorous as the two prior methods. The MMH/FH technique uses basic standard weighted formulas for different sub-processes within the AF function being examined and is broken down by Productive Manning, Addenda (Survival Shop, Aerospace Ground Equipment, etc), and Additives (Munitions, Electronic Countermeasures Pods, etc.). Again, this is not the preferred process for determining manpower requirements (AFI 38-210, para 2.6). However, whichever of the three processes is used, they all result in a manpower determinant, and this determinant *may* ultimately result in creation of a UMD. Like all other USAF UMDs, Air Combat Command QA UMDs were developed using one of these three processes (see Table 2 for an example of a UMD).

Table 2 – Unit Manning Document (UMD) Excerpt

Printed On		Unit Manpower Document		*Query: MXG*		
1/1/2005		XXXXX				
		OSC: MXQ - QUALITY ASSURANCE	**FAC: 12345 - QUALITY ASSURANCE**			
	POS	**AFSC and TITLE**	**SEI**	**GRD**	**RGR**	**PEC**
1C	01234567C	ACFT MAINTENANCE	021A3	CAPT	MAJOR	AN
1C	01234567C	AIRCRAFT MGR	2A300	CMSGT	CMSGT	AN
1C	01234567C	AEROSPACE MAI CRFTM	2A571	TSGT	TSGT	AN
1C	01234567C	AEROSPC PRP CRFTMN	2A671A	TSGT	TSGT	AN
1C	01234567C	NUCLEAR WEP CRFT	2W271	TSGT	TSGT	AN
1C	01234567C	ACFT ARM SYS JYMN	2W151	SSGT	SSGT	AN
1C	01234567C	NUCLEAR WEP JYMN	2W251	SSGT	SSGT	AN
1C	01234567C	NUCLEAR WEP JYMN	2W251	SSGT	SSGT	AN
1C	01234567C	INFORMATION JYMN	3A051	SSGT	SSGT	AN
	OSC:	**MXQ - QUALITY ASSURANCE**				
	FAC:	**12345 - QUALITY ASSURANCE**				
		OSC: MXQI - INSPECTION	**FAC: 12345- QUALITY ASSURANCE**			
	POS	**AFSC and TITLE**	**SEI**	**GRD**	**RGR**	**PEC**
1C	01234567C	AEROSPACE MAI SUPT	2A590	SMSGT	SMSGT	AN
1C	01234567C	AEROSPACE MAI SUPT	2A590	SMSGT	SMSGT	AN
1C	01234567C	AEROSPC PRP CRFTMN	2A671A	MSGT	MSGT	AN
1C	01234567C	INTG AVN SYS/INS CFM	2A573B	TSGT	TSGT	AN
1C	01234567C	INTG AVN SYS EW CFTM	2A573C	TSGT	TSGT	AN
1C	01234567C	AERO GR EQUIP CRFT	2A672	TSGT	MSGT	AN
1C	01234567C	ACF EL/ENV SYS CRFT	2A676	TSGT	TSGT	AN
1C	01234567C	MSL/SPC SY MA CRFT	2M071	TSGT	TSGT	AN
1C	01234567C	AEROSPACE MAI JYMN	2A551K	SSGT	TSGT	AN
1C	01234567C	ACFT HYDR SYS JYMN	2A655	SSGT	SSGT	AN
1C	01234567C	ACFT STRC MAIN JYMN	2A753	SSGT	SSGT	AN
1C	01234567C	MUNITIONS SYS JYMN	2W051	SSGT	SSGT	AN
1C	01234567C	ACFT ARM SYS JYMN	2W151	SSGT	SSGT	AN
	OSC:	**MXQI - INSPECTION**				
	FAC:	**21A100 - QUALITY ASSURANCE**				

Directives Supporting the Requirement for AF Maintenance QA

The QA UMD is the result of a manpower determination. As such, the UMD is the legal authorization to hire and pay for all personnel assigned to the QA flight, to include overhead positions (management and supervision), all inspector positions, the AF Repair Enhancement shop, and the administrative function. To fully understand the requirements that the UMD was created to support, we review the specific functions that QA personnel are required to perform.

The basic requirement for a QA function is spelled out in AFI 21-101 (para 10.2):

- *Responsible to the Maintenance Group (MXG) Commander to perform as the primary technical advisory agency for maintenance, assisting work center supervisors*

The following is the remaining list of other QA responsibilities (AFI 21-101, para 10.2):

- *Implements and administers the Maintenance Standardization and Evaluation Program (MSEP)*
- *Manages the Product Improvement Program (PIP)*
- *Manages the Deficiency Reporting (DR) Program*
- *Manages the Product Improvement Working Group (PWIG)*
- *Manages the Reliability and Maintainability (R&M) Working Group*
- *Manages the Technical Order Distribution Office (TODO)*
- *Manages the One-Time Inspections (OTI) Program*
- *Manages the Functional Check Flight (FCF) Program*
- *Manages the Weight and Balance (W&B) Program*
- *Manages the Hot Refuel Program (Hotpits)*
- *Manages the Aircraft and Equipment Impoundment Program*
- *Reviews aircraft aborts, in-flight emergencies (IFE), and other incidents as required using MIS or MAJCOM forms*
- *Assists Maintenance Operations Flight (MOF) Plans Scheduling and Documentation (PS&D) and the Munitions Flight with the Configuration Management Program*

- *Assists MOF PS&D with the Time Compliance Technical Order (TCTO) program*
- *Implements the unit chafing awareness program*
- *QA inspectors augment weapons loading inspection/evaluations at the request of Weapons Standardization Section*
- *QA uses their technical expertise to assist the MXG to arrive at informed decisions when coordinating with higher headquarters, AF Materiel Command, Defense Contract Maintenance Agency, and other outside agencies*
- *Evaluates unit maintenance management procedures, including locally developed forms, publications, operating instructions, etc, for accuracy, intent, and necessity*
- *Ensures management/evaluation of Special Programs listed in AFI 21-101, Chapter 18 as assigned by the MXG Commander (32 Special Programs listed)*
- *Manages the Air Force Repair Enhancement Program (AFREP)*

Now that we have described the QA construct, we investigate the literature on maintenance metrics.

Examining Maintenance-Related Metrics

In the *USAF Maintenance Metrics Handbook* forward section, Brigadier General Terry Gabreski, Director of Logistics for the Air Force Material Command, said:

> *Metrics are critical tools to be used by maintenance managers to gauge an organization's effectiveness and efficiency. In fact they are roadmaps that let you determine where you've been, where you are going, and how (or if) you are going to get there* (AFLMA, 2002).

The handbook further explained that metrics are not just charts and numbers to be looked at, but are rather tools for fixing problems. Since the overarching objective of AF maintenance is to maintain aerospace equipment in a safe, serviceable, and ready condition to meet mission needs, maintenance management metrics serve this objective (AFI 21-101, para 10.1). The paragraph further states that metrics shall be used at all levels of command to drive improved performance and adhere to well established guidelines and that:

- *Metrics must be accurate and useful for decision-making*
- *Metrics must be consistent and clearly linked to goals/standards*
- *Metrics must be clearly understood and communicated*
- *Metrics must be based on a measurable, well-defined process*

Metrics -- Leading and Lagging

The instruction also delineated that primary maintenance metrics are grouped into various categories with the two more important categories being "leading" and "lagging" indicators. The leading indicators show a problem first because they directly impact maintenance's capability to provide resources to execute the mission, whereas lagging indicators follow, and show firmly established trends. In the instruction, those maintenance metrics that the Air Force considers as primary, are listed in alphabetical order along with relevant formulas and examples (AFI 21-101, para 1.10.3). We address these formulas again in Chapter V.

The Air Combat Command Flying Wing Structure

An average Air Combat Command (ACC) flying wing contains four groups: a Medical Group (Primary Care, Emergency, Operations, Mobility, Flight Medicine, etc); a Support Group (Security Forces, Civil Engineer, Base Personnel Office, etc.); an

Operations Group (pilots, Life Support, Air Space Scheduling, Air Traffic Control, Weather, Flight Records, Intelligence, Airfield Operations, etc.); and a Maintenance Group (Component Maintenance, Equipment Maintenance, Maintenance Scheduling, Maintenance Analysis, Quality Assurance, Munitions, End-of Runway, Maintenance Support, etc.).   As a further drill-down, we will first examine the functional hierarchy Maintenance Group and then the Quality Assurance sub-function.

The Air Force Maintenance Group

In line with Air Force Instruction (AFI) 21-101, the Maintenance Group is primarily responsible for performing organizational level (on-equipment) and intermediate level (back shop, off-equipment) maintenance. This effort requires many personnel, performing a multitude of diverse and specialized tasks (see Figure 8).

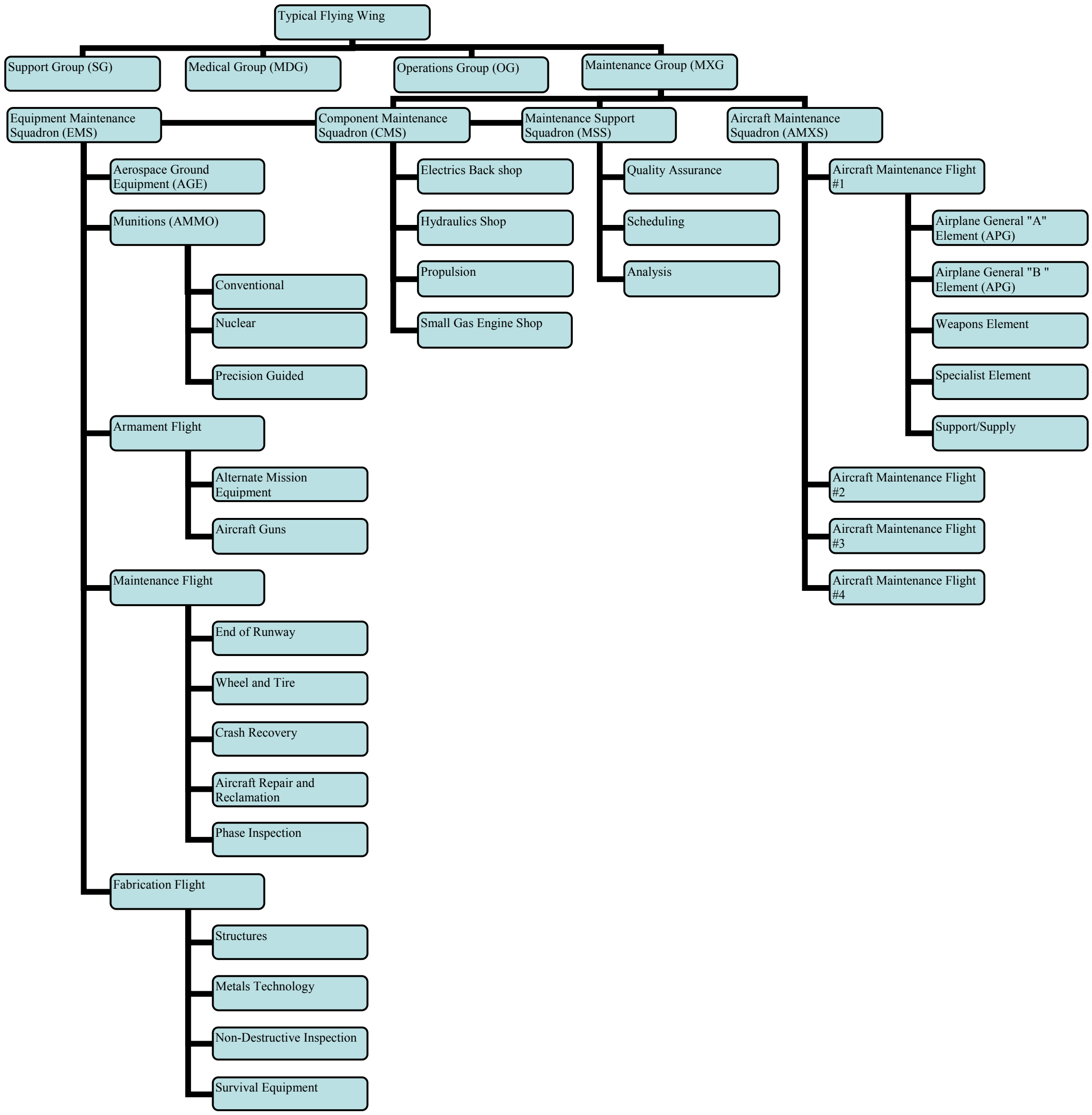


Figure 8 – Maintenance Group Functional Diagram

More specifically, the Maintenance Group Commander is “responsible for aerospace equipment maintenance required to ensure balance between sortie production and fleet management” (AFI 21-101, paragraph 2.3). Although this may sound simplistic and straightforward, it is not. In fact, this research uncovered that a typical ACC Maintenance Group is comprised of between 2,500 and 3,500 maintenance personnel.

Effectively utilizing this number of diverse personnel in itself can be a daunting leadership and management challenge but add to this the high-stress and fast-paced element that comes with the daily training and combat operations, and the criticality factors increase exponentially. This is where the Maintenance Group Commander needs help and this help comes in the form of a highly specialized and mature workforce of maintenance personnel who are hand-picked to form the Maintenance group Quality Assurance Flight. According to AFI 21-101, paragraph 10.1:

> *The combined efforts of quality assurance personnel, maintenance leaders, and technicians are necessary to ensure high-quality maintenance production and equipment reliability. Maintenance leaders are responsible for safety of flight, safety of equipment operation, and quality maintenance production. The quality assurance staff evaluates the quality of maintained accomplished in the maintenance organization. Quality assurance personnel are not an extension of the work force. Quality assurance serves as the primary technical advisory agency in the maintenance organization, helping production supervisors and the maintenance group commander resolve quality problems. The evaluation and analysis of deficiencies and problem areas are key functions of quality assurance. This activity identifies underlying causes of poor quality in the maintenance production effort.* ***By finding causes of problems and recommending corrective actions to supervisors, quality assurance can significantly affect the quality of maintenance within the maintenance complex****.*

It is clear from the governing direction how highly regarded the aircraft maintenance quality assurance function is. Now, taking into account the huge number of activities and personnel that need this critical quality assurance oversight, it would seem to require a flight of hundreds to perform this job; however, this is not the reality. In fact, the average ACC quality assurance flight contains 25 to 30 personnel including overhead. This equates to an approximate 100-to-1 ratio of maintainers to “assigned” QA inspectors within a typical aircraft wing’s Maintenance Group (this includes both flight line, maintenance shops, and munitions storage area personnel. It further indicates a fullystaffed QA shop with no one on leave, deployed, in training, etc). Furthermore, when the QA shop's management and administrative overhead is factored out and actual shift-manning is broken down, an effectively scheduled QA shop might be able to muster five inspectors per 10-hour work shift. Coupled to this is the fact that these "golden five" are charged with a multitude of duties including providing maintenance oversight, and performing safety and technical investigations along with task certification for trainees in upgrade status. They perform these duties all while covering day-to-day contracted task evaluations. Because of this low ratio of critical QA troops to maintenance personnel, it is absolutely essential that the "right" people be assigned.

Chapter Overview and Conclusion

In this chapter we provided an overview of the relevant literature. In Chapter III, we examine the methodology used in the study.

III. Methodology

Overview

In this chapter, we present the methodology followed. We first present the research question and investigative questions.

The Research Question

This research seeks to answer the question: What effect does mismatching Air Force Specialty Codes (AFSC) or leaving unit manpower document (UMD) authorized manpower positions unfilled in aircraft maintenance QA units have on key unit- and/or wing-level measures?

The Investigative Questions

Multiple questions were addressed in order to answer the research question:

1) Which key unit- and wing-level metrics are most affected by an empty QA manning position or a mismatch?
2) What is the effectiveness of a person without the UMD-designated AFSC when performing the QA duties of another AFSC (how good is the "fit")?
3) What is the relationship between QA manning effectiveness and key unit- and wing-level metrics?

Analytical Model

This study was completed in four distinct phases directly linked to the three investigative questions (see Figure 9). Phase-One was comprised of a two-part Delphi survey sent out to senior aircraft maintenance managers, leaders, and subject matter experts across Air Combat Command (ACC) aircraft/maintenance units. In this phase, key maintenance metrics were identified and a manning effectiveness matrix was constructed. Phase-Two of the study consisted of acquiring all ACC aircraft flying units' historical manning and applying the manning effectiveness matrix to this data. In Phase-Three, the subject aircraft flying units' key unit- and wing-level metrics were compiled and statistically regressed against the calculated QA manning effectiveness rates. We then analyzed the regression analysis results in Phase-Four in order to develop potential mitigating strategies for use by mid-level Air Force aircraft/munitions maintenance managers. Using the data, we also performed a sample benefit-cost analysis. The four phases are examined in detail in chapters III through V, but first we will overview the primary research tool used to garner information to complete Phase One of the study.

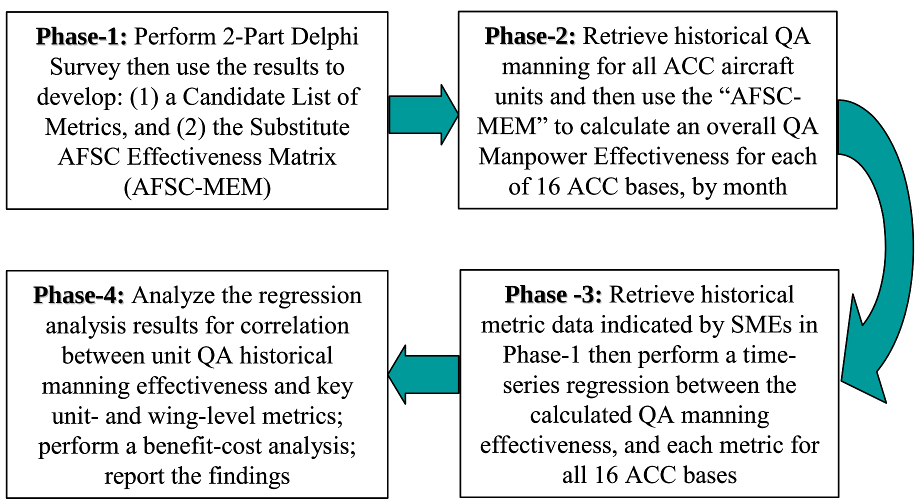


Figure 9 – Flow Diagram of Four-Phase Research Process

The Delphi Technique

The Delphi technique was chosen for Phase-One due to its relative strength of application compared to the requirements of the study. In essence, the objective of Phase-One of the study was to develop a useful worker effectiveness rating scale for a person with a particular skill set when performing the duties of a job different from what they are specifically trained for and to elicit the metrics. The Delphi technique provided a natural fit to gain this type of knowledge.

Delphi Technique – Some Uses

According to Linstone, Harold A. and Murray Turoff, *the Delphi technique is often used to combine and refine the opinions of a heterogeneous group of experts in order to establish a judgment based on merging of the information collectively available to the experts* (see Figure 10). Further, a Delphi can be characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem. The Delphi Method is a group-making technique developed as part of an Air Force-sponsored RAND Corporation study in the early 1950's. *The Delphi Method seeks to achieve consensus among group members through a series of questionnaires. The questionnaires are answered anonymously and individually by each member of the group. The answers are summarized and sent back to the group members along with the next questionnaire. The process is repeated until a group consensus is reached within a bounds determined a priori. This usually only takes two iterations, but can sometimes take as many as six rounds before a consensus is reached* (Linstone, Harold A. and Murray Turoff, ed, 1975).

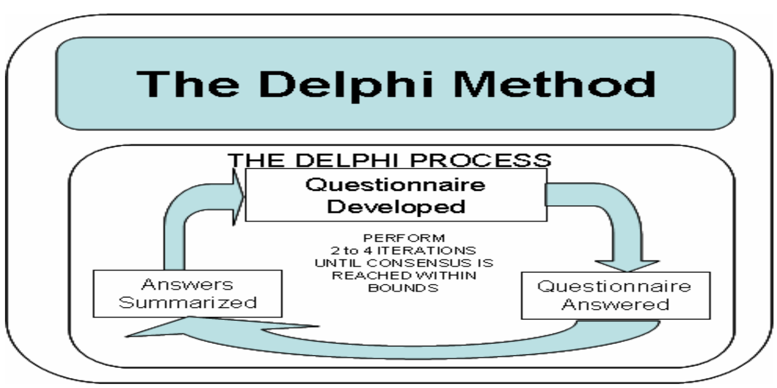


Figure 10 – Delphi Method Flow Diagram

The Delphi Technique has proven to have many uses among which are:

1) *Gathering current and historical data not accurately known or available*
2) *Examining the significance of historical events*
3) *Evaluating possible budget allocations*
4) *Exploring urban and regional planning options*
5) *Planning university campus and curriculum development*
6) *Putting together the structure of a model*
7) *Delineating the pro and cons associated with potential policy options*
8) *Developing casual relationships in complex economics or social phenomena*
9) *Distinguishing and clarifying real and perceived human motivations*
10) *Exposing priorities of personal values, social goals"* (Turoff and Linstone, 1975)

This study takes advantage of 'uses 1, 6, 8 and 10' from the preceding list.

Delphi Technique – Properties Supporting Its Use

It is not the explicit nature of the applications which determines the appropriateness of utilizing Delphi; it is the particular circumstances surrounding the necessarily associated group communication process: Who is it that should communicate about the problem, what alternative mechanisms are available for that communication, and what can we expect to obtain with these alternatives? When these questions are addressed, one can decide if the Delphi is the desirable choice. Usually one or more of the following properties of the application leads to the need for employing Delphi:

1) *The problem does not lend itself to precise analytical techniques but can benefit from subjective judgment on a collective basis.*
2) *The individuals needed to contribute to the examination of a broad or complex problem have no history of adequate communication and may represent diverse backgrounds with respect to experience or expertise.*
3) *More individuals are needed that can effectively interact in a face-to-face exchange.*
4) *Time and cost make frequent group meetings infeasible.*
5) *The efficiency of face-to-face meetings can be increased by a supplemental group communication process.*
6) *Disagreements among individuals are so severe or politically unpalatable that the communication process must be refereed or anonymity assured.*

7) *The heterogeneity of the participants must be preserved to assured validity of the results i.e. avoidance of domination by quantity or by strength of personality (bandwagon effect)* (Turoff and Linstone, 1975).

This study encompasses all of the preceding Delphi technique properties except #6.

Delphi Technique – Potential Problems When Using

There are potential problems with utilizing the Delphi Technique which must be mitigated for, if the process is expected to be effective. Some of these are:

1) *Imposing the monitor's views and preconceptions upon the respondent group by over specifying the structure of the Delphi and not allowing for the contribution of other perspectives related to the problem.*
2) *Assuming that the Delphi can be a surrogate for all other human communications in a given situation.*
3) *Poor techniques of summarizing and preventing the group response and ensuring common interpretations of the evaluation scales utilized in the exercise.*
4) *Ignoring and not exploring disagreements, so that the discouraged dissenters drop out and an artificial consensus is generated.*
5) *Underestimating the demanding nature of the Delphi and the fact that the respondents should be recognized as consultants and properly compensated for their time if the Delphi is not an integral part of their job function* (Turoff and Linstone, 1975).

All of these potential problems were applicable to Phase-One of this study.

Delphi Technique – How to Choose a Good Respondent Group

A typical concern when performing the Delphi Technique is how to choose a good respondent group in both composition and in number. Not only should the respondents be volunteers but they should also be subject matter experts who will be able to participate in the entire Delphi process. This was a problem during this study and it will be discussed along with mitigating strategies undertaken to account for this. But, the basic question remains: Just how many respondents does it take to make a good respondent group? *Experiments by Brockhoff (1975) suggest that under ideal* *circumstances, groups as small as four can perform well* (Dalkey, 1969). However, like in most research studies, more data is better. This study is no exception.

To determine the correct group size for our Delphi panel, we looked to the 1969 study performed for the USAF by the RAND Corporation, the creator of the Delphi Method. In the study, RAND performed an experiment designed to measure the correlation between the effect of group size and average group error. The results of this experiment are charted in Figure 11 which clearly shows that the mean accuracy of a group response for a large set of experimentally derived answers to factual questions, increases as group size increases (Dalkey, 1969).

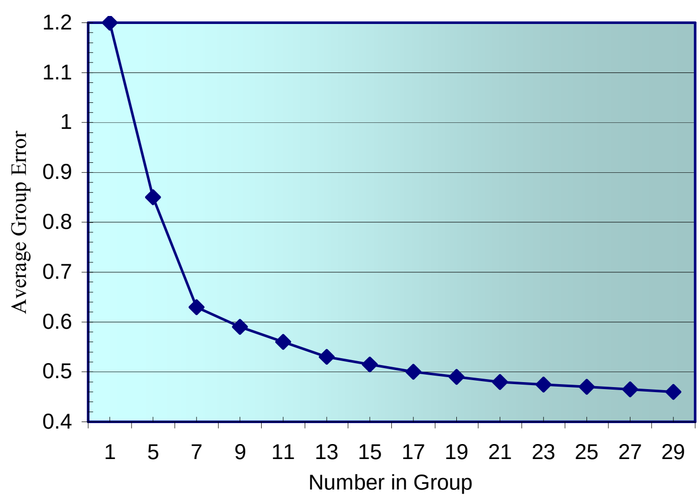


Figure 11 – Effect of Group Size on Error (Dalkey, 1969)

Specifically, with smaller group sizes of between one and seven persons, the average group error rate behaves exponentially then begins to flatten out as the group size approaches 15. Also according to the RAND report, reliability of responses increases on a linear path as the group size increases from three to 11 panelists (see Figure 12).

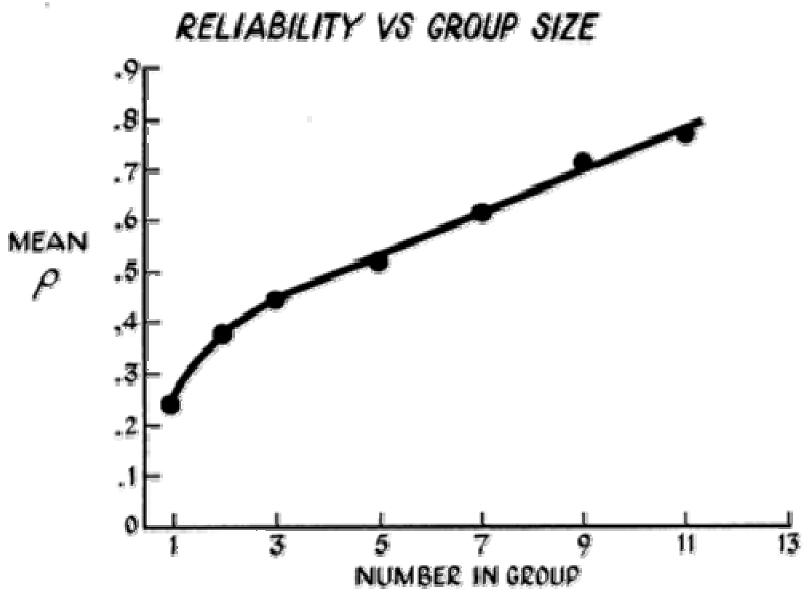


Figure 12 – Effect of Group Size on Reliability (Dalkey, 1969)

Furthermore, according to Ludwid, *the majority of Delphi studies have used between 15 and 20 panelists, but Dalkey, Rourke, Lewis, and Snyder (1972) reported a definite and monolithic increase in group response approaching a correlation coefficient of 0.9 with a group size of 13 respondents* (Ludwid, 1997). Thus, this empirical data gives us an initial target number of qualified panelists for Phase-One of the study. Based on this research, we set a minimum requirement of a 2:1 ratio of qualified group members to actual units under study. This gave us a *required* starting size of 24 panelists (14 ACC units x 2) which we easily surpassed with 45 *actual* volunteers at the beginning of the study. This correlated well with Clayton's rule-of-thumb that 15-30 people is an adequate panel size (Clayton, 1997). At the end of this chapter we will address some problems associated with self-reports in the Scope and Limitations section. We will now examine Phase-One of our methodology.

Phase-One of the Study

Obtaining the ACC Aircraft QA AFSC List of Manpower Positions

Phase-One began with the researcher contacting ACC/LGQ which is the headquarters function for ACC quality assurance units. Specifically, the ACC/LGQ superintendent provided two spreadsheets containing the most current list of QA and Maintenance Group leadership contacts for all ACC aircraft flying units (QA flight commanders, chiefs, and superintendents, and maintenance group chiefs). We used this list to initiate contact with each of the units to ask them if they would provide us a list of all of their Unit Manning Document (UMD) authorized manpower positions for their maintenance QA flight. Furthermore, to help standardize the responses, we then created and sent each of the units a spreadsheet for them to fill in and send back their UMD-authorized manning.

Each of the units subsequently provided the file that contained all of their UMD-authorized manpower positions broken down to the Air Force Specialty Code (AFSC) skill-level and shred-out detail (i.e. the *C* in AFSC *2A551C* indicates a B-52 technician). These original unit UMDs were then aggregated by AFSC, and skill level to develop a master ACC aircraft quality assurance AFSC list. The resultant list contained 65 different AFSCs delineated by skill-level and shred out that would be used to create a square matrix for the next sub-phase of the study. However, a list this large would result in a survey questionnaire with 4,225 AFSC effectiveness combinations for the research respondents to subjectively grade ($65^2 = 4,225$). A survey this large was deemed intractable (see Table 3).

Table 3 – Initial ACC Aircraft QA AFSC List of Manpower Positions

AFSC	AFS TITLE	AFSC	AFS TITLE
2A551L	AEROSPACE MAINTENANCE JOURNEYMAN	2A573A	INTEGRATED AVIONICS SYSTEMS/COM CRAFTSMAN
2A553A	INTEGRATED AVIONICS SYSTEMS/COM JOURNEYMAN	2A573B	INTEGRATED AVIONICS SYSTEMS/INS CRAFTSMAN
2A571	AEROSPACE MAINTENANCE CRAFTSMAN	2A573C	INTEGRATED AVIONICS SYSTEMS ELECTRONIC WARFARE CRAFTSMAN
2A571L	AEROSPACE MAINTENANCE CRAFTSMAN	2A590	AEROSPACE MAINTENANCE SUPERINTENDENT
2A573	INTEGRATED AVIONICS SYSTEMS CRAFTSMAN	2A651A	AEROSPACE PROPULSION JOURNEYMAN
2A600	AIRCRAFT SYSTEMS MANAGER	2A651B	AEROSPACE PROPULSION JOURNEYMAN
2A651A	AEROSPACE PROPULSION JOURNEYMAN	2A652	AEROSPACE GROUND EQUIPMENT JOURNEYMAN
2A655	AIRCRAFT HYDRAULIC SYSTEMS JOURNEYMAN	2A654	AIRCRAFT FUEL SYSTEMS JOURNEYMAN
2A671A	AEROSPACE PROPULSION CRAFTSMAN	2A655	AIRCRAFT HYDRAULIC SYSTEMS JOURNEYMAN
2A676	AIRCRAFT ELECTRICAL/ENVIRONMENTAL SYSTEM CRAFTSMAN	2A656	AIRCRAFT ELECTRICAL/ENVIRONMENTAL SYSTEMS JOURNEYMAN
2A691	AEROSPACE PROPULSION SUPERINTENDENT	2A671A	ENGINE MANAGER
021A3	AIRCRAFT MAINTENANCE OFFICER	2A671B	AEROSPACE PROPULSION CRAFTSMAN
021B3	AIRCRAFT MAINTENANCE OFFICER	2A672	AEROSPACE GROUND EQUIPMENT CRAFTSMAN
2A051A	AVIONICS TEST STATION AND COMPUTER JOURNEYMAN	2A673	AIRCRAFT EGRESS SYSTEMS CRAFTSMAN
2A071A	AVIONICS TEST STATION & COMPUTER CRAFTSMAN	2A674	AIRCRAFT FUEL SYSTEMS CRAFTSMAN
2A071D	AVIONICS TEST STATION & COMPUTER CRAFTSMAN	2A675	AIRCRAFT HYDRAULICS SYSTEMS CRAFTSMAN
2A300	TACTICAL AIRCRAFT SUPERINTENDENT	2A676	AIRCRAFT ELECTRICAL/ENVIRONMENTAL SYSTEMS CRAFTSMAN
2A351A	A10/F15/U2 AVIONICS ATTACK JOURNEYMAN	2A690	AEROSPACE SYSTEMS SUPERINTENDENT
2A352	A10/F15/U2 AVIONICS ATTACK JOURNEYMAN	2A753	AIRCRAFT STRUCTURAL MAINTENANCE JOURNEYMAN
2A353A	TACTICAL AIRCRAFT MAINTENANCE F-15 JOURNEYMAN	2A754	SURVIVAL EQUIPMENT JOURNEYMAN
2A353B	TACTICAL MAINTENANCE F-16/F-117 JOURNEYMAN	2A773	AIRCRAFT STRUCTURAL MAINTENANCE CRAFTSMAN
2A353J	TACTICAL AIRCRAFT MAINTENANCE GENERAL JOURNEYMAN	2A774	SURVIVAL EQUIPMENT CRAFTSMAN
2A371	A10/F15/U2 AVIONICS CRAFTSMAN	2E171	SATELLITE, WIDEBAND, & TELEMETRY SYSTEMS CRAFTSMAN
2A372	F16/F117/R21/CV22 AVIONICS CRAFTSMAN	2E271	COMPUTER NETWORK S&C SYSTEMS CRAFTSMAN
2A373	TACTICAL AIRCRAFT MAINTENANCE CRAFTSMAN	2M071	MISSILE/SPC SYSTEMS MAINTENANCE CRAFTSMAN
2A373A	TACTICAL AIRCRAFT MAINTENANCE CRAFTSMAN	2W051	MUNITIONS SYSTEMS JOURNEYMAN
2A373B	TACTICAL AIRCRAFT MAINTENANCE CRAFTSMAN	2W071	MUNITIONS SYSTEMS CRAFTSMAN
2A390	TACTICAL AIRCRAFT SUPERINTENDENT	2W151	AIRCRAFT ARMAMENT SYSTEMS JOURNEYMAN
2A551J	AEROSPACE MAINTENANCE JOURNEYMAN	2W171	AIRCRAFT ARMAMENT SYSTEMS CRAFTSMAN
2A551K	AEROSPACE MAINTENANCE JOURNEYMAN	2W251	NUCLEAR WEAPONS JOURNEYMAN
2A553B	INTEGRATED AVIONICS SYSTEMS/INS JOURNEYMAN	2W271	NUCLEAR WEAPONS CRAFTSMAN
2A553C	INTEGRATED AVIONICS SYSTEMS/ELECTRONIC WARFARE JOURNEYMAN	3A051	INFORMATION SYSTEMS JOURNEYMAN
2A572	HELICOPTER MAINTENANCE CRAFTSMAN		

Functionally Shaping the ACC Aircraft QA AFSC List of Manpower Positions

To functionally shape the AFSC effectiveness grading matrix, we needed to pare down the candidate list of AFSCs to a more manageable number. First, all AFSCs not relevant to the QA inspection process (functional check flight pilot, maintenance officer, and administrative positions) were eliminated. We then aggregated all AFSCs functionally by combining the five- and seven-skill levels (Technician and Craftsman respectively) for each AFS (AF Specialty) and nine- and zero-skill level (Superintendent and Chief Master Sergeant Chief Enlisted Manager Code) within each AFS. This decreased the master ACC aircraft QA AFSC list to 47 different AFSCs which equated to 2,209 individual AFSC effectiveness combinations for the first sub-phase ($47^{2 =}$ 2,209). This was also determined to be unmanageable. To further decrease the number of AFSCs on the list, AFSC shredouts (identifies special weapons systems or skills required for a position) were eliminated to standardize AFSCs. This last cut created a master ACC aircraft quality assurance AFSC list of 24 different AFSCs for a sub-phase count of 570 individual AFSC effectiveness combinations ($24^{2 =}$ 570). Although still a large number, we determined that any further aggregation would result in too broad of categories to effectively work with (see Table 4).

Table 4 – Resultant ACC Aircraft QA AFSC List of Manpower Positions

AFSC	AFS TITLE
2A0X1	AVIONICS TEST STATION AND COMPUTER JOURNEYMAN/CRAFTSMAN
2A3X0	TACTICAL AIRCRAFT SUPERINTENDENT
2A3X1	A10/F15/U2 AVIONICS ATTACK JOURNEYMAN/CRAFTSMAN
2A3X2	A10/F15/U2 AVIONICS ATTACK JOURNEYMAN/CRAFTSMAN
2A3X3	TACTICAL AIRCRAFT MAINTENANCE F-15 JOURNEYMAN/CRAFTSMAN
2A590	MAINTENANCE SUPERINTENDENT (NON-TACTICAL AIRCRAFT)
2A5X1	AEROSPACE MAINTENANCE JOURNEYMAN/CRAFTSMAN
2A5X2	HELICOPTER MAINTENANCE JOURNEYMAN/CRAFTSMAN
2A5X3	INTEGRATED AVIONICS SYSTEMS/INS JOURNEYMAN/CRAFTSMAN
2A6X0	AIRCRAFT SYSTEMS MANAGER
2A6X1	AEROSPACE PROPULSION JOURNEYMAN/CRAFTSMAN
2A6X2	AEROSPACE GROUND EQUIPMENT JOURNEYMAN/CRAFTSMAN
2A6X3	AIRCRAFT EGRESS SYSTEMS JOURNEYMAN/CRAFTSMAN
2A6X4	AIRCRAFT FUEL SYSTEMS JOURNEYMAN/CRAFTSMAN
2A6X5	AIRCRAFT HYDRAULICS SYSTEMS JOURNEYMAN/CRAFTSMAN
2A6X6	AIRCRAFT ELECTRICAL/ENVIRONMENTAL SYSTEMS JOURNEYMAN/CRAFTSMAN
2A7X3	AIRCRAFT STRUCTURAL MAINTENANCE JOURNEYMAN/CRAFTSMAN
2A7X4	SURVIVAL EQUIPMENT JOURNEYMAN/CRAFTSMAN
2E1X1	SATELLITE, WIDEBAND, & TELEMETRY SYSTEMS JOURNEYMAN/CRAFTSMAN
2E2X1	COMPUTER NETWORK S&C SYSTEMS JOURNEYMAN/CRAFTSMAN
2M0X1	MISSILE/SPC SYSTEMS MAINTENANCE JOURNEYMAN/CRAFTSMAN
2W0X1	MUNITIONS SYSTEMS JOURNEYMAN/CRAFTSMAN
2W1X1	AIRCRAFT ARMAMENT SYSTEMS JOURNEYMAN/CRAFTSMAN
2W2X1	NUCLEAR WEAPONS JOURNEYMAN/CRAFTSMAN

The derived master ACC aircraft maintenance QA AFSC list was then sent to each of the ACC aircraft maintenance QA units to validate that it did in fact contain all of their authorized AFSCs at the aggregate level. All ACC aircraft QA units responded affirmatively and we determined the master list to be acceptable. This ACC aircraft QA AFSC master list containing the 24 aggregated AFSCs was then used to develop a cross-combination grading matrix and a web-based survey (see Appendix A).

Composing the Delphi Panel of Experts

To gain a list of potential survey respondents with the required background to participate as qualified members of the Delphi Panel of Experts, a list of QA and maintenance group leaders obtained from ACC/LGQ was used as a seed to send out the request for volunteers. The rationale for this is that these personnel, due to their position, were considered good candidates as subject matter experts on the aircraft maintenance and quality assurance functions under study. The researcher then sent out a focused call to each of these personnel via e-mail asking for volunteers.

To further ensure a representative view across all ACC aircraft maintenance units, a basic objective was set to attain a minimum of two senior leaders from each unit to participate on the Delphi panel of experts. Also, each of the potential respondents was vetted to ensure they possessed a minimum of six years of experience in the aircraft maintenance field. Respondents who did not meet this requirement were not used on the Delphi panel of experts for the two-part surveys. The demographics of the volunteers who were ultimately accepted for the panel appear in Table 5.

Table 5 – Delphi Panel of Experts Demographic Data – Initial List

	Rank	Number in Rank	Average Number Years Aircraft/Munitions Maintenance Experience
Initial Group	Lt Colonel	2	22
	Major	2	12
	Captain	3	9
	CMSgt	28	24
	SMSgt	10	18
	Totals	**45**	**21.0**

The Two-Part Survey Using the DELPH Technique

Survey, Part-1

A two-part, web-based survey was developed to send out to the Delphi panel of experts. The specific objective in Survey, Part-1, was to answer the Investigative Question: "Which key unit- and wing-level metrics are most affected by an empty QA manning position or a mismatch?" It was designed to elicit a cognitive view from experts in the aircraft maintenance field on how they saw the impact that they perceived the aircraft/munitions quality assurance function had on a candidate list of the more visible wing- and unit-level metrics as determined by the researcher. Survey, Part-1's instructions asked the respondents to rate each of fifteen candidate metrics on a six-point LIKERT scale from *Strongly Disagree* to *Strongly Agree* (see Table 6 and Appendix A). The respondents were also encouraged to provide additional metrics they felt were impacted by the performance of the quality assurance function. Each question also included an area for the respondents to comment on their ratings if they so desired.

It should be noted that we chose to use a six-point LIKERT scale without a neutral option in order to eliminate fence-sitting and to "force" an answer. Additionally, we performed only one round of Survey, Part-1 because the basic intent of this sub-phase was to gain a candidate list of metrics to use in Phase-Three of the study. Both of these decisions supported this objective.

Table 6 – Survey, Part-1 Rating Scale

Rating Scale		
Descriptor	**Rating**	**% Effect**
Strongly Disagree	**1**	**0%**
Disagree	**2**	**20%**
Somewhat Disagree	**3**	**40%**
Somewhat Agree	**4**	**60%**
Agree	**5**	**80%**
Strongly Agree	**6**	**100%**

As a quality control measure and to uncover problems and/or inconsistencies, the survey instrument was first *Beta-tested* on seven Air Force Institute of Technology students who possessed extensive aircraft maintenance experience (greater than six years each). Once all reported problems were corrected, the survey instrument was vetted once again through the thesis committee where two more problems were highlighted and subsequently corrected. Afterward, the instrument was released to the Air Force Institute of Technology's production server and then the web link was sent out to the Delphi panelists. Table 7 contains demographic data for the Survey, Part-1 respondents. Table 8 is a combined list of metrics submitted by the Delphi panel while Appendixes BU and BV show response values along with validation determinations for each metric.

Table 7 – Survey, Part-2 ROUND ONE Panel of Experts Demographic Data

Survey, Part -1

Rank	Number	Average Number Years Aircraft/Munitions Maintenance Experience
Lt Colonel	1	18
Major	2	12
Captain	2	9
CMSgt	22	22.6
SMSgt	7	18
Totals	**34**	**20.1**

Table 8 – Survey, Part-1 Metrics Validated / Not Validated

Validated Metrics (>50%)
Abort Rate
Break Rate
CANN Rate
Dropped Object Counts
Deficiency Reports Submitted
Detected Safety Violations
Fix Rates
Flight Mishap Counts
Foreign Object Damage Counts
Flying Schedule Effectiveness Rates
Ground Mishap Counts
In-Flight Emergency Rates
Key Task List Pass Rates
Mission Capable Rates
Maintenance Scheduling Effectiveness Rates
Maintenance/Operations Deviations Counts
Personnel Evaluation Pass Rates
Phase Key Task List Pass Rates
Quality Verification Inspection Pass Rates
Recur Rates
Repeat Rates
Safety/Technical Violation Counts
Technical Data Violation Counts
Total Non-Mission Capable Rates
T.O. Improvements Submitted Counts

Not Validated Metrics (<50%)
Cut Tires
Hung Ordnance Rate
Late Takeoff Rate

Survey, Part-2 – ROUND ONE

Survey, Part-2 was created to answer the Investigative Question: "What is the effectiveness of a person without the UMD-designated AFSC when performing the QA duties of another AFSC (how good is the 'fit')?" For ROUND ONE of Survey, Part-2, a web-based instrument was developed and sent out to all Delphi Panel of Experts members. It consisted of a 28-page survey containing one introduction page, one instructions page, one demographics page, 24 survey sheets, and one closure page. The heart of Survey, Part-2 was the 24 AFSC effectiveness grading sheets.

As a quality control measure and to uncover problems and/or inconsistencies, the survey instrument was first *Beta-tested* on seven Air Force Institute of Technology students who possessed extensive aircraft maintenance experience (i.e. greater than six years each). Once all reported problems were corrected, the survey instrument was vetted once again through the thesis committee where four more problems were highlighted and subsequently corrected. The instrument was then released to the Air Force Institute of Technology's production server and afterward the link was sent out to the Delphi panel of experts.

Each Delphi panelist was asked to systematically rate, on a scale of one to five (correlating to a scale of 0 to 100 percent in 20-point increments), how effective a person possessing the AFSC in each row appearing down the left column on each page could be expected to perform the duties and tasks of the QA manning position listed on the top of each sheet. It was expressly explained in the instructions to the respondents that they were to rate the effectiveness of an average person possessing each designated AFSC performing QA duties, not the normal flight line or back shop maintenance tasks performed by technicians. Once all ROUND ONE responses were received from the panel members, they were compiled, aggregated, and statistically averaged.

Because the Delphi panel consisted of high-ranking and critically-placed maintainers and leaders, their ability to dedicate two to three hours to a survey became a problem for many of them and thus, Survey, Part-2 ROUND ONE took over three months to complete. Furthermore, although a comments section was provided for on this part of the web-based survey, there were no comments provided from the panel. Based on e-mail and phone responses from panelists, it was concluded that this was caused by two phenomena: the first cause for a lack of comments on ROUND ONE was that the survey fostered this type of response due to its length (requiring 570 individual responses) even though the survey enabled the panel member to stop and start again later where they left off. The second causal factor for getting no comments back was that the questions asked for the respondents to rate manning effectiveness based on experience. With the high caliber of individuals on the panel and the straightforwardness of the survey instrument, it is understandable that the panelists determined that they did not need to defend an opinion in the absence of dissent (i.e. there were no dissenting views in Survey, Part-2 ROUND ONE). Table 9 contains a snapshot of the demographics of the Survey, Part-2 ROUND ONE respondents.

Table 9 – Survey, Part-2 ROUND ONE Panel of Experts Demographic Data

Survey, Part -2 ROUND ONE	Rank	Number	Average Number Years Aircraft/Munitions Maintenance Experience
	Lt Colonel	2	22
	Major	2	12
	Captain	2	9
	CMSgt	19	24
	SMSgt	7	18
	Totals	**32**	**20.9**

However, due to the extensive amount of time required to accomplish Survey, Part-2 ROUND ONE, it was obvious that Survey, Part-2 ROUND TWO needed to be structured in a more streamlined fashion. Using the coefficient of variation (CV) discriminator method gave us the ability to compare the variation of two or more different variables and provides a standardized view of variability across all 570 responses to gain a better understanding of the variability present in the data. The following is the formula for computing the population coefficient of variation:

$$\text{PopulationCV} = \frac{\sigma}{\mu} \quad \text{(note: } \sigma = \text{standard deviation; } \mu = \text{mean).}$$

CV thresholds between 0 and 1.0 were iteratively applied to all 570 panel mean data responses in an attempt to come up with a test factor that would illuminate the "Fail" responses (indicating a lack of agreement among the experts) that would be needed to be addressed by the panel in ROUND TWO due to variability present in the responses. However, even at the lowest CV test factor, there were still over 500 individual responses which were a "fail". After carefully analyzing the data, a CV factor of 0.29 was determined as an appropriate "trip-wire" even though this still created a ROUND TWO comprised of 529 individual responses that failed the ROUND ONE. We then used these “fails” to develop a spreadsheet-based instrument to use in Survey, Part-2 – ROUND TWO.

Survey, Part-2 – ROUND TWO

In ROUND TWO of Survey, Part-2, a spreadsheet was sent out to each Delphi panelist for them to compare their ratings with the aggregated ratings of the Delphi panel as a whole. This spreadsheet included a matrix with all group means (this matrix placed at the bottom of the spreadsheet), a matrix with the respondent’s responses from ROUND ONE (this matrix placed in the middle of the spreadsheet), and a changeable matrix with blacked out cells that were not statistically different from ROUND ONE (this matrix was placed at the top of the spreadsheet). Additionally, to make it easier for the panelist to navigate within the matrix without having to continually refer to the attached AFMAN 36-2108 AFSC Duty Description page (see Appendix CL), each ratable cell within the spreadsheet included an imbedded comment describing exactly what the panelists were being asked to rate (e.g. Egress Sys Jymn/Crftmn effectiveness in MX Supt, Non-Tac Acft QA Position). Lastly, a “comments” section was provided on the bottom of the grading sheet to give each panelist the opportunity to provide feedback (see Appendix E).

Respondents were instructed to analyze the aggregated manning effectiveness matrix derived from ROUND ONE and any comments provided by other panel members. If, after viewing the data, they wished to modify any of their ROUND ONE ratings, the panelist was instructed to fill in their ratings in the top matrix then send the completed file back to the researcher. This was considered their Survey, Part-2 ROUND TWO response (See Table 10). Of the 14 responses received from respondents in ROUND TWO, thirteen modified their ROUND ONE responses in varying degrees while one panelist held fast on his ROUND ONE responses. Also, only one panelist provided comments (see Table 11). Table 12 is a demographic snapshot of the 14 respondents in Survey, Part-2 ROUND TWO. The data responses from ROUND TWO were then used as a basis to develop the Aircraft Maintenance QA Manning Effectiveness Matrix. (Note: It was determined from e-mail and telephonic responses from the majority of members on the Delphi panel to the researcher, that a third round of the Delphi technique would result in no further adjustment to their individual ratings, and thus would be counterproductive to the effort).

Table 10 – Survey, Part-2 ROUND TWO Initial Response – QA Effectiveness

Score	AFSCs	2A0X1	2A3X0	2A3X1	2A3X2	2A3X3	2A590	2A5X1	2A5X2	2A5X3	2A6X0	2A6X1	2A6X2	2A6X3	2A6X4	2A6X5	2A6X6	2A7X3	2A7X4	2E1X1	2E2X1	2M0X1	2W0X1	2W1X1	2W2X1
	2A0X1	100%	42%	80%	80%	30%	40%	28%	24%	60%	40%	21%	26%	20%	20%	20%	40%	20%	20%	25%	25%	20%	20%	20%	18%
	2A3X0	40%	100%	59%	60%	84%	100%	74%	61%	50%	100%	60%	45%	42%	49%	53%	50%	40%	33%	20%	20%	20%	20%	40%	22%
	2A3X1	66%	50%	100%	100%	44%	50%	40%	39%	80%	58%	29%	24%	20%	25%	23%	50%	23%	20%	24%	20%	15%	20%	20%	20%
	2A3X2	80%	50%	100%	100%	58%	58%	40%	40%	100%	50%	29%	25%	18%	25%	23%	50%	24%	20%	24%	20%	14%	20%	20%	20%
	2A3X3	40%	79%	58%	48%	100%	78%	95%	65%	50%	58%	54%	36%	35%	40%	50%	40%	40%	25%	15%	15%	9%	18%	21%	19%
	2A590	40%	100%	58%	50%	79%	100%	100%	68%	56%	100%	60%	47%	37%	44%	56%	59%	42%	34%	21%	20%	15%	20%	30%	22%
	2A5X1	22%	80%	40%	39%	80%	80%	100%	64%	45%	50%	50%	39%	29%	40%	52%	41%	40%	30%	15%	15%	10%	18%	20%	15%
	2A5X2	20%	60%	34%	40%	80%	65%	60%	100%	40%	41%	45%	40%	22%	38%	45%	40%	37%	25%	16%	16%	10%	15%	20%	15%
	2A5X3	80%	54%	65%	69%	44%	50%	49%	40%	100%	49%	28%	25%	20%	26%	24%	49%	24%	20%	24%	21%	10%	15%	19%	20%
	2A6X0	40%	100%	60%	44%	63%	100%	62%	60%	52%	100%	69%	59%	59%	60%	64%	75%	58%	47%	20%	20%	20%	20%	30%	23%
	2A6X1	20%	58%	34%	30%	58%	50%	50%	50%	30%	60%	100%	40%	28%	40%	40%	40%	28%	22%	10%	7%	9%	10%	12%	10%
	2A6X2	20%	45%	20%	24%	38%	44%	40%	40%	20%	50%	30%	100%	19%	26%	30%	40%	32%	20%	10%	7%	10%	19%	20%	10%
	2A6X3	19%	40%	22%	20%	29%	30%	25%	20%	20%	46%	23%	22%	100%	23%	20%	29%	22%	40%	10%	7%	7%	14%	19%	10%
	2A6X4	19%	40%	23%	24%	39%	40%	40%	40%	25%	58%	40%	25%	21%	100%	36%	40%	26%	21%	10%	7%	18%	10%	15%	10%
	2A6X5	20%	48%	32%	30%	58%	59%	50%	50%	30%	60%	40%	39%	23%	40%	100%	40%	33%	22%	10%	9%	9%	10%	15%	18%
	2A6X6	30%	45%	40%	40%	44%	49%	40%	40%	40%	59%	35%	40%	28%	40%	40%	100%	25%	24%	20%	20%	10%	20%	20%	20%
	2A7X3	19%	40%	20%	19%	35%	40%	39%	30%	20%	49%	23%	29%	20%	22%	22%	20%	100%	28%	10%	6%	9%	15%	18%	10%
	2A7X4	19%	27%	16%	16%	20%	26%	20%	20%	15%	32%	18%	19%	34%	14%	15%	19%	27%	100%	9%	6%	5%	10%	7%	10%
	2E1X1	21%	19%	20%	20%	10%	20%	10%	6%	20%	15%	11%	10%	6%	6%	5%	20%	5%	6%	100%	60%	9%	7%	5%	6%
	2E2X1	21%	19%	21%	20%	10%	19%	10%	10%	20%	15%	11%	10%	6%	6%	5%	20%	5%	6%	60%	100%	7%	7%	5%	6%
	2M0X1	16%	20%	16%	14%	14%	19%	10%	9%	14%	20%	15%	13%	8%	12%	9%	20%	11%	8%	19%	10%	100%	19%	12%	20%
	2W0X1	10%	27%	14%	11%	15%	19%	12%	9%	10%	15%	10%	15%	10%	7%	10%	10%	11%	10%	5%	5%	20%	100%	60%	54%
	2W1X1	14%	40%	20%	20%	29%	23%	20%	20%	15%	24%	12%	22%	15%	10%	16%	21%	12%	13%	5%	6%	12%	59%	100%	60%
	2W2X1	14%	23%	14%	15%	13%	20%	14%	10%	15%	19%	14%	16%	10%	10%	10%	19%	14%	10%	7%	8%	19%	60%	60%	100%

Table 11 – Survey, Part-2 ROUND TWO Panel of Experts' Comments

Survey, Part-2 ROUND TWO Comments
I was fully satisfied with the original percentages.
I have worked with "out of limits" inspectors before at Base X and Prince Sultan Air Base, Saudi Arabia. Their ability to perform was adequately captured in the 1-5 scale you gave.
I believe that QA is a meter of the maintenance being done, and not a driver…therefore, no matter how well (or poorly) QA does their job, maintenance indicators will not be dramatically affected (either good or bad).
It is imperative that the best match possible be made to ensure the Commanders get the best picture of the job being done…additionally we must not skimp on manning the slots.
I know in this day and age of force shaping, my opinion runs against the current, but we have reached a point where you can't cut anymore without affecting the quality of maintenance. The use of technology is all well and good, and the inclusion of "less maintenance intense" aircraft is a step in the right direction (remember the F-15 self diagnostics and the B-1 central integrated test system) nothing will replace the right number of well qualified Airmen.

Table 12 – Survey, Part-2 ROUND TWO Panel of Experts Demographic Data

Survey, Part -2 ROUND TWO	Rank	Number	Average Number Years Aircraft/Munitions Maintenance Experience
	Lt Colonel	1	18
	Major	1	15
	Captain	1	9
	CMSgt	8	24
	SMSgt	3	18
	Totals	**14**	**20.4**

As is the case in many studies using the Delphi method, the variability in responses can create problems when trying to gain utility from the data. But, the variability in itself is good – it accurately reflects reality. These differences of opinion exist in leadership and management levels throughout the Air Force and are one of the motivators behind making things happen. For, if everyone thought exactly alike, creativity and ingenuity would be stifled. This variability only strengthens results. But how do we best handle it to gain the utility we spoke of earlier?

In the case of the AFSC manning effectiveness rates determined by two Delphi rounds, there was variability, and, to get a usable worker effectiveness matrix, we needed to determine how to treat the data. First, since we did not want to mix data sets, we only used data from panelists who responded to both ROUNDs ONE and TWO. Next we adopted a low, medium, high approach to ensure that the variability of the data was properly addressed in the QA manning effectiveness matrix. To accomplish this, three separate and distinct matrixes were derived utilizing the statistical quartile approach (i.e. one matrix based on quartile-one, one matrix based on quartile-two, and one matrix based on quartile-three) to be used in Phase-Two. These matrixes were then applied toward the resultant manning derived from Phase-Two. This was the conclusion of Phase-One of the research study and the input to Phase-Two.

Phase Two of the Study

Determining How ACC Units Have Manned Their QA Flights

In Phase Two we need to answer the question: "How have ACC aircraft wings historically manned their aircraft QA manning positions" (i.e. we need to quantify the manning fit in relation to the UMD)? To answer this, a spreadsheet was developed (see Appendix F) and sent to each of the 16 selected ACC QA flights for them to provide a 24-month view of their historical manning (see Table 13).

Table 13 – List of Participating ACC Bases/Units in Study

ACC Units in Study	
Barksdale AFB (2 BW)	**Minot AFB (5 BW)**
Beale AFB (9 RW)	**Mountain Home AFB (366 FW)**
Cannon AFB (27FW)	**Nellis AFB (57 FW)**
Davis-Monthan AFB (355 FW)	**Offutt AFB (55 RW)**
Dyess AFB (7 BW)	**Pope AFB (28 FG)**
Ellsworth AFB (28 BW)	**Seymour-Johnson AFB (4 FW)**
Holloman AFB (49 FW)	**Shaw AFB (20 FW)**
Langley AFB (1 FW)	**Whiteman AFB (509 BW)**

Specifically, each ACC QA flight was asked to fill in the provided spreadsheet with an authorized AFSC and an assigned AFSC for each manpower position on their UMD, by month, from January 2003 to December 2004. The completed and returned ACC unit UMD spreadsheets along with the Aircraft Maintenance QA Manning Effectiveness Matrix derived in Phase-One were then used to compute an overall quality assurance effectiveness percentage of aggregated assigned manning for each ACC QA flight by month.

Comparing MXG Manning with QA Flight Manning Effectiveness

In order to address a large issue with the data, monthly assigned and authorized manning levels for maintenance AFSCs assigned to each of the ACC units' Maintenance Groups (MXG) under study were requested from ACC/DPIM. However, due to computer database limitations at ACC/DPIM, acquiring a complete historical representation of assigned manning at the units under study for the entire timeframe was impossible. Therefore, only monthly manning data from January 2004 to December 2004 was available. Furthermore, since gathering the data by AFSC to the five significant digit-level would be an expensive manpower drain on ACC/DPIM resources, only aggregated AFSC data for the *2A, 2E, 2M* and *2W* AFS's at the two-digit level was requested. The retrieved data was then paired down to AFS's that significantly impacted the study (*2A's* and *2W's*). This was considered sufficient since the *2E* and *2M* AFS's comprised less than 0.08 percent of overall assigned QA manpower for all authorized AFS's and were found at only two of the participating units in the study.

Once the manning data was received, it was parsed to eliminate assigned and authorized three-levels AFSCs from the data in order to ensure only those AFSCs and skill levels normally assigned to ACC QA flights (i.e. 5-, 7-, 9-, and 0-level AFSCs) were counted. Next, all assigned and all authorized manning for both of the two focal AFS's (i.e. *2A* plus *2W* assigned; *2A* plus *2W* authorized) were summed for each unit under study. We then calculated a ratio of overall assigned-to-authorized by unit, by month, to gain an understanding into each unit's overall manning structure. Although this overall MXG manning data covered only half of the timeframe covered by the study for our computed QA manning effectiveness data, it still provided limited, but valuable insight into the manning practice of the units under study.

Phase-Three of the Study

In Phase Three we compiled data from each of the units in the key unit- and wing-level metrics areas indicated by the Delphi panel of experts in Survey, Part-1 in Phase-One of the study for the timeframe, January 2003 to December 2004. Specifically, we gathered **<u>only</u>** maintenance-related historical flying safety data (Class A, B, C from the Air Force Safety Center) and maintenance-related ground safety data (Class A, B, C, and

Other from the HQ/ACC Ground Safety Office). Furthermore, we acquired QA metrics from each of the unit's QA flights under study (i.e. various inspection pass rates), and Foreign Object Damage (FOD) along with Dropped Object (DOP) data from each of the unit's FOD/DOP monitors. Lastly, we accumulated the remainder of the key unit metrics from the units' Maintenance Analysis Flights (i.e. Flying Scheduling Effectiveness Rate, Mission Capable Rate, Repeat Rate, Recur Rate, etc.).

We next applied the results of Phase-Two (e.g. calculated QA flight manning effectiveness) to all of the participating maintenance units that had differing overall QA manning effectiveness levels to the gathered data. We first performed a *Pearson product-moment correlation coefficient* analysis between each of the indicated metrics (i.e. Mission Capable Repeat, FOD/DOP, Mishaps, etc.) to the calculated QA manning effectiveness rate for each participating unit in an effort to determine any existing bivariate relationships. We then performed a regression analysis between the QA manning effectiveness rates and each of the indicated metrics across all participating ACC units.

Phase-Four of the Study

Phase-Four completed the study by answering Investigative Question-3: "What is the relationship between QA flight manning effectiveness and the key unit- and wing-level metrics?" This was accomplished by analyzing and evaluating the statistical results to derive any practical usefulness to aircraft maintenance managers making QA manning decisions. Using these results, we then performed a sample benefit-cost analysis. And lastly, the statistical results were analyzed in an attempt to validate what the experts in the field felt the impact that QA as an entity has on key unit- and wing-level metrics. This was performed by comparing the experts' responses in Phase-One, Survey, Part-1 and the statistical measures derived from Phase-Three to determine where they matched, and where they differed.

Scope and Limitations of Research Study

Data Collection Issues

There were several instances where units chose not collect certain types of *optional* metric data (e.g. one unit does not collect Phase Key Task List Pass rate data separately from Quality Verification Pass rate data). To handle this, we used statistical tools such as pair-wise analysis versus list-wise analysis. Also, one unit could not give the full 24-month QA assigned manning look-back which we also handled with pair-wise analysis.

About Correlation and Regression Analysis

When considering the correlation analysis, it frequently *may not be appropriate to consider the X-values as known constants whereas correlation analysis provides an avenue to infer relationships between variables without risking errors associated with confidence coefficients* (Kutner, Nachtsheim, Neter, and Li, 2004). In our procedures, we attempted to derive any existing significant correlation and direction between the indicated overall QA flight manning effectiveness levels and each of the indicated metrics. The results of this analysis were used to draw conclusions and postulate potential mitigating strategies for maintenance leaders and managers to use when assigning personnel to QA Flight manpower positions in the final phase of the study.

Addressing Potential Problems with Self-Reports

Padsakoff and Organ identified six categories of self-report (i.e. a survey is a self-report), presented circumstances where problems may manifest, and discussed methods for mitigating these problems. The six identified categories of self-report are:

1) *Obtaining demographic or otherwise factual data (such as age or sex of respondent, years of tenure, etc.), that are, in principle, verifiable form other sources.*
2) *Assessing the effectiveness of experimental manipulations.*
3) *Gathering personality data (trait, anxiety, need for achievement, locus of control, and so forth).*
4) *Obtaining descriptions of a respondent's past or characteristic behavior (e.g., asking supervisors about there "structuring" behaviors), and/or seeking respondent's intentions of future behavior (e.g., to quit), or how they would behave under certain hypothetical conditions (i.e., various role-playing exercises).*
5) *Scaling the psychological states of respondents, such as job attitudes, tension, or motivation.*
6) *Soliciting respondents' perceptions of an external environmental variable (the supervisor's behavior, formalization of organizational processes, climate) (Podsakoff and Organ, 1985).*

For our surveys, we need to address category '1' since we gathered demographic data on our respondents for the purpose of verifying their status as maintenance subject matter experts. Category '6' was also relevant since respondents were asked to provide opinions on which key unit- and wing-level metrics are most impacted by QA effectiveness along with how they felt workers would perform under certain circumstances.

When addressing, category-1 problems, we were well assured that the responses were correct for the two primary data elements: years of aircraft/munitions maintenance experience and rank. Since all respondents were military personnel, their reported years of experience can reasonably be expected to coincide closely with the job position they held (i.e. a QA maintenance superintendent or a maintenance group chief would most likely have not risen to that position without substantial experience).

When it came to category-6 issues, we addressed the potential biases inherent in perception-based surveys. To help control for this, we first ensured not to provide too much detail to the respondents as to the nature of the survey, beyond providing basic instructional guidance. In essence, we did not want respondents to know the overall intent of the study so as to avert the potential that they would overtly or unintentionally stage their answers in an attempt to bias the survey.

A second issue with our survey, was the shear magnitude of time required to complete Survey, Part-2 since it was expected (from a beta-test) to take anywhere from 30-minutes to two-hours per respondent, for each round of the Delphi. According to Padsakaoff, et al., respondents taking long surveys can experience "transient mood states" where a consistent, yet artifactual bias may be introduced across measures. To control for this, we provided a "Save & Return Later" function in the computer-based Survey, part II ROUND-ONE. Also, since we conducted Survey, Part II, ROUND-TWO through a spreadsheet-based instrument, this also allowed respondents to start, save, and restart as required.

Another issue we addressed is the potential bias attributable to trait, source and methods. For instance, in our study, a respondent who is a "crew chief by trade" may have tended to have consistently higher or lower expectations on how effective another person possessing their same AFSC may perform other jobs (i.e. an electrician respondent may feel that an average electrician would be more apt to handle any job they are assigned to well, and thus this may bias their ratings when considering electricians.

This is because they are experts on electrical systems and the electricians who work them). However, this particular bias would most likely not exist when these same personnel are considering workers possessing other AFSCs.

To counteract this potentiality, we provided straightforward and explicit instructions repeatedly through the Delphi rounds for the respondents to ensure they considered “average” personnel and also to base their responses on their own experiences and beliefs (see Delphi instructions in Appendixes A-D).

Lastly, we controlled for this potential bias by ensuring our respondent group was diverse and varied. In the aggregate, personnel in our respondent group possessed many different ranks, came from many different AFSC backgrounds (crew chiefs, avionics, munitions, weapons, structural repair, fuels systems, etc.), worked on different aircraft and munitions types (bombers, fighters, special assets), and were assigned to many different bases (see Tables, 5, 7, 10, 12). This good cross-sectional response is considered to have mitigated any remaining biases. We coupled these strategies, with the power of the Delphi method to eliminate the “round-table” meeting influence, and achieved a very robust system of bias-mitigating check and balances.

In the next chapter, we calculate an overall manning effectiveness level by month for each of the unit‘s QA flight by applying the derived manning effectiveness matrix from Phase-One of the study to the data acquired from the units under study from Phase-Two. We will also examine the overall MXG assigned manning as it related to the calculated QA manning effectiveness levels.

IV. Results – QA Manning Effectiveness

Overview

In this chapter we calculate the overall manning effectiveness for each of the QA flights and then perform an analysis of Maintenance Group (MXG) assigned manning as it relates to this effectiveness.

Our Assumptions

The following assumptions were used in evaluating results in Chapters IV and V:

1) The Unit Manning Document requirements are the optimum manning needs to create the best mix of maintenance oversight and worker capability.
2) The models we create are interpretive, not predictive.
3) The models we create provide a broad view across all participating units and may or may not be indicative of a hard and fast rule applicable to all units.
4) Although we understand that QA personnel are pulled from the larger Maintenance Group (MXG) manning pool, we will not attempt to model the dichotomy of tradeoffs caused by this action (i.e. what would be the opportunity cost of pulling a technician off the flight line and put them in a QA position?).
5) All quantitative monetary analyses assume a person is hired into the MXG and a technician from the MXG manning pools possessing the required six months time-on-station, is then assigned to QA.
6) Once a person is assigned to a manpower position at a unit, there is a one-month lag between their arrival at the duty station and them becoming a viable asset to the unit.

7) All persons possessing the AFS's in the reported manning data are fully capable, are assigned as assets under the MX Group manning structure, and are not performing duties outside of their AFS (e.g. Dormitory Chief, Honor Guard, etc.). Table 19 and Figure 12 examine this correlation.

Calculating Manning Effectiveness Levels for QA Flights

After examining all of the historically assigned manning lists from each of the QA flights, we discovered several instances where AFSCs other than those that were authorized by the aggregated ACC Unit Manning Document (UMD) from Phase-One, were being used in QA flights. This created a problem where we needed to go back to the Delphi Panel to get them to evaluate the effectiveness of each of these ten newly uncovered AFSC combinations.

We then took the outcome of the first Delphi study, and after examining the resultant matrix, determined that the range of values for each AFSC combination (i.e. the 1^{st} to 3rd quartile range) was relatively small for the majority of AFSC combinations within the matrix. Using this as a guide, we determined the median value for each AFSC combination was the appropriate effectiveness rating to apply to any AFSC-mismatch encountered in actual QA manning data received from the field (see Table 14).

Table 14 – Results of *Initial* and *Supplemental* Delphi Survey – AFSC Combinations

Manning Effectiveness Score

AFSCs	2A0X1	2A3X0	2A3X1	2A3X2	2A3X3	2A590	2A5X1	2A5X2	2A5X3	2A6X0	2A6X1	2A6X2	2A6X3	2A6X4	2A6X5	2A6X6	2A7X3	2A7X4	2E1X1	2E2X1	2M0X1	2W0X1	2W1X1	2W2X1	2A7X1	2A7X2
2A0X1	100%	36%	63%	80%	33%	37%	20%	20%	60%	35%	18%	18%	14%	13%	14%	27%	11%	10%	20%	20%	15%	9%	10%	10%		
2A3X0	40%	100%	50%	45%	68%	80%	70%	60%	47%	80%	45%	40%	36%	39%	43%	40%	35%	24%	18%	16%	20%	23%	40%	20%		
2A3X1	80%	51%	100%	80%	40%	45%	35%	30%	61%	50%	26%	19%	20%	20%	25%	38%	19%	16%	20%	20%	16%	11%	19%	13%		
2A3X2	80%	55%	80%	100%	40%	40%	33%	30%	65%	42%	22%	19%	20%	21%	22%	33%	17%	16%	20%	18%	11%	10%	19%	14%		
2A3X3	28%	80%	40%	45%	100%	71%	80%	60%	41%	60%	49%	28%	24%	30%	44%	40%	30%	20%	10%	9%	11%	12%	25%	11%		
2A590	39%	80%	45%	47%	65%	100%	70%	53%	43%	80%	49%	40%	29%	35%	40%	40%	33%	20%	10%	10%	13%	15%	21%	16%		
2A5X1	27%	63%	40%	39%	80%	80%	100%	59%	41%	58%	45%	21%	23%	33%	42%	40%	30%	18%	9%	8%	7%	10%	20%	10%		
2A5X2	21%	60%	30%	33%	61%	60%	60%	100%	40%	55%	43%	22%	17%	32%	45%	40%	27%	18%	5%	5%	5%	5%	12%	7%		
2A5X3	56%	45%	60%	80%	44%	56%	41%	36%	100%	50%	25%	20%	20%	25%	27%	39%	19%	15%	20%	19%	10%	10%	15%	10%		
2A6X0	40%	90%	40%	40%	48%	80%	46%	40%	40%	100%	59%	43%	43%	53%	54%	52%	40%	30%	15%	15%	17%	13%	21%	17%		
2A6X1	21%	55%	25%	26%	47%	56%	47%	40%	25%	65%	100%	26%	20%	33%	39%	35%	21%	18%	10%	10%	10%	7%	10%	10%		
2A6X2	20%	40%	20%	20%	33%	40%	35%	30%	20%	53%	36%	100%	20%	20%	36%	38%	24%	16%	10%	10%	10%	15%	20%	13%		
2A6X3	20%	40%	17%	17%	31%	33%	25%	20%	18%	56%	23%	16%	100%	20%	20%	23%	18%	28%	6%	6%	7%	8%	13%	7%		
2A6X4	18%	40%	21%	21%	38%	40%	39%	35%	20%	56%	37%	25%	20%	100%	32%	37%	20%	10%	5%	5%	10%	5%	8%	7%		
2A6X5	20%	50%	21%	21%	43%	50%	45%	40%	20%	60%	40%	30%	19%	33%	100%	35%	20%	13%	4%	4%	6%	10%	15%	10%		
2A6X6	34%	43%	42%	42%	40%	52%	40%	39%	43%	59%	39%	28%	23%	35%	39%	100%	19%	14%	18%	15%	18%	9%	20%	13%		
2A7X3	18%	40%	20%	21%	36%	40%	40%	30%	20%	50%	25%	30%	20%	25%	27%	20%	100%	20%	5%	5%	10%	10%	10%	10%		
2A7X4	17%	28%	18%	18%	20%	30%	23%	20%	19%	40%	20%	19%	40%	20%	20%	20%	20%	100%	6%	5%	5%	10%	10%	10%		
2E1X1	20%	20%	20%	20%	14%	20%	15%	12%	20%	19%	8%	9%	9%	9%	9%	20%	9%	7%	100%	51%	13%	5%	5%	5%		
2E2X1	21%	14%	20%	20%	13%	13%	12%	12%	20%	13%	5%	5%	5%	6%	7%	20%	5%	5%	49%	100%	10%	5%	5%	5%		
2M0X1	14%	16%	11%	11%	7%	14%	8%	8%	9%	15%	7%	8%	7%	7%	7%	9%	7%	4%	7%	7%	100%	11%	10%	15%		
2W0X1	15%	20%	10%	11%	12%	19%	11%	10%	11%	20%	9%	9%	10%	9%	8%	10%	9%	9%	5%	5%	10%	100%	46%	50%		
2W1X1	18%	30%	18%	19%	20%	23%	20%	18%	15%	27%	11%	10%	10%	10%	13%	15%	10%	5%	4%	4%	8%	59%	100%	54%		
2W2X1	17%	20%	12%	13%	14%	20%	14%	14%	13%	20%	10%	9%	10%	7%	10%	13%	10%	7%	5%	5%	18%	48%	50%	100%		
2W191		60%				60%	40%																		50%	
2W100		60%				60%	40%																		50%	
2A0X0		60%																								
2A790		40%																								
2A7X1																		75%								
2A7X2					30%													50%								
2A7X3																									80%	90%

Next, we formatted each of the 16 returned QA flight historical manning charts and assigned the proper effectiveness rating for each manpower position reported by month, for each unit. When assigning effectiveness ratings to each authorized position, we used the following four-rule process:

1) If an authorized QA manpower position was filled with a person possessing the AFSC called for in the UMD, the position effectiveness was rated 100 percent effective (e.g. a worker with AFSC 2A5X3 assigned to a 2A5X3 QA position).

2) If the person filling a QA position possessed an AFSC other than that called for in the UMD, the appropriate effectiveness level derived from the QA manning effectiveness charts was assigned to that position (e.g. a person with AFSC

2A5X3 assigned to a 2A5X1 QA position would be rated 41 percent effective as derived from the QA Manning Effectiveness Matrix).

3) Instances where UMD manpower positions were double-filled (i.e. two persons possessing AFSC 2A3X3 were assigned against one UMD-authorized 2A3X3 manpower position), were rated as 100 percent effective. The rationale for this was that, although not authorized for in the UMD, these "extra" personnel provide capability and more capability "should be better", thus proper credit should be applied to possibly offset deficiencies in other areas.

4) All unfilled QA positions were rated as zero percent effective.

Once all individual QA manpower positions were assigned manning effectiveness ratings, a simple average was computed for each month to determine each QA flight's overall manning effectiveness rating. As mentioned earlier, this process was repeated for all individual QA positions, by month, for all participating QA flights (see Table 15 for an example on how monthly QA effectiveness is calculated; see Appendixes BK-1 to BZ-2 for all participating units' calculated QA effectiveness tables).

Table 15 – Excerpt Example of Assigned Unit QA Manpower by Position, by Month

			Jan '04		Score	Feb '04		Score	Mar '04		Score
		MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
CY '04	1	XXXXXXXX	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%
	3	XXXXXXXX	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%
	4	XXXXXXXX	2A571	2A673	25%	2A571	2A673	25%	2A571	2A673	25%
	5	XXXXXXXX		2A571	100%		2A571	100%		2A571	100%
	6	XXXXXXXX		2A571	100%		2A571	100%		2A571	100%
	7	XXXXXXXX		2A571	100%		2A571	100%		2A571	100%
	8	XXXXXXXX	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	9	XXXXXXXX	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
	10	XXXXXXXX	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	11	XXXXXXXX	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	12	XXXXXXXX	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
	13	XXXXXXXX	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%
	14	XXXXXXXX	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	15	XXXXXXXX	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
Monthly					87%			87%			87%

Table 16 – QA Flight Calculated Manning Effectiveness for Participating Bases

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score
Barksdale	2003	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
	2004	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Beale	2003	66%	66%	61%	63%	63%	63%	59%	59%	59%	56%	56%	56%
	2004	56%	56%	53%	56%	56%	56%	56%	53%	56%	56%	56%	69%
Cannon	2003	90%	90%	90%	90%	90%	90%	90%	90%	88%	88%	88%	88%
	2004	85%	85%	85%	85%	85%	85%	85%	85%	86%	86%	86%	86%
D-M	2003	80%	80%	80%	84%	84%	88%	88%	88%	92%	80%	76%	83%
	2004	79%	82%	84%	84%	84%	85%	85%	85%	88%	81%	85%	84%
Dyess	2003	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	2004	100%	100%	100%	100%	100%	96%	96%	96%	95%	99%	99%	99%
Ellsworth	2003	80%	80%	80%	80%	80%	80%	79%	79%	79%	79%	79%	79%
	2004	79%	79%	79%	78%	81%	81%	81%	80%	80%	80%	82%	81%
Holloman	2003	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	2004	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Langley	2003	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
	2004	85%	85%	85%	85%	85%	85%	84%	84%	84%	87%	87%	87%
Minot	2003	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
	2004	94%	94%	94%	94%	94%	94%	94%	94%	89%	91%	91%	91%
M-H	2003	86%	86%	83%	83%	83%	82%	82%	82%	82%	82%	84%	84%
	2004	84%	84%	84%	84%	84%	84%	84%	84%	84%	82%	82%	82%
Nellis	2003	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%
	2004	87%	87%	87%	87%	87%	87%	93%	93%	93%	93%	93%	93%
Offutt	2003	65%	65%	65%	65%	65%	65%	65%	65%	65%	69%	69%	69%
	2004	73%	73%	73%	76%	76%	76%	76%	81%	81%	81%	81%	81%
Pope	2003												
	2004	76%	76%	76%	76%	81%	87%	87%	78%	84%	90%	90%	84%
S-J	2003	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%
	2004	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%
Shaw	2003	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%
	2004	97%	97%	97%	97%	97%	97%	100%	100%	100%	100%	100%	100%
Whiteman	2003	85%	85%	85%	85%	85%	85%	85%	85%	88%	88%	88%	88%
	2004	92%	92%	92%	92%	92%	92%	100%	92%	92%	92%	92%	92%

In the next step we aggregate the monthly manning effectiveness sores for all participating QA flights into one chart to develop our time-series (see Table 16).

Analyzing the Manning Effectiveness Levels for QA Flights

The calculated manning effectiveness levels in Table 16 reveal that all but two units experienced transitory fluctuations in manning effectiveness from month-to-month (one had a stable 100 percent calculated QA manning effectiveness and the other had a stable 95 percent effectiveness score for the entire timeframe of the study). Although the stable effectiveness levels is desirable in daily practice, it does however create a confound for this study because we are searching for links associated with QA manning effectiveness variability. If the independent variable (i.e. a unit's calculated QA manning effectiveness levels) never changes, then any variability in the dependant metric variable data (e.g. Mission Capable rate, Repeat rate, Mishap counts) merely becomes noise.

Comparing Manning for MX Groups to Calculated QA Effectiveness

Since all QA manning is taken from the larger Maintenance Group (MXG) manpower structure, its manpower is dependant upon available MXG manning. Thus, it is necessary to analyze the overall MXG manning in order to gain an understanding into the QA manning construct and the cross-impacts involved. Furthermore, the capability of acquiring the assigned historical MXG manning at the participating units was hampered by limited access to the data and manpower resources at the headquarters level. However, we were able to accumulate and calculate an assigned/authorized manpower ratio for the two most prevalent AFS's (*2A and 2W*) found in the QA flights in the study for the timeframe January 2004 to December 2004 (see Table 17).

Table 17 – MXG Derived 2A and 2W Manning for Participating Bases

MXG Manning for 2As and 2Ws	Jan 04	Feb 04	Mar 04	Apr 04	May 04	Jun 04	Jul 04	Aug 04	Sep 04	Oct 04	Nov 04	Dec 04
Barksdale	87.1%	86.7%	87.1%	86.9%	92.8%	92.3%	91.5%	94.9%	93.0%	91.9%	88.7%	89.6%
Beale	73.9%	79.9%	82.9%	84.1%	81.4%	80.5%	82.8%	89.1%	87.8%	84.9%	85.7%	86.2%
Cannon	78.4%	77.9%	77.7%	77.1%	76.4%	75.8%	82.0%	84.8%	84.1%	79.2%	77.0%	75.3%
D-M	78.9%	78.5%	81.2%	90.9%	91.1%	91.4%	91.6%	97.1%	96.7%	93.7%	92.8%	90.7%
Dyess	75.1%	75.7%	76.9%	77.7%	77.4%	77.3%	78.7%	93.2%	93.3%	90.5%	89.5%	88.7%
Ellsworth	78.3%	78.4%	78.1%	83.2%	81.8%	79.9%	79.6%	92.8%	92.4%	92.3%	91.3%	90.2%
Holloman	73.2%	73.4%	75.6%	82.3%	85.0%	83.3%	82.9%	87.8%	87.6%	87.8%	86.5%	86.5%
Langley	83.8%	84.0%	84.0%	84.3%	85.3%	85.4%	85.4%	90.7%	91.1%	90.9%	89.5%	89.0%
Minot	79.0%	81.5%	84.7%	87.6%	86.8%	88.6%	87.1%	89.4%	87.9%	87.5%	86.4%	88.7%
M-H	74.0%	76.0%	75.7%	75.3%	76.3%	75.6%	76.1%	85.9%	85.2%	84.4%	82.9%	82.1%
Nellis	82.7%	82.5%	82.5%	83.1%	87.3%	87.7%	89.5%	92.7%	93.0%	92.6%	92.7%	93.4%
Offutt	84.1%	82.1%	81.8%	57.6%	90.5%	90.2%	88.6%	96.6%	95.6%	91.1%	89.7%	89.4%
Pope	75.4%	74.9%	75.4%	88.2%	86.2%	85.4%	83.3%	91.7%	89.1%	85.5%	85.0%	84.5%
S-J	79.4%	77.6%	79.9%	80.2%	79.6%	80.1%	80.6%	89.7%	89.0%	88.8%	88.1%	88.3%
Shaw	86.0%	87.2%	88.7%	87.0%	86.9%	86.6%	84.9%	95.2%	93.5%	93.4%	92.3%	92.5%
Whiteman	83.4%	82.4%	81.8%	95.2%	95.2%	93.6%	92.7%	100.6%	100.0%	99.4%	98.5%	102.1%

Once we had this data, we performed a *Pearson product-moment correlation coefficient* analysis to determine the linear relationships between MXG manning and calculated QA manning effectiveness.

Table 18 – MX Group Assigned Manning Correlated w/ QA Manning Effectiveness

Base	Unit	12-months w/ 1-month Lag
Langley	1 FW	-0.3544
Barksdale	2 BW	0.0000
Shaw	20 FW	0.9490
Cannon	27 FW	-0.3798
Ellsworth	28 BW	0.2077
Pope	28 FG	0.4960
Davis-Monthan	355 FW	0.6996
Mountain Home	366 FW	-0.3240
Seymour-Johnson	4 FW	0.6735
Holloman	49 FW	0.0000
Minot	5 BW	-0.1595
Whiteman	509 BW	0.0000
Offutt	55 RW	0.5243
Nellis	57 FW	0.8707
Dyess	7 BW	-0.6764
Beale	9 RW	-0.4132

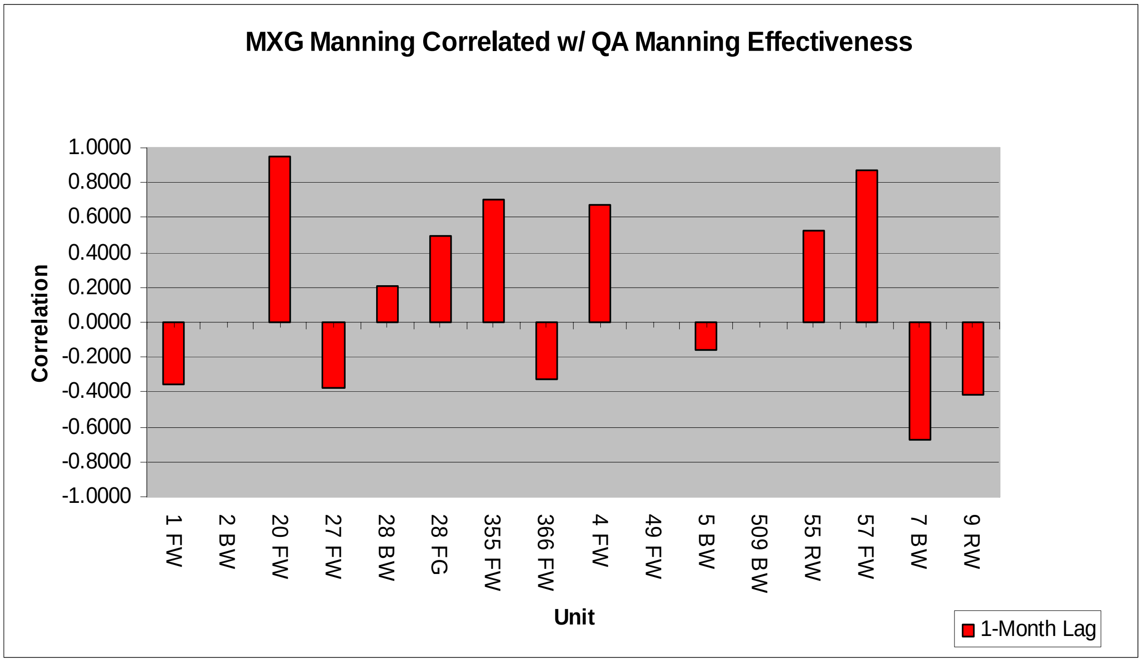


Figure 13 – MXG Assigned Manning Correlated w/ QA Manning Effectiveness

We used a 1-month lag in the analysis (MXG assigned manning in month-*j* is correlated with the calculated QA flight manning effectiveness in Month $j+1$) to account for individual unit in-processing actions, etc.). From this we found that three units (2 BW, 509 BW, and 49 FW) have a zero-correlation coefficient between their MXG assigned manning and their QA flight manning effectiveness. This was the expected result in the case of the 2 BW and the 49 FW since there was no variability in their calculated QA flight manning effectiveness, while there was in the corresponding MXG assigned manning data. Next we found that one unit has a weak positive correlation between MXG assigned manning and QA flight manning effectiveness (28 BW), five units with a weak-to-moderate negative correlation coefficient (1 FW, 27 FW, 366 FW, 5 BW, and 9 RW), and one unit with a moderate negative correlation coefficient (7 BW). Lastly, we observed five units with a moderate-to-strong positive correlation between MXG assigned manning and QA flight manning effectiveness (355 FW, 4 FW, 55 RW, 57 FW), with the 20 FW having a near-perfect correlation (see Table 18 and Figure 13).

Table 19 – Pearson Product-Moment Correlation Coefficient Relationships

Correlation Coefficient	**Indication**	**Resultant Action**
-1.0	Strong **Positive** Relationship	As one variable **increases**, the other variable **increases**
0.0	*No Relationship*	***None***
1.0	Strong **Negative** Relationship	As one variable **increases**, the other variable **decreases**

We performed one further analysis of the MXG assigned manning as it related to the QA manning effectiveness levels which consisted on counting the number of months for all units where MXG assigned manning exceeded QA flight manning effectiveness and vice-versa. We then took this raw data and converted it to a ratio for all ACC bases.

Table 20 – Relationship between MXG Manning and QA Manning Effectiveness

		# Months MXG Assigned < QA Effectiveness	# Months MXG Assigned > QA Effectiveness
Bases	Barksdale	11	1
	Beale	0	12
	Cannon	12	0
	Davis-Monthan	2	10
	Dyess	12	0
	Ellsworth	5	7
	Holloman	12	0
	Langley	4	8
	Minot	12	0
	Mountain Home	7	5
	Nellis	9	3
	Offutt	0	12
	Pope	2	10
	Seymour-Johnson	12	0
	Shaw	12	0
	Whiteman	3	9
Total Count	192	115	77
Percentages	100.00%	59.90%	40.10%

The data in Table 20 indicate that for approximately 60 percent of the months in Calendar Year 2004 (using zero-lag), the individual units' MXG assigned manning for *AFS's 2A* and *2W* was less than the calculated QA flight effectiveness, and for approximately 40 percent of the months, MXG assigned manning was more than that of their respective QA flight's effectiveness level. This raises an important question associated with this study: "Should QA manning track that of assigned manning within its respective MXG?" In other words, should all maintenance functions share equally in the pain when there is a lack of manning or should low-density, high-demand functions be fully manned? Since there are different opinions on this, we will table it for now, and revisit it in Chapter VI.

Basically, the utility of this data to the study is that it paints a rough picture of how manning is being apportioned by the various units to their QA flights. For instance, for a unit with a positive correlation, their MXG assigned manning fluctuates in the same direction as their QA flight manning effectiveness. On the other hand, the negative correlation for manning is interesting, because this indicates that, as the unit's assigned "2A and 2W" percentage of assigned manning changed, the QA manning effectiveness responded with a change in the opposite direction.

In examining the manning data (see Table 20), this anomaly seems to be caused more by variability within the MXG assigned data than by changes within the QA flight manning effectiveness. This may indicate that the lag-factor between when people are assigned to a maintenance group to when manning structure changes are actually made, may be more pronounced than just the one-month lag that we modeled.

Table 21 – Example Raw Data used for Correlation Calculations

	Shaw AFB		Whiteman AFB	
Month	**MXG Manning**	**QA Effectiveness**	**MXG Manning**	**QA Effectiveness**
Jan 04	0.860	0.967	0.834	0.913
Feb 04	0.872	0.967	0.824	0.913
Mar 04	0.887	0.967	0.818	0.913
Apr 04	0.870	0.967	0.952	0.913
May 04	0.869	0.967	0.952	0.913
Jun 04	0.866	0.967	0.936	0.913
Jul 04	0.849	1.000	0.927	0.913
Aug 04	0.952	1.000	1.006	0.913
Sep 04	0.935	1.000	1.000	0.913
Oct 04	0.934	1.000	0.994	0.913
Nov 04	0.923	1.000	0.985	0.913
Dec 04	0.925	1.000	1.021	0.913

We need to caution the reader not to draw conclusions based solely on this correlation data for various reasons. First, this correlation analysis is based on a limited sample size of data points for only twelve months of MXG manning. Second, the data for QA flight manning effectiveness is not a raw number like the MXG assigned manning data but is rather a calculated percentage based on the derived manning effectiveness assignment process. Third, manpower at stateside assigned bases follow a "fair-share" process whereby average worldwide manning levels are used to determine percentages of manning for each AFSC to be assigned to each of the bases, thus there is no one model that fits all of the units under study. The last and most important fact to consider before passing judgment, is the very dynamic nature of the manning assignment process where maintenance managers make daily manpower determinations based on changing requirements and constraints.

In the Chapter V we examine the metric data relevant to the calculated QA manning effectiveness data in order to derive any relevant insights, and in Chapter VI we present conclusions and recommendations.

V. Results – Analyzing the Metrics Relevant to QA Manning Effectiveness

Overview

In this chapter we use the *Pearson product-moment correlation coefficient* analysis procedure to investigate relationships between the calculated QA Manning Effectiveness and subsequent time lags for each of the participating units, versus the metrics confirmed by the subject matter experts in the Delphi Survey, Part-1. We will also perform regression analysis to determine any significance between the independent variable (QA Manning Effectiveness) and each of the dependent variables arrayed across the 16 ACC units in the study.

The Pearson Product-Moment Correlation Coefficient

Mathematically the *Pearson product-moment correlation coefficient is:*

$$r = \frac{SS_{xy}}{\sqrt{SS_{xx} SS_{yy}}}$$ (note: SS =sums of squares; x=indep. variable; y=dep. variable).

This is a useful mathematical tool for gaining a macro view of linear relationships between individual data sets. Furthermore, to save time, we will use the statistical analysis software program JMP® to perform the correlation calculations.

The Process Overview for Analyzing Each Metric, by Variable, by Unit

We will use the "by-metric" approach to analyze each of the indicated metrics. More specifically, we will analyze each of the 25 metrics in alphabetical order and, under each of the specific metric headings, we will first define each metric that was indicated by the Delphi Panel of Experts in Phase-One of the study. We will then use the

<Multivariate> command in JMP® for each of the metrics (Abort, Mission Capable, Repeat, Recur, Mishap, etc.) and the QA Manning Effectiveness rates for each of the units to create a correlation matrix.

This correlation matrix will provide us with correlation strength (linear relationship) along with the direction of relationship between the variables. Furthermore, to gain greatest insight into potential lag-relationships between the variables, each metric will be lagged in monthly increments from zero (contemporaneous) to four (note: a QA manning effect on a resultant metric after four months will be considered to have occurred by chance). Next, these correlations will be aggregated and collated by metric across all 16 participating units to allow us to analyze any recurrent themes. First, it should be noted that Barksdale AFB and Holloman AFB are not included on any of the metric correlation analysis tables because the results of the Pearson product-moment correlation analysis will always indicate a zero correlation across all "Lags". This is due to the fact that both units had zero variation in their calculated QA Manning Effectiveness during the 2003-2004 period and thus zero variability within any of the measured metrics, will always result in a reported zero correlation coefficient. We will begin with the Abort Rate metric.

Abort Rate (AR)

The AR metric is a leading indicator of both aircraft reliability and quality of maintenance performed. It is the percentage of missions aborted in the air and on the ground. Furthermore, *an abort is a sortie that ends prematurely and must be re-accomplished* (AFI 21-101, para 1.10.3.1). The Abort rate is calculated as:

$$AR(\%)=\frac{Air+GroundAborts}{TotalSortiesFlown+GroundAborts}*100$$

Analyzing the reported Abort rates from ACC/LGP against the calculated QA manning effectiveness rates indicated that correlations across all bases were not uniform for Abort rates, however several units had periods of relatively high correlations (> +/- 0.45) (see Appendix AF). Also, the data seems to indicate a negative correlation for the F-16, Block 30's at Cannon AFB starting in Lag-0 and lasting until Lag-3. This makes sense if the QA Manning Effectiveness was a factor for Aborts (i.e. as Manning Effectiveness increases, Abort rates decrease = GOOD). This negative relationship also occurred at Mountain Home F-16, Block 50's in Lag-2 and -3, and at Pope in Lag-3.

Conversely, the A-10s at Davis-Monthan AFB indicate a moderate positive correlation for operational and training A-10 units across Lags-0, -1, and -2. Additionally, five aircraft types at Nellis AFB exhibited positive correlations over several different lags. This is counter-intuitive, since we would expect Abort rates to decrease if QA manning effectiveness had a significant impact on this metric.

The overall analysis for the Abort rate metric is that although several of the individual bases indicate potential value in analyzing Abort rates as related to their individual QA manning effectiveness levels, the data do not support a determination that Abort rates can be directly tied to QA manning effectiveness as a potential trend across ACC bases (see Survey, Part-1 Comments, Appendix F). We will now examine the Break Rate metric.

Break Rate (BR)

The BR metric is a leading, flying-related metric and *is an indicator of both aircraft reliability and quality of maintenance performed. It is the percentage of aircraft that land "Code-3*" (unable to complete at least one of its assigned missions) (AFI 21-101, para 1.10.3.2). It is calculated as:

$$BR(\%)=\frac{NumberSortiesThatLandCode3}{TotalSortiesFlown}*100$$

Analyzing the reported Break rates from ACC/LGP against the calculated QA Manning Effectiveness rates yielded the results listed in Appendix AH. As the appendix reveals, correlations across all bases were not uniform for Break rates, with nine bases with at least one assigned aircraft unit showing a weak to moderate negative correlation (GOOD) between Break rate and QA manning effectiveness. This makes sense if the QA manning effectiveness was a factor for Break rates (i.e. as Manning effectiveness increases, Break rates decrease = GOOD).

Conversely, as was the case with Abort rates, five bases had Break rates in individual aircraft units with moderate positive correlations between Break rate and QA manning effectiveness. Again, this is counter-intuitive since, we would expect to see Break rates to decrease if QA manning effectiveness had a significant impact on this metric type.

The overall determination is that although several of the individual bases indicate potential value in analyzing Break rates as related to their individual QA manning effectiveness, the data do not support an overall determination that Break rates can be directly tied to QA manning effectiveness as a potential trend across ACC bases (see

Survey, Part-1 Comments, Appendix F). The next metric we will examine is the CANN Rate metric.

Cannibalization (CR) Rate

The CR metric *is a leading indicator that reflects the number of cannibalization (CANN) actions (removal of a serviceable part from an aircraft or engine to replace an unserviceable part on another aircraft or engine).* Since Base Supply relies on the maintenance shops and depot for replenishment, this indicator can be used in part to indicate maintenance shop and depot support (AFI 21-101, para 1.10.3.2). It is calculated as:

$$CR(\%)=\frac{NumberAircraftEngineCANNS}{TotalSortiesFlown}*100$$

Analyzing the reported CANN rates from ACC/LGP against the calculated QA manning effectiveness rates yielded the results listed in Appendix AI. As the appendix shows, correlations across all bases were not uniform for CANN rates, but at eleven of the 14 bases, CANN rates indicated a moderately negative (GOOD) correlation between CANN rates and QA manning effectiveness for at least one aircraft unit at each base but mainly concentrated in the Lag-1 to -3 range. This makes sense if QA manning effectiveness is a factor for CANN Rates (i.e. as QA manning effectiveness increases CANN rates decrease=GOOD).

Conversely, as was the case with Aborts, eight bases had CANN rates in individual aircraft units with moderate positive correlations between CANN rates and QA manning effectiveness. Again, this is counter-intuitive, since we would expect to see CANN rates decrease if QA manning effectiveness had a significant impact on this metric. The overall determination is that there is some evidence at the majority of maintenance units in the study to indicate potential value in analyzing CANN rates as related to their individual QA manning effectiveness across ACC bases (see Survey, Part-1 Comments, Appendix F). We will now examine the Combined Mishap Count metric.

Combined Mishap (CombMis) Count

The CombMis Count metric is an aggregated count of all Class A, B, and C Mishaps both for flight and ground that are specifically related to maintenance. Also included are preventable aviation maintenance-related injuries and incidents that did not meet the $20,000 minimum reporting criteria. Basically, the Combined Mishap Count is a measure of the extent that maintainers follow directives. Analyzing the reported Combined Mishap counts acquired from the Air Force Safety Center and ACC Ground Safety against QA manning effectiveness rates yielded the results listed in Appendix AO. As the appendix shows, correlations across all bases were not uniform for Combined Mishaps counts, but seven of the 14 bases indicated moderate negative correlations with QA manning effectiveness Rates (GOOD) for Lag-0 to Lag-3. Furthermore, three of the remaining seven bases indicated a moderate positive correlation between Combined Mishaps and QA manning effectiveness (BAD) in Lag-0. Although the data do not support categorizing the negative correlations as a trend across all ACC units under study, any correlations (positive or negative) of Combined Mishap counts with any other variable should be promptly examined by maintenance management and the necessary mitigating strategies implemented (see Survey, Part-1 Comments, Appendix F). The next two metrics, Dropped Object and Foreign Object Damage counts, are examined together because they are both important indicators of the quality of a base's maintenance practices and are monitored and reported by each base's Foreign Object Damage Prevention office.

Dropped Object (DOP) and Foreign Object Damage (FOD) Counts

The DOP and FOD Count metrics are two separate metrics and are aggregated counts of occurrences of *preventable* Dropped Object counts and Foreign Object Damage counts respectively. A Dropped Object is an item that falls off of an aircraft (un-commanded) while in-flight. More specifically, our data only includes those DOPs attributable to maintenance. A FOD incident is a maintenance-related occurrence of "preventable" damage caused by a foreign object, or is a lost tool or object that is not recovered that is considered "preventable" (caused by maintenance or operations personnel).

Appendix AJ indicates that DOP counts had a low-to-moderate incidence of negative correlation with QA manning effectiveness at seven of 14 bases during at least one lag period. Also, FOD counts correlated negatively with QA manning effectiveness at eight of the 14 bases. The overall analysis of the DOP/FOD count correlations is that the data suggests there is an overall low-to-moderate linear link with QA manning effectiveness rates. We will next perform a correlation analysis between Material Deficiency Report counts submitted and QA manning effectiveness rates.

Deficiency Reports (DR) Count

The count of DRs submitted measures the number of instances technicians file material deficiency reports on defective parts. More DRs submitted is considered better because this suggests that maintenance personnel are being proactive in trying to resolve parts-related trends. Thus, a positive correlation with QA manning effectiveness is considered GOOD and a negative correlation, BAD.

Examining the data in Appendix AK, we find that four of the 14 bases have a moderate positive correlation between DR counts and QA manning effectiveness during at least one lag period, and that eight of the 14 bases have a moderately negative correlation during at least one lag period. The overall correlation analysis of data for DRs Submitted counts does not support an ACC-wide trend but may indicate local trends for some of the bases. We now perform a correlation analysis between the count of Detected Safety Violation Counts and QA manning effectiveness rates.

Detected Safety Violations (DSV) Count

The DSV Count metric is solely a QA function. These are counts of instances where individuals are observed by QA personnel committing unsafe acts (e.g. a person standing on the top step of an A-frame ladder, or not wearing protective eyewear when handling caustic liquids). Although a low count of detected safety violations is intuitively a good thing, more QA manning effectiveness may not always translate into lower incidents. There are two ways to interpret these phenomena: (1) the more effective QA flight will catch deficiencies quicker and more often and thus a higher count will result; (2) the more effective QA flight will tend to deter these personnel from taking shortcuts and thus the DSV count will be less. Thus, both views can be considered correct. Now we will proceed to the analysis.

The data in the correlation table in Appendix AM for DSV counts reveals twelve of 14 bases with low-to-moderate correlations between DSV counts and QA manning effectiveness rates (four positively correlated and eight negatively correlated). And, since the QA management team at the unit-level sets the tone for how to deal with DSVs, we cannot make a GOOD/BAD ruling from the limited data we have. However, we can make a reasonable observation and say that the data seem to support the postulate that DSV counts are correlated across ACC bases as a function of QA manning effectiveness (see Survey, Part-1 Comments, Appendix F). The next metric we will examine is the Fix Rate metric.

Fix Rate (FR) Metric

The FR metric *is a leading indicator showing how well the repair process is being managed and is an excellent tool for tracking "dead time" in aircraft repair processes because it measures the speed of repair and equipment maintainability* (AFI 21-101, para 1.10.3.6). The FR is the percentage of aircraft landing with failures that are returned to flyable status within a designated time standard (either 4, 8, or 12-hours depending on the type of aircraft). The mathematical formula is:

$$\text{FR}(\%) = \frac{\text{Code3BreaksFixedWithinX-Hours}}{\text{TotalCode3Breaks}} * 100$$

This is another metric that elicits dichotomous views from people on how an effective QA flight impacts Fix rates. On the one hand, it is thought that a more effective QA will result in a quicker fix time because technicians will tend to follow technical data more closely. The opposing view is that a more effective QA flight will be more visible, and thus tend to slow repair processes because technicians will take their time and thus take fewer short cuts to ensure they are not making mistakes or missing steps.

The data in the correlation table in Appendix AH for Fix rates reveals 14 of 14 bases with low-to-moderate correlations between Fix rates and QA manning effectiveness rates in at least one of their assigned aircraft units during at least one lag period (ten positively correlated and four negatively correlated). And, since the local QA management sets the tone for how they deal with technicians working jobs, we cannot make a GOOD/BAD ruling from the limited data we have. However, we can make a reasonable observation that the data seems to support the postulate that Fix rates are correlated across ACC bases as a function of QA manning effectiveness (see Survey, Part-1 Comments, Appendix F). The next metric we will examine is Flying Schedule Effectiveness (FSE) Rate.

Flying Scheduling Effectiveness (FSE) Rate

The FSE Rate metric *is a leading indicator and measures how well the unit planned and executed the weekly flying schedule. Deviations that decrease the FSE from 100 percent include: scheduled sorties not flown because of maintenance, supply, operations, HHQ, air traffic control, or other causes. This measure is important because disruptions to the flying schedule can cause turmoil on the flight line and create ripple affects throughout other agencies* (AFI 21-101, para 1.10.3.7). The mathematical formula for FSE is:

$$\text{FSE}(\%) = \frac{\text{AdjustedSortiesScheduledMinusChargeableDeviations}}{\text{AdjustedSortiesScheduled}} * 100$$

The data in Appendix AN reveal ten of 14 bases exhibited low-to-moderate positive correlations between FSE rates and QA manning effectiveness rates in at least one of their assigned aircraft units during at least one lag period and eight bases exhibited moderate negative correlations between FSE rates and QA manning effectiveness rates in at least one assigned aircraft unit. An overall analysis does not support an ACC-wide trend for a correlation between FSE rates and QA manning effectiveness levels but several bases indicate a potential relationship (see Survey, Part-1 Comments, Appendix F). The next metric we will examine is In-Flight Emergency Rate.

In-Flight Emergency (IFE) Rate

The IFE Rate metric is not tracked by all ACC units (in this study Seymour-Johnson and Whiteman do not). Although not considered a primary metric, it is nonetheless an important one. The mathematical formula is:

$$IFE(\%) = \frac{NumberInFlightEmergencies}{NumberSortiesFlown} * 100$$

First, when it comes to the IFE Rate metric, it is intuitive that fewer is better and thus we would want to see a negative correlation (i.e. a higher QA effectiveness rate with a lower IFE rate – GOOD). The data in Appendix AP shows that seven of eleven bases that track IFEs exhibit low-to-moderate negative correlations between IFE rates and QA manning effectiveness rates in at least one of their assigned aircraft units during at least one lag period, and six bases exhibit moderate positive correlations between IFE rates and QA manning effectiveness rates in at least one assigned aircraft unit during at least one lag period. An overall analysis does not support an ACC-wide trend for a correlation between IFE rates and QA manning effectiveness levels but several bases indicate a potential relationship. The next metric we will examine is the Key Task List Pass Rate metric.

Key Task List (KTL) Pass Rate Metric

The KTL Pass Rate metric is a direct output of QA. KTLs are QA maintenance inspections on tasks that are complex or that affect safety of flight. Each time maintenance accomplishes a KTL task, they must notify QA to respond. It should be noted that although QA has directive authority to waiver their evaluation on a KTL item on a limited basis, a waiver is a rare exception (as it should be). The mathematical formula for the KTL Pass rate is:

$$KTLPass(\%) = \frac{NumberKTLinspectionsPassed}{NumberKTLinspectionsPerformed} * 100$$

In the realm of KTL pass rates relative to QA manning effectiveness, there are again two perspectives: (1) a more effective QA flight will be tougher when performing these critical inspections and thus the KTL Pass rate would be expected at least initially to be lower, and (2) the more effective QA Flight will influence the maintainers to take their time and be more thorough performing tasks before calling QA out to inspect their work and thus the KTL Pass rate should be higher. When analyzing the data in the correlation table in Appendix AR, we find nine of the 13 bases that track KTLs separately experienced moderate positive correlations between KTL Pass rates and QA manning effectiveness rates and four bases had low-to-moderate negative KTL Pass rate correlations with QA manning effectiveness. Additionally, what is interesting about these correlations is that most of them track fairly consistently across lags. As for the overall analysis for an ACC-wide trend for a relationship between KTL Pass rates and QA manning effectiveness, there is a dichotomy of results with some bases being positively correlated and some being negatively correlated which is possibly a function of local QA management strategies (see Survey, Part-1 Comments, Appendix F). We will now examine the Mission Capable Rate metric.

Mission Capable (MC) Rate

The MC Rate metric *is a lagging indicator and represents a broad composite of many process and metrics.* According to AFI 21-101, *maintenance managers experiencing a low MC rate should look for workers deferring work to other shifts, inexperienced workers, lack of parts from supply, poor in-shop scheduling, high-cannibalization rates, or training deficiencies* (para 1.10.3.11). Furthermore, a 2001 Air Force Institute of Technology thesis supported the fact that low manpower effectiveness at the worker level is a strong predictor of lower MC rates (Oliver, 2001). But how do the MC rates correlate with QA manning effectiveness rates? The mathematical formula for the MC Rate metric is (note: B-type hours are depot-maintenance hours)

$$MC(\%)=\frac{FullyMissionCapableHours+PartialMissionCapableHours-BtypeHours}{PossessedHours}*100$$

The data reveal ten of 14 bases exhibited moderate positive correlations between MC rates and QA manning effectiveness rates in at least one of their assigned aircraft units during at least one lag period (see Appendix AG). Furthermore, six bases exhibited low-to-moderate negative correlations between MC rates and QA manning effectiveness rates in at least one assigned aircraft unit during at least one lag period. An overall analysis does not support an ACC-wide trend for a correlation between MC rates and QA manning effectiveness levels but several bases do indicate a potential relationship. The next metric we will examine is Maintenance Scheduling Effectiveness Rate metric.

Maintenance Scheduling Effectiveness (MSE) Rate

The MSE Rate *is a leading indicator and measures the unit's ability to plan and complete inspections and periodic maintenance on-time according to the maintenance* *plan. A low MSE rate may indicate a unit is experiencing turbulence on the flight line or in the maintenance shops* (AFI 21-101, para 1.10.3.10). The mathematical calculation is:

$$\text{MSE}(\%) = \frac{\text{NumberScheduledMaintenanceActionsCompletedOnTime}}{\text{TotalNumberMaintenacneActionsScheduled}} * 100$$

The data in Appendix AN reveal nine bases with low-to-moderate-to-high positive correlations between MSE rates and QA manning effectiveness rates with six bases having low-to-moderate negative correlations. Due to the strength of some of these correlations, the data suggests a potential relationship for MSE rates and QA manning effectiveness at the majority of ACC bases (see Survey, Part-1 Comments, Appendix F). The next metric we will examine is Maintenance/Operations Deviations Count metric.

Maintenance/Operations Deviations (MX/Ops Devs) Count

Although the MX/Ops Devs Count metric is normally a ratio of the number of chargeable times an aircraft does not meet its take-off window (within specific timing standards) to the number of sorties scheduled, our data was acquired by counts. Although the normal mathematical formula is:

$$\text{MXOpsDev}(\%) = \frac{\text{NumberMXDeviations} + \text{NumberOperationsDeviations}}{\text{NumberSortiesScheduled}} * 100 ,$$

we consider this count data as acceptable for the purposes of our study since we are performing a "within treatments analysis" (i.e. we are correlating each unit's counts with their respective QA manning effectiveness). But what exactly constitutes a MX/Ops Dev?

A MX/Ops Dev could occur for any number of reasons attributable to either maintenance or operations (e.g. the pilot may be weather restricted). Furthermore, since this number is not broken out for maintenance at most of the participating units, our data is mixed and thus any results cannot be linked specifically to QA manning effectiveness. We are including it in the study because it had a greater than fifty percent response measure as a primary impact metric from the subject matter experts from the Phase-One, Delphi survey.

The data in Appendix AF reveal nine of 14 bases indicate moderate negative correlations between MX/Ops Devs counts and QA manning effectiveness rates in at least one of their assigned aircraft units during at least one lag period. Furthermore, eight bases exhibited low-to-moderate positive correlations between MX/Ops Devs counts and QA manning effectiveness. An overall analysis does not support an ACC-wide trend for a correlation between MX/Ops Devs counts and QA manning effectiveness levels but several bases indicate a potential relationship (see Survey, Part-1 Comments, Appendix F). The next metric we will examine is the Personnel Evaluations Pass Rate metric.

Personnel Evaluations (PE) Pass Rate

The PE Rate is a lagging indicator that measures the ability of personnel to perform tasks in their duty position. A PE occurs when QA personnel perform an over-the-shoulder evaluation of a technician performing a task or part of a task for which the technician being inspected is trained and signed off for. Master Sergeant Sansavera, the Air Education Training representative attached to ACC/HQ Training, stated that the reported QA pass rate is considered as a key measure of the training effectiveness in the field (Sansavera, 2005). Thus we are using this as our proxy variable to examine the potential impact that QA manning effectiveness has on training instead of using other more traditional measures such as number of personnel in overtime training or Career Development Course Pass rates. The PE rate is mathematically determined as:

$$PEPass(\%) = \frac{NumberPersonnelEvaluationsPassed}{NumberPersonnelEvaluationAttempted} * 100$$

The data in the PE Pass Rate correlation table in Appendix AQ reveal seven of 14 bases exhibited moderate to high positive correlations between PE Pass rates and QA manning effectiveness rates in at least one of their assigned aircraft units during at least one lag period (see Appendix AQ). Furthermore, seven bases exhibited low-to-moderate negative correlations between PE Pass rates and QA manning effectiveness. An overall analysis does not support an ACC-wide trend for a correlation between PE Pass rates and QA manning effectiveness levels but several bases indicate a potential relationship (see Appendix F). The next metric we will examine is Phase Key Task List Pass rate.

Phase Key Task List (Phase KTL) Pass Rate

The Phase KTL Pass Rate metric is a subset of the overall KTL Pass Rate examined earlier in this chapter. It is calculated in the same fashion, but is focused solely on the results of QA inspections performed on aircraft after all maintenance is completed and before the aircraft rolls out of a phase dock inspection. Since not all bases in the study perform Phase Dock QA inspections, we aggregated only those bases that track Phase KTL inspections into this correlations analysis. From the table in Appendix AR, we find that five of the 13 bases that track Phase KTL Passes experienced moderate negative correlations between Phase KTL Pass rates and QA manning effectiveness (i.e. pass rates are going down with increased QA manning effectiveness) and only seven bases had low-to-moderate positive correlations. Overall, the data is inconclusive for a command-wide correlation between QA manning effectiveness and Phase KTL Pass rates (see Survey, Part-1 Comments, Appendix F). We will now examine the Quality Verification Inspection Pass Rate metric.

Quality Verification Inspection (QVI) Pass Rate

The QVI Pass Rate metric is an inspection that QA personnel perform that can cover a broad array of processes. It could be an inspection on a completed maintenance action or one in progress, or an inspection on a facility or on an equipment item. It is a macro-measure of unit and technician performance and provides an overall status of maintenance operations and compliance with directives. It is calculated as:

$$\text{QVIPass}(\%) = \frac{\text{NumberQVIsPassed}}{\text{NumberQVIsPerformed}} * 100$$

The table in Appendix AQ reveals nine of the bases having a moderate-to-high positive correlation between QVI Pass rates and QA manning effectiveness (an increase in QA manning effectiveness is accompanied by an increase in QVI Pass rates). Also, five of the bases' data indicate a moderate-to-strong negative correlation (an increase in QA manning effectiveness is accompanied by a decrease in the QVI Pass rate). This is interesting because it could be signaling that the QVI trend at a particular base may be a function of management emphasis and organizational dynamics (see Survey, Part-1 Comments, Appendix F). The next metrics to be examined are the Repeat and Recur Rates.

Repeat and Recur Rates

Although these two measures are tracked separately at HQ ACC/LGP, AFI 21-101 does not break them out. However, since we have the data, we will analyze them separately here. The mathematical calculations for repeats and recurs are (respectively):

$$\text{Repeat}(\%) = \frac{\text{TotalRepeats}}{\text{TotalNumberPilotReportedDiscrepancies}} * 100$$

$$\text{Recurs}(\%) = \frac{\text{TotalRecurs}}{\text{TotalNumberPilotReportedDiscrepancies}} * 100$$

A Repeat is when the same malfunction occurs on the very next flight after it was repaired and a Recur is when the same malfunction for which an aircraft was repaired, occurs on the 2nd through 4th flights. According to AFI 21-101, *Repeat and Recur rate metrics are leading indicators and perhaps the most important and accurate measure of the unit's maintenance quality.* When we examine the Repeat Correlations table in Appendix AS, we find that ten of the 14 bases have at least one aircraft type with low-to-moderate negative correlations between Repeat rates and QA manning effectiveness rates and seven bases with low-to-moderate positive correlations. When we examine the Recur correlations table (see Appendix AS), we discover that eleven of 14 bases have at least one aircraft type with negative correlations between Recur rates and QA manning effectiveness rates, and six with positive correlations. The overall analysis suggests that Repeat and Recur rates are potentially trended with QA manning effectiveness levels at the majority of bases in the study (see Survey, Part-1 Comments, Appendix F). The next metric to be examined is the Safety and Technical Violation Count.

Safety and Technical Violation (STV) Count

The STV Count is a composite metric and is the number of times QA personnel observe either: (1) a person performing an unsafe act (DSV); (2) a person not following technical directives (TDV); or (3) an unsatisfactory condition (UCR). This metric is computed in the same way as DSVs explained earlier. Like the QVI Pass rate, it is a macro-metric and gives maintenance managers quick feedback to enable them to take immediate corrective measure to avoid injury or damage to property.

The STV correlations table in Appendix AL reveals that eight of the 14 bases have a moderate-to-strong negative correlation between STV counts and QA manning effectiveness while six bases have a weak-to-moderate positive correlation between STV counts and QA manning effectiveness. This seems to suggest that there is a relationship across ACC bases for STV counts relative to QA manning effectiveness where as QA manning effectiveness increases, the STV count rate declines possibly due to QA's increased presence influencing personnel to avoid taking shortcuts (see Survey, Part-1 Comments, Appendix F). The next metric we examine is the Technical Data Violation Count.

Technical Data Violation (TDV) Count

The TDV count is a subset of STV counts and is calculated in the same manner. A TDV occurs when an individual performs a task, and either doesn't have technical data with him/her, or fails to follow the procedures according to the technical data. Analysis of the data in Appendix AM reveals that eight of the 14 bases have a moderate-to-strong negative correlation between TDV counts and QA manning effectiveness while only five bases have a weak-to-moderate positive correlation between TDV counts and QA manning effectiveness. This metric is behaving consistently with the STV count. This suggests that there is a correlation across ACC bases for TDV counts relative to QA manning effectiveness (i.e. as QA manning effectiveness increases, the TDV count rate declines) possibly due to QA's increased presence influencing personnel to avoid taking shortcuts (see Survey, Part-1 Comments, Appendix F). The next metric to be examined is the Total Non-Mission Capable for Maintenance Rate.

Total Non-Mission Capable for Maintenance (TNMCM) Rate

The TNMCM Rate metric *is a lagging indicator and is considered to be the most common and useful measure for determining if maintenance is being performed quickly and accurately. It is the average percentage of possessed aircraft that cannot complete their primary assigned mission due to maintenance reasons* (except depot-type maintenance) (AFI 21-101, para 1.10.3.11.2). The correlation table in Appendix AG indicates that twelve of 14 bases exhibited moderate-to-high negative correlations between TNMCM rates and QA manning effectiveness rates in at least one of their assigned aircraft units during at least one lag period. Furthermore, five bases exhibited low-to-moderate positive correlations between TNMCM rates and QA manning effectiveness. An overall analysis suggests that there is a negative correlative trend for TNMCM rates and QA manning effectiveness levels across the bases under study (see Survey, Part-1 Comments, Appendix F). The last metric we will examine is the Technical Order Improvement Submitted Count.

Technical Order Improvement Submitted (TO Imp Submitted) Count

The TO Imp Submitted Count metric reflects the number of instances where technicians submit TO improvement recommendations. Like the DRs Submitted metric, the TO Imp Submitted metric measures the proactive level of personnel within a maintenance organization. Our theory is that the more technical order improvements that are submitted, the more deeply engaged technicians are with their jobs. Analysis of the correlation table in Appendix AK reveals a dichotomous split between and among the

ACC bases in the study with half exhibiting a weak-to-moderate positive correlation between TO Imp Submitted and the calculated QA manning effectiveness and the other half revealing a weak-to-moderate negative correlation between TO Imp Submitted and the calculated QA manning effectiveness. Now that we have examined all of the indicated metrics for a possible linear relationship with QA manning effectiveness, we conduct one last test to determine any significant relationships (see Survey, Part-1 Comments, Appendix F). We will do this in this next and last section of this chapter by employing statistical linear regression.

Regressing the Data

In order to determine linear relationships for the types of data across all bases under study, we performed simple linear regressions on the indicated metrics. Because we are seeking an *interpretive* model to be used at the base level, we aggregated the delimited data in metric areas containing multiple data sets across all assigned aircraft units at each base to get an average measure (i.e. MC, TNMCM, Break, etc.). This enabled us to describe the average behavior of the variable across multiple aircraft types. However, the count-type data did not require this transformation.

We arranged the data into columns for all participating ACC bases in a contemporaneous (no-lag) format with each base and then ran each of the regressions and analyzed the output specifically for level of significance and direction of relationship. Although we had several metrics with respectable R-squared values, the degree of fit is not our most important consideration. This is because, although the R-squared value is considered as a prime factor when determining usefulness of a *predictive* model, we are creating *interpretive* models. Thus R-squares of greater than 0.05 were considered useful as long as the p-value was significant. After all, we can not reasonably expect to have any single independent variable (in our case *QA manning effectiveness*) explain all of the variation for any of the dependent metric variables in the study – there are just too many moving parts in a USAF flying unit. However, the R-squared values do provide useful information nonetheless. One final concern did emerge in our analysis.

In our data we found five of nine metric data types with Durbin-Watson test values that were outside of the normally acceptable level. However, according to Oxley, *although there are transformations that can be applied to the data to try and eliminate this condition, it may not always be successful* (Oxley, 2000). In our study we understand *a priori* that this will most likely be the outcome since our data is serially related. Furthermore, recent studies indicate that *even when heteroskedasticity cannot be eliminated, valid inferences can still be made* (Oxley, 2000). Since we appended our base-level data sets into a single file, we therefore expect serial correlation (see Appendix BT). This may bias these parameters, but Oxley implies that it will not affect our overall conclusions because *it affects efficiency instead of accuracy*.

Interpreting the Data

The QA manning variable is interpreted as an elasticity value for *non-count dependent* metrics. The Elasticity formula is:

$$E_{y,x} = \frac{\Delta Y}{\Delta X} \bullet \frac{X}{Y} = \frac{\%\Delta Y}{\%\Delta X} \text{ (E= expected value; } \Delta \text{=the change in)}$$

So, for our purposes, a one percent increase in the QA Manning value will yield a 0.7 percent decrease in the break rate. This also holds true for the other dependent variables listed in Tables 22 and 23. Conversely, when interpreting the impact on a Count-type metric (see Table 24), the marginal improvement is an amount (e.g. a -0.01 Dropped Object incremental change means that a 100 percent increase in QA Manning Effectiveness will result in one less dropped object at each base). Tables 25 and 26 show the respective compiled information for rate and count data (also refer to Appendixes BW through CG for regression outputs).

Table 22 – Statistically Significant Metrics (rates – part-1)

Variable		Break (rate)	CANN (rate)	Flying Scheduling Effectiveness (rate)	Key Task List Pass (rate)
Intercept	Coefficient	4.087659***	6.074444***	4.4521	4.648305***
	t-stat	14.74	9.82	46.2	67.56
QA Manning	Coefficient	-0.007316***	-0.024384***	-0.003797***	-0.001474**
	t-stat	-2.19	-3.6	-3.27	-1.99
FIGHTER Dummy	Coefficient	-0.937653***	-1.772981***	0.259332***	-0.036116***
	t-stat	-12.4	-22.3	-7.36	-3.01
SPECIAL Dummy	Coefficient	-1.207385***	-3.115764***	0.177958***	-0.032418
	t-stat	-13.07	-12.97	-4.48	-1.33
	Adjusted R-squared	**0.45**	**0.61**	**0.24**	**0.06**
	F-statistic	94.72749	179.9844	35.99621	6.628953

* denotes statistical significance to the 0.1 level, ** denotes statistical significance to the 0.05 level, *** denotes statistical significance to the 0.01 level.

Table 23 – Statistically Significant Metrics (rates – part-2)

Variable		Maintenance Schedule Effectiveness (rate)	QVI Pass (rate)	Repeat (rate)
Intercept	Coefficient	4.748972	4.62219	2.315238
	t-stat	158.54	179.42	3.44
QA Manning	Coefficient	**-0.002095*****	**-0.001238*****	**-0.014351*****
	t-stat	-6.17	-4.23	-1.95
FIGHTER Dummy	Coefficient	0.002535	-0.020465	-0.318716
	t-stat	0.46	-4.01	-3.72
SPECIAL Dummy	Coefficient	-0.079813	0.001102	-0.001338
	t-stat	-4.91	0.13	-0.004
	Adjusted R-squared	**0.1**	**0.18**	**0.05**
	F-statistic	14.05694	26.91791	7.512129

* denotes statistical significance to the 0.1 level, ** denotes statistical significance to the 0.05 level, *** denotes statistical significance to the 0.01 level.

Table 24 – Statistically Significant Metrics (counts)

Variable		Dropped Objects (count)	Safety/Technical Violations (count)
Intercept	Coefficient	2.080573	0.091283
	z-stat	3.34	0.2
QA Manning	Coefficient	**-0.01058†**	**2.479759*****
	z-stat	-1.59	4.94
FIGHTER Dummy	Coefficient	-0.825581	0.220037
	z-stat	-6.62	2.21
SPECIAL Dummy	Coefficient	-1.975846	0.181072
	z-stat	-5.83	0.97
	Adjusted R-squared	**0.14**	**0.12**

† denotes statistical significance at the 0.15 level; * denotes statistical significance to the 0.1 level, ** denotes statistical significance to the 0.05 level, *** denotes statistical significance to the 0.01 level.

Table 25 – Compiled Elasticities for RATE Metrics

Variable	Elasticity	Significance Level
Break	-0.8	0.0135
Cannibalization	-2.6	0.0001
Flying Schedule Effectiveness	-0.3	0.0024
Key Task List Pass	-0.1	0.0628
Maintenance Scheduling Effectiveness	-0.2	0
Quality Verification Inspection Pass	-0.1	0
Repeat	-1.4	0

Table 26 – Compiled Incremental Changes for COUNT Metrics

Variable	Incremental Change	Significance Level
Dropped Objects	-1.1	0.1129
Safety/Technical Violations	2.5	0

An Example Benefit Cost Analysis Using the Dropped Objects Results

A thumbnail benefit cost analysis provides some guidance on the role of QA in reducing costs to the Air Force. This example assumed an annual personnel cost of $75,000 for each QA NCO added. Also, note that the result of adding one NCO would be a four percent increase in QA manning effectiveness until the QA flight reaches 100 percent manning effectiveness. Furthermore, we assumed a conservative average dropped object-cost of $2,000 per event (this includes all costs across the entire value chain – cost of the part, the investigation, the resultant inspections, etc.).

We found that a four percent increase in QA manning effectiveness (adding one NCO to each base's QA staff) suggests that we will have approximately four fewer dropped objects at each base. When applied to a single base, this translated to:

$$\text{Annual Dropped Object Savings} = (-4.4\text{DOPs})*16\text{Bases})*(12\text{Months})*(\$1\text{K}) = \$1{,}689{,}600$$

Next we calculated the costs of adding one NCO to each base:

$$\text{NCO\$\$All Bases}=(\$75000\text{perNCO})*(16\text{bases})=\$1{,}200{,}000$$

Finally we divided the Dropped Object savings by the cost of the "additional" personnel to come up with the Benefit Cost Ratio:

$$\text{Benefit Cost Ratio} = \frac{\$1{,}689{,}600\text{DOPsavings}}{\$1{,}200{,}000\text{NCOcost}} = 1.408$$

Thus with a 1.408 benefit cost ratio for Dropped Objects, the USAF could realize an annual savings of $489 Thousand. This example alone suggests that increasing the QA manning effectiveness (i.e. assigning one more NCO to each ACC base's QA flight against authorized slots) is justified solely on the basis of decreasing Dropped Objects.

Metrics with No Direct Statistical Relationship to QA Manning Effectiveness

Seventeen of the metrics that the subject matter experts in the field indicated in Survey, Part-1 that might be impacted by QA manning effectiveness were found not to have statistically significant relationships. However, even though these metrics did not pass the regression analysis, they should not be ignored by management (see Table 27 and review subject matter experts' comments in Appendix F).

Table 27 – Metrics Not Statistically Significant

Metrics Not Statistically Significant		
Abort (rate)	Flight Mishaps (count)	Maintenance/Operations Deviations (count)
Combined Mishaps (count)	Foreign Object Damage (count)	Personnel Evaluations Pass (rate)
Deficiency Reports Submitted (count)	Ground Mishaps (count)	Phase Dock Key Task Listing Inspection Pass (rate)
Detected Safety Violations (count)	In-flight Emergencies (count)	Recur (rate)
Fix (rate)	Mission Capable (rate)	Technical Data Violations (count)
Technical Order Improvements Submitted (count)	Total Non Mission Capable for Maintenance (rate)	

Overview of the Next Chapter

Chapter VI concludes this research study where we answer the three investigative questions and the research question. We also present managerial implications. Finally, we review the research limitations and provide recommendations for future research.

VI. Conclusions and Recommendations

Introduction

This chapter discusses the conclusions drawn from the research by addressing each of the investigative questions (IQ) that will in-turn answer the research question. We will then present managerial implications and research limitations with the study. Lastly, we will discuss potential areas for future research.

Findings

This section answers the questions posited in Chapter I. IQ-1 and IQ-2 are answered through the Delphi survey as analyzed in Chapter IV, while IQ-3 is answered through a statistical analysis of the metric data indicated in Chapter V.

Investigative Question #1: Which key unit- and wing-level metrics are most affected by an empty QA manning position or a mismatch?

This was answered through a Delphi survey. Thirty-four field- and headquarters-level subject matter experts performed a computer-based qualitative survey where they indicated on a six-point LIKERT scale how they felt the aircraft/munitions maintenance QA function impacted each of fifteen listed metrics. The Delphi panel experts were then given the opportunity to provide additional metrics which they felt would be significantly impacted by QA effectiveness. The results were then aggregated to develop a candidate list of metrics for further analysis. In the analysis, it was not surprising that the majority of resultant metrics on the list having a 50 percent or greater median value as determined by the Delphi survey, were comprised of metrics already tracked at unit and headquarters levels (see Appendix G for a list of all indicated metrics and their significance levels).

Investigative Question #2: What is the effectiveness of a person without the Unit Manning Document-authorized Air Force Specialty Code (AFSC) when performing the QA duties of another AFSC (how good is the fit)?

This question was answered through a Delphi survey. Thirty-two subject matter experts completed one round of the Delphi survey and 14 completed two rounds. A supplemental Delphi survey was also completed to account for AFSCs that were identified as new information after the initial aggregation of manning information from the units at the beginning of the study. Fourteen subject matter experts completed this supplemental survey. The result was the creation of a matrix that allows maintenance managers to determine with some confidence the potential effectiveness of an individual performing in a QA position designated for an AFSC other than the one they possess (see Table 14). This tool also gives the maintenance manager the ability to analyze the entire QA flight for effectiveness to gain an overall flight manning effectiveness. We did this using the following rules:

1) If an authorized QA manpower position was filled with a person possessing the AFSC called for in the UMD, the position effectiveness was rated at 100 percent effective (e.g. a person with AFSC 2A5X3 was assigned to a 2A5X3 QA position).
2) If the person filling a QA position possessed an AFSC other than that called for in the UMD, the appropriate effectiveness level derived from the QA manning effectiveness charts was assigned to that position (e.g. a person with AFSC

2A5X3 was assigned to a 2A5X1 QA position would be rated at an effectiveness level of 61 percent as derived from the QA Manning Effectiveness Matrix).

3) Instances where UMD manpower positions were double-filled (i.e. two persons possessing AFSC 2A3X3 were assigned against one UMD-authorized 2A3X3 manpower position), were rated as 100 percent effective. The rationale for this was that, although not authorized for in the UMD, these “extra” personnel provide capability and more capability “should be better”, thus proper credit should be applied to possibly offset deficiencies in other areas.
4) All unfilled QA positions were rated as zero percent effective.

The results of this analysis were then applied to each of 16 QA flights’ historical manning to achieve the overall by-month manning effectiveness fit for a 24-month period. We applied these results statistically against accumulated metrics for data types identified in Investigative Question 1.

Investigative Question #3: What is the relationship between QA manning effectiveness and the key unit and wing-level metrics?

This question was answered first through a quantitative correlation analysis, together with a qualitative interpretation using time lags to address latent variable characteristics. We first performed a macro-level analysis on unit-level correlation relationships between each of the dependant variables and calculated QA manning effectiveness at each base. We then subjected each metric data type to a cross-sectional statistical analysis across all 16 participating Air Combat Command bases to determine relationships.

The statistical regression analysis uncovered nine of the 26 metrics identified by the subject matter experts in the Delphi survey as being statistically significant (see Tables 25 and 26). We then performed an example benefit cost analysis for changes in QA manning effectiveness as they related to Dropped Objects. This analysis, using hypothetical cost values, presented compelling evidence for maintenance managers to scrutinize each decision to leave a manning slot empty, or to install a person with the other than UMD-authorized credentials when manning individual QA positions. These tradeoff investigations can help determine which management mitigating strategies to employ to offset these potentialities.

The impact that maintenance QA has on key unit- and wing-level metrics is summed up very eloquently in the following e-mail quote from one of our maintainer experts in the field:

> *Chief Moore,*
>
> *Concerning our phone conversation about QA Effectiveness, I would like to voice an opinion I have from 22 years of aircraft maintenance experience. I have worked as a ground crew member, assistant crew chief, crew chief, branch trainer, quality assurance inspector, shift supervisor, flight chief and I now work in wing safety preventing FOD/ DOP and flight related mishaps. I know the playing field inside and out. I have felt the pain, instilled and facilitated it concerning quality assurance, and the impact it has on the aircraft maintenance community.*
>
> *Quality Assurance's presence impacts the maintenance community by instilling the old <stuff> rolls down hill theory. When Quality Assurance discovers or is informed of a trend that is not IAW TO guidance, they level the playing field by letting the units know that they will be putting emphasis on that area. The units respond by ensuring the area is in compliance with AF directives. Any breach in the*

agreement will surface quickly as QA holds up their end of the bargain by identifying any more discrepancies. Those discrepancies are then disseminated by the leadership when the quality inspection result is presented to the unit. In turn, actions are taken to correct the unsatisfactory condition.

v/r
MSgt Webb
2 BW FOD/DOP Prevention NCO

Recommendations for Action

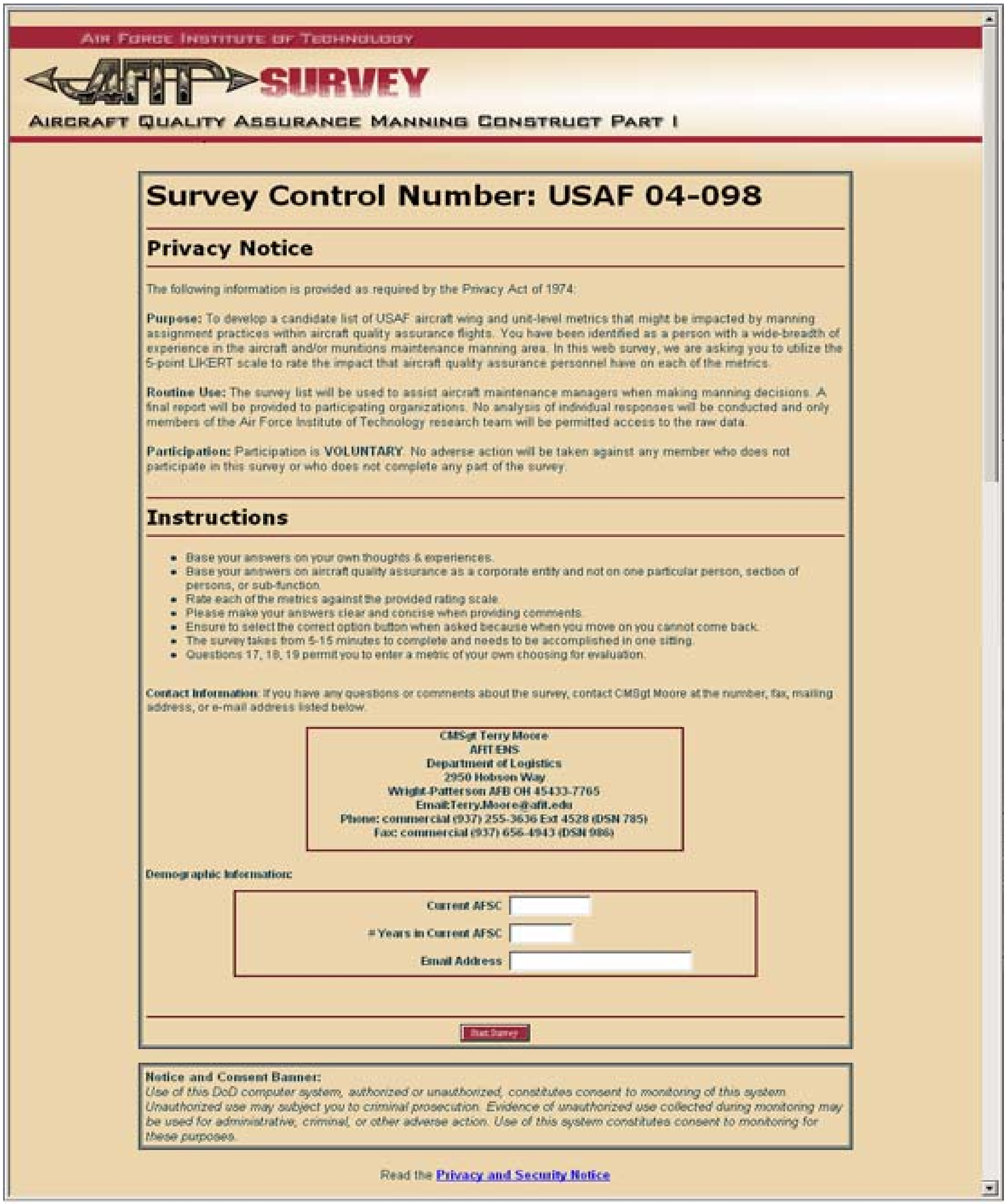
We propose the following recommendations for action. Note that they are not without interpretation and thus should not be followed blindly.

1) Deploy the QA Manning Effectiveness Matrix and instructions to field QA units to enable them to calculate their current overall QA manning effectiveness rates.
2) Each unit could use the effectiveness matrix on an individual basis to determine the effectiveness of a person possessing a "mismatch" AFSC would be in a QA position. This will enable QA managers faced with recurring shortfalls to make more informed decisions when assigning personnel from high-demand, low-density specialties.
3) Each unit could perform an analysis of their key unit- and wing-level metrics for presence of trends or to uncover areas where they are consistently below standards.
4) To uncover useful vectors to apply management attention to, each unit could perform a statistical regression through their analysis shop to determine the strength and direction of any linear relationships with the calculated QA manning effectiveness. This will help them rule in/out low QA manning effectiveness as a potential contributing factor to deficient areas indicated by their metrics.

Future Research

Future research efforts could concentrate on performing a Benefit Cost Ratio analysis with other military or civilian organizations with high-demand, low-density resources. This would provide unit managers with empirical data to support manning decisions. Also, the metric relationships that were indicated in the study could possibly be investigated through a structural equation modeling technique to uncover potential additional linkages. Lastly, this methodology could be applied to other low-density, high-demand functions to uncover potential impacts in order to develop strategies to mitigate problems before they can occur or worsen.

Appendix A: Delphi Computer-Based Survey – Part-1



Air Force Institute of Technology

AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

Survey Control Number: USAF 04-098

Privacy Notice

The following information is provided as required by the Privacy Act of 1974:

Purpose: To develop a candidate list of USAF aircraft wing and unit-level metrics that might be impacted by manning assignment practices within aircraft quality assurance flights. You have been identified as a person with a wide-breadth of experience in the aircraft and/or munitions maintenance manning area. In this web survey, we are asking you to utilize the 5-point LIKERT scale to rate the impact that aircraft quality assurance personnel have on each of the metrics.

Routine Use: The survey list will be used to assist aircraft maintenance managers when making manning decisions. A final report will be provided to participating organizations. No analysis of individual responses will be conducted and only members of the Air Force Institute of Technology research team will be permitted access to the raw data.

Participation: Participation is **VOLUNTARY**. No adverse action will be taken against any member who does not participate in this survey or who does not complete any part of the survey.

Instructions

- Base your answers on your own thoughts & experiences.
- Base your answers on aircraft quality assurance as a corporate entity and not on one particular person, section of persons, or sub-function.
- Rate each of the metrics against the provided rating scale.
- Please make your answers clear and concise when providing comments.
- Ensure to select the correct option button when asked because when you move on you cannot come back.
- The survey takes from 5-15 minutes to complete and needs to be accomplished in one sitting.
- Questions 17, 18, 19 permit you to enter a metric of your own choosing for evaluation.

Contact Information: If you have any questions or comments about the survey, contact CMSgt Moore at the number, fax, mailing address, or e-mail address listed below.

CMSgt Terry Moore
AFIT ENS
Department of Logistics
2950 Hobson Way
Wright-Patterson AFB OH 45433-7765
Email:Terry.Moore@afit.edu
Phone: commercial (937) 255-3636 Ext 4528 (DSN 785)
Fax: commercial (937) 656-4943 (DSN 986)

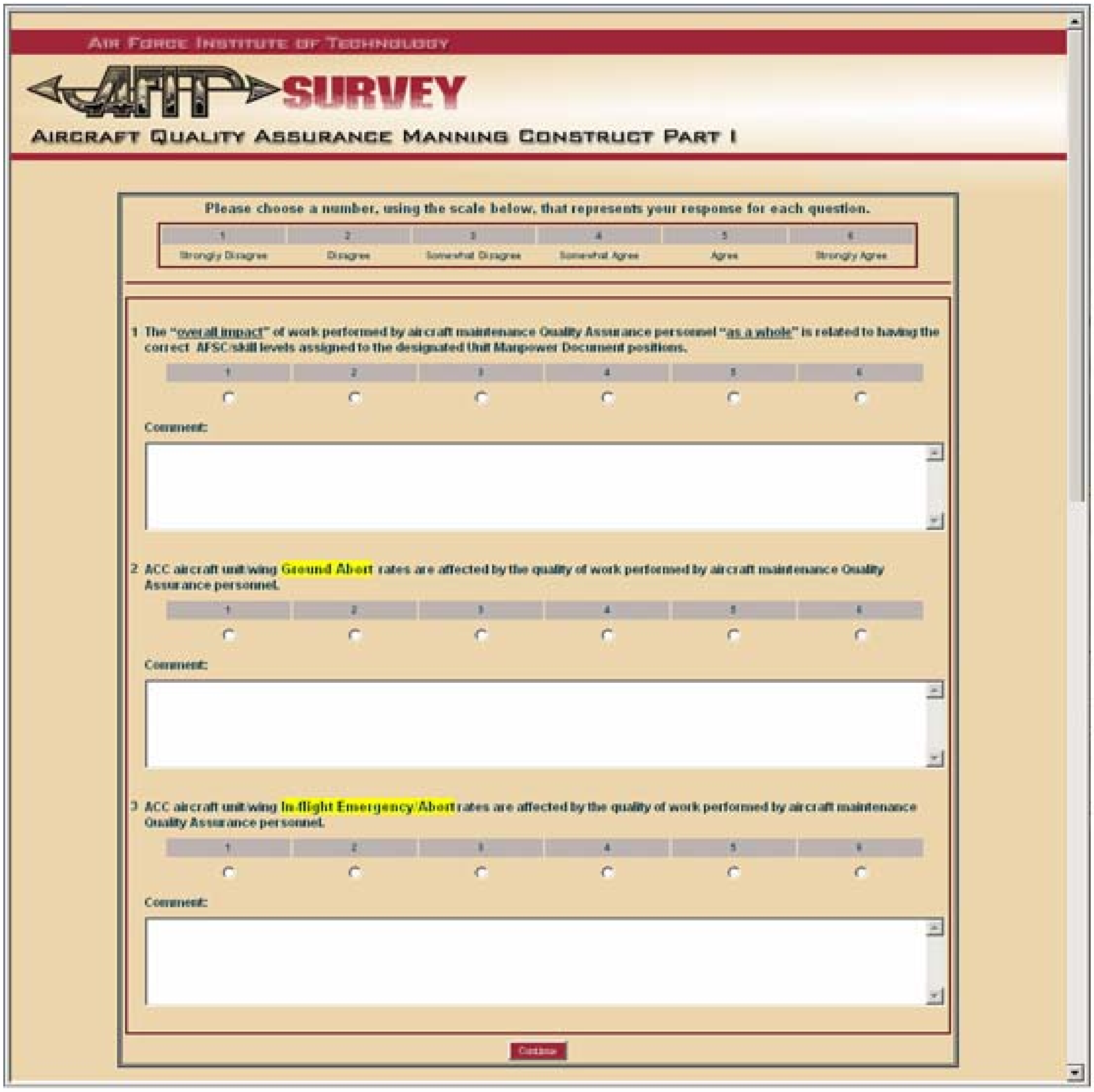
Demographic Information:

Current AFSC

\# Years in Current AFSC

Email Address

Start Survey


AIR FORCE INSTITUTE OF TECHNOLOGY

AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

Please choose a number, using the scale below, that represents your response for each question.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

1 The "overall impact" of work performed by aircraft maintenance Quality Assurance personnel "as a whole" is related to having the correct AFSC/skill levels assigned to the designated Unit Manpower Document positions.

1	2	3	4	5	6

Comment:

2 ACC aircraft unit/wing Ground Abort rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

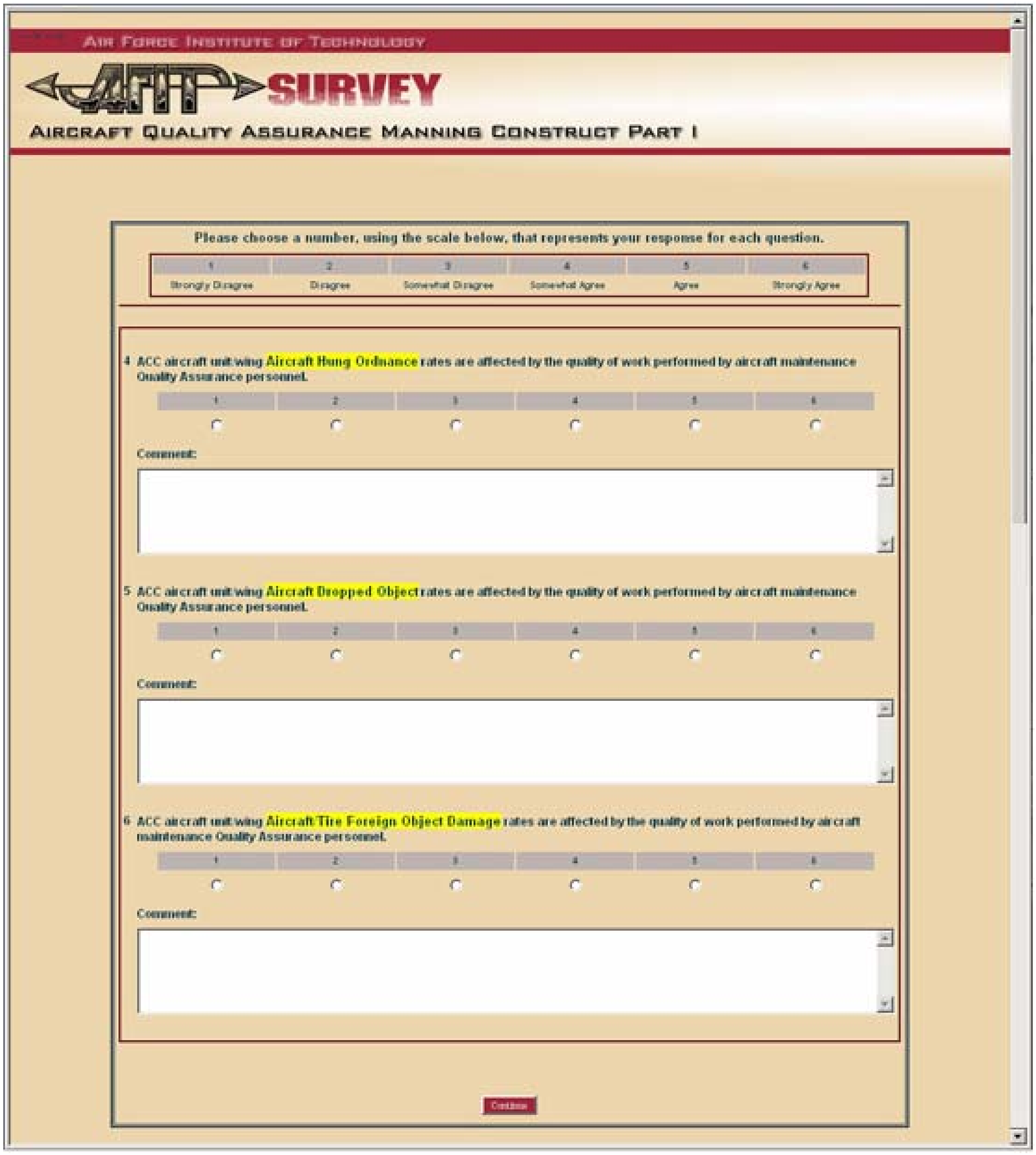
Comment:

3 ACC aircraft unit/wing In-flight Emergency/Abort rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

Comment:

Continue



AIR FORCE INSTITUTE OF TECHNOLOGY

AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

Please choose a number, using the scale below, that represents your response for each question.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

4 ACC aircraft unit/wing Aircraft Hung Ordnance rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

Comment:

5 ACC aircraft unit/wing Aircraft Dropped Object rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

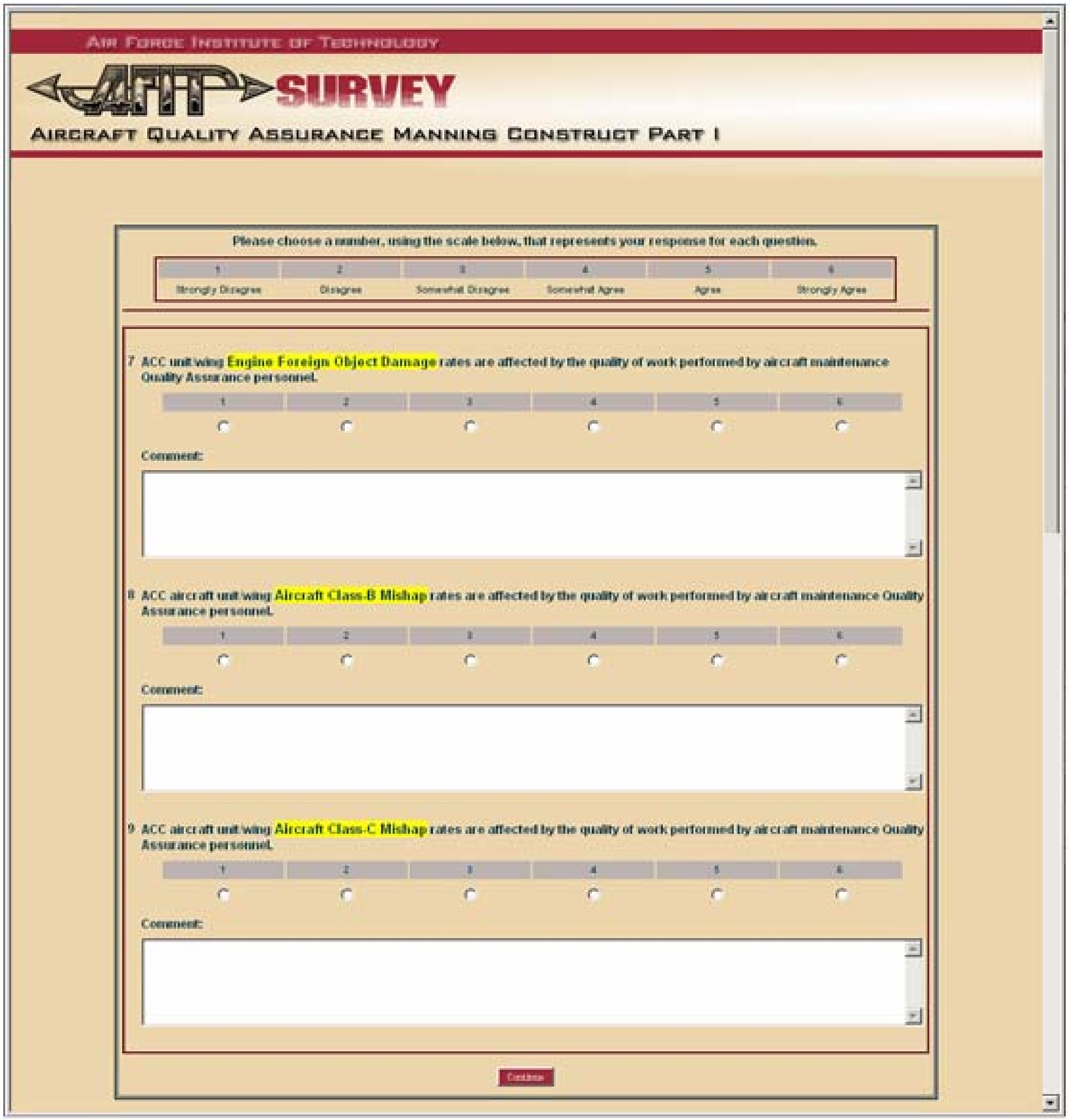
Comment:

6 ACC aircraft unit/wing Aircraft/Tire Foreign Object Damage rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

Comment:

Continue



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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

Please choose a number, using the scale below, that represents your response for each question.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

7 ACC unit/wing **Engine Foreign Object Damage** rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

Comment:

8 ACC aircraft unit/wing **Aircraft Class-B Mishap** rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

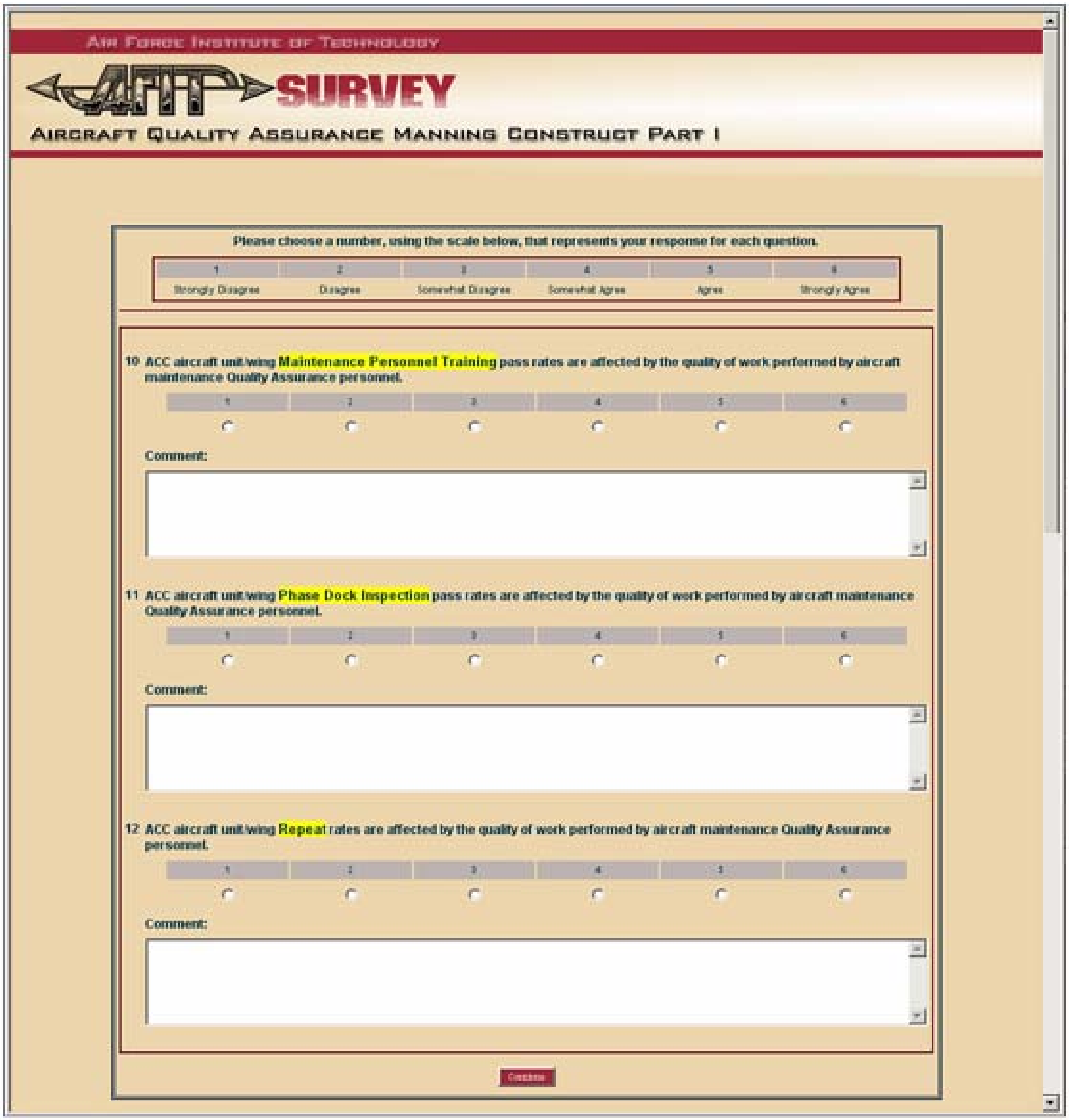
Comment:

9 ACC aircraft unit/wing **Aircraft Class-C Mishap** rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

Comment:

Continue



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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

Please choose a number, using the scale below, that represents your response for each question.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

10 ACC aircraft unit/wing **Maintenance Personnel Training** pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

Comment:

11 ACC aircraft unit/wing **Phase Dock Inspection** pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

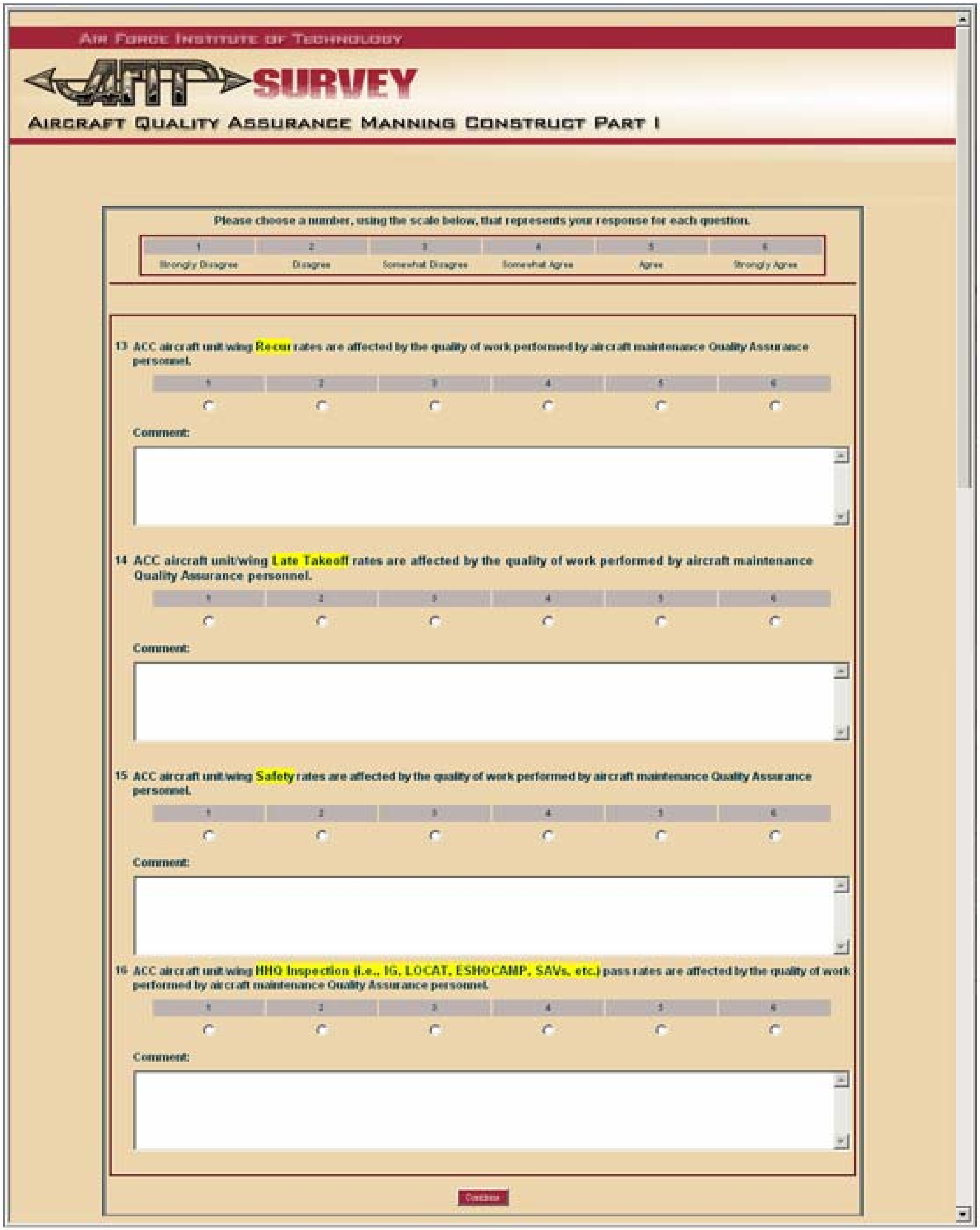
Comment:

12 ACC aircraft unit/wing **Repeat** rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

Comment:

Continue


Air Force Institute of Technology

AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

Please choose a number, using the scale below, that represents your response for each question.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

13 ACC aircraft unit/wing Recur rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

Comment:

14 ACC aircraft unit/wing Late Takeoff rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

Comment:

15 ACC aircraft unit/wing Safety rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

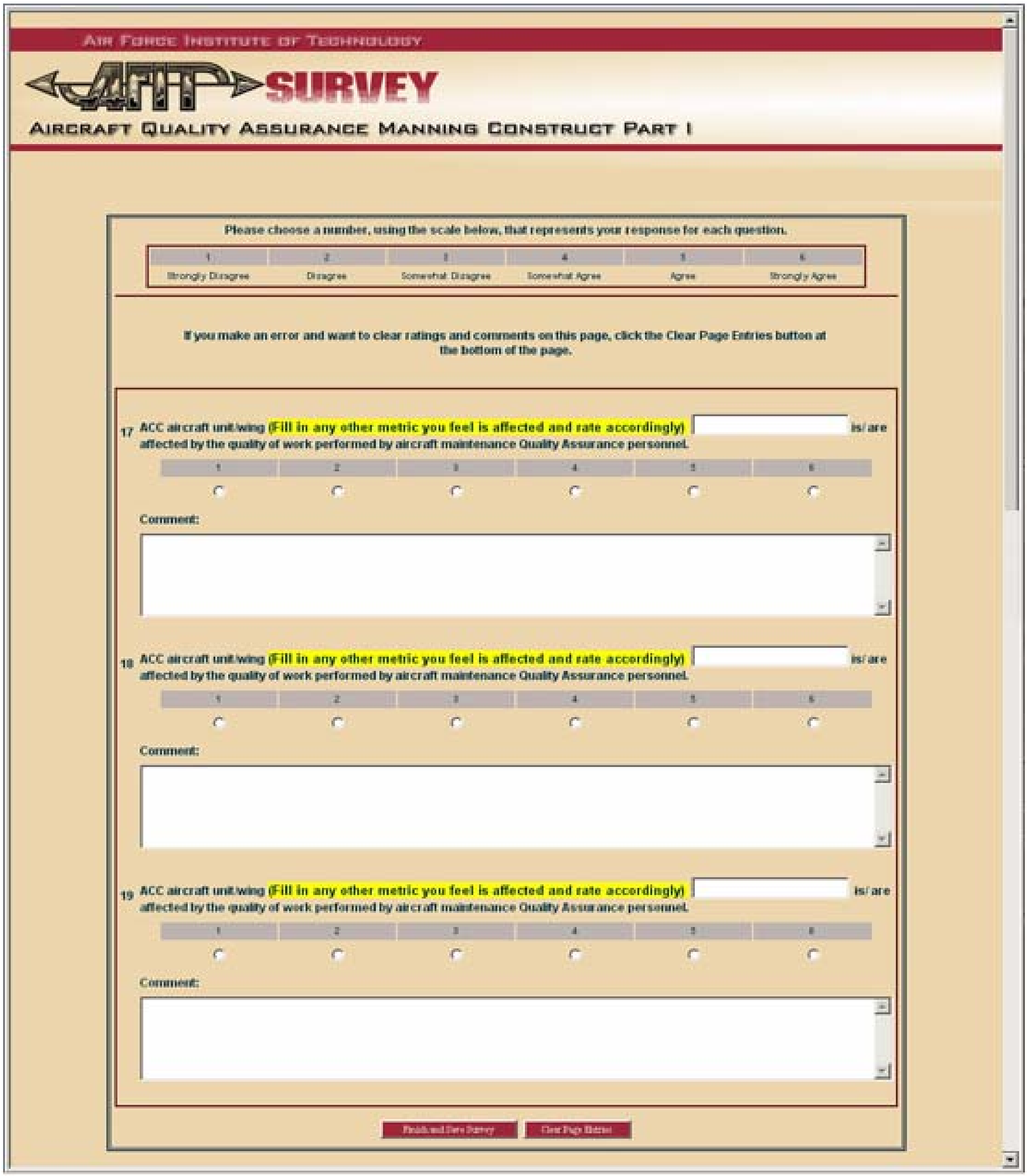
Comment:

16 ACC aircraft unit/wing HHQ Inspection (i.e., IG, LOCAT, ESHOCAMP, SAVs, etc.) pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6

Comment:

Continue



Air Force Institute of Technology

AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

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1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

If you make an error and want to clear ratings and comments on this page, click the Clear Page Entries button at the bottom of the page.

17 ACC aircraft unit/wing (Fill in any other metric you feel is affected and rate accordingly) ______ is/are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

Comment:

18 ACC aircraft unit/wing (Fill in any other metric you feel is affected and rate accordingly) ______ is/are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

Comment:

19 ACC aircraft unit/wing (Fill in any other metric you feel is affected and rate accordingly) ______ is/are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

1	2	3	4	5	6
○	○	○	○	○	○

Comment:

Finish and Save Survey | Clear Page Entries


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Aircraft Quality Assurance Manning Construct Part I
Thank you for completing this survey.
All information is strictly confidential.
Close Survey

Appendix B: Delphi Computer-Based Survey – Part-2

AIR FORCE INSTITUTE OF TECHNOLOGY

AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

Survey Control Number: USAF 04-098

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- Rate each of the metrics against the provided rating scale.
- Please make your answers clear and concise when providing comments.
- Ensure to select the correct option button when asked because when you move on you cannot come back.
- The survey takes from 5-15 minutes to complete and needs to be accomplished in one sitting.
- Questions 17, 18, 19 permit you to enter a metric of your own choosing for evaluation.

Contact Information: If you have any questions or comments about the survey, contact CMSgt Moore at the number, fax, mailing address, or e-mail address listed below.

CMSgt Terry Moore
AFIT/ENS
Department of Logistics
2950 Hobson Way
Wright-Patterson AFB OH 45433-7765
Email:Terry.Moore@afit.edu
Phone: commercial (937) 255-3636 Ext 4528 (DSN 785)
Fax: commercial (937) 656-4943 (DSN 986)

Demographic Information:

Current AFSC ______

 # Years in Current AFSC ______

Email Address ______

Start Survey

Notice and Consent Banner:
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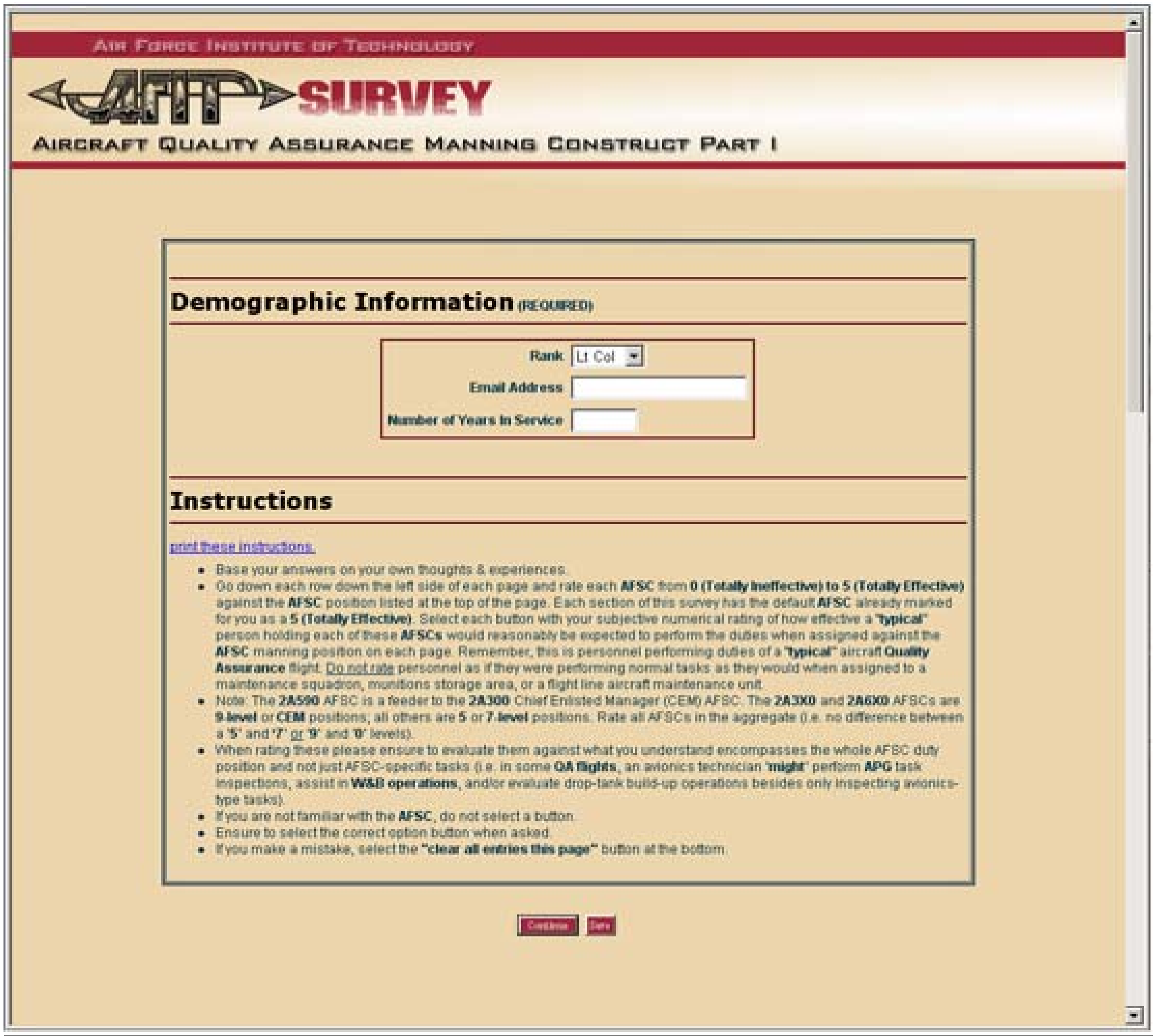
Read the **Privacy and Security Notice**



AIR FORCE INSTITUTE OF TECHNOLOGY

AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

Demographic Information (REQUIRED)

Rank: Lt Col

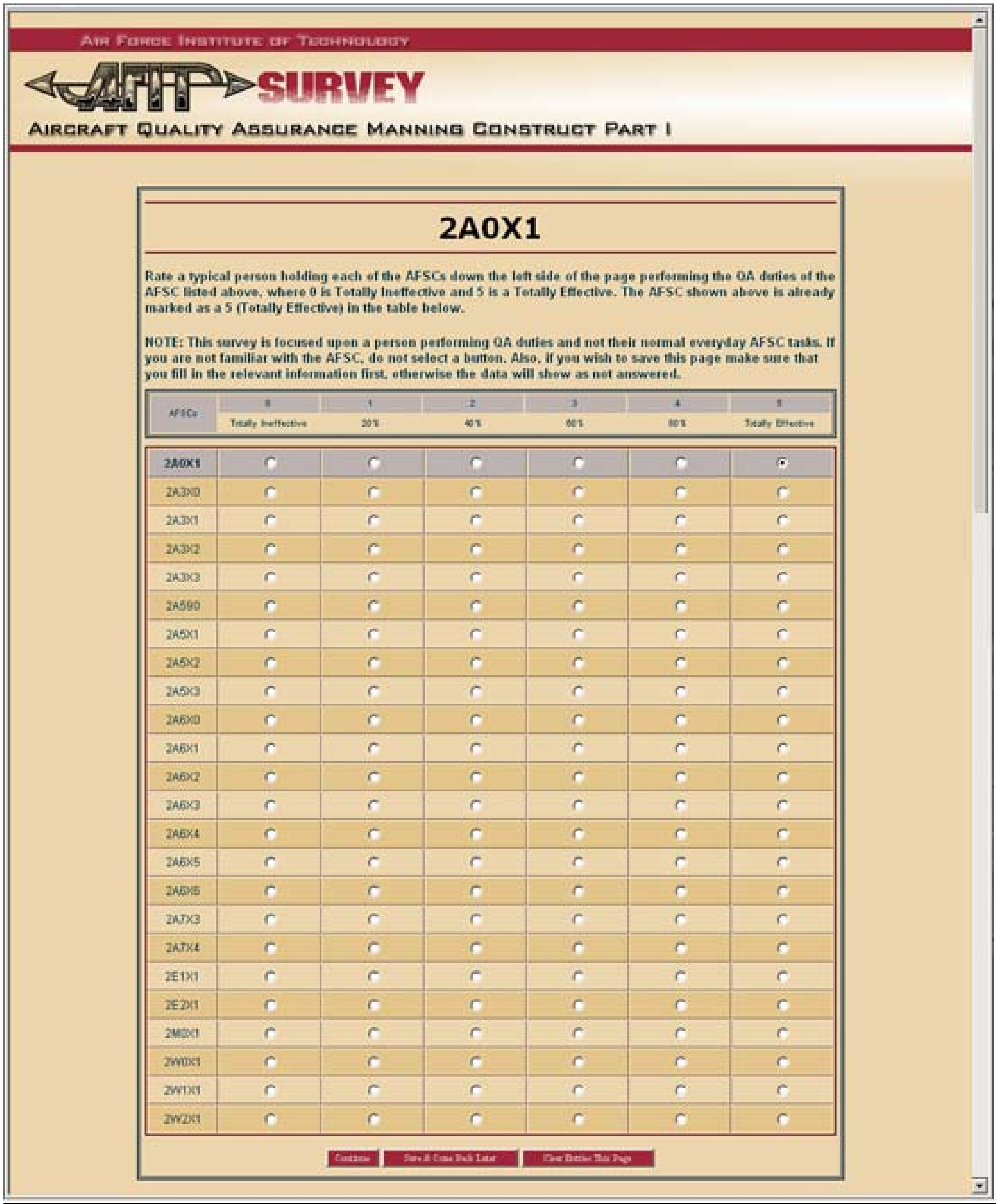
Email Address:

Number of Years In Service:

Instructions

print these instructions.

- Base your answers on your own thoughts & experiences.
- Go down each row down the left side of each page and rate each **AFSC** from **0 (Totally Ineffective) to 5 (Totally Effective)** against the **AFSC** position listed at the top of the page. Each section of this survey has the default **AFSC** already marked for you as a **5 (Totally Effective)**. Select each button with your subjective numerical rating of how effective a **"typical"** person holding each of these **AFSCs** would reasonably be expected to perform the duties when assigned against the **AFSC** manning position on each page. Remember, this is personnel performing duties of a **"typical"** aircraft **Quality Assurance** flight. Do not rate personnel as if they were performing normal tasks as they would when assigned to a maintenance squadron, munitions storage area, or a flight line aircraft maintenance unit.
- Note: The **2A590** AFSC is a feeder to the **2A300** Chief Enlisted Manager (CEM) AFSC. The **2A3X0** and **2A6X0** AFSCs are **9-level** or **CEM** positions; all others are **5** or **7-level** positions. Rate all AFSCs in the aggregate (i.e. no difference between a **'5'** and **'7'** or **'9'** and **'0'** levels).
- When rating these please ensure to evaluate them against what you understand encompasses the whole AFSC duty position and not just AFSC-specific tasks (i.e. in some **QA flights**, an avionics technician **'might'** perform **APG** task inspections, assist in **W&B operations**, and/or evaluate drop-tank build-up operations besides only inspecting avionics-type tasks).
- If you are not familiar with the **AFSC**, do not select a button.
- Ensure to select the correct option button when asked.
- If you make a mistake, select the **"clear all entries this page"** button at the bottom.



AIR FORCE INSTITUTE OF TECHNOLOGY

AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

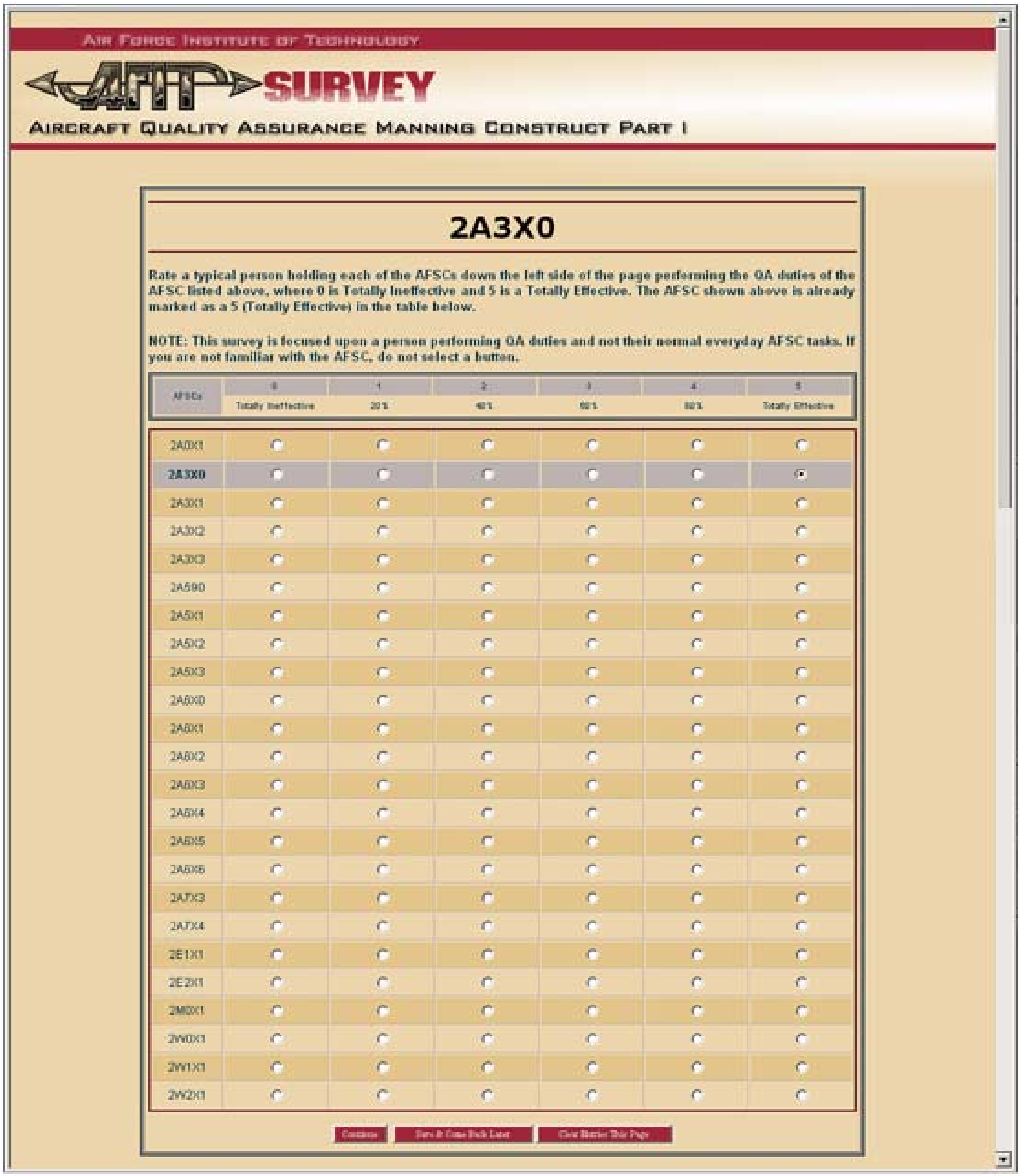
2A0X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

NOTE: This survey is focused upon a person performing QA duties and not their normal everyday AFSC tasks. If you are not familiar with the AFSC, do not select a button. Also, if you wish to save this page make sure that you fill in the relevant information first, otherwise the data will show as not answered.

AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1						
2A3X0						
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						

Continue | Save & Come Back Later | Clear Entries This Page


AIR FORCE INSTITUTE OF TECHNOLOGY

AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A3X0

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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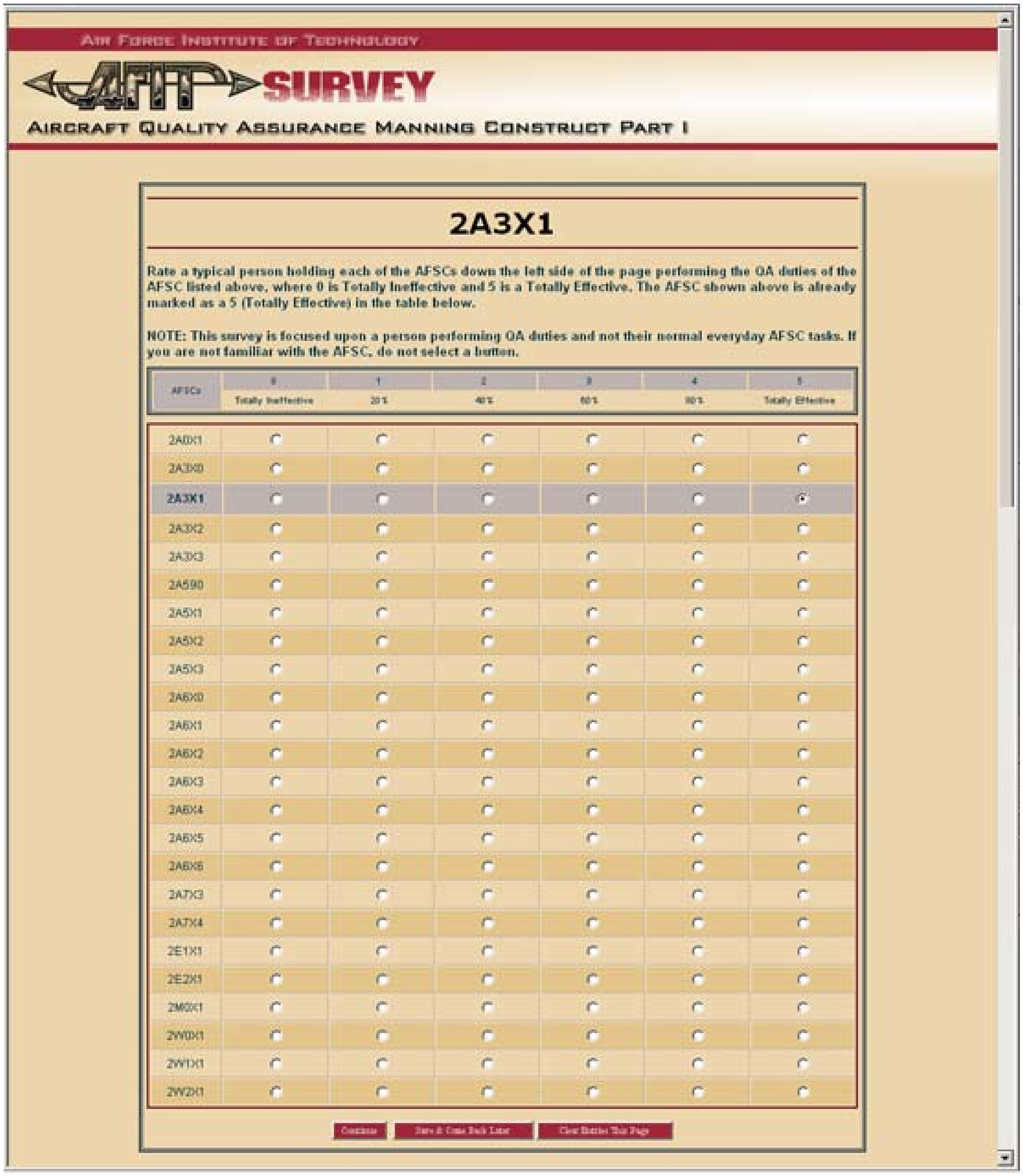
AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	●
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○


Air Force Institute of Technology
AFIT SURVEY
Aircraft Quality Assurance Manning Construct Part I
2A3X1
Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.
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AFSCs
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5 Totally Effective
2A0X1
2A3X0
2A3X1
2A3X2
2A3X3
2A590
2A5X1
2A5X2
2A5X3
2A6X0
2A6X1
2A6X2
2A6X3
2A6X4
2A6X5
2A6X6
2A7X3
2A7X4
2E1X1
2E2X1
2M0X1
2W0X1
2W1X1
2W2X1
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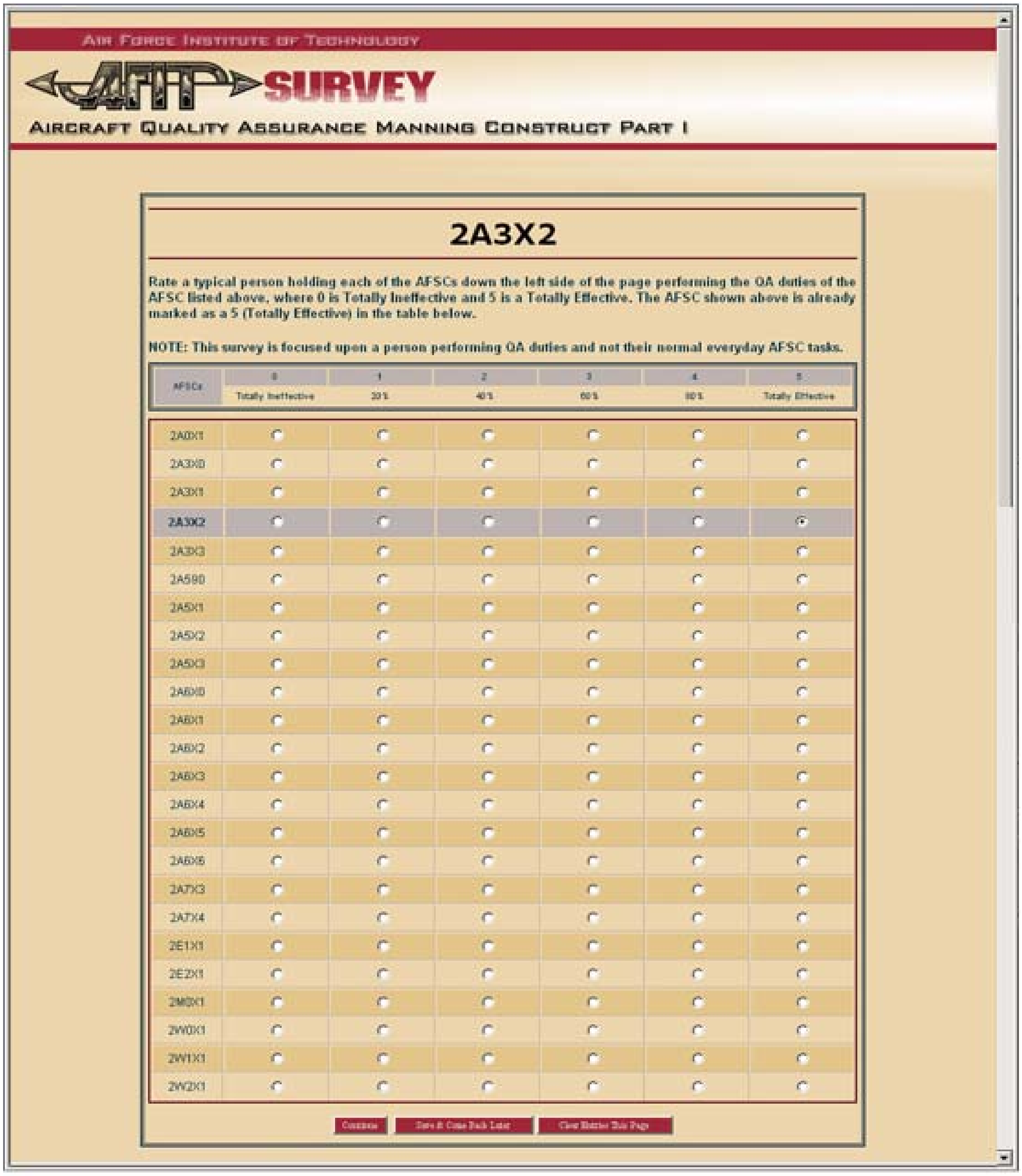

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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A3X2

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

NOTE: This survey is focused upon a person performing QA duties and not their normal everyday AFSC tasks.

AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1						
2A3X0						
2A3X1						
2A3X2						◉
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						

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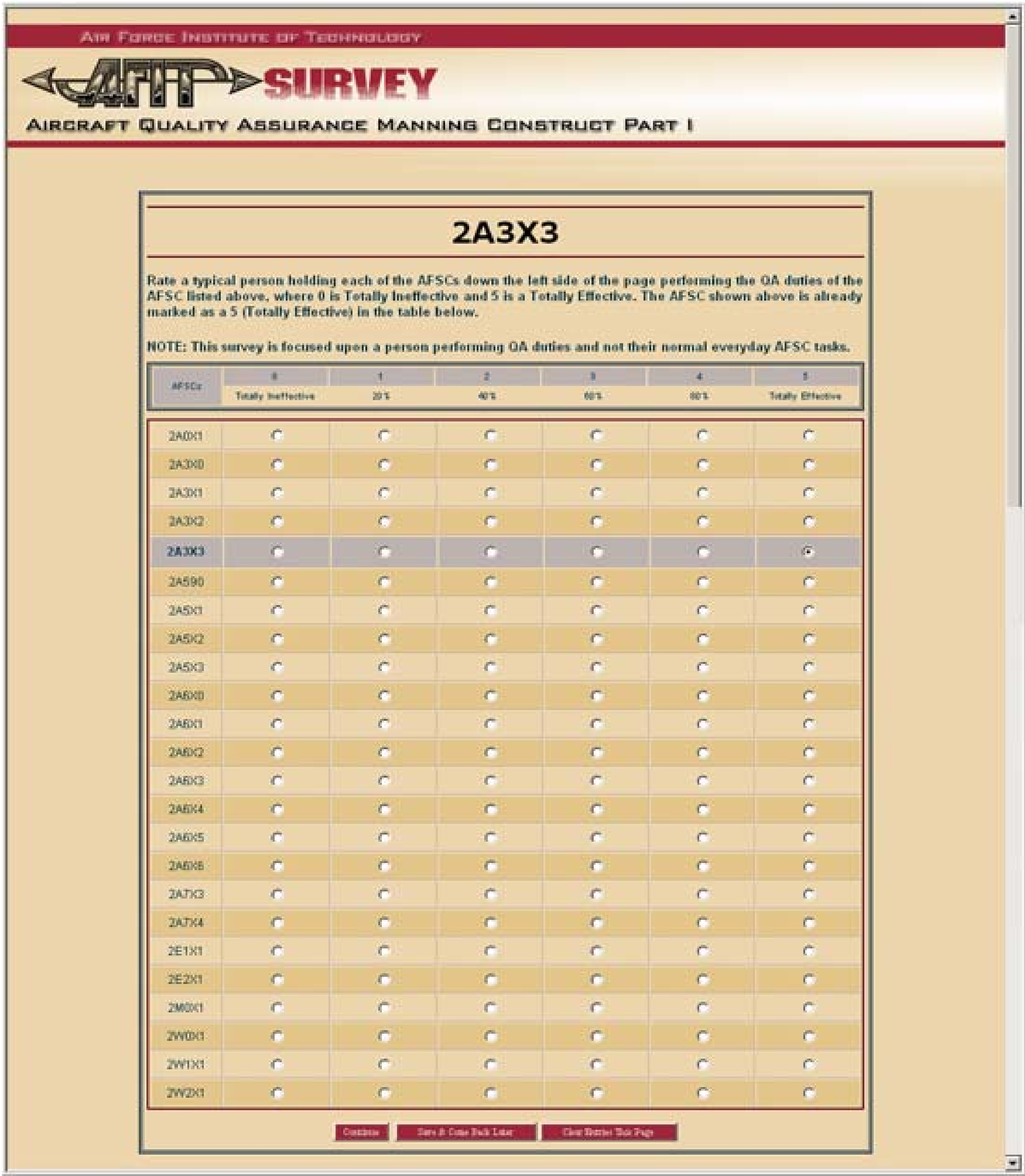

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SURVEY

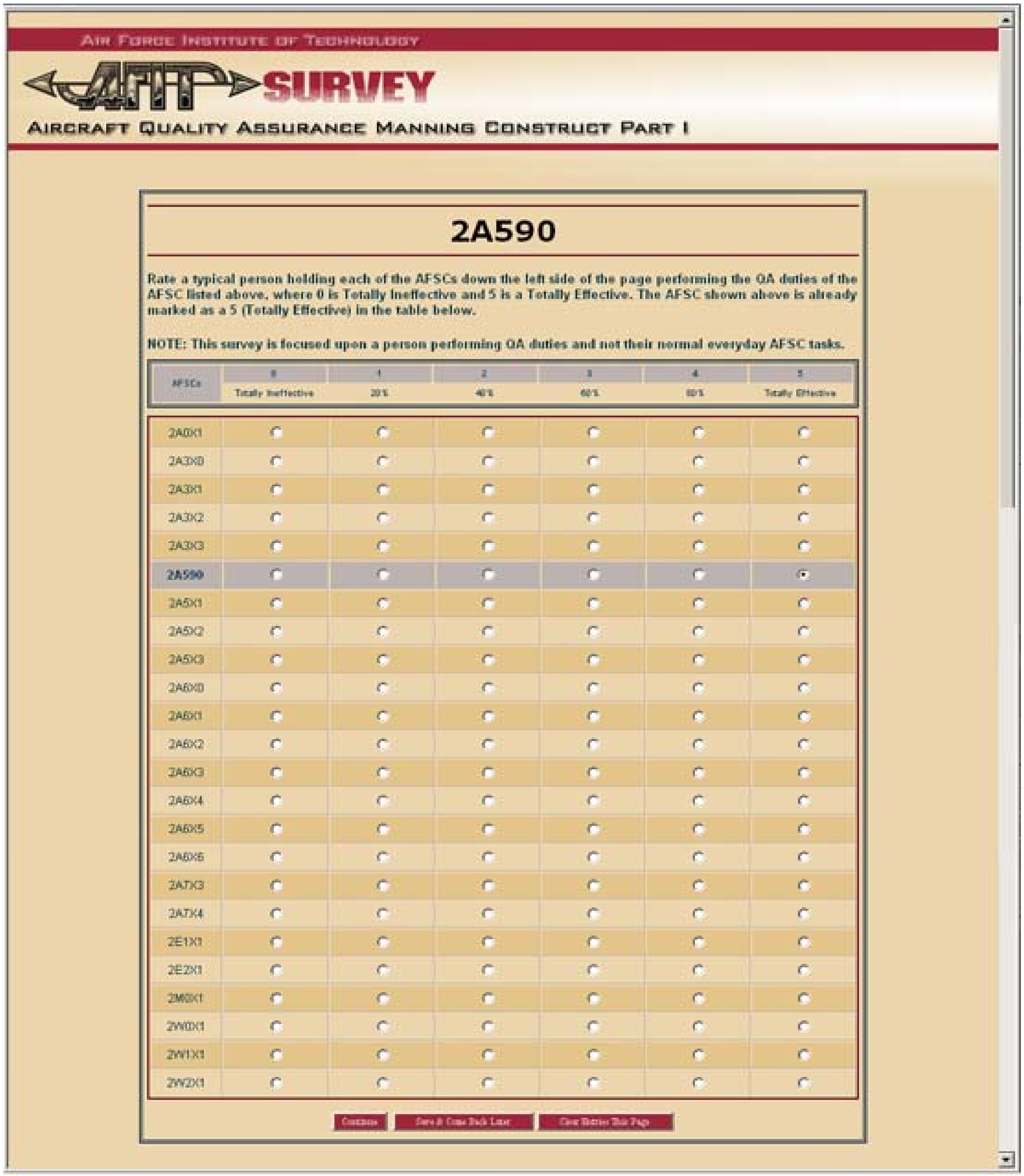
AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A3X3

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

NOTE: This survey is focused upon a person performing QA duties and not their normal everyday AFSC tasks.

AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	◉
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○



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AFIT SURVEY
Aircraft Quality Assurance Manning Construct Part I
2A590
Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.
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AFSCs
0 Totally Ineffective
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4 80%
5 Totally Effective
2A0X1
2A3X0
2A3X1
2A3X2
2A3X3
2A590
2A5X1
2A5X2
2A5X3
2A6X0
2A6X1
2A6X2
2A6X3
2A6X4
2A6X5
2A6X6
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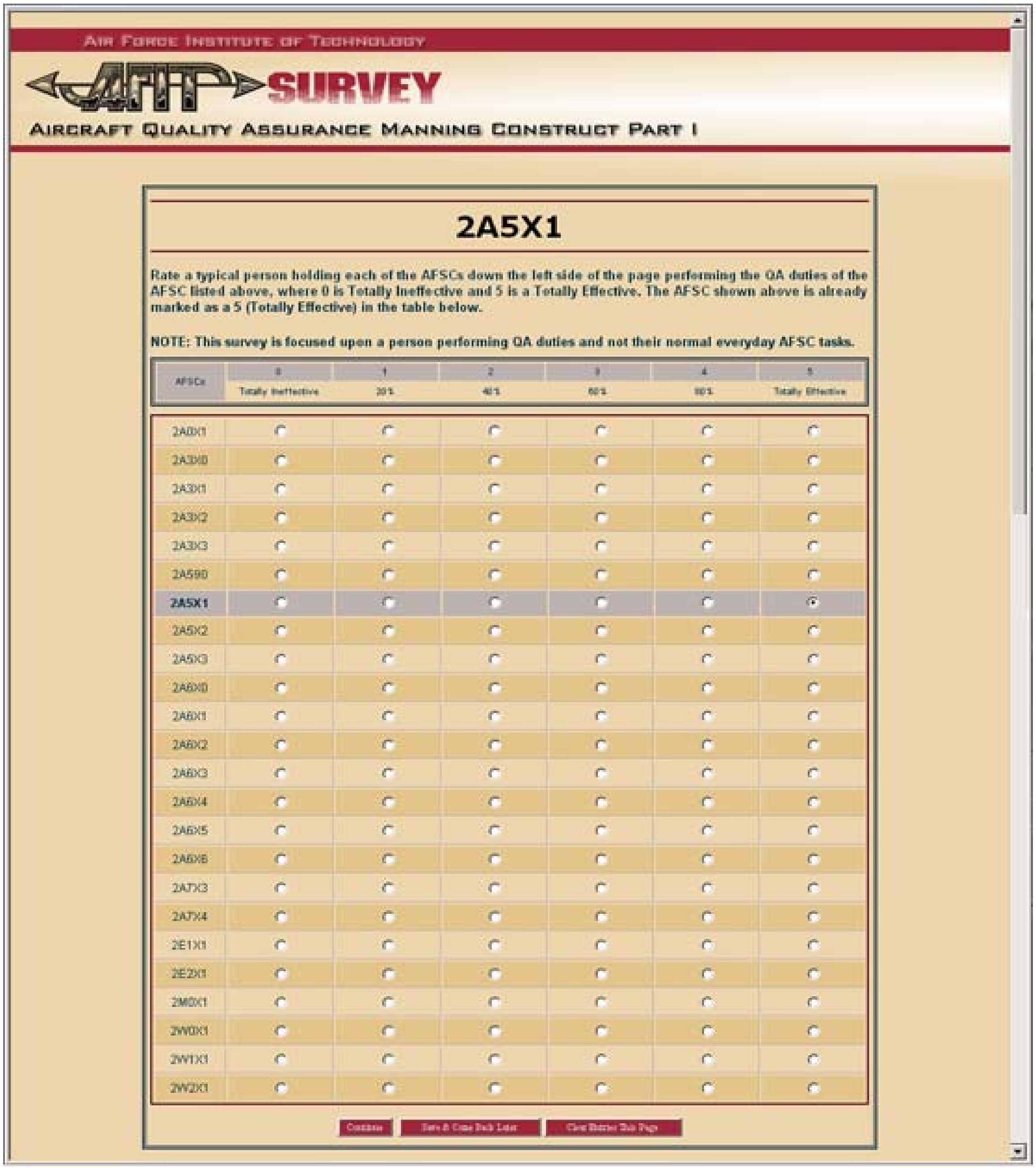
2W1X1
2W2X1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AFIT SURVEY

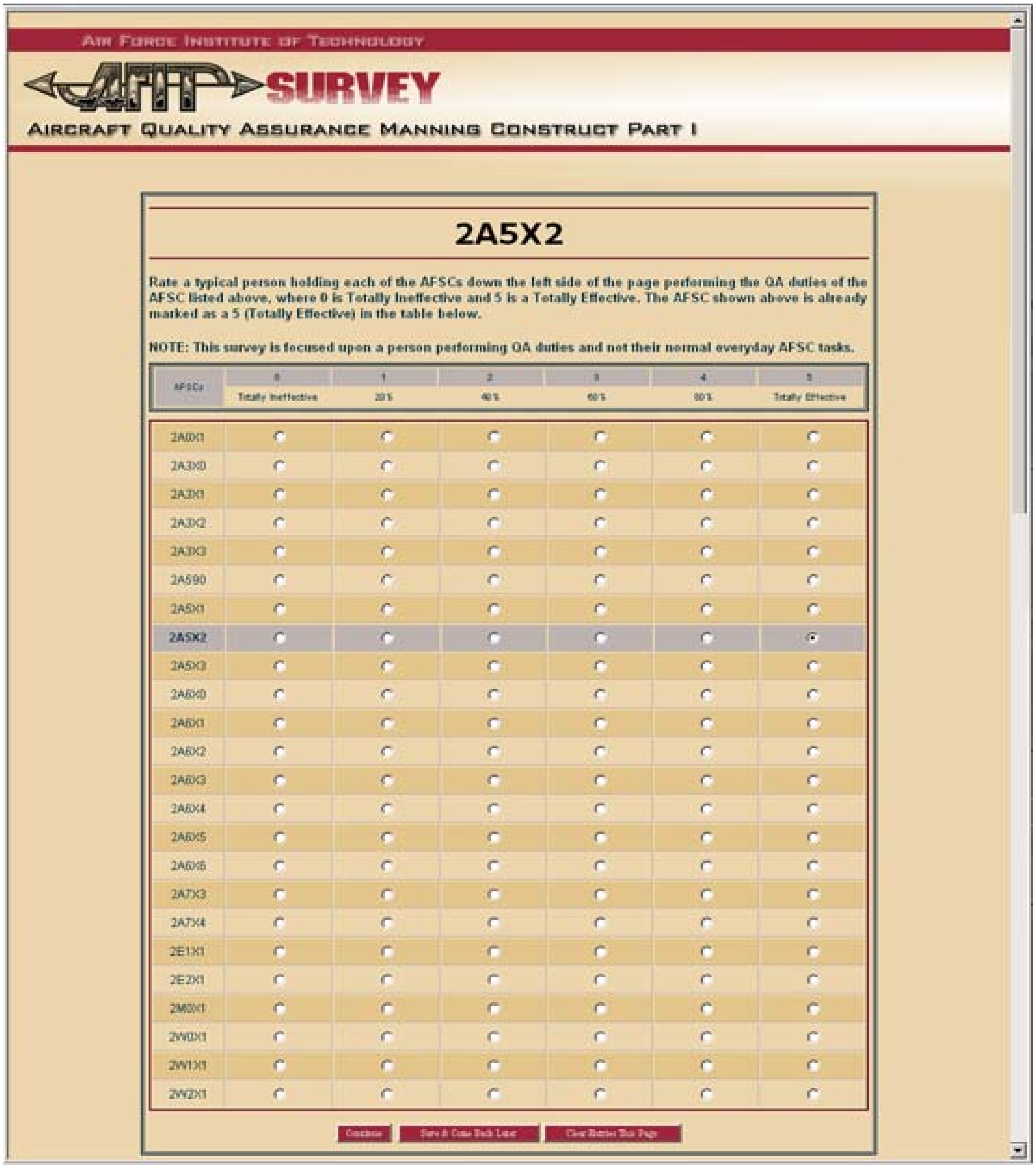
Aircraft Quality Assurance Manning Construct Part I

2A5X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

NOTE: This survey is focused upon a person performing QA duties and not their normal everyday AFSC tasks.

AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1						
2A3X0						
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						●
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						


Air Force Institute of Technology
AFIT SURVEY
Aircraft Quality Assurance Manning Construct Part I
2A5X2
Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.
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AFSCs
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4 80%
5 Totally Effective
2A0X1
2A3X0
2A3X1
2A3X2
2A3X3
2A590
2A5X1
2A5X2
2A5X3
2A6X0
2A6X1
2A6X2
2A6X3
2A6X4
2A6X5
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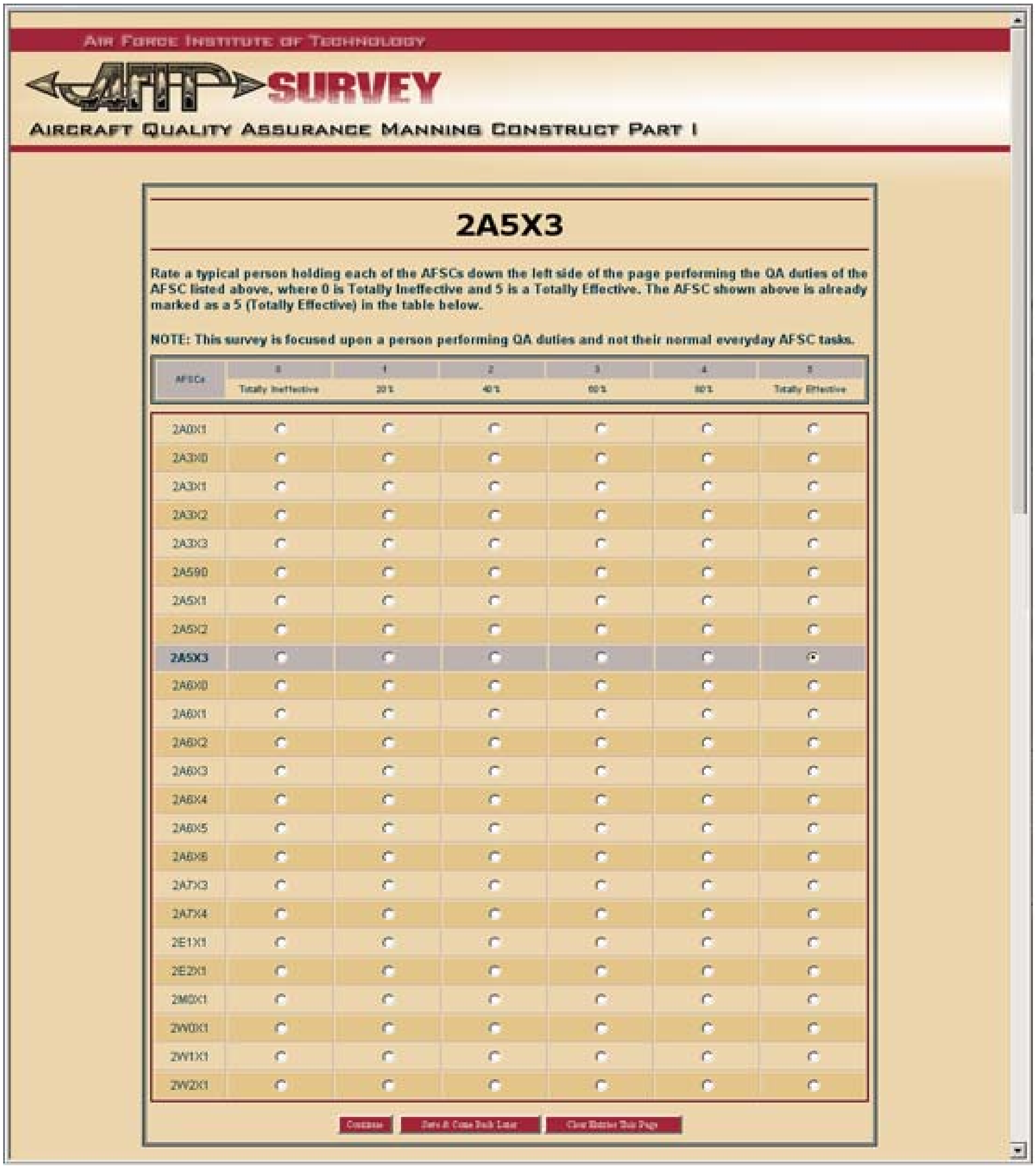
2W2X1



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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A5X3

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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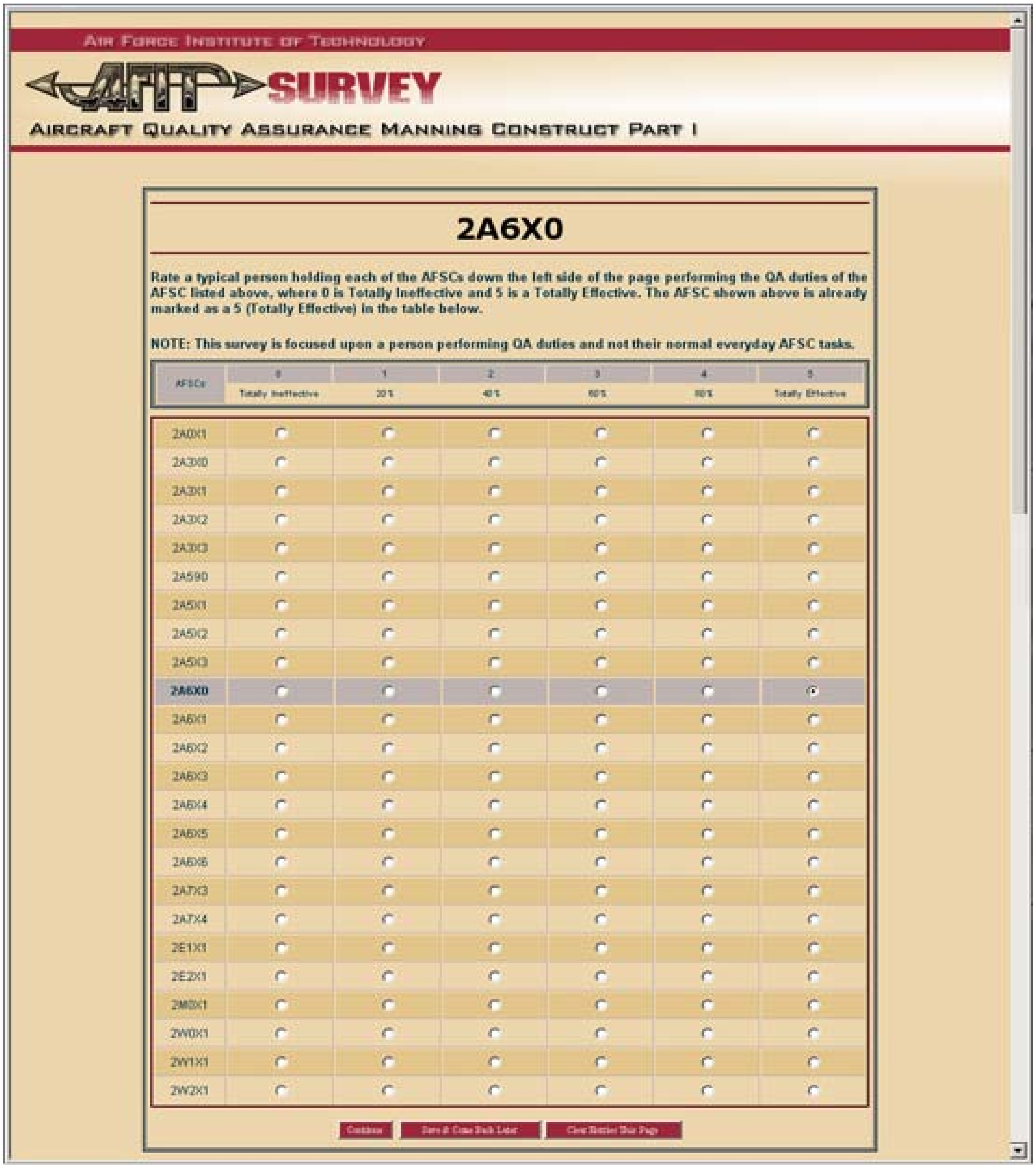
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	●
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○



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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A6X0

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1						
2A3X0						
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						●
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						

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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A6X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

NOTE: This survey is focused upon a person performing QA duties and not their normal everyday AFSC tasks.

AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	●
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○

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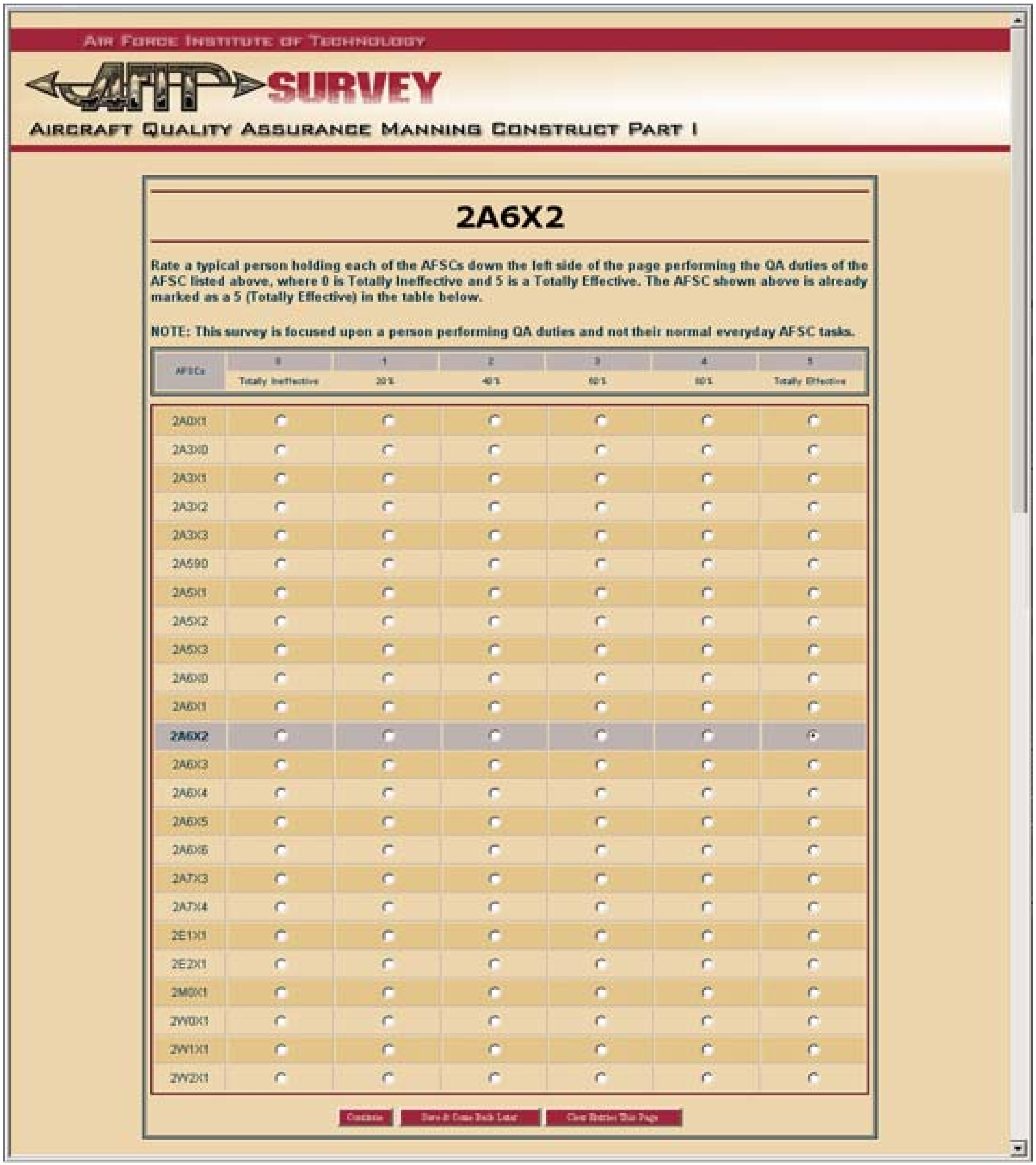

Air Force Institute of Technology

AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2A6X2

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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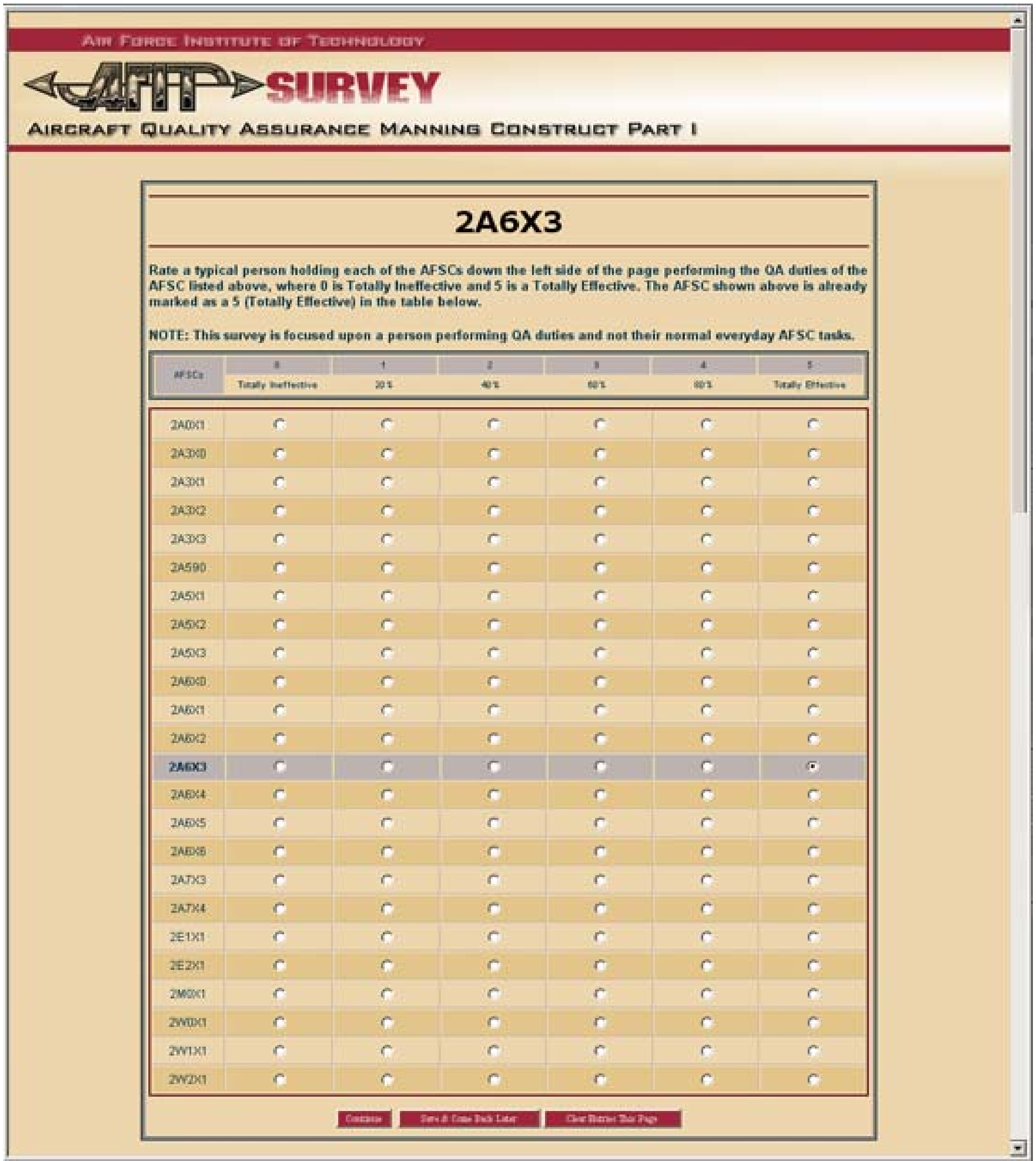
2A3X0						
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						(selected)
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						

Continue | Save & Come Back Later | Clear Entries This Page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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A6X3

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	◉
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○

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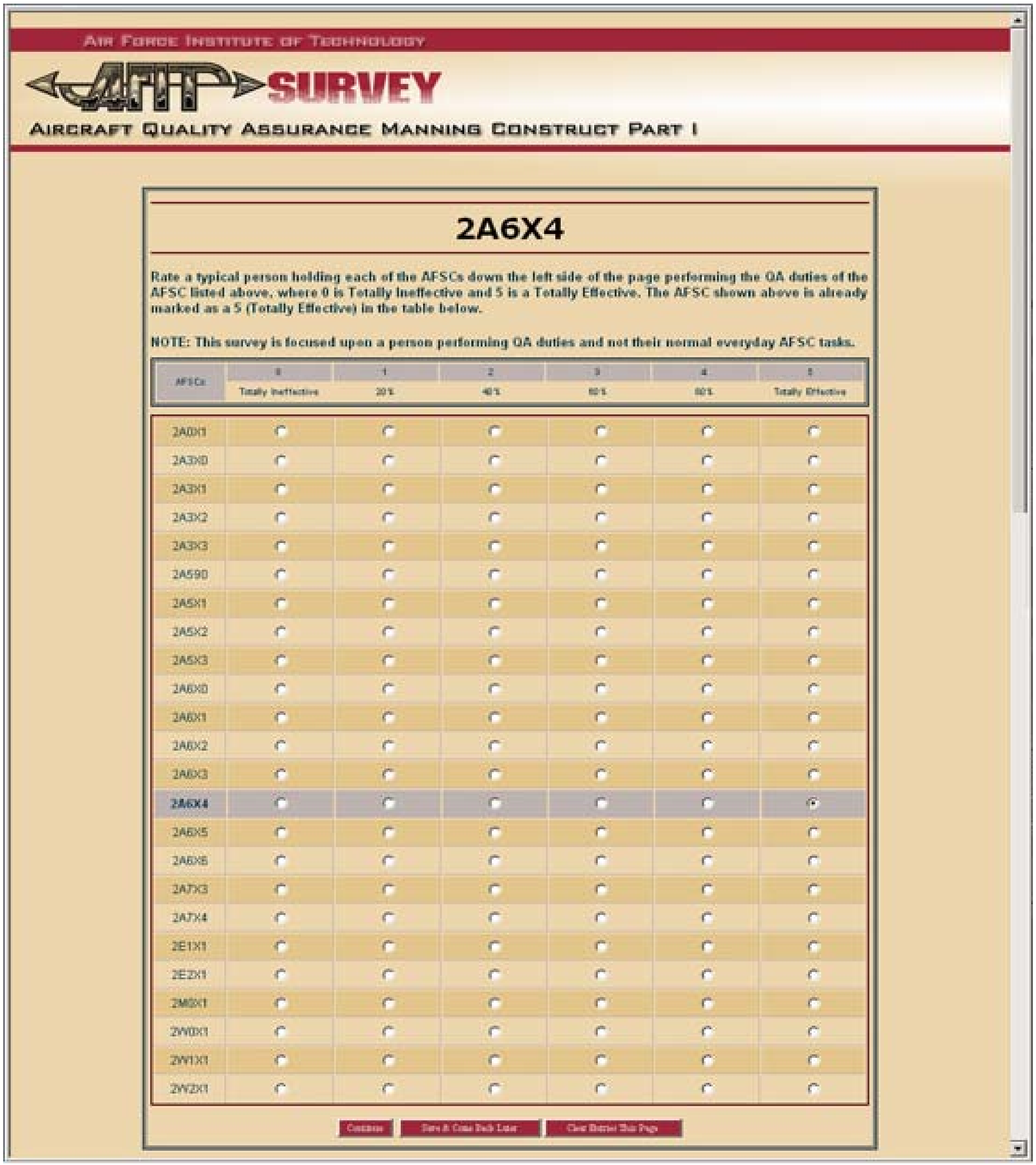

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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A6X4

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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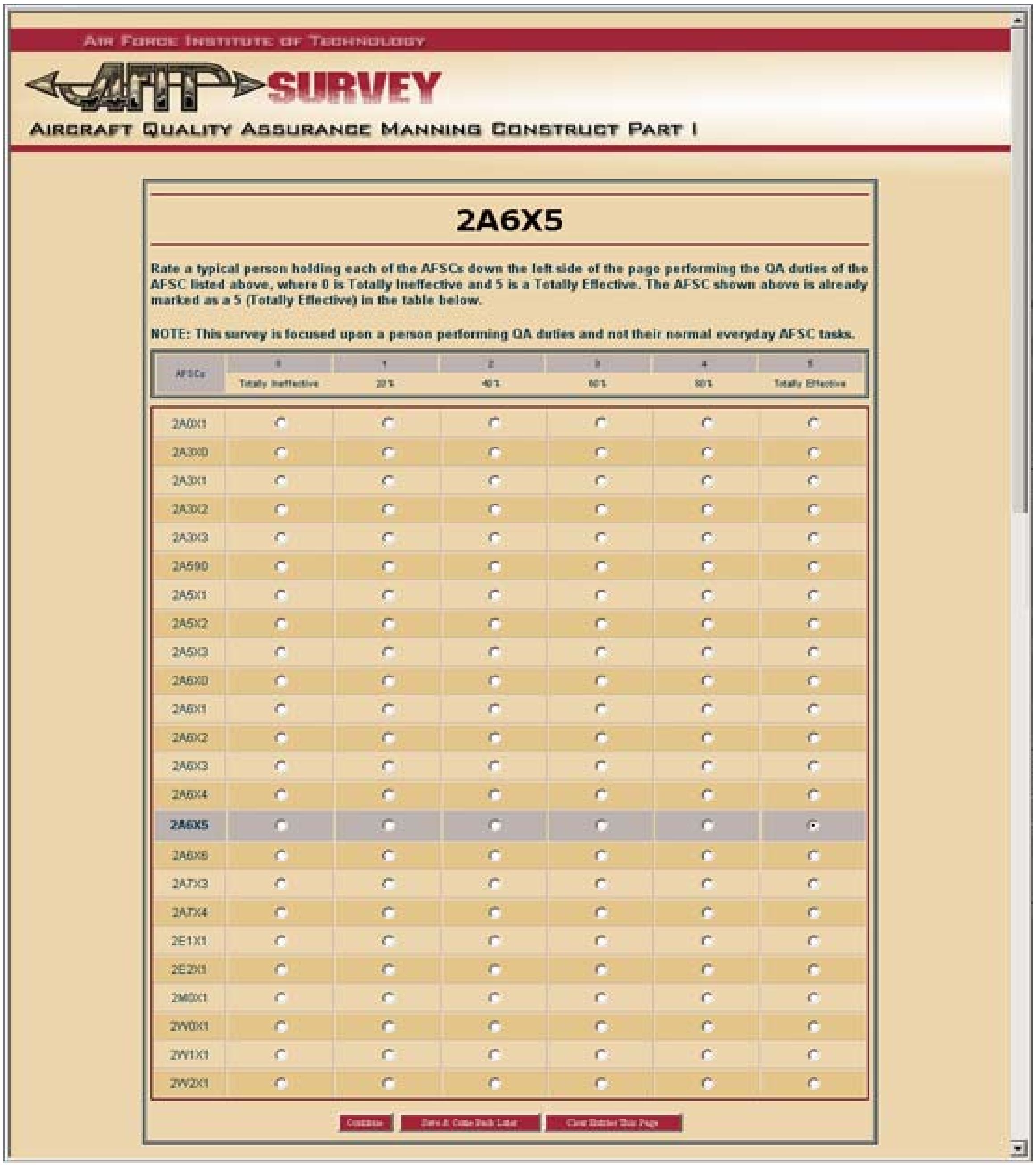
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	◉
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○



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AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2A6X5

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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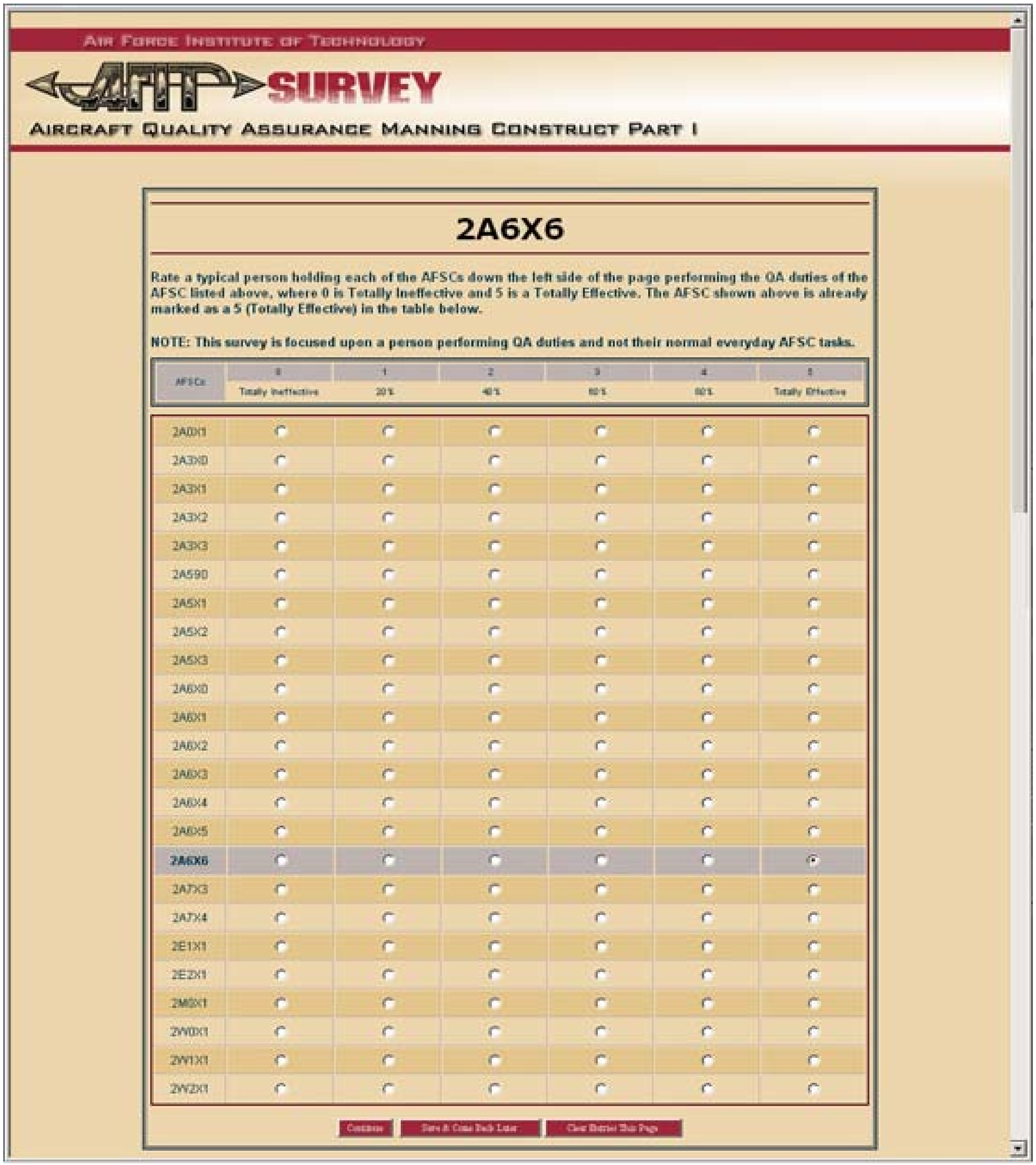
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	●
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○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AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2A6X6

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	●
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○

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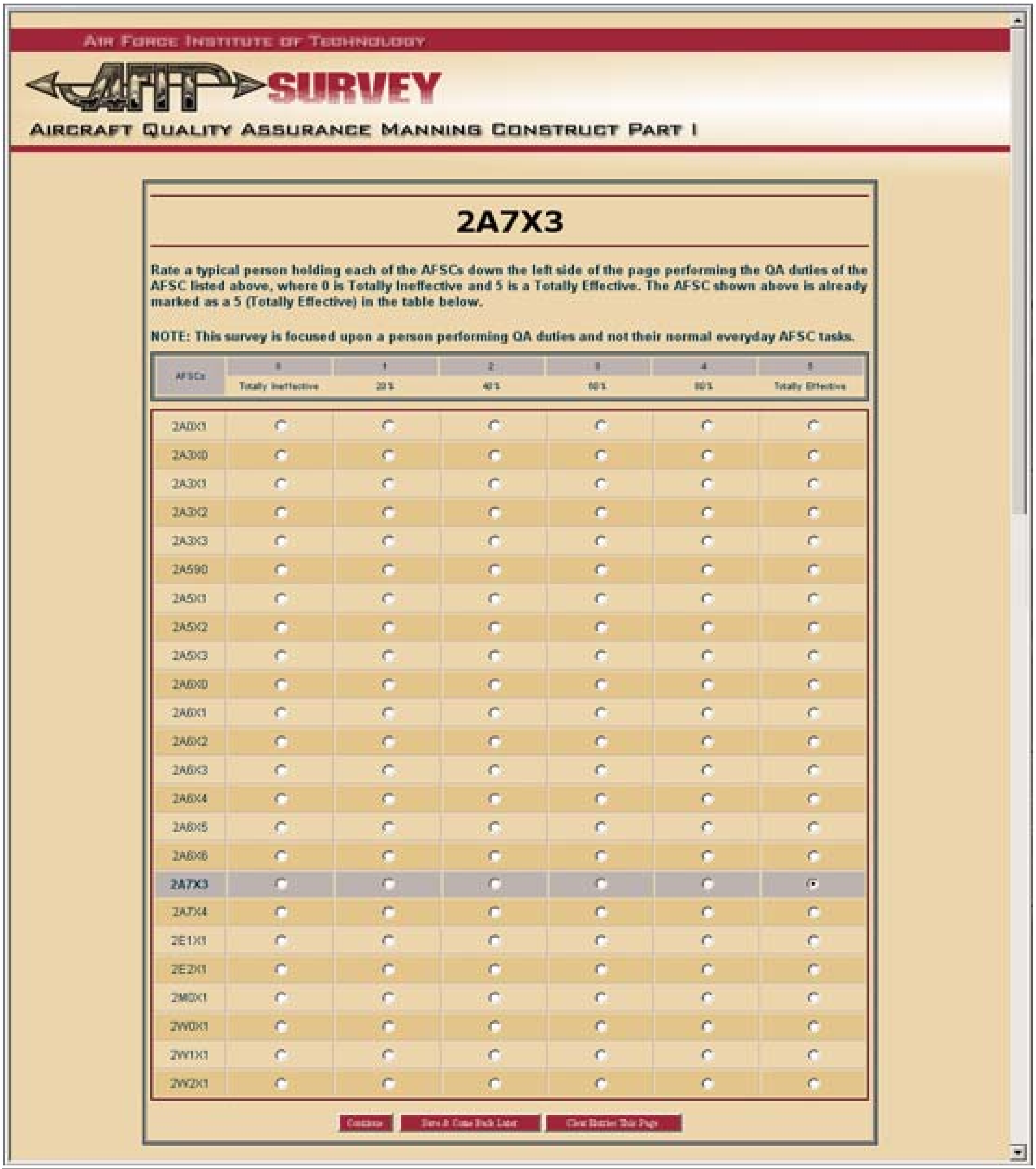
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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2A7X3

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	●
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	○
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○

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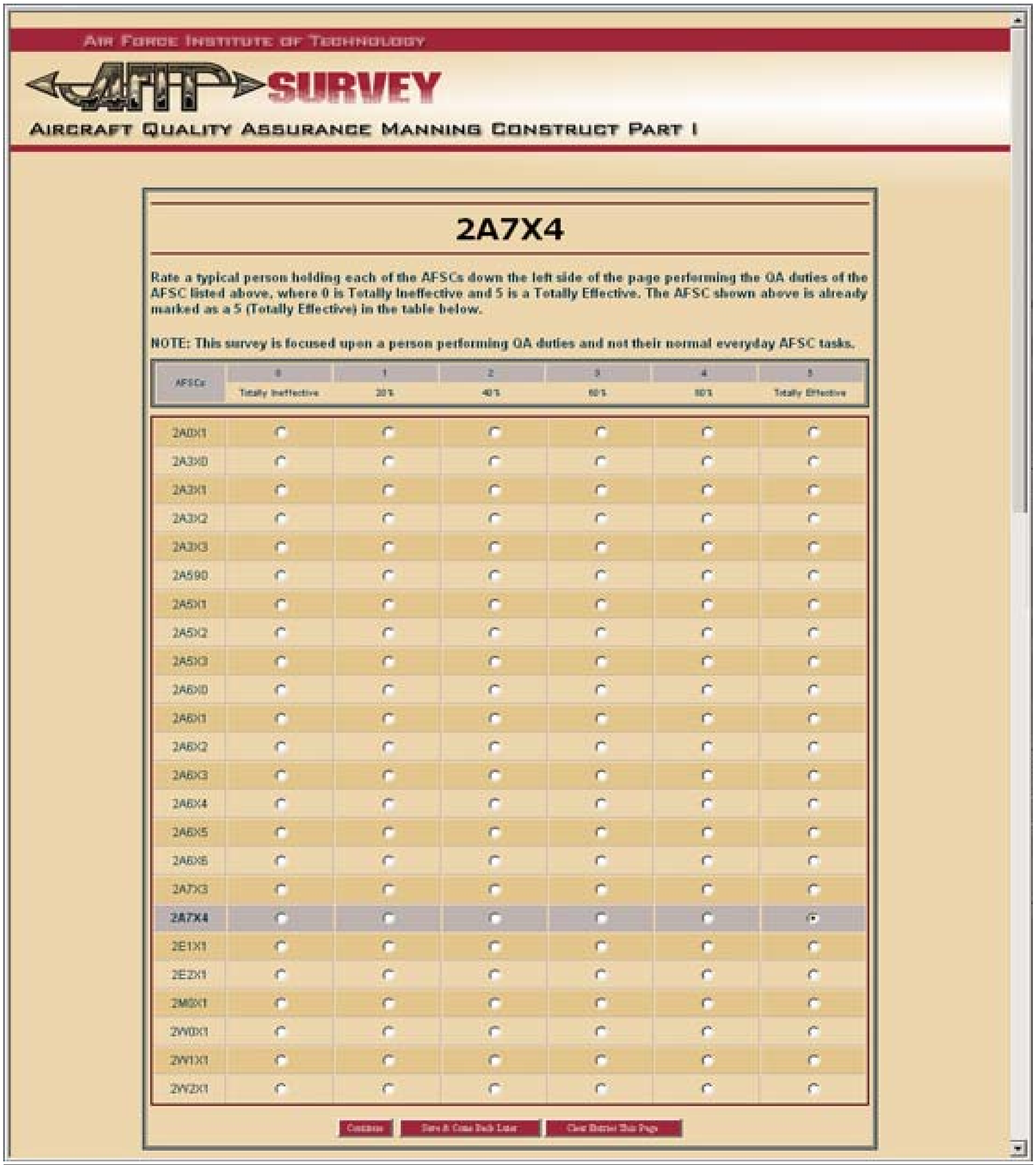

2A7X4

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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2A0X1						
2A3X0						
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						●
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						

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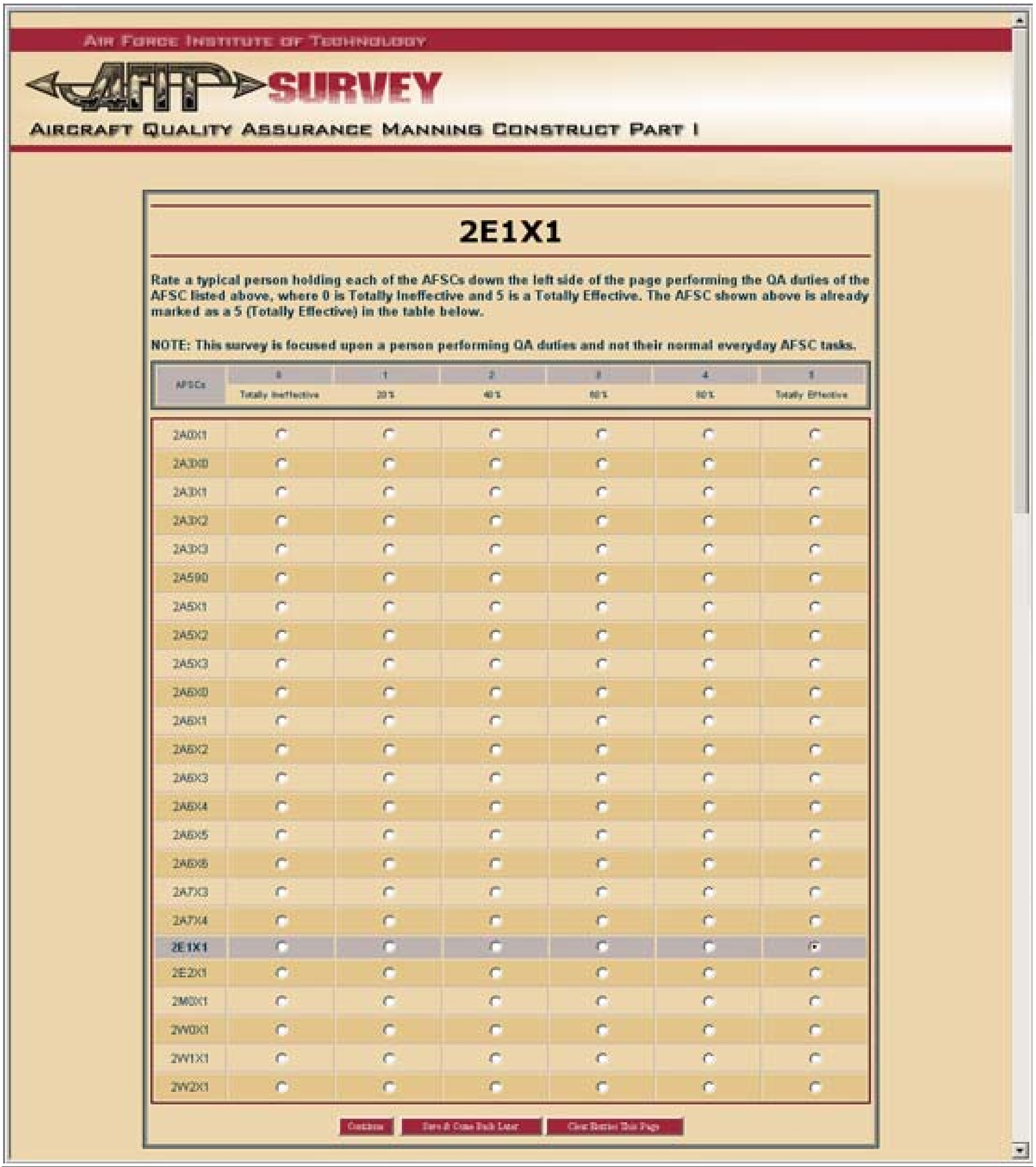
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AFIT SURVEY

AIRCRAFT QUALITY ASSURANCE MANNING CONSTRUCT PART I

2E1X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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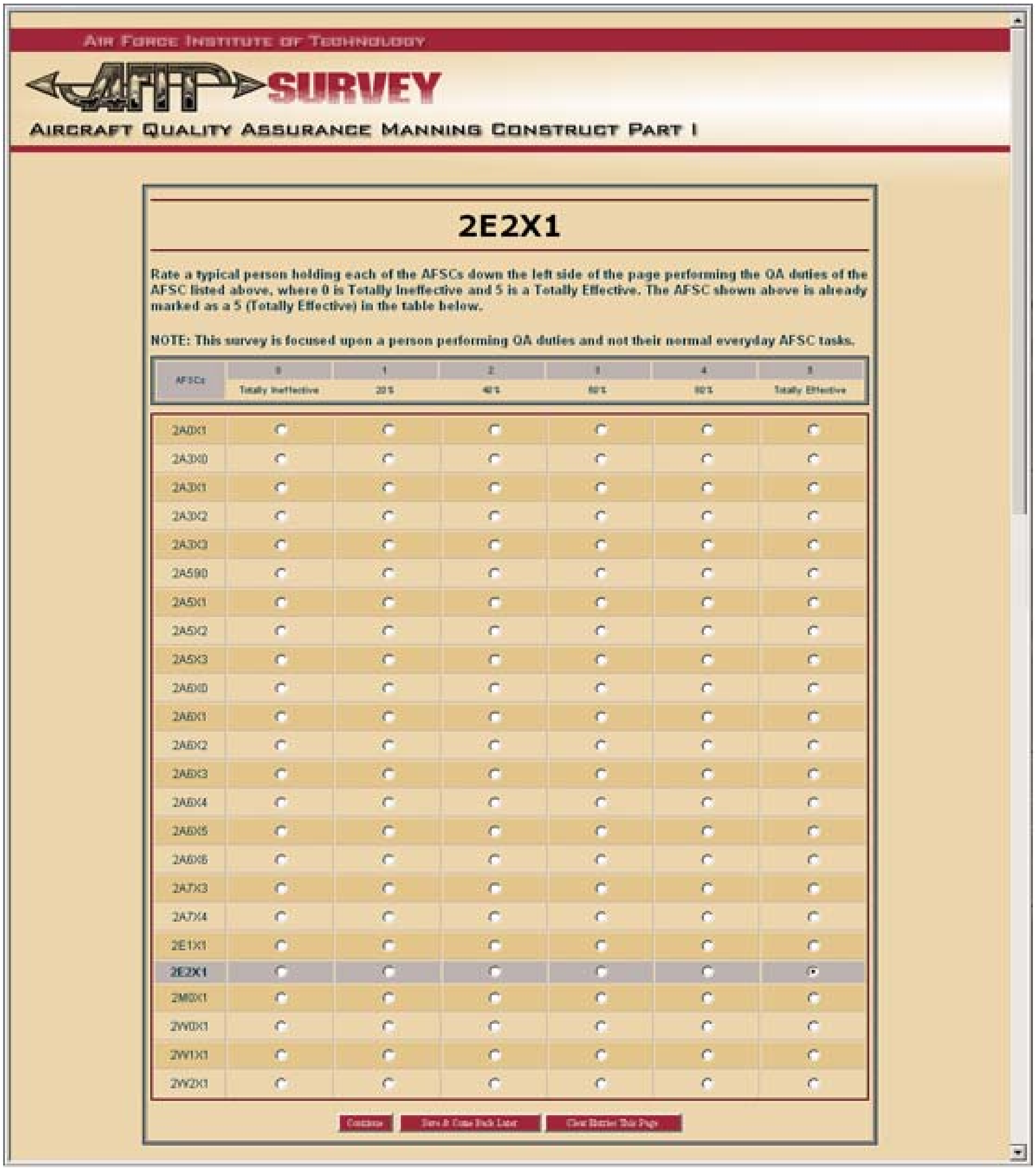
AFSCs	0	1	2	3	4	5
	Totally Ineffective	20%	40%	60%	80%	Totally Effective
2A0X1						
2A3X0						
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						



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AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2E2X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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AFSCs	0 Totally Ineffective	1 20%	2 40%	3 60%	4 80%	5 Totally Effective
2A0X1	○	○	○	○	○	○
2A3X0	○	○	○	○	○	○
2A3X1	○	○	○	○	○	○
2A3X2	○	○	○	○	○	○
2A3X3	○	○	○	○	○	○
2A590	○	○	○	○	○	○
2A5X1	○	○	○	○	○	○
2A5X2	○	○	○	○	○	○
2A5X3	○	○	○	○	○	○
2A6X0	○	○	○	○	○	○
2A6X1	○	○	○	○	○	○
2A6X2	○	○	○	○	○	○
2A6X3	○	○	○	○	○	○
2A6X4	○	○	○	○	○	○
2A6X5	○	○	○	○	○	○
2A6X6	○	○	○	○	○	○
2A7X3	○	○	○	○	○	○
2A7X4	○	○	○	○	○	○
2E1X1	○	○	○	○	○	○
2E2X1	○	○	○	○	○	●
2M0X1	○	○	○	○	○	○
2W0X1	○	○	○	○	○	○
2W1X1	○	○	○	○	○	○
2W2X1	○	○	○	○	○	○

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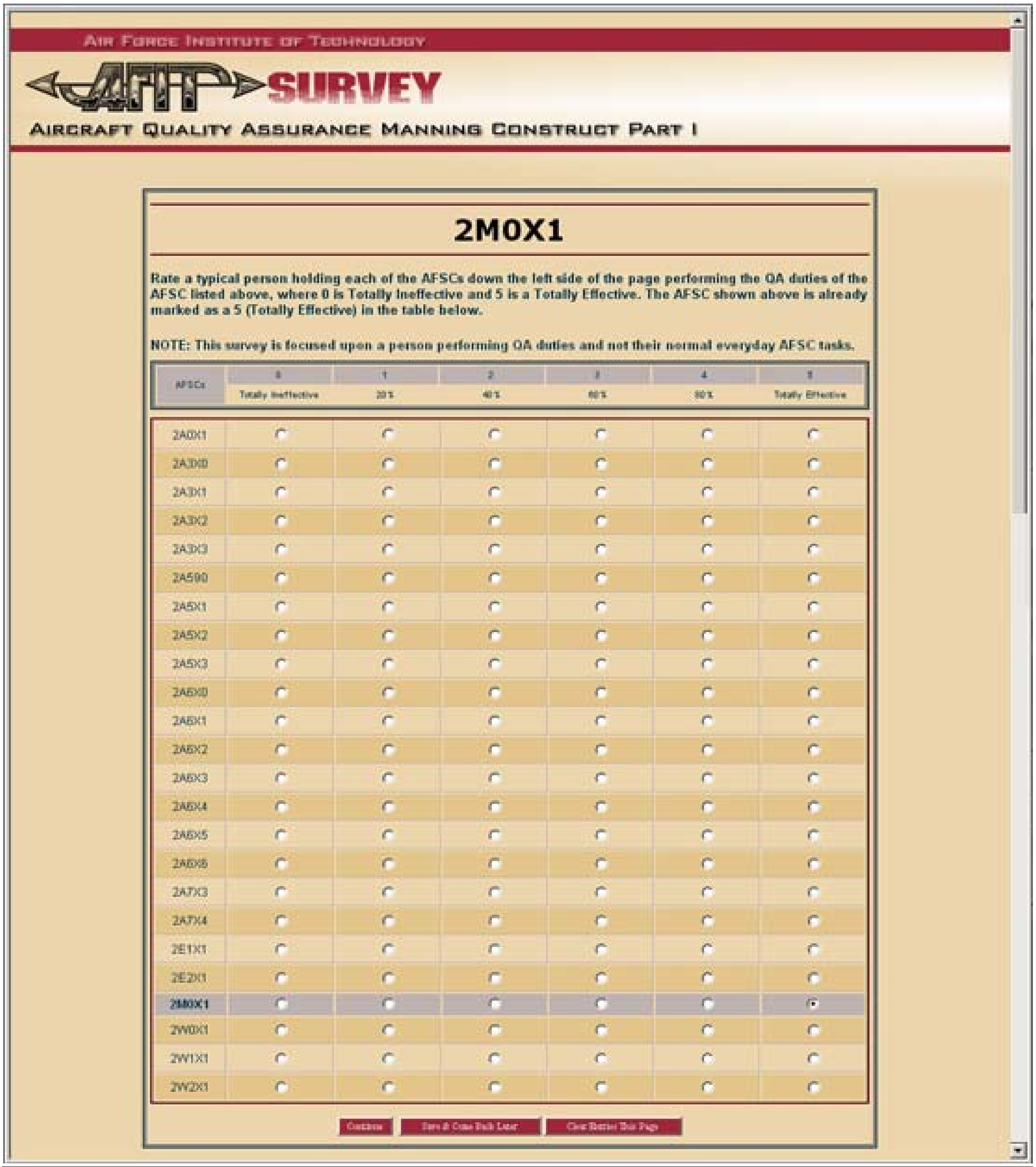
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AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2M0X1

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2A3X1						
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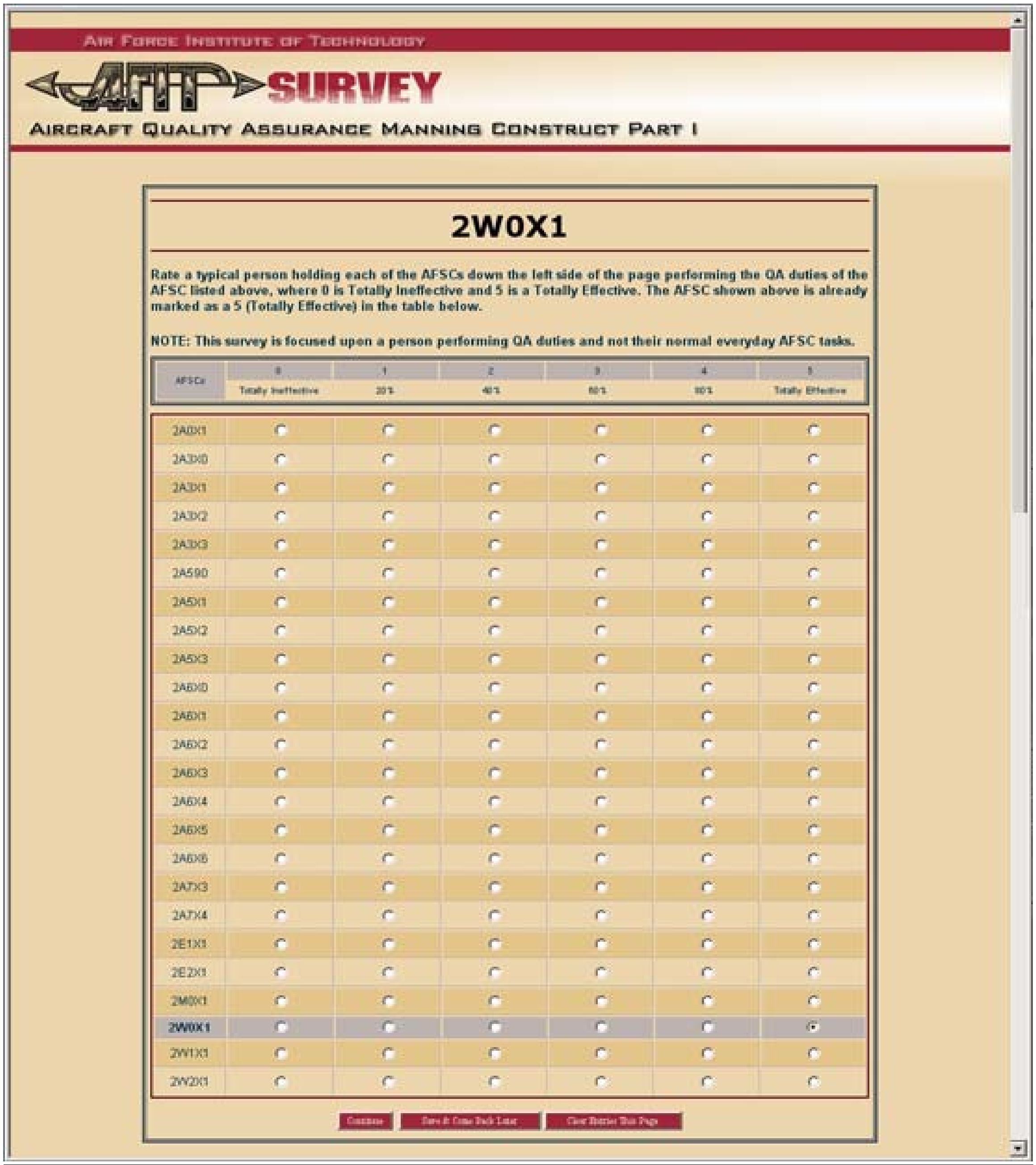
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						●
2W0X1						
2W1X1						
2W2X1						



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AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2W0X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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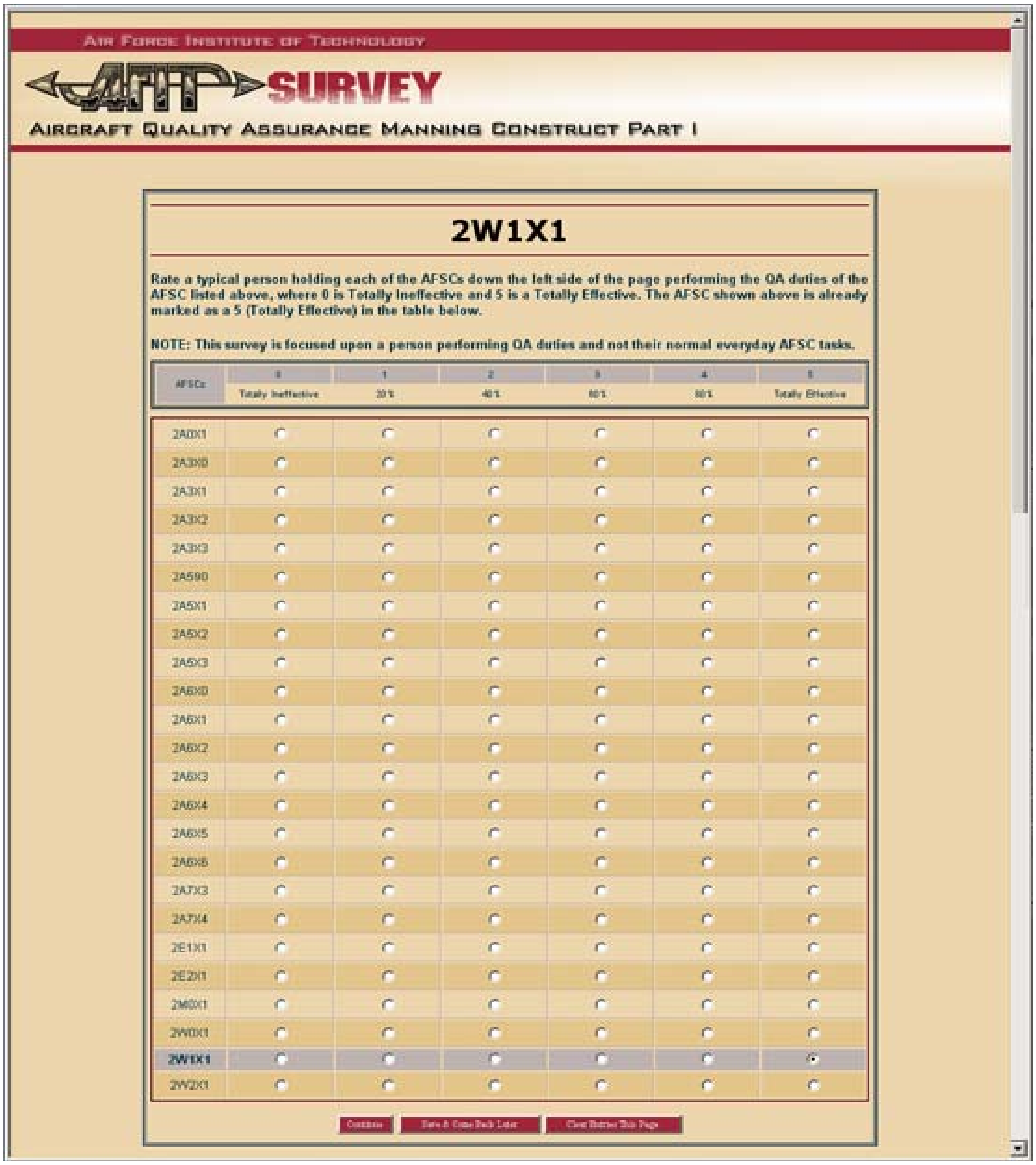
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						



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AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2W1X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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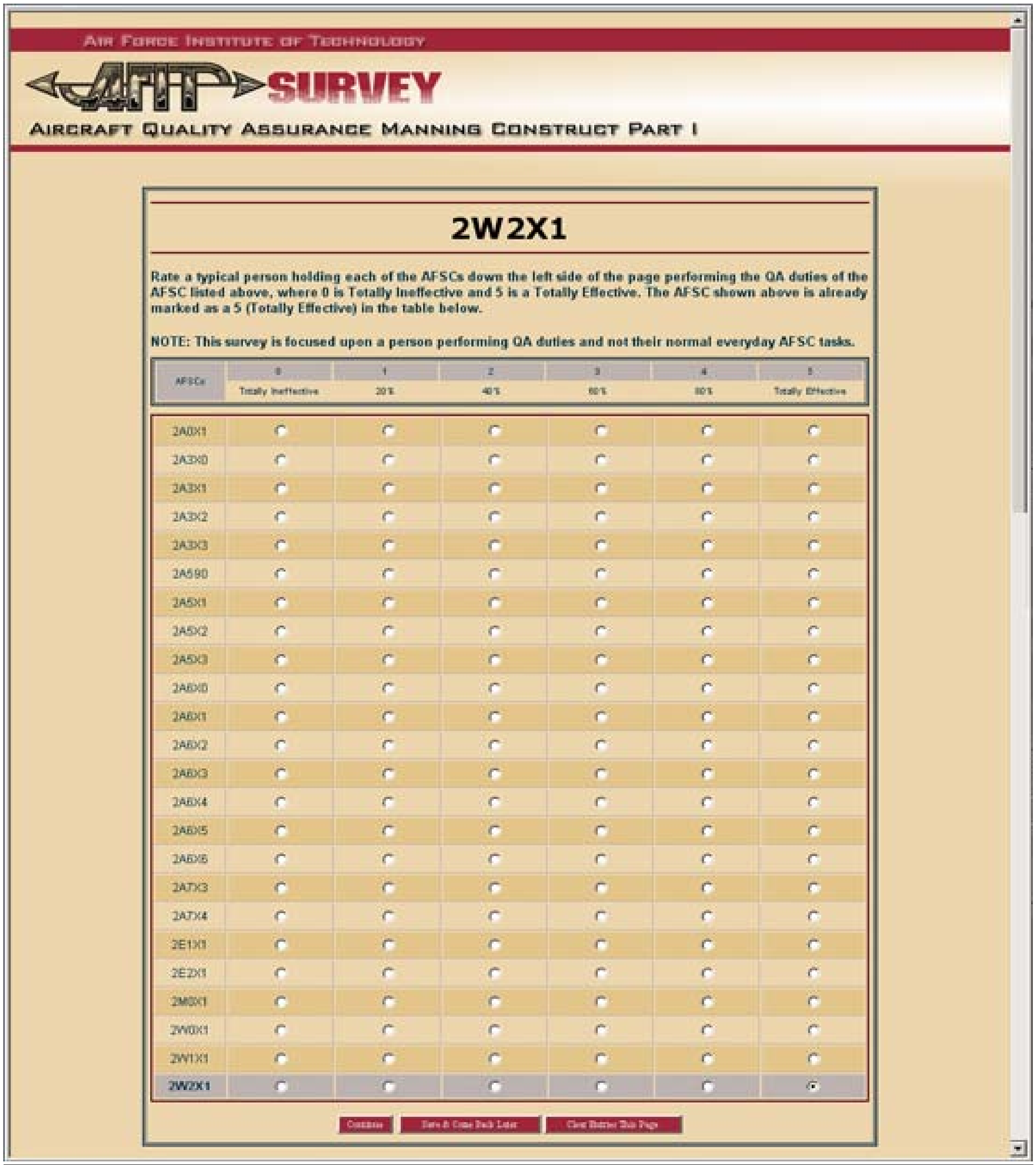
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						●
2W2X1						



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AFIT SURVEY

Aircraft Quality Assurance Manning Construct Part I

2W2X1

Rate a typical person holding each of the AFSCs down the left side of the page performing the QA duties of the AFSC listed above, where 0 is Totally Ineffective and 5 is a Totally Effective. The AFSC shown above is already marked as a 5 (Totally Effective) in the table below.

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	Totally Ineffective	20%	40%	60%	80%	Totally Effective
2A0X1						
2A3X0						
2A3X1						
2A3X2						
2A3X3						
2A590						
2A5X1						
2A5X2						
2A5X3						
2A6X0						
2A6X1						
2A6X2						
2A6X3						
2A6X4						
2A6X5						
2A6X6						
2A7X3						
2A7X4						
2E1X1						
2E2X1						
2M0X1						
2W0X1						
2W1X1						
2W2X1						

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If you have any comments please enter them here

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Thank you for completing this survey.
All information is strictly confidential

Appendix C: Delphi ROUND TWO Survey, Part-2 E-mail Instructions

Sir/Ma'am,

Let me first thank you for completing the FIRST ROUND of this DELPHI study. As you know, a DELPHI study is a qualitative procedure in an attempt to get subject matter experts to gain agreement within certain statistical bounds on a subject in which they are expert. We have analyzed the data from ROUND ONE and found sufficient statistical difference (specifically the coefficient of variation) on most ratings amongst all PANEL'S experts to perform a SECOND ROUND. The attached EXCEL file contains 4 matrix sheets (Matrix #1, #2, #3, and #4). Each sheet has 3 tables on it: (1) ***Working Matrix of Group Mean Ratings -- Out of Limit Ratings***; (2) ***How You Rated -- Round #1***; (3) ***Means for All Panel Member Ratings***. The basic instructions for completing this DELPHI SECOND ROUND is to analyze the aggregate results from the top table on each **<Matrix>** sheet against your ratings from ROUND ONE (your data is provided in the middle table labeled "How You Rated -- Round #1"), and adjust your ratings as you deem appropriate. Please ensure to make all adjustments to the top table on each matrix page. On the EXCEL file there are two other sheets: (1) ***AFMAN 36-2108 AFSC Duty Desc*** and (2) ***Base Files***. The AFMAN 36-2108 sheet has all of the job descriptions for all of the AFSCs on the survey. You can disregard the <Base Model> sheet -- it is included because it is necessary for all of the links to work within the file. I have also attached a separate word.doc file with detailed instructions on how to complete the survey. Lastly, I sincerely apologize but due to the tremendous amount of time ROUND ONE took, ROUND TWO will have to be completed and sent back to me by COB 24 Dec 04.

Vr

CMSgt Moore

Appendix D: Delphi ROUND TWO Survey, Part-2 Instructions

AFSC Fit Matrix for Aircraft QA

Survey Control Number: USAF 04-098

Privacy Notice

The following information is provided as required by the **Privacy Act of 1974**:

Purpose: To obtain information regarding potential effects of manning assignment practices within **USAF Aircraft Quality Assurance (QA)** flights. You have been identified as a person with a wide-breadth of experience in the aircraft and/or munitions maintenance manning arena and further, you have already voluntarily completed ROUND ONE of Survey, Part-2. This is ROUND TWO of the survey and we are asking you to analyze the aggregated responses from ROUND ONE and make changes as you see fit. Please use the **0% to 100% rating scale** and evaluate how well a "typical" person holding each of the listed **AFSCs** would reasonably be expected to perform the duties of a person in each of the listed **AFSC QA** positions. For example, a ***dog trainer*** might perform the duties of a ***cat trainer*** at an effectiveness level '**20%**' where a ***dog trainer*** would perform the duties of a ***dog trainer*** at an effectiveness level '**100%**' (note: **0% = Totally Ineffective** ; **100% = Totally Effective**).

Routine Use: The survey results will be used to assist aircraft maintenance managers when making QA manning decisions. A final report will be provided to participating organizations. No analysis of individual responses will be conducted and only members of the **Air Force Institute of Technology** research team will be permitted access to the raw data.

Participation: Participation is **VOLUNTARY**. No adverse action will be taken against any member who does not participate in this survey or who does not complete any part of the survey.

<u>Instructions</u>

- Base your answers on your own thoughts & experiences.
- **This attached EXCEL file uses your DELPHI Panel Member number and is personalized with your responses from ROUND ONE. It is your file and only you can fill it in!**
- Open the EXCEL file labeled with your assigned DELPHI Member number. Then, click on <Matrix #1> sheet at the bottom of the page. Go through the top table on this page and analyze the DELPHI Panel Group's MEAN statistical ratings from ROUND ONE. Compare these MEAN ratings against your ratings from ROUND ONE that appear in the middle table on the same sheet. **<u>Make all changes to the top table only</u>**. The third and bottom table on the sheet contains all of the DELPHI Panel Group's MEAN statistical ratings from ROUND ONE (Note: this table is provided for your information only because some of the top table's cells are darkened in and locked out due to their statistical *significance*. The top table's cells with percentages have statistical *differences* across DELPHI Panel responses and can be adjusted.
- Your ROUND ONE data is provided in the table labeled "<u>How You Rated -- Round #1</u>" (NS in a cell means No Score was given in ROUND ONE). Please note that you can provide an AFSC combination rating on ROUND TWO even if you did not provide one in ROUND ONE.
- The ratings in the top table are the statistical MEANS of how all DELPHI Panel Experts rated each of the AFSC combinations. These subjective ratings indicate **<u>how effective</u>** the group feels a "typical" person with the **AFSC** appearing down the left side would be if assigned to the **<u>QA AFSC</u>** position that intersects that cell from the top row of AFSCs.
- In ROUND ONE, we used a rating scale of 0, 1, 2, 3, 4, and 5 which translated to 0%, 20%, 40%, 60%, 80%, and 100% respectively. In ROUND TWO, these ratings have been converted to "percentages of effectiveness" in order to "tighten up" the data and give rating flexibility.
- Where the same AFSC from the left column (Y-axis) and QA AFSC position from across the top of the table (X-axis) intersect within the table, they are darkened out in the top table and are marked as 100% **Totally Effective** in the middle and bottom tables.
- Remember, these are personnel performing duties of personnel in a "**typical**" aircraft/ munitions **<u>QA flight</u>**. Do not rate personnel as if they were performing normal duty tasks as they would when assigned to a MX squadron, MSA, or a flight line AMU.
- Note: the **2A590** AFSC is a feeder to the **2A300** Chief Enlisted Manager (CEM) AFSC. The **2A3X0** and **2A6X0** AFSCs are **9-level** or **CEM** positions; all others are **5** or **7-level** positions. Rate all AFSCs in the aggregate (i.e. no difference between a '**5**' and **'7'** <u>or</u> '**9**' and '**0**' levels).

- When filling in the table with percentage effectiveness ratings, evaluate them against what you understand encompasses the whole AFSC duty position and not just AFSC-specific tasks (i.e. in some **QA flights**, an avionics technician '**might**' perform APG task inspections, assist in Weight and Balance operations**,** and/or evaluate drop-tank build-up operations besides only inspecting avionics-type tasks).
- Each table cell has a comment that appears if you pass the pointer over each cell or click on the cell. The comment refers to how effective a person with the AFSC from the left column (Y-axis) would be if assigned to the QA AFS duty position from the top row (X-axis). Each cell has its own specific comment – no two comments are the same. (**NOTE: the 'comment' may mislead you if you just use the arrow buttons for navigation within the table -- you have to <click> on each cell**). This will help you get through faster {e.g. Crew Chief (Non-Tac Acft) Jymn/Crftmn effectiveness in Structural MX Jymn/Crftmn QA Position}.
- If you are not familiar with a particular **AFSC**, leave that cell blank.
- After completing sheet **< Matrix #1>,** click on and open up the sheets labeled <**Matrix #2>, <Matrix #3>, and <Matrix #4>** one at a time, in numerical order, and complete each of the top tables using the same criteria and procedures you used on sheet <**Matrix #1**>.
- E-mail the completed EXCEL file back NLT COB 24 Dec 04 to the **RESEARCHER ONLY**.

Appendix E: Delphi ROUND TWO Survey, Part-2 Instrument

Results Matrix | Average Total Years in Aircraft/Munitions Maintenance = 20

Working Matrix of Group Mean Ratings -- Out of Limit Ratings (any block not shaded out is out of statistical limit)

AFSCs	2A0X1	2A3X0	2A3X1	2A3X2	2A3X3	2A590	2A5X1	2A5X2	2A5X3	2A6X0	2A6X1	2A6X2	2A6X3	2A6X4	2A6X5	2A6X6	2A7X3	2A7X4	2E1X1	2E2X1	2M0X1	2W0X1	2W1X1	2W2X1
2A0X1		36%	63%		31%	29%	22%	20%		35%	18%	14%	14%	13%	14%	29%	12%	9%	21%	21%	16%	8%	14%	12%
2A3X0	42%		50%	44%	62%		58%	55%	47%		45%	34%	36%	39%	43%	45%	35%	27%	18%	17%	20%	27%	40%	23%
2A3X1		51%			36%	45%	36%	34%	61%	50%	28%	17%	22%	23%	25%	35%	19%	16%	19%	21%	16%	13%	19%	14%
2A3X2		59%			36%	37%	32%	31%	66%	42%	24%	17%	20%	21%	22%	31%	17%	16%	18%	18%	12%	11%	19%	14%
2A3X3	28%	82%	45%	51%		71%			41%	63%	49%	24%	24%	30%	44%	39%	30%	18%	9%	9%	12%	12%	26%	13%
2A590	39%		44%	44%	59%		65%	53%	43%		49%	30%	29%	35%	41%	40%	33%	26%	11%	11%	14%	15%	23%	16%
2A5X1	28%	69%	36%	39%				59%	42%	62%	46%	21%	23%	33%	42%	39%	30%	17%	9%	9%	9%	12%	20%	10%
2A5X2	22%	61%	30%	30%	61%	68%	64%		37%	58%	43%	22%	17%	32%	45%	37%	27%	18%	6%	6%	7%	9%	12%	7%
2A5X3	56%	48%			44%	56%	41%	38%		52%	29%	19%	20%	25%	27%	39%	19%	15%	19%	19%	14%	9%	15%	12%
2A6X0	41%		32%	40%	45%		46%	41%	44%		57%	41%	46%	53%	54%	52%	39%	32%	15%	15%	19%	13%	24%	17%
2A6X1	21%	55%	25%	27%	48%	57%	49%	48%	28%	69%		27%	23%	33%	39%	35%	23%	18%	11%	11%	15%	8%	12%	10%
2A6X2	26%	46%	24%	25%	36%	48%	36%	33%	27%	58%	36%		22%	29%	36%	40%	24%	17%	10%	10%	13%	15%	22%	16%
2A6X3	20%	42%	18%	18%	35%	37%	29%	22%	18%	57%	28%	16%		21%	23%	28%	18%	30%	6%	6%	8%	10%	15%	9%
2A6X4	18%	45%	25%	25%	38%	44%	39%	38%	26%	56%	37%	26%	23%		39%	38%	22%	14%	6%	6%	12%	7%	10%	10%
2A6X5	20%	53%	23%	23%	50%	57%	53%	47%	24%	64%	40%	30%	19%	36%		35%	22%	13%	4%	4%	9%	10%	16%	10%
2A6X6	34%	45%	43%	43%	40%	54%	41%	39%	47%	59%	39%	28%	29%	35%	39%		19%	14%	18%	15%	18%	9%	21%	13%
2A7X3	19%	40%	23%	24%	36%	42%	40%	37%	24%	52%	29%	32%	22%	26%	28%	25%		27%	5%	5%	12%	11%	12%	14%
2A7X4	18%	33%	18%	18%	28%	34%	30%	26%	19%	48%	22%	19%	41%	21%	22%	25%	28%		6%	6%	8%	10%	13%	10%
2E1X1	22%	20%	24%	24%	14%	21%	15%	12%	24%	19%	8%	9%	9%	9%	9%	20%	9%	7%		52%	13%	4%	4%	7%
2E2X1	21%	14%	20%	20%	13%	13%	12%	12%	21%	13%	7%	7%	7%	7%	9%	17%	6%	6%	49%		10%	7%	6%	8%
2M0X1	13%	16%	11%	11%	7%	14%	8%	8%	9%	15%	7%	8%	7%	7%	7%	9%	7%	4%	7%	7%		11%	12%	15%
2W0X1	15%	20%	10%	11%	12%	19%	11%	11%	11%	20%	9%	9%	10%	9%	8%	10%	9%	9%	7%	7%	19%		48%	50%
2W1X1	18%	30%	16%	17%	21%	28%	19%	18%	15%	29%	12%	10%	10%	10%	13%	15%	10%	7%	4%	4%	13%	57%		54%
2W2X1	18%	22%	12%	13%	14%	22%	14%	14%	13%	23%	10%	9%	10%	9%	11%	13%	10%	8%	6%	6%	18%	48%	50%	

How You Rated -- Round #1

AFSCs	2A0X1	2A3X0	2A3X1	2A3X2	2A3X3	2A590	2A5X1	2A5X2	2A5X3	2A6X0	2A6X1	2A6X2	2A6X3	2A6X4	2A6X5	2A6X6	2A7X3	2A7X4	2E1X1	2E2X1	2M0X1	2W0X1	2W1X1	2W2X1
2A0X1	100%	60%	60%	60%	40%	40%	20%	40%	60%	40%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
2A3X0	80%	100%	40%	40%	40%	80%	40%	60%	40%	80%	40%	40%	40%	40%	40%	40%	40%	40%	20%	20%	40%	40%	40%	40%
2A3X1	100%	60%	100%	80%	20%	40%	20%	20%	60%	40%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
2A3X2	100%	NS	80%	100%	20%	40%	20%	20%	NS	40%	20%	20%	20%	20%	NS	20%	20%	20%	20%	20%	20%	20%	20%	20%
2A3X3	100%	60%	20%	20%	100%	60%	60%	60%	40%	40%	40%	20%	20%	20%	40%	40%	40%	20%	20%	20%	20%	20%	40%	20%
2A590	80%	80%	20%	20%	40%	100%	60%	60%	40%	80%	40%	40%	40%	40%	40%	40%	40%	40%	20%	20%	40%	40%	40%	40%
2A5X1	100%	40%	20%	20%	40%	80%	100%	60%	40%	40%	40%	20%	20%	20%	40%	40%	40%	20%	20%	20%	20%	20%	40%	20%
2A5X2	100%	40%	20%	20%	40%	80%	60%	100%	40%	40%	40%	20%	20%	20%	40%	40%	40%	20%	20%	20%	20%	20%	20%	20%
2A5X3	100%	60%	60%	60%	20%	40%	40%	40%	100%	60%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
2A6X0	80%	80%	20%	20%	20%	80%	40%	60%	40%	100%	60%	60%	40%	40%	60%	40%	40%	40%	20%	20%	40%	40%	40%	40%
2A6X1	80%	60%	20%	20%	20%	40%	40%	40%	40%	60%	100%	20%	20%	20%	40%	40%	20%	20%	20%	20%	40%	20%	20%	20%
2A6X2	100%	60%	20%	20%	20%	40%	40%	40%	60%	60%	40%	100%	20%	20%	40%	40%	20%	20%	20%	20%	40%	40%	40%	40%
2A6X3	60%	40%	20%	20%	20%	40%	20%	20%	20%	60%	20%	20%	100%	20%	40%	20%	20%	20%	20%	20%	20%	20%	20%	20%
2A6X4	60%	40%	20%	20%	20%	40%	40%	40%	40%	60%	40%	20%	20%	100%	20%	20%	60%	20%	20%	20%	40%	20%	20%	20%
2A6X5	100%	40%	20%	20%	20%	40%	40%	40%	40%	60%	40%	20%	20%	20%	100%	40%	20%	20%	20%	20%	20%	20%	20%	20%
2A6X6	100%	40%	20%	20%	20%	40%	40%	40%	60%	60%	40%	20%	20%	20%	40%	100%	20%	20%	20%	20%	40%	20%	40%	40%
2A7X3	80%	40%	20%	20%	20%	40%	40%	40%	40%	40%	20%	20%	20%	20%	20%	20%	100%	20%	20%	20%	40%	40%	40%	60%
2A7X4	40%	40%	20%	20%	20%	40%	20%	20%	20%	40%	20%	20%	20%	20%	20%	20%	20%	100%	20%	20%	20%	20%	20%	20%
2E1X1	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	100%	60%	20%	20%	20%	20%
2E2X1	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	60%	100%	20%	20%	20%	20%
2M0X1	80%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	100%	60%	60%	40%
2W0X1	80%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	NS	60%	100%	60%	60%
2W1X1	80%	20%	20%	20%	40%	40%	40%	20%	20%	40%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	40%	100%	80%
2W2X1	80%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	60%	60%	80%	100%

Means for All Panel Member Ratings

AFSCs	2A0X1	2A3X0	2A3X1	2A3X2	2A3X3	2A590	2A5X1	2A5X2	2A5X3	2A6X0	2A6X1	2A6X2	2A6X3	2A6X4	2A6X5	2A6X6	2A7X3	2A7X4	2E1X1	2E2X1	2M0X1	2W0X1	2W1X1	2W2X1
2A0X1	100%	36%	63%	62%	31%	29%	22%	20%	60%	35%	18%	14%	14%	13%	14%	29%	12%	9%	21%	21%	16%	8%	14%	12%
2A3X0	42%	100%	50%	44%	62%	80%	58%	55%	47%	75%	45%	34%	36%	39%	43%	45%	35%	27%	18%	17%	20%	27%	40%	23%
2A3X1	67%	51%	100%	79%	36%	45%	36%	34%	61%	50%	28%	17%	22%	23%	25%	35%	19%	16%	19%	21%	16%	13%	19%	14%
2A3X2	67%	59%	81%	100%	36%	37%	32%	31%	66%	42%	24%	17%	20%	21%	22%	31%	17%	16%	18%	18%	12%	11%	19%	14%
2A3X3	28%	82%	45%	51%	100%	71%	74%	66%	41%	63%	49%	24%	24%	30%	44%	39%	30%	18%	9%	9%	12%	12%	26%	13%
2A590	39%	84%	44%	44%	59%	100%	65%	53%	43%	80%	49%	30%	29%	35%	41%	40%	33%	26%	11%	11%	14%	15%	23%	16%
2A5X1	28%	69%	36%	39%	66%	81%	100%	59%	42%	62%	46%	21%	23%	33%	42%	39%	30%	17%	9%	9%	9%	12%	20%	10%
2A5X2	22%	61%	30%	30%	61%	68%	64%	100%	37%	58%	43%	22%	17%	32%	45%	37%	27%	18%	6%	6%	7%	9%	12%	7%
2A5X3	56%	48%	62%	80%	44%	56%	41%	38%	100%	52%	29%	19%	20%	25%	27%	39%	19%	15%	19%	19%	14%	9%	15%	12%
2A6X0	41%	71%	32%	40%	45%	73%	46%	41%	44%	100%	57%	41%	46%	53%	54%	52%	39%	32%	15%	15%	19%	13%	24%	17%
2A6X1	21%	55%	25%	27%	48%	57%	49%	48%	28%	69%	100%	27%	23%	33%	39%	35%	23%	18%	11%	11%	15%	8%	12%	10%
2A6X2	26%	46%	24%	25%	36%	48%	36%	33%	27%	58%	36%	100%	22%	29%	36%	40%	24%	17%	10%	10%	13%	15%	22%	16%
2A6X3	20%	42%	18%	18%	35%	37%	29%	22%	18%	57%	28%	16%	100%	21%	23%	28%	18%	30%	6%	6%	8%	10%	15%	9%
2A6X4	18%	45%	25%	25%	38%	44%	39%	38%	26%	56%	37%	26%	23%	100%	39%	38%	22%	14%	6%	6%	12%	7%	10%	10%
2A6X5	20%	53%	23%	23%	50%	57%	53%	47%	24%	64%	40%	30%	19%	36%	100%	35%	22%	13%	4%	4%	9%	10%	16%	10%
2A6X6	34%	45%	43%	43%	40%	54%	41%	39%	47%	59%	39%	28%	29%	35%	39%	100%	19%	14%	18%	15%	18%	9%	21%	13%
2A7X3	19%	40%	23%	24%	36%	42%	40%	37%	24%	52%	29%	32%	22%	26%	28%	25%	100%	27%	5%	5%	12%	11%	12%	14%
2A7X4	18%	33%	18%	18%	28%	34%	30%	26%	19%	48%	22%	19%	41%	21%	22%	25%	28%	100%	6%	6%	8%	10%	13%	10%
2E1X1	22%	20%	24%	24%	14%	21%	15%	12%	24%	19%	8%	9%	9%	9%	9%	20%	9%	7%	100%	52%	13%	4%	4%	7%
2E2X1	21%	14%	20%	20%	13%	13%	12%	12%	21%	13%	7%	7%	7%	7%	9%	17%	6%	6%	49%	100%	10%	7%	6%	8%
2M0X1	13%	16%	11%	11%	7%	14%	8%	8%	9%	15%	7%	8%	7%	7%	7%	9%	7%	4%	7%	7%	100%	11%	12%	15%
2W0X1	15%	20%	10%	11%	12%	19%	11%	11%	11%	20%	9%	9%	10%	9%	8%	10%	9%	9%	7%	7%	19%	100%	48%	50%
2W1X1	18%	30%	16%	17%	21%	28%	19%	18%	15%	29%	12%	10%	10%	10%	13%	15%	10%	7%	4%	4%	13%	57%	100%	54%
2W2X1	18%	22%	12%	13%	14%	22%	14%	14%	13%	23%	10%	9%	10%	9%	11%	13%	10%	8%	6%	6%	18%	48%	50%	100%

Appendix F: Historical Manning Spreadsheet Sent Out to ACC QA Flights

CY '03

		Jan '03		Feb '03		Mar '03		Apr '03		May '03		Jun '03		Jul '03		Aug '03		Sep '03		Oct '03		Nov '03		Dec '03	
	MPN	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd
1	0311001	2A300	2A300	2A300	2A300	2A300	2A300	2A300	2A300	2A300	2A300														
2	0311002	2A571	2A571	2A571	2A571	2A571	2A571	2A571	2A571	2A571	2A571														
3	0311003	2A671A	2A671A	2A671A	2A671A	2A671A	2A671A	2A671A	2A671A	2A671A	2A671A														
4	0311004	2A671A	N-A	2A671A	N-A	2A671A	N-A	2A671A	2A671A	2A671A	2A671A														
5	0311005	2W271	2W271	2W271	2W271	2W271	2W271	2W271	2W271	2W271	2W271														
6	0311006	2W151	2W171	2W151	2W171	2W151	2W171	2W151	2W171	2W151	2W171														
7	0311007	2W251	2W271	2W251	2W271	2W251	2W271	2W251	2W271	2W251	2W271														
8	0311007	2W251	2W251	2W251	2W251	2W251	2W251	2W251	2W251	2W251	2W251														
9	0311008	2A590	2A571	2A590	2A571	2A590	2A571	2A590	2A571	2A590	2A571														
10	0311008	2A590	2A571	2A590	2A571	2A590	2A571	2A590	2A571	2A590	2A571														
11																									
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CY '04

		Jan '04		Feb '04		Mar '04		Apr '04		May '04		Jun '04		Jul '04		Aug '04		Sep '04		Oct '04		Nov '04		Dec '04	
	MPN	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd	Auth'd	Assn'd
1	0311001																								
2	0311002																								
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Instructions:

(1) Fill in the MPNs from your UMD.

(2) Fill in the Authorized (Auth'd) AFSC from the UMD.

(3) Fill in the AFSC of the person who was Assigned (Assgn'd) to that slot during that period.

(4) Save and e-mail back to the researcher (terry.moore@afit.edu).

Note: The entries above are example entries only -- please delete them before you fill in your actual data. Other things to note are that you should consider a person assigned for the whole month if they were in QA for the majority of the month. Also, if you had no one assigned to a slot during a period, note this with N-A in the "Assn'd" cell. If you have personnel "double-slotted" against a UMD MPN position during a period, indicate this by using the same MPN as many times as needed and filling in the AFSC of the person who was assigned to each of the slots. Lastly, each of the units under study have differing numbers of personnel authorized and assigned and this is why only 20 lines were provided to fill in your manning. If more are needed, place your cursor over the vertical EXCEL axis at a position where you want to add lines, right click the mouse, and then click <insert> from the dropdown menu.

Comments:

Appendix G: Delphi, Survey Part-1 Results

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q1: The overall impact of work performed by aircraft maintenance Quality Assurance personnel as a whole is related to having the correct AFSC/skill levels assigned to the designated Unit Manpower Document positions.						
Q1	6 4 6 5 5 6 6 4 4 6 6 5 4 6 4 5 2 5 4 6 6 5 6 5 6 3 6 5 6 6 6 5 5 1	5.00	80.0%	1.23	1.52	**0.25**
Inspectors do cross lines and inspect other AFSCs with additional task training. Except 2W1 which by AFI are not allowed to be inspected by other AFSCs.						
What they inspect, how much they inspect, how much they analyze, how much they interface with mx analysis, training, the PIM, AFETS, MXG/SQ leadership, and additional duties also are directly related to the overall impact QA makes, not just the right people in the right positions.						
I'd agree whole heartedly IF our manpower was sufficient.						
This is paramount in being able to properly implement MSEP program and properly surveil the maintenance actions that are occurring on the flight line or within the back shop maintenance facilities.						
While the correct AFSC/skill level mix is important, so is the proper numbers of a given AFSC or having a good plan for CUT training.						
The impact of work is more closely related to having the right mix of AFSCs assigned to QA. This is not necessarily a function of what the UMD shows. It's dependent on what QA is trying to accomplish and the skill sets and experience the individuals assigned to QA bring.						
As it applies to nuclear weapons maintenance QA.						
Right amount of experience is essential to be an effective inspector.						
The work in which QA performs does not align with the number or AFSCs assigned to QA. These leads to cut training QA personnel to perform all task assigned to the workcenter especially to cover TDYs and deployments						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q2: ACC aircraft unit/wing Ground Abort rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q2	4 4 5 4 5 2 4 3 4 3 4 4 6 3 3 4 4 4 2 1 6 4 6 2 6 4 4 5 4 2 4 5 3 4	3.88	57.6%	1.23	1.50	**0.32**
The B-1 is a different aircraft from previous aircraft.						
It all depends on the willingness of the inspectors to assist the units when they see problems about to arise. Some units do not need QA to ensure they have a strong abort rate while others could very well benefit from their inputs. Unit manning composition also has a big affect on the success of a unit's maintenance indicators.						
Their are times when quality of maintenance could have not prevented a ground abort.						
QA personnel at barksdale do not perform maintenance on acft. But through their inspection process it could have a slight positive impact on ground aborts.						
I only agree from the work our PIM guys do. Our trend analysis work has identified hydraulic problems and fixes which will help decrease ground aborts.						
Ground Aborts before crew show would be influenced more by this, such as, hydraulic leaks and fuel leaks that would be found during a QA follow-up inspection.						
Generally most breaks are related to the maintenance actions (i.e., repair/servicing) that were previously performed. The maintenance repairs are extensive that it would not be apparent to any qualified QA inspector to denote there was a potential issue to begin with. However, indirectly through the Quality Verification Inspections that the QA inspectors performs via the MSEP Program, I would say the Ground Abort rates improve.						
Quality Assurance personnel do not perform hands on maintenance while assigned to Quality Assurance positions.						
I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.						
Went through all the questions and can't really answer as they pertain mainly to flight line maintenance. But I will offer you my opinion on QA as a whole. I believe that if the maintenance sections have a quality training/certification program and quality maintenance is enforced by supervisors then re-enforced by QA then all your rates will be affected in a positive way. So in that respect I agree that QA affects ground abort, IFE, hung ordnance, tire FOD, etc...						
Most ground aborts (about 90%) are attributed to power on system component/LRU failures that wouldn't be detected by QA. Perhaps 5% to 10% of physical conditions i.e. cracked panels, could be prevented or minimized but only by 100% preflight follow up QVIs. Not realistic/feasible. Most aborts are component/system failures found during engine run or power on condition. Only by having KTL on preflight would I say that QA would impact ground aborts, and then maybe 10% from physical/visual conditions. i.e. cracked panels						
This falls on the maintenance personnel fixing the aircraft/and aircraft reliability. QA only sees a sampling of the maintenance being performed. They can, however, address abort trends and help curve the trends through training.						
In many case QA do not find out of the ground abort until after the fact and in many case do not find out at all. Leading to poor corrective actions and few training opportunities						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q3: ACC aircraft unit/wing In-Flight Emergency Abort rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q3	4 4 5 5 5 2 4 3 4 3 4 3 5 3 3 4 4 4 2 1 4 4 6 2 6 2 3 5 4 6 4 4 3 4	3.79	55.9%	1.20	1.44	**0.32**
It all depends on the willingness of the inspectors to assist the units when they see problems about to arise. Some units do not need QA to ensure they have a strong abort rate while others could very well benefit from their inputs. Unit manning composition also has a big affect on the success of a unit's maintenance indicators.						
Systems do fail in-flight due to wear.						
QA personnel at barksdale do not perform maintenance on acft. But through their inspection process it could have a slight positive impact on in-flight emergency/abort.						
I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.						
Generally most breaks are related to the maintenance actions (i.e., repair/servicing) that were previously performed. The maintenance repairs are extensive that it would not be apparent to any qualified QA inspector to denote there was a potential issue to begin with. QA inspectors DO NOT perform maintenance. However, indirectly through the Quality Verification Inspections that the QA inspectors performs via the MSEP Program, I would say the Ground Abort rates improve.						
The B-1 is a different aircraft from previous aircraft.						
Again, QA personnel are the MXG/CC eyes and ears on the flightline. Therefore these rates are not directly influenced by QA personnel.						
I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.						
KTL items do provide the last look at those critical maintenance tasks that if accomplished improperly could very well lead to IFE conditions if left undetected. KTL inspections do prevent those critical tasks that if improperly conducted/detected could lead to IFEs.						
This falls on the maintenance personnel fixing the aircraft/and aircraft reliability. QA only sees a sampling of the maintenance being performed. They can, however, address abort trends and help curve the trends through training.						
In many case QA do not find out of the ground abort until after the fact and in many case do not find out at all. Leading to poor corrective actions and few training opportunities						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q4: ACC aircraft unit/wing Aircraft Hung Ordnance rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q4	3 3 4 5 4 2 1 3 2 3 4 4 3 2 4 4 2 4 2 3 4 4 5 2 6 4 3 5 2 1 4 4 3 4	3.32	46.5%	1.17	1.38	**0.35**
In most units I've seen, QA 2W1s don't get involved with the troubleshooting of weapon release systems nor with supervisory inspections prior to flight thus they aren't exposed to deficiencies that might cause a hung munition.						
QA personnel at barksdale do not perform maintenance on acft. QA does not inspect weapons loads.						
Generally Nellis aircraft hung ordnance is related to old carts that are no longer used by the CAF but have been deemed suitable for training bases.						
More affected by the quality of training received in the load barn.						
QA AMMO inspectors do inspect weapons configuration prior to line delivery.						
I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.						
WSS plays a more bigger influence here but both can train/mentor. Also system reliability factors in.						
We accomplish more R&R for hung munitions without finding the root causes.						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q5: ACC aircraft unit/wing Aircraft Dropped Object rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q5	5 3 4 3 5 2 5 3 2 4 4 5 4 1 5 4 4 3 2 1 5 5 6 2 5 4 4 5 4 2 4 5 3 4	3.74	54.7%	1.29	1.66	**0.34**
Many drop object accrue from material failure.						
QA personnel at barksdale do not perform maintenance on acft. But through their inspection process it does have a positive impact on Aircraft Dropped Object.						
Generally most aircraft dropped objects are related to the maintenance actions (i.e., tacked panels) that were previously performed. The maintenance actions were such that it would not be apparent to any qualified QA inspector to denote there was a potential issue to begin with. Normally, the last line of defense on preventing a dropped object is the person that performed the Exceptional Release and/or the technicians performing end of runway inspections.						
B-1 DOPs fall into known object/categories. We check them all the time.						
In the preventable category.						
QA has no direct affect on dropped object rates.						
I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.						
They can be based on BPO/Preflight QVIs and follow up training in high miss or failure areas. ie. oil access doors. Again only if preflights were KTL item, not feasible/realistic in my opinion.						
QA can help with awareness and proper maintenance procedures to prevent dropped objects but maintenance practices/material failure play the most significant role here!						
Dropped objects have been a true bad subject because it takes those extra steps to research looking the for root causes.						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q6: ACC aircraft unit/wing Aircraft Tire/Foreign Object Damage rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q6	5 4 5 6 5 2 5 3 3 4 4 5 5 1 5 4 4 5 2 5 6 4 6 2 5 3 4 5 3 5 4 4 3 2	4.06	61.2%	1.28	1.63	**0.31**
QA personnel at barksdale do not perform maintenance on acft. But through their inspection process it does have a positive impact on Aircraft/Tire Foreign Object Damage.						
Generally most aircraft/tire FOD rates are related to the maintenance actions (i.e., repair/servicing/Preflight inspection) that were previously performed. The maintenance actions are such that it would not be apparent to any qualified QA inspector to denote there was a potential issue to begin with. QA inspectors DO NOT perform maintenance and the only way an inspector would detect a problem was is they were evaluating Preflight and Launch procedures. Normally, the last line of defense on preventing a dropped object is the person that performed the Exceptional Release and/or the technicians performing end of runway inspections.						
In the preventable category.						
If we're talking about an organization where the Wing FOD Manager works in QA, yes.						
Rates are can be affected by QA Assurance personnel involvement and follow up on the FOD program.						
I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.						
Again, rests mainly on maintenance personnel but QA and the Wing FOD Manager play a big role in education and enforcement of sound FOD prevention procedures.						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q7	5 4 5 6 5 2 5 4 3 4 5 5 6 1 4 4 4 5 2 5 6 4 6 2 6 5 4 5 5 5 4 4 3 2	4.26	65.3%	1.31	1.72	**0.31**

Q7: ACC aircraft unit/wing Engine Foreign Object Damage rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

QA personnel at barksdale do not perform maintenance on acft. But through their inspection process it does have a positive impact on Engine Foreign Object Damage.

Generally engine FOD rates are related to ingestion or internal engine component failure. The way an inspector would detect a problem was if they were evaluating Preflight/Launch procedures and FO was on the ramp in the general area of the aircraft. For the most part, there is not a way to relate ingestion and the QA inspector's quality of work. Also, there is no way for the QA inspector to know if there was need for concern regarding potential internal engine component failure. That is, the QA inspector performs a Quality Verification Evaluation upon the engine completing a test cell run. The inspector is reviewing the forms and evaluating the external condition of the engine based on the maintenance actions. But since the maintenance actions are so extensive it would not be apparent to any qualified QA inspector to denote there was a potential issue to begin with.

In the preventable category.

Not by direct work performed, but by follow up and enforcement of FOD policies.

I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.

Again, rests mainly on maintenance personnel but QA and the Wing FOD Manager play a big role in education and enforcement of sound FOD prevention procedures.

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q8	4 4 4 5 5 2 5 4 3 4 5 4 4 1 4 4 5 4 2 1 5 4 6 2 5 4 4 5 4 4 4 4 3 2	3.82	56.5%	1.19	1.42	**0.31**

Q8: ACC aircraft unit/wing Aircraft Class-B Mishap rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

QA personnel at barksdale do not perform maintenance on acft. But through their follow-up inspection process of preflights, etc. it does have a positive impact on Aircraft Class-B Mishap.

Based on the types of Class B Mishap rates here at Nellis patch, I have not seen a correlation between the event and the quality of work performed by the QA personnel.

I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.

Dependent on QA presence on the flight light in prevention of maintenance induced ground mishaps. Any ground mishaps can be impacted by QA presence/visibility on the flight line. Greater presence/visibility could potentially reduce improper ground handling/service/maintenance procedures that lead to mishaps.

QA can help prevent through awareness, enforcement, education but sound maintenance practices, aircrew discipline, and aircraft/part reliability are drivers.

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q9	4 4 4 5 5 2 5 4 3 4 5 4 4 1 4 4 5 4 2 1 4 4 6 2 5 5 4 5 4 4 4 5 3 2	3.85	57.1%	1.21	1.46	**0.31**

Q9: ACC aircraft unit/wing Aircraft Class-C Mishaps rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.

QA personnel at barksdale do not perform maintenance on acft. But through their follow-up inspection process of preflights, etc. it does have a positive impact on Aircraft Class-C Mishap.

Based on the types of Class C Mishap rates here at Nellis patch, I have not seen a correlation between the event and the quality of work performed by the QA personnel.

I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.

Any ground mishaps can be impacted by QA presence/visibility on the flight line. Greater presence/visibility could potentially reduce improper ground handling/service/maintenance procedures that lead to mishaps.

QA can help prevent through awareness, enforcement, education but sound maintenance practices, aircrew discipline, and aircraft/part reliability are drivers.

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q10: ACC aircraft unit/wing Maintenance Personnel Training pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q10	6 4 4 6 4 5 6 3 5 4 4 6 2 3 2 4 3 5 2 4 5 4 6 5 5 4 4 5 2 1 6 3 3 4	4.09	61.8%	1.36	1.84	0.33
The only QA interface with mx training quality is annual PEs on instructors, course reviews, and an occasional MSEP inspection (T.O.s, CTKs, etc).						
I would tend to agree with this statement. Our QA inspectors perform PE on FTD Instructors...we also perform PE on 50 percent of the members who complete the FTD course						
Through the QA personal evaluation (PE)process it creates a positive impact of pass rates. Increases individual awareness and attention to detail.						
Based on the Maintenance Personnel Training (i.e., MTF)pass rates, our purpose is to verify that the technician/instructor are performing tasks commensurate with their AFSC and skill level. However, when we are performing Quality Verification Inspections and there is a potential for training, I would say that we are affecting the future pass rate in a positive direction because the instructor will include the feedback in their work ethic.						
Depends on how much of a training role the QA takes on. This is more influenced by the background and personality of the QA Chief and his/her interaction with the MXG/CC than the quality of work performed by QA.						
Indirectly through after training and qualification evaluations.						
They can influence along with maintenance training flight but supervisors and trainers in the sections have the most influence.						
QA needs to be the eyes and ears to see if the training g being accomplished meet the needs. But at the same time QA in the first line of trainers and many QAs miss this point leaving mx training in the role alone.						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q11: ACC aircraft unit/wing Phase Dock Inspection pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q11	6 3 5 6 6 5 6 4 5 4 5 6 2 3 5 5 4 4 5 5 6 4 6 5 6 6 5 5 3 5 6 6 3 2	4.76	75.3%	1.21	1.46	0.25
Our QA personnel identify work card discrepancies, we also conduct additional training to correct negative trends						
With the KTL inspection criteria directed for QA phase follow-up it helps highlight areas of special interest.						
Based on the Phase Dock Inspection pass rates, our purpose is to verify that the technician is performing tasks commensurate with their AFSC and skill level. However, when we are performing Quality Verification Inspections and there is a potential for training, I would say that we are affecting the future pass-rate in a positive direction because the instructor will include the feedback in their work ethic.						
They can influence along with maintenance training flight but supervisors and trainers in the sections have the most influence.						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q12: ACC aircraft unit/wing Repeat rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q12	3 3 5 5 4 2 3 3 2 3 4 4 2 5 4 4 1 4 2 1 4 4 6 2 4 5 4 5 3 4 5 4 3 4	3.56	51.2%	1.21	1.47	0.34
QA realistically cannot control repeats unless the repeats are effected by a training issue.						
Yes, because the QA Chief Inspector, Maintenance Superintendent, and Flight Commander review the repeats based on MDS to note common threads and in turn provide our observations with the respective AMU Chiefs/OICs.						
I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.						
Not directly but experience and on the spot training by QA personnel can help to curve repeat trends as technicians learn to apply troubleshooting techniques that you sometimes can't get from a TO.						
Rests mainly on the quality of maintenance being performed and reliability of replacement parts but QA can definitely verify quality of maintenance being performed on repeat write-ups.						
QA should the first to ask the why question when repeats are seen.						

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q13: ACC aircraft unit/wing Recur rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q13	3 3 5 5 4 2 3 3 2 3 3 4 2 5 4 4 1 4 2 1 4 4 6 2 5 4 4 5 4 4 4 4 3 4	3.53	50.6%	1.19	1.41	**0.34**

QA realistically cannot control repeats unless the recur are effected by a training issue.

Yes, because the QA Chief Inspector, Maintenance Superintendent, and Flight Commander review the recurs based on MDS to note common threads and in turn provide our observations to the respective AMU Chiefs/OICs.

I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.

Not directly but experience and on the spot training by QA personnel can help to curve repeat trends as technicians learn to apply troubleshooting techniques that you sometimes can't get from a TO.

Rests mainly on the quality of maintenance being performed and reliability of replacement parts but QA can definitely verify quality of maintenance being performed on repeat write-ups.

QA needs to question for every recur and look for trands.

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q14: ACC aircraft unit/wing Late Takeoff rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q14	2 3 3 5 4 2 3 3 2 3 3 4 5 5 2 3 1 4 2 1 1 3 6 2 1 2 2 5 3 2 4 5 2 2	2.94	38.8%	1.35	1.81	**0.46**

QA realistically cannot control late takeoffs unless it is effected by a training issue in how to troubleshoot.

Yes, because the QA Chief Inspector, Maintenance Superintendent, and Flight Commander review the Late Takeoff rates based on MDS to note common threads and in turn provide our observations to the respective AMU Chiefs/OICs.

The B-1 is a different aircraft from previous aircraft.

I think the way the question should be ask is how much does QA evaluations affect and/or influence unit/wing rates. QA does not do a lot of hands-on maintenance. And maybe I'm missing your intent, but I'll answer assuming the question is based on evaluations not hands-on.

Rests solely on leadership on the flight line.

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q15: ACC aircraft unit/wing Safety rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q15	4 5 5 6 6 3 6 4 4 4 3 5 4 5 5 4 3 4 5 5 4 5 6 5 6 4 4 5 4 5 6 5 3 4	4.59	71.8%	0.92	0.86	**0.20**

Through the QA personal evaluation (PE)process it creates a positive impact of pass rates. Increases individual awareness and attention to detail.

Yes, because the mere presence of QA inspectors in the flight line and back shop work areas causes the maintenance technician to slow down and ensure they are doing the job correctly by the TOs. But regardless of the amount of QA presence, there are always the cases where the technician performs DSVs, TDVs, and UCRs right in front of the QA inspector.

Not familiar with the metric "Safety Rates"

By enforcement of AFI and AFOSH standards and Wing Instructions to ensure adherence.

They can influence but rests on leadership.

Between QA and flight line supervisors every safety incident should be detected.

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var
Q16: ACC aircraft unit/wing HHQ Inspection (i.e. IG, LOCAT, ESHOCAMP, SAVs, etc.) pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.						
Q16	4 5 6 6 6 5 6 4 3 4 5 5 6 5 6 4 5 4 5 5 6 6 4 5 6 5 5 5 5 6 6 5 3 6	5.06	81.2%	0.89	0.78	**0.18**

QA is the lead evaluation arm in the MXG, therefore is has a large, direct impact on inspections along with unit leadership.

I believe the QA Activity Inspections program and the fact that we are the primary for the Groups Compliance Inspections will directly affect the quality of work this Wing/Group produces.

QA inspection process (activity/management) ensures units are well prepared for HHQ inspections

Yes, because the mere presence of QA inspectors in the flight line and back shop work areas causes the maintenance technician to slow down and ensure they are doing the job correctly by the TOs. Moreover, through the MSEP and Activity Inspection program, QA is a the forefront and ultimately through the inspection progress, the unit/wing will improve its pass rate. However, regardless of the amount of QA presence, there are always the cases where the technician performs DSVs, TDVs, and UCRs right in front of the QA inspector.

QA provides in-depth pre-inspections in getting Wing's ready for an inspection.

They can influence but rests on leadership.

Q#	Fill-In Ratings	
Q17/Q18/Q19: ACC aircraft unit/wing __________ rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.		
Rating	Metric	
6	Key Task list	QA should take on a broader role evaluating processes, not just individuals, equipment, vehicles or facilities. 8 Hour fix rate is crucial since it normally reflects the second/maintenance shift's (usually swings) ability to fix aircraft, including code 3 breaks. A low 8 hr fix rate usually means trouble the next day's flying schedule.
5	KTL	No comment
6	Quality Verification Inspections	FSE can identify maintenance deviations, including mx lates and mx cancellations. QA can have an impact here if they pursue root causes, together with analysis and training, of these deviations and recommend corrective actions. Along with evaluations and management of programs, this is/should be a critical part of QA's business. Unfortunately, it often is not because of lack of MXG/CC focus, lack of inspector training, or lack of QA manning, to include lack of experience/rank in the SNCO & officer.
5	Flying Scheduling Effectiveness	No comment
4	mission capable	The more QA is involved in flightline maintenance ... the more knowledgeable the maintenance troops are at troubleshooting discrepancies. This is not an immediate process, it will take time if a QA is not directly involved in maintenance.
4	MC rates	Rest on flightline leadership/airfield mgt to enforce sound FOD prevention procedures.
4	mission capable	No comment
5	MC rates	No comment
5	8 hour fix	No comment
4	8/12 hour fix rate	No comment
6	12 hr fix rates	No comment
5	Fix rates.	No comment
5	Deficiency reporting rate	I go back to my comment on the second question. If QA re-enforces what the technician has already been taught then all maintenance will be performed to a higher standard. I also believe the reverse is true, if QA does a poor job of enforcing standards then the rates mentioned will suffer.
5	Cruise Missile Availability Rate	Training/experience passed on from QA can enhance knowledge base of flightline technicians and potentially reduce fix times in some instances
2	cut tires	No comment
6	ORI	No comment
6	Donor aircraft	Same as above. This is a much broader metric and manning level, training, T.O. management/accuracy/usage, equipment levels/performance and other factors play an important part. MXG/CCs should request QA management inspections on areas possibly impacting high TNMCM rates to gain feedback and to train QA inspectors on how to review multiple areas and provide recommendations. Again, lack of QA manning and ops tempo usually prevents this.
5	TNMCM	No comment
5	technical order compliance	No comment
5	technical order improvement initiatives	No comment

Appendix H: Delphi Survey, Part-2 Response for AFSC 2A0X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A0X1	2A0X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A3X0	2.80	2.00	4.00	3.00	2.50	2.75	4.00	2.80	2.00	2.50	3.00	3.00	1.75	1.25	2.1250	2.7750	3.0000	23%	36%	40%
	2A3X1	4.16	4.35	5.00	4.00	4.00	4.16	4.00	4.00	4.16	4.16	4.00	4.00	5.00	6.00	4.0000	4.1579	4.3020	60%	63%	66%
	2A3X2	5.00	4.35	5.00	6.00	4.00	3.00	5.00	5.00	2.00	5.00	4.00	5.00	5.00	6.00	4.0875	5.0000	5.0000	62%	80%	80%
	2A3X3	2.53	1.00	3.00	2.00	2.75	2.50	3.00	3.00	2.53	2.25	3.00	3.00	2.75	1.25	2.3125	2.6382	3.0000	26%	33%	40%
	2A590	2.47	2.95	3.00	3.00	2.75	2.50	3.00	4.50	2.47	2.25	3.00	3.00	2.00	1.25	2.4737	2.8500	3.0000	29%	37%	40%
	2A5X1	2.10	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.10	2.10	2.00	3.00	2.00	1.25	2.0000	2.0000	2.0750	20%	20%	22%
	2A5X2	2.00	1.00	2.00	2.00	2.00	2.00	2.00		2.00	2.00	2.00	2.00	2.00	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A5X3	4.00	3.80	5.00	6.00	4.00	3.00	5.00	5.00	2.00	4.00	2.00	5.00	3.00	6.00	3.2000	4.0000	5.0000	44%	60%	80%
	2A6X0	2.75	1.00	3.00	3.00	2.75	2.50	4.00	2.75	2.25	2.25	2.00	3.00	3.00	2.75	2.3125	2.7500	3.0000	26%	35%	40%
	2A6X1	1.90	1.00	2.00	2.00	1.90	1.50	4.00	1.90	2.15	1.90	2.00	1.00	1.90	1.25	1.6000	1.9000	2.0000	12%	18%	20%
	2A6X2	1.70	1.00	2.00	2.00	1.70	1.50	2.00	2.00	1.50	1.75	2.00	2.00	2.50	1.25	1.5500	1.8750	2.0000	11%	18%	20%
	2A6X3	1.70	1.00	2.00	1.50	1.70	1.50	2.00	1.70	1.75	1.75	2.00	1.00	2.00	1.25	1.5000	1.7000	1.9375	10%	14%	19%
	2A6X4	1.65	1.00	2.00	1.50	1.65	1.50	2.00	1.65	1.50	1.75	2.00	1.00	2.00	1.25	1.5000	1.6500	1.9375	10%	13%	19%
	2A6X5	1.70	1.00	2.00	1.50	1.70	1.50	2.00	1.70	1.60	1.75	2.00	2.00	2.00	1.25	1.5250	1.7000	2.0000	11%	14%	20%
	2A6X6	2.45	2.00	4.00	3.00	2.45	2.00	2.00	2.45	2.50	2.25	2.00	2.00	3.00	1.25	2.0000	2.3500	2.4875	20%	27%	30%
	2A7X3	1.60	1.00	2.00	2.00	1.75	1.50	2.00	1.60	1.50	1.50	2.00	1.00	1.50	1.25	1.5000	1.5500	1.9375	10%	11%	19%
	2A7X4	1.45	1.00	2.00	1.50	1.75	1.50	2.00	1.45	1.25	1.50	2.00	1.00	2.00	1.25	1.3000	1.5000	1.9375	6%	10%	19%
	2E1X1	2.06	2.00	4.00	1.50	2.06	2.00	2.00	3.50	2.00	2.06	1.00	1.00	2.06	1.25	1.6250	2.0000	2.0556	13%	20%	21%
	2E2X1	2.06	2.00	5.00	1.50	2.06	2.00	2.00	3.50	2.00	2.06	1.00	2.00	2.06	1.25	2.0000	2.0000	2.0556	20%	20%	21%
	2M0X1	1.80	1.00	4.00	2.00	1.80	1.50	2.00	1.75	1.75	1.80	1.00	1.00	1.25	1.25	1.2500	1.7500	1.8000	5%	15%	16%
	2W0X1	1.40	1.00	2.00	1.50	1.40	1.50	2.00	1.50	1.50	1.50	1.00	1.00	1.25	1.25	1.2500	1.4500	1.5000	5%	9%	10%
	2W1X1	1.68	1.00	3.00	1.50	1.68	1.50	2.00	1.50	1.50	1.68	2.00	1.00	1.25	1.25	1.3125	1.5000	1.6842	6%	10%	14%
	2W2X1	1.60	1.00	2.00	1.50	1.60	1.50	2.00	1.50	1.50	1.75	2.00	1.00	1.25	1.25	1.3125	1.5000	1.7125	6%	10%	14%

Appendix I: Delphi Survey, Part-2 Response for AFSC 2A3X0

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A3X0	2A0X1	3.10	1.00	4.00	3.00	3.00	2.50	3.00	2.50	2.75	2.50	4.00	3.00	3.10	3.10	2.5625	3.0000	3.0952	31%	40%	42%
	2A3X0	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A3X1	3.50	3.00	4.00	3.00	3.50	3.50	3.00	3.50	3.50	3.50	4.00	3.00	4.25	1.25	3.0000	3.5000	3.5000	40%	50%	50%
	2A3X2	3.18	3.00		3.50	3.25	3.00	3.00	3.50	3.18	3.50	4.00	4.00	4.25	1.25	3.0000	3.2500	3.5000	40%	45%	50%
	2A3X3	4.09	5.10	3.00	5.00	4.75	4.50	4.00	4.00	4.09	4.50	5.00	4.25	5.50	1.25	4.0227	4.3750	4.9375	60%	68%	79%
	2A590		3.50	5.00	6.00	5.00	5.00	4.00	5.00	6.00	6.00	5.00	5.00	6.00	6.00	5.0000	5.0000	6.0000	80%	80%	100%
	2A5X1	3.91	4.45	4.00	5.00	3.75	4.00	5.00	4.50	3.91	4.50	5.00	5.00	5.00	1.25	3.9318	4.4750	5.0000	59%	70%	80%
	2A5X2	3.73	4.05	4.00	3.50	3.73	4.00	4.00		3.73	4.25	5.00	3.00	4.00	1.25	3.7273	4.0000	4.0000	55%	60%	60%
	2A5X3	3.36	2.00	4.00	3.00	3.36	3.00	3.00	3.50	3.36	3.00	4.00	4.00	3.75	3.36	3.0000	3.3636	3.6875	40%	47%	54%
	2A6X0	6.00	2.50	6.00	1.00	5.00	5.00	5.00	5.00	6.00	6.00	4.00	4.00	6.00	1.00	4.0000	5.0000	6.0000	60%	80%	100%
	2A6X1	3.27	3.25	3.00	3.50	3.27	3.50	4.00	3.27	3.27	3.27	4.00	4.00	4.25	1.25	3.2727	3.2727	3.8750	45%	45%	58%
	2A6X2	2.68	3.30	3.00	3.00	3.00	3.00	3.00	2.68	2.68	3.50	5.00	3.00	3.75	1.25	2.7614	3.0000	3.2250	35%	40%	45%
	2A6X3	2.82	1.00	3.00	2.50	2.82	3.00	3.00	2.82	2.50	2.50	4.00	4.00	3.50	1.25	2.5000	2.8182	3.0000	30%	36%	40%
	2A6X4	2.95	1.00	3.00	2.50	2.95	3.00	4.00	2.95	2.50	2.95	2.00	4.00	3.50	1.25	2.5000	2.9545	3.0000	30%	39%	40%
	2A6X5	3.14	1.00	3.00	3.50	3.14	3.00	4.00	3.14	2.75	3.50	2.00	3.15	3.75	1.25	2.8125	3.1364	3.4125	36%	43%	48%
	2A6X6	3.27	2.00	3.00	4.00	3.27	3.00	3.00	3.27	3.00	3.27	2.00	3.00	4.25	1.25	3.0000	3.0000	3.2727	40%	40%	45%
	2A7X3	2.73	1.00	3.00	3.00	2.73	2.50	3.00	2.73	2.50	2.73	2.00	3.00	3.50	1.25	2.5000	2.7273	3.0000	30%	35%	40%
	2A7X4	2.36	1.00	3.00	2.00	2.36	2.36	2.00	3.50	2.00	2.36	2.00	2.00	3.25	1.25	2.0000	2.1818	2.3636	20%	24%	27%
	2E1X1	1.89	2.00	3.00	1.50	1.89	1.50	2.00	2.00	1.89	1.75	1.00	1.00	1.89	1.25	1.5000	1.8947	1.9737	10%	18%	19%
	2E2X1	1.84	2.00	3.00	1.50	1.84	1.50	2.00	2.00	1.50	1.75	1.00	1.00	1.84	1.25	1.5000	1.7961	1.9605	10%	16%	19%
	2M0X1	2.00	1.00	3.00	2.00	2.00	2.00	2.00	2.00	1.50	2.00	1.00	1.00	2.00	1.25	1.3125	2.0000	2.0000	6%	20%	20%
	2W0X1	2.33	1.00	3.00	2.50	2.33	2.00	3.00	2.33	2.00	2.33	1.00	1.00	2.00	1.25	1.4375	2.1667	2.3333	9%	23%	27%
	2W1X1	3.00	2.00	3.00	3.50	3.00	3.00	3.00	3.00	2.75	3.00	2.00	2.00	3.00	1.25	2.1875	3.0000	3.0000	24%	40%	40%
	2W2X1	2.14	1.00	3.00	1.50	2.14	2.00	3.00	2.14	2.00	2.14	2.00	1.00	2.00	1.25	1.6250	2.0000	2.1364	13%	20%	23%

Appendix J: Delphi Survey, Part-2 Response for AFSC 2A3X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A3X1	2A0X1	5.00	1.00	5.00	6.00	6.00	5.00	4.00	5.00		4.00	4.00	5.00	5.00	6.00	4.0000	5.0000	5.0000	60%	80%	80%
	2A3X0	3.57	1.00	4.00	5.00	3.75	3.00	4.00	3.00	3.50	3.57	3.00	5.00	2.75	1.25	3.0000	3.5357	3.9375	40%	51%	59%
	2A3X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A3X2	6.00	3.50	5.00	6.00	5.00	4.00	5.00	6.00	5.00	5.00	5.00	6.00	6.00	6.00	5.0000	5.0000	6.0000	80%	80%	100%
	2A3X3	2.81	1.00	4.00	3.00	2.81	2.50	4.00	3.00	2.50	3.25	4.00	4.00	3.50	1.25	2.5774	3.0000	3.8750	32%	40%	58%
	2A590	3.25	1.00	4.00	4.00	3.25	3.00	4.00	3.50	3.25	3.50	3.00	4.00	3.00	3.25	3.0625	3.2500	3.8750	41%	45%	58%
	2A5X1	2.81	1.00	4.00	2.50	2.50	2.50	3.00	2.75	2.75	3.25	2.00	4.00	3.00	1.25	2.5000	2.7500	3.0000	30%	35%	40%
	2A5X2	2.71	1.00	4.00	2.00	2.50	2.50	2.00		2.50	3.00	2.00	2.00	3.00	1.25	2.0000	2.5000	2.7143	20%	30%	34%
	2A5X3	4.05	2.50	5.00	5.00	4.05	3.50	3.00	4.25	4.05	4.25	2.00	4.25	4.75	4.05	3.6364	4.0455	4.2500	53%	61%	65%
	2A6X0	3.52	2.00	4.00	4.00	3.25	3.52	4.00	4.75	3.25	3.52	3.00	4.00	3.52	3.52	3.3185	3.5238	4.0000	46%	50%	60%
	2A6X1	2.38	1.00	4.00	2.50	2.38	2.00	2.00	2.00	2.25	2.75	3.00	2.00	2.75	1.25	2.0000	2.3155	2.6875	20%	26%	34%
	2A6X2	1.86	1.00	4.00	2.00	1.86	1.50	2.00	1.86	1.75	2.00	2.00	3.00	2.50	1.25	1.7784	1.9318	2.0000	16%	19%	20%
	2A6X3	2.09	1.00	4.00	2.00	2.09	2.00	2.00	2.09	2.00	2.09	2.00	2.00	2.00	1.25	2.0000	2.0000	2.0909	20%	20%	22%
	2A6X4	2.14	1.00	4.00	2.00	2.14	2.00	2.00	2.14	2.00	2.25	2.00	2.25	2.00	1.25	2.0000	2.0000	2.1364	20%	20%	23%
	2A6X5	2.23	1.00	4.00	2.00	2.23	2.00	3.00	2.23	2.00	2.23	2.00	3.00	2.75	1.25	2.0000	2.2273	2.6193	20%	25%	32%
	2A6X6	2.77	2.00	5.00	3.50	2.77	2.00	3.00	3.00	2.50	3.50	2.00	3.00	3.00	1.25	2.1250	2.8864	3.0000	23%	38%	40%
	2A7X3	1.95	1.00	4.00	1.50	1.95	1.50	2.00	1.95	2.00	1.95	2.00	2.00	1.95	1.25	1.6136	1.9545	2.0000	12%	19%	20%
	2A7X4	1.82	1.00	4.00	1.50	1.82	1.50	3.00	1.82	1.75	1.82	2.00	1.00	1.82	1.25	1.5000	1.8182	1.8182	10%	16%	16%
	2E1X1	1.95	2.00	5.00	2.00	1.95	2.00	2.00	1.95	2.00	1.95	1.00	2.00	1.95	1.25	1.9500	1.9750	2.0000	19%	20%	20%
	2E2X1	2.05	2.00	5.00	1.50	2.05	2.00	2.00	2.05	2.00	2.05	1.00	2.00	2.05	1.25	2.0000	2.0000	2.0526	20%	20%	21%
	2M0X1	1.81	1.00	4.00	1.50	1.81	1.50	2.00	1.81	1.75	1.81	1.00	2.00	1.25	1.25	1.3125	1.7798	1.8095	6%	16%	16%
	2W0X1	1.64	1.00	4.00	1.50	1.64	1.50	2.00	1.64	1.75	1.75	1.00	1.00	1.25	1.25	1.2500	1.5682	1.7216	5%	11%	14%
	2W1X1	1.95	1.00	4.00	2.00	1.95	1.50	2.00	1.95	2.00	1.95	2.00	1.00	1.25	1.25	1.3125	1.9545	2.0000	6%	19%	20%
	2W2X1	1.68	1.00	4.00	1.50	1.68	1.50	2.00	1.68	1.60	1.68	2.00	1.00	1.25	1.25	1.3125	1.6409	1.6818	6%	13%	14%

Appendix K: Delphi Survey, Part-2 Response for AFSC 2A3X2

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A3X2	2A0X1	5.00	1.00	5.00	6.00	6.00	5.00	4.00	5.00		4.00	4.00	5.00	5.00	6.00	4.0000	5.0000	5.0000	60%	80%	80%
	2A3X0	3.94	1.00	4.00	5.00	4.00	3.50	4.00	3.50	3.75	3.75	3.00	5.00	2.75	1.25	3.1250	3.7500	4.0000	43%	55%	60%
	2A3X1	6.00	1.00	5.00	6.00	5.00	5.00	5.00	6.00	5.00	5.00	4.00	6.00	6.00	6.00	5.0000	5.0000	6.0000	80%	80%	100%
	2A3X2	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A3X3	2.80	1.00	3.00	3.00	3.00	2.50	3.00	3.00	2.75	3.50	4.00	4.00	3.50	1.25	2.7625	3.0000	3.3750	35%	40%	48%
	2A590	2.84	2.00	4.00	4.00	2.84	2.50	3.00	3.50	2.75	3.50	3.00	4.00	3.00	2.84	2.8421	3.0000	3.5000	37%	40%	50%
	2A5X1	2.58	1.00	3.00	2.50	2.50	2.50	2.00	2.75	2.75	3.25	3.00	4.00	2.75	1.25	2.5000	2.6645	2.9375	30%	33%	39%
	2A5X2	2.55	1.00	3.00	2.00	2.50	2.50	3.00		2.50	3.00	3.00	2.00	3.00	1.25	2.0000	2.5000	3.0000	20%	30%	40%
	2A5X3	4.28	3.00	3.00	5.00	4.28	3.50	4.00	4.25	3.75	4.50	5.00	1.00	4.75	4.28	3.5625	4.2639	4.4444	51%	65%	69%
	2A6X0	3.10	2.00	4.00	4.00	3.10	3.00	3.00	3.50	3.00	3.25	3.00	3.00	3.10	3.10	3.0000	3.1000	3.2125	40%	42%	44%
	2A6X1	2.20	1.00	3.00	2.50	2.20	2.00	2.00	2.00	2.00	2.50	3.00	2.00	2.75	1.25	2.0000	2.1000	2.5000	20%	22%	30%
	2A6X2	1.85	1.00	3.00	2.00	1.85	1.50	2.00	1.85	1.75	2.25	2.00	3.00	2.50	1.25	1.7750	1.9250	2.1875	16%	19%	24%
	2A6X3	2.00	1.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.25	2.00	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A6X4	2.05	1.00	3.00	2.00	2.05	2.00	2.00	2.05	2.25	2.25	2.00	2.50	2.00	1.25	2.0000	2.0250	2.2000	20%	21%	24%
	2A6X5	2.11	1.00	3.00	2.00	2.11	2.00	2.00	2.11	2.45	2.50	2.00	3.00	2.75	1.25	2.0000	2.1053	2.4875	20%	22%	30%
	2A6X6	2.55	2.00	4.00	3.50	2.55	2.50	3.00	3.00	2.50	3.50	2.00	2.75	3.00	1.25	2.5000	2.6500	3.0000	30%	33%	40%
	2A7X3	1.85	1.00	3.00	1.50	1.85	1.50	2.00	1.85	1.75	1.85	2.00	2.00	1.85	1.25	1.5625	1.8500	1.9625	11%	17%	19%
	2A7X4	1.80	1.00	3.00	1.50	1.80	1.50	2.00	1.80	1.75	1.80	2.00	1.00	1.80	1.25	1.5000	1.8000	1.8000	10%	16%	16%
	2E1X1	1.89	2.00	4.00	2.00	1.89	2.00	3.00	3.00	2.00	1.89	1.00	2.00	1.89	1.25	1.8947	2.0000	2.0000	18%	20%	20%
	2E2X1	1.89	2.00	4.00	1.50	1.89	2.00	2.00	2.00	1.75	1.89	1.00	2.00	1.89	1.25	1.7862	1.8947	2.0000	16%	18%	20%
	2M0X1	1.60	1.00	3.00	1.50	1.60	1.50	2.00	1.60	1.50	1.75	1.00	2.00	1.25	1.25	1.3125	1.5500	1.7125	6%	11%	14%
	2W0X1	1.55	1.00	3.00	1.50	1.55	1.50	2.00	1.55	1.50	1.75	1.00	1.00	1.25	1.25	1.2500	1.5000	1.5500	5%	10%	11%
	2W1X1	1.95	1.00	3.00	2.00	1.95	2.00	2.00	1.95	2.00	1.95	2.00	1.00	1.25	1.25	1.4250	1.9500	2.0000	9%	19%	20%
	2W2X1	1.70	1.00	3.00	1.50	1.70	1.50	2.00	1.70	1.75	1.75	2.00	1.00	1.25	1.25	1.3125	1.7000	1.7500	6%	14%	15%

Appendix L: Delphi Survey, Part-2 Response for AFSC 2A3X3

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A3X3	2A0X1	2.42	1.00	3.00	2.00	2.50	2.00	2.00	2.50	2.25	2.42	3.00	3.00	2.42	1.25	2.0000	2.4211	2.5000	20%	28%	30%
	2A3X0	5.11	1.00	5.00	5.00	5.00	4.50	6.00	5.50	5.00	5.25	3.00	6.00	4.75	1.25	4.5625	5.0000	5.2138	71%	80%	84%
	2A3X1	3.26	1.00	3.00	3.00	3.00	3.00	3.00	3.50	3.00	3.26	3.00	3.00	3.50	1.25	3.0000	3.0000	3.1974	40%	40%	44%
	2A3X2	3.53	1.00	3.00	3.00	3.00	3.00	3.00	4.00	3.50	3.53	4.00	4.00	4.00	1.25	3.0000	3.2500	3.8816	40%	45%	58%
	2A3X3	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A590	4.53	4.00	5.00	5.00	4.75	4.53	4.00	5.00	4.50	4.75	3.00	5.00	4.25	4.53	4.3125	4.5263	4.9375	66%	71%	79%
	2A5X1	5.00	4.00	5.00	1.00	4.00	4.00	5.00	5.00	4.00	6.00		5.00	5.00	1.00	4.0000	5.0000	5.0000	60%	80%	80%
	2A5X2	5.00	3.00	5.00	1.00	4.00	4.00	4.00		4.00	6.00		3.00	5.00	1.00	3.0000	4.0000	5.0000	40%	60%	80%
	2A5X3	3.05	1.00	4.00	3.00	3.05	3.05	3.00	3.50	3.00	3.25	3.00	4.00	3.00	3.05	3.0000	3.0500	3.2000	40%	41%	44%
	2A6X0	4.15	2.00	4.00	4.00	3.50	4.15	4.00	5.00	3.75	4.50	3.00	4.00	3.75	4.15	3.7500	4.0000	4.1500	55%	60%	63%
	2A6X1	3.45	2.00	4.00	4.00	3.45	3.00	3.00	3.50	3.25	3.45	3.00	4.00	4.25	1.25	3.0000	3.4500	3.8750	40%	49%	58%
	2A6X2	2.20	2.00	2.00	3.00	2.20	2.50	2.00	2.50	2.25	2.50	4.00	3.00	3.00	1.25	2.0500	2.3750	2.8750	21%	28%	38%
	2A6X3	2.20	1.00	3.00	1.75	2.20	2.00	2.00	3.00	2.25	2.20	2.00	2.50	3.00	1.25	2.0000	2.2000	2.4375	20%	24%	29%
	2A6X4	2.50	1.00	3.00	3.00	2.50	2.50	2.00	3.00	2.75	2.50	2.00	2.75	4.00	1.25	2.1250	2.5000	2.9375	23%	30%	39%
	2A6X5	3.20	2.00	4.00	4.00	3.20	3.00	3.00	4.00	3.00	3.50	2.00	3.25	4.00	1.25	3.0000	3.2000	3.8750	40%	44%	58%
	2A6X6	2.95	1.00	4.00	3.50	2.95	3.00	3.00	2.95	2.75	3.25	2.00	3.00	3.50	1.25	2.8000	2.9750	3.1875	36%	40%	44%
	2A7X3	2.50	1.00	4.00	2.50	2.50	2.50	2.00	3.00	2.25	2.75	2.00	3.00	2.75	1.25	2.0625	2.5000	2.7500	21%	30%	35%
	2A7X4	1.90	1.00	3.00	1.75	1.90	2.00	2.00	2.00	2.00	1.90	2.00	2.00	2.50	1.25	1.9000	2.0000	2.0000	18%	20%	20%
	2E1X1	1.47	1.00	3.00	1.50	1.75	1.50	1.00	1.50	1.50	1.50	1.00	1.00	1.47	1.25	1.0625	1.4868	1.5000	1%	10%	10%
	2E2X1	1.47	1.00	3.00	1.50	1.75	1.50	1.00	1.47	1.40	1.50	1.00	1.00	1.47	1.25	1.0625	1.4737	1.5000	1%	9%	10%
	2M0X1	1.60	1.00	3.00	2.00	1.60	1.50	2.00	1.60	1.50	1.75	1.00	1.00	1.25	1.25	1.2500	1.5500	1.7125	5%	11%	14%
	2W0X1	1.60	1.00	3.00	1.75	1.60	1.50	2.00	1.60	1.75	1.75	1.00	1.00	1.25	1.25	1.2500	1.6000	1.7500	5%	12%	15%
	2W1X1	2.30	2.00	3.00	2.00	2.50	2.00	3.00	2.30	2.25	2.25	3.00	2.00	1.50	1.25	2.0000	2.2500	2.4500	20%	25%	29%
	2W2X1	1.65	1.00	3.00	1.50	1.65	1.50	2.00	1.65	1.60	1.50	2.00	1.00	1.25	1.25	1.3125	1.5500	1.6500	6%	11%	13%

Appendix M: Delphi Survey, Part-2 Response for AFSC 2A590

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A590	2A0X1	2.95	1.00	4.00	3.00	3.00	2.50	3.00	3.00	2.75	2.50	4.00	3.00	2.95	2.95	2.7993	2.9737	3.0000	36%	39%	40%
	2A3X0	5.00	1.00	5.00	6.00	5.00	5.00	6.00	5.00	6.00	6.00	5.00	5.00	5.00	6.00	5.0000	5.0000	6.0000	80%	80%	100%
	2A3X1	3.22	1.00	4.00	3.50	3.00	3.00	3.00	3.50	3.25	3.50	4.00	3.00	4.25	1.25	3.0000	3.2361	3.5000	40%	45%	50%
	2A3X2	3.22	1.00	4.00	3.50	3.22	3.00	3.00	3.50	3.22	3.50	4.00	4.00	4.00	1.25	3.0556	3.3611	3.8750	41%	47%	58%
	2A3X3	3.95	1.00	5.00	5.00	4.00	4.00	4.00	4.50	3.75	4.50	5.00	5.00	4.50	1.25	3.9605	4.2500	4.8750	59%	65%	78%
	2A590	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A5X1	4.24	4.00	5.00	5.00	4.24	4.50	4.00	5.25	4.00	4.50	5.00	4.50	5.50	1.25	4.0595	4.5000	5.0000	61%	70%	80%
	2A5X2	3.65	3.00	4.00	3.00	4.25	3.50	4.00		3.50	4.25	5.00	3.00	4.50	1.25	3.0000	3.6500	4.2500	40%	53%	65%
	2A5X3	3.14	2.00	3.00	3.50	3.14	3.00	3.00	3.50	3.25	3.50	2.00	4.00	4.00	3.14	3.0000	3.1429	3.5000	40%	43%	50%
	2A6X0	6.00	2.50	4.00	1.00	5.00	6.00	5.00	6.00	6.00	6.00	4.00	4.00	6.00	1.00	4.0000	5.0000	6.0000	60%	80%	100%
	2A6X1	3.43	2.50	3.00	3.50	3.43	3.50	3.00	3.43	3.25	3.50	2.00	4.00	4.25	1.25	3.0000	3.4286	3.5000	40%	49%	50%
	2A6X2	2.48	2.00	2.00	3.00	3.00	2.48	3.00	3.50	2.70	3.25	5.00	3.00	3.75	1.25	2.4762	3.0000	3.1875	30%	40%	44%
	2A6X3	2.43	1.00	3.00	2.50	2.43	2.50	2.00	2.50	2.25	2.25	2.00	3.00	3.25	1.25	2.0625	2.4286	2.5000	21%	29%	30%
	2A6X4	2.76	1.00	3.00	3.00	2.76	2.50	3.00	2.76	2.50	2.76	2.00	4.00	3.50	1.25	2.5000	2.7619	3.0000	30%	35%	40%
	2A6X5	3.05	2.00	4.00	3.00	3.05	3.00	3.00	4.50	3.00	4.25	2.00	4.00	3.75	1.25	3.0000	3.0238	3.9375	40%	40%	59%
	2A6X6	3.00	1.00	4.00	3.50	3.00	3.00	3.00	3.50	3.25	3.25	2.00	3.00	3.75	1.25	3.0000	3.0000	3.4375	40%	40%	49%
	2A7X3	2.67	1.00	4.00	2.50	2.67	2.00	3.00	3.00	2.25	2.75	2.00	4.00	3.50	1.25	2.0625	2.6667	3.0000	21%	33%	40%
	2A7X4	2.29	1.00	2.00	1.75	2.75	2.00	2.00	2.50	2.25	2.29	2.00	2.00	3.00	1.25	2.0000	2.0000	2.2857	20%	20%	26%
	2E1X1	1.53	1.00	2.00	2.00	1.75	1.50	2.00	2.00	1.50	1.50	1.00	1.00	2.00	1.25	1.3125	1.5132	2.0000	6%	10%	20%
	2E2X1	1.53	1.00	2.00	1.50	1.75	1.50	2.00	2.00	1.50	1.50	1.00	1.00	2.00	1.25	1.3125	1.5000	1.9375	6%	10%	19%
	2M0X1	1.70	1.00	2.00	1.50	1.70	1.50	2.00	2.00	1.60	1.75	1.00	1.00	2.00	1.25	1.3125	1.6500	1.9375	6%	13%	19%
	2W0X1	1.76	1.00	3.00	2.25	1.76	1.50	2.00	1.76	1.60	1.75	1.00	1.00	2.00	1.25	1.3125	1.7560	1.9405	6%	15%	19%
	2W1X1	2.14	2.00	3.00	2.00	2.75	2.00	2.00	2.14	2.10	2.25	2.00	2.00	2.14	1.25	2.0000	2.0500	2.1429	20%	21%	23%
	2W2X1	1.81	1.00	3.00	1.50	2.25	1.50	2.00	1.81	1.75	2.00	2.00	1.00	2.00	1.25	1.5000	1.8095	2.0000	10%	16%	20%

Appendix N: Delphi Survey, Part-2 Response for AFSC 2A5X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A5X1	2A0X1	2.41	1.00	3.00	1.75	2.41	2.00	2.00	2.41	2.10	2.25	3.00	3.00	2.41	1.25	2.0000	2.3309	2.4118	20%	27%	28%
	2A3X0	4.47	1.00	5.00	4.75	4.00	4.00	4.00	4.50	4.25	4.75	3.00	5.00	3.00	1.25	3.2500	4.1250	4.6875	45%	63%	74%
	2A3X1	2.81	1.00	3.00	3.00	2.81	2.50	3.00	3.00	2.75	3.00	3.00	3.00	3.00	1.25	2.7656	3.0000	3.0000	35%	40%	40%
	2A3X2	2.94	1.00	3.00	3.00	2.94	2.50	3.00	3.50	2.75	3.00	4.00	4.00	2.94	1.25	2.7978	2.9706	3.0000	36%	39%	40%
	2A3X3	5.00	1.00	5.00	6.00	3.00	4.00	5.00	6.00	4.00	6.00	5.00	5.00	4.00	6.00	4.0000	5.0000	5.7500	60%	80%	95%
	2A590		1.00	6.00	1.00	5.00	1.00	5.00	6.00	1.00	6.00	3.00	6.00	5.00	1.00	1.0000	5.0000	6.0000	0%	80%	100%
	2A5X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A5X2	3.94	2.00	4.00	3.00	3.94	4.00	4.00		3.94	4.25	4.00	3.00	5.00	1.25	3.0000	3.9412	4.0000	40%	59%	60%
	2A5X3	3.11	1.00	3.00	3.50	3.11	2.50	3.00	3.00	3.25	3.50	3.00	4.00	3.50	1.25	3.0000	3.0556	3.4375	40%	41%	49%
	2A6X0	4.11	2.00	4.00	4.75	3.75	3.50	4.00	4.50	3.75	4.25	3.00	4.00	3.25	1.25	3.3125	3.8750	4.0833	46%	58%	62%
	2A6X1	3.28	2.00	3.00	3.50	3.28	3.00	3.00	3.50	3.25	3.50	3.00	4.00	4.00	1.25	3.0000	3.2639	3.5000	40%	45%	50%
	2A6X2	2.06	1.00	2.00	3.25	2.06	2.00	2.00	3.00	2.00	2.25	4.00	3.00	3.50	1.25	2.0000	2.0556	3.0000	20%	21%	40%
	2A6X3	2.17	1.00	2.00	2.50	2.17	2.00	2.00	2.25	2.10	2.17	2.00	3.00	3.00	1.25	2.0000	2.1333	2.2292	20%	23%	25%
	2A6X4	2.67	1.00	2.00	3.00	2.67	2.00	3.00	3.00	2.50	2.67	2.00	4.00	3.50	1.25	2.0000	2.6667	3.0000	20%	33%	40%
	2A6X5	3.11	2.00	3.00	3.50	3.11	3.00	3.00	3.50	3.11	3.50	2.00	4.00	4.00	1.25	3.0000	3.1111	3.5000	40%	42%	50%
	2A6X6	2.94	1.00	3.00	3.00	2.94	3.00	3.00	3.50	2.50	3.25	2.00	3.00	3.50	1.25	2.6111	3.0000	3.0000	32%	40%	40%
	2A7X3	2.50	1.00	3.00	2.50	2.75	2.50	2.00	3.00	2.25	2.75	3.00	3.00	2.50	1.25	2.3125	2.5000	2.9375	26%	30%	39%
	2A7X4	1.83	1.00	2.00	1.50	1.83	2.00	2.00	3.00	1.75	1.83	2.00	2.00	3.00	1.25	1.7708	1.9167	2.0000	15%	18%	20%
	2E1X1	1.44	1.00	2.00	1.50	1.44	1.25	1.00	1.50	1.50	1.50	1.00	1.00	1.75	1.25	1.0625	1.4375	1.5000	1%	9%	10%
	2E2X1	1.44	1.00	2.00	1.50	1.44	1.25	1.00	1.44	1.40	1.50	1.00	1.00	1.75	1.25	1.0625	1.4188	1.4844	1%	8%	10%
	2M0X1	1.47	1.00	2.00	1.50	1.75	1.25	1.00	1.47	1.50	1.50	1.00	1.00	1.25	1.25	1.0625	1.3603	1.5000	1%	7%	10%
	2W0X1	1.61	1.00	2.00	1.50	1.61	1.50	2.00	1.61	1.50	1.50	1.00	1.00	1.25	1.25	1.2500	1.5000	1.6111	5%	10%	12%
	2W1X1	2.00	2.00	2.00	1.50	2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	1.25	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2W2X1	1.50	1.00	2.00	1.50	1.75	1.50	2.00	1.50	1.50	1.50	2.00	1.00	1.25	1.25	1.3125	1.5000	1.6875	6%	10%	14%

Appendix O: Delphi Survey, Part-2 Response for AFSC 2A5X2

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A5X2	2A0X1	2.11	1.00	2.00	1.75	2.25	2.00	2.00	3.00	2.00	2.11	3.00	3.00	2.11	1.25	2.0000	2.0556	2.2153	20%	21%	24%
	2A3X0	4.06	1.00	5.00	4.75	4.06	4.00	4.00	4.00	4.00	4.25	3.00	4.00	3.00	1.25	3.2500	4.0000	4.0556	45%	60%	61%
	2A3X1	2.50	1.00	3.00	3.00	2.50	2.50	2.00	4.00	2.50	2.75	3.00	2.00	2.50	1.25	2.1250	2.5000	2.9375	23%	30%	39%
	2A3X2	2.50	1.00	3.00	3.00	2.75	2.50	2.00	4.00	2.50	2.75	4.00	3.00	2.50	1.25	2.5000	2.6250	3.0000	30%	33%	40%
	2A3X3	4.06	1.00	4.00	4.00	3.50	4.00	4.00		4.06	4.25	5.00	5.00	4.06	6.00	4.0000	4.0556	4.2500	60%	61%	65%
	2A590	4.41	1.00	5.00	4.00	4.41	4.00	4.00		4.25	4.75	3.00	4.00	4.41	1.25	4.0000	4.0000	4.4118	60%	60%	68%
	2A5X1	4.22	1.00	4.00	4.00	4.22	4.00	4.00		4.22	4.50	5.00	4.00	5.00	1.25	4.0000	4.0000	4.2222	60%	60%	64%
	2A5X2	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A5X3	2.84	1.00	3.00	3.00	2.84	3.00	3.00		2.75	3.00	3.00	3.00	3.25	1.25	2.8421	3.0000	3.0000	37%	40%	40%
	2A6X0	3.89	2.00	4.00	4.00	3.75	3.50	4.00		3.75	4.25	3.00	4.00	3.25	1.25	3.2500	3.7500	4.0000	45%	55%	60%
	2A6X1	3.16	2.00	3.00	4.00	3.25	3.00	3.00		3.16	3.50	3.00	4.00	3.50	1.25	3.0000	3.1579	3.5000	40%	43%	50%
	2A6X2	2.11	1.00	2.00	3.50	2.11	2.00	2.00		2.00	2.25	5.00	3.00	3.50	1.25	2.0000	2.1111	3.0000	20%	22%	40%
	2A6X3	1.84	1.00	2.00	1.50	1.84	1.50	2.00		1.75	2.00	2.00	3.00	3.00	1.25	1.5000	1.8421	2.0000	10%	17%	20%
	2A6X4	2.58	1.00	2.00	3.00	2.58	2.50	3.00		2.50	2.75	2.00	4.00	3.00	1.25	2.0000	2.5789	3.0000	20%	32%	40%
	2A6X5	3.26	2.00	3.00	3.50	3.26	3.00	4.00		3.25	3.50	2.00	4.00	4.00	1.25	3.0000	3.2632	3.5000	40%	45%	50%
	2A6X6	2.84	1.00	3.00	3.00	2.84	3.00	3.00		2.75	3.00	2.00	3.00	3.50	1.25	2.7500	3.0000	3.0000	35%	40%	40%
	2A7X3	2.37	1.00	3.00	2.50	2.75	2.00	2.00		2.25	2.50	3.00	2.50	2.37	1.25	2.0000	2.3684	2.5000	20%	27%	30%
	2A7X4	1.89	1.00	2.00	1.50	1.89	2.00	2.00		1.75	1.89	2.00	2.00	3.00	1.25	1.7500	1.8947	2.0000	15%	18%	20%
	2E1X1	1.29	1.00	2.00	1.25	1.29	1.25	1.00		1.25	1.50	1.00	1.00	1.75	1.25	1.0000	1.2500	1.2941	0%	5%	6%
	2E2X1	1.29	1.00	2.00	1.50	1.29	1.25	1.00	4.00	1.25	1.50	1.00	1.00	1.75	1.25	1.0625	1.2721	1.5000	1%	5%	10%
	2M0X1	1.33	1.00	2.00	1.25	1.75	1.25	1.00	2.00	1.25	1.50	1.00	1.00	1.25	1.25	1.0625	1.2500	1.4583	1%	5%	9%
	2W0X1	1.44	1.00	2.00	1.25	1.75	1.25	1.00		1.40	1.50	1.00	1.00	1.25	1.25	1.0000	1.2500	1.4444	0%	5%	9%
	2W1X1	1.61	2.00	2.00	2.00	1.75	1.50	2.00		1.50	1.50	3.00	1.00	1.25	1.25	1.5000	1.6111	2.0000	10%	12%	20%
	2W2X1	1.37	1.00	2.00	1.50	1.75	1.50	1.00		1.35	1.50	2.00	1.00	1.25	1.25	1.2500	1.3684	1.5000	5%	7%	10%

Appendix P: Delphi Survey, Part-2 Response for AFSC 2A5X3

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A5X3	2A0X1	3.79	1.00		4.00	3.79	3.50	4.00	3.79	3.75	3.79	4.00	5.00	5.00	6.00	3.7895	3.7895	4.0000	56%	56%	60%
	2A3X0	3.42	1.00		3.50	3.42	3.00	3.00	3.50	3.25	4.25	3.00	4.00	2.25	1.25	3.0000	3.2500	3.5000	40%	45%	50%
	2A3X1	5.00	1.00		1.00	4.00	4.00	5.00	6.00	3.00	5.00	3.00	5.00	4.00	1.00	3.0000	4.0000	5.0000	40%	60%	80%
	2A3X2	5.00	1.00		6.00	4.00	4.00	5.00	6.00	4.00	5.00	5.00	6.00	5.00	6.00	4.0000	5.0000	6.0000	60%	80%	100%
	2A3X3	3.21	1.00		3.50	3.00	3.00	3.00	3.21	3.20	3.50	4.00	4.00	3.21	1.25	3.0000	3.2105	3.5000	40%	44%	50%
	2A590	3.78	1.00		5.00	3.50	3.50	4.00	3.78	3.75	3.78	3.00	5.00	3.78	1.25	3.5000	3.7778	3.7778	50%	56%	56%
	2A5X1	3.05	1.00		4.00	3.05	3.00	3.00	3.05	3.00	3.25	2.00	4.00	3.50	1.25	3.0000	3.0526	3.2500	40%	41%	45%
	2A5X2	2.89	1.00		2.50	2.89	3.00	3.00		2.75	3.00	2.00	2.00	3.50	1.25	2.0000	2.8194	3.0000	20%	36%	40%
	2A5X3	6.00	6.00		6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A6X0	3.60	2.00		3.00	3.60	3.50	4.00	3.50	3.50	3.75	3.00	5.00	3.25	1.25	3.0000	3.5000	3.6000	40%	50%	52%
	2A6X1	2.45	1.00		2.50	2.45	2.00	2.00	2.50	2.25	2.25	3.00	2.00	2.50	1.25	2.0000	2.2500	2.5000	20%	25%	30%
	2A6X2	1.95	1.00		2.00	1.95	2.00	2.00	2.00	2.00	2.25	2.00	3.00	2.50	1.25	1.9500	2.0000	2.0000	19%	20%	20%
	2A6X3	2.00	1.00		1.50	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.75	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A6X4	2.25	1.00		2.50	2.25	2.00	2.00	2.25	2.25	2.50	2.00	2.50	2.25	1.25	2.0000	2.2500	2.2500	20%	25%	25%
	2A6X5	2.35	1.00		3.50	2.35	2.00	2.00	2.35	2.25	2.50	2.00	3.00	3.00	1.25	2.0000	2.3500	2.5000	20%	27%	30%
	2A6X6	2.95	2.00		4.00	2.50	2.50	3.00	3.00	2.75	3.50	2.00	4.00	2.95	1.25	2.5000	2.9500	3.0000	30%	39%	40%
	2A7X3	1.95	1.00		2.50	1.95	1.50	2.00	2.00	1.95	1.95	3.00	2.00	1.95	1.25	1.9500	1.9500	2.0000	19%	19%	20%
	2A7X4	1.75	1.00		1.50	1.75	1.50	2.00	1.75	1.75	1.75	2.00	1.00	2.25	1.25	1.5000	1.7500	1.7500	10%	15%	15%
	2E1X1	1.94	2.00		2.00	1.94	2.00	2.00	3.50	2.00	1.94	1.00	2.00	1.94	1.25	1.9444	2.0000	2.0000	19%	20%	20%
	2E2X1	1.94	2.00		1.50	1.94	2.00	2.00	3.50	1.90	1.94	1.00	2.00	1.94	1.25	1.9000	1.9444	2.0000	18%	19%	20%
	2M0X1	1.68	1.00		2.00	1.68	1.50	2.00	1.50	1.70	1.68	1.00	1.00	1.25	1.25	1.2500	1.5000	1.6842	5%	10%	14%
	2W0X1	1.45	1.00		1.50	1.75	1.50	2.00	1.50	1.50	1.75	1.00	1.00	1.25	1.25	1.2500	1.5000	1.5000	5%	10%	10%
	2W1X1	1.75	1.00		2.00	1.75	1.50	2.00	1.50	1.75	1.75	2.00	1.00	1.25	1.25	1.2500	1.7500	1.7500	5%	15%	15%
	2W2X1	1.60	1.00		1.50	1.75	1.50	2.00	1.50	1.50	1.75	2.00	1.00	1.25	1.25	1.2500	1.5000	1.7500	5%	10%	15%

Appendix Q: Delphi Survey, Part-2 Response for AFSC 2A6X0

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A6X0	2A0X1	3.05	1.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	2.75	5.00	3.00	4.00	1.25	2.8125	3.0000	3.0000	36%	40%	40%
	2A3X0	6.00	1.00	5.00	6.00	5.00	6.00	5.00	4.00	6.00	6.00	5.00	5.00	6.00	6.00	5.0000	5.5000	6.0000	80%	90%	100%
	2A3X1	2.59	1.00	3.00	3.50	2.59	2.50	3.00	3.00	2.50	2.75	4.00	4.00	4.00	6.00	2.5882	3.0000	3.8750	32%	40%	58%
	2A3X2	3.00	1.00	3.00	3.50	3.00	3.00	3.00	3.50	3.00	3.25	4.00	4.00	4.25	1.25	3.0000	3.0000	3.5000	40%	40%	50%
	2A3X3	3.25	1.00	3.00	3.50	3.25	4.00	3.00	3.50	3.25	4.00	5.00	3.50	5.25	1.25	3.0625	3.3750	3.8750	41%	48%	58%
	2A590		1.00	5.00	6.00	5.00	6.00	5.00	5.00	6.00	6.00	5.00	5.00	6.00	6.00	5.0000	5.0000	6.0000	80%	80%	100%
	2A5X1	3.30	1.00	3.00	3.50	3.30	3.00	3.00	3.50	3.25	3.50	3.00	3.50	5.25	1.25	3.0000	3.2750	3.5000	40%	46%	50%
	2A5X2	3.05	1.00	3.00	3.00	3.30	3.00	3.00		3.00	3.50	3.00	3.00	5.25	1.25	3.0000	3.0000	3.0526	40%	40%	41%
	2A5X3	3.20	1.00	3.00	3.00	3.20	3.00	3.00	3.50	3.00	3.75	2.00	4.00	5.25	1.25	3.0000	3.0000	3.4250	40%	40%	49%
	2A6X0	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A6X1	3.86	2.50	4.00	4.75	3.86	4.00	4.00	3.50	3.75	3.86	4.00	4.00	4.75	1.25	3.7768	3.9286	4.0000	56%	59%	60%
	2A6X2	3.05	2.00	4.00	4.00	3.50	3.50	3.00	3.50	3.00	3.25	3.00	3.00	5.25	1.25	3.0000	3.1500	3.5000	40%	43%	50%
	2A6X3	3.29	1.00	4.00	3.00	3.29	3.00	3.00	3.29	3.25	2.25	2.00	3.50	4.50	1.25	2.4375	3.1250	3.2857	29%	43%	46%
	2A6X4	3.67	2.50	4.00	3.50	3.67	3.50	4.00	3.67	3.60	3.25	2.00	4.00	4.75	1.25	3.3125	3.6333	3.9167	46%	53%	58%
	2A6X5	3.71	2.50	4.00	4.00	3.71	3.50	2.50	3.71	3.70	4.00	2.00	5.00	5.00	1.25	2.7500	3.7143	4.0000	35%	54%	60%
	2A6X6	3.62	2.50	4.00	4.75	3.62	3.00	3.50	3.62	3.50	3.75	2.00	4.00	4.75	1.25	3.1250	3.6190	3.9375	43%	52%	59%
	2A7X3	2.95	1.00	4.00	3.00	3.25	2.50	3.00	3.50	2.75	2.95	2.00	4.00	4.50	1.25	2.5625	2.9762	3.4375	31%	40%	49%
	2A7X4	2.60	1.00	4.00	2.00	2.60	2.50	3.00	2.60	2.50	2.25	2.00	2.00	4.75	1.25	2.0000	2.5000	2.6000	20%	30%	32%
	2E1X1	1.74	1.00	3.00	1.75	1.74	1.50	2.00	1.74	1.75	1.74	1.00	1.00	1.74	1.25	1.3125	1.7368	1.7467	6%	15%	15%
	2E2X1	1.74	1.00	3.00	1.75	1.74	1.50	2.00	1.74	1.75	1.50	1.00	1.00	1.74	1.25	1.3125	1.7368	1.7467	6%	15%	15%
	2M0X1	1.95	1.00	3.00	2.00	1.95	1.50	2.00	2.00	2.00	1.75	1.00	1.00	1.25	1.25	1.2500	1.8500	2.0000	5%	17%	20%
	2W0X1	1.67	1.00	3.00	1.50	2.00	1.50	2.00	1.67	1.60	1.75	1.00	1.00	1.67	1.25	1.3125	1.6333	1.7292	6%	13%	15%
	2W1X1	2.19	1.00	3.00	2.25	2.19	2.00	2.00	2.19	2.10	1.75	2.00	2.00	3.00	1.25	2.0000	2.0500	2.1905	20%	21%	24%
	2W2X1	1.86	1.00	3.00	2.00	1.86	1.50	2.00	1.86	1.75	1.75	2.00	1.00	1.86	1.25	1.5625	1.8571	1.9643	11%	17%	19%

Appendix R: Delphi Survey, Part-2 Response for AFSC 2A6X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A6X1	2A0X1	2.05	1.00	2.00	2.00	2.05	2.00	2.00	2.05	2.00	2.05	3.00	3.00	2.05	1.25	2.0000	2.0250	2.0500	20%	21%	21%
	2A3X0	3.75	1.00	4.00	4.75	3.75	3.50	4.00	3.75	3.50	4.25	3.00	5.00	3.00	1.25	3.1250	3.7500	4.0000	43%	55%	60%
	2A3X1	2.26	1.00	2.00	3.00	2.26	2.00	2.00	2.26	2.25	2.50	3.00	3.00	2.26	1.25	2.0000	2.2632	2.4408	20%	25%	29%
	2A3X2	2.35	1.00	2.00	3.00	2.35	2.00	2.00	2.35	2.25	2.50	3.00	3.00	2.00	1.25	2.0000	2.3000	2.4625	20%	26%	29%
	2A3X3	3.40	1.00	4.00	4.00	3.00	3.00	3.00	3.40	3.25	3.75	4.00	3.50	2.75	1.25	3.0000	3.3250	3.6875	40%	47%	54%
	2A590	3.84	1.00	4.00	5.00	3.50	3.50	4.00	3.84	3.75	4.25	3.00	5.00	3.00	1.25	3.1250	3.7961	4.0000	43%	56%	60%
	2A5X1	3.45	1.00	4.00	4.00	3.45	3.00	3.00	3.45	3.25	3.75	3.00	3.50	3.00	1.25	3.0000	3.3500	3.4875	40%	47%	50%
	2A5X2	3.42	1.00	4.00	3.00	3.25	3.00	3.00		3.25	3.50	3.00	3.00	2.00	1.25	3.0000	3.0000	3.2500	40%	40%	45%
	2A5X3	2.40	1.00	2.00	2.50	2.40	2.00	2.00	2.40	2.25	2.50	2.00	3.00	2.25	1.25	2.0000	2.2500	2.4000	20%	25%	28%
	2A6X0	4.44	1.00	4.00	5.00	4.44	3.50	4.00	4.44	4.25	4.25	5.00	4.75	4.00	1.25	4.0000	4.2500	4.4444	60%	65%	69%
	2A6X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A6X2	2.33	1.00	2.00	3.50	2.33	2.00	2.00	2.50	2.25	2.75	2.00	3.00	2.50	1.25	2.0000	2.2917	2.5000	20%	26%	30%
	2A6X3	2.14	1.00	2.00	2.00	2.14	2.00	2.00	2.14	2.00	2.14	2.00	3.00	2.75	1.25	2.0000	2.0000	2.1429	20%	20%	23%
	2A6X4	2.67	1.00	3.00	4.00	2.67	2.50	3.00	3.50	2.50	2.50	2.00	3.00	3.00	1.25	2.5000	2.6667	3.0000	30%	33%	40%
	2A6X5	2.95	2.00	2.00	4.00	2.95	2.50	3.00	3.00	2.75	3.25	2.00	3.00	2.95	1.25	2.1250	2.9524	3.0000	23%	39%	40%
	2A6X6	2.76	1.00	2.00	3.50	2.76	2.50	3.00	2.76	2.75	2.76	2.00	3.00	2.76	1.25	2.1250	2.7619	2.7619	23%	35%	35%
	2A7X3	2.14	1.00	2.00	2.50	2.14	2.00	2.00	2.14	2.10	2.14	2.00	2.00	2.14	1.25	2.0000	2.0500	2.1429	20%	21%	23%
	2A7X4	1.90	1.00	2.00	1.75	1.90	1.50	2.00	1.90	1.75	1.90	2.00	1.00	1.90	1.25	1.5625	1.9048	1.9048	11%	18%	18%
	2E1X1	1.55	1.00	2.00	1.50	1.55	1.50	2.00	1.55	1.50	1.50	1.00	1.00	1.55	1.25	1.3125	1.5000	1.5500	6%	10%	11%
	2E2X1	1.53	1.00		1.50	1.53	1.50	2.00	1.53	1.50	1.50	1.00	1.00	1.53	1.25	1.2500	1.5000	1.5263	5%	10%	11%
	2M0X1	1.75	1.00	2.00	1.50	1.75	1.50	2.00	1.75	1.75	1.50	1.00	1.00	1.25	1.25	1.2500	1.5000	1.7500	5%	10%	15%
	2W0X1	1.38	1.00	2.00	1.50	1.75	1.50	1.00	1.50	1.35	1.50	1.00	1.00	1.25	1.25	1.0625	1.3655	1.5000	1%	7%	10%
	2W1X1	1.62	1.00	2.00	1.50	1.62	1.50	1.00	1.50	1.50	1.50	2.00	1.00	1.25	1.25	1.2500	1.5000	1.5893	5%	10%	12%
	2W2X1	1.50	1.00	2.00	1.50	1.75	1.50	2.00	1.50	1.50	1.50	2.00	1.00	1.25	1.25	1.3125	1.5000	1.6875	6%	10%	14%

Appendix S: Delphi Survey, Part-2 Response for AFSC 2A6X2

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A6X2	2A0X1	2.32	1.00	2.00	2.00	2.32	2.00	2.00	2.32	2.25	2.00	2.00	2.00	2.32	1.25	2.0000	2.0000	2.2993	20%	20%	26%
	2A3X0	3.32	1.00	3.00	3.00	3.32	3.00	3.00	3.25	3.25	3.50	2.00	3.00	1.50	1.25	2.2500	3.0000	3.2500	25%	40%	45%
	2A3X1	2.21	1.00	2.00	3.00	2.21	2.00	2.00	2.21	2.20	2.10	2.00	2.00	1.50	1.25	2.0000	2.0000	2.2079	20%	20%	24%
	2A3X2	2.26	1.00	2.00	3.00	2.26	2.00	2.00	2.26	2.10	2.26	2.00	2.00	1.50	1.25	2.0000	2.0000	2.2632	20%	20%	25%
	2A3X3	2.79	1.00	3.00	3.00	2.79	2.50	3.00	2.79	2.75	2.50	2.00	2.50	1.50	1.25	2.1250	2.6250	2.7895	23%	33%	36%
	2A590	3.39	1.00	3.00	3.50	3.39	3.00	3.00	3.39	3.25	3.25	2.00	2.00	2.00	1.25	2.0000	3.0000	3.3542	20%	40%	47%
	2A5X1	2.79	1.00	3.00	3.00	2.79	2.50	3.00	2.75	2.75	2.50	3.00	2.00	2.00	1.25	2.1250	2.7500	2.9474	23%	35%	39%
	2A5X2	2.67	1.00	3.00	3.00	2.67	2.50	3.00		2.50	2.50	3.00	1.00	2.00	1.25	2.0000	2.5000	3.0000	20%	30%	40%
	2A5X3	2.37	1.00	2.00	2.50	2.50	2.00	2.00	2.25	2.25	2.25	2.00	1.00	1.50	1.25	1.6250	2.0000	2.2500	13%	20%	25%
	2A6X0	3.89	1.00	3.00	4.00	3.89	3.50	4.00	4.75	3.75	3.50	4.00	3.00	1.75	1.25	3.0000	3.6250	3.9737	40%	53%	59%
	2A6X1	2.79	1.00	3.00	3.50	2.79	2.50	3.00	3.00	2.75	2.25	3.00	2.50	2.25	2.79	2.5000	2.7895	3.0000	30%	36%	40%
	2A6X2	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A6X3	2.10	1.00	2.00	1.75	2.10	2.00	2.00	2.10	2.00	2.10	2.00	2.00	2.00	1.25	2.0000	2.0000	2.0750	20%	20%	22%
	2A6X4	2.45	1.00	2.00	2.50	2.10	2.00	2.00	2.45	2.25	2.25	2.00	2.00	2.00	1.25	2.0000	2.0000	2.2500	20%	20%	25%
	2A6X5	2.80	2.00	3.00	3.50	2.80	2.50	3.00	2.80	2.75	2.25	2.00	3.00	2.80	1.25	2.3125	2.8000	2.9500	26%	36%	39%
	2A6X6	3.00	2.00	3.00	3.50	3.00	2.50	3.00	3.00	3.00	2.75	2.00	2.00	2.25	1.25	2.0625	2.8750	3.0000	21%	38%	40%
	2A7X3	2.20	1.00	3.00	2.50	2.20	2.00	2.00	3.00	2.10	2.20	3.00	2.00	2.20	1.25	2.0000	2.2000	2.4250	20%	24%	29%
	2A7X4	1.85	1.00	2.00	1.50	1.85	1.50	2.00	2.00	1.75	1.75	2.00	1.00	1.85	1.25	1.5000	1.8000	1.9625	10%	16%	19%
	2E1X1	1.50	1.00	2.00	1.50	1.50	1.50	1.00	1.50	1.50	1.50	1.00	1.00	1.50	1.25	1.0625	1.5000	1.5000	1%	10%	10%
	2E2X1	1.50	1.00	2.00	1.50	1.50	1.50	1.00	1.50	1.50	1.50	1.00	1.00	1.50	1.25	1.0625	1.5000	1.5000	1%	10%	10%
	2M0X1	1.63	1.00	2.00	1.50	1.63	1.50	2.00	1.63	1.60	1.50	1.00	1.00	1.25	1.25	1.2500	1.5000	1.6316	5%	10%	13%
	2W0X1	1.75	1.00	2.00	2.00	1.75	1.50	2.00	1.75	1.75	1.75	1.00	1.00	1.25	1.25	1.2500	1.7500	1.7500	5%	15%	15%
	2W1X1	2.10	1.00	2.00	2.00	2.10	2.00	2.00	2.10	2.10	1.50	2.00	1.00	1.25	1.25	1.3125	2.0000	2.0750	6%	20%	22%
	2W2X1	1.80	1.00	2.00	1.50	1.80	1.50	2.00	1.80	1.75	1.50	2.00	1.00	1.25	1.25	1.3125	1.6250	1.8000	6%	13%	16%

Appendix T: Delphi Survey, Part-2 Response for AFSC 2A6X3

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A6X3	2A0X1	2.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.10	2.00	2.00	3.00	2.00	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A3X0	3.10	1.00	2.00	3.00	3.10	3.00	3.00	3.50	3.00	3.25	2.00	4.00	1.50	1.25	2.0000	3.0000	3.1000	20%	40%	42%
	2A3X1	1.90	1.00	1.00	1.75	1.90	1.50	2.00	1.90	1.75	2.25	2.00	3.00	1.50	1.25	1.5000	1.8250	1.9750	10%	17%	20%
	2A3X2	1.90	1.00	1.00	1.75	1.90	1.50	2.00	1.90	1.75	1.90	2.00	3.00	1.50	1.25	1.5000	1.8250	1.9000	10%	17%	18%
	2A3X3	2.75	1.00	2.00	3.00	2.75	2.50	3.00	2.75	2.60	2.25	2.00	3.00	1.50	1.25	2.0000	2.5500	2.7500	20%	31%	35%
	2A590	2.84	1.00	2.00	3.00	2.84	2.50	3.00	2.84	2.75	2.25	2.00	3.00	1.50	1.25	2.0000	2.6250	2.8421	20%	33%	37%
	2A5X1	2.45	1.00	2.00	3.00	2.45	2.00	3.00	2.45	2.25	2.25	2.00	3.00	1.50	1.25	2.0000	2.2500	2.4500	20%	25%	29%
	2A5X2	2.11	1.00	1.00	2.50	2.11	2.00	2.00		2.00	2.11	2.00	1.00	1.50	1.25	1.2500	2.0000	2.1053	5%	20%	22%
	2A5X3	1.90	1.00	1.00	2.00	1.90	2.00	2.00	1.90	1.75	1.90	2.00	1.00	1.60	1.25	1.3375	1.9000	1.9750	7%	18%	20%
	2A6X0	3.85	1.00	3.00	4.00	3.85	3.50	4.00	3.85	3.75	3.00	5.00	5.00	3.75	1.25	3.1250	3.8000	3.9625	43%	56%	59%
	2A6X1	2.40	1.00	1.00	2.00	2.40	2.00	2.00	2.40	2.25	2.25	3.00	1.00	3.00	1.25	1.4375	2.1250	2.4000	9%	23%	28%
	2A6X2	1.80	1.00	1.00	2.00	1.80	1.50	2.00	1.80	1.75	1.80	2.00	2.00	1.80	1.25	1.5625	1.8000	1.9500	11%	16%	19%
	2A6X3	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A6X4	2.05	1.00	1.00	2.50	2.05	2.00	2.00	2.05	2.00	2.05	2.00	3.00	1.75	1.25	1.8125	2.0000	2.0476	16%	20%	21%
	2A6X5	2.14	1.00	1.00	3.00	2.14	2.00	2.00	2.14	2.10	2.14	2.00	2.00	1.75	1.25	1.8125	2.0000	2.1429	16%	20%	23%
	2A6X6	2.38	2.00	2.00	3.50	2.38	2.00	2.00	2.38	2.25	2.25	2.00	3.00	1.75	1.25	2.0000	2.1250	2.3810	20%	23%	28%
	2A7X3	1.90	1.00	2.00	2.25	1.90	1.50	2.00	1.90	1.75	1.90	2.00	1.00	1.75	1.25	1.5625	1.9000	1.9750	11%	18%	20%
	2A7X4	2.52	2.00	2.00	4.00	2.52	2.00	1.00	2.52	2.25	3.25	2.00	3.00	2.75	1.25	2.0000	2.3869	2.6935	20%	28%	34%
	2E1X1	1.32	2.00	1.00	1.50	1.32	1.25	1.00	1.32	1.25	1.50	1.00	1.00	1.32	1.25	1.0625	1.2829	1.3158	1%	6%	6%
	2E2X1	1.32	2.00	1.00	1.50	1.32	1.25	1.00	1.32	1.25	1.50	1.00	1.00	1.32	1.25	1.0625	1.2829	1.3158	1%	6%	6%
	2M0X1	1.40	2.00	1.00	1.50	1.40	1.25	1.00	1.40	1.25	1.50	1.00	1.00	1.40	1.25	1.0625	1.3250	1.4000	1%	7%	8%
	2W0X1	1.48	1.00	1.00	1.50	1.48	1.48	2.00	1.48	1.30	1.50	1.00	1.00	1.25	1.25	1.0625	1.3881	1.4762	1%	8%	10%
	2W1X1	1.76	2.00	1.00	1.50	1.76	1.50	2.00	1.76	1.50	1.75	2.00	1.00	1.50	1.25	1.5000	1.6250	1.7619	10%	13%	15%
	2W2X1	1.43	1.00	1.00	1.50	1.43	1.25	1.00	1.43	1.50	1.50	2.00	1.00	1.25	1.25	1.0625	1.3393	1.4821	1%	7%	10%

Appendix U: Delphi Survey, Part-2 Response for AFSC 2A6X4

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A6X4	2A0X1	1.90	1.00	1.00	1.50	1.90	1.50	2.00	1.90	2.00	1.50	2.00	3.00	1.90	1.25	1.5000	1.9000	1.9750	10%	18%	20%
	2A3X0	3.25	1.00	4.00	2.50	3.25	3.00	3.00	4.75	3.00	3.50	2.00	4.00	2.00	1.25	2.1250	3.0000	3.4375	23%	40%	49%
	2A3X1	2.25	1.00	2.00	2.50	2.25	2.00	2.00	2.25	2.10	2.50	2.00	3.00	1.50	1.25	2.0000	2.0500	2.2500	20%	21%	25%
	2A3X2	2.25	1.00	2.00	2.50	2.25	2.00	2.00	2.25	2.10	2.50	2.00	3.00	1.50	1.25	2.0000	2.0500	2.2500	20%	21%	25%
	2A3X3	2.90	1.00	3.00	3.00	2.90	2.50	3.00	2.90	2.50	2.90	2.00	3.00	2.75	1.25	2.5000	2.9000	2.9750	30%	38%	40%
	2A590	3.21	1.00	4.00	3.00	3.21	2.50	3.00	4.75	3.00	3.21	2.00	3.00	2.25	1.25	2.3125	3.0000	3.2105	26%	40%	44%
	2A5X1	2.95	1.00	3.00	3.00	2.95	2.50	3.00	3.50	2.75	2.95	3.00	3.00	2.75	1.25	2.7500	2.9500	3.0000	35%	39%	40%
	2A5X2	2.89	1.00	3.00	2.50	2.89	2.50	3.00		2.75	2.75	3.00	2.00	2.75	1.25	2.5000	2.7500	2.8947	30%	35%	38%
	2A5X3	2.32	1.00	2.00	2.00	2.32	2.00	2.00	2.32	2.25	2.50	2.00	1.00	1.50	1.25	1.6250	2.0000	2.2993	13%	20%	26%
	2A6X0	3.79	1.00	4.00	4.00	3.79	3.50	4.00	4.75	3.75	3.50	5.00	5.00	3.75	1.25	3.5625	3.7895	4.0000	51%	56%	60%
	2A6X1	2.84	1.00	3.00	3.00	2.84	2.00	3.00	2.84	2.75	2.50	3.00	2.50	3.25	1.25	2.5000	2.8421	3.0000	30%	37%	40%
	2A6X2	2.32	1.00	3.00	3.00	2.32	2.00	2.00	2.25	2.20	2.25	2.00	3.00	2.32	1.25	2.0000	2.2500	2.3158	20%	25%	26%
	2A6X3	2.16	1.00	1.00	2.50	2.16	2.00	2.00	2.16	2.10	2.16	2.00	2.00	1.75	1.25	1.8125	2.0000	2.1579	16%	20%	23%
	2A6X4	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A6X5	2.95	2.00	2.00	3.50	2.65	2.50	3.00	2.95	3.00	2.50	2.00	3.00	2.25	1.25	2.0625	2.5750	2.9881	21%	32%	40%
	2A6X6	2.90	1.00	3.00	3.00	2.90	2.50	3.00	2.90	2.75	2.50	2.00	3.00	2.25	1.25	2.3125	2.8274	2.9762	26%	37%	40%
	2A7X3	2.10	1.00	2.00	2.50	3.25	2.00	2.00	2.10	2.10	2.10	2.00	2.00	1.75	1.25	2.0000	2.0000	2.0952	20%	20%	22%
	2A7X4	1.71	1.00	1.00	1.50	1.71	1.50	2.00	1.71	1.50	1.75	2.00	1.00	1.50	1.25	1.3125	1.5000	1.7143	6%	10%	14%
	2E1X1	1.32	1.00	1.00	1.50	1.32	1.25	1.00	1.50	1.25	1.50	1.00	1.00	1.32	1.25	1.0000	1.2500	1.3158	0%	5%	6%
	2E2X1	1.32	1.00	1.00	1.50	1.32	1.25	1.00	1.50	1.25	1.50	1.00	1.00	1.32	1.25	1.0000	1.2500	1.3158	0%	5%	6%
	2M0X1	1.60	1.00	1.00	1.50	1.60	1.50	2.00	1.60	1.50	1.50	1.00	1.00	1.75	1.25	1.0625	1.5000	1.6000	1%	10%	12%
	2W0X1	1.33	1.00	1.00	1.50	1.33	1.25	1.00	1.25	1.25	1.50	1.00	1.00	1.33	1.25	1.0000	1.2500	1.3333	0%	5%	7%
	2W1X1	1.52	1.00	1.00	1.50	1.52	1.52	1.00	1.25	1.50	1.50	2.00	1.00	1.25	1.25	1.0625	1.3750	1.5179	1%	8%	10%
	2W2X1	1.48	1.00	1.00	1.50	1.48	1.48	1.00	1.25	1.50	1.50	2.00	1.00	1.25	1.25	1.0625	1.3631	1.4940	1%	7%	10%

Appendix V: Delphi Survey, Part-2 Response for AFSC 2A6X5

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A6X5	2A0X1	2.00	1.00	2.00	1.75	2.00	2.00	2.00	2.00	1.95	2.00	2.00	3.00	2.00	1.25	1.9625	2.0000	2.0000	19%	20%	20%
	2A3X0	3.65	1.00	3.00	2.50	3.65	3.50	4.00	3.65	3.50	3.65	2.00	5.00	2.00	1.25	2.1250	3.5000	3.6500	23%	50%	53%
	2A3X1	2.15	1.00	2.00	2.50	2.15	2.00	2.00	2.15	2.10	2.50	2.00	3.00	1.50	1.25	2.0000	2.0500	2.1500	20%	21%	23%
	2A3X2	2.15	1.00	2.00	2.50	2.15	2.00	2.00	2.15	2.10	2.25	2.00	3.00	1.50	1.25	2.0000	2.0500	2.1500	20%	21%	23%
	2A3X3	3.50	1.00	3.00	3.00	3.00	3.50	4.00	3.50	3.25	3.25	2.00	4.00	2.75	1.25	2.8125	3.1250	3.5000	36%	43%	50%
	2A590	3.84	1.00	3.00	3.00	3.50	3.50	4.00	3.84	3.75	3.50	2.00	4.00	3.00	1.25	3.0000	3.5000	3.8191	40%	50%	56%
	2A5X1	3.65	1.00	3.00	3.00	3.25	3.50	4.00	3.65	3.50	3.25	4.00	3.00	2.75	1.25	3.0000	3.2500	3.6125	40%	45%	52%
	2A5X2	3.37	1.00	3.00	2.50	3.37	3.00	3.00		3.25	3.75	3.00	3.00	2.75	1.25	2.7500	3.0000	3.2500	35%	40%	45%
	2A5X3	2.20	1.00	2.00	2.50	2.20	2.00	2.00	2.20	2.10	2.25	2.00	1.00	1.50	1.25	1.6250	2.0000	2.2000	13%	20%	24%
	2A6X0	4.20	1.00	4.00	4.00	4.20	3.50	4.00	4.75	4.00	4.00	5.00	5.00	4.20	1.25	4.0000	4.0000	4.2000	60%	60%	64%
	2A6X1	3.00	1.00	3.00	3.00	3.00	2.50	3.00	3.00	2.75	3.00	3.00	2.80	3.25	1.25	2.7625	3.0000	3.0000	35%	40%	40%
	2A6X2	2.50	1.00	3.00	3.00	2.50	2.50	2.00	2.50	2.25	2.50	2.00	3.00	2.50	1.25	2.0625	2.5000	2.5000	21%	30%	30%
	2A6X3	1.95	1.00	2.00	1.75	1.95	1.50	2.00	1.95	2.00	1.95	2.00	2.00	1.75	1.25	1.7500	1.9500	2.0000	15%	19%	20%
	2A6X4	2.79	1.00	2.00	3.50	2.79	2.50	3.00	2.79	2.79	2.50	2.00	4.00	2.25	1.25	2.0625	2.6447	2.7895	21%	33%	36%
	2A6X5	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A6X6	2.76	1.00	2.00	3.50	2.76	2.50	3.00	3.00	2.75	2.50	4.00	3.00	1.75	1.25	2.1250	2.7560	3.0000	23%	35%	40%
	2A7X3	2.10	1.00	2.00	3.00	2.10	2.00	2.00	2.25	2.00	2.10	2.00	1.00	1.75	1.25	1.8125	2.0000	2.0952	16%	20%	22%
	2A7X4	1.67	1.00	2.00	1.50	1.67	1.50	2.00	1.67	1.60	1.75	2.00	1.00	1.50	1.25	1.5000	1.6333	1.7292	10%	13%	15%
	2E1X1	1.20	1.00	1.00	1.50	1.20	1.50	1.00	1.25	1.20	1.25	1.00	1.00	1.20	1.25	1.0000	1.2000	1.2500	0%	4%	5%
	2E2X1	1.20	1.00	1.00	1.50	1.20	1.25	1.00	1.25	1.20	1.25	1.00	1.00	1.20	1.25	1.0000	1.2000	1.2500	0%	4%	5%
	2M0X1	1.45	1.00	1.00	1.50	1.45	1.25	1.00	1.50	1.30	1.50	1.00	1.00	1.45	1.25	1.0000	1.2750	1.4500	0%	6%	9%
	2W0X1	1.50	1.00	2.00	1.50	1.50	1.50	1.00	1.50	1.50	1.50	1.00	1.00	1.25	1.25	1.0625	1.5000	1.5000	1%	10%	10%
	2W1X1	1.81	1.00	2.00	1.50	1.81	1.50	2.00	1.81	1.75	1.75	2.00	1.00	1.25	1.25	1.3125	1.7500	1.8095	6%	15%	16%
	2W2X1	1.52	1.00	2.00	1.50	1.52	1.52	1.00	1.52	1.50	1.75	2.00	1.00	1.25	1.25	1.2500	1.5119	1.5238	5%	10%	10%

Appendix W: Delphi Survey, Part-2 Response for AFSC 2A6X6

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A6X6	2A0X1	2.70	1.00	4.00	3.00	2.70	2.50	3.00	2.70	2.70	2.75	3.00	4.00	2.70	1.25	2.7000	2.7000	3.0000	34%	34%	40%
	2A3X0	3.25	1.00	5.00	3.50	3.25	3.00	3.00	3.50	3.00	3.50	3.00	4.00	2.00	1.25	3.0000	3.1250	3.5000	40%	43%	50%
	2A3X1	3.15	1.00	5.00	3.50	2.25	2.50	3.00	3.50	3.00	3.50	3.00	4.00	3.15	1.25	2.6250	3.0750	3.5000	33%	42%	50%
	2A3X2	3.15	1.00	5.00	3.50	2.25	2.50	3.00	3.50	3.00	3.50	2.00	4.00	3.15	1.25	2.3125	3.0750	3.5000	26%	42%	50%
	2A3X3	3.00	1.00	4.00	3.50	2.75	2.50	3.00	3.00	3.00	3.00	2.00	4.00	3.00	1.25	2.5625	3.0000	3.0000	31%	40%	40%
	2A590	3.68	1.00	5.00	4.00	3.68	3.50	4.00	3.50	3.50	3.75	2.00	4.00	3.00	1.25	3.1250	3.5921	3.9375	43%	52%	59%
	2A5X1	3.06	1.00	4.00	3.00	3.06	3.00	3.00	3.50	2.75	3.06	3.00	3.00	3.06	1.25	3.0000	3.0000	3.0556	40%	40%	41%
	2A5X2	2.94	1.00	4.00	3.00	2.94	2.50	3.00		2.75	3.50	3.00	2.00	2.94	1.25	2.5000	2.9444	3.0000	30%	39%	40%
	2A5X3	3.37	1.00	4.00	3.50	3.37	3.00	3.00	3.50	3.25	3.75	2.00	3.00	2.00	1.25	2.2500	3.1250	3.4671	25%	43%	49%
	2A6X0	3.95	1.00	5.00	4.75	3.95	3.50	4.00	4.75	3.75	3.75	5.00	5.00	3.95	1.25	3.7500	3.9474	4.7500	55%	59%	75%
	2A6X1	2.95	1.00	4.00	3.00	2.95	2.50	3.00	3.50	2.70	2.95	3.00	2.75	2.95	1.25	2.7125	2.9474	3.0000	34%	39%	40%
	2A6X2	2.42	1.00	3.00	3.00	2.42	2.00	2.00	3.00	2.42	2.25	2.00	3.00	3.50	1.25	2.0000	2.4211	3.0000	20%	28%	40%
	2A6X3	2.47	1.00	2.00	2.75	2.47	2.00	2.00	2.47	2.25	2.75	2.00	3.00	1.75	1.25	2.0000	2.1250	2.4737	20%	23%	29%
	2A6X4	2.74	1.00	3.00	3.25	2.74	2.50	3.00	3.00	2.74	2.74	2.00	4.00	2.25	1.25	2.3125	2.7368	3.0000	26%	35%	40%
	2A6X5	2.95	1.00	3.00	3.00	2.95	2.50	3.00	3.00	2.75	2.50	4.00	3.00	2.25	1.25	2.5000	2.9474	3.0000	30%	39%	40%
	2A6X6	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A7X3	1.95	1.00	2.00	2.00	1.95	1.50	2.00	2.25	1.75	1.95	2.00	1.00	1.75	1.25	1.5625	1.9524	2.0000	11%	19%	20%
	2A7X4	1.71	1.00	2.00	1.75	1.71	1.50	2.00	1.71	1.60	1.71	2.00	2.00	1.75	1.25	1.6286	1.7143	1.9375	13%	14%	19%
	2E1X1	1.89	2.00	2.00	1.50	1.89	1.50	2.00	1.89	1.75	1.89	1.00	2.00	2.25	1.25	1.5625	1.8947	2.0000	11%	18%	20%
	2E2X1	1.74	2.00	2.00	1.50	1.74	1.50	2.00	1.74	1.75	1.74	1.00	2.00	2.00	1.25	1.5592	1.7368	2.0000	11%	15%	20%
	2M0X1	1.90	2.00	2.00	1.50	1.90	1.50	2.00	1.90	1.75	1.90	1.00	2.00	2.00	1.25	1.5625	1.9000	2.0000	11%	18%	20%
	2W0X1	1.47	1.00	3.00	1.50	1.45	1.25	1.00	1.47	1.40	1.50	1.00	1.00	1.50	1.25	1.0625	1.4250	1.4934	1%	9%	10%
	2W1X1	2.05	1.00	3.00	2.50	2.05	2.00	2.05	1.50	2.00	2.05	2.00	1.00	1.50	1.25	1.5000	2.0000	2.0500	10%	20%	21%
	2W2X1	1.67	1.00	3.00	2.00	1.67	1.50	2.00	1.50	1.60	1.75	2.00	1.00	1.25	1.25	1.3125	1.6333	1.9375	6%	13%	19%

Appendix X: Delphi Survey, Part-2 Response for AFSC 2A7X3

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A7X3	2A0X1	1.95	1.00	3.00	1.75	1.95	1.50	2.00	1.95	1.90	1.75	2.00	3.00	1.75	1.25	1.7500	1.9237	1.9868	15%	18%	20%
	2A3X0	3.00	1.00	4.00	3.00	3.00	3.00	3.00	3.50	2.75	3.00	2.00	4.00	1.75	1.25	2.1875	3.0000	3.0000	24%	40%	40%
	2A3X1	2.16	1.00	3.00	2.00	2.16	2.00	2.00	2.25	2.00	2.16	2.00	3.00	1.75	1.25	2.0000	2.0000	2.1579	20%	20%	23%
	2A3X2	2.22	1.00	3.00	2.00	2.22	2.00	2.00	2.25	2.10	2.22	2.00	3.00	1.75	1.25	2.0000	2.0500	2.2222	20%	21%	24%
	2A3X3	2.79	1.00	4.00	3.00	2.79	2.50	3.00	3.50	2.75	2.79	2.00	3.00	1.75	1.25	2.1250	2.7895	3.0000	23%	36%	40%
	2A590	3.11	1.00	5.00	3.50	3.11	3.00	3.00	3.50	3.00	3.00	2.00	3.00	1.75	1.25	2.2500	3.0000	3.1111	25%	40%	42%
	2A5X1	3.00	1.00	4.00	3.00	3.00	3.00	3.00	3.50	3.00	3.00	3.00	2.00	1.75	1.25	2.2500	3.0000	3.0000	25%	40%	40%
	2A5X2	2.83	1.00	4.00	2.50	2.83	2.50	3.00		2.75	2.50	3.00	2.00	1.75	1.25	2.0000	2.5000	2.8333	20%	30%	37%
	2A5X3	2.21	1.00	3.00	2.00	2.21	2.00	2.00	2.25	2.10	2.21	2.00	1.00	1.75	1.25	1.8125	2.0000	2.2105	16%	20%	24%
	2A6X0	3.58	1.00	5.00	3.50	3.58	3.50	4.00	4.75	3.50	3.50	3.00	5.00	3.00	1.25	3.1250	3.5000	3.8947	43%	50%	58%
	2A6X1	2.47	1.00	3.00	2.25	2.47	2.00	2.00	2.47	2.25	2.25	2.00	2.25	1.75	1.25	2.0000	2.2500	2.4178	20%	25%	28%
	2A6X2	2.58	1.00	3.00	2.50	2.58	2.50	3.00	2.58	2.50	2.25	3.00	2.00	2.25	1.25	2.2500	2.5000	2.5789	25%	30%	32%
	2A6X3	2.11	1.00	2.00	2.50	2.11	2.00	2.00	2.11	2.00	2.11	2.00	2.00	1.75	1.25	2.0000	2.0000	2.1053	20%	20%	22%
	2A6X4	2.32	1.00	2.00	3.00	2.32	2.50	2.00	2.32	2.25	2.25	2.00	3.00	2.00	1.25	2.0000	2.2500	2.3158	20%	25%	26%
	2A6X5	2.42	1.00	3.00	3.50	2.42	2.00	2.00	2.42	2.25	2.25	3.00	2.00	2.75	1.25	2.0000	2.3355	2.6678	20%	27%	33%
	2A6X6	2.26	1.00	2.00	2.50	2.26	2.00	2.00	2.26	2.25	2.26	2.00	2.00	1.75	1.25	2.0000	2.0000	2.2632	20%	20%	25%
	2A7X3	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2A7X4	2.35	1.00	2.00	2.50	2.35	2.00	2.00	2.35	2.25	2.00	2.00	1.00	1.50	1.25	1.6250	2.0000	2.3250	13%	20%	27%
	2E1X1	1.26	1.00	1.00	1.50	1.26	1.50	1.00	1.26	1.25	1.25	1.00	1.00	1.26	1.25	1.0000	1.2500	1.2632	0%	5%	5%
	2E2X1	1.26	1.00	1.00	1.50	1.26	1.26	1.00	1.26	1.25	1.25	1.00	1.00	1.26	1.25	1.0000	1.2500	1.2632	0%	5%	5%
	2M0X1	1.58	1.00	1.00	1.50	1.58	1.50	2.00	1.58	1.50	1.50	1.00	1.00	1.25	1.25	1.0625	1.5000	1.5592	1%	10%	11%
	2W0X1	1.55	1.00	2.00	1.50	1.55	1.50	2.00	1.25	1.50	1.50	1.00	1.00	1.25	1.25	1.2500	1.5000	1.5375	5%	10%	11%
	2W1X1	1.60	1.00	2.00	1.50	1.60	1.50	2.00	1.25	1.50	1.50	2.00	1.00	1.25	1.25	1.2500	1.5000	1.6000	5%	10%	12%
	2W2X1	1.70	1.00	2.00	1.50	1.70	1.50	2.00	1.25	1.60	1.50	2.00	1.00	1.25	1.25	1.2500	1.5000	1.7000	5%	10%	14%

Appendix Y: Delphi Survey, Part-2 Response for AFSC 2A7X4

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2A7X4	2A0X1	1.90	1.00	2.00	1.50	1.90	1.50	2.00	1.90	1.75	1.75	2.00	2.00	1.50	1.25	1.5000	1.8250	1.9750	10%	17%	20%
	2A3X0	2.65	1.00	3.00	2.00	2.65	2.50	3.00	2.25	2.50	2.75	2.00	2.00	1.50	1.25	2.0000	2.3750	2.6500	20%	28%	33%
	2A3X1	1.90	1.00	2.00	2.00	1.90	1.50	2.00	2.00	1.75	1.90	2.00	2.00	1.50	1.25	1.5625	1.9000	2.0000	11%	18%	20%
	2A3X2	1.90	1.00	2.00	2.00	1.90	1.50	2.00	2.00	1.75	1.90	2.00	2.00	1.50	1.25	1.5625	1.9000	2.0000	11%	18%	20%
	2A3X3	2.40	1.00	2.00	2.00	2.40	2.00	2.00	2.25	2.25	2.25	2.00	1.00	1.50	1.25	1.6250	2.0000	2.2500	13%	20%	25%
	2A590	2.68	1.00	3.00	2.50	2.68	2.50	3.00	2.75	2.50	2.50	2.00	2.00	1.50	1.25	2.0000	2.5000	2.6842	20%	30%	34%
	2A5X1	2.50	1.00	2.00	2.00	2.50	2.50	2.00	2.50	2.50	2.25	3.00	2.00	1.50	1.25	2.0000	2.1250	2.5000	20%	23%	30%
	2A5X2	2.32	1.00	2.00	2.00	2.32	2.00	2.00		2.25	2.32	2.00	1.00	1.50	1.25	1.5000	2.0000	2.2500	10%	20%	25%
	2A5X3	1.95	1.00	2.00	2.00	1.95	1.50	2.00	1.95	2.00	1.95	2.00	1.00	1.50	1.25	1.5000	1.9500	2.0000	10%	19%	20%
	2A6X0	3.40	1.00	4.00	2.50	3.40	3.00	3.00	3.50	3.25	2.25	3.00	3.00	3.00	1.25	2.6250	3.0000	3.3625	33%	40%	47%
	2A6X1	2.10	1.00	2.00	1.75	2.10	2.00	2.00	2.10	2.00	2.10	2.00	1.00	1.50	1.25	1.5625	2.0000	2.0750	11%	20%	22%
	2A6X2	1.95	1.00	2.00	1.75	1.95	1.50	2.00	2.00	1.90	1.95	2.00	1.00	1.50	1.25	1.5000	1.9250	1.9875	10%	19%	20%
	2A6X3	3.05	1.00	3.00	3.00	3.05	2.50	3.00	3.50	3.00	3.00	2.00	3.00	1.75	1.25	2.1250	3.0000	3.0000	23%	40%	40%
	2A6X4	2.05	1.00	2.00	1.75	2.05	2.00	2.00	2.25	2.00	2.05	2.00	2.00	1.75	1.25	1.8125	2.0000	2.0375	16%	20%	21%
	2A6X5	2.10	1.00	2.00	2.00	2.10	2.00	2.00	2.25	2.00	2.10	2.00	1.00	1.75	1.25	1.8125	2.0000	2.0750	16%	20%	22%
	2A6X6	2.26	1.00	2.00	2.00	2.26	2.00	2.00	2.26	2.00	2.26	2.00	1.00	1.50	1.25	1.6250	2.0000	2.1974	13%	20%	24%
	2A7X3	2.42	1.00	2.00	2.50	2.42	2.00	2.00	2.42	2.25	2.25	2.00	1.00	1.75	1.25	1.8125	2.0000	2.3783	16%	20%	28%
	2A7X4	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2E1X1	1.30	1.00	1.00	1.50	1.30	1.50	1.00	1.30	1.25	1.50	1.00	1.00	1.30	1.25	1.0000	1.2750	1.3000	0%	6%	6%
	2E2X1	1.32	1.00	1.00	1.50	1.32	1.25	1.00	1.32	1.25	1.50	1.00	1.00	1.32	1.25	1.0000	1.2500	1.3158	0%	5%	6%
	2M0X1	1.40	1.00	1.00	1.50	1.40	1.25	1.00	1.40	1.25	1.50	1.00	1.00	1.25	1.25	1.0000	1.2500	1.4000	0%	5%	8%
	2W0X1	1.48	1.00	2.00	1.50	1.48	1.48	1.00	1.48	1.50	1.50	1.00	1.00	1.25	1.25	1.0625	1.4762	1.4940	1%	10%	10%
	2W1X1	1.67	1.00	2.00	1.50	1.67	1.50	1.00	1.67	1.50	1.75	2.00	1.00	1.25	1.25	1.2500	1.5000	1.6667	5%	10%	13%
	2W2X1	1.52	1.00	2.00	1.50	1.52	1.52	1.00	1.52	1.50	1.50	1.00	1.00	1.25	1.25	1.0625	1.5000	1.5238	1%	10%	10%

Appendix Z: Delphi Survey, Part-2 Response for AFSC 2E1X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2E1X1	2A0X1	2.11	1.00	5.00	2.50	2.11	2.00	2.00	2.25	2.00	1.75	2.00		2.50	1.25	2.0000	2.0000	2.2500	20%	20%	25%
	2A3X0	2.00	1.00	3.00	2.00	2.00	2.00	2.00	2.25	2.00	1.75	2.00		1.25	1.25	1.7500	2.0000	2.0000	15%	20%	20%
	2A3X1	2.21	1.00	5.00	2.00	2.21	2.00	2.00	2.25	2.10	1.75	2.00		2.00	1.25	2.0000	2.0000	2.2105	20%	20%	24%
	2A3X2	2.21	1.00	5.00	2.00	2.21	2.00	2.00	2.25	2.10	1.75	2.00		2.00	1.25	2.0000	2.0000	2.2105	20%	20%	24%
	2A3X3	1.68	1.00	3.00	1.75	1.68	1.50	2.00	1.50	1.60	1.75	2.00		1.75	1.25	1.5000	1.6842	1.7500	10%	14%	15%
	2A590	2.06	1.00	4.00	2.00	2.06	1.50	2.00	2.25	2.00	1.75	2.00		1.25	1.25	1.5000	2.0000	2.0556	10%	20%	21%
	2A5X1	1.74	1.00	3.00	1.75	1.74	1.50	2.00	1.50	1.75	1.75	2.00		1.74	1.25	1.5000	1.7368	1.7500	10%	15%	15%
	2A5X2	1.61	1.00	3.00	1.50	1.61	1.50	2.00		1.60	1.75	2.00		1.75	1.25	1.5000	1.6111	1.8125	10%	12%	16%
	2A5X3	2.21	1.00	4.00	2.00	2.21	2.00	2.00	2.25	2.10	2.00	2.00		2.50	1.25	2.0000	2.0000	2.2105	20%	20%	24%
	2A6X0	1.95	1.00	4.00	1.50	1.95	1.50	2.00	3.50	1.90	2.00	3.00		1.75	1.25	1.5000	1.9474	2.0000	10%	19%	20%
	2A6X1	1.42	1.00	2.00	1.50	1.42	1.25	1.00	1.50	1.35	1.50	2.00	1.00	1.25	1.25	1.2500	1.3855	1.5000	5%	8%	10%
	2A6X2	1.47	1.00	2.00	1.50	1.47	1.25	1.00	1.50	1.40	1.50	2.00		1.50	1.25	1.2500	1.4737	1.5000	5%	9%	10%
	2A6X3	1.47	1.00	2.00	1.50	1.47	1.25	1.00	1.47	1.40	1.50	2.00		1.25	1.25	1.2500	1.4737	1.5000	5%	9%	10%
	2A6X4	1.47	1.00	2.00	1.50	1.47	1.25	1.00	1.47	1.40	1.50	2.00		1.25	1.25	1.2500	1.4737	1.5000	5%	9%	10%
	2A6X5	1.47	1.00	2.00	1.50	1.47	1.25	1.00	1.47	1.40	1.50	2.00	1.00	1.25	1.25	1.2500	1.4368	1.4934	5%	9%	10%
	2A6X6	2.00	1.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	1.75	3.00		2.00	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A7X3	1.47	1.00	2.00	1.50	1.47	1.25	1.00	1.47	1.40	1.50	2.00	1.00	1.25	1.25	1.2500	1.4368	1.4934	5%	9%	10%
	2A7X4	1.37	1.00	2.00	1.50	1.37	1.25	1.00	1.37	1.30	1.50	2.00	1.00	1.25	1.25	1.2500	1.3342	1.4671	5%	7%	9%
	2E1X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2E2X1	3.60	2.00	4.00	4.00	3.60	3.50	4.00	4.75	3.50	3.50	3.00	3.00	4.25	1.25	3.1250	3.5500	4.0000	43%	51%	60%
	2M0X1	1.65	2.00	2.00	1.50	1.65	1.50	2.00	1.50	1.60	1.50	1.00	2.00	1.75	1.25	1.5000	1.6250	1.9375	10%	13%	19%
	2W0X1	1.20	1.00	2.00	1.25	1.20	1.25	1.00	1.25	1.20	1.25	1.00	1.00	1.25	1.25	1.0500	1.2250	1.2500	1%	5%	5%
	2W1X1	1.20	1.00	2.00	1.25	1.20	1.25	1.00	1.25	1.20	1.25	1.00	1.00	1.25	1.25	1.0500	1.2250	1.2500	1%	5%	5%
	2W2X1	1.35	1.00	2.00	1.25	1.35	1.25	1.00	1.25	1.30	1.50	1.00	1.00	1.25	1.25	1.0625	1.2500	1.3375	1%	5%	7%

Appendix AA: Delphi Survey, Part-2 Response for AFSC 2E2X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2E2X1	2A0X1	2.05	1.00	5.00	2.50	2.05	2.00	2.00	2.05	2.00	2.25	2.00		2.50	1.25	2.0000	2.0526	2.2500	20%	21%	25%
	2A3X0	1.68	1.00	3.00	2.00	1.68	1.50	2.00	2.25	1.60	2.00	2.00		1.25	1.25	1.5000	1.6842	2.0000	10%	14%	20%
	2A3X1	2.00	1.00	4.00	2.00	2.00	2.00	2.00	2.25	2.00	2.00	2.00		2.00	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A3X2	2.00	1.00	4.00	2.00	2.00	2.00	2.00	2.25	2.00	2.00	2.00		2.00	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A3X3	1.63	1.00	2.00	1.75	1.63	1.50	2.00	1.63	1.60	1.75	2.00		1.63	1.25	1.6000	1.6316	1.7500	12%	13%	15%
	2A590	1.63	1.00	3.00	2.00	1.63	1.50	2.00	1.63	1.60	1.75	2.00		1.63	1.25	1.6000	1.6316	2.0000	12%	13%	20%
	2A5X1	1.61	1.00	2.00	1.75	1.61	1.50	2.00	1.61	1.60	1.75	2.00		1.61	1.25	1.6000	1.6111	1.7500	12%	12%	15%
	2A5X2	1.58	1.00	2.00	1.50	1.58	1.50	2.00		1.60	1.75	2.00		1.58	1.25	1.5000	1.5789	1.8125	10%	12%	16%
	2A5X3	2.05	1.00	4.00	2.00	2.05	2.00	2.00	2.05	2.00	2.00	2.00		2.25	1.25	2.0000	2.0000	2.0526	20%	20%	21%
	2A6X0	1.63	1.00	2.00	1.50	1.63	1.50	2.00	2.25	1.60	1.75	3.00		1.63	1.25	1.5000	1.6316	2.0000	10%	13%	20%
	2A6X1	1.37	1.00	1.00	1.50	1.37	1.25	1.00	1.25	1.25	1.50	2.00	1.00	1.37	1.25	1.0625	1.2500	1.3684	1%	5%	7%
	2A6X2	1.37	1.00	1.00	1.50	1.37	1.25	1.00	1.25	1.25	1.50	2.00		1.37	1.25	1.2500	1.2500	1.3684	5%	5%	7%
	2A6X3	1.33	1.00	1.00	1.50	1.33	1.25	1.00	1.25	1.25	1.50	2.00		1.33	1.25	1.2500	1.2500	1.3333	5%	5%	7%
	2A6X4	1.37	1.00	1.00	1.50	1.37	1.25	1.00	1.25	1.30	1.50	2.00		1.37	1.25	1.2500	1.3000	1.3684	5%	6%	7%
	2A6X5	1.47	1.00	1.00	1.50	1.47	1.25	1.00	1.25	1.40	1.50	2.00	1.00	1.47	1.25	1.0625	1.3250	1.4737	1%	7%	9%
	2A6X6	1.84	1.00	3.00	2.00	1.84	2.00	2.00	2.00	1.75	2.00	3.00		1.84	1.25	1.8421	2.0000	2.0000	17%	20%	20%
	2A7X3	1.32	1.00	1.00	1.50	1.32	1.25	1.00	1.25	1.25	1.50	2.00	1.00	1.32	1.25	1.0625	1.2500	1.3158	1%	5%	6%
	2A7X4	1.32		1.00	1.50	1.32	1.25	1.00	1.25	1.25	1.50	2.00	1.00	1.32	1.25	1.2500	1.2500	1.3158	5%	5%	6%
	2E1X1	3.47	1.00	5.00	4.00	3.47	3.00	3.00	4.75	3.25	3.25	4.00	4.00	3.75	1.25	3.0625	3.4737	4.0000	41%	49%	60%
	2E2X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00		6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2M0X1	1.50	2.00	1.00	1.50	1.50	1.50	1.00	1.50	1.50	1.50	1.00	2.00	1.75	1.25	1.3125	1.5000	1.5000	6%	10%	10%
	2W0X1	1.33	1.00		1.25	1.33	1.25	1.00	1.25	1.25	1.50	1.00	1.00	1.25	1.25	1.0000	1.2500	1.2500	0%	5%	5%
	2W1X1	1.30	1.00	2.00	1.25	1.30	1.25	1.00	1.25	1.25	1.50	1.00	1.00	1.25	1.25	1.0625	1.2500	1.2875	1%	5%	6%
	2W2X1	1.40	1.00	2.00	1.25	1.40	1.25	1.00	1.25	1.40	1.50	1.00	1.00	1.25	1.25	1.0625	1.2500	1.4000	1%	5%	8%

Appendix AB: Delphi Survey, Part-2 Response for AFSC 2M0X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2M0X1	2A0X1	1.63	1.00	2.00	2.00	1.63	2.00	2.00	1.63	1.60	1.75	2.00	3.50	1.63	1.25	1.6316	1.6908	2.0000	13%	14%	20%
	2A3X0	1.79	1.00	4.00	2.00	1.79	1.50	2.00	1.79	1.75	1.75	2.00	2.00	1.79	1.25	1.7500	1.7895	2.0000	15%	16%	20%
	2A3X1	1.53	1.00	2.00	1.50	1.53	1.50	2.00	1.53	1.60	1.75	2.00	1.75	1.53	1.25	1.5066	1.5263	1.7500	10%	11%	15%
	2A3X2	1.53	1.00	2.00	1.50	1.53	1.50	2.00	1.53	1.60	1.75	2.00	1.55	1.53	1.25	1.5066	1.5263	1.7125	10%	11%	14%
	2A3X3	1.37	1.00	2.00	1.50	1.37	1.25	1.00	1.37	1.30	1.75	2.00	1.00	1.37	1.25	1.2500	1.3684	1.4671	5%	7%	9%
	2A590	1.72	1.00	4.00	1.50	1.72	1.50	2.00	1.72	1.60	1.75	2.00	1.00	1.72	1.25	1.5000	1.7222	1.7431	10%	14%	15%
	2A5X1	1.42	1.00	2.00	1.50	1.42	1.25	1.00	1.42	1.35	1.75	2.00	1.00	1.42	1.25	1.2500	1.4211	1.4803	5%	8%	10%
	2A5X2	1.42	1.00	2.00	1.50	1.42	1.25	1.00		1.40	1.75	2.00	1.00	1.42	1.25	1.2500	1.4211	1.5000	5%	8%	10%
	2A5X3	1.47	1.00	2.00	1.50	1.47	1.50	1.00	1.47	1.40	1.50	2.00	2.00	1.47	1.25	1.4184	1.4737	1.5000	8%	9%	10%
	2A6X0	1.74	1.00	4.00	2.50	1.74	1.50	2.00	1.74	1.75	1.75	3.00	2.00	1.74	1.25	1.7368	1.7434	2.0000	15%	15%	20%
	2A6X1	1.37	1.00	2.00	1.50	1.37	1.25	1.00	1.37	1.35	1.50	2.00	1.00	1.37	1.25	1.2500	1.3684	1.4671	5%	7%	9%
	2A6X2	1.42	1.00	2.00	2.00	1.42	1.25	1.00	1.42	1.35	1.50	2.00	1.00	1.42	1.25	1.2500	1.4211	1.4803	5%	8%	10%
	2A6X3	1.37	1.00	2.00	1.25	1.37	1.25	1.00	1.37	1.35	1.50	2.00	1.00	1.37	1.25	1.2500	1.3592	1.3684	5%	7%	7%
	2A6X4	1.37	1.00	2.00	2.00	1.37	1.25	1.00	1.37	1.35	1.50	2.00	2.00	1.37	1.25	1.2750	1.3684	1.8750	6%	7%	18%
	2A6X5	1.37	1.00	2.00	2.00	1.37	1.25	1.00	1.37	1.35	1.50	2.00	1.00	1.37	1.25	1.2500	1.3684	1.4671	5%	7%	9%
	2A6X6	1.47	1.00		2.50	1.47	1.50	1.00	1.47	1.40	1.50	2.00	2.00	1.47	1.25	1.4000	1.4706	1.5000	8%	9%	10%
	2A7X3	1.37	1.00	2.00	2.00	1.37	1.25	1.00	1.37	1.35	1.50	2.00	1.00	1.37	1.25	1.2500	1.3684	1.4671	5%	7%	9%
	2A7X4	1.22	1.00	2.00	1.25	1.22	1.25	1.00	1.22	1.20	1.50	2.00	1.00	1.22	1.25	1.2056	1.2222	1.2500	4%	4%	5%
	2E1X1	1.37	1.00	2.00	1.50	1.37	1.25	1.00	1.37	1.30	1.50	1.00	2.00	1.37	1.25	1.2500	1.3684	1.4671	5%	7%	9%
	2E2X1	1.35	1.00		1.50	1.35	1.25	1.00	1.35	1.25	1.50	1.00	2.00	1.35	1.25	1.2500	1.3529	1.3529	5%	7%	7%
	2M0X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2W0X1	1.55	1.00	2.00	1.50	2.25	1.50	2.00	1.55	1.50	1.50	1.00	2.00	2.25	1.25	1.5000	1.5250	2.0000	10%	11%	20%
	2W1X1	1.60	1.00	2.00	1.50	1.60	1.50	2.00	1.60	1.50	1.50	1.00	3.00	1.50	1.25	1.5000	1.5000	1.6000	10%	10%	12%
	2W2X1	1.75	1.00	2.00	1.50	1.75	1.50	2.00	1.75	1.75	1.75	1.00	2.00	2.25	1.25	1.5000	1.7500	1.9375	10%	15%	19%

Appendix AC: Delphi Survey, Part-2 Response for AFSC 2W0X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2W0X1	2A0X1	1.75	1.00	2.00	2.00	1.75	1.50	2.00	1.75	1.60	1.50	2.00	3.00	1.50	1.25	1.5000	1.7500	2.0000	10%	15%	20%
	2A3X0	2.00	1.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	3.50	2.00	2.00	1.75	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A3X1	1.50	1.00	2.00	1.50	1.50	1.50	2.00	1.50	1.50	2.00	2.00	2.00	1.50	1.25	1.5000	1.5000	2.0000	10%	10%	20%
	2A3X2	1.55	1.00	2.00	1.50	1.55	1.50	2.00	1.55	1.50	2.00	2.00	2.00	1.50	1.25	1.5000	1.5500	2.0000	10%	11%	20%
	2A3X3	1.60	1.00	2.00	1.50	1.60	1.50	2.00	1.60	1.60	2.00	2.00	1.00	1.50	1.25	1.5000	1.6000	1.9000	10%	12%	18%
	2A590	1.95	1.00	3.00	2.00	1.95	1.50	2.00	1.95	2.00	2.00	2.00	1.00	1.75	1.25	1.5625	1.9474	2.0000	11%	19%	20%
	2A5X1	1.55	1.00	2.00	1.50	1.55	1.50	2.00	1.55	1.50	2.00	2.00	1.00	1.50	1.25	1.5000	1.5250	1.8875	10%	11%	18%
	2A5X2	1.53	1.00	2.00	1.50	1.53	1.50	2.00		1.50	1.75	2.00	1.00	1.50	1.25	1.5000	1.5000	1.7500	10%	10%	15%
	2A5X3	1.53	1.00	2.00	1.75	1.53	1.50	2.00	1.53	1.50	1.75	2.00	1.00	1.50	1.25	1.5000	1.5263	1.7500	10%	11%	15%
	2A6X0	2.00	1.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	1.00	2.25	1.25	2.0000	2.0000	2.0000	20%	20%	20%
	2A6X1	1.45	1.00	2.00	1.50	1.45	1.25	1.00	1.45	1.40	1.75	2.00	1.00	1.50	1.25	1.2500	1.4500	1.5000	5%	9%	10%
	2A6X2	1.45	1.00	2.00	3.00	1.45	1.50	1.00	1.45	1.40	1.75	2.00	1.00	2.25	1.25	1.2875	1.4500	1.9375	6%	9%	19%
	2A6X3	1.50	1.00	2.00	1.50	1.50	1.50	1.00	1.50	1.50	1.75	2.00	1.00	2.75	1.25	1.3125	1.5000	1.6875	6%	10%	14%
	2A6X4	1.45	1.00	2.00	1.50	1.45	1.25	1.00	1.45	1.40	1.75	2.00	1.00	1.50	1.25	1.2500	1.4500	1.5000	5%	9%	10%
	2A6X5	1.42		2.00	1.50	1.42	1.25	1.00	1.42	1.40	1.75	2.00	1.00	1.50	1.25	1.2500	1.4211	1.5000	5%	8%	10%
	2A6X6	1.50	1.00	2.00	2.00	1.50	1.50	2.00	1.50	1.50	1.75	2.00		1.25	1.25	1.5000	1.5000	2.0000	10%	10%	20%
	2A7X3	1.45	1.00	2.00	2.00	1.45	1.25	1.00	1.45	1.40	1.75	2.00	1.00	1.75	1.25	1.2500	1.4500	1.7500	5%	9%	15%
	2A7X4	1.45	1.00	2.00	1.50	1.45	1.25	1.00	1.45	1.40	1.50	2.00	1.00	1.25	1.25	1.2500	1.4250	1.4875	5%	9%	10%
	2E1X1	1.37	1.00	2.00	1.25	1.37	1.25	1.00	1.37	1.25	1.50	1.00	1.00	1.25	1.25	1.0625	1.2500	1.3684	1%	5%	7%
	2E2X1	1.35		2.00	1.25	1.35	1.25	1.00	1.35	1.25	1.50	1.00	1.00	1.25	1.25	1.2500	1.2500	1.3529	5%	5%	7%
	2M0X1	1.95	1.00	1.00	1.25	1.95	1.50	2.00	1.95	2.00	1.75	1.00	1.00	1.50	1.25	1.0625	1.5000	1.9474	1%	10%	19%
	2W0X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2W1X1	3.38	2.50	3.00	4.00	3.38	3.00	3.00	4.75	3.25	3.75	4.00	3.00	4.00	1.25	3.0000	3.3155	3.9375	40%	46%	59%
	2W2X1	3.48	2.00	5.00	4.00	3.48	3.00	4.00	4.75	3.50	3.50	4.00	3.00	3.48	1.25	3.1190	3.4881	4.0000	42%	50%	60%

Appendix AD: Delphi Survey, Part-2 Response for AFSC 2W1X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2W1X1	2A0X1	1.90	1.00	3.00	1.75	1.90	1.50	2.00	1.90	1.75	1.75	2.00	3.00	1.90	1.25	1.7500	1.9000	1.9750	15%	18%	20%
	2A3X0	2.50	1.00	3.00	2.00	3.00	2.50	3.00	2.50	2.50	3.50	2.00	3.00	3.00	1.25	2.1250	2.5000	3.0000	23%	30%	40%
	2A3X1	1.80	1.00	3.00	2.00	1.80	1.50	2.00	1.80	1.75	2.25	2.00	2.00	2.50	1.25	1.7625	1.9000	2.0000	15%	18%	20%
	2A3X2	1.85	1.00	3.00	2.00	1.85	1.50	2.00	1.85	1.75	2.00	2.00	2.00	2.50	1.25	1.7750	1.9250	2.0000	16%	19%	20%
	2A3X3	2.05	1.00	2.00	2.00	3.00	2.00	2.00	2.05	2.00	2.25	2.00	2.00	2.75	1.25	2.0000	2.0000	2.0500	20%	20%	21%
	2A590	2.42	1.00	2.00	2.50	3.00	2.00	2.00	2.42	2.25	2.50	2.00	2.00	2.75	1.25	2.0000	2.1250	2.4803	20%	23%	30%
	2A5X1	1.95	1.00	2.00	2.00	3.00	1.50	2.00	1.95	2.00	1.95	2.00	2.00	2.25	1.25	1.9500	2.0000	2.0000	19%	20%	20%
	2A5X2	1.89	1.00	2.00	1.50	3.00	1.50	2.00		1.75	1.89	2.00	1.00	2.25	1.25	1.5000	1.8947	2.0000	10%	18%	20%
	2A5X3	1.75	1.00	3.00	2.00	1.75	1.50	2.00	1.75	1.75	1.85	2.00	1.00	1.75	1.25	1.5625	1.7500	1.9625	11%	15%	19%
	2A6X0	2.45	1.00	3.00	2.50	3.00	2.00	2.00	2.45	2.25	2.25	3.00	2.00	2.50	1.25	2.0000	2.3500	2.5000	20%	27%	30%
	2A6X1	1.60	1.00	1.00	1.50	1.60	1.50	2.00	1.60	1.55	1.75	2.00	1.00	1.50	1.25	1.3125	1.5250	1.6000	6%	11%	12%
	2A6X2	1.50	1.00	1.00	2.50	1.50	1.50	2.00	1.50	1.50	1.75	2.00	2.00	3.00	1.25	1.5000	1.5000	2.0000	10%	10%	20%
	2A6X3	1.50	1.00	1.00	1.50	1.50	1.50	2.00	1.50	1.50	1.75	2.00	2.00	2.25	1.25	1.5000	1.5000	1.9375	10%	10%	19%
	2A6X4	1.50	1.00	1.00	2.00	1.50	1.50	2.00	1.50	1.50	1.75	2.00	1.00	1.75	1.25	1.3125	1.5000	1.7500	6%	10%	15%
	2A6X5	1.65	1.00	2.00	1.50	1.65	1.50	2.00	1.65	1.60	1.75	2.00	1.00	1.75	1.25	1.5000	1.6500	1.7500	10%	13%	15%
	2A6X6	1.74	1.00	3.00	2.50	1.74	1.50	2.00	1.74	1.75	1.75	2.00	2.00	2.25	1.25	1.7368	1.7500	2.0000	15%	15%	20%
	2A7X3	1.50	1.00	2.00	2.00	1.50	1.50	1.00	1.50	1.50	1.50	2.00	1.00	2.00	1.25	1.3125	1.5000	1.8750	6%	10%	18%
	2A7X4	1.37	1.00	1.00	1.50	1.37	1.25	1.00	1.37	1.25	1.50	2.00	1.00	1.25	1.25	1.0625	1.2500	1.3684	1%	5%	7%
	2E1X1	1.21	1.00	1.00	1.25	1.21	1.25	1.00	1.21	1.25	1.25	1.00	1.00	1.25	1.25	1.0000	1.2105	1.2500	0%	4%	5%
	2E2X1	1.21	1.00	1.00	1.25	1.21	1.25	1.00	1.21	1.25	1.25	1.00	1.00	1.25	1.25	1.0000	1.2105	1.2500	0%	4%	5%
	2M0X1	1.63	1.00	1.00	1.25	1.63	1.50	2.00	1.63	1.60	1.50	1.00	1.00	1.25	1.25	1.0625	1.3750	1.6237	1%	8%	12%
	2W0X1	3.85	1.00	4.00	4.00	3.85	3.50	4.00	4.75	3.75	4.25	1.00	4.00	4.00	1.25	3.5625	3.9250	4.0000	51%	59%	60%
	2W1X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%
	2W2X1	3.71	2.00	4.00	4.00	3.71	3.50	4.00	4.75	3.71	3.75	4.00	3.00	3.25	1.25	3.3125	3.7143	4.0000	46%	54%	60%

Appendix AE: Delphi Survey, Part-2 Response for AFSC 2W2X1

		Respondant Number														Quartiles					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1st	Median	3rd	1st %	Median %	3rd %
2W2X1	2A0X1	1.90	1.00	3.00	1.90	1.90	1.50	2.00	1.90	1.75	1.75	2.00	1.50	1.25	1.25	1.5000	1.8250	1.9000	10%	17%	18%
	2A3X0	2.10	1.00	3.00	2.50	2.10	2.00	2.00	2.10	2.00	2.10	2.00	2.00	1.25	1.25	2.0000	2.0000	2.1000	20%	20%	22%
	2A3X1	1.60	1.00	3.00	2.00	1.60	1.50	2.00	1.60	1.60	1.75	2.00	3.00	1.25	1.25	1.5250	1.6000	2.0000	11%	12%	20%
	2A3X2	1.65	1.00	3.00	2.00	1.65	1.50	2.00	1.65	1.60	1.75	2.00	3.00	1.25	1.25	1.5250	1.6500	2.0000	11%	13%	20%
	2A3X3	1.70	1.00	2.00	2.00	1.70	1.50	2.00	1.70	1.70	1.75	2.00	1.00	1.25	1.25	1.3125	1.7000	1.9375	6%	14%	19%
	2A590	2.11	1.00	3.00	2.50	2.11	2.00	2.00	2.11	2.00	2.00	2.00	1.00	1.25	1.25	1.4375	2.0000	2.1053	9%	20%	22%
	2A5X1	1.68	1.00		2.00	1.68	1.50	2.00	1.68	1.60	1.75	2.00	1.00	1.25	1.25	1.2500	1.6842	1.7500	5%	14%	15%
	2A5X2	1.68	1.00	2.00	1.75	1.68	1.50	2.00		1.60	1.75	2.00	1.00	1.25	1.25	1.2500	1.6842	1.7500	5%	14%	15%
	2A5X3	1.65	1.00	3.00	2.00	1.65	1.50	2.00	1.65	1.60	1.50	2.00	2.00	1.25	1.25	1.5000	1.6500	2.0000	10%	13%	20%
	2A6X0	2.15	1.00	3.00	2.00	2.15	2.00	2.00	2.25	2.00	2.00	3.00	2.00	1.25	1.25	2.0000	2.0000	2.1500	20%	20%	23%
	2A6X1	1.50	1.00	1.00	1.50	1.50	1.50	2.00	1.50	1.50	1.50	2.00	1.00	1.25	1.25	1.2500	1.5000	1.5000	5%	10%	10%
	2A6X2	1.47	1.00		1.50	1.47	1.47	1.00	1.50	1.40	1.50	2.00	1.00	2.00	1.25	1.2500	1.4737	1.5000	5%	9%	10%
	2A6X3	1.50	1.00	1.00	1.50	1.50	1.50	1.00	1.50	1.50	1.50	2.00	1.00	1.25	1.25	1.0625	1.5000	1.5000	1%	10%	10%
	2A6X4	1.45	1.00	1.00	1.50	1.45	1.25	1.00	1.50	1.40	1.50	2.00	1.00	1.25	1.25	1.0625	1.3250	1.4875	1%	7%	10%
	2A6X5	1.55	1.00	2.00	2.00	1.55	1.50	2.00	1.50	1.50	1.50	2.00	1.00	1.25	1.25	1.3125	1.5000	1.8875	6%	10%	18%
	2A6X6	1.65	1.00	3.00	2.50	1.65	1.50	2.00	1.50	1.60	1.50	2.00	2.00	1.25	1.25	1.5000	1.6250	2.0000	10%	13%	20%
	2A7X3	1.50	1.00	2.00	1.50	1.50	1.50	2.00	1.50	1.50	1.50	2.00	1.00	1.25	1.25	1.3125	1.5000	1.5000	6%	10%	10%
	2A7X4	1.40	1.00	1.00	1.50	1.40	1.25	1.00	1.50	1.40	1.50	2.00	1.00	1.25	1.25	1.0625	1.3250	1.4750	1%	7%	10%
	2E1X1	1.32	1.00	2.00	1.50	1.32	1.25	1.00	1.32	1.25	1.25	1.00	1.00	1.25	1.25	1.0625	1.2500	1.3158	1%	5%	6%
	2E2X1	1.32	1.00	2.00	1.50	1.32	1.25	1.00	1.32	1.25	1.25	1.00	1.00	1.25	1.25	1.0625	1.2500	1.3158	1%	5%	6%
	2M0X1	1.89	1.00	1.00	2.50	1.89	1.50	2.00	1.89	1.90	1.89	1.00	2.00	2.25	1.25	1.3125	1.8947	1.9750	6%	18%	20%
	2W0X1	3.40	1.00	5.00	3.50	3.40	3.00	3.00	4.75	3.40	3.75	1.00	2.00	4.00	1.25	2.2500	3.4000	3.6875	25%	48%	54%
	2W1X1	3.50	1.00	4.00	3.50	3.50	3.00	3.00	4.75	3.25	4.25	4.00	4.00	2.50	1.25	3.0000	3.5000	4.0000	40%	50%	60%
	2W2X1	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.0000	6.0000	6.0000	100%	100%	100%

Appendix AF: Abort Rate and MX/Ops Deviation Count Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Abort (U-2)	-0.225	0.024	0.060	0.099	-0.222
Cannon					
Abort (F-16/30)	-0.528	-0.495	-0.450	-0.476	-0.053
Abort (F-16/40)	-0.153	-0.291	-0.355	-0.443	-0.419
Abort (F-16/50)	-0.021	-0.025	-0.085	-0.197	-0.254
Abort (F-16/52)	0.061	0.156	0.268	0.257	0.259
Davis-Monthan					
Abort (A-10/Op)	0.522	0.294	0.315	-0.096	-0.156
Abort (A-10/Trn)	0.148	0.098	-0.244	-0.302	-0.247
Dyess					
Abort (B-52)	-0.141	0.073	0.138	0.159	0.045
Ellsworth					
Abort (B-1)	0.319	0.372	0.082	-0.302	-0.160
Langley					
Abort (F-15C/D)	-0.119	0.073	0.138	0.159	0.045
Minot					
Abort (B-52)	0.381	0.362	0.313	0.143	0.089
Mountain Home					
Abort (F-15C)	-0.164	-0.087	0.095	0.044	0.095
Abort (F-15E)	-0.330	-0.039	0.220	0.188	0.140
Abort (F-16/50)	0.359	-0.174	-0.393	-0.451	-0.147
Nellis					
Abort (A-10)	0.380	0.403	0.412	0.258	0.410
Abort (F-15E)	0.383	0.403	0.389	0.485	0.302
Abort (F-15C/D)	0.200	-0.034	0.023	0.052	-0.146
Abort (F-16/30)	0.078	0.075	0.221	0.326	0.152
Abort (F-16/40)	0.449	0.442	0.264	0.272	0.303
Abort (F-16/50)	0.461	0.503	0.407	0.527	0.481
Offutt					
Abort (E-4B)	0.009	-0.143	-0.181	-0.126	-0.154
Abort (RC-135)	-0.236	-0.087	-0.193	-0.170	-0.134
Pope					
Abort (A-10)	0.122	0.307	-0.061	-0.232	0.267
Seymour-Johnson					
Abort (F-15E/Op)	0.042	0.290	0.512	0.529	0.380
Abort (F-15E/Trn)	-0.135	-0.234	-0.200	-0.040	0.115
Shaw					
Abort (F-16/50)	0.411	0.639	0.643	0.429	0.365
Whiteman					
Abort (B-2A)	0.292	0.326	0.375	0.392	0.296

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
MX/Ops Deviation (U-2)	-0.258	-0.150	-0.189	-0.344	-0.432
Cannon					
MX/Ops Deviation (F-16/30)	-0.336	-0.275	-0.175	-0.075	0.369
MX/Ops Deviation (F-16/40)	-0.193	-0.362	-0.503	-0.524	-0.329
MX/Ops Deviation (F-16/50)	-0.516	-0.554	-0.647	-0.707	-0.646
MX/Ops Deviation (F-16/52)	-0.146	-0.087	0.022	0.161	0.169
Davis-Monthan					
MX/Ops Deviation (A-10/Op)	0.699	0.462	0.120	-0.243	-0.255
MX/Ops Deviation (A-10/Trn)	0.308	0.435	0.329	-0.159	-0.291
Dyess					
MX/Ops Deviation (B-52)	0.177	0.037	-0.252	-0.460	-0.394
Ellsworth					
MX/Ops Deviation (B-1)	0.470	0.145	0.002	-0.045	-0.136
Langley					
MX/Ops Deviation (F-15C/D)	0.177	0.037	-0.252	-0.460	-0.394
Minot					
MX/Ops Deviation (B-52)	0.641	0.601	0.397	0.572	0.375
Mountain Home					
MX/Ops Deviation (F-15C)	-0.243	-0.363	-0.075	0.301	0.274
MX/Ops Deviation (F-15E)	-0.305	-0.508	-0.548	-0.301	-0.112
MX/Ops Deviation (F-16/50)	-0.055	-0.016	-0.274	-0.099	0.101
Nellis					
MX/Ops Deviation (A-10)	0.241	0.107	0.135	0.073	0.007
MX/Ops Deviation (F-15E)	0.047	0.199	0.173	0.261	0.282
MX/Ops Deviation (F-15C/D)	-0.509	-0.204	-0.122	0.036	0.091
MX/Ops Deviation (F-16/30)	-0.432	-0.278	-0.131	-0.050	0.164
MX/Ops Deviation (F-16/40)	-0.026	0.186	0.222	0.397	0.443
MX/Ops Deviation (F-16/50)	-0.052	0.080	0.107	0.199	0.358
Offutt					
MX/Ops Deviation (E-4B)	-0.274	-0.298	-0.317	-0.343	-0.398
MX/Ops Deviation (RC-135)	0.187	0.171	0.052	0.223	0.079
Pope					
MX/Ops Deviation (A-10)	-0.030	-0.310	-0.531	-0.383	-0.132
Seymour-Johnson					
MX/Ops Deviation (F-15E/Op)	-0.269	-0.130	0.165	0.239	0.359
MX/Ops Deviation (F-15E/Trn)	0.091	-0.100	0.063	0.376	0.503
Shaw					
MX/Ops Deviation (F-16/50)	-0.057	0.088	0.085	-0.069	0.021
Whiteman					
MX/Ops Deviation (B-2A)	0.344	0.269	0.220	0.245	0.088

Appendix AG: MC and TNMCM Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
MC (U-2)	0.233	-0.452	0.239	0.344	0.129
Cannon					
MC (F-16/30)	0.437	0.345	0.261	0.118	-0.129
MC (F-16/40)	-0.282	-0.236	-0.194	-0.116	-0.044
MC (F-16/50)	-0.104	-0.100	-0.085	-0.099	-0.184
MC (F-16/52)	0.557	0.530	0.418	0.339	0.136
Davis-Monthan					
MC (A-10/Op)	-0.642	-0.465	-0.242	0.183	0.399
MC (A-10/Trn)	-0.047	-0.280	0.140	-0.138	-0.375
Dyess					
MC (B-52)	0.520	0.564	0.639	0.720	0.630
Ellsworth					
MC (B-1)	0.023	0.066	0.049	-0.088	0.045
Langley					
MC (F-15C/D)	0.123	0.207	-0.059	-0.072	-0.358
Minot					
MC (B-52)	-0.112	0.023	-0.014	-0.114	0.000
Mountain Home					
MC (F-15C)	0.003	0.057	-0.135	-0.147	-0.108
MC (F-15E)	-0.031	0.087	0.172	0.342	0.466
MC (F-16/50)	-0.013	0.202	0.156	-0.065	-0.065
Nellis					
MC (A-10)	-0.454	-0.289	-0.337	-0.213	-0.136
MC (F-15E)	0.211	0.250	0.360	0.259	0.244
MC (F-15C/D)	0.356	0.576	0.657	0.646	0.668
MC (F-16/30)	0.516	0.420	0.377	0.234	0.052
MC (F-16/40)	0.404	0.514	0.464	0.392	0.382
MC (F-16/50)	0.312	0.275	0.221	0.183	0.387
Offutt					
MC (E-4B)	-0.275	-0.137	-0.143	-0.152	-0.043
MC (RC-135)	0.273	0.030	0.033	0.153	0.108
Pope					
MC (A-10)	-0.098	0.214	0.657	0.759	0.857
Seymour-Johnson					
MC (F-15E/Op)	0.007	-0.032	-0.244	-0.186	-0.181
MC (F-15E/Trn)	0.142	0.116	0.190	0.342	0.128
Shaw					
MC (F-16/50)	0.180	0.066	0.013	-0.024	-0.325
Whiteman					
MC (B-2A)	-0.139	-0.130	-0.109	-0.129	-0.055

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
TNMCM (U-2)	-0.242	-0.213	-0.110	-0.180	-0.091
Cannon					
TNMCM (F-16/30)	-0.426	-0.324	-0.292	-0.171	0.076
TNMCM (F-16/40)	0.107	0.011	-0.073	-0.249	-0.298
TNMCM (F-16/50)	-0.565	-0.644	-0.776	-0.761	-0.755
TNMCM (F-16/52)	-0.679	-0.678	-0.655	-0.629	-0.302
Davis-Monthan					
TNMCM (A-10/Op)	0.635	0.407	0.169	-0.116	-0.179
TNMCM (A-10/Trn)	-0.027	0.209	-0.282	0.127	0.503
Dyess					
TNMCM (B-52)	-0.597	-0.612	-0.656	-0.720	-0.597
Ellsworth					
TNMCM (B-1)	-0.307	-0.208	-0.223	-0.145	-0.303
Langley					
TNMCM (F-15C/D)	-0.151	-0.267	0.104	0.192	0.438
Minot					
TNMCM (B-52)	-0.033	-0.074	-0.169	-0.062	-0.177
Mountain Home					
TNMCM (F-15C)	-0.110	-0.313	-0.088	0.023	0.092
TNMCM (F-15E)	0.018	-0.105	-0.133	-0.285	-0.404
TNMCM (F-16/50)	0.215	-0.087	-0.193	0.056	-0.165
Nellis					
TNMCM (A-10)	0.399	0.254	0.324	0.263	0.326
TNMCM (F-15E)	-0.140	-0.167	-0.206	-0.107	-0.109
TNMCM (F-15C/D)	-0.313	-0.597	-0.710	-0.734	-0.683
TNMCM (F-16/30)	-0.464	-0.344	-0.315	-0.155	-0.070
TNMCM (F-16/40)	-0.213	-0.408	-0.382	-0.375	-0.349
TNMCM (F-16/50)	0.056	-0.007	-0.046	-0.210	-0.466
Offutt					
TNMCM (E-4B)	0.220	0.058	0.003	0.157	0.023
TNMCM (RC-135)	-0.092	0.083	0.063	0.062	0.149
Pope					
TNMCM (A-10)	0.313	0.341	-0.396	-0.580	-0.623
Seymour-Johnson					
TNMCM (F-15E/Op)	-0.046	-0.056	0.097	0.012	0.148
TNMCM (F-15E/Trn)	-0.184	-0.141	-0.093	-0.222	0.016
Shaw					
TNMCM (F-16/50)	-0.150	-0.062	-0.082	-0.066	0.232
Whiteman					
TNMCM (B-2A)	0.127	0.121	0.101	0.124	0.064

Appendix AH: Break and Fix Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Break (U-2)	-0.254	-0.063	-0.051	-0.004	0.112
Cannon					
Break (F-16/30)	0.082	0.122	0.277	0.335	0.453
Break (F-16/40)	0.161	0.152	0.124	0.139	0.065
Break (F-16/50)	0.015	0.053	-0.067	-0.150	-0.295
Break (F-16/52)	-0.344	-0.451	-0.602	-0.598	-0.502
Davis-Monthan					
Break (A-10/Op)	0.539	0.554	0.368	0.103	-0.299
Break (A-10/Trn)	-0.333	0.068	-0.310	-0.167	0.067
Dyess					
Break (B-52)	-0.396	-0.176	-0.175	-0.343	-0.144
Ellsworth					
Break (B-1)	-0.205	-0.112	-0.236	-0.216	-0.398
Langley					
Break (F-15C/D)	0.194	0.038	-0.044	0.099	0.056
Minot					
Break (B-52)	-0.100	0.000	0.067	0.259	0.079
Mountain Home					
Break (F-15C)	-0.122	-0.236	-0.105	-0.034	-0.231
Break (F-15E)	0.044	0.044	-0.249	-0.293	-0.363
Break (F-16/50)	0.129	0.233	0.001	-0.065	-0.208
Nellis					
Break (A-10)	0.409	0.315	0.163	0.000	-0.129
Break (F-15E)	0.558	0.598	0.608	0.497	0.377
Break (F-15C/D)	0.422	0.296	0.233	0.080	0.025
Break (F-16/30)	0.029	-0.066	-0.035	0.136	0.128
Break (F-16/40)	-0.092	-0.025	0.107	-0.014	-0.031
Break (F-16/50)	-0.119	-0.121	-0.114	-0.104	-0.093
Offutt					
Break (E-4B)	-0.018	-0.314	-0.499	-0.353	-0.382
Break (RC-135)	-0.051	0.015	0.077	0.150	0.321
Pope					
Break (A-10)	0.328	0.508	0.414	0.014	-0.389
Seymour-Johnson					
Break (F-15E/Op)	0.191	0.144	0.118	-0.091	-0.270
Break (F-15E/Trn)	-0.518	-0.518	-0.425	-0.530	-0.490
Shaw					
Break (F-16/50)	-0.250	-0.213	-0.325	-0.429	-0.503
Whiteman					
Break (B-2A)	0.142	0.117	0.108	0.058	0.207

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Fix (U-2)	0.163	0.183	-0.033	0.162	0.395
Cannon					
Fix (F-16/30)	0.415	0.287	0.368	0.485	0.375
Fix (F-16/40)	-0.198	-0.195	-0.018	0.051	0.203
Fix (F-16/50)	0.785	0.788	0.847	0.892	0.817
Fix (F-16/52)	0.302	0.314	0.223	0.177	0.090
Davis-Monthan					
Fix (A-10/Op)	0.085	0.126	-0.103	0.379	0.261
Fix (A-10/Trn)	-0.233	-0.265	-0.224	0.323	0.272
Dyess					
Fix (B-52)	0.323	0.463	0.528	0.554	0.424
Ellsworth					
Fix (B-1)	-0.173	-0.081	-0.127	-0.034	-0.054
Langley					
Fix (F-15C/D)	-0.010	0.175	0.187	0.131	0.097
Minot					
Fix (B-52)	0.091	0.174	0.107	-0.003	-0.102
Mountain Home					
Fix (F-15C)	0.312	0.440	0.251	0.123	-0.117
Fix (F-15E)	0.309	0.122	-0.076	-0.209	-0.092
Fix (F-16/50)	0.003	-0.060	0.138	-0.160	0.172
Nellis					
Fix (A-10)	-0.031	-0.076	-0.155	-0.117	-0.203
Fix (F-15E)	0.179	0.086	0.246	0.201	0.186
Fix (F-15C/D)	0.375	0.394	0.371	0.413	0.465
Fix (F-16/30)	0.050	0.034	0.062	-0.120	-0.082
Fix (F-16/40)	-0.100	0.017	-0.161	-0.363	-0.346
Fix (F-16/50)	-0.095	0.002	0.061	0.147	0.031
Offutt					
Fix (E-4B)	0.259	0.253	0.235	0.148	0.218
Fix (RC-135)	0.538	0.488	0.528	0.536	0.573
Pope					
Fix (A-10)	-0.155	-0.095	0.094	0.340	0.309
Seymour-Johnson					
Fix (F-15E/Op)	0.237	0.269	0.376	0.226	0.125
Fix (F-15E/Trn)	-0.179	-0.288	-0.407	-0.382	-0.488
Shaw					
Fix (F-16/50)	-0.190	-0.323	-0.245	-0.278	-0.240
Whiteman					
Fix (B-2A)	0.066	0.116	0.253	0.309	0.529

Appendix AI: Cannibalization Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
CANN (U-2)	**0.031**	**-0.085**	**0.231**	**0.284**	**0.439**
Cannon					
CANN (F-16/30)	**0.191**	**0.239**	**0.350**	**0.457**	**0.377**
CANN (F-16/40)	**0.647**	**0.567**	**0.515**	**0.451**	**0.157**
CANN (F-16/50)	**-0.315**	**-0.413**	**-0.522**	**-0.526**	**-0.707**
CANN (F-16/52)	**-0.066**	**-0.129**	**-0.116**	**-0.022**	**0.060**
Davis-Monthan					
CANN (A-10/Op)	**0.357**	**0.077**	**-0.010**	**-0.391**	**-0.345**
CANN (A-10/Trn)	**-0.038**	**0.006**	**-0.432**	**-0.486**	**-0.287**
Dyess					
CANN (B-52)	**-0.263**	**-0.471**	**-0.445**	**-0.521**	**-0.452**
Ellsworth					
CANN (B-1)	**0.540**	**0.598**	**0.540**	**0.421**	**0.670**
Langley					
CANN (F-15C/D)	**-0.488**	**-0.118**	**0.183**	**0.496**	**0.357**
Minot					
CANN (B-52)	**-0.578**	**-0.632**	**-0.643**	**-0.567**	**-0.353**
Mountain Home					
CANN (F-15C)	**0.202**	**0.145**	**0.057**	**-0.131**	**-0.609**
CANN (F-15E)	**-0.114**	**-0.443**	**-0.368**	**-0.206**	**-0.141**
CANN (F-16/50)	**0.109**	**-0.102**	**-0.287**	**-0.319**	**-0.190**
Nellis					
CANN (A-10)	**0.601**	**0.459**	**0.494**	**0.480**	**0.444**
CANN (F-15E)	**0.761**	**0.698**	**0.600**	**0.646**	**0.584**
CANN (F-15C/D)	**0.112**	**0.250**	**0.132**	**0.105**	**-0.050**
CANN (F-16/30)	**-0.115**	**-0.167**	**-0.151**	**-0.160**	**-0.002**
CANN (F-16/40)	**-0.395**	**-0.486**	**-0.513**	**-0.447**	**-0.551**
CANN (F-16/50)	**-0.183**	**-0.119**	**-0.085**	**0.015**	**-0.056**
Offutt					
CANN (E-4B)	**-0.134**	**-0.059**	**-0.170**	**-0.211**	**-0.233**
CANN (RC-135)	**-0.314**	**-0.201**	**-0.159**	**-0.195**	**-0.132**
Pope					
CANN (A-10)	**0.278**	**0.360**	**-0.104**	**-0.388**	**-0.192**
Seymour-Johnson					
CANN (F-15E/Op)	**0.139**	**0.281**	**0.505**	**0.559**	**0.370**
CANN (F-15E/Trn)	**-0.493**	**-0.606**	**-0.675**	**-0.652**	**-0.498**
Shaw					
CANN (F-16/50)	**-0.411**	**-0.378**	**-0.325**	**-0.365**	**-0.379**
Whiteman					
CANN (B-2A)	**-0.561**	**-0.667**	**-0.707**	**-0.755**	**-0.551**

Appendix AJ: Dropped Objects and Foreign Object Damage Count Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
DOP	-0.176	-0.171	-0.155	-0.143	-0.254
Cannon					
DOP	-0.054	-0.079	0.070	0.072	0.227
Davis-Monthan					
DOP	-0.053	0.214	0.228	0.136	-0.005
Dyess					
DOP	-0.078	0.189	0.337	0.321	0.347
Ellsworth					
DOP	-0.159	-0.006	-0.142	-0.058	-0.029
Langley					
DOP	-0.001	-0.055	-0.056	-0.262	-0.059
Minot					
DOP	-0.022	-0.165	0.032	-0.138	-0.192
Mountain Home					
DOP	0.123	0.284	0.094	0.184	0.208
Nellis					
DOP	-0.017	0.069	-0.147	-0.284	-0.373
Offutt					
DOP	0.335	0.067	0.018	0.114	-0.224
Pope					
DOP	0.663	0.735	0.702	0.509	0.426
Seymour-Johnson					
DOP	0.163	0.079	-0.160	-0.329	-0.267
Shaw					
DOP	-0.218	-0.230	-0.243	-0.243	-0.275
Whiteman					
DOP	-0.294	-0.237	-0.333	-0.422	-0.311

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
FOD	-0.314	-0.253	-0.246	-0.352	-0.315
Cannon					
FOD	0.300	0.298	0.328	-0.024	0.129
Davis-Monthan					
FOD	-0.047	-0.131	0.140	0.200	-0.329
Dyess					
FOD	-0.033	0.027	-0.101	0.152	0.066
Ellsworth					
FOD	-0.178	0.012	0.222	-0.031	-0.061
Langley					
FOD	0.011	0.009	-0.147	-0.312	-0.153
Minot					
FOD	-0.309	-0.149	-0.345	-0.125	-0.168
Mountain Home					
FOD	0.289	0.271	0.146	0.046	0.069
Nellis					
FOD	-0.424	-0.493	-0.509	-0.537	-0.472
Offutt					
FOD	0.008	0.089	0.066	0.110	0.093
Pope					
FOD	-0.253	-0.352	-0.160	-0.280	-0.586
Seymour-Johnson					
FOD	0.138	0.357	0.535	0.561	0.531
Shaw					
FOD	-0.095	-0.089	-0.082	-0.119	-0.107
Whiteman					
FOD	-0.148	-0.057	0.102	0.103	0.030

Appendix AK: Deficiency Report and TO Improvement Submitted Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
DRs Submitted	-0.345	0.034	0.128	-0.491	-0.027
Cannon					
DRs Submitted	-0.167	-0.659	-0.670	-0.741	-0.583
Davis-Monthan					
DRs Submitted	-0.160	-0.109	-0.074	-0.135	-0.165
Dyess					
DRs Submitted	0.336	0.419	0.434	0.454	0.388
Ellsworth					
DRs Submitted	-0.233	-0.247	-0.167	-0.140	0.093
Langley					
DRs Submitted	-0.145	0.096	0.075	0.120	-0.249
Minot					
DRs Submitted	0.298	0.221	0.557	0.675	0.518
Mountain Home					
DRs Submitted	-0.193	-0.497	-0.441	-0.162	0.048
Nellis					
DRs Submitted	0.451	0.283	0.151	0.039	-0.035
Offutt					
DRs Submitted	0.206	0.245	0.205	0.136	0.002
Pope					
DRs Submitted	-0.091	0.003	-0.303	-0.368	0.412
Seymour-Johnson					
DRs Submitted	-0.086	-0.033	0.088	0.169	0.327
Shaw					
DRs Submitted	-0.235	-0.210	-0.227	-0.139	-0.069
Whiteman					
DRs Submitted	0.008	-0.002	-0.054	-0.020	-0.010

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
TO Improvements Submitted	0.088	-0.036	0.537	0.290	-0.037
Cannon					
TO Improvements Submitted	-0.029	-0.327	-0.153	0.141	0.014
Davis-Monthan					
TO Improvements Submitted	0.408	0.456	0.067	-0.096	-0.204
Dyess					
TO Improvements Submitted	0.276	0.044	0.109	0.110	-0.189
Ellsworth					
TO Improvements Submitted	-0.387	-0.189	-0.256	-0.282	-0.353
Langley					
TO Improvements Submitted	0.001	-0.138	-0.391	-0.023	0.066
Minot					
TO Improvements Submitted	-0.066	0.052	0.276	0.071	-0.033
Mountain Home					
TO Improvements Submitted	0.334	0.090	0.102	0.027	-0.043
Nellis					
TO Improvements Submitted	0.072	-0.054	-0.098	-0.016	-0.173
Offutt					
TO Improvements Submitted	-0.250	-0.111	-0.135	-0.383	-0.387
Pope					
TO Improvements Submitted	-0.130	0.086	0.243	0.006	0.140
Seymour-Johnson					
TO Improvements Submitted	0.140	0.149	0.186	0.283	0.253
Shaw					
TO Improvements Submitted	-0.217	-0.371	-0.485	-0.318	-0.054
Whiteman					
TO Improvements Submitted	0.112	0.085	0.064	0.041	0.029

Appendix AL: Safety and Technical Violation Count Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
STV	-0.039	0.100	-0.179	-0.217	-0.308
Cannon					
STV	0.057	0.142	0.210	0.287	0.420
Davis-Monthan					
STV	-0.067	0.155	-0.119	-0.184	-0.320
Dyess					
STV	-0.606	-0.751	-0.781	-0.779	-0.518
Ellsworth					
STV	0.035	0.172	0.212	0.100	0.312
Langley					
STV	0.242	0.343	0.301	0.382	0.369
Minot					
STV	-0.255	-0.249	0.219	0.280	0.129
Mountain Home					
STV	-0.384	-0.574	-0.446	0.050	0.401
Nellis					
STV	0.051	0.020	-0.125	-0.098	0.054
Offutt					
STV	-0.460	-0.371	-0.427	-0.464	-0.455
Pope					
STV	0.010	0.131	0.165	-0.002	-0.335
Seymour-Johnson					
STV	0.033	0.048	0.149	0.410	0.391
Shaw					
STV	-0.113	0.092	0.142	0.238	0.370
Whiteman					
STV	0.667	0.631	0.525	0.471	0.348

Appendix AM: DSV and TDV Count Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
DSV	-0.005	0.073	-0.020	-0.113	-0.292
Cannon					
DSV	-0.168	-0.086	-0.115	-0.020	0.107
Davis-Monthan					
DSV	-0.063	0.037	-0.184	-0.129	-0.328
Dyess					
DSV	-0.581	-0.732	-0.847	-0.747	-0.353
Ellsworth					
DSV	0.202	0.268	0.187	0.060	0.276
Langley					
DSV	0.355	0.565	0.281	0.217	-0.161
Minot					
DSV	-0.146	-0.215	0.218	0.290	0.115
Mountain Home					
DSV	-0.237	-0.487	-0.408	0.100	0.201
Nellis					
DSV	-0.160	-0.276	-0.222	-0.149	-0.197
Offutt					
DSV	-0.355	-0.277	-0.335	-0.367	-0.387
Pope					
DSV	-0.152	0.101	0.036	0.101	0.400
Seymour-Johnson					
DSV	0.199	0.247	0.204	0.240	0.340
Shaw					
DSV	0.514	0.583	0.598	0.522	0.464
Whiteman					
DSV	0.091	0.035	-0.002	0.098	0.079

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
TDV	0.258	0.477	0.145	0.122	0.118
Cannon					
TDV	-0.356	-0.331	-0.324	-0.238	-0.108
Davis-Monthan					
TDV	0.007	0.105	0.203	0.051	0.379
Dyess					
TDV	-0.614	-0.632	-0.773	-0.404	-0.412
Ellsworth					
TDV	0.307	0.310	0.515	0.428	0.383
Langley					
TDV	-0.047	0.023	0.097	0.354	0.454
Minot					
TDV	-0.235	-0.094	-0.127	-0.166	-0.299
Mountain Home					
TDV	-0.332	-0.094	0.204	0.560	0.267
Nellis					
TDV	0.123	0.101	0.086	0.099	0.240
Offutt					
TDV	-0.417	-0.359	-0.374	-0.389	-0.320
Pope					
TDV	-0.550	-0.599	-0.266	-0.340	-0.708
Seymour-Johnson					
TDV	-0.306	-0.321	-0.206	0.127	0.081
Shaw					
TDV	0.213	0.143	0.193	0.251	0.158
Whiteman					
TDV	0.075	0.087	-0.047	-0.156	-0.174

Appendix AN: FSE and MSE Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
FSE (U-2)	-0.369	-0.488	-0.215	-0.271	-0.211
Cannon					
FSE (F-16/30)	0.508	0.568	0.544	0.492	0.363
FSE (F-16/40)	0.262	0.212	0.269	0.247	0.272
FSE (F-16/50)	-0.009	-0.071	-0.059	-0.022	-0.148
FSE (F-16/52)	0.351	0.302	0.361	0.369	0.372
Davis-Monthan					
FSE (A-10/Op)	-0.553	-0.364	-0.172	0.233	0.390
FSE (A-10/Trn)	0.251	0.477	-0.255	-0.531	-0.075
Dyess					
FSE (B-52)	0.354	0.498	0.735	0.697	0.635
Ellsworth					
FSE (B-1)	0.315	0.449	0.027	0.059	0.063
Langley					
FSE (F-15C/D)	0.163	0.120	-0.078	-0.143	-0.180
Minot					
FSE (B-52)	-0.640	-0.666	-0.622	-0.679	-0.588
Mountain Home					
FSE (F-15C)	-0.447	-0.198	-0.001	0.017	0.291
FSE (F-15E)	0.029	0.249	0.260	0.288	0.413
FSE (F-16/50)	-0.571	-0.359	-0.121	0.120	0.223
Nellis					
FSE (A-10)	-0.314	-0.238	-0.348	-0.318	-0.237
FSE (F-15E)	-0.281	-0.357	-0.390	-0.422	-0.300
FSE (F-15C/D)	0.351	0.355	0.306	0.266	0.385
FSE (F-16/30)	0.184	0.177	0.122	-0.017	0.036
FSE (F-16/40)	-0.162	-0.323	-0.384	-0.482	-0.168
FSE (F-16/50)	0.249	0.174	0.075	-0.034	-0.204
Offutt					
FSE (E-4B)	0.338	0.409	0.392	0.320	0.373
FSE (RC-135)	0.265	0.109	0.106	0.066	0.065
Pope					
FSE (A-10)	-0.235	0.012	0.476	0.674	0.527
Seymour-Johnson					
FSE (F-15E/Op)	0.169	-0.111	-0.361	-0.248	-0.188
FSE (F-15E/Trn)	0.287	0.046	-0.227	-0.092	-0.160
Shaw					
FSE (F-16/50)	-0.117	-0.311	-0.186	0.007	0.128
Whiteman					
FSE (B-2A)	0.060	-0.056	0.128	0.121	-0.023

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
MSE (U-2)	0.025	0.000	0.340	-0.306	-0.020
Cannon					
MSE (F-16/30)	-0.404	-0.436	-0.537	-0.626	-0.677
MSE (F-16/40)	-0.461	-0.480	-0.725	-0.665	-0.622
MSE (F-16/50)	0.032	0.026	0.045	0.297	0.292
MSE (F-16/52)	0.294	0.238	0.155	0.117	0.067
Davis-Monthan					
MSE (A-10/Op)	-0.129	0.451	0.307	-0.157	-0.131
MSE (A-10/Trn)	0.389	0.298	0.379	0.138	-0.063
Dyess					
MSE (B-52)	0.385	0.651	0.367	0.351	0.104
Ellsworth					
MSE (B-1)	0.001	-0.102	-0.234	-0.372	-0.494
Langley					
MSE (F-15C/D)	-0.090	0.002	0.160	0.351	0.303
Minot					
MSE (B-52)	0.065	-0.021	-0.021	-0.153	-0.180
Mountain Home					
MSE (F-15C)	-0.221	0.269	0.472	0.425	0.108
MSE (F-15E)	-0.114	-0.103	-0.125	-0.018	-0.033
MSE (F-16/50)	-0.042	0.204	0.095	0.088	-0.016
Nellis					
MSE (A-10)	-0.249	-0.249	-0.332	-0.311	-0.296
MSE (F-15E)	0.113	0.107	0.159	0.064	0.087
MSE (F-15C/D)	0.160	0.129	0.069	0.247	0.305
MSE (F-16/Falcon)	-0.109	-0.111	-0.105	-0.099	0.035
MSE (F-16/Viper)	0.075	-0.035	-0.089	0.065	-0.057
Offutt					
MSE (E-4B)	0.268	0.561	0.563	0.510	0.409
MSE (RC-135)	0.243	0.139	0.243	0.449	0.427
Pope					
MSE (A-10)	-0.597	-0.355	-0.148	0.092	0.295
Seymour-Johnson					
MSE (F-15E/Op)	0.371	0.239	0.134	0.027	0.030
MSE (F-15E/Trn)	0.547	0.332	0.318	0.324	0.241
Shaw					
MSE (F-16/50)	0.112	-0.010	-0.140	-0.084	-0.095
Whiteman					
MSE (B-2A)	0.651	0.684	0.581	0.535	0.343

Appendix AO: Combined and Ground Mishap Count Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Combined Mishaps	-0.231	-0.307	0.147	0.493	-0.203
Cannon					
Combined Mishaps	0.410	0.366	0.396	0.140	0.128
Davis-Monthan					
Combined Mishaps	0.064	0.221	0.220	-0.061	0.239
Dyess					
Combined Mishaps	-0.049	-0.084	-0.100	-0.038	0.009
Ellsworth					
Combined Mishaps	-0.342	-0.193	-0.080	0.079	-0.228
Langley					
Combined Mishaps	-0.338	0.332	0.334	0.336	-0.256
Minot					
Combined Mishaps	0.143	-0.141	0.026	0.003	-0.096
Mountain Home					
Combined Mishaps	-0.137	-0.013	-0.102	0.265	-0.120
Nellis					
Combined Mishaps	0.071	-0.071	-0.079	-0.339	-0.372
Offutt					
Combined Mishaps	-0.228	-0.228	-0.248	-0.101	-0.126
Pope					
Combined Mishaps	-0.427	-0.457	-0.303	-0.224	-0.212
Seymour-Johnson					
Combined Mishaps	-0.133	0.015	0.059	0.123	0.112
Shaw					
Combined Mishaps	0.343	0.472	0.463	0.362	0.487
Whiteman					
Combined Mishaps	-0.081	0.056	0.025	-0.083	-0.083

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Ground Mishaps	-0.211	-0.301	0.209	0.335	-0.162
Cannon					
Ground Mishaps	0.352	0.301	0.326	0.028	0.020
Davis-Monthan					
Ground Mishaps	0.194	0.159	-0.270	-0.323	-0.022
Dyess					
Ground Mishaps	-0.086	-0.298	-0.092	-0.091	-0.046
Ellsworth					
Ground Mishaps	-0.229	-0.132	0.144	0.475	0.479
Langley					
Ground Mishaps	0.005	0.005	0.005	0.005	-0.308
Minot					
Ground Mishaps	0.262	0.115	0.251	0.239	0.196
Mountain Home					
Ground Mishaps	0.183	0.362	0.353	0.267	-0.180
Nellis					
Ground Mishaps	0.149	0.000	-0.063	-0.179	-0.300
Offutt					
Ground Mishaps	-0.220	-0.220	-0.236	-0.138	-0.158
Pope					
Ground Mishaps	-0.384	-0.455	-0.158	0.112	-0.057
Seymour-Johnson					
Ground Mishaps	0.179	0.046	0.068	0.093	-0.220
Shaw					
Ground Mishaps	0.125	0.286	0.279	0.279	0.263
Whiteman					
Ground Mishaps	-0.062	-0.082	-0.107	-0.138	-0.138

Appendix AP: Flight Mishaps and In-Flight Emergency Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Flt Mishaps	-0.202	-0.253	0.075	0.495	-0.158
Cannon					
Flt Mishaps	0.222	0.240	0.256	0.373	0.358
Davis-Monthan					
Flt Mishaps	-0.109	0.101	0.009	0.197	0.464
Dyess					
Flt Mishaps	0.014	0.149	-0.050	0.030	0.050
Ellsworth					
Flt Mishaps	-0.210	-0.126	-0.187	-0.152	-0.507
Langley					
Flt Mishaps	-0.387	0.373	0.374	0.375	0.004
Minot					
Flt Mishaps	-0.037	-0.336	-0.210	-0.234	-0.309
Mountain Home					
Flt Mishaps	0.246	0.071	0.321	0.339	0.105
Nellis					
Flt Mishaps	-0.034	-0.112	-0.063	-0.359	-0.322
Offutt					
Flt Mishaps	-0.095	-0.095	-0.107	-0.001	-0.015
Pope					
Flt Mishaps	-0.212	-0.158	-0.232	-0.340	-0.220
Seymour-Johnson					
Flt Mishaps	0.025	0.191	0.262	0.283	0.060
Shaw					
Flt Mishaps	0.338	0.331	0.323	0.190	0.385
Whiteman					
Flt Mishaps	-0.053	0.109	0.091	-0.007	-0.007

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Cannon					
IFE (F-16/30)	-0.413	-0.391	-0.177	0.003	0.156
IFE (F-16/40)	-0.037	0.007	-0.168	-0.258	-0.239
IFE (F-16/50)	-0.347	-0.382	-0.333	-0.312	-0.421
IFE (F-16/52)	0.014	0.066	0.027	-0.212	-0.309
Davis-Monthan					
IFE (A-10/Op)	-0.027	0.560	-0.192	-0.096	-0.166
IFE (A-10/Trn)	0.287	0.507	0.193	0.113	-0.172
Dyess					
IFE (B-52)	-0.372	-0.108	0.101	0.077	0.088
Ellsworth					
IFE (B-1)	0.335	0.178	0.113	-0.202	0.029
Langley					
IFE (F-15C/D)	0.150	0.272	0.052	0.211	-0.024
Minot					
IFE (B-52)	-0.053	0.022	-0.048	-0.223	-0.235
Mountain Home					
IFE (F-15C)	-0.133	-0.341	-0.169	-0.050	-0.146
IFE (F-15E)	-0.205	-0.026	0.140	0.343	0.225
IFE (F-16/50)	-0.340	-0.217	-0.043	-0.097	0.109
Nellis					
IFE (A-10)	0.388	0.253	0.300	-0.001	-0.159
IFE (F-15E)	0.004	0.101	-0.092	-0.114	-0.212
IFE (F-15C/D)	-0.176	-0.165	-0.052	-0.154	-0.124
IFE (F-16/30)	-0.062	-0.314	-0.295	-0.272	-0.243
IFE (F-16/40)	-0.259	-0.066	0.007	0.022	-0.112
IFE (F-16/50)	0.276	0.263	0.257	0.398	0.127
Offutt					
IFE (E-4B)	-0.237	-0.449	-0.379	-0.359	-0.371
IFE (RC-135)	0.182	0.264	0.022	-0.001	0.128
Pope					
IFE (A-10)	0.339	0.363	0.011	-0.270	0.307
Shaw					
IFE (F-16/50)	0.183	0.283	0.465	0.286	0.509

Appendix AQ: QVI and PE Pass Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
QVI Pass	**-0.357**	**-0.461**	**-0.527**	**-0.529**	**-0.168**
Cannon					
QVI Pass	**-0.723**	**-0.723**	**-0.743**	**-0.757**	**-0.542**
Davis-Monthan					
QVI Pass	**0.261**	**0.442**	**0.474**	**0.397**	**-0.063**
Dyess					
QVI Pass	**0.569**	**0.486**	**0.404**	**0.137**	**0.062**
Ellsworth					
QVI Pass	**-0.415**	**-0.478**	**-0.488**	**-0.591**	**-0.598**
Langley					
QVI Pass	**0.002**	**-0.156**	**-0.105**	**-0.271**	**-0.168**
Minot					
QVI Pass	**0.107**	**0.160**	**0.282**	**0.068**	**0.110**
Mountain Home					
QVI Pass	**0.009**	**0.308**	**0.450**	**0.385**	**-0.050**
Nellis					
QVI Pass	**-0.110**	**-0.054**	**0.060**	**0.255**	**0.359**
Offutt					
QVI Pass	**0.165**	**0.052**	**0.028**	**0.045**	**-0.036**
Pope					
QVI Pass	**-0.258**	**-0.295**	**-0.135**	**-0.042**	**0.024**
Seymour-Johnson					
QVI Pass	**0.419**	**0.292**	**0.156**	**-0.231**	**-0.264**
Shaw					
QVI Pass	**0.222**	**0.263**	**0.215**	**0.169**	**0.155**
Whiteman					
QVI Pass	**0.042**	**0.043**	**0.040**	**0.215**	**0.365**

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
PE Pass	**-0.503**	**-0.205**	**-0.245**	**-0.264**	**-0.253**
Cannon					
PE Pass	**-0.265**	**-0.265**	**-0.387**	**-0.353**	**-0.365**
Davis-Monthan					
PE Pass	**0.390**	**0.036**	**0.216**	**0.073**	**-0.014**
Dyess					
PE Pass	**0.573**	**0.675**	**0.469**	**0.089**	**0.119**
Ellsworth					
PE Pass	**-0.296**	**-0.233**	**-0.162**	**-0.394**	**-0.592**
Langley					
PE Pass	**0.057**	**0.325**	**0.603**	**0.285**	**-0.143**
Minot					
PE Pass	**0.147**	**0.074**	**0.065**	**-0.009**	**-0.100**
Mountain Home					
PE Pass	**-0.332**	**-0.094**	**0.204**	**0.560**	**0.267**
Nellis					
PE Pass	**-0.284**	**-0.106**	**-0.237**	**-0.097**	**0.058**
Offutt					
PE Pass	**0.211**	**0.179**	**0.066**	**0.059**	**0.056**
Pope					
PE Pass	**0.569**	**0.457**	**0.232**	**0.340**	**0.711**
Seymour-Johnson					
PE Pass	**-0.234**	**-0.423**	**-0.311**	**-0.395**	**-0.564**
Shaw					
PE Pass	**0.107**	**0.049**	**-0.041**	**-0.333**	**-0.304**
Whiteman					
PE Pass	**-0.037**	**-0.012**	**-0.209**	**-0.211**	**-0.221**

Appendix AR: Key Task List (KTL) and Phase KTL Pass Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4		Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale							**Beale**					
KTL Pass	0.256	0.306	-0.140	0.115	0.352		Phase KTL Pass	0.291	0.277	0.135	0.378	0.286
Cannon							**Cannon**					
KTL Pass	-0.141	-0.121	-0.242	-0.365	-0.173		Phase KTL Pass	-0.204	-0.023	-0.058	-0.141	-0.068
Davis-Monthan							**Davis-Monthan**					
KTL Pass	-0.036	0.088	0.214	-0.055	0.143		Phase KTL Pass	-0.383	-0.354	-0.221	-0.254	-0.068
Dyess							**Dyess**					
KTL Pass	0.229	0.272	0.496	0.395	0.591		Phase KTL Pass	-0.160	-0.044	-0.020	0.208	0.461
Ellsworth							**Ellsworth**					
KTL Pass	-0.403	-0.388	-0.390	-0.596	-0.682		Phase KTL Pass	-0.327	-0.498	-0.381	-0.496	-0.544
Langley							**Langley**					
KTL Pass	0.099	0.013	-0.021	-0.172	-0.243		Phase KTL Pass	0.376	0.305	0.013	-0.204	-0.319
Minot							**Minot**					
KTL Pass	-0.122	-0.324	-0.421	-0.416	-0.369		Phase KTL Pass	0.121	0.194	0.424	0.324	0.451
Mountain Home							**Mountain Home**					
KTL Pass	0.079	0.038	-0.040	0.207	0.273		Phase KTL Pass	-0.144	0.054	0.094	0.002	-0.039
Nellis							**Nellis**					
KTL Pass	0.379	0.426	0.452	0.415	0.342		Phase KTL Pass	0.020	-0.186	-0.009	0.113	0.228
Offutt							**Offutt**					
KTL Pass	0.429	0.377	0.466	0.584	0.483		Phase KTL Pass	0.220	0.095	0.107	0.138	0.015
Pope							**Pope**					
KTL Pass	0.203	0.222	0.160	-0.103	0.159		Phase KTL Pass	0.095	0.162	0.248	0.093	0.515
Shaw							**Shaw**					
KTL Pass	0.056	0.051	-0.139	-0.012	0.278		Phase KTL Pass	0.023	-0.047	0.135	0.135	0.383
Whiteman							**Whiteman**					
KTL Pass	-0.332	-0.387	-0.381	-0.328	-0.286		Phase KTL Pass	-0.314	-0.262	-0.300	-0.245	-0.245

Appendix AS: Recur and Repeat Rate Correlations

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Recur (U-2)	-0.234	-0.093	-0.005	-0.092	0.248
Cannon					
Recur (F-16/30)	0.564	0.722	0.661	0.649	0.397
Recur (F-16/40)	-0.001	0.005	0.076	0.002	-0.024
Recur (F-16/50)	-0.332	-0.524	-0.612	-0.589	-0.616
Recur (F-16/52)	-0.127	-0.140	-0.140	-0.116	-0.103
Davis-Monthan					
Recur (A-10/Op)	0.102	0.170	0.125	0.185	0.091
Recur (A-10/Trn)	-0.120	0.079	0.219	0.396	0.481
Dyess					
Recur (B-52)	0.502	0.381	0.344	0.190	-0.114
Ellsworth					
Recur (B-1)	0.032	-0.219	0.199	0.210	0.294
Langley					
Recur (F-15C/D)	-0.090	-0.072	0.173	-0.140	-0.137
Minot					
Recur (B-52)	-0.144	-0.113	-0.154	0.060	0.179
Mountain Home					
Recur (F-15C)	0.156	-0.056	-0.135	-0.285	-0.382
Recur (F-15E)	0.231	0.179	0.164	0.270	0.117
Recur (F-16/50)	-0.315	-0.288	-0.353	-0.316	-0.110
Nellis					
Recur (A-10)	-0.141	-0.295	-0.299	-0.250	-0.161
Recur (F-15E)	0.049	-0.046	-0.053	-0.116	-0.162
Recur (F-15C/D)	-0.376	-0.355	-0.364	-0.281	-0.224
Recur (F-16/Falcon)	-0.284	-0.078	-0.138	-0.084	0.066
Recur (F-16/Viper)	0.485	0.501	0.503	0.446	0.449
Offutt					
Recur (E-4B)	-0.211	-0.052	0.009	-0.025	0.000
Recur (RC-135)	-0.226	-0.289	-0.279	-0.427	-0.417
Pope					
Recur (A-10)	-0.116	0.021	0.100	-0.078	-0.190
Seymour-Johnson					
Recur (F-15E/Op)	0.315	0.310	0.304	0.298	0.320
Recur (F-15E/Trn)	0.257	0.278	-0.210	-0.205	-0.220
Shaw					
Recur (F-16/50)	-0.254	-0.092	-0.071	0.079	-0.086
Whiteman					
Recur (B-2A)	-0.504	-0.452	-0.554	-0.500	-0.289

Metric	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4
Beale					
Repeat (U-2)	-0.068	-0.350	-0.402	-0.270	0.057
Cannon					
Repeat (F-16/30)	0.115	0.194	0.192	0.300	0.191
Repeat (F-16/40)	0.345	0.384	0.457	0.227	0.156
Repeat (F-16/50)	-0.329	-0.315	-0.462	-0.500	-0.577
Repeat (F-16/52)	-0.233	-0.260	-0.255	-0.238	0.186
Davis-Monthan					
Repeat (A-10/Op)	0.094	0.197	-0.113	0.107	0.056
Repeat (A-10/Trn)	0.042	0.383	-0.014	-0.021	0.231
Dyess					
Repeat (B-52)	0.133	0.061	0.090	0.165	0.131
Ellsworth					
Repeat (B-1)	-0.172	0.006	-0.054	-0.083	-0.215
Langley					
Repeat (F-15C/D)	-0.180	-0.258	-0.251	-0.026	0.040
Minot					
Repeat (B-52)	-0.111	0.091	-0.100	0.195	0.156
Mountain Home					
Repeat (F-15C)	0.059	-0.365	-0.264	-0.430	-0.284
Repeat (F-15E)	0.004	0.042	0.006	-0.045	-0.270
Repeat (F-16/50)	-0.353	-0.250	-0.393	-0.171	0.043
Nellis					
Repeat (A-10)	-0.113	-0.100	0.017	0.147	0.261
Repeat (F-15E)	-0.142	-0.006	0.174	0.031	-0.124
Repeat (F-15C/D)	0.191	0.052	0.172	0.186	0.065
Repeat (F-16/Falcon)	0.025	0.221	0.262	0.256	0.471
Repeat (F-16/Viper)	0.082	0.043	0.011	0.155	0.241
Offutt					
Repeat (E-4B)	0.003	-0.296	-0.330	-0.197	-0.240
Repeat (RC-135)	-0.261	-0.313	-0.279	-0.373	-0.338
Pope					
Repeat (A-10)	-0.404	-0.540	-0.648	-0.615	-0.597
Seymour-Johnson					
Repeat (F-15E/Op)	0.001	0.278	0.362	0.137	0.016
Repeat (F-15E/Trn)	0.073	0.117	0.196	0.416	0.485
Shaw					
Repeat (F-16/50)	-0.407	-0.240	-0.240	-0.174	-0.047
Whiteman					
Repeat (B-2A)	-0.320	-0.404	-0.445	-0.448	-0.463

Appendix AT: Barksdale AFB Data

Barksdale (2BW) Part-1																	
Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC Rate	Repeat Rate	Recur Rate	TNMCM Rate	CANN Rate	DOPs (count)	FODs (count)	Combined Mishaps (count)
1461.7		0.952	0.541	0.750	0.703	0.976	0.080		40	0.811	0.031	0.038	0.154	0.382	2	4	3
1175.9		0.952	0.614	0.651	0.577	0.944	0.136		36	0.714	0.029	0.043	0.236	0.643	2	4	1
2131.6		0.952	0.546	0.515	0.797	0.871	0.029		29	0.676	0.049	0.044	0.257	0.534	2	4	2
2383.2		0.952	0.442	0.517	0.824	0.848	0.026		26	0.619	0.029	0.038	0.255	0.536	2	7	1
1307.5		0.952	0.561	0.677	0.050	0.837	0.109		50	0.686	0.012	0.033	0.228	0.801	2	7	0
1382.2		0.952	0.484	0.648	0.613	0.735	0.081		44	0.715	0.014	0.024	0.196	0.401	2	7	0
1373.8		0.952	0.589	0.613	0.681	0.891	0.053		35	0.723	0.015	0.017	0.206	0.317	1	10	1
1087.1		0.952	0.634	0.627	0.667	0.846	0.065		31	0.723	0.019	0.015	0.172	0.351	1	10	1
1097.3		0.952	0.576	0.700	0.640	0.914	0.079		37	0.787	0.017	0.017	0.160	0.209	1	10	0
1035.8		0.952	0.596	0.781	0.619	0.952	0.069		50	0.770	0.019	0.018	0.194	0.242	4	11	0
1278.7		0.952	0.510	0.646	0.620	0.939	0.089		59	0.734	0.020	0.027	0.218	0.144	4	11	0
1151.0		0.952	0.583	0.755	0.591	0.896	0.074		58	0.716	0.024	0.024	0.219	0.240	4	11	0
1251.2	0.871	0.952	0.603	0.790	0.472	0.923	0.070		80	0.724	0.012	0.031	0.241	0.310	5	10	0
1411.0	0.867	0.952	0.656	0.685	0.460	0.944	0.125		91	0.706	0.035	0.033	0.254	0.370	5	10	0
1565.2	0.871	0.952	0.596	0.742	0.753	0.939	0.057		42	0.765	0.007	0.017	0.227	0.221	5	10	0
1242.5	0.869	0.952	0.525	0.736	0.524	0.955	0.091		73	0.731	0.015	0.017	0.205	0.272	4	9	0
1057.7	0.928	0.952	0.525	0.737	0.612	0.965	0.057		39	0.797	0.015	0.020	0.169	0.359	4	9	1
1272.1	0.923	0.952	0.549	0.703	0.447	0.940	0.090		67	0.765	0.022	0.028	0.161	0.240	4	9	0
118.1	0.915	0.952	0.548	0.720	0.628	0.990	0.103		58	0.294	0.017	0.020	0.183	0.224	2	7	0
929.7	0.949	0.952	0.522	0.747	0.605	0.989	0.108		43	0.844	0.028	0.030	0.123	0.297	2	7	0
753.0	0.930	0.952	0.527	0.818	0.597	0.990	0.058		35	0.849	0.017	0.017	0.112	0.274	2	7	0
869.9	0.919	0.952	0.601	0.745	0.717	0.993	0.036		35	0.827	0.013	0.012	0.131	0.215	1	5	0
1068.7	0.887	0.952	0.509	0.833	0.599	0.968	0.090		72	0.754	0.031	0.019	0.171	0.236	1	5	0
727.4	0.896	0.952	0.608	0.703	0.528	0.990	0.112		63	0.745	0.023	0.032	0.209	0.496	1	5	0

Barksdale (2BW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
2	1	20	11	1	39	4	0.885	0.952	0.916	0.996
1	0	6	0	2	30	8	0.916	0.909	1.000	0.979
0	2	3	1	1	31	8	0.955	0.875	0.846	1.000
0	1	4	0	1	24	7	0.897	0.884	1.000	0.989
0	0	17	11	1	17	13	0.846	0.833	1.000	1.000
0	0	26	9	0	30	9	0.853	0.925	0.925	1.000
0	1	15	4	4	23	23	0.861	0.896	0.861	0.985
0	1	8	2	1	20	11	0.917	0.967	0.975	0.979
0	0	9	7	0	29	15	0.847	0.916	0.883	1.000
0	0	13	9	2	49	27	0.939	0.966	0.980	0.996
0	0	27	12	3	23	18	0.873	0.936	0.950	0.991
0	0	28	16	7	26	10	0.858	0.974	0.966	0.988
0	0	43	32	6	45	30	0.856	0.903	0.852	0.993
0	0	43	32	7	26	17	0.881	0.890	0.863	0.993
0	0	28	12	7	31	36	0.852	0.864	0.800	0.988
0	0	11	2	7	49	23	0.982	0.943	0.916	0.990
0	1	24	9	7	17	12	0.931	0.943	0.954	0.995
0	0	8	3	1	24	11	0.924	0.986	0.980	0.990
0	0	27	20	2	19	41	0.925	0.816	0.750	0.991
0	0	15	7	1	40	63	0.885	0.889	0.857	0.995
0	0	7	6	0	30	16	0.914	0.911	0.918	0.992
0	0	11	5	0	12	17	0.922	1.000	1.000	0.990
0	0	7	2	0	13	22	0.925	0.916	0.891	0.990
0	0	14	6	2	26	19	0.851	0.905	0.871	0.990

Appendix AU: Beale AFB Data

	Beale AFB (9RW) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	247		0.658	0.123	0.676	0.580	1.000	0.036		13	0.784	0.000	0.026	0.164	0.032	0	5	0
Feb 03	333.6		0.658	0.158	0.700	0.801	0.970	0.035		12	0.793	0.000	0.028	0.167	0.090	0	0	0
Mar 03	216.2		0.608	0.232	0.785	0.866	0.935	0.043		17	0.754	0.000	0.071	0.198	0.021	0	1	0
Apr 03	375.1		0.630	0.228	0.789	0.890	1.000	0.044		12	0.761	0.031	0.031	0.176	0.021	0	9	0
May 03	442.3		0.630	0.208	0.720	0.881	0.967	0.049		19	0.795	0.025	0.050	0.133	0.015	0	3	1
Jun 03	344.2		0.630	0.191	0.630	0.829	0.974	0.056		28	0.759	0.012	0.000	0.188	0.028	1	8	0
Jul 03	333.5		0.586	0.135	0.650	0.880	0.942	0.056		19	0.758	0.000	0.042	0.195	0.010	0	5	0
Aug 03	319.8		0.586	0.255	0.621	0.833	0.971	0.071		30	0.72	0.013	0.000	0.201	0.031	0	4	1
Sep 03	328.7		0.586	0.165	0.795	0.891	0.982	0.037		13	0.823	0.055	0.000	0.114	0.011	0	7	0
Oct 03	411.1		0.563	0.14	0.750	0.819	0.999	0.021		18	0.777	0.013	0.013	0.148	0.053	2	6	0
Nov 03	273.8		0.563	0.145	0.692	0.912	1.000	0.036		18	0.776	0.019	0.019	0.198	0.030	0	4	1
Dec 03	317.7		0.563	0.195	0.673	0.840	1.000	0.047		15	0.706	0.000	0.000	0.204	0.028	0	10	0
Jan 04	323.9	0.739	0.563	0.147	0.718	0.812	1.000	0.022		2	0.826	0.000	0.000	0.138	0.034	0	5	1
Feb 04	289.5	0.799	0.563	0.16	0.725	0.783	1.000	0.024		13	0.751	0.000	0.000	0.203	0.020	0	10	0
Mar 04	422.6	0.829	0.531	0.166	0.680	0.889	1.000	0.023		16	0.787	0.014	0.014	0.168	0.010	0	7	1
Apr 04	364.9	0.841	0.563	0.142	0.600	0.818	0.983	0.040		30	0.688	0.019	0.019	0.261	0.041	1	5	0
May 04	274.8	0.814	0.563	0.165	0.619	0.920	1.000	0.065		18	0.743	0.106	0.106	0.187	0.024	0	15	0
Jun 04	384	0.805	0.563	0.196	0.678	0.856	0.889	0.055		34	0.682	0.052	0.052	0.281	0.030	0	10	0
Jul 04	245.1	0.828	0.563	0.258	0.619	0.893	0.970	0.076		18	0.659	0.071	0.071	0.280	0.037	0	12	2
Aug 04	322.7	0.891	0.531	0.221	0.760	0.912	0.969	0.034		15	0.706	0.065	0.065	0.238	0.048	0	6	0
Sep 04	234.7	0.878	0.563	0.207	0.700	0.921	0.922	0.069		14	0.772	0.040	0.040	0.199	0.029	0	8	3
Oct 04	305.1	0.849	0.563	0.19	0.620	0.869	1.000	0.063		25	0.731	0.000	0.037	0.247	0.034	0	8	2
Nov 04	344.7	0.857	0.563	0.203	0.685	0.836	0.957	0.066		21	0.206	0.014	0.028	0.254	0.015	0	10	0
Dec 04	333.9	0.862	0.688	0.149	0.696	0.902	0.960	0.031		19	0.719	0.076	0.000	0.268	0.006	0	10	0

Beale AFB (9RW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
0	0	9	2	1	8	6	0.913	0.912	1.000	0.917
0	0	9	0	1	9	10	0.943	0.956	1.000	0.917
0	0	15	5	2	13	17	0.932	0.941		1.000
0	0	9	3	3	10	16	0.919	0.958	1.000	1.000
1	0	9	2	3	20	12	0.930	1.000	1.000	1.000
0	0	22	3	3	18	21	0.930	0.964		0.971
0	0	23	3	3	8	7	0.937	0.938	0.000	0.917
0	1	9	0	1	14	0	0.928	0.933	1.000	0.962
0	0	8	2	0	8	7	0.956	0.909	1.000	1.000
0	0	17	5	2	19	2	0.955	0.931	1.000	1.000
1	0	12	2	2	22	2	0.957	0.909	1.000	1.000
0	0	8	2	1	18	4	0.947	0.962	1.000	1.000
1	0	9	0	2	9	9	0.934	0.957		1.000
0	0	11	0	0	12	2	0.929	0.878	0.000	1.000
1	0	8	3	1	15	9	0.944	0.906	0.000	1.000
0	0	10	5	0	14	14	0.955	0.920	1.000	1.000
0	0	9	0	0	15	11	0.952	0.868	0.000	1.000
0	0	5	0	0	21	16	0.959	0.873	0.000	1.000
1	1	8	1	1	7	24	0.970	0.962	1.000	0.926
0	0	5	1	1	19	8	0.959	0.962	1.000	1.000
2	1	6	1	1	6	19	0.927	0.905	1.000	1.000
1	1	2	1	0	28	38	0.931	0.827	0.500	1.000
0	0	10	2	2	23	17	0.955	0.937	1.000	1.000
0	0	5	2	1	14	24	0.959	0.918	1.000	0.971

Appendix AV: Cannon AFB Data

	Cannon AFB (27 FS) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	1622.3		0.895	0.112	0.857	0.854	0.962	0.051	0.010	55	0.849	0.018	0.044	0.074	0.084	3	13	0
Feb 03	1256.7		0.895	0.084	0.848	0.754	0.942	0.046	0.005	42	0.840	0.019	0.035	0.093	0.126	0	11	1
Mar 03	1971.4		0.895	0.123	0.846	0.768	0.945	0.056	0.009	60	0.823	0.033	0.043	0.120	0.120	3	14	0
Apr 03	1811.4		0.900	0.134	0.771	0.821	0.949	0.058	0.007	76	0.845	0.043	0.025	0.097	0.107	1	13	0
May 03	1544.6		0.904	0.100	0.821	0.870	0.966	0.048	0.006	44	0.887	0.030	0.043	0.056	0.097	1	10	0
Jun 03	1331.3		0.904	0.095	0.808	0.861	0.957	0.073	0.006	58	0.866	0.033	0.041	0.055	0.072	3	31	3
Jul 03	1394.9		0.904	0.129	0.779	0.841	0.983	0.063	0.010	72	0.848	0.024	0.043	0.094	0.096	0	15	0
Aug 03	1365.7		0.904	0.092	0.857	0.798	0.979	0.058	0.010	76	0.862	0.017	0.026	0.081	0.096	1	14	1
Sep 03	1036.9		0.878	0.115	0.851	0.794	0.988	0.047	0.015	32	0.862	0.021	0.040	0.075	0.144	3	14	0
Oct 03	1728.7		0.878	0.100	0.677	0.719	0.981	0.067	0.009	80	0.851	0.028	0.031	0.095	0.095	0	24	1
Nov 03	1399.3		0.878	0.077	0.690	0.700	0.994	0.067	0.006	94	0.861	0.027	0.023	0.088	0.091	2	13	0
Dec 03	1326.2		0.878	0.102	0.804	0.798	0.979	0.081	0.007	102	0.854	0.024	0.031	0.091	0.109	3	12	0
Jan 04	1658.4	0.784	0.854	0.104	0.723	0.797	0.989	0.075	0.009	96	0.858	0.027	0.036	0.074	0.088	2	9	0
Feb 04	1358.0	0.779	0.854	0.104	0.730	0.585	0.973	0.072	0.006	117	0.835	0.020	0.035	0.114	0.100	0	16	0
Mar 04	1757.0	0.777	0.854	0.096	0.773	0.812	0.981	0.057	0.007	75	0.848	0.031	0.032	0.107	0.087	1	10	0
Apr 04	1522.1	0.771	0.854	0.086	0.774	0.810	0.994	0.062	0.006	66	0.883	0.014	0.017	0.084	0.072	0	12	0
May 04	1602.3	0.764	0.854	0.087	0.819	0.737	0.971	0.054	0.012	116	0.849	0.016	0.018	0.099	0.067	1	16	0
Jun 04	1638.7	0.758	0.854	0.104	0.776	0.773	0.980	0.061	0.016	84	0.814	0.033	0.031	0.107	0.071	1	12	0
Jul 04	1117.2	0.820	0.854	0.084	0.726	0.829	0.993	0.064	0.015	61	0.860	0.019	0.033	0.089	0.069	5	11	0
Aug 04	1458.8	0.848	0.854	0.086	0.773	0.745	0.994	0.054	0.013	52	0.861	0.029	0.027	0.073	0.074	1	5	0
Sep 04	847.8	0.841	0.860	0.100	0.803	0.662	0.984	0.083	0.015	66	0.877	0.022	0.032	0.075	0.097	3	13	0
Oct 04	1265.0	0.792	0.865	0.117	0.733	0.794	0.988	0.080	0.012	80	0.838	0.031	0.024	0.101	0.079	1	10	1
Nov 04	1018.3	0.770	0.865	0.101	0.756	0.767	0.950	0.081	0.019	146	0.835	0.019	0.025	0.113	0.106	2	15	0
Dec 04	1426.8	0.753	0.865	0.105	0.822	0.803	0.977	0.073	0.009	87	0.870	0.014	0.026	0.069	0.076	5	22	0

Cannon AFB (27 FS) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
0	0	11	1	2			0.861	0.869	0.625	1.000
1	0	15	0	1			0.869	0.882	1.000	0.983
0	0	9	4	0			0.865	0.860	0.714	0.942
0	0	7	3	1			0.883	0.869	1.000	0.973
0	0	8	1	0			0.877	0.902	0.833	1.000
0	3	18	1	0			0.892	0.909	1.000	0.972
0	0	11	3	1			0.878	0.926	0.800	0.982
0	1	7	1	0			0.889	0.903	0.333	0.978
0	0	10	4	0			0.871	0.892	0.857	0.989
0	1	0	0	0			0.907	0.933	0.857	0.991
0	0	6	4	0			0.928	0.939	1.000	1.000
0	0	6	2	2	17	25	0.910	0.888	0.800	0.990
0	0	1	1	0	13	7	0.905	0.896	1.000	0.988
0	0	7	0	1	17	8	0.880	0.819	1.000	0.988
0	0	4	1	1	25	11	0.930	0.914	0.714	0.980
0	0	4	1	1	19	15	0.914	0.918	0.900	0.987
0	0	17	5	7	15	45	0.954	0.939	0.800	0.983
0	0	9	3	2	11	25	0.921	0.880	1.000	0.991
0	0	5	0	0	12	40	0.932	0.906	0.800	0.984
0	0	13	3	1	7	12	0.929	0.939	0.667	0.991
0	0	21	6	4	11	14	0.911	0.914	1.000	0.989
0	1	20	4	3	11	12	0.905	0.891	0.500	0.991
0	0	20	6	4	6	17	0.905	0.890	1.000	0.985
0	0	10	4	0	9	14	0.917	0.960	1.000	0.991

Appendix AW: Davis-Monthan AFB Data

	Davis-Monthan (355 FW) Part-1																		
	A-10 (Op)	A-10 (Trn)			A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)
	Flight Hours		MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)		Fix (rate)		Flying Sched Effect (rate)		MX Sched Effect (rate)		Abort (rate)		IFE (rate)		MX/Ops Devs (count)	
Jan 03	921.7	1628.8		0.802	0.057	0.110	0.786	0.822	0.908	0.928	0.905	0.984	0.042	0.031	0.010	0.022	6	27
Feb 03	724.1	1344.4		0.802	0.082	0.113	0.710	0.926	0.884	0.841	0.821	1.000	0.046	0.056	0.013	0.017	24	50
Mar 03	844.0	1428.6		0.802	0.085	0.115	0.725	0.845	0.833	0.867	0.975	0.969	0.043	0.051	0.019	0.022	44	58
Apr 03	779.2	1540.0		0.839	0.095	0.105	0.667	0.785	0.922	0.816	0.955	0.996	0.033	0.045	0.012	0.029	22	109
May 03	931.2	1391.5		0.843	0.120	0.115	0.746	0.783	0.842	0.792	0.953	0.995	0.057	0.057	0.017	0.019	77	114
Jun 03	810.5	1466.0		0.880	0.136	0.098	0.833	0.857	0.744	0.789	0.933	1.000	0.044	0.058	0.014	0.021	40	79
Jul 03	510.1	1416.2		0.880	0.127	0.100	0.500	0.690	0.627	0.724	1.000	1.000	0.066	0.053	0.025	0.027	76	150
Aug 03	723.0	1029.3		0.880	0.115	0.127	0.778	0.806	0.724	7.939	1.000	0.995	0.047	0.071	0.015	0.037	88	104
Sep 03	732.2	1341.3		0.917	0.114	0.122	0.674	0.787	0.744	0.801	0.854	0.982	0.058	0.068	0.013	0.021	81	80
Oct 03	623.1	1681.2		0.800	0.093	0.095	0.533	0.756	0.770	0.893	0.953	0.966	0.047	0.073	0.009	0.013	51	94
Nov 03	1528.1	1178.1		0.759	0.062	0.143	0.615	0.747	0.899	0.795	1.000	0.858	0.019	0.083	0.007	0.033	8	104
Dec 03	2014.4	1157.2		0.848	0.077	0.120	0.852	0.857	0.982	0.835	0.878	0.951	0.011	0.052	0.000	0.015	4	86
Jan 04	1865.8	1265.1	0.789	0.787	0.097	0.130	0.791	0.914	0.943	0.900	1.000	0.981	0.028	0.049	0.006	0.027	13	50
Feb 04	1979.1	1371.7	0.785	0.820	0.074	0.160	0.780	0.832	0.980	0.891	1.000	0.927	0.025	0.063	0.003	0.030	13	68
Mar 04	2023.2	1655.6	0.812	0.840	0.053	0.153	0.829	0.844	0.995	0.880	1.000	0.960	0.027	0.061	0.003	0.016	15	80
Apr 04	842.8	1622.6	0.909	0.840	0.071	0.100	0.765	0.810	0.880	0.827	0.937	0.960	0.032	0.071	0.004	0.014	21	111
May 04	494.6	1475.0	0.911	0.840	0.100	0.092	0.704	0.794	0.682	0.902	0.916	0.954	0.057	0.056	0.007	0.019	29	72
Jun 04	979.4	1749.5	0.914	0.843	0.132	0.104	0.794	0.756	0.862	0.894	0.981	0.991	0.052	0.074	0.025	0.032	51	101
Jul 04	716.0	1280.4	0.916	0.848	0.127	0.116	0.792	0.622	0.836	0.823	0.966	0.990	0.065	0.069	0.013	0.015	64	75
Aug 04	933.3	1572.6	0.971	0.848	0.129	0.107	0.779	0.750	0.787	0.852	0.926	0.976	0.047	0.067	0.034	0.040	68	96
Sep 04	666.6	1287.3	0.967	0.883	0.079	0.059	0.828	0.857	0.803	0.835	0.945	0.915	0.052	0.068	0.008	0.015	65	50
Oct 04	999.3	1458.8	0.937	0.814	0.110	0.113	0.810	0.838	0.897	0.882	0.992	0.973	0.039	0.058	0.015	0.028	32	45
Nov 04	799.4	1384.2	0.928	0.848	0.092	0.102	0.692	0.805	0.905	0.956	0.987	0.984	0.061	0.061	0.021	0.024	52	56
Dec 04	930.1	1195.4	0.907	0.843	0.106	0.082	0.792	0.714	0.768	0.857	1.000	0.983	0.071	0.062	0.020	0.022	64	66

Davis-Monthan (355 FW) Part-2														
A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)	A-10 (Op)	A-10 (Trn)					
MC (rate)		Repeat (rate)		Recur (rate)		TNMCM		CANN (rate)		DOPs (count)	FODs (count)	Combined Mishaps (count)	Flight Mishaps (count)	Ground Mishaps (count)
0.730	0.706	0.042	0.003	0.034	0.025	0.228	0.217	0.094	0.088	2	2	1	0	0
0.685	0.749	0.011	0.013	0.017	0.021	0.262	0.184	0.106	0.119	0	1	1	0	1
0.696	0.684	0.032	0.013	0.041	0.019	0.239	0.263	0.113	0.111	3	0	2	2	0
0.656	0.659	0.051	0.014	0.028	0.017	0.297	0.269	0.132	0.130	1	0	1	0	0
0.673	0.599	0.021	0.023	0.030	0.023	0.274	0.291	0.128	0.084	2	0	2	2	0
0.601	0.650	0.015	0.013	0.015	0.016	0.277	0.237	0.107	0.108	0	3	0	0	0
0.472	0.854	0.027	0.011	0.038	0.014	0.346	0.032	0.211	0.118	3	1	2	0	0
0.518	0.588	0.037	0.023	0.014	0.006	0.401	0.338	0.202	0.200	1	0	1	0	1
0.581	0.722	0.033	0.003	0.021	0.000	0.357	0.208	0.198	0.164	0	0	1	1	1
0.715	0.714	0.005	0.014	0.011	0.003	0.225	0.221	0.134	0.151	0	1	0	0	0
0.803	0.710	0.014	0.019	0.000	0.014	0.055	0.224	0.060	0.189	3	0	1	1	0
0.789	0.784	0.028	0.006	0.014	0.022	0.082	0.172	0.189	0.110	0	1	0	0	0
0.744	0.832	0.030	0.003	0.010	0.003	0.152	0.122	0.130	0.109	0	1	0	0	0
0.782	0.770	0.019	0.019	0.006	0.014	0.113	0.178	0.096	0.095	2	1	2	1	1
0.866	0.811	0.000	0.013	0.023	0.013	0.079	0.151	0.018	0.118	0	0	0	0	1
0.776	0.734	0.000	0.006	0.000	0.014	0.167	0.228	0.050	0.070	2	0	0	0	1
0.679	0.752	0.043	0.003	0.009	0.011	0.254	0.216	0.078	0.045	3	0	1	1	0
0.699	0.793	0.039	0.006	0.004	0.008	0.245	0.181	0.048	0.058	6	0	0	0	0
0.688	0.800	0.012	0.000	0.000	0.014	0.269	0.171	0.095	0.080	2	0	1	1	1
0.665	0.782	0.034	0.025	0.034	0.025	0.287	0.188	0.076	0.087	0	0	0	0	1
0.641	0.816	0.006	0.021	0.006	0.021	0.288	0.159	0.066	0.051	2	0	1	0	0
0.711	0.804	0.004	0.006	0.004	0.009	0.246	0.169	0.104	0.077	1	0	0	0	1
0.755	0.784	0.009	0.008	0.004	0.011	0.179	0.178	0.109	0.102	3	1	1	0	0
0.751	0.813	0.004	0.007	0.004	0.029	0.200	0.146	0.096	0.114	1	0	0	0	1

Davis-Monthan (355 FW) Part-3								
STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
2	2	0	28	8	0.913	0.910	0.800	1.000
7	7	0	28	9	0.933	0.887	0.571	1.000
6	6	0	19	13	0.907	0.903	0.429	1.000
3	3	0	15	8	0.910	0.932	0.600	1.000
5	4	1	25	13	0.927	0.900	0.500	1.000
5	5	0	26	15	0.945	0.889	0.500	1.000
13	13	0	26	18	0.928	0.936	0.500	1.000
10	10	0	28	15	0.913	0.879	0.600	1.000
12	12	0	30	16	0.906	0.867	0.500	1.000
7	7	0	36	10	0.902	0.959	1.000	1.000
21	21	0	17	10	0.892	0.820	1.000	0.949
7	7	0	13	2	0.897	0.856	1.000	1.000
7	7	0	76	6	0.918	0.875	1.000	0.967
9	9	0	28	6	0.916	0.950	0.800	0.948
16	16	0	37	19	0.903	0.947	0.000	0.941
18	18	0	23	11	0.902	0.882	0.773	0.991
13	13	0	24	13	0.915	0.952	0.757	1.000
21	21	0	31	4	0.923	0.840	0.850	1.000
11	3	1	24	8	0.912	0.884	0.804	1.000
11	2	0	27	14	0.926	0.984	0.776	0.989
7	0	1	22	8	0.908	0.825	0.795	1.000
26	1	3	21	9	0.909	0.873	0.843	1.000
13	4	2	23	7	0.896	0.755	0.850	1.000
7	1	0	21	6	0.903	0.900	0.906	1.000

Appendix AX: Dyess AFB Data

	Dyess AFB (7BW) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	927.2		1.000	0.088	0.842	0.698	0.937	0.162	0.039	61	0.755	0.065	0.058	0.149	0.583	0	2	1
Feb 03	673.1		1.000	0.109	0.706	0.568	0.927	0.120	0.051	42	0.712	0.034	0.044	0.206	1.045	3	1	1
Mar 03	823.7		1.000	0.103	0.476	0.669	0.898	0.117	0.041	44	0.706	0.042	0.035	0.211	0.466	1	0	0
Apr 03	932.7		1.000	0.099	0.500	0.720	0.978	0.108	0.057	49	0.692	0.048	0.041	0.211	0.628	0	0	0
May 03	795.9		1.000	0.133	0.583	0.702	0.981	0.140	0.054	37	0.764	0.048	0.040	0.139	0.707	2	0	0
Jun 03	642.5		1.000	0.169	0.552	0.643	0.964	0.132	0.045	52	0.743	0.058	0.058	0.209	0.612	5	1	0
Jul 03	924.9		1.000	0.099	0.542	0.660	0.953	0.160	0.078	70	0.676	0.071	0.053	0.249	0.605	2	0	0
Aug 03	810.8		1.000	0.089	0.588	0.633	0.941	0.155	0.041	53	0.646	0.066	0.047	0.244	0.755	2	1	2
Sep 03	973		1.000	0.129	0.500	0.714	0.948	0.084	0.059	31	0.647	0.087	0.040	0.238	1.000	2	0	1
Oct 03	966		1.000	0.101	0.862	0.816	0.992	0.044	0.031	32	0.659	0.036	0.034	0.241	0.455	3	3	1
Nov 03	785.2		1.000	0.072	0.538	0.718	0.978	0.105	0.006	35	0.732	0.046	0.051	0.204	0.567	1	0	0
Dec 03	729.5		1.000	0.046	0.778	0.764	0.962	0.108	0.031	40	0.759	0.048	0.037	0.172	0.487	0	4	1
Jan 04	717.8	0.751	1.000	0.050	0.556	0.714	0.955	0.082	0.022	36	0.740	0.067	0.032	0.217	0.796	3	1	1
Feb 04	748.4	0.757	1.000	0.077	0.643	0.593	0.993	0.145	0.023	39	0.775	0.052	0.044	0.187	0.508	0	1	2
Mar 04	1756.6	0.769	1.000	0.155	0.600	0.737	0.935	0.135	0.108	54	0.766	0.046	0.044	0.184	0.395	2	1	2
Apr 04	1827	0.777	1.000	0.114	0.308	0.843	0.966	0.123	0.036	33	0.651	0.078	0.048	0.228	0.642	1	1	1
May 04	1669.6	0.774	1.000	0.126	0.630	0.808	0.955	0.081	0.026	33	0.669	0.016	0.028	0.222	0.353	1	2	1
Jun 04	652.9	0.773	0.993	0.170	0.560	0.616	0.951	0.176	0.087	51	0.588	0.026	0.038	0.325	0.605	4	1	1
Jul 04	716.4	0.787	0.962	0.154	0.516	0.658	0.881	0.089	0.093	61	0.530	0.039	0.030	0.377	0.886	2	2	2
Aug 04	856.5	0.932	0.960	0.104	0.391	0.582	0.948	0.115	0.041	80	0.617	0.043	0.039	0.288	0.633	1	2	1
Sep 04	748.5	0.933	0.952	0.142	0.435	0.581	0.917	0.137	0.056	58	0.582	0.072	0.017	0.333	0.895	1	0	0
Oct 04	712.2	0.905	0.992	0.106	0.350	0.463	0.868	0.124	0.032	78	0.532	0.040	0.043	0.351	1.037	1	0	1
Nov 04	654	0.895	0.993	0.151	0.393	0.429	0.954	0.123	0.043	96	0.445	0.038	0.032	0.425	0.778	0	3	2
Dec 04	1240.8	0.887	0.993	0.167	0.345	0.564	0.965	0.155	0.046	85	0.501	0.030	0.051	0.370	0.810	1	0	1

Dyess AFB (7BW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
1	0	5	2	1	23	11	0.939	0.886	0.889	1.000
0	1	5	1	1	24	7	0.949	0.931	0.800	1.000
0	0	5	0	1	23	4	0.940	0.853	0.800	0.976
0	0	8	3	1	23	2	0.992	0.944		1.000
0	0	3	0	1	26	27	0.932	0.857		0.907
0	0	2	1	0	23	13	0.971	0.964	1.000	0.923
0	0	18	8	1	34	14	0.902	0.864	1.000	1.000
1	1	8	4	0	21	3	0.865	0.947	1.000	0.975
0	1	14	8	0	40	14	0.919	0.750	0.800	0.941
1	0	3	1	0	24	15	0.848	0.875	0.889	1.000
0	0	4	0	0	9	8	0.940	0.917	1.000	1.000
1	0	13	5	1	20	10	0.768	0.818	0.833	0.971
1	0	9	3	0	17	4	0.918	0.944	1.000	1.000
1	1	10	4	1	14	10	0.877	0.800	0.800	0.960
1	1	16	5	0	23	6	0.882	0.867	0.842	0.927
0	1	15	7	1	31	10	0.883	0.774	0.650	0.961
1	0	11	4	0	17	5	0.886	0.913	0.800	0.984
1	0	14	4	1	18	2	0.840	0.870	1.000	0.917
1	1	32	10	3	17	12	0.821	0.833	0.750	0.877
0	1	20	11	4	8	9	0.768	0.722	0.889	0.860
0	0	48	32	3	19	0	0.843	0.875	1.000	0.946
0	1	38	20	2	11	12	0.864	0.820	0.906	0.868
2	0	41	22	5	14	9	0.852	0.659	0.765	0.939
0	1	26	8	0	5	10	0.888	0.765	0.667	1.000

Appendix AY: Ellsworth AFB Data

	Ellsworth (28BW) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	738.8		0.800	0.261	0.444	0.610	0.987	0.139	0.017	40	0.624	0.013	0.019	0.284	0.659	1	0	1
Feb 03	1165.1		0.800	0.161	0.516	0.746	0.982	0.093	0.016	32	0.652	0.027	0.018	0.251	0.214	2	1	0
Mar 03	1812.3		0.800	0.206	0.667	0.854	1.000	0.106	0.004	17	0.769	0.027	0.029	0.173	0.251	0	0	1
Apr 03	1774.3		0.800	0.167	0.676	0.904	0.993	0.053	0.027	11	0.759	0.018	0.027	0.178	0.276	1	3	1
May 03	646.8		0.800	0.340	0.529	0.676	1.000	0.181	0.040	27	0.609	0.011	0.011	0.335	0.240	1	1	1
Jun 03	533.7		0.800	0.282	0.477	0.651	0.965	0.151	0.032	38	0.690	0.020	0.018	0.252	0.179	2	0	0
Jul 03	686.4		0.793	0.273	0.627	0.721	0.968	0.164	0.021	44	0.744	0.024	0.029	0.197	0.235	2	1	1
Aug 03	572.5		0.793	0.225	0.615	0.738	0.983	0.155	0.017	33	0.690	0.034	0.034	0.214	0.364	2	1	1
Sep 03	979.2		0.793	0.240	0.533	0.634	0.989	0.090	0.016	24	0.716	0.021	0.021	0.187	0.480	0	1	0
Oct 03	1419.2		0.793	0.266	0.528	0.775	0.991	0.106	0.030	25	0.693	0.038	0.063	0.203	0.578	2	1	0
Nov 03	1547.9		0.793	0.192	0.382	0.751	0.970	0.101	0.012	31	0.699	0.018	0.045	0.213	0.689	4	3	0
Dec 03	1422.9		0.815	0.192	0.783	0.856	0.965	0.079	0.008	15	0.749	0.026	0.021	0.135	0.833	1	0	0
Jan 04	1576.7	0.783	0.793	0.251	0.651	0.738	0.978	0.092	0.018	34	0.646	0.026	0.024	0.236	0.620	0	0	0
Feb 04	1396.3	0.784	0.793	0.244	0.610	0.745	0.994	0.124	0.018	37	0.652	0.045	0.021	0.223	0.583	3	0	0
Mar 04	704.6	0.781	0.793	0.271	0.615	0.675	0.986	0.095	0.028	34	0.699	0.021	0.018	0.221	0.597	0	0	0
Apr 04	728.8	0.832	0.779	0.262	0.816	0.764	0.962	0.132	0.016	30	0.648	0.013	0.030	0.285	0.460	7	0	0
May 04	661.8	0.818	0.815	0.199	0.636	0.519	1.000	0.123	0.018	70	0.662	0.022	0.011	0.229	0.440	1	0	0
Jun 04	1255.5	0.799	0.815	0.230	0.541	0.506	0.997	0.174	0.031	54	0.649	0.014	0.022	0.267	0.708	2	0	0
Jul 04	1489.2	0.796	0.815	0.232	0.487	0.715	0.987	0.147	0.048	29	0.702	0.027	0.025	0.205	0.702	1	1	0
Aug 04	1506.8	0.928	0.797	0.237	0.565	0.718	0.986	0.087	0.021	34	0.673	0.018	0.022	0.230	0.433	1	1	1
Sep 04	1372.1	0.924	0.797	0.241	0.529	0.780	0.947	0.075	0.042	18	0.682	0.047	0.009	0.210	0.809	1	1	1
Oct 04	1422.9	0.923	0.797	0.202	0.541	0.737	0.970	0.084	0.011	31	0.704	0.023	0.029	0.191	0.650	1	1	0
Nov 04	1315.0	0.913	0.818	0.217	0.526	0.731	0.967	0.141	0.029	32	0.671	0.029	0.020	0.189	0.834	2	0	0
Dec 04	789.7	0.902	0.815	0.223	0.667	59.800	0.962	0.176	0.025	38	0.734	0.008	0.011	0.149	0.711	2	0	0

Ellsworth (28BW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
0	1	3	3	0	6	13	0.940	1.000		1.000
0	0	2	2	0	0	18	0.940	0.970		0.970
0	1	0	0	0	30	34	0.970	1.000		0.980
1	0	8	8	0	42	46	0.930	0.920		1.000
1	0	0	0	0	7	47	0.940	0.960		1.000
0	0	8	2	0	3	17	0.950	0.920		0.930
1	0	2	7	7	20	3	0.930	0.950		1.000
1	0	1	2	1	11	32	0.940	0.970		1.000
0	0	0	0	0	14	24	0.980	0.980	1.000	1.000
0	0	0	1	1	21	11	0.960	0.990	0.880	0.990
0	0	2	0	0	20	4	0.970	0.940	1.000	1.000
0	0	8	11	2	21	20	0.910	0.940	1.000	1.000
0	0	7	9	1	17	12	0.940	0.970	0.930	0.980
0	0	8	4	0	18	3	0.930	0.930	0.700	0.980
0	0	5	4	3	12	19	0.920	0.980	0.850	0.990
0	0	4	2	3	21	11	0.940	0.890	1.000	0.980
0	0	3	1	1	12	4	0.950	0.850	0.920	1.000
0	0	2	3	1	7	8	0.920	0.910	0.670	0.920
0	0	1	2	0	18	10	0.950	0.910	0.800	1.000
1	0	2	3	5	8	21	0.880	0.920	0.750	1.000
0	1	5	1	5	14	11	0.890	0.760	0.330	0.860
0	0	2	4	4	18	7	0.850	0.630	0.000	0.980
0	0	6	9	8	8	12	0.830	0.870	0.600	0.920
0	0	9	8	2	9	19	0.880	0.700	0.000	0.940

Appendix AZ: Holloman AFB Data

	Holloman (49FW) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	909.4		1.000	0.079	0.805	0.757	0.949	0.058	0.010	0.700	0.752	0.011	0.016	0.230	0.004	1	0	1
Feb 03	935.9		1.000	0.050	0.750	0.733	0.785	0.065	0.020	0.730	0.772	0.008	0.033	0.183	0.007	0	0	0
Mar 03	1259.2		1.000	0.085	0.804	0.879	0.832	0.061	0.040	0.200	0.824	0.006	0.056	0.127	0.017	1	3	1
Apr 03	836.5		1.000	0.070	0.593	0.740	0.841	0.045	0.000	0.230	0.845	0.036	0.048	0.107	0.018	2	0	1
May 03	948.8		1.000	0.078	0.622	0.823	0.919	0.035	0.030	0.280	0.806	0.007	0.040	0.165	0.003	1	1	0
Jun 03	1049.2		1.000	0.069	0.727	0.822	0.950	0.035	0.050	0.660	0.759	0.042	0.024	0.221	0.017	2	2	0
Jul 03	1281.6		1.000	0.069	0.809	0.896	0.990	0.037	0.090	0.510	0.795	0.040	0.050	0.202	0.007	2	5	0
Aug 03	1131.7		1.000	0.080	0.604	0.779	0.813	0.039	0.050	1.050	0.719	0.025	0.025	0.252	0.012	0	2	0
Sep 03	958.0		1.000	0.067	0.659	0.693	0.991	0.045	0.020	0.860	0.774	0.013	0.026	0.214	0.010	0	1	1
Oct 03	1136.0		1.000	0.060	0.643	0.767	0.963	0.045	0.120	0.590	0.756	0.011	0.039	0.215	0.013	3	0	0
Nov 03	791.6		1.000	0.091	0.800	0.624	0.912	0.054	0.080	0.980	0.744	0.023	0.041	0.237	0.018	2	0	0
Dec 03	1023.8		1.000	0.086	0.824	0.680	0.920	0.042	0.000	1.060	0.710	0.036	0.031	0.254	0.022	0	0	0
Jan 04	1040.6	0.732	1.000	0.089	0.741	0.663	0.966	0.055	0.060	1.120	0.700	0.035	0.030	0.276	0.007	2	1	0
Feb 04	1035.2	0.734	1.000	0.102	0.734	0.693	0.960	0.061	0.060	0.790	0.725	0.025	0.030	0.244	0.016	1	2	1
Mar 04	1203.6	0.756	1.000	0.081	0.710	0.758	0.972	0.029	0.070	0.640	0.763	0.017	0.023	0.210	0.026	1	0	0
Apr 04	1316.7	0.823	1.000	0.063	0.784	0.746	0.972	0.035	0.080	0.960	0.754	0.030	0.042	0.223	0.012	0	0	0
May 04	971.0	0.850	1.000	0.079	0.820	0.836	0.953	0.052	0.080	0.510	0.777	0.007	0.041	0.193	0.027	0	1	1
Jun 04	859.1	0.833	1.000	0.099	0.630	0.665	0.960	0.069	0.060	0.820	0.712	0.028	0.028	0.261	0.013	1	0	0
Jul 04	977.6	0.829	1.000	0.073	0.864	0.663	0.960	0.054	0.050	0.620	0.818	0.052	0.065	0.158	0.013	1	0	1
Aug 04	883.4	0.878	1.000	0.095	0.742	0.709	0.948	0.068	0.130	1.200	0.770	0.021	0.026	0.186	0.020	2	0	1
Sep 04	674.6	0.876	1.000	0.097	0.822	0.821	0.966	0.055	0.040	0.570	0.807	0.045	0.023	0.157	0.045	1	1	0
Oct 04	641.5	0.878	1.000	0.090	0.667	0.682	0.977	0.063	0.030	0.520	0.776	0.009	0.018	0.200	0.018	0	0	0
Nov 04	633.4	0.865	1.000	0.105	0.545	0.723	0.985	0.092	0.090	0.540	0.732	0.063	0.056	0.239	0.010	0	0	0
Dec 04	907.9	0.865	1.000	0.116	0.758	0.683	0.928	0.054	0.070	2.030	0.611	0.020	0.015	0.364	0.015	0	0	0

Holloman (49FW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
1	0	4	4	0	11	9	0.896	0.921	1.000	0.970
0	0	16	1	1	6	7	0.944	0.846	0.000	1.000
0	1	14	0	0	6	16	0.890	1.000		1.000
0	1	19	3	0	19	13	0.833	0.833		1.000
0	0	32	0	4	5	4	0.897	0.941	1.000	1.000
0	0	11	1	2	2	23	0.878	0.885	0.500	0.967
0	0	18	2	3	13	16	0.908	0.936	1.000	1.000
0	0	31	2	7	14	14	0.917	0.846	1.000	1.000
1	0	17	2	1	12	25	0.916	0.936	1.000	1.000
0	0	25	3	2	7	44	0.834	0.762	0.800	0.976
0	0	20	2	2	12	4	0.870	0.727	0.333	0.921
0	0	19	0	5	15	10	0.873	0.771	0.750	0.944
0	0	21	2	2	4	10	0.847	0.876	0.833	1.000
0	1	20	0	3	4	14	0.918	0.818	0.250	1.000
0	0	15	2	3	7	19	0.928	0.889	1.000	1.000
0	0	12	1	5	13	16	0.915	0.865	0.750	0.987
0	1	5	2	1	8	20	0.926	0.889	0.667	0.984
0	0	18	2	2	11	35	0.849	0.889	1.000	1.000
0	1	15	2	0	11	14	0.816	0.818	0.000	1.000
1	0	23	3	0	10	44	0.827	0.790	0.500	1.000
0	0	12	2	1	7	17	0.830	0.805	0.500	1.000
0	0	28	6	6	9	3	0.791	0.771	0.750	0.967
0	0	20	4	4	0	29	0.859	0.462	0.000	0.895
0	0	22	3	0	11	9	0.878	0.744	1.000	0.952

Appendix BA: Langley AFB Data

	Langley (1FW) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	1360.0		0.855	0.176	0.568	0.552	0.963	0.095	0.0000	74	0.799	0.022	0.019	0.153	0.137	0	3	0
Feb 03	1179.9		0.855	0.197	0.536	0.527	0.982	0.087	0.0000	73	0.785	0.017	0.017	0.151	0.123	1	1	0
Mar 03	2316.2		0.855	0.162	0.567	0.729	0.961	0.056	0.0000	57	0.837	0.013	0.013	0.118	0.174	2	1	0
Apr 03	2003.0		0.855	0.151	0.703	0.765	0.980	0.070	0.0000	64	0.844	0.006	0.011	0.113	0.124	4	6	0
May 03	1618.3		0.855	0.112	0.550	0.793	0.982	0.071	0.0016	55	0.831	0.022	0.021	0.131	0.075	0	0	0
Jun 03	1787.8		0.855	0.087	0.669	0.894	0.996	0.054	0.0000	47	0.853	0.011	0.016	0.115	0.059	2	1	0
Jul 03	1889.8		0.855	0.120	0.509	0.762	0.969	0.062	0.0000	96	0.849	0.007	0.017	0.133	0.071	1	1	1
Aug 03	1622.4		0.855	0.122	0.549	0.825	0.972	0.039	0.0021	74	0.819	0.017	0.023	0.149	0.100	1	1	0
Sep 03	870.3		0.855	0.137	0.527	0.459	0.908	0.061	0.0011	26	0.852	0.009	0.022	0.119	0.144	1	1	0
Oct 03	2021.8		0.855	0.137	0.615	0.800	0.929	0.072	0.0000	89	0.807	0.004	0.017	0.162	0.079	4	2	0
Nov 03	1353.2		0.855	0.096	0.567	0.900	0.945	0.052	0.0000	46	0.849	0.004	0.002	0.117	0.080	0	0	1
Dec 03	1551.7		0.855	0.167	0.678	0.733	0.872	0.088	0.0036	93	0.831	0.022	0.029	0.135	0.081	3	3	0
Jan 04	1553.9	0.838	0.855	0.123	0.625	0.811	0.906	0.054	0.0009	52	0.862	0.031	0.023	0.103	0.061	6	2	0
Feb 04	1614.2	0.840	0.855	0.115	0.685	0.845	0.929	0.062	0.0040	53	0.816	0.019	0.035	0.145	0.098	5	6	0
Mar 04	2012.0	0.840	0.855	0.134	0.624	0.824	0.937	0.051	0.0014	62	0.828	0.041	0.046	0.129	0.088	2	0	1
Apr 04	2011.4	0.843	0.855	0.126	0.683	0.844	0.937	0.058	0.0000	86	0.821	0.019	0.041	0.136	0.045	5	3	0
May 04	1468.0	0.853	0.855	0.118	0.545	0.795	0.952	0.070	0.0023	136	0.823	0.017	0.023	0.133	0.079	4	2	0
Jun 04	2191.2	0.854	0.855	0.125	0.669	0.781	0.950	0.054	0.0000	63	0.797	0.034	0.037	0.150	0.089	4	2	0
Jul 04	1746.2	0.854	0.839	0.141	0.639	0.791	0.996	0.059	0.0027	62	0.798	0.033	0.023	0.163	0.109	2	0	0
Aug 04	1795.7	0.907	0.839	0.127	0.612	0.669	0.988	0.072	0.0007	62	0.784	0.016	0.036	0.179	0.140	4	0	0
Sep 04	1051.3	0.911	0.839	0.128	0.750	0.783	0.984	0.075	0.0019	44	0.838	0.019	0.027	0.120	0.152	2	1	2
Oct 04	1485.2	0.909	0.871	0.115	0.635	0.818	0.989	0.057	0.0033	90	0.776	0.022	0.043	0.174	0.058	3	0	0
Nov 04	1130.2	0.895	0.871	0.161	0.676	0.795	0.966	0.064	0.0025	62	0.819	0.014	0.018	0.139	0.083	4	1	0
Dec 04	1095.5	0.890	0.871	0.183	0.691	0.844	0.984	0.067	0.0020	62	0.859	0.012	0.014	0.115	0.065	1	0	0

Langley (1FW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
0	0	13	1	5	5	8	0.920	0.870	1.000	1.000
0	0	9	3	2	12	1	0.930	0.870	0.600	1.000
0	0	2	0	1	18	3	0.940	0.860	1.000	1.000
0	0	4	0	1	17	2	0.890	0.870	1.000	1.000
0	0	14	3	6	19	3	0.890	0.880	0.710	1.000
0	0	15	4	4	19	17	0.880	0.860	0.420	1.000
1	0	11	1	1	16	5	0.900	0.880	0.710	1.000
0	0	12	1	0	12	3	0.920	0.920	0.600	1.000
0	0	4	2	1	14	3	0.920	0.950	1.000	1.000
0	0	12	1	1	21	3	0.910	0.930	0.670	1.000
0	1	11	1	4	19	0	0.900	0.850	0.750	1.000
0	0	3	0	2	22	6	0.930	0.870	0.710	1.000
0	0	5	2	0	35	1	0.920	0.880	0.710	0.980
0	0	8	3	1	28	4	0.920	0.890	0.430	0.980
0	1	5	1	2	43	8	0.940	0.860	0.750	0.980
0	0	2	2	0	12	1	0.930	0.860	0.500	0.980
0	0	10	2	1	18	6	0.920	0.910	0.670	0.960
0	0	8	0	4	20	7	0.940	0.840	0.500	0.950
0	0	14	2	7	17	10	0.900	0.830	0.330	0.950
0	0	12	1	2	14	1	0.920	0.880	0.330	0.990
2	0	12	4	4	30	2	0.920	0.840	0.500	1.000
0	0	29	3	9	18	3	0.900	0.850	0.670	0.980
0	0	18	10	1	12	7	0.910	0.860	0.670	0.970
0	0	9	3	2	17	3	0.930	0.870	0.670	1.000

Appendix BB: Minot AFB Data

	Minot (5BW) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	615.3		0.884	57.6	0.653	0.557	0.975	0.067	0.012	23	0.740	0.045	0.062	0.186	0.447	0	14	1
Feb 03	433.6		0.884	53.3	0.625	0.557	0.975	0.063	0.013	19	0.801	0.038	0.022	0.134	0.640	0	14	0
Mar 03	1077.6		0.884	83.2	0.582	0.827	0.916	0.050	0.032	10	0.723	0.024	0.024	0.198	0.863	0	7	0
Apr 03	1231.5		0.884	62.7	0.580	0.956	1.000	0.009	0.027	0	0.698	0.053	0.088	0.206	0.609	0	7	1
May 03	297.0		0.884	56.9	0.759	0.643	0.955	0.105	0.000	16	0.832	0.030	0.022	0.111	0.745	0	4	0
Jun 03	387.6		0.884	74.2	0.717	0.677	1.000	0.091	0.048	19	0.850	0.042	0.032	0.081	0.403	2	14	0
Jul 03	474.5		0.884	57.4	0.795	0.623	0.989	0.058	0.015	21	0.835	0.022	0.046	0.103	0.765	1	5	0
Aug 03	534.9		0.884	63.6	0.673	0.526	0.979	0.051	0.065	18	0.868	0.045	0.051	0.072	0.584	3	4	0
Sep 03	326.5		0.884	53.7	0.621	0.717	0.966	0.053	0.000	6	0.826	0.040	0.075	0.106	0.981	0	8	0
Oct 03	93.1		0.884	75.4	0.596	0.551	0.931	0.000	0.043	22	0.800	0.039	0.067	0.130	0.623	0	12	0
Nov 03	97.7		0.884	67.2	0.585	0.600	0.977	0.077	0.000	13	0.767	0.045	0.030	0.115	0.443	1	7	0
Dec 03	95.8		0.884	71.0	0.682	0.449	0.958	0.090	0.016	23	0.848	0.054	0.060	0.116	0.516	1	11	0
Jan 04	96.0	0.790	0.940	60.8	0.710	0.319	0.960	0.121	0.000	25	0.845	0.036	0.065	0.104	0.353	0	6	1
Feb 04	94.3	0.815	0.940	64.5	0.550	0.294	0.943	0.046	0.048	31	0.754	0.037	0.034	0.154	0.387	0	5	0
Mar 04	100.0	0.847	0.940	70.7	0.759	0.470	1.000	0.080	0.012	31	0.763	0.036	0.036	0.130	0.293	1	5	0
Apr 04	98.4	0.876	0.940	56.8	0.761	0.266	0.984	0.069	0.000	29	0.742	0.044	0.039	0.128	0.346	0	5	0
May 04	98.7	0.868	0.940	39.4	0.714	0.486	0.987	0.066	0.028	26	0.805	0.024	0.034	0.115	0.394	0	3	0
Jun 04	96.5	0.886	0.940	60.0	0.636	0.527	0.965	0.068	0.073	17	0.836	0.017	0.031	0.103	0.382	1	5	0
Jul 04	98.1	0.871	0.940	61.0	0.617	0.470	0.981	0.105	0.013	33	0.781	0.059	0.046	0.147	0.442	0	10	0
Aug 04	97.3	0.894	0.940	64.7	0.659	0.486	0.973	0.093	0.015	26	0.800	0.020	0.062	0.125	0.544	2	4	2
Sep 04	94.9	0.879	0.890	67.7	0.738	0.578	0.949	0.062	0.048	17	0.818	0.014	0.054	0.121	0.452	0	9	1
Oct 04	333.9	0.875	0.912	67.9	0.737	0.724	0.955	0.141	0.036	14	0.800	0.031	0.031	0.134	0.696	1	12	0
Nov 04	426.8	0.864	0.912	75.0	0.756	0.565	0.959	0.118	0.000	25	0.821	0.039	0.034	0.103	0.433	1	15	0
Dec 04	392.4	0.887	0.912	65.1	0.659	0.460	0.935	0.075	0.000	30	0.778	0.025	0.015	0.135	0.571	0	13	0

Minot (5BW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
1	0	6	2	1	8	5	0.928	1.000	0.810	0.970
0	0	6	2	0	14	2	0.876	1.000	0.571	1.000
0	0	5	0	1	6	5	0.932	1.000	0.777	1.000
1	0	2	2	0	15	6	0.934	1.000	0.881	0.985
0	0	10	6	2	6	2	0.881	1.000	0.800	1.000
0	0	4	1	0	9	8	0.942	1.000	0.881	1.000
0	0	11	3	1	19	6	0.921	1.000	0.700	0.971
0	0	8	5	1	9	4	0.878	1.000	0.700	0.992
0	0	2	0	0	6	3	0.927	1.000	0.897	0.976
0	0	8	3	0	19	3	0.869	1.000	0.857	0.986
0	0	19	9	0	28	4	0.944	1.000	0.947	1.000
0	0	12	5	1	16	7	0.957	0.933	0.957	0.975
0	1	9	3	0	22	4	0.857	1.000	0.619	0.967
0	0	7	5	1	11	4	0.904	0.929	0.909	1.000
0	0	4	0	1	21	7	0.976	1.000	0.933	1.000
0	0	1	1	0	31	5	0.916	1.000	0.857	0.992
0	0	1	0	0	20	0	0.919	1.000		1.000
0	0	4	1	0	8	5	0.934	1.000	0.925	1.000
0	0	2	1	0	7	1	0.921	1.000	0.750	1.000
1	1	10	7	0	20	7	0.960	1.000	0.909	0.987
0	1	4	3	0	10	8	0.971	1.000	0.909	1.000
0	0	3	0	0	21	4	0.959	1.000	0.869	0.985
0	0	2	1	0	18	4	0.955	0.875	0.864	0.991
0	0	9	2	0	13	1	0.957	1.000	0.952	1.000

Appendix BC: Mountain Home AFB Data

	Mountain Home (366FW) Part-1														
	Flight Hours			MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)			Fix (rate)			Flying Sched Effect (rate)		
	F-15C	F-15E	F-16 (50)			F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)
Jan 03	389.4	432.7	351.4		0.860	0.186	0.151	0.081	0.737	0.702	0.636	0.707	0.712	0.631
Feb 03	914.5	568.5	337.4		0.860	0.247	0.157	0.068	0.727	0.855	0.667	0.596	0.883	0.669
Mar 03	462.8	504.2	335.8		0.831	0.156	0.114	0.105	0.846	0.683	0.815	0.892	0.804	0.823
Apr 03	465.8	583.1	315.4		0.831	0.153	0.123	0.068	0.833	0.563	0.600	0.739	0.796	0.770
May 03	397.2	557.2	313.5		0.831	0.095	0.154	0.090	0.692	0.574	0.652	0.744	0.700	0.691
Jun 03	386.4	686.1	345.3		0.820	0.124	0.173	0.049	0.595	0.629	0.786	0.758	0.819	0.763
Jul 03	405.0	696.9	357.8		0.820	0.148	0.180	0.101	0.500	0.658	0.643	0.733	0.680	0.779
Aug 03	409.6	542.2	306.2		0.820	0.172	0.229	0.100	0.623	0.654	0.667	0.736	0.617	0.670
Sep 03	337.5	570.3	397.9		0.820	0.164	0.154	0.067	0.766	0.684	0.714	0.843	0.705	0.823
Oct 03	375.8	559.2	398.8		0.820	0.170	0.126	0.070	0.696	0.574	0.600	0.734	0.700	0.782
Nov 03	352.2	507.4	324.0		0.841	0.170	0.147	0.054	0.625	0.692	0.857	0.758	0.684	0.748
Dec 03	333.3	1432.0	348.5		0.841	0.155	0.244	0.061	0.778	0.721	0.750	0.689	0.832	0.726
Jan 04	374.8	1494.5	290.2	0.740	0.841	0.094	0.164	0.102	0.727	0.800	0.864	0.718	0.709	0.410
Feb 04	433.8	1604.6	509.9	0.760	0.841	0.131	0.152	0.067	0.784	0.813	0.731	0.735	0.780	0.795
Mar 04	497.5	991.9	608.9	0.757	0.841	0.093	0.128	0.083	0.711	0.698	0.903	0.878	0.739	0.821
Apr 04	356.4	606.0	408.0	0.753	0.841	0.127	0.146	0.083	0.705	0.758	0.880	0.824	0.803	0.792
May 04	512.4	511.4	468.1	0.763	0.841	0.158	0.124	0.036	0.755	0.773	1.000	0.745	0.858	0.703
Jun 04	536.0	710.4	469.1	0.756	0.841	0.128	0.131	0.059	0.689	0.732	0.818	0.818	0.898	0.822
Jul 04	274.3	529.0	411.0	0.761	0.841	0.108	0.131	0.082	0.688	0.674	0.741	0.793	0.893	0.686
Aug 04	349.2	621.2	430.9	0.859	0.841	0.126	0.104	0.043	0.774	0.805	0.733	0.644	0.785	0.585
Sep 04	218.0	426.7	382.4	0.852	0.841	0.175	0.079	0.064	0.714	0.877	0.769	0.755	0.782	0.833
Oct 04	400.3	487.1	261.7	0.844	0.822	0.115	0.149	0.069	0.742	0.680	0.733	0.840	0.823	0.883
Nov 04	225.4	450.7	148.5	0.829	0.815	0.251	0.117	0.021	0.551	0.750	1.000	0.787	0.840	0.919
Dec 04	348.6	489.2	256.0	0.821	0.815	0.174	0.122	0.075	0.704	0.760	0.688	0.835	0.819	0.879

Mountain Home (366FW) Part-2														
MX Sched Effect (rate)			Abort (rate)			IFE (rate)			MX/Ops Devs (count)			MC (rate)		
F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)
0.950	0.963	0.976	0.067	0.097	0.065	0.003	0.013	0.007	17	24	20	0.741	0.792	0.587
0.958	0.989	0.992	0.083	0.081	0.064	0.000	0.005	0.009	7	28	29	0.700	0.803	0.740
0.982	0.958	0.992	0.046	0.075	0.041	0.003	0.003	0.000	17	24	20	0.700	0.766	0.751
0.978	0.978	0.950	0.038	0.083	0.060	0.011	0.013	0.000	45	23	10	0.692	0.802	0.771
0.982	0.967	0.982	0.049	0.072	0.056	0.011	0.008	0.004	30	61	23	0.617	0.755	0.766
0.986	0.972	0.989	0.064	0.094	0.056	0.012	0.011	0.018	41	30	14	0.630	0.778	0.864
0.962	0.967	0.966	0.058	0.105	0.045	0.013	0.010	0.018	36	84	28	0.717	0.750	0.756
1.000	0.992	1.000	0.064	0.118	0.032	0.026	0.018	0.000	16	56	29	0.725	0.741	0.770
0.972	0.949	0.969	0.060	0.076	0.055	0.007	0.005	0.006	18	49	21	0.708	0.695	0.770
0.984	0.979	0.996	0.052	0.088	0.066	0.004	0.005	0.014	35	61	15	0.707	0.722	0.842
0.965	0.984	1.000	0.041	0.068	0.062	0.032	0.006	0.004	35	59	9	0.660	0.727	0.869
0.968	0.992	0.981	0.079	0.049	0.044	0.017	0.003	0.004	24	14	7	0.856	0.799	0.887
0.992	1.000	1.000	0.049	0.071	0.077	0.004	0.000	0.000	13	16	9	0.847	0.790	0.887
0.994	0.986	1.000	0.054	0.076	0.051	0.004	0.007	0.000	20	28	13	0.730	0.784	0.879
0.989	0.958	0.995	0.035	0.095	0.053	0.005	0.006	0.003	30	34	17	0.766	0.850	0.872
0.996	0.994	0.981	0.052	0.061	0.047	0.003	0.005	0.007	40	21	9	0.795	0.855	0.896
0.971	0.997	1.000	0.086	0.085	0.066	0.006	0.006	0.000	41	23	11	0.786	0.885	0.871
0.994	0.992	1.000	0.056	0.062	0.031	0.003	0.013	0.000	12	20	7	0.799	0.841	0.883
0.984	0.990	1.000	0.051	0.064	0.050	0.007	0.006	0.000	27	24	16	0.814	0.828	0.878
0.972	0.995	1.000	0.075	0.107	0.042	0.024	0.008	0.000	33	39	23	0.869	0.845	0.868
0.995	1.000	1.000	0.061	0.102	0.033	0.015	0.003	0.005	21	26	7	0.827	0.850	0.882
0.992	1.000	1.000	0.066	0.120	0.031	0.000	0.015	0.009	11	30	18	0.860	0.863	0.855
0.981	0.995	1.000	0.118	0.103	0.030	0.021	0.006	0.017	33	28	8	0.697	0.838	0.822
0.973	1.000	0.996	0.046	0.067	0.058	0.010	0.005	0.000	43	46	18	0.863	0.861	0.791

Mountain Home (366FW) Part-3																
Repeat (rate)			Recur (rate)			TNMCM (rate)			CANN (rate)			DOPs (count)	FODs (count)	Combined Mishaps (count)	Flight Mishaps (count)	Ground Mishaps (count)
F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)	F-15C	F-15E	F-16 (50)					
0.031	0.014	0.015	0.024	0.036	0.031	0.194	0.148	0.351	0.147	0.219	0.205	3	3	1	1	0
0.000	0.009	0.010	0.013	0.038	0.061	0.212	0.147	0.173	0.197	0.136	0.119	2	1	1	0	1
0.003	0.019	0.033	0.000	0.028	0.082	0.197	0.148	0.104	0.120	0.122	0.098	0	4	1	0	0
0.009	0.022	0.010	0.017	0.045	0.039	0.224	0.144	0.113	0.088	0.126	0.123	1	2	1	1	1
0.000	0.009	0.034	0.008	0.033	0.042	0.248	0.153	0.113	0.121	0.063	0.153	1	5	0	0	0
0.006	0.013	0.018	0.012	0.032	0.009	0.218	0.160	0.050	0.103	0.086	0.157	3	0	0	0	0
0.024	0.019	0.033	0.045	0.038	0.024	0.216	0.190	0.129	0.145	0.200	0.157	0	3	0	0	0
0.034	0.077	0.038	0.021	0.036	0.077	0.190	0.172	0.124	0.113	0.174	0.225	2	2	1	0	1
0.011	0.026	0.051	0.019	0.023	0.058	0.198	0.198	0.094	0.213	0.152	0.099	0	4	1	0	0
0.014	0.028	0.015	0.032	0.031	0.036	0.178	0.202	0.093	0.151	0.139	0.126	2	1	1	0	0
0.014	0.018	0.019	0.042	0.021	0.010	0.239	0.209	0.070	0.272	0.297	0.112	1	1	0	0	0
0.009	0.011	0.000	0.031	0.017	0.034	0.104	0.128	0.057	0.206	0.085	0.126	1	3	0	0	0
0.005	0.022	0.018	0.037	0.014	0.009	0.091	0.121	0.050	0.176	0.123	0.144	1	2	1	0	1
0.009	0.010	0.012	0.030	0.015	0.019	0.149	0.106	0.071	0.220	0.071	0.069	1	0	3	0	2
0.011	0.008	0.027	0.043	0.016	0.007	0.164	0.082	0.058	0.110	0.137	0.096	1	2	1	0	1
0.008	0.018	0.017	0.033	0.028	0.000	0.122	0.087	0.041	0.107	0.142	0.066	1	1	0	0	0
0.000	0.047	0.012	0.040	0.030	0.000	0.132	0.081	0.063	0.113	0.142	0.116	4	4	0	0	0
0.018	0.020	0.009	0.004	0.028	0.026	0.121	0.113	0.038	0.091	0.118	0.043	1	1	1	0	0
0.021	0.015	0.021	0.038	0.015	0.007	0.114	0.103	0.056	0.125	0.168	0.027	2	2	2	0	2
0.008	0.014	0.009	0.050	0.018	0.000	0.080	0.099	0.033	0.113	0.180	0.035	0	3	2	1	0
0.012	0.013	0.000	0.028	0.020	0.015	0.106	0.091	0.069	0.220	0.253	0.025	1	2	1	0	1
0.008	0.010	0.026	0.032	0.013	0.027	0.087	0.084	0.061	0.130	0.140	0.078	3	1	1	0	1
0.014	0.004	0.000	0.018	0.011	0.040	0.227	0.116	0.076	0.185	0.184	0.036	0	0	0	0	0
0.003	0.013	0.040	0.023	0.019	0.053	0.137	0.081	0.099	0.096	0.262	0.075	1	0	4	0	0

Mountain Home (366FW) Part-4								
STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
			35	19				
			22	21				
			19	7				
			21	13				
			26	3				
			30	18				
			56	12				
			36	11	0.900			
			31	8	0.900			
			30	12	0.910			
9	5	3	20	25	0.890			
3	2	0	18	6	0.900			
6	3	0	15	7	0.900	0.840	0.850	0.850
16	6	8	24	17	0.920	0.960	0.940	0.940
4	0	3	30	12	0.930	0.960	0.930	0.930
3	0	1	29	25	0.900	0.910	1.000	1.000
16	7	6	22	17	0.890	0.980	0.910	0.910
20	7	6	21	13	0.900	0.890	0.860	0.860
22	8	9	20	17	0.870	0.870	0.600	0.600
21	10	3	27	4	0.920	0.960	0.870	0.870
10	4	2	30	15	0.920	0.980	0.930	0.930
8	0	5	14	9	0.910	0.920	1.000	1.000
19	7	7	28	14	0.910	0.910	0.900	0.900
32	14	6	38	10	0.890	0.930	0.830	0.830

Appendix BD: Nellis AFB Data

Nellis (57FW) Part-1

	Flight Hours						MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)						Fix (rate)					
	A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)			A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)	A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)
Jan 03	365.5	199.9	283.5	406.6	367.8	0		0.867	0.093	0.248	0.181	0.102	0.062	0.000	0.895	0.486	0.413	0.556	0.522	1.000
Feb 03	305.2	193	231.8	388.9	492.7	0		0.867	0.100	0.105	0.150	0.062	0.087	0.000	1.000	0.786	0.647	0.824	0.800	1.000
Mar 03	341.4	244.2	312.4	373.6	382.8	0		0.867	0.130	0.135	0.177	0.045	0.077	0.000	0.833	0.522	0.659	0.692	0.737	1.000
Apr 03	463.9	270.6	306.3	416.3	316.9	0		0.867	0.094	0.101	0.125	0.103	0.127	0.000	0.696	0.611	0.839	0.774	0.688	1.000
May 03	372	208.4	276.4	195	305.9	197		0.867	0.057	0.097	0.149	0.038	0.113	0.140	0.545	0.500	0.677	0.833	0.800	0.400
Jun 03	355.9	211.9	357.8	171.6	249.5	214		0.867	0.132	0.204	0.145	0.022	0.117	9.040	0.593	0.714	0.611	1.000	0.750	0.733
Jul 03	368.9	223.3	261.1	134.6	278.6	224		0.867	0.088	0.201	0.174	0.082	0.078	0.070	0.778	0.700	0.571	0.625	0.636	0.533
Aug 03	396.6	206.1	254.4	176.4	357.8	349.7		0.867	0.187	0.254	0.150	0.081	0.110	0.085	0.590	0.471	0.579	0.375	0.621	0.526
Sep 03	356.9	246.5	280.2	110	396.3	290.1		0.867	0.110	0.103	0.159	0.111	0.102	0.053	0.571	0.625	0.618	0.778	0.577	0.818
Oct 03	375	200.6	311	189.1	310.8	310.1		0.867	0.164	0.175	0.158	0.089	0.104	0.104	0.903	0.720	0.667	0.636	0.577	0.625
Nov 03	224.5	161.1	208.7	116.6	249.3	204.3		0.867	0.144	0.133	0.199	0.093	0.077	0.104	0.824	0.933	0.875	0.889	0.571	0.500
Dec 03	213.8	198.8	243.3	139.3	228.4	202.7		0.867	0.064	0.148	0.236	0.051	0.043	0.084	0.857	0.667	0.595	0.220	0.667	0.727
Jan 04	352.3	226.3	217.8	198	278.4	216.5	0.827	0.867	0.217	0.313	0.304	0.075	0.087	0.066	0.775	0.750	0.836	0.800	0.566	0.615
Feb 04	297.3	188.8	221.3	153	324.1	232.6	0.825	0.867	0.222	0.265	0.236	0.031	0.087	0.135	0.857	0.914	0.887	0.667	0.700	0.500
Mar 04	442.8	287.6	395.5	317.8	341.2	360.3	0.825	0.867	0.231	0.210	0.156	0.056	0.088	0.142	0.878	0.821	0.667	0.556	0.526	0.600
Apr 04	359.6	231.8	301.7	178.9	317.6	303.7	0.831	0.867	0.176	0.352	0.194	0.029	0.059	0.100	0.777	0.679	0.600	0.000	0.571	0.500
May 04	319.2	200.2	239.2	169.8	386.8	280.3	0.873	0.867	0.117	0.292	0.225	0.104	0.068	0.070	0.905	0.686	0.667	0.500	0.474	0.500
Jun 04	297	187.9	264.5	183.7	309	222.5	0.877	0.867	0.168	0.333	0.289	0.080	0.038	0.087	0.960	0.750	0.705	0.625	0.667	0.600
Jul 04	312.9	189.4	249.2	150	340.2	148.5	0.895	0.933	0.213	0.230	0.297	0.107	0.064	0.090	0.771	0.735	0.771	0.583	0.476	0.571
Aug 04	408.6	208	267.9	223.2	428	244.5	0.927	0.933	0.237	0.260	0.238	0.058	0.056	0.074	0.900	0.550	0.754	0.625	0.882	0.643
Sep 04	266.6	181.1	242.8	105.8	332.7	175.6	0.930	0.933	0.236	0.366	0.280	0.024	0.109	0.060	0.727	0.750	0.704	1.000	0.840	0.625
Oct 04	308.8	159.9	273.5	192.5	348.7	200.4	0.926	0.933	0.201	0.366	0.223	0.081	0.093	0.083	0.818	0.733	0.750	0.556	0.571	0.818
Nov 04	311.2	157.4	296.1	176.4	363.4	230.9	0.927	0.933	0.136	0.336	0.206	0.064	0.073	0.075	0.810	0.789	0.795	0.571	0.333	0.667
Dec 04	166	146.2	191.2	131	224.2	218.6	0.934	0.933	0.122	0.381	0.191	0.095	0.084	0.084	0.667	0.865	0.846	0.600	0.538	0.500

Nellis (57FW) Part-2																
Flying Sched Effect (rate)						MX Sched Effect (rate)					Abort (rate)					
A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)	A-10A	F-15E	F-15C	F-16 Falcon	F-16 Viper	A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)
0.981	0.808	0.815	0.765	0.955	0.000	1.000	0.996	0.971	0.988	0.971	0.005	0.058	0.063	0.026	0.034	0.000
0.827	0.876	0.890	0.849	0.890	0.000	1.000	1.000	1.000	0.995	0.991	0.024	0.089	0.059	0.042	0.047	0.000
0.894	0.791	0.795	0.859	0.887	0.000	1.000	0.969	1.000	0.948	0.993	0.016	0.061	0.065	0.037	0.039	0.000
0.929	0.947	0.844	0.867	0.938	0.000	0.995	0.976	0.992	4.000	0.976	0.036	0.038	0.061	0.057	0.070	0.000
0.803	0.863	0.727	0.975	0.893	0.899	1.000	1.000	1.000	1.000	1.000	0.040	0.021	0.051	0.006	0.083	0.053
0.890	0.837	0.846	0.926	0.862	0.846	1.000	1.000	1.000	0.970	0.992	0.047	0.074	0.046	0.014	0.072	0.053
0.811	0.825	0.752	0.586	0.866	0.803	1.000	0.977	0.989	0.997	0.912	0.038	0.057	0.069	0.067	0.047	0.044
0.761	0.590	0.762	0.873	0.805	0.861	0.968	0.989	0.956	0.987	0.989	0.028	0.114	0.073	0.093	0.061	0.055
0.881	0.791	0.766	0.613	0.875	0.788	0.976	0.968	0.931	0.992	0.987	0.015	0.088	0.093	0.060	0.045	0.037
0.849	0.811	0.770	0.878	0.853	0.815	0.967	0.991	0.974	1.000	1.000	0.051	0.113	0.099	0.016	0.057	0.065
0.692	0.833	0.665	0.798	0.861	0.862	0.976	0.970	0.973	0.926	0.968	0.025	0.082	0.101	0.058	0.113	0.084
0.709	0.909	0.742	0.861	0.852	0.764	0.987	0.993	0.925	0.964	0.977	0.027	0.135	0.104	0.092	0.110	0.133
0.934	0.869	0.695	0.850	0.909	0.873	0.946	0.925	0.960	0.942	0.987	0.032	0.078	0.082	0.096	0.076	0.125
0.819	0.852	0.839	0.716	0.741	0.677	1.000	0.993	0.936	0.949	0.956	0.031	0.114	0.063	0.110	0.091	0.110
0.906	0.920	0.756	0.910	0.892	0.837	0.948	1.000	0.987	0.985	0.980	0.083	0.070	0.046	0.102	0.077	0.043
0.867	0.824	0.747	0.726	0.820	0.864	0.985	1.000	0.966	1.000	0.950	0.065	0.065	0.073	0.061	0.074	0.044
0.907	0.794	0.644	0.593	0.890	0.825	1.000	1.000	1.000	1.000	1.000	0.022	0.077	0.121	0.025	0.089	0.056
0.808	0.744	0.789	0.858	0.852	0.825	1.000	1.000	1.000	0.996	1.000	0.045	0.122	0.107	0.048	0.129	0.076
0.713	0.772	0.833	0.787	0.935	0.896	1.000	1.000	1.000	1.000	1.000	0.057	0.124	0.116	0.059	0.070	0.049
0.890	0.824	0.865	0.894	0.883	0.895	1.000	0.983	1.000	1.000	0.993	0.045	0.107	0.062	0.014	0.137	0.121
0.791	0.800	0.819	0.964	0.891	0.836	0.974	1.000	0.947	0.996	0.953	0.079	0.071	0.072	0.034	0.084	0.043
0.759	0.706	0.752	0.777	0.700	0.712	0.973	0.984	0.975	1.000	1.000	0.024	0.159	0.112	0.112	0.085	0.113
0.866	0.791	0.890	0.901	0.893	0.870	0.906	0.989	0.989	0.975	0.972	0.025	0.117	0.070	0.076	0.160	0.122
0.737	0.792	0.764	0.780	0.781	0.713	0.984	0.986	0.995	1.000	0.980	0.098	0.076	0.088	0.076	0.094	0.173

Nellis (57FW) Part-3																	
IFE (rate)						MX/Ops Devs (count)						MC (rate)					
A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)	A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)	A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)
0.010	0.020	0.036	0.010	0.003	0.000	0	13	28	22	2	0	0.802	0.632	0.585	0.693	0.772	0.000
0.019	0.008	0.013	0.000	0.000	0.000	5	15	14	17	15	0	0.834	0.634	0.678	0.740	0.784	0.000
0.022	0.024	0.016	0.000	0.004	0.000	9	8	17	11	3	0	0.844	0.673	0.631	0.801	0.818	0.000
0.016	0.000	0.009	0.000	0.000	0.000	3	1	18	13	3	0	0.813	0.726	0.736	0.785	0.819	0.000
0.010	0.000	0.000	0.000	0.000	0.007	23	2	19	1	6	5	0.765	0.793	0.729	0.838	0.751	0.724
0.019	0.007	0.004	0.000	0.005	0.013	14	14	17	0	5	4	0.779	0.634	0.742	0.817	0.774	0.873
0.000	0.020	0.000	0.000	0.007	0.000	16	11	22	14	12	13	0.707	0.668	0.607	0.731	0.868	0.774
0.019	0.045	0.010	0.000	0.004	0.005	34	39	30	2	13	7	0.703	0.468	0.647	0.666	0.788	0.802
0.021	0.006	0.000	0.025	0.010	0.005	12	18	24	4	8	12	0.753	0.595	0.728	0.643	0.743	0.821
0.016	0.021	0.000	0.010	0.000	0.012	10	14	31	3	7	9	0.764	0.656	0.759	0.779	0.729	0.742
0.010	0.010	0.000	0.000	0.011	0.006	9	10	13	6	19	11	0.654	0.741	0.866	0.767	0.709	0.727
0.000	0.008	0.032	0.000	0.014	0.000	21	9	19	5	16	23	0.592	0.757	0.672	0.781	0.788	0.801
0.022	0.012	0.017	0.015	0.000	0.000	7	12	38	7	12	23	0.716	0.677	0.633	0.856	0.743	0.782
0.013	0.015	0.004	0.000	0.004	0.000	12	8	8	7	9	19	0.565	0.619	0.752	0.743	0.797	0.737
0.009	0.000	0.012	0.019	0.014	0.004	13	10	18	4	6	14	0.694	0.712	0.639	0.770	0.715	0.810
0.032	0.005	0.019	0.000	0.000	0.008	13	17	14	10	10	9	0.675	0.553	0.678	0.609	0.763	0.814
0.011	0.000	0.006	0.026	0.004	0.000	8	10	24	7	6	3	0.680	0.579	0.635	0.720	0.791	0.836
0.007	0.016	0.014	0.000	0.008	0.006	6	23	12	5	9	9	0.661	0.537	0.721	0.755	0.724	0.866
0.024	0.000	0.008	0.027	0.000	0.006	33	23	10	4	10	2	0.543	0.605	0.622	0.851	0.755	0.847
0.014	0.032	0.000	0.000	0.000	0.005	11	19	9	0	10	6	0.728	0.582	0.683	0.821	0.818	0.841
0.050	0.015	0.016	0.000	0.004	0.000	19	7	5	3	1	3	0.602	0.756	0.770	0.897	0.834	0.820
0.030	0.016	0.005	0.000	0.009	0.015	18	15	15	0	10	2	0.640	0.700	0.765	0.898	0.808	0.802
0.000	0.000	0.005	0.000	0.000	0.006	7	6	4	3	5	6	0.650	0.758	0.833	0.707	0.792	0.883
0.027	0.010	0.007	0.000	0.000	0.007	11	13	21	3	16	29	0.662	0.716	0.844	0.857	0.850	0.822

Nellis (57FW) Part-4															
Repeat (rate)					Recur (rate)					TNMCM (rate)					
A-10A	F-15E	F-15C	F-16 Falcon	F-16 Viper	A-10A	F-15E	F-15C	F-16 Falcon	F-16 Viper	A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)
0.009	0.044	0.033	0.009	0.015	0.019	0.025	0.014	0.019	0.022	0.169	0.164	0.271	0.167	0.087	0.000
0.009	0.024	0.005	0.010	0.017	0.006	0.000	0.023	0.003	0.000	0.113	0.225	0.244	0.151	0.119	0.000
0.004	0.005	0.005	0.004	0.018	0.019	0.005	0.015	0.025	0.006	0.135	0.250	0.265	0.142	0.138	0.000
0.017	0.024	0.000	0.025	0.011	0.006	0.030	0.000	0.014	0.011	0.177	0.132	0.180	0.133	0.125	0.000
0.028	0.006	0.012	0.030	0.059	0.031	0.006	0.000	0.030	0.019	0.186	0.090	0.186	0.068	0.148	0.156
0.024	0.010	0.024	0.022	0.011	0.044	0.045	0.018	0.049	0.044	0.195	0.184	0.196	0.100	0.140	0.097
0.019	0.014	0.014	0.022	0.018	0.008	0.014	0.014	0.011	0.062	0.252	0.229	0.274	0.227	0.068	0.148
0.027	0.007	0.004	0.027	0.017	0.015	0.022	0.009	0.015	0.041	0.285	0.423	0.252	0.263	0.123	0.116
0.000	0.015	0.037	0.000	0.028	0.007	0.015	0.005	0.007	0.028	0.219	0.275	0.222	0.222	0.145	0.103
0.013	0.008	0.013	0.012	0.011	0.025	0.027	0.000	0.048	0.034	0.209	0.298	0.172	0.185	0.184	0.168
0.010	0.000	0.015	0.005	0.000	0.010	0.000	0.000	0.005	0.047	0.274	0.163	0.118	0.127	0.212	0.198
0.010	0.000	0.000	0.008	0.009	0.000	0.000	0.008	0.000	0.019	0.382	0.173	0.194	0.114	0.119	0.170
0.016	0.004	0.007	0.007	0.012	0.054	0.025	0.000	0.021	0.024	0.222	0.226	0.266	0.104	0.179	0.136
0.014	0.012	0.005	0.000	0.016	0.014	0.006	0.005	0.000	0.023	0.299	0.238	0.182	0.206	0.136	0.234
0.007	0.009	0.000	0.027	0.045	0.000	0.000	0.000	0.015	0.007	0.205	0.141	0.228	0.132	0.231	0.152
0.006	0.024	0.013	0.024	0.011	0.018	0.019	0.006	0.036	0.021	0.200	0.298	0.256	0.269	0.204	0.165
0.000	0.000	0.014	0.006	0.011	0.022	0.014	0.007	0.018	0.034	0.189	0.255	0.262	0.208	0.104	0.136
0.000	0.005	0.010	0.000	0.007	0.000	0.010	0.005	0.024	0.047	0.225	0.272	0.228	0.231	0.188	0.121
0.007	0.000	0.027	0.012	0.024	0.028	0.017	0.005	0.000	0.016	0.323	0.283	0.322	0.096	0.175	0.128
0.000	0.000	0.000	0.011	0.023	0.010	0.011	0.004	0.021	0.038	0.194	0.243	0.251	0.121	0.115	0.115
0.000	0.018	0.011	0.017	0.000	0.006	0.018	0.000	0.011	0.050	0.281	0.153	0.180	0.048	0.128	0.163
0.006	0.019	0.021	0.000	0.010	0.000	0.019	0.000	0.000	0.042	0.229	0.201	0.124	0.100	0.118	0.155
0.016	0.006	0.019	0.006	0.011	0.000	0.017	0.000	0.019	0.075	0.380	0.121	0.096	0.186	0.136	0.087
0.028	0.007	0.019	0.037	0.054	0.028	0.013	0.000	0.009	0.076	0.272	0.206	0.106	0.071	0.093	0.100

Nellis (57FW) Part-5																			
CANN (rate)						DOPs (count)	FODs (count)	Combined Mishaps (count)	Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
A-10A	F-15E	F-15C	F-16 (30)	F-16 (40)	F-16 (50)														
0.146	0.235	0.272	0.075	0.038	0.000	2	15	2	2	0	14	1	0	62	21	0.900	0.833	0.931	0.98
0.094	0.173	0.310	0.051	0.064	0.000	1	19	1	0	1	9	0	0	33	29	0.924	0.860	0.913	0.96
0.054	0.176	0.129	0.024	0.125	0.000	3	14	0	0	0	6	0	1	30	10	0.912	0.838	0.926	0.97
0.061	0.123	0.149	0.050	0.083	0.000	3	11	2	0	2	5	1	0	19	18	0.914	0.818	0.911	0.96
0.078	0.167	0.139	0.019	0.162	0.028	4	20	1	1	0	10	0	0	25	47	0.904	0.783	0.930	0.95
0.049	0.241	0.153	0.029	0.180	0.063	4	14	1	0	1	4	1	1	39	26	0.918	0.855	0.913	0.96
0.044	0.154	0.178	0.061	0.102	0.153	3	20	0	0	0	9	3	0	25	16	0.910	0.885	0.915	0.96
0.024	0.299	0.265	0.061	0.133	0.117	3	38	0	0	0	15	0	2	69	37	0.916	0.748	0.910	0.98
0.047	0.303	0.159	0.099	0.133	0.082	2	34	1	1	0	8	0	3	59	26	0.906	0.785	0.889	0.94
0.085	0.203	0.283	0.048	0.140	0.082	4	18	0	0	0	10	1	1	44	25	0.906	0.833	0.949	0.94
0.025	0.195	0.124	0.113	0.115	0.058	2	17	0	0	0	12	2	0	28	9	0.924	0.798	0.940	0.97
0.174	0.344	0.185	0.020	0.115	0.038	0	17	0	0	0	12	1	3	46	12	0.904	0.843	0.918	0.99
0.098	0.217	0.177	0.045	0.101	0.066	0	25	3	1	2	9	4	1	34	11	0.923	0.882	0.941	0.98
0.215	0.265	0.142	0.072	0.056	0.006	3	18	0	0	0	12	5	0	30	3	0.906	0.852	0.911	0.96
0.170	0.269	0.116	0.043	0.157	0.053	3	19	1	1	0	13	6	1	51	9	0.914	0.866	0.918	0.97
0.134	0.252	0.262	0.050	0.113	0.008	3	19	3	2	1	6	2	1	45	16	0.927	0.856	0.936	0.96
0.067	0.375	0.156	0.195	0.090	0.016	2	12	1	1	0	20	3	2	24	10	0.888	0.799	0.781	0.95
0.195	0.326	0.280	0.010	0.143	0.012	1	17	2	1	1	7	2	0	78	20	0.927	0.899	0.975	0.96
0.341	0.426	0.203	0.098	0.091	0.026	0	13	2	1	1	13	3	1	65	26	0.909	0.860	1.000	0.96
0.123	0.442	0.319	0.044	0.089	0.016	5	16	1	0	1	15	0	1	66	25	0.904	0.852	0.829	0.98
0.171	0.305	0.207	0.048	0.078	0.000	4	15	3	2	1	8	0	1	60	9	0.896	0.873	0.867	0.94
0.195	0.431	0.274	0.000	0.115	0.060	3	8	1	0	1	5	2	0	51	31	0.907	0.884	0.878	0.94
0.149	0.549	0.164	0.092	0.060	0.038	1	13	0	0	0	12	2	3	55	16	0.919	0.834	1.000	0.97
0.260	0.410	0.095	0.007	0.050	0.021	1	12	0	0	0	10	0	1	52	18	0.924	0.912	0.941	0.93

Appendix BE: Offutt AFB Data

	Offutt (55RW) Part-1																								
	Flight Hours		MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)		Fix (rate)		Flying Sched Effect (rate)		MX Sched Effect (rate)		Abort (rate)		IFE (rate)		MX/Ops Devs (count)		MC (rate)		Repeat (rate)		Recur (rate)	
	E4B	RC-135			E4B	RC-135	E4B	RC-135	E4B	RC-135	E4B	RC-135	E4B	RC-135	E4B	RC-135	E4B	RC-135	E4B	RC-135	E4B	RC-135	E4B	RC-135
Jan 03	113.7	825.4		0.652	0.100	0.184	0.250	0.476	0.600	0.750	0.889	0.909	0.048	0.068	0.000	0.005	12	12	0.554	0.768	0.000	0.019	0.000	0.015
Feb 03	122.4	950.1		0.652	0.033	0.185	0.000	0.455	0.433	0.747	0.941	0.882	0.032	0.080	0.000	0.018	18	18	0.710	0.753	0.044	0.013	0.029	0.011
Mar 03	134.2	1474.4		0.652	0.031	0.176	0.000	0.536	0.590	0.902	0.818	0.750	0.030	0.049	0.000	0.000	7	10	0.716	0.700	0.010	0.007	0.000	0.001
Apr 03	146	1466.1		0.652	0.021	0.211	1.000	0.567	0.769	0.868	0.818	0.900	0.000	0.099	0.000	0.000	6	13	0.824	0.714	0.000	0.005	0.013	0.012
May 03	146.5	750.7		0.652	0.026	0.175	1.000	0.444	0.821	0.703	1.000	0.844	0.000	0.073	0.000	0.005	4	27	0.932	0.674	0.000	0.030	0.011	0.010
Jun 03	138.1	863.8		0.652	0.057	0.169	1.000	0.619	0.722	0.769	0.500	0.931	0.000	0.047	0.000	0.009	6	15	0.886	0.745	0.000	0.025	0.026	0.018
Jul 03	130.3	931.4		0.652	0.032	0.236	0.000	0.500	0.771	0.703	0.667	0.677	0.000	0.060	0.000	0.000	3	22	0.904	0.766	0.018	0.018	0.000	0.017
Aug 03	88.7	839		0.652	0.030	0.198	0.000	0.478	0.692	0.736	0.905	0.917	0.000	0.051	0.000	0.015	3	15	0.846	0.760	0.000	0.011	0.000	0.024
Sep 03	131.4	647.2		0.652	0.054	0.228	0.500	0.524	0.711	0.561	1.000	0.793	0.079	0.101	0.000	0.000	2	16	0.861	0.613	0.000	0.012	0.025	0.012
Oct 03	128.1	859.8		0.689	0.111	0.214	0.500	0.560	0.676	0.808	0.920	0.774	0.000	0.025	0.000	0.009	6	11	0.726	0.775	0.000	0.013	0.000	0.005
Nov 03	96.8	739.3		0.689	0.000	0.267	1.000	0.593	0.710	0.709	1.000	0.983	0.000	0.049	0.000	0.005	7	11	0.919	0.781	0.000	0.006	0.026	0.004
Dec 03	130.7	815.9		0.689	0.028	0.198	1.000	0.435	0.787	0.742	0.932	0.827	0.045	0.076	0.024	0.000	4	17	0.877	0.761	0.000	0.006	0.011	0.006
Jan 04	124.2	762.4	0.841	0.726	0.028	0.133	1.000	0.500	0.675	0.537	1.000	0.744	0.000	0.064	0.000	0.000	6	30	0.789	0.801	0.014	0.011	0.029	0.004
Feb 04	112	771.5	0.821	0.726	0.030	0.144	0.000	0.571	0.533	0.644	0.912	0.909	0.000	0.050	0.000	0.000	11	22	0.567	0.806	0.000	0.015	0.021	0.002
Mar 04	148.3	958.6	0.818	0.726	0.023	0.214	0.000	0.643	0.635	0.713	1.000	0.988	0.043	0.096	0.000	0.000	8	25	0.688	0.814	0.015	0.007	0.000	0.009
Apr 04	179.3	1075.7	0.914	0.763	0.047	0.293	0.500	0.756	0.761	0.900	0.889	1.000	0.023	0.028	0.000	0.000	5	10	0.819	0.762	0.000	0.016	0.000	0.006
May 04	162.7	1105.1	0.905	0.763	0.020	0.283	0.000	0.561	0.733	0.789	1.000	1.000	0.000	0.085	0.000	0.003	4	21	0.714	0.699	0.000	0.004	0.000	0.009
Jun 04	188.4	1236.2	0.902	0.763	0.000	0.263	1.000	0.732	0.919	0.882	0.930	0.889	0.000	0.044	0.000	0.003	0	12	0.919	0.736	0.000	0.011	0.000	0.007
Jul 04	99.8	1175.1	0.886	0.763	0.000	0.200	1.000	0.679	0.842	0.766	1.000	0.966	0.000	0.101	0.000	0.000	3	22	0.729	0.691	0.000	0.017	0.031	0.008
Aug 04	144.3	1183.5	0.966	0.807	0.000	0.158	1.000	0.520	0.686	0.853	1.000	1.000	0.000	0.031	0.000	0.006	6	11	0.732	0.730	0.012	0.004	0.012	0.006
Sep 04	86.6	1191	0.956	0.807	0.061	0.144	0.500	0.609	0.722	0.754	1.000	0.969	0.059	0.043	0.000	0.000	5	26	0.741	0.740	0.000	0.012	0.013	0.009
Oct 04	179.2	1147.5	0.911	0.807	0.000	0.174	1.000	0.593	0.894	0.810	0.963	0.640	0.000	0.044	0.000	0.003	3	12	0.656	0.757	0.000	0.018	0.000	0.019
Nov 04	137.7	1102.1	0.897	0.807	0.083	0.193	0.667	0.593	0.786	0.752	1.000	0.792	0.000	0.075	0.029	0.000	5	25	0.853	0.783	0.000	0.004	0.000	0.007
Dec 04	98.1	1130.6	0.894	0.807	0.120	0.183	0.667	0.615	0.677	0.834	0.621	1.000	0.077	0.062	0.000	0.010	5	21	0.646	0.828	0.037	0.014	0.000	0.012

Offutt (55RW) Part-2																	
TNMCM (rate)		CANN (rate)		DOPs (count)	FODs (count)	Combined Mishaps (count)	Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
E-4B	RC-135	E-4B	RC-135														
0.414	0.209	0.150	0.026	1	4	0	0	0	8	6	2	8	10	0.925	0.804	1.000	1.000
0.260	0.173	0.367	0.025	1	6	0	0	0	6	3	3	14	12	0.953	0.962	1.000	1.000
0.234	0.166	0.281	0.075	1	0	0	0	0	7	7	0	4	30	0.920	0.864	1.000	1.000
0.139	0.135	0.000	0.134	1	0	0	0	0	3	3	0	5	35	0.942	0.833	1.000	1.000
0.024	0.256	0.128	0.097	0	0	0	0	0	2	2	0	16	21	0.940	0.947	1.000	0.889
0.105	0.206	0.029	0.113	1	0	0	0	0	3	1	2	12	15	0.963	0.818	1.000	1.000
0.077	0.184	0.000	0.087	2	2	1	0	1	9	8	1	10	18	0.901	0.885	1.000	1.000
0.142	0.150	0.091	0.026	1	2	0	0	0	2	2	0	2	24	0.951	1.000	1.000	0.842
0.125	0.234	0.027	0.054	1	4	0	0	0	4	3	1	3	24	0.942	0.750	0.500	1.000
0.158	0.173	0.472	0.077	1	2	1	1	0	0	0	0	10	8	0.906	0.875	1.000	1.000
0.064	0.174	0.071	0.178	0	1	0	0	0	4	3	1	6	29	0.939	0.889	1.000	1.000
0.063	0.191	0.143	0.103	0	2	0	0	0	3	2	1	4	22	0.949	0.958	1.000	0.947
0.158	0.167	0.083	0.124	0	5	0	0	0	6	4	2	14	6	0.933	0.931	1.000	1.000
0.328	0.160	0.091	0.093	0	0	0	0	0	1	1	0	6	7	0.949	0.931	1.000	1.000
0.297	0.143	0.136	0.092	0	0	0	0	0	3	3	0	3	13	0.941	1.000	1.000	1.000
0.078	0.201	0.163	0.036	0	1	0	0	0	5	5	0	10	26	0.916	0.947	1.000	1.000
0.286	0.206	0.078	0.097	0	1	0	0	0	3	3	0	8	9	0.927	0.960	1.000	0.920
0.080	0.211	0.023	0.038	1	3	0	0	0	0	0	0	4	13	0.925	1.000	1.000	0.947
0.219	0.197	0.029	0.021	1	3	0	0	0	2	2	0	15	13	0.943	0.955	1.000	1.000
0.267	0.219	0.106	0.038	2	4	0	0	0	1	0	1	12	10	0.951	0.951	1.000	1.000
0.228	0.189	0.091	0.025	4	2	0	0	0	3	3	0	16	24	0.966	0.970	1.000	1.000
0.071	0.150	0.128	0.084	1	1	0	0	0	3	3	0	15	24	0.918	0.864	1.000	1.000
0.221	0.180	0.222	0.057	1	2	0	0	0	2	2	0	5	21	0.949	0.906	1.000	1.000
0.336	0.142	0.000	0.021	3	1	0	0	0	1	1	0	5	7	0.962	0.950	1.000	1.000

Appendix BF: Pope AFB Data

	Pope (28FG) Part-1																	
	Flight Hours	MXG 2A/2W Manning (rate)	QA Manning Effect (rate)	Break (rate)	Fix (rate)	FSE (rate)	MX Sched Effect (rate)	Abort (rate)	IFE (rate)	MX/Ops Devs (count)	MC Rate	Repeat Rate	Recur Rate	TNMCM Rate	CANN Rate	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	1570.8			0.124	0.796	0.834	0.935	0.033	0.000	40	0.759	0.000	0.004	0.166	0.144	0	0	0
Feb 03	934			0.149	0.818	0.764	0.911	0.046	0.006	38	0.745	0.002	0.007	0.151	0.245	0	0	0
Mar 03	1939.2			0.274	0.872	0.855	1.000	0.034	0.009	45	0.743	0.005	0.011	0.177	0.126	0	0	0
Apr 03	1978.3			0.238	0.820	0.803	1.000	0.034	0.009	49	0.81	0.007	0.013	0.147	0.114	0	0	0
May 03	1493.3			0.148	0.709	0.805	1.000	0.031	0.003	51	0.757	0.054	0.010	0.157	0.114	0	2	0
Jun 03	1761.5			0.139	0.850	0.847	0.987	0.045	0.005	46	0.788	0.013	0.010	0.137	0.103	0	0	0
Jul 03	1114.9			0.149	0.681	0.777	0.944	0.065	0.000	47	0.762	0.015	0.004	0.147	0.186	0	0	0
Aug 03	1333.2			0.180	0.730	0.795	0.840	0.063	0.006	76	0.764	0.004	0.006	0.188	0.105	1	0	0
Sep 03	1618.4			0.104	0.753	0.794	0.901	0.025	0.008	24	0.768	0.003	0.000	0.159	0.096	0	0	0
Oct 03	1599.4			0.187	0.800	0.730	0.843	0.061	0.007	88	0.702	0.012	0.011	0.208	0.118	0	1	0
Nov 03	1354.7			0.182	0.746	0.798	0.945	0.041	0.000	59	0.686	0.002	0.008	0.243	0.123	0	2	0
Dec 03	854			0.164	0.723	0.640	0.949	0.087	0.012	77	0.674	0.001	0.017	0.258	0.136	0	0	0
Jan 04	897	0.754	0.755	0.138	0.781	0.684	0.986	0.057	0.001	58	0.725	0.013	0.001	0.182	0.145	0	1	0
Feb 04	1023.9	0.749	0.755	0.134	0.759	0.658	0.998	0.045	0.002	51	0.775	0.005	0.011	0.154	0.150	0	0	0
Mar 04	1737.9	0.754	0.755	0.134	0.854	0.855	0.995	0.048	0.001	77	0.761	0.005	0.004	0.16	0.095	0	1	1
Apr 04	1296.8	0.882	0.755	0.136	0.752	0.825	0.987	0.063	0.000	62	0.779	0.000	0.007	0.159	0.155	0	0	1
May 04	1248.8	0.862	0.811	0.143	0.794	0.851	0.987	0.066	0.007	56	0.811	0.006	0.003	0.156	0.120	0	0	0
Jun 04	1401.4	0.854	0.866	0.122	0.796	0.794	0.995	0.058	0.000	63	0.775	0.002	0.000	0.169	0.152	1	0	0
Jul 04	1177.3	0.833	0.866	0.132	0.802	0.797	0.988	0.060	0.000	52	0.814	0.000	0.003	0.148	0.135	1	0	0
Aug 04	1231.8	0.917	0.784	0.147	0.760	0.754	0.973	0.057	0.000	59	0.77	0.003	0.006	0.185	0.143	1	0	0
Sep 04	753.8	0.891	0.840	0.177	0.766	0.673	0.976	0.048	0.002	33	0.764	0.000	0.013	0.179	0.180	2	1	0
Oct 04	1101.1	0.855	0.896	0.166	0.832	0.738	0.872	0.056	0.012	57	0.754	0.002	0.003	0.176	0.146	1	0	0
Nov 04	1208	0.850	0.896	0.122	0.714	0.712	0.818	0.057	0.003	83	0.73	0.007	0.000	0.196	0.122	0	0	0
Dec 04	1024	0.845	0.840	0.131	0.747	0.637	0.977	0.076	0.002	104	0.689	0.003	0.005	0.262	0.192	0	0	1

Pope (28FG) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
0	0	2	0	0	5	0	0.883	0.766	0.778	
0	0	1	1	0	8	1	0.888	0.902	0.810	
0	0	1	0	1	3	1	0.795	0.800	0.400	
0	0	2	0	0	13	1	0.842	0.833	0.643	
0	0	3	0	0	4	2	0.946	0.929	0.778	
0	0	3	0	0	5	3	0.832	0.854	0.739	
0	0	0	0	0	6	0	0.874	0.829	0.600	
0	0	6	1	0	8	0	0.842	0.856	0.750	
0	0	3	0	0	2	2	0.883	0.863	0.850	
0	0	6	0	0	3	0	0.832	0.872	0.786	
0	0	11	3	3	8	2	0.916	0.882	0.889	
0	0	3	0	2	4	2	0.866	0.908	0.857	
0	0	15	1	8	4	3	0.867	0.938	0.800	0.980
0	0	13	3	2	11	0	0.889	0.882	0.667	1.000
0	1	5	1	3	6	1	0.919	0.924	0.833	1.000
1	0	9	0	3	1	7	0.849	0.857	0.667	0.980
0	0	10	7	1	11	9	0.887	0.974	1.000	1.000
0	0	12	3	1	6	2	0.846	0.871	0.750	1.000
0	0	11	0	4	5	1	0.876	0.959	1.000	1.000
0	0	18	3	2	6	0	0.874	0.931	0.765	1.000
0	0	17	1	2	9	4	0.879	0.925	0.800	1.000
0	0	3	0	0	4	1	0.878	0.921	0.744	1.000
0	0	9	1	1	0	4	0.865	0.912	0.700	1.000
1	0	10	1	1	12	1	0.868	0.931	0.857	1.000

Appendix BG: Seymour-Johnson AFB Data

	Seymour-Johnson (4FW) Part-1																	
	Flight Hours		MXG 2A/2W Manning (rate)	QA Manning Effect (rate)	Break (rate)		Fix (rate)		Flying Sched Effect (rate)		MX Sched Effect (rate)		Abort (rate)		IFEs (rate)		MX/Ops Devs (count)	
	F-15E (Op)	F-15E (Trn)			F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)
Jan 03	1031.9	927.2		0.922	0.166	0.222	0.722	0.724	0.628	0.700	0.97	0.97	0.069	0.082			61	14
Feb 03	1733.1	810.6		0.922	0.146	0.19	0.679	0.758	0.969	0.905	0.978	0.972	0.047	0.108			20	39
Mar 03	5276.1	979.5		0.922	0.185	0.171	0.707	0.822	0.994	0.872	1.000	0.998	0.057	0.115			8	47
Apr 03	5523.4	1048.4		0.918	0.149	0.202	0.731	0.756	0.940	0.827	0.667	0.987	0.065	0.106			76	39
May 03	2425.2	1053.4		0.918	0.212	0.202	0.536	0.756	0.959	0.827	0.967	0.947	0.049	0.106			13	39
Jun 03	1628.4	971.9		0.918	0.159	0.205	0.736	0.654	0.825	0.796	0.952	0.968	0.092	0.114			49	28
Jul 03	1418.6	1096.5		0.918	0.169	0.239	0.622	0.685	0.789	0.739	0.907	0.951	0.082	0.119			64	75
Aug 03	1006.4	1167.9		0.918	0.126	0.264	0.690	0.741	0.767	0.812	0.951	0.963	0.070	0.081			83	45
Sep 03	858.5	923.8		0.918	0.139	0.229	0.795	0.758	0.675	0.651	0.928	0.951	0.084	0.129			28	43
Oct 03	1268.2	1092.5		0.918	0.147	0.245	0.762	0.696	0.721	0.757	0.904	0.947	0.082	0.094			108	50
Nov 03	1121.4	806.8		0.918	0.13	0.196	0.747	0.650	0.773	0.688	0.947	0.957	0.060	0.156			67	73
Dec 03	1064.8	891.2		0.918	0.156	0.162	0.612	0.745	0.698	0.764	0.941	0.977	0.095	0.092			91	57
Jan 04	1023.2	917.9	0.794	0.918	0.13	0.194	0.815	0.728	0.634	0.609	0.931	0.973	0.090	0.107			80	57
Feb 04	2407.3	1124	0.776	0.918	0.163	0.18	0.804	0.770	0.658	0.693	0.938	0.964	0.102	0.084			75	29
Mar 04	1581.2	1345.6	0.799	0.918	0.114	0.204	0.789	0.780	0.871	0.800	0.981	0.966	0.060	0.139			69	93
Apr 04	1373.8	1156.4	0.802	0.918	0.112	0.168	0.806	0.706	0.759	0.757	0.942	0.979	0.073	0.124			70	66
May 04	1063.2	964.9	0.796	0.918	0.145	0.191	0.714	0.694	0.781	0.792	0.88	0.968	0.081	0.105			69	47
Jun 04	2910.2	1061	0.801	0.918	0.054	0.202	0.542	0.616	0.956	0.879	0.928	0.979	0.051	0.103			30	54
Jul 04	2395.6	1012	0.806	0.918	0.185	0.221	0.774	0.616	0.830	0.779	0.935	0.966	0.105	0.113			97	85
Aug 04	2407.3	1124	0.897	0.918	0.197	0.15	0.730	0.655	0.690	0.725	0.909	0.982	0.115	0.099			81	60
Sep 04	1635	863.4	0.890	0.922	0.204	0.159	0.889	0.706	0.646	0.761	0.921	0.972	0.116	0.119			31	42
Oct 04	838.4	1130.9	0.888	0.922	0.19	0.138	0.714	0.618	0.825	0.784	0.982	0.986	0.107	0.085			50	37
Nov 04	2158	1048.9	0.881	0.922	0.177	0.145	0.815	0.690	0.781	0.673	0.973	0.973	0.093	0.096			40	48
Dec 04	2220.6	939	0.883	0.922	0.17	0.181	0.837	0.641	0.780	0.790	0.973	0.973	0.078	0.090			105	107

Seymour-Johnson (4FW) Part-2														
MC (rate)		Repeat (rate)		Recur (rate)		TNMCM (rate)		CANN (rate)		DOPs (count)	FODs (count)	Combined Mishaps (count)	Flight Mishaps (count)	Ground Mishaps (count)
F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)	F-15E (Op)	F-15E (Trn)					
0.801	0.775	0.023	0.009	0.010	0.008	0.164	0.193	0.136	0.088	2	27	0	0	0
0.852	0.752	0.013	0.016	0.010	0.009	0.125	0.188	0.122	0.119	3	10	0	0	0
0.783	0.788	0.002	0.013	0.010	0.008	0.173	0.160	0.167	0.111	1	12	0	0	0
0.754	0.816	0.014	0.021	0.010	0.008	0.177	0.136	0.238	0.130	0	9	1	1	0
0.824	0.816	0.013	0.014	0.009	0.008	0.115	0.136	0.119	0.084	0	11	0	0	0
0.798	0.809	0.022	0.022	0.010	0.008	0.142	0.151	0.059	0.108	0	13	1	1	0
0.778	0.766	0.03	0.031	0.010	0.008	0.173	0.202	0.105	0.118	0	8	0	0	0
0.79	0.772	0.019	0.035	0.010	0.008	0.157	0.199	0.203	0.200	1	8	0	0	0
0.83	0.84	0.017	0.018	0.010	0.008	0.118	0.140	0.203	0.164	4	13	1	0	1
0.76	0.768	0.027	0.018	0.009	0.008	0.191	0.203	0.148	0.151	0	29	1	1	0
0.807	0.751	0.018	0.016	0.010	0.008	0.161	0.217	0.089	0.189	1	14	1	1	0
0.824	0.839	0.013	0.021	0.010	0.008	0.131	0.132	0.181	0.110	0	24	1	1	0
0.799	0.792	0.012	0.009	0.010	0.008	0.159	0.176	0.197	0.109	1	19	0	0	0
0.785	0.809	0.024	0.016	0.010	0.008	0.156	0.142	0.249	0.095	1	25	0	0	0
0.813	0.801	0.012	0.022	0.010	0.008	0.139	0.172	0.136	0.118	2	16	0	0	0
0.833	0.798	0.019	0.031	0.010	0.008	0.117	0.154	0.195	0.070	0	18	0	0	0
0.793	0.817	0.009	0.054	0.010	0.008	0.164	0.154	0.201	0.045	1	20	0	0	0
0.765	0.788	0.017	0.03	0.010	0.008	0.175	0.180	0.118	0.058	0	24	0	0	0
0.771	0.792	0.025	0.04	0.010	0.008	0.165	0.171	0.256	0.080	0	26	0	0	0
0.756	0.786	0.027	0.03	0.010	0.008	0.182	0.198	0.246	0.087	0	21	2	2	0
0.803	0.845	0.025	0.023	0.010	0.008	0.126	0.121	0.327	0.051	0	19	2	1	1
0.773	0.822	0.031	0.016	0.010	0.008	0.152	0.141	0.189	0.077	0	13	1	1	0
0.776	0.841	0.016	0.016	0.010	0.008	0.159	0.113	0.128	0.102	1	20	0	0	0
0.799	0.843	0.025	0.029	0.010	0.008	0.141	0.137	0.168	0.137	2	14	1	0	1

Seymour-Johnson (4FW) Part-3								
STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
6	3	1	41	7	0.869			0.961
5	1	2	29	8	0.840			0.897
8	0	3	41	14	0.826			0.982
3	0	2	21	12	0.839			0.946
4	0	2	26	16	0.840			0.985
12	0	7	22	0	0.796			0.971
17	3	10	17	11	0.799			0.975
18	1	12	29	10	0.799			0.932
16	0	11	41	10	0.807			0.979
31	4	15	44	18	0.814			0.978
18	3	6	41	13	0.834			0.955
12	0	9	37	6	0.794			0.964
9	1	7	36	13	0.829			0.941
8	0	5	40	9	0.785			0.943
19	3	6	58	12	0.827			0.920
11	3	4	41	21	0.853			0.955
15	2	6	45	3	0.830			0.936
40	7	8	39	18	0.756			0.878
22	2	8	26	22	0.796			0.908
17	1	9	29	14	0.822			0.932
23	1	8	27	11	0.849			1.000
8	0	1	19	10	0.822			0.936
15	4	8	20	25	0.846			0.943
18	1	12	13	6	0.835			0.966

Appendix BH: Shaw AFB Data

	Shaw AFB (20th MXG) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFEs (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	2204.0		0.967	0.143	0.797	0.821	0.985	0.059	0.005	42	0.832	0.023	0.025	0.120	0.102	0	0	0
Feb 03	2205.6		0.967	0.155	0.726	0.859	0.970	0.048	0.000	57	0.860	0.017	0.011	0.102	0.074	0	0	0
Mar 03	3745.8		0.967	0.196	0.883	0.875	0.971	0.054	0.001	52	0.855	0.029	0.036	0.097	0.119	0	2	0
Apr 03	2980.5		0.967	0.185	0.766	0.857	0.950	0.065	0.005	48	0.828	0.025	0.045	0.112	0.136	1	1	1
May 03	1772.6		0.967	0.159	0.772	0.817	0.953	0.054	0.008	61	0.838	0.034	0.009	0.115	0.120	0	2	0
Jun 03	2099.4		0.967	0.148	0.818	0.875	0.954	0.048	0.006	45	0.842	0.026	0.033	0.089	0.108	1	0	0
Jul 03	2282.4		0.967	0.114	0.771	0.882	0.934	0.049	0.006	63	0.843	0.028	0.018	0.106	0.091	1	0	2
Aug 03	1971.9		0.967	0.114	0.775	0.889	0.970	0.034	0.004	33	0.831	0.010	0.005	0.100	0.112	0	0	0
Sep 03	1640.9		0.967	0.158	0.815	0.918	0.981	0.052	0.002	27	0.881	0.009	0.013	0.076	0.105	0	0	0
Oct 03	2708.5		0.967	0.138	0.835	0.864	0.855	0.056	0.003	75	0.830	0.010	0.014	0.116	0.098	0	1	0
Nov 03	2010.6		0.967	0.121	0.878	0.907	0.990	0.050	0.006	41	0.864	0.018	0.016	0.081	0.068	0	1	0
Dec 03	1688.6		0.967	0.130	0.904	0.849	0.986	0.046	0.002	41	0.883	0.008	0.021	0.074	0.069	0	1	0
Jan 04	1726.1	0.860	0.967	0.119	0.879	0.772	0.971	0.040	0.003	31	0.875	0.017	0.015	0.078	0.049	0	1	0
Feb 04	2169.6	0.872	0.967	0.108	0.835	0.888	0.963	0.046	0.003	48	0.837	0.010	0.020	0.117	0.053	0	3	0
Mar 04	2225.9	0.887	0.967	0.112	0.780	0.893	0.964	0.054	0.009	45	0.824	0.028	0.007	0.123	0.075	0	1	1
Apr 04	1840.4	0.870	0.967	0.095	0.835	0.927	0.985	0.041	0.004	34	0.852	0.010	0.030	0.096	0.054	0	0	0
May 04	1867.3	0.869	0.967	0.101	0.862	0.934	0.938	0.053	0.012	42	0.851	0.018	0.022	0.088	0.073	0	1	0
Jun 04	1526.0	0.866	0.967	0.129	0.746	0.811	0.938	0.078	0.011	72	0.836	0.026	0.026	0.108	0.081	0	1	1
Jul 04	1534.2	0.849	1.000	0.128	0.784	0.868	0.926	0.058	0.006	40	0.838	0.021	0.010	0.108	0.070	0	0	2
Aug 04	1600.3	0.952	1.000	0.114	0.742	0.811	0.969	0.061	0.002	55	0.822	0.005	0.014	0.116	0.087	0	1	2
Sep 04	1534.5	0.935	1.000	0.115	0.733	0.851	0.977	0.069	0.004	32	0.889	0.013	0.019	0.069	0.060	0	1	0
Oct 04	2117.0	0.934	1.000	0.125	0.861	0.834	0.966	0.065	0.010	52	0.858	0.002	0.019	0.094	0.061	0	0	1
Nov 04	2086.1	0.923	1.000	0.127	0.824	0.889	0.980	0.053	0.007	41	0.866	0.018	0.020	0.088	0.043	0	1	0
Dec 04	2059.5	0.925	1.000	0.114	0.816	0.896	0.978	0.057	0.009	56	0.862	0.008	0.006	0.092	0.067	0	1	0

Shaw AFB (20th MXG) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
0	0	30	7	4	20		0.903	0.877	0.714	1.000
0	0	9	1	2	11		0.900	0.915	0.750	1.000
0	0	14	1	1	12		0.909	0.940	0.600	1.000
1	0	8	1	1	27		0.903	0.933	0.600	1.000
0	0	15	1	2	24		0.920	0.944	0.833	0.944
0	0	17	3	3	31		0.906	0.914	0.667	1.000
0	2	16	1	1	17		0.932	0.955	0.800	1.000
0	0	7	2	1	17		0.916	0.908	0.778	1.000
0	0	11	0	2	15	13	0.919	0.952	1.000	1.000
0	0	8	0	0	32	14	0.930	0.929	0.667	0.957
0	0	9	1	0	11	6	0.928	0.940	0.667	0.955
0	0	7	1	0	16	6	0.931	0.944	1.000	1.000
0	0	22	5	2	16	17	0.905	0.927	0.500	0.960
0	0	13	2	5	16	16	0.925	0.955	0.750	1.000
1	0	23	2	2	15	18	0.919	0.955	1.000	0.984
0	0	17	2	2	25	16	0.909	0.970	1.000	0.932
0	0	18	5	4	11	6	0.911	0.911	0.833	0.960
0	1	25	4	1	22	12	0.925	0.959	0.833	0.983
2	0	22	12	2	20	5	0.940	0.978	0.750	0.991
0	2	7	3	2	15	12	0.916	0.902	0.714	0.984
0	0	14	4	4	8	9	0.924	0.885	0.750	0.980
1	0	11	5	1	19	10	0.911	0.926	1.000	0.990
0	0	15	6	4	9	7	0.916	0.969	0.500	0.977
0	0	11	2	2	21	19	0.922	0.970	1.000	1.000

Appendix BI: Whiteman AFB Data

	Whiteman (509BW) Part-1																	
	Flight Hours	MXG 2A/2W Manning	QA Manning Effect (rate)	Break (rate)	Fix (rate)	Flying Sched Effect (rate)	MX Sched Effect (rate)	Abort (rate)	IFEs (rate)	MX/Ops Devs (count)	MC (rate)	Repeat (rate)	Recur (rate)	TNMCM (rate)	CANN (rate)	DOPs (count)	FODs (count)	Combined Mishaps (count)
Jan 03	526		0.850	0.107	0.385	0.540	0.864	0.055		16	0.263	0.008	0.033	0.737	0.098	3	7	0
Feb 03	304.7		0.850	0.065	0.400	0.443	0.955	0.025		27	0.327	0.045	0.030	0.673	0.130	3	3	1
Mar 03	1340.7		0.850	0.082	0.222	0.620	0.951	0.036		10	0.630	0.022	0.028	0.369	0.100	3	4	1
Apr 03	749.3		0.850	0.081	0.250	0.766	0.957	0.058		7	0.633	0.047	0.037	0.356	0.081	1	2	0
May 03	604.5		0.850	0.174	0.696	0.773	0.799	0.022		13	0.454	0.016	0.087	0.537	0.114	1	1	0
Jun 03	561.1		0.850	0.085	0.500	0.632	0.866	0.049		21	0.486	0.032	0.042	0.514	0.077	1	5	0
Jul 03	674.6		0.850	0.108	0.769	0.846	0.783	0.071		11	0.417	0.021	0.021	0.583	0.100	0	8	0
Aug 03	548.9		0.850	0.054	0.677	0.709	0.925	0.009		7	0.375	0.012	0.060	0.618	0.036	2	6	0
Sep 03	508		0.884	0.059	0.800	0.703	0.954	0.023		4	0.478	0.031	0.062	0.522	0.118	3	2	0
Oct 03	530.3		0.884	0.063	0.750	0.725	0.870	0.066		11	0.537	0.000	0.036	0.459	0.070	0	2	0
Nov 03	560.3		0.884	0.079	0.778	0.732	0.980	0.050		11	0.530	0.023	0.035	0.444	0.009	0	4	0
Dec 03	352.5		0.884	0.064	0.400	0.567	1.000	0.085		19	0.520	0.000	0.000	0.472	0.026	2	4	2
Jan 04	499.8	0.834	0.921	0.147	0.667	0.593	1.000	0.075		28	0.500	0.011	0.011	0.492	0.020	0	5	0
Feb 04	530.2	0.824	0.921	0.126	0.357	0.617	0.995	0.069		18	0.293	0.010	0.000	0.707	0.027	2	4	0
Mar 04	670.6	0.818	0.921	0.179	0.500	0.717	0.979	0.055		19	0.394	0.029	0.044	0.606	0.057	1	3	0
Apr 04	572.9	0.952	0.921	0.083	0.364	0.556	0.990	0.044		44	0.424	0.000	0.000	0.576	0.038	2	8	0
May 04	532.9	0.952	0.921	0.157	0.529	0.692	1.000	0.053		24	0.441	0.028	0.019	0.557	0.065	0	5	0
Jun 04	687.7	0.936	0.921	0.034	0.600	0.702	0.975	0.026		15	0.402	0.009	0.028	0.597	0.013	3	5	0
Jul 04	781.9	0.927	0.921	0.111	0.500	0.659	1.000	0.023		24	0.341	0.030	0.030	0.659	0.071	0	3	0
Aug 04	486.8	1.006	0.921	0.069	0.714	0.655	0.990	0.074		13	0.354	0.016	0.025	0.646	0.050	2	2	1
Sep 04	294.3	1.000	0.921	0.132	0.444	0.776	0.992	0.072		4	0.431	0.012	0.024	0.569	0.059	0	4	0
Oct 04	332.9	0.994	0.921	0.089	0.571	0.719	0.880	0.084		14	0.642	0.000	0.012	0.348	0.089	1	3	1
Nov 04	485.6	0.985	0.921	0.105	0.600	0.573	1.000	0.061		16	0.429	0.020	0.030	0.545	0.053	0	2	0
Dec 04	425.6	1.021	0.921	0.037	0.375	0.900	0.975	0.025		30	0.390	0.033	0.033	0.589	0.051	1	2	0

Whiteman (509BW) Part-2										
Flight Mishaps (count)	Ground Mishaps (count)	STVs (count)	DSVs (count)	TDVs (count)	DRs Sub (count)	TO Imp Sub (count)	QVI Pass (rate)	KTL Pass (rate)	Phase KTL (rate)	PE Pass (rate)
0	0	9	2	2	11	5	0.881	1.000		0.980
0	1	4	2	0	6	11	0.907	0.882	1.00	0.962
1	0	4	3	1	9	26	0.926	1.000		1.000
0	0	4	0	1	8	12	0.921	0.905	1.00	0.991
0	0	10	4	3	7	19	0.914	0.889		0.976
0	0	7	6	0	12	22	0.931	0.971	1.00	0.973
0	0	1	1	0	8	11	0.930	0.875		1.000
0	0	8	3	2	8	10	0.907	0.941	1.00	0.991
0	0	2	2	0	6	17	0.929	1.000		1.000
0	0	5	2	0	6	4	0.945	0.957	1.00	0.986
0	0	3	1	0	7	6	0.911	1.000		0.652
2	0	5	1	0	4	14	0.903	0.773	1.00	1.000
0	0	13	3	2	5	18	0.912	0.875	1.00	0.947
0	0	12	4	1	8	22	0.906	0.885	0.00	0.922
0	0	12	4	0	10	21	0.923	0.824		0.985
0	0	16	4	2	21	12	0.938	1.000		1.000
0	0	13	5	0	4	6	0.948	0.938	1.00	1.000
0	0	13	1	0	8	34	0.934	0.800		1.000
0	0	27	5	2	6	13	0.898	0.808	1.00	0.895
0	1	13	0	1	7	5	0.904	0.708		0.984
0	0	24	2	3	11	30	0.912	0.947		1.000
1	0	14	3	1	8	17	0.904	0.923		0.987
0	0	11	0	2	11	4	0.930	0.923	1.00	1.000
0	0	12	4	1	4	14	0.888	0.889		0.989

Appendix BJ: Data Arrangement for Statistical Regression (10-pages)

Month/ Year	Base	Calculated QA Manning Effectiveness	Abort	Break	CANN	Comb Mishap	DOP	FOD	DRs Sub	DSVs	Fix	Flight Mishap	FSE	Ground Mishap	IFE	KTL Pass	MC	MSE	MX/OPS Dev	QVI Pass	PE Pass	Phase KTL Pass	Recur	Repeat	STV	TDV	TNMCM	TO Imp Sub
Jan 03	Barkdale	0.952	0.080	0.541	0.382	3	2	4	39	11	0.750	2	0.703	1		0.952	0.811	0.976	40.0	0.885	0.996	0.916	0.038	0.031	20	1	0.154	4
Feb 03	Barkdale	0.952	0.136	0.614	0.643	1	2	4	30	0	0.651	1	0.577	0		0.909	0.714	0.944	36.0	0.916	0.979	1.000	0.043	0.029	6	2	0.236	8
Mar 03	Barkdale	0.952	0.029	0.546	0.534	2	2	4	31	1	0.515	0	0.797	2		0.875	0.676	0.871	29.0	0.955	1.000	0.846	0.044	0.049	3	1	0.257	8
Apr 03	Barkdale	0.952	0.026	0.442	0.536	1	2	7	24	0	0.517	0	0.824	1		0.884	0.619	0.848	26.0	0.897	0.989	1.000	0.038	0.029	4	1	0.255	7
May 03	Barkdale	0.952	0.109	0.561	0.801	0	2	7	17	11	0.677	0	0.050	0		0.833	0.686	0.837	50.0	0.846	1.000	1.000	0.033	0.012	17	1	0.228	13
Jun 03	Barkdale	0.952	0.081	0.484	0.401	0	2	7	30	9	0.648	0	0.613	0		0.925	0.715	0.735	44.0	0.853	1.000	0.925	0.024	0.014	26	0	0.196	9
Jul 03	Barkdale	0.952	0.053	0.589	0.317	1	1	10	23	4	0.613	0	0.681	1		0.896	0.723	0.891	35.0	0.861	0.985	0.861	0.017	0.015	15	4	0.206	23
Aug 03	Barkdale	0.952	0.065	0.634	0.351	1	1	10	20	2	0.627	0	0.667	1		0.967	0.723	0.846	31.0	0.917	0.979	0.975	0.015	0.019	8	1	0.172	11
Sep 03	Barkdale	0.952	0.079	0.576	0.209	0	1	10	29	7	0.700	0	0.640	0		0.916	0.787	0.914	37.0	0.847	1.000	0.883	0.017	0.017	9	0	0.160	15
Oct 03	Barkdale	0.952	0.069	0.596	0.242	0	4	11	49	9	0.781	0	0.619	0		0.966	0.770	0.952	50.0	0.939	0.996	0.980	0.018	0.019	13	2	0.194	27
Nov 03	Barkdale	0.952	0.089	0.510	0.144	0	4	11	23	12	0.646	0	0.620	0		0.936	0.734	0.939	59.0	0.873	0.991	0.950	0.027	0.020	27	3	0.218	18
Dec 03	Barkdale	0.952	0.074	0.583	0.240	0	4	11	26	16	0.755	0	0.591	0		0.974	0.716	0.896	58.0	0.858	0.988	0.966	0.024	0.024	28	7	0.219	10
Jan 04	Barkdale	0.952	0.070	0.603	0.310	0	5	10	45	32	0.790	0	0.472	0		0.903	0.724	0.923	80.0	0.856	0.993	0.852	0.031	0.012	43	6	0.241	30
Feb 04	Barkdale	0.952	0.125	0.656	0.370	0	5	10	26	32	0.685	0	0.460	0		0.890	0.706	0.944	91.0	0.881	0.993	0.863	0.033	0.035	43	7	0.254	17
Mar 04	Barkdale	0.952	0.057	0.596	0.221	0	5	10	31	12	0.742	0	0.753	0		0.864	0.765	0.939	42.0	0.852	0.988	0.800	0.017	0.007	28	7	0.227	36
Apr 04	Barkdale	0.952	0.091	0.525	0.272	0	4	9	49	2	0.736	0	0.524	0		0.943	0.731	0.955	73.0	0.982	0.990	0.916	0.017	0.015	11	7	0.205	23
May 04	Barkdale	0.952	0.057	0.525	0.359	1	4	9	17	9	0.737	0	0.612	1		0.943	0.797	0.965	39.0	0.931	0.995	0.954	0.020	0.015	24	7	0.169	12
Jun 04	Barkdale	0.952	0.090	0.549	0.240	0	4	9	24	3	0.703	0	0.447	0		0.986	0.765	0.940	67.0	0.924	0.990	0.980	0.028	0.022	8	1	0.161	11
Jul 04	Barkdale	0.952	0.103	0.548	0.224	0	2	7	19	20	0.720	0	0.628	0		0.816	0.294	0.990	58.0	0.925	0.991	0.750	0.020	0.017	27	2	0.183	41
Aug 04	Barkdale	0.952	0.108	0.522	0.297	0	2	7	40	7	0.747	0	0.605	0		0.889	0.844	0.989	43.0	0.885	0.995	0.857	0.030	0.028	15	1	0.123	63
Sep 04	Barkdale	0.952	0.058	0.527	0.274	0	2	7	30	6	0.818	0	0.597	0		0.911	0.849	0.990	35.0	0.914	0.992	0.918	0.017	0.017	7	0	0.112	16
Oct 04	Barkdale	0.952	0.036	0.601	0.215	0	1	5	12	5	0.745	0	0.717	0		1.000	0.827	0.993	35.0	0.922	0.990	1.000	0.012	0.013	11	0	0.131	17
Nov 04	Barkdale	0.952	0.090	0.509	0.236	0	1	5	13	2	0.833	0	0.599	0		0.916	0.754	0.968	72.0	0.925	0.990	0.891	0.019	0.031	7	0	0.171	22
Dec 04	Barkdale	0.952	0.112	0.608	0.496	0	1	5	26	6	0.703	0	0.528	0		0.905	0.745	0.990	63.0	0.851	0.990	0.871	0.032	0.023	14	2	0.209	19
Jan 03	Beale	0.658	0.028	0.069	0.048	0	0	5	8	2	0.505	0	0.597	0		0.912	0.806	0.965	7.0	0.913	0.917	1.000	0.026	0.202	9	1	0.148	6
Feb 03	Beale	0.658	0.018	0.099	0.054	0	0	0	9	0	0.684	0	0.859	0		0.956	0.834	0.985	6.0	0.943	0.917	1.000	0.028	0.208	9	1	0.127	10
Mar 03	Beale	0.608	0.035	0.145	0.021	0	0	1	13	5	0.756	0	0.884	0		0.941	0.813	0.968	9.0	0.932	1.000		0.071	0.203	15	2	0.148	17
Apr 03	Beale	0.630	0.030	0.137	0.028	0	0	9	10	3	0.853	0	0.902	0		0.958	0.823	0.958	6.0	0.919	1.000	1.000	0.031	0.229	9	3	0.137	16
May 03	Beale	0.630	0.029	0.132	0.020	1	0	3	20	2	0.717	1	0.887	0		1.000	0.814	0.935	9.5	0.930	1.000	1.000	0.050	0.222	9	3	0.117	12
Jun 03	Beale	0.630	0.039	0.109	0.021	0	1	8	18	3	0.715	0	0.899	0		0.964	0.817	0.987	14.5	0.930	0.971		0.000	0.213	22	3	0.164	21

Jul 03	Beale	0.586	0.030	0.074	0.011	0	0	5	8	3	0.700	0	0.915	0		0.938	0.797	0.971	9.5	0.937	0.917	0.000	0.042	0.199	23	3	0.164	7
Aug 03	Beale	0.586	0.050	0.148	0.030	1	0	4	14	0	0.695	1	0.904	1		0.933	0.808	0.986	15.5	0.928	0.962	1.000	0.000	0.212	9	1	0.146	0
Sep 03	Beale	0.586	0.029	0.103	0.011	0	0	7	8	2	0.731	0	0.929	0		0.909	0.844	0.991	7.0	0.956	1.000	1.000	0.000	0.252	8	0	0.105	7
Oct 03	Beale	0.563	0.020	0.089	0.031	0	2	6	19	5	0.750	0	0.897	0		0.931	0.844	1.000	10.0	0.955	1.000	1.000	0.013	0.221	17	2	0.099	2
Nov 03	Beale	0.563	0.018	0.084	0.015	1	0	4	22	2	0.746	1	0.939	0		0.909	0.847	1.000	9.0	0.957	1.000	1.000	0.019	0.226	12	2	0.124	2
Dec 03	Beale	0.563	0.031	0.105	0.019	0	0	10	18	2	0.670	0	0.903	0		0.962	0.780	0.962	9.0	0.947	1.000	1.000	0.000	0.195	8	1	0.163	4
Jan 04	Beale	0.563	0.019	0.078	0.017	1	0	5	9	0	0.859	1	0.810	0		0.957	0.874	0.986	2.0	0.934	1.000		0.000	0.219	9	2	0.098	9
Feb 04	Beale	0.563	0.012	0.096	0.019	0	0	10	12	0	0.752	0	0.784	0		0.878	0.809	1.000	6.5	0.929	1.000	0.000	0.016	0.202	11	0	0.154	2
Mar 04	Beale	0.531	0.019	0.091	0.008	1	0	7	15	3	0.640	1	0.854	0		0.906	0.868	1.000	8.5	0.944	1.000	0.000	0.007	0.228	8	1	0.092	9
Apr 04	Beale	0.563	0.470	0.100	0.041	0	1	5	14	5	0.717	0	0.902	0		0.920	0.762	0.992	15.5	0.955	1.000	1.000	0.021	0.205	10	0	0.193	14
May 04	Beale	0.563	0.046	0.094	0.012	0	0	15	15	0	0.710	0	0.938	0		0.868	0.828	1.000	9.5	0.952	1.000	0.000	0.053	0.287	9	0	0.136	11
Jun 04	Beale	0.563	0.034	0.116	0.018	0	0	10	21	0	0.714	0	0.894	0		0.873	0.747	0.926	17.0	0.959	1.000	0.000	0.026	0.226	5	0	0.188	16
Jul 04	Beale	0.563	0.048	0.148	0.022	2	0	12	7	1	0.760	2	0.923	1		0.962	0.806	0.985	10.5	0.970	0.926	1.000	0.036	0.255	8	1	0.145	24
Aug 04	Beale	0.531	0.026	0.128	0.037	0	0	6	19	1	0.672	0	0.949	0		0.962	0.811	0.985	8.5	0.959	1.000	1.000	0.033	0.251	5	1	0.143	8
Sep 04	Beale	0.563	0.038	0.121	0.020	3	0	8	6	1	0.684	3	0.944	1		0.905	0.818	0.961	7.0	0.927	1.000	1.000	0.020	0.234	6	1	0.158	19
Oct 04	Beale	0.563	0.040	0.111	0.022	2	0	8	28	1	0.699	2	0.898	1		0.827	0.794	1.000	13.0	0.931	1.000	0.500	0.053	0.199	2	0	0.165	38
Nov 04	Beale	0.563	0.053	0.116	0.022	0	0	10	23	2	0.700	0	0.862	0		0.937	0.530	0.946	11.5	0.955	1.000	1.000	0.014	0.143	10	2	0.173	17
Dec 04	Beale	0.688	0.016	0.087	0.005	0	0	10	14	2	0.648	0	0.847	0		0.918	0.824	0.980	9.5	0.959	0.971	1.000	0.000	0.263	5	1	0.152	24
Jan 03	Cannon	0.891	0.051	0.112	0.084	0	3	13		1	0.857	0	0.854	0	0.010	0.869	0.849	0.962	55.0	0.861	1.000	0.625	0.044	0.018	11	2	0.074	
Feb 03	Cannon	0.891	0.046	0.084	0.126	1	0	11		0	0.848	1	0.754	0	0.005	0.882	0.840	0.942	42.0	0.869	0.983	1.000	0.035	0.019	15	1	0.093	
Mar 03	Cannon	0.891	0.056	0.123	0.120	0	3	14		4	0.846	0	0.768	0	0.009	0.860	0.823	0.945	60.0	0.865	0.942	0.714	0.043	0.033	9	0	0.120	
Apr 03	Cannon	0.891	0.058	0.134	0.107	0	1	13		3	0.771	0	0.821	0	0.007	0.869	0.845	0.949	76.0	0.883	0.973	1.000	0.025	0.043	7	1	0.097	
May 03	Cannon	0.899	0.048	0.100	0.097	0	1	10		1	0.821	0	0.870	0	0.006	0.902	0.887	0.966	44.0	0.877	1.000	0.833	0.043	0.030	8	0	0.056	
Jun 03	Cannon	0.899	0.073	0.095	0.072	3	3	31		1	0.808	0	0.861	3	0.006	0.909	0.866	0.957	58.0	0.892	0.972	1.000	0.041	0.033	18	0	0.055	
Jul 03	Cannon	0.899	0.063	0.129	0.096	0	0	15		3	0.779	0	0.841	0	0.010	0.926	0.848	0.983	72.0	0.878	0.982	0.800	0.043	0.024	11	1	0.094	
Aug 03	Cannon	0.899	0.058	0.092	0.096	1	1	14		1	0.857	0	0.798	1	0.010	0.903	0.862	0.979	76.0	0.889	0.978	0.333	0.026	0.017	7	0	0.081	
Sep 03	Cannon	0.874	0.047	0.115	0.144	0	3	14		4	0.851	0	0.794	0	0.015	0.892	0.862	0.988	32.0	0.871	0.989	0.857	0.040	0.021	10	0	0.075	
Oct 03	Cannon	0.874	0.067	0.100	0.095	1	0	24		0	0.677	0	0.719	1	0.009	0.933	0.851	0.981	80.0	0.907	0.991	0.857	0.031	0.028	0	0	0.095	
Nov 03	Cannon	0.874	0.067	0.077	0.091	0	2	13		4	0.690	0	0.700	0	0.006	0.939	0.861	0.994	94.0	0.928	1.000	1.000	0.023	0.027	6	0	0.088	
Dec 03	Cannon	0.874	0.081	0.102	0.109	0	3	12	17	2	0.804	0	0.798	0	0.007	0.888	0.854	0.979	102.0	0.910	0.990	0.800	0.031	0.024	6	2	0.091	25
Jan 04	Cannon	0.850	0.075	0.104	0.088	0	2	9	13	1	0.723	0	0.797	0	0.009	0.896	0.858	0.989	96.0	0.905	0.988	1.000	0.036	0.027	1	0	0.074	7
Feb 04	Cannon	0.850	0.072	0.104	0.100	0	0	16	17	0	0.730	0	0.585	0	0.006	0.819	0.835	0.973	117.0	0.880	0.988	1.000	0.035	0.020	7	1	0.114	8
Mar 04	Cannon	0.850	0.057	0.096	0.087	0	1	10	25	1	0.773	0	0.812	0	0.007	0.914	0.848	0.981	75.0	0.930	0.980	0.714	0.032	0.031	4	1	0.107	11
Apr 04	Cannon	0.850	0.062	0.086	0.072	0	0	12	19	1	0.774	0	0.810	0	0.006	0.918	0.883	0.994	66.0	0.914	0.987	0.900	0.017	0.014	4	1	0.084	15
May 04	Cannon	0.850	0.054	0.087	0.067	0	1	16	15	5	0.819	0	0.737	0	0.012	0.939	0.849	0.971	116.0	0.954	0.983	0.800	0.018	0.016	17	7	0.099	45
Jun 04	Cannon	0.850	0.061	0.104	0.071	0	1	12	11	3	0.776	0	0.773	0	0.016	0.880	0.814	0.980	84.0	0.921	0.991	1.000	0.031	0.033	9	2	0.107	25
Jul 04	Cannon	0.850	0.064	0.084	0.069	0	5	11	12	0	0.726	0	0.829	0	0.015	0.906	0.860	0.993	61.0	0.932	0.984	0.800	0.033	0.019	5	0	0.089	40
Aug 04	Cannon	0.850	0.054	0.086	0.074	0	1	5	7	3	0.773	0	0.745	0	0.013	0.939	0.861	0.994	52.0	0.929	0.991	0.667	0.027	0.029	13	1	0.073	12
Sep 04	Cannon	0.856	0.083	0.100	0.097	0	3	13	11	6	0.803	0	0.662	0	0.015	0.914	0.877	0.984	66.0	0.911	0.989	1.000	0.032	0.022	21	4	0.075	14
Oct 04	Cannon	0.861	0.080	0.117	0.079	1	1	10	11	4	0.733	0	0.794	1	0.012	0.891	0.838	0.988	80.0	0.905	0.991	0.500	0.024	0.031	20	3	0.101	12
Nov 04	Cannon	0.861	0.081	0.101	0.106	0	2	15	6	6	0.756	0	0.767	0	0.019	0.890	0.835	0.950	146.0	0.905	0.985	1.000	0.025	0.019	20	4	0.113	17
Dec 04	Cannon	0.861	0.073	0.105	0.076	0	5	22	9	4	0.822	0	0.803	0	0.009	0.960	0.870	0.977	87.0	0.917	0.991	1.000	0.026	0.014	10	0	0.069	14

Jan 03	D-M	0.802	0.037	0.084	0.091	1	2	2	28	2	0.804	0	0.918	0	0.016	0.910	0.718	0.945	16.5	0.913	1.000	0.800	0.030	0.023	2	0	0.223	8
Feb 03	D-M	0.802	0.051	0.098	0.113	1	0	1	28	7	0.818	0	0.863	1	0.015	0.887	0.717	0.911	37.0	0.933	1.000	0.571	0.019	0.012	7	0	0.223	9
Mar 03	D-M	0.802	0.047	0.100	0.112	2	3	0	19	6	0.785	2	0.850	0	0.021	0.903	0.690	0.972	51.0	0.907	1.000	0.429	0.030	0.023	6	0	0.251	13
Apr 03	D-M	0.839	0.039	0.100	0.131	1	1	0	15	3	0.726	0	0.869	0	0.021	0.932	0.658	0.976	65.5	0.910	1.000	0.600	0.023	0.033	3	0	0.283	8
May 03	D-M	0.843	0.057	0.118	0.106	2	2	0	25	4	0.765	2	0.817	0	0.018	0.900	0.636	0.974	95.5	0.927	1.000	0.500	0.027	0.022	5	1	0.283	13
Jun 03	D-M	0.880	0.051	0.117	0.108	0	0	3	26	5	0.845	0	0.767	0	0.018	0.889	0.626	0.967	59.5	0.945	1.000	0.500	0.016	0.014	5	0	0.257	15
Jul 03	D-M	0.880	0.060	0.114	0.165	2	3	1	26	13	0.595	0	0.676	0	0.026	0.936	0.663	1.000	113.0	0.928	1.000	0.500	0.026	0.019	13	0	0.189	18
Aug 03	D-M	0.880	0.059	0.121	0.201	1	1	0	28	10	0.792	0	4.332	1	0.026	0.879	0.553	0.998	96.0	0.913	1.000	0.600	0.010	0.030	10	0	0.370	15
Sep 03	D-M	0.917	0.063	0.118	0.181	1	0	0	30	12	0.731	1	0.773	1	0.017	0.867	0.652	0.918	80.5	0.906	1.000	0.500	0.011	0.018	12	0	0.283	16
Oct 03	D-M	0.800	0.060	0.094	0.143	0	0	1	36	7	0.645	0	0.832	0	0.011	0.959	0.715	0.960	72.5	0.902	1.000	1.000	0.007	0.010	7	0	0.223	10
Nov 03	D-M	0.759	0.051	0.103	0.125	1	3	0	17	21	0.681	1	0.847	0	0.020	0.820	0.757	0.929	56.0	0.892	0.949	1.000	0.007	0.017	21	0	0.140	10
Dec 03	D-M	0.848	0.032	0.099	0.150	0	0	1	13	7	0.855	0	0.909	0	0.008	0.856	0.787	0.915	45.0	0.897	1.000	1.000	0.018	0.017	7	0	0.127	2
Jan 04	D-M	0.787	0.039	0.114	0.120	0	0	1	76	7	0.853	0	0.922	0	0.017	0.875	0.788	0.991	31.5	0.918	0.967	1.000	0.007	0.017	7	0	0.137	6
Feb 04	D-M	0.820	0.044	0.117	0.096	2	2	1	28	9	0.806	1	0.936	1	0.017	0.950	0.776	0.964	40.5	0.916	0.948	0.800	0.010	0.019	9	0	0.146	6
Mar 04	D-M	0.840	0.044	0.103	0.068	0	0	0	37	16	0.837	0	0.938	1	0.010	0.947	0.839	0.980	47.5	0.903	0.941	0.000	0.018	0.007	16	0	0.115	19
Apr 04	D-M	0.840	0.052	0.086	0.060	0	2	0	23	18	0.788	0	0.854	1	0.009	0.882	0.755	0.949	66.0	0.902	0.991	0.773	0.007	0.003	18	0	0.198	11
May 04	D-M	0.840	0.057	0.096	0.062	1	3	0	24	13	0.749	1	0.792	0	0.013	0.952	0.716	0.935	50.5	0.915	1.000	0.757	0.010	0.023	13	0	0.235	13
Jun 04	D-M	0.843	0.063	0.118	0.053	0	6	0	31	21	0.775	0	0.878	0	0.029	0.840	0.746	0.986	76.0	0.923	1.000	0.850	0.006	0.023	21	0	0.213	4
Jul 04	D-M	0.848	0.067	0.122	0.088	1	2	0	24	3	0.707	1	0.830	1	0.014	0.884	0.744	0.978	69.5	0.912	1.000	0.804	0.007	0.006	11	1	0.220	8
Aug 04	D-M	0.848	0.057	0.118	0.082	0	0	0	27	2	0.765	0	0.820	1	0.037	0.984	0.724	0.951	82.0	0.926	0.989	0.776	0.030	0.030	11	0	0.238	14
Sep 04	D-M	0.883	0.060	0.069	0.059	1	2	0	22	0	0.843	0	0.819	0	0.012	0.825	0.729	0.930	57.5	0.908	1.000	0.795	0.014	0.014	7	1	0.224	8
Oct 04	D-M	0.814	0.049	0.112	0.091	0	1	0	21	1	0.824	0	0.890	1	0.022	0.873	0.758	0.983	38.5	0.909	1.000	0.843	0.007	0.005	26	3	0.208	9
Nov 04	D-M	0.848	0.061	0.097	0.106	1	3	1	23	4	0.749	0	0.931	0	0.023	0.755	0.770	0.986	54.0	0.896	1.000	0.850	0.008	0.009	13	2	0.179	7
Dec 04	D-M	0.843	0.067	0.094	0.105	0	1	0	21	1	0.753	0	0.813	1	0.021	0.900	0.782	0.992	65.0	0.903	1.000	0.906	0.017	0.006	7	0	0.173	6
Jan 03	Dyess	1.000	0.162	0.088	0.583	1	0	2	23	2	0.842	1	0.698	0	0.039	0.886	0.755	0.937	61.0	0.939	1.000	0.889	0.065	0.058	5	1	0.149	11
Feb 03	Dyess	1.000	0.120	0.109	1.045	1	3	1	24	1	0.706	0	0.568	1	0.051	0.931	0.712	0.927	42.0	0.949	1.000	0.800	0.034	0.044	5	1	0.206	7
Mar 03	Dyess	1.000	0.117	0.103	0.466	0	1	0	23	0	0.476	0	0.669	0	0.041	0.853	0.706	0.898	44.0	0.940	0.976	0.800	0.042	0.035	5	1	0.211	4
Apr 03	Dyess	1.000	0.108	0.099	0.628	0	0	0	23	3	0.500	0	0.720	0	0.057	0.944	0.692	0.978	49.0	0.992	1.000		0.048	0.041	8	1	0.211	2
May 03	Dyess	1.000	0.140	0.133	0.707	0	2	0	26	0	0.583	0	0.702	0	0.054	0.857	0.764	0.981	37.0	0.932	0.907		0.048	0.040	3	1	0.139	27
Jun 03	Dyess	1.000	0.132	0.169	0.612	0	5	1	23	1	0.552	0	0.643	0	0.045	0.964	0.743	0.964	52.0	0.971	0.923	1.000	0.058	0.058	2	0	0.209	13
Jul 03	Dyess	1.000	0.160	0.099	0.605	0	2	0	34	8	0.542	0	0.660	0	0.078	0.864	0.676	0.953	70.0	0.902	1.000	1.000	0.071	0.053	18	1	0.249	14
Aug 03	Dyess	1.000	0.155	0.089	0.755	2	2	1	21	4	0.588	1	0.633	1	0.041	0.947	0.646	0.941	53.0	0.865	0.975	1.000	0.066	0.047	8	0	0.244	3
Sep 03	Dyess	1.000	0.084	0.129	1.000	1	2	0	40	8	0.500	0	0.714	1	0.059	0.750	0.647	0.948	31.0	0.919	0.941	0.800	0.087	0.040	14	0	0.238	14
Oct 03	Dyess	1.000	0.044	0.101	0.455	1	3	3	24	1	0.862	1	0.816	0	0.031	0.875	0.659	0.992	32.0	0.848	1.000	0.889	0.036	0.034	3	0	0.241	15
Nov 03	Dyess	1.000	0.105	0.072	0.567	0	1	0	9	0	0.538	0	0.718	0	0.006	0.917	0.732	0.978	35.0	0.940	1.000	1.000	0.046	0.051	4	0	0.204	8
Dec 03	Dyess	1.000	0.108	0.046	0.487	1	0	4	20	5	0.778	1	0.764	0	0.031	0.818	0.759	0.962	40.0	0.768	0.971	0.833	0.048	0.037	13	1	0.172	10
Jan 04	Dyess	1.000	0.082	0.050	0.796	1	3	1	17	3	0.556	1	0.714	0	0.022	0.944	0.740	0.955	36.0	0.918	1.000	1.000	0.067	0.032	9	0	0.217	4
Feb 04	Dyess	1.000	0.145	0.077	0.508	2	0	1	14	4	0.643	1	0.593	1	0.023	0.800	0.775	0.993	39.0	0.877	0.960	0.800	0.052	0.044	10	1	0.187	10
Mar 04	Dyess	1.000	0.135	0.155	0.395	2	2	1	23	5	0.600	1	0.737	1	0.108	0.867	0.766	0.935	54.0	0.882	0.927	0.842	0.046	0.044	16	0	0.184	6
Apr 04	Dyess	1.000	0.123	0.114	0.642	1	1	1	31	7	0.308	0	0.843	1	0.036	0.774	0.651	0.966	33.0	0.883	0.961	0.650	0.078	0.048	15	1	0.228	10
May 04	Dyess	1.000	0.081	0.126	0.353	1	1	2	17	4	0.630	1	0.808	0	0.026	0.913	0.669	0.955	33.0	0.886	0.984	0.800	0.016	0.028	11	0	0.222	5
Jun 04	Dyess	0.993	0.176	0.170	0.605	1	4	1	18	4	0.560	1	0.616	0	0.087	0.870	0.588	0.951	51.0	0.840	0.917	1.000	0.026	0.038	14	1	0.325	2

Jul 04	Dyess	0.962	0.089	0.154	0.886	2	2	2	17	10	0.516	1	0.658	1	0.093	0.833	0.530	0.881	61.0	0.821	0.877	0.750	0.039	0.030	32	3	0.377	12
Aug 04	Dyess	0.960	0.115	0.104	0.633	1	1	2	8	11	0.391	0	0.582	1	0.041	0.722	0.617	0.948	80.0	0.768	0.860	0.889	0.043	0.039	20	4	0.288	9
Sep 04	Dyess	0.952	0.137	0.142	0.895	0	1	0	19	32	0.435	0	0.581	0	0.056	0.875	0.582	0.917	58.0	0.843	0.946	1.000	0.072	0.017	48	3	0.333	0
Oct 04	Dyess	0.992	0.124	0.106	1.037	1	1	0	11	20	0.350	0	0.463	1	0.032	0.820	0.532	0.868	78.0	0.864	0.868	0.906	0.040	0.043	38	2	0.351	12
Nov 04	Dyess	0.993	0.123	0.151	0.778	2	0	3	14	22	0.393	2	0.429	0	0.043	0.659	0.445	0.954	96.0	0.852	0.939	0.765	0.038	0.032	41	5	0.425	9
Dec 04	Dyess	0.993	0.155	0.167	0.810	1	1	0	5	8	0.345	0	0.564	1	0.046	0.765	0.501	0.965	85.0	0.888	1.000	0.667	0.030	0.051	26	0	0.370	10
Jan 03	Ellsworth	0.800	0.139	0.261	0.659	1	1	0	6	3	0.444	0	0.610	1	0.017	1.000	0.624	0.987	40.0	0.940	1.000		0.019	0.013	3	0	0.284	13
Feb 03	Ellsworth	0.800	0.093	0.161	0.214	0	2	1	0	2	0.516	0	0.746	0	0.016	0.970	0.652	0.982	32.0	0.940	0.970		0.018	0.027	2	0	0.251	18
Mar 03	Ellsworth	0.800	0.106	0.206	0.251	1	0	0	30	0	0.667	0	0.854	1	0.004	1.000	0.769	1.000	17.0	0.970	0.980		0.029	0.027	0	0	0.173	34
Apr 03	Ellsworth	0.800	0.053	0.167	0.276	1	1	3	42	8	0.676	1	0.904	0	0.027	0.920	0.759	0.993	11.0	0.930	1.000		0.027	0.018	8	0	0.178	46
May 03	Ellsworth	0.800	0.181	0.340	0.240	1	1	1	7	0	0.529	1	0.676	0	0.040	0.960	0.609	1.000	27.0	0.940	1.000		0.011	0.011	0	0	0.335	47
Jun 03	Ellsworth	0.800	0.151	0.282	0.179	0	2	0	3	2	0.477	0	0.651	0	0.032	0.920	0.690	0.965	38.0	0.950	0.930		0.018	0.020	8	0	0.252	17
Jul 03	Ellsworth	0.793	0.164	0.273	0.235	1	2	1	20	7	0.627	1	0.721	0	0.021	0.950	0.744	0.968	44.0	0.930	1.000		0.029	0.024	2	7	0.197	3
Aug 03	Ellsworth	0.793	0.155	0.225	0.364	1	2	1	11	2	0.615	1	0.738	0	0.017	0.970	0.690	0.983	33.0	0.940	1.000		0.034	0.034	1	1	0.214	32
Sep 03	Ellsworth	0.793	0.090	0.240	0.480	0	0	1	14	0	0.533	0	0.634	0	0.016	0.980	0.716	0.989	24.0	0.980	1.000	1.000	0.021	0.021	0	0	0.187	24
Oct 03	Ellsworth	0.793	0.106	0.266	0.578	0	2	1	21	1	0.528	0	0.775	0	0.030	0.990	0.693	0.991	25.0	0.960	0.990	0.880	0.063	0.038	0	1	0.203	11
Nov 03	Ellsworth	0.793	0.101	0.192	0.689	0	4	3	20	0	0.382	0	0.751	0	0.012	0.940	0.699	0.970	31.0	0.970	1.000	1.000	0.045	0.018	2	0	0.213	4
Dec 03	Ellsworth	0.815	0.079	0.192	0.833	0	1	0	21	11	0.783	0	0.856	0	0.008	0.940	0.749	0.965	15.0	0.910	1.000	1.000	0.021	0.026	8	2	0.135	20
Jan 04	Ellsworth	0.793	0.092	0.251	0.620	0	0	0	17	9	0.651	0	0.738	0	0.018	0.970	0.646	0.978	34.0	0.940	0.980	0.930	0.024	0.026	7	1	0.236	12
Feb 04	Ellsworth	0.793	0.124	0.244	0.583	0	3	0	18	4	0.610	0	0.745	0	0.018	0.930	0.652	0.994	37.0	0.930	0.980	0.700	0.021	0.045	8	0	0.223	3
Mar 04	Ellsworth	0.793	0.095	0.271	0.597	0	0	0	12	4	0.615	0	0.675	0	0.028	0.980	0.699	0.986	34.0	0.920	0.990	0.850	0.018	0.021	5	3	0.221	19
Apr 04	Ellsworth	0.779	0.132	0.262	0.460	0	7	0	21	2	0.816	0	0.764	0	0.016	0.890	0.648	0.962	30.0	0.940	0.980	1.000	0.030	0.013	4	3	0.285	11
May 04	Ellsworth	0.815	0.123	0.199	0.440	0	1	0	12	1	0.636	0	0.519	0	0.018	0.850	0.662	1.000	70.0	0.950	1.000	0.920	0.011	0.022	3	1	0.229	4
Jun 04	Ellsworth	0.815	0.174	0.230	0.708	0	2	0	7	3	0.541	0	0.506	0	0.031	0.910	0.649	0.997	54.0	0.920	0.920	0.670	0.022	0.014	2	1	0.267	8
Jul 04	Ellsworth	0.815	0.147	0.232	0.702	0	1	1	18	2	0.487	0	0.715	0	0.048	0.910	0.702	0.987	29.0	0.950	1.000	0.800	0.025	0.027	1	0	0.205	10
Aug 04	Ellsworth	0.797	0.087	0.237	0.433	1	1	1	8	3	0.565	1	0.718	0	0.021	0.920	0.673	0.986	34.0	0.880	1.000	0.750	0.022	0.018	2	5	0.230	21
Sep 04	Ellsworth	0.797	0.075	0.241	0.809	1	1	1	14	1	0.529	0	0.780	1	0.042	0.760	0.682	0.947	18.0	0.890	0.860	0.330	0.009	0.047	5	5	0.210	11
Oct 04	Ellsworth	0.797	0.084	0.202	0.650	0	1	1	18	4	0.541	0	0.737	0	0.011	0.630	0.704	0.970	31.0	0.850	0.980	0.000	0.029	0.023	2	4	0.191	7
Nov 04	Ellsworth	0.818	0.141	0.217	0.834	0	2	0	8	9	0.526	0	0.731	0	0.029	0.870	0.671	0.967	32.0	0.830	0.920	0.600	0.020	0.029	6	8	0.189	12
Dec 04	Ellsworth	0.815	0.176	0.223	0.711	0	2	0	9	8	0.667	0	0.598	0	0.025	0.700	0.734	0.962	38.0	0.880	0.940	0.000	0.011	0.008	9	2	0.149	19
Jan 03	Holloman	1.000	0.058	0.079	0.004	1	1	0	11	4	0.805	1	0.757	0	0.010	0.921	0.752	0.949	70	0.896	0.970	1.000	0.016	0.011	4	0	0.230	9
Feb 03	Holloman	1.000	0.065	0.050	0.007	0	0	0	6	1	0.750	0	0.733	0	0.020	0.846	0.772	0.785	73	0.944	1.000	0.000	0.033	0.008	16	1	0.183	7
Mar 03	Holloman	1.000	0.061	0.085	0.017	1	1	3	6	0	0.804	0	0.879	1	0.040	1.000	0.824	0.832	20	0.890	1.000		0.056	0.006	14	0	0.127	16
Apr 03	Holloman	1.000	0.045	0.070	0.018	1	2	0	19	3	0.593	0	0.740	1	0.000	0.833	0.845	0.841	23	0.833	1.000		0.048	0.036	19	0	0.107	13
May 03	Holloman	1.000	0.035	0.078	0.003	0	1	1	5	0	0.622	0	0.823	0	0.030	0.941	0.806	0.919	28	0.897	1.000	1.000	0.040	0.007	32	4	0.165	4
Jun 03	Holloman	1.000	0.035	0.069	0.017	0	2	2	2	1	0.727	0	0.822	0	0.050	0.885	0.759	0.950	66	0.878	0.967	0.500	0.024	0.042	11	2	0.221	23
Jul 03	Holloman	1.000	0.037	0.069	0.007	0	2	5	13	2	0.809	0	0.896	0	0.090	0.936	0.795	0.990	51	0.908	1.000	1.000	0.050	0.040	18	3	0.202	16
Aug 03	Holloman	1.000	0.039	0.080	0.012	0	0	2	14	2	0.604	0	0.779	0	0.050	0.846	0.719	0.813	105	0.917	1.000	1.000	0.025	0.025	31	7	0.252	14
Sep 03	Holloman	1.000	0.045	0.067	0.010	1	0	1	12	2	0.659	1	0.693	0	0.020	0.936	0.774	0.991	86	0.916	1.000	1.000	0.026	0.013	17	1	0.214	25
Oct 03	Holloman	1.000	0.045	0.060	0.013	0	3	0	7	3	0.643	0	0.767	0	0.120	0.762	0.756	0.963	59	0.834	0.976	0.800	0.039	0.011	25	2	0.215	44
Nov 03	Holloman	1.000	0.054	0.091	0.018	0	2	0	12	2	0.800	0	0.624	0	0.080	0.727	0.744	0.912	98	0.870	0.921	0.333	0.041	0.023	20	2	0.237	4
Dec 03	Holloman	1.000	0.042	0.086	0.022	0	0	0	15	0	0.824	0	0.680	0	0.000	0.771	0.710	0.920	106	0.873	0.944	0.750	0.031	0.036	19	5	0.254	10

Jan 04	Holloman	1.000	0.055	0.089	0.007	0	2	1	4	2	0.741	0	0.663	0	0.060	0.876	0.700	0.966	112	0.847	1.000	0.833	0.030	0.035	21	2	0.276	10
Feb 04	Holloman	1.000	0.061	0.102	0.016	1	1	2	4	0	0.734	0	0.693	1	0.060	0.818	0.725	0.960	79	0.918	1.000	0.250	0.030	0.025	20	3	0.244	14
Mar 04	Holloman	1.000	0.029	0.081	0.026	0	1	0	7	2	0.710	0	0.758	0	0.070	0.889	0.763	0.972	64	0.928	1.000	1.000	0.023	0.017	15	3	0.210	19
Apr 04	Holloman	1.000	0.035	0.063	0.012	0	0	0	13	1	0.784	0	0.746	0	0.080	0.865	0.754	0.972	96	0.915	0.987	0.750	0.042	0.030	12	5	0.223	16
May 04	Holloman	1.000	0.052	0.079	0.027	1	0	1	8	2	0.820	0	0.836	1	0.080	0.889	0.777	0.953	51	0.926	0.984	0.667	0.041	0.007	5	1	0.193	20
Jun 04	Holloman	1.000	0.069	0.099	0.013	0	1	0	11	2	0.630	0	0.665	0	0.060	0.889	0.712	0.960	82	0.849	1.000	1.000	0.028	0.028	18	2	0.261	35
Jul 04	Holloman	1.000	0.054	0.073	0.013	1	1	0	11	2	0.864	0	0.663	1	0.050	0.818	0.818	0.960	62	0.816	1.000	0.000	0.065	0.052	15	0	0.158	14
Aug 04	Holloman	1.000	0.068	0.095	0.020	1	2	0	10	3	0.742	1	0.709	0	0.130	0.790	0.770	0.948	120	0.827	1.000	0.500	0.026	0.021	23	0	0.186	44
Sep 04	Holloman	1.000	0.055	0.097	0.045	0	1	1	7	2	0.822	0	0.821	0	0.040	0.805	0.807	0.966	57	0.830	1.000	0.500	0.023	0.045	12	1	0.157	17
Oct 04	Holloman	1.000	0.063	0.090	0.018	0	0	0	9	6	0.667	0	0.682	0	0.030	0.771	0.776	0.977	52	0.791	0.967	0.750	0.018	0.009	28	6	0.200	3
Nov 04	Holloman	1.000	0.092	0.105	0.010	0	0	0	0	4	0.545	0	0.723	0	0.090	0.462	0.732	0.985	54	0.859	0.895	0.000	0.056	0.063	20	4	0.239	29
Dec 04	Holloman	1.000	0.054	0.116	0.015	0	0	0	11	3	0.758	0	0.683	0	0.070	0.744	0.611	0.928	203	0.878	0.952	1.000	0.015	0.020	22	0	0.364	9
Jan 03	Langley	0.855	0.095	0.176	0.137	0	0	3	5	1	0.568	0	0.552	0	0.000	0.870	0.799	0.963	67	0.920	1.000	1.000	0.019	0.022	13	5	0.153	8
Feb 03	Langley	0.855	0.087	0.197	0.123	0	1	1	12	3	0.536	0	0.527	0	0.000	0.870	0.785	0.982	73	0.930	1.000	0.600	0.017	0.017	9	2	0.151	1
Mar 03	Langley	0.855	0.056	0.162	0.174	0	2	1	18	0	0.567	0	0.729	0	0.000	0.860	0.837	0.961	57	0.940	1.000	1.000	0.013	0.013	2	1	0.118	3
Apr 03	Langley	0.855	0.070	0.151	0.124	0	4	6	17	0	0.703	0	0.765	0	0.000	0.870	0.844	0.980	64	0.890	1.000	1.000	0.011	0.006	4	1	0.113	2
May 03	Langley	0.855	0.071	0.112	0.075	0	0	0	19	3	0.550	0	0.793	0	0.002	0.880	0.831	0.982	55	0.890	1.000	0.710	0.021	0.022	14	6	0.131	3
Jun 03	Langley	0.855	0.054	0.087	0.059	0	2	1	19	4	0.669	0	0.894	0	0.000	0.860	0.853	0.996	47	0.880	1.000	0.420	0.016	0.011	15	4	0.115	17
Jul 03	Langley	0.855	0.062	0.120	0.071	1	1	1	16	1	0.509	1	0.762	0	0.000	0.880	0.849	0.969	96	0.900	1.000	0.710	0.017	0.007	11	1	0.133	5
Aug 03	Langley	0.855	0.039	0.122	0.100	0	1	1	12	1	0.549	0	0.825	0	0.002	0.920	0.819	0.972	74	0.920	1.000	0.600	0.023	0.017	12	0	0.149	3
Sep 03	Langley	0.855	0.061	0.137	0.144	0	1	1	14	2	0.527	0	0.459	0	0.001	0.950	0.852	0.908	26	0.920	1.000	1.000	0.022	0.009	4	1	0.119	3
Oct 03	Langley	0.855	0.072	0.137	0.079	0	4	2	21	1	0.615	0	0.800	0	0.000	0.930	0.807	0.929	89	0.910	1.000	0.670	0.017	0.004	12	1	0.162	3
Nov 03	Langley	0.855	0.052	0.096	0.080	1	0	0	19	1	0.567	0	0.900	1	0.000	0.850	0.849	0.945	46	0.900	1.000	0.750	0.002	0.004	11	4	0.117	0
Dec 03	Langley	0.855	0.088	0.167	0.081	0	3	3	22	0	0.678	0	0.733	0	0.004	0.870	0.831	0.872	93	0.930	1.000	0.710	0.029	0.022	3	2	0.135	6
Jan 04	Langley	0.855	0.054	0.123	0.061	0	6	2	35	2	0.625	0	0.811	0	0.001	0.880	0.862	0.906	52	0.920	0.980	0.710	0.023	0.031	5	0	0.103	1
Feb 04	Langley	0.855	0.062	0.115	0.098	0	5	6	28	3	0.685	0	0.845	0	0.004	0.890	0.816	0.929	53	0.920	0.980	0.430	0.035	0.019	8	1	0.145	4
Mar 04	Langley	0.855	0.051	0.134	0.088	1	2	0	43	1	0.624	0	0.824	1	0.001	0.860	0.828	0.937	62	0.940	0.980	0.750	0.046	0.041	5	2	0.129	8
Apr 04	Langley	0.855	0.058	0.126	0.045	0	5	3	12	2	0.683	0	0.844	0	0.000	0.860	0.821	0.937	86	0.930	0.980	0.500	0.041	0.019	2	0	0.136	1
May 04	Langley	0.855	0.070	0.118	0.079	0	4	2	18	2	0.545	0	0.795	0	0.002	0.910	0.823	0.952	136	0.920	0.960	0.670	0.023	0.017	10	1	0.133	6
Jun 04	Langley	0.855	0.054	0.125	0.089	0	4	2	20	0	0.669	0	0.781	0	0.000	0.840	0.797	0.950	63	0.940	0.950	0.500	0.037	0.034	8	4	0.150	7
Jul 04	Langley	0.839	0.059	0.141	0.109	0	2	0	17	2	0.639	0	0.791	0	0.003	0.830	0.798	0.996	62	0.900	0.950	0.330	0.023	0.033	14	7	0.163	10
Aug 04	Langley	0.839	0.072	0.127	0.140	0	4	0	14	1	0.612	0	0.669	0	0.001	0.880	0.784	0.988	62	0.920	0.990	0.330	0.036	0.016	12	2	0.179	1
Sep 04	Langley	0.839	0.075	0.128	0.152	2	2	1	30	4	0.750	2	0.783	0	0.002	0.840	0.838	0.984	44	0.920	1.000	0.500	0.027	0.019	12	4	0.120	2
Oct 04	Langley	0.871	0.057	0.115	0.058	0	3	0	18	3	0.635	0	0.818	0	0.003	0.850	0.776	0.989	90	0.900	0.980	0.670	0.043	0.022	29	9	0.174	3
Nov 04	Langley	0.871	0.064	0.161	0.083	0	4	1	12	10	0.676	0	0.795	0	0.003	0.860	0.819	0.966	62	0.910	0.970	0.670	0.018	0.014	18	1	0.139	7
Dec 04	Langley	0.871	0.067	0.183	0.065	0	1	0	17	3	0.691	0	0.844	0	0.002	0.870	0.859	0.984	62	0.930	1.000	0.670	0.014	0.012	9	2	0.115	3
Jan 03	Minot	0.884	0.067	0.576	0.447	1	0	14	8	2	0.653	1	0.557	0	0.002	1.000	0.740	0.975	23.0	0.928	0.970	0.810	0.062	0.045	6	1	0.186	5
Feb 03	Minot	0.884	0.063	0.533	0.640	0	0	14	14	2	0.625	0	0.557	0	0.013	1.000	0.801	0.975	19.0	0.876	1.000	0.571	0.022	0.038	6	0	0.134	2
Mar 03	Minot	0.884	0.050	0.832	0.863	0	0	7	6	0	0.582	0	0.827	0	0.032	1.000	0.723	0.916	10.0	0.932	1.000	0.777	0.024	0.024	5	1	0.198	5
Apr 03	Minot	0.884	0.009	0.627	0.609	1	0	7	15	2	0.580	1	0.956	0	0.027	1.000	0.698	1.000	0.0	0.934	0.985	0.881	0.088	0.053	2	0	0.206	6
May 03	Minot	0.884	0.105	0.569	0.745	0	0	4	6	6	0.759	0	0.643	0	0.000	1.000	0.832	0.955	16.0	0.881	1.000	0.800	0.022	0.030	10	2	0.111	2
Jun 03	Minot	0.884	0.091	0.742	0.403	0	2	14	9	1	0.717	0	0.677	0	0.048	1.000	0.850	1.000	19.0	0.942	1.000	0.881	0.032	0.042	4	0	0.081	8

Jul 03	Minot	0.884	0.058	0.574	0.765	0	1	5	19	3	0.795	0	0.623	0	0.015	1.000	0.835	0.989	21.0	0.921	0.971	0.700	0.046	0.022	11	1	0.103	6
Aug 03	Minot	0.884	0.051	0.636	0.584	0	3	4	9	5	0.673	0	0.526	0	0.065	1.000	0.868	0.979	18.0	0.878	0.992	0.700	0.051	0.045	8	1	0.072	4
Sep 03	Minot	0.884	0.053	0.537	0.981	0	0	8	6	0	0.621	0	0.717	0	0.000	1.000	0.826	0.966	6.0	0.927	0.976	0.897	0.075	0.040	2	0	0.106	3
Oct 03	Minot	0.884	0.000	0.754	0.623	0	0	12	19	3	0.596	0	0.551	0	0.043	1.000	0.800	0.931	22.0	0.869	0.986	0.857	0.067	0.039	8	0	0.130	3
Nov 03	Minot	0.884	0.077	0.672	0.443	0	1	7	28	9	0.585	0	0.600	0	0.000	1.000	0.767	0.977	13.0	0.944	1.000	0.947	0.030	0.045	19	0	0.115	4
Dec 03	Minot	0.884	0.090	0.710	0.516	0	1	11	16	5	0.682	0	0.449	0	0.016	0.933	0.848	0.958	23.0	0.957	0.975	0.957	0.060	0.054	12	1	0.116	7
Jan 04	Minot	0.940	0.121	0.608	0.353	1	0	6	22	3	0.710	0	0.319	1	0.000	1.000	0.845	0.960	25.0	0.857	0.967	0.619	0.065	0.036	9	0	0.104	4
Feb 04	Minot	0.940	0.046	0.645	0.387	0	0	5	11	5	0.550	0	0.294	0	0.048	0.929	0.754	0.943	31.0	0.904	1.000	0.909	0.034	0.037	7	1	0.154	4
Mar 04	Minot	0.940	0.080	0.707	0.293	0	1	5	21	0	0.759	0	0.470	0	0.012	1.000	0.763	1.000	31.0	0.976	1.000	0.933	0.036	0.036	4	1	0.130	7
Apr 04	Minot	0.940	0.069	0.568	0.346	0	0	5	31	1	0.761	0	0.266	0	0.000	1.000	0.742	0.984	29.0	0.916	0.992	0.857	0.039	0.044	1	0	0.128	5
May 04	Minot	0.940	0.066	0.394	0.394	0	0	3	20	0	0.714	0	0.486	0	0.028	1.000	0.805	0.987	26.0	0.919	1.000		0.034	0.024	1	0	0.115	0
Jun 04	Minot	0.940	0.068	0.600	0.382	0	1	5	8	1	0.636	0	0.527	0	0.073	1.000	0.836	0.965	17.0	0.934	1.000	0.925	0.031	0.017	4	0	0.103	5
Jul 04	Minot	0.940	0.105	0.610	0.442	0	0	10	7	1	0.617	0	0.470	0	0.013	1.000	0.781	0.981	33.0	0.921	1.000	0.750	0.046	0.059	2	0	0.147	1
Aug 04	Minot	0.940	0.093	0.647	0.544	2	2	4	20	7	0.659	1	0.486	1	0.015	1.000	0.800	0.973	26.0	0.960	0.987	0.909	0.062	0.020	10	0	0.125	7
Sep 04	Minot	0.890	0.062	0.677	0.452	1	0	9	10	3	0.738	0	0.578	1	0.048	1.000	0.818	0.949	17.0	0.971	1.000	0.909	0.054	0.014	4	0	0.121	8
Oct 04	Minot	0.912	0.141	0.679	0.696	0	1	12	21	0	0.737	0	0.724	0	0.036	1.000	0.800	0.955	14.0	0.959	0.985	0.869	0.031	0.031	3	0	0.134	4
Nov 04	Minot	0.912	0.118	0.750	0.433	0	1	15	18	1	0.756	0	0.565	0	0.000	0.875	0.821	0.959	25.0	0.955	0.991	0.864	0.034	0.039	2	0	0.103	4
Dec 04	Minot	0.912	0.075	0.651	0.571	0	0	13	13	2	0.659	0	0.460	0	0.000	1.000	0.778	0.935	30.0	0.957	1.000	0.952	0.015	0.025	9	0	0.135	1
Jan 03	M-H	0.860	0.076	0.139	0.190	1	3	3	35		0.692	1	0.683	0	0.008		0.707	0.963	20.3				0.030	0.020			0.231	19
Feb 03	M-H	0.860	0.076	0.157	0.151	1	2	1	22		0.750	0	0.716	1	0.005		0.748	0.980	21.3				0.037	0.007			0.177	21
Mar 03	M-H	0.831	0.054	0.125	0.113	1	0	4	19		0.781	0	0.840	0	0.002		0.739	0.977	20.3				0.037	0.018			0.150	7
Apr 03	M-H	0.831	0.060	0.115	0.112	1	1	2	21		0.665	1	0.768	1	0.008		0.755	0.969	26.0				0.034	0.013			0.160	13
May 03	M-H	0.831	0.059	0.113	0.112	0	1	5	26		0.639	0	0.712	0	0.008		0.713	0.977	38.0				0.028	0.014			0.171	3
Jun 03	M-H	0.820	0.071	0.115	0.115	0	3	0	30		0.670	0	0.780	0	0.014		0.757	0.982	28.3				0.018	0.012			0.143	18
Jul 03	M-H	0.820	0.069	0.143	0.167	0	0	3	56		0.600	0	0.731	0	0.014		0.741	0.965	49.3				0.036	0.025			0.178	12
Aug 03	M-H	0.820	0.071	0.167	0.171	1	2	2	36		0.648	0	0.674	1	0.015		0.745	0.997	33.7	0.900			0.045	0.050			0.162	11
Sep 03	M-H	0.820	0.064	0.128	0.155	1	0	4	31		0.721	0	0.790	0	0.006		0.724	0.964	29.3	0.900			0.034	0.030			0.163	8
Oct 03	M-H	0.820	0.069	0.122	0.139	1	2	1	30		0.623	0	0.739	0	0.008		0.757	0.986	37.0	0.910			0.033	0.019			0.158	12
Nov 03	M-H	0.841	0.057	0.124	0.227	0	1	1	20	5	0.725	0	0.730	0	0.014		0.752	0.983	34.3	0.890			0.024	0.017	9	3	0.173	25
Dec 03	M-H	0.841	0.057	0.153	0.139	0	1	3	18	2	0.750	0	0.749	0	0.008		0.847	0.980	15.0	0.900			0.027	0.007	3	0	0.096	6
Jan 04	M-H	0.841	0.066	0.120	0.148	1	1	2	15	3	0.797	0	0.612	1	0.001	0.840	0.841	0.997	12.7	0.900		0.850	0.020	0.015	6	0	0.087	7
Feb 04	M-H	0.841	0.060	0.117	0.120	3	1	0	24	6	0.776	0	0.770	2	0.004	0.960	0.798	0.993	20.3	0.920		0.940	0.021	0.010	16	8	0.109	17
Mar 04	M-H	0.841	0.061	0.101	0.114	1	1	2	30	0	0.771	0	0.813	1	0.004	0.960	0.829	0.981	27.0	0.930		0.930	0.022	0.015	4	3	0.101	12
Apr 04	M-H	0.841	0.053	0.119	0.105	0	1	1	29	0	0.781	0	0.806	0	0.005	0.910	0.849	0.990	23.3	0.900		1.000	0.020	0.014	3	1	0.083	25
May 04	M-H	0.841	0.079	0.106	0.124	0	4	4	22	7	0.843	0	0.769	0	0.004	0.980	0.847	0.989	25.0	0.890		0.910	0.023	0.019	16	6	0.092	17
Jun 04	M-H	0.841	0.050	0.106	0.084	1	1	1	21	7	0.746	0	0.846	0	0.005	0.890	0.841	0.995	13.0	0.900		0.860	0.020	0.015	20	6	0.091	13
Jul 04	M-H	0.841	0.055	0.107	0.107	2	2	2	20	8	0.701	0	0.791	2	0.004	0.870	0.840	0.991	22.3	0.870		0.600	0.020	0.019	22	9	0.091	17
Aug 04	M-H	0.841	0.075	0.091	0.109	2	0	3	27	10	0.771	1	0.671	0	0.011	0.960	0.861	0.989	31.7	0.920		0.870	0.023	0.011	21	3	0.071	4
Sep 04	M-H	0.841	0.065	0.106	0.166	1	1	2	30	4	0.787	0	0.790	1	0.008	0.980	0.853	0.998	18.0	0.920		0.930	0.021	0.008	10	2	0.089	15
Oct 04	M-H	0.822	0.072	0.111	0.116	1	3	1	14	0	0.718	0	0.849	1	0.008	0.920	0.859	0.997	19.7	0.910		1.000	0.024	0.015	8	5	0.077	9
Nov 04	M-H	0.815	0.084	0.130	0.135	0	0	0	28	7	0.767	0	0.849	0	0.015	0.910	0.786	0.992	23.0	0.910		0.900	0.023	0.006	19	7	0.140	14
Dec 04	M-H	0.815	0.057	0.124	0.144	4	1	0	38	14	0.717	0	0.844	0	0.005	0.930	0.838	0.990	35.7	0.890		0.830	0.032	0.019	32	6	0.106	10

Jan 03	Nellis	0.867	0.037	0.137	0.153	2	2	15	62	1	0.574	2	0.865	0	0.016	0.833	0.697	0.965	13.0	0.900	0.980	0.931	0.039	0.134	14	0	0.172	21
Feb 03	Nellis	0.867	0.052	0.101	0.138	1	1	19	33	0	0.811	0	0.866	1	0.008	0.860	0.734	0.975	13.2	0.924	0.960	0.913	0.028	0.133	9	0	0.170	29
Mar 03	Nellis	0.867	0.044	0.113	0.102	0	3	14	30	0	0.689	0	0.845	0	0.013	0.838	0.753	0.959	9.6	0.912	0.970	0.926	0.034	0.132	6	1	0.186	10
Apr 03	Nellis	0.867	0.052	0.110	0.093	2	3	11	19	1	0.722	0	0.905	2	0.005	0.818	0.776	1.474	7.6	0.914	0.960	0.911	0.034	0.142	5	0	0.149	18
May 03	Nellis	0.867	0.051	0.099	0.099	1	4	20	25	0	0.626	1	0.860	0	0.008	0.783	0.770	0.977	9.0	0.904	0.950	0.930	0.039	0.151	10	0	0.139	47
Jun 03	Nellis	0.867	0.054	1.610	0.119	1	4	14	39	1	0.734	0	0.868	1	0.005	0.855	0.726	0.972	14.7	0.918	0.960	0.913	0.056	0.136	4	1	0.152	26
Jul 03	Nellis	0.867	0.071	0.116	0.115	0	3	20	25	3	0.641	0	0.774	0	0.014	0.885	0.679	0.941	20.8	0.910	0.960	0.915	0.039	0.128	9	0	0.200	16
Aug 03	Nellis	0.867	0.056	0.145	0.150	0	3	38	69	0	0.527	0	0.775	0	0.011	0.748	0.714	0.944	13.0	0.916	0.980	0.910	0.039	0.133	15	2	0.244	37
Sep 03	Nellis	0.867	0.067	0.106	0.137	1	2	34	59	0	0.665	1	0.786	0	0.010	0.785	0.738	0.940	12.3	0.906	0.940	0.889	0.033	0.136	8	3	0.198	26
Oct 03	Nellis	0.867	0.077	0.132	0.140	0	4	18	44	1	0.688	0	0.829	0	0.006	0.833	0.744	0.960	11.3	0.906	0.940	0.949	0.045	0.134	10	1	0.203	25
Nov 03	Nellis	0.867	0.100	0.125	0.105	0	2	17	28	2	0.765	0	0.785	0	0.009	0.798	0.732	0.933	15.5	0.924	0.970	0.940	0.031	0.127	12	0	0.182	9
Dec 03	Nellis	0.867	0.082	0.104	0.146	0	0	17	46	1	0.622	0	0.806	0	0.011	0.843	0.735	0.942	16.5	0.904	0.990	0.918	0.026	0.127	12	3	0.192	12
Jan 04	Nellis	0.867	0.087	0.177	0.117	3	0	25	34	4	0.724	1	0.855	2	0.006	0.882	0.702	0.936	10.5	0.923	0.980	0.941	0.041	0.125	9	1	0.189	11
Feb 04	Nellis	0.867	0.070	0.163	0.126	0	3	18	30	5	0.754	0	0.774	0	0.010	0.852	0.723	0.935	10.8	0.906	0.960	0.911	0.029	0.128	12	0	0.216	3
Mar 04	Nellis	0.867	0.064	0.147	0.135	1	3	19	51	6	0.675	1	0.870	0	0.011	0.866	0.682	0.962	12.2	0.914	0.970	0.918	0.025	0.128	13	1	0.182	9
Apr 04	Nellis	0.867	0.065	0.152	0.137	3	3	19	45	2	0.521	2	0.808	1	0.008	0.856	0.707	0.952	9.7	0.927	0.960	0.936	0.038	0.131	6	1	0.232	16
May 04	Nellis	0.867	0.088	0.146	0.150	1	2	12	24	3	0.622	1	0.776	0	0.009	0.799	0.711	0.963	10.7	0.888	0.950	0.781	0.036	0.124	20	2	0.192	10
Jun 04	Nellis	0.867	0.079	0.166	0.161	2	1	17	78	2	0.718	1	0.813	1	0.011	0.899	0.704	0.968	13.7	0.927	0.960	0.975	0.034	0.121	7	0	0.211	20
Jul 04	Nellis	0.933	0.081	0.167	0.198	2	0	13	65	3	0.651	1	0.823	1	0.009	0.860	0.746	0.970	9.2	0.909	0.960	1.000	0.034	0.136	13	1	0.221	26
Aug 04	Nellis	0.933	0.064	0.154	0.172	1	5	16	66	0	0.726	0	0.875	1	0.014	0.852	0.780	0.975	6.3	0.904	0.980	0.829	0.037	0.136	15	1	0.173	25
Sep 04	Nellis	0.933	0.101	0.179	0.135	3	4	15	60	0	0.774	2	0.850	1	0.013	0.873	0.769	0.953	10.0	0.896	0.940	0.867	0.037	0.136	8	1	0.159	9
Oct 04	Nellis	0.933	0.095	0.175	0.179	1	3	8	51	2	0.708	0	0.734	1	0.002	0.884	0.771	0.944	5.2	0.907	0.940	0.878	0.033	0.138	5	0	0.155	31
Nov 04	Nellis	0.933	0.101	0.148	0.175	0	1	13	55	2	0.661	0	0.869	0	0.009	0.834	0.792	0.950	15.5	0.919	0.970	1.000	0.042	0.142	12	3	0.168	16
Dec 04	Nellis	0.933	0.090	0.160	0.141	0	1	12	52	0	0.669	0	0.761	0	0.006	0.912	0.777	0.951	29.5	0.924	0.930	0.941	0.047	0.154	10	1	0.141	18
Jan 03	Offutt	0.652	0.058	0.142	0.088	0	1	4	8	6	0.363	0	0.675	0	0.002	0.804	0.661	0.899	12.0	0.925	1.000	1.000	0.008	0.009	8	2	0.312	10
Feb 03	Offutt	0.652	0.056	0.109	0.196	0	1	6	14	3	0.228	0	0.590	0	0.009	0.962	0.732	0.912	18.0	0.953	1.000	1.000	0.020	0.029	6	3	0.217	12
Mar 03	Offutt	0.652	0.040	0.104	0.178	0	1	0	4	7	0.268	0	0.746	0	0.000	0.864	0.708	0.784	8.5	0.920	1.000	1.000	0.001	0.009	7	0	0.200	30
Apr 03	Offutt	0.652	0.050	0.116	0.067	0	1	0	5	3	0.784	0	0.819	0	0.000	0.833	0.769	0.859	9.5	0.942	1.000	1.000	0.012	0.002	3	0	0.137	35
May 03	Offutt	0.652	0.037	0.101	0.113	0	0	0	16	2	0.722	0	0.762	0	0.003	0.947	0.803	0.922	15.5	0.940	0.889	1.000	0.010	0.015	2	0	0.140	21
Jun 03	Offutt	0.652	0.024	0.113	0.071	0	1	0	12	1	0.810	0	0.746	0	0.005	0.818	0.816	0.716	10.5	0.963	1.000	1.000	0.022	0.013	3	2	0.156	15
Jul 03	Offutt	0.652	0.030	0.134	0.044	1	2	2	10	8	0.250	0	0.737	1	0.000	0.885	0.835	0.672	12.5	0.901	1.000	1.000	0.009	0.018	9	1	0.131	18
Aug 03	Offutt	0.652	0.026	0.114	0.059	0	1	2	2	2	0.239	0	0.714	0	0.007	1.000	0.803	0.911	9.0	0.951	0.842	1.000	0.012	0.005	2	0	0.146	24
Sep 03	Offutt	0.652	0.090	0.141	0.041	0	1	4	3	3	0.512	0	0.636	0	0.000	0.750	0.737	0.897	9.0	0.942	1.000	0.500	0.018	0.006	4	1	0.180	24
Oct 03	Offutt	0.689	0.013	0.163	0.275	1	1	2	10	0	0.530	1	0.742	0	0.005	0.875	0.751	0.847	8.5	0.906	1.000	1.000	0.003	0.007	0	0	0.166	8
Nov 03	Offutt	0.689	0.025	0.134	0.125	0	0	1	6	3	0.797	0	0.710	0	0.003	0.889	0.850	0.992	9.0	0.939	1.000	1.000	0.015	0.003	4	1	0.119	29
Dec 03	Offutt	0.689	0.061	0.113	0.123	0	0	2	4	2	0.718	0	0.765	0	0.012	0.958	0.819	0.879	10.5	0.949	0.947	1.000	0.009	0.003	3	1	0.127	22
Jan 04	Offutt	0.726	0.032	0.081	0.104	0	0	5	14	4	0.750	0	0.606	0	0.000	0.931	0.795	0.872	18.0	0.933	1.000	1.000	0.017	0.013	6	2	0.163	6
Feb 04	Offutt	0.726	0.025	0.087	0.092	0	0	0	6	1	0.286	0	0.589	0	0.000	0.931	0.687	0.911	16.5	0.949	1.000	1.000	0.011	0.008	1	0	0.244	7
Mar 04	Offutt	0.726	0.070	0.119	0.114	0	0	0	3	3	0.322	0	0.674	0	0.000	1.000	0.751	0.994	16.5	0.941	1.000	1.000	0.004	0.011	3	0	0.220	13
Apr 04	Offutt	0.763	0.026	0.170	0.100	0	0	1	10	5	0.628	0	0.831	0	0.000	0.947	0.791	0.944	7.5	0.916	1.000	1.000	0.003	0.008	5	0	0.140	26
May 04	Offutt	0.763	0.043	0.152	0.088	0	0	1	8	3	0.281	0	0.761	0	0.002	0.960	0.707	1.000	12.5	0.927	0.920	1.000	0.004	0.002	3	0	0.246	9
Jun 04	Offutt	0.763	0.022	0.132	0.031	0	1	3	4	0	0.866	0	0.901	0	0.001	1.000	0.828	0.909	6.0	0.925	0.947	1.000	0.004	0.005	0	0	0.146	13

Jul 04	Offutt	0.763	0.051	0.100	0.025	0	1	3	15	2	0.840	0	0.804	0	0.000	0.955	0.710	0.983	12.5	0.943	1.000	1.000	0.020	0.008	2	0	0.208	13
Aug 04	Offutt	0.807	0.016	0.079	0.072	0	2	4	12	0	0.760	0	0.770	0	0.003	0.951	0.731	1.000	8.5	0.951	1.000	1.000	0.009	0.008	1	1	0.243	10
Sep 04	Offutt	0.807	0.051	0.103	0.058	0	4	2	16	3	0.555	0	0.738	0	0.000	0.970	0.741	0.984	15.5	0.966	1.000	1.000	0.011	0.006	3	0	0.209	24
Oct 04	Offutt	0.807	0.022	0.087	0.106	0	1	1	15	3	0.797	0	0.852	0	0.002	0.864	0.707	0.802	7.5	0.918	1.000	1.000	0.009	0.009	3	0	0.111	24
Nov 04	Offutt	0.807	0.038	0.138	0.140	0	1	2	5	2	0.630	0	0.769	0	0.014	0.906	0.818	0.896	15.0	0.949	1.000	1.000	0.003	0.002	2	0	0.201	21
Dec 04	Offutt	0.807	0.070	0.152	0.011	0	3	1	5	1	0.641	0	0.756	0	0.005	0.950	0.737	0.811	13.0	0.962	1.000	1.000	0.006	0.025	1	0	0.239	7
Jan 03	Pope		0.033	0.124	0.144	0	0	0	5	0	0.796	0	0.834	0	0.000	0.766	0.759	0.935	40.0	0.883		0.778	0.004	0.000	2	0	0.166	0
Feb 03	Pope		0.046	0.149	0.245	0	0	0	8	1	0.818	0	0.764	0	0.006	0.902	0.745	0.911	38.0	0.888		0.810	0.007	0.002	1	0	0.151	1
Mar 03	Pope		0.034	0.274	0.126	0	0	0	3	0	0.872	0	0.855	0	0.009	0.800	0.743	1.000	45.0	0.795		0.400	0.011	0.005	1	1	0.177	1
Apr 03	Pope		0.034	0.238	0.114	0	0	0	13	0	0.820	0	0.803	0	0.009	0.833	0.810	1.000	49.0	0.842		0.643	0.013	0.007	2	0	0.147	1
May 03	Pope		0.031	0.148	0.114	0	0	2	4	0	0.709	0	0.805	0	0.003	0.929	0.757	1.000	51.0	0.946		0.778	0.010	0.054	3	0	0.157	2
Jun 03	Pope		0.045	0.139	0.103	0	0	0	5	0	0.850	0	0.847	0	0.005	0.854	0.788	0.987	46.0	0.832		0.739	0.010	0.013	3	0	0.137	3
Jul 03	Pope		0.065	0.149	0.186	0	0	0	6	0	0.681	0	0.777	0	0.000	0.829	0.762	0.944	47.0	0.874		0.600	0.004	0.015	0	0	0.147	0
Aug 03	Pope		0.063	0.180	0.105	0	1	0	8	1	0.730	0	0.795	0	0.006	0.856	0.764	0.840	76.0	0.842		0.750	0.006	0.004	6	0	0.188	0
Sep 03	Pope		0.025	0.104	0.096	0	0	0	2	0	0.753	0	0.794	0	0.008	0.863	0.768	0.901	24.0	0.883		0.850	0.000	0.003	3	0	0.159	2
Oct 03	Pope		0.061	0.187	0.118	0	0	1	3	0	0.800	0	0.730	0	0.007	0.872	0.702	0.843	88.0	0.832		0.786	0.011	0.012	6	0	0.208	0
Nov 03	Pope		0.041	0.182	0.123	0	0	2	8	3	0.746	0	0.798	0	0.000	0.882	0.686	0.945	59.0	0.916		0.889	0.008	0.002	11	3	0.243	2
Dec 03	Pope		0.087	0.164	0.136	0	0	0	4	0	0.723	0	0.640	0	0.012	0.908	0.674	0.949	77.0	0.866		0.857	0.017	0.001	3	2	0.258	2
Jan 04	Pope	0.755	0.057	0.138	0.145	0	0	1	4	1	0.781	0	0.684	0	0.001	0.938	0.725	0.986	58.0	0.867	0.980	0.800	0.001	0.013	15	8	0.182	3
Feb 04	Pope	0.755	0.045	0.134	0.150	0	0	0	11	3	0.759	0	0.658	0	0.002	0.882	0.775	0.998	51.0	0.889	1.000	0.667	0.011	0.005	13	2	0.154	0
Mar 04	Pope	0.755	0.048	0.134	0.095	1	0	1	6	1	0.854	0	0.855	1	0.001	0.924	0.761	0.995	77.0	0.919	1.000	0.833	0.004	0.005	5	3	0.160	1
Apr 04	Pope	0.755	0.063	0.136	0.155	1	0	0	1	0	0.752	1	0.825	0	0.000	0.857	0.779	0.987	62.0	0.849	0.980	0.667	0.007	0.000	9	3	0.159	7
May 04	Pope	0.811	0.066	0.143	0.120	0	0	0	11	7	0.794	0	0.851	0	0.007	0.974	0.811	0.987	56.0	0.887	1.000	1.000	0.003	0.006	10	1	0.156	9
Jun 04	Pope	0.866	0.058	0.122	0.152	0	1	0	6	3	0.796	0	0.794	0	0.000	0.871	0.775	0.995	63.0	0.846	1.000	0.750	0.000	0.002	12	1	0.169	2
Jul 04	Pope	0.866	0.060	0.132	0.135	0	1	0	5	0	0.802	0	0.797	0	0.000	0.959	0.814	0.988	52.0	0.876	1.000	1.000	0.003	0.000	11	4	0.148	1
Aug 04	Pope	0.784	0.057	0.147	0.143	0	1	0	6	3	0.760	0	0.754	0	0.000	0.931	0.770	0.973	59.0	0.874	1.000	0.765	0.006	0.003	18	2	0.185	0
Sep 04	Pope	0.840	0.048	0.177	0.180	0	2	1	9	1	0.766	0	0.673	0	0.002	0.925	0.764	0.976	33.0	0.879	1.000	0.800	0.013	0.000	17	2	0.179	4
Oct 04	Pope	0.896	0.056	0.166	0.146	0	1	0	4	0	0.832	0	0.738	0	0.012	0.921	0.754	0.872	57.0	0.878	1.000	0.744	0.003	0.002	3	0	0.176	1
Nov 04	Pope	0.896	0.057	0.122	0.122	0	0	0	0	1	0.714	0	0.712	0	0.003	0.912	0.730	0.818	83.0	0.865	1.000	0.700	0.000	0.007	9	1	0.196	4
Dec 04	Pope	0.840	0.076	0.131	0.192	1	0	0	12	1	0.747	1	0.637	0	0.002	0.931	0.689	0.977	104.0	0.868	1.000	0.857	0.005	0.003	10	1	0.262	1
Jan 03	S-J	0.922	0.076	0.194	0.112	0	2	27	41	3	0.723	0	0.664	0			0.788	0.970	37.5	0.869	0.961		0.009	0.016	6	1	0.179	7
Feb 03	S-J	0.922	0.078	0.168	0.121	0	3	10	29	1	0.719	0	0.937	0			0.802	0.975	29.5	0.840	0.897		0.009	0.015	5	2	0.157	8
Mar 03	S-J	0.922	0.086	0.178	0.139	0	1	12	41	0	0.765	0	0.933	0			0.786	0.999	27.5	0.826	0.982		0.009	0.008	8	3	0.167	14
Apr 03	S-J	0.918	0.086	0.176	0.184	1	0	9	21	0	0.744	1	0.884	0			0.785	0.827	57.5	0.839	0.946		0.009	0.018	3	2	0.157	12
May 03	S-J	0.918	0.078	0.207	0.102	0	0	11	26	0	0.646	0	0.893	0			0.820	0.957	26.0	0.840	0.985		0.009	0.014	4	2	0.126	16
Jun 03	S-J	0.918	0.103	0.182	0.084	1	0	13	22	0	0.695	1	0.811	0			0.804	0.960	38.5	0.796	0.971		0.009	0.022	12	7	0.147	0
Jul 03	S-J	0.918	0.101	0.204	0.112	0	0	8	17	3	0.654	0	0.764	0			0.772	0.929	69.5	0.799	0.975		0.009	0.031	17	10	0.188	11
Aug 03	S-J	0.918	0.076	0.195	0.202	0	1	8	29	1	0.716	0	0.790	0			0.781	0.957	64.0	0.799	0.932		0.009	0.027	18	12	0.178	10
Sep 03	S-J	0.918	0.107	0.184	0.184	1	4	13	41	0	0.777	0	0.663	1			0.835	0.940	35.5	0.807	0.979		0.009	0.018	16	11	0.129	10
Oct 03	S-J	0.918	0.088	0.196	0.150	1	0	29	44	4	0.729	1	0.739	0			0.764	0.926	79.0	0.814	0.978		0.009	0.023	31	15	0.197	18
Nov 03	S-J	0.918	0.108	0.163	0.139	1	1	14	41	3	0.699	1	0.731	0			0.779	0.952	70.0	0.834	0.955		0.009	0.017	18	6	0.189	13
Dec 03	S-J	0.918	0.094	0.159	0.146	1	0	24	37	0	0.679	1	0.731	0			0.832	0.959	74.0	0.794	0.964		0.009	0.017	12	9	0.132	6

Jan 04	S-J	0.918	0.099	0.162	0.153	0	1	19	36	1	0.772	0	0.622	0			0.796	0.952	68.5	0.829	0.941		0.009	0.011	9	7	0.168	13
Feb 04	S-J	0.918	0.093	0.172	0.172	0	1	25	40	0	0.787	0	0.676	0			0.797	0.951	52.0	0.785	0.943		0.009	0.020	8	5	0.149	9
Mar 04	S-J	0.918	0.100	0.159	0.127	0	2	16	58	3	0.785	0	0.836	0			0.807	0.974	81.0	0.827	0.920		0.009	0.017	19	6	0.156	12
Apr 04	S-J	0.918	0.099	0.140	0.133	0	0	18	41	3	0.756	0	0.758	0			0.816	0.961	68.0	0.853	0.955		0.009	0.025	11	4	0.136	21
May 04	S-J	0.918	0.093	0.168	0.123	0	1	20	45	2	0.704	0	0.787	0			0.805	0.924	58.0	0.830	0.936		0.009	0.032	15	6	0.159	3
Jun 04	S-J	0.918	0.077	0.128	0.088	0	0	24	39	7	0.579	0	0.918	0			0.777	0.954	42.0	0.756	0.878		0.009	0.024	40	8	0.178	18
Jul 04	S-J	0.918	0.109	0.203	0.168	0	0	26	26	2	0.695	0	0.805	0			0.782	0.951	91.0	0.796	0.908		0.009	0.033	22	8	0.168	22
Aug 04	S-J	0.918	0.107	0.174	0.167	2	0	21	29	1	0.693	2	0.708	0			0.771	0.946	70.5	0.822	0.932		0.009	0.029	17	9	0.190	14
Sep 04	S-J	0.922	0.118	0.182	0.189	2	0	19	27	1	0.798	1	0.704	1			0.824	0.947	36.5	0.849	1.000		0.009	0.024	23	8	0.124	11
Oct 04	S-J	0.922	0.096	0.164	0.133	1	0	13	19	0	0.666	1	0.805	0			0.798	0.984	43.5	0.822	0.936		0.009	0.024	8	1	0.147	10
Nov 04	S-J	0.922	0.092	0.161	0.115	0	1	20	20	4	0.753	0	0.727	0			0.809	0.973	44.0	0.846	0.943		0.009	0.016	15	8	0.136	25
Dec 04	S-J	0.922	0.084	0.176	0.153	1	2	14	13	1	0.739	0	0.785	1			0.821	0.973	106.0	0.835	0.966		0.009	0.027	18	12	0.139	6
Jan 03	Shaw	0.967	0.059	0.143	0.102	0	0	0	20	7	0.797	0	0.821	0	0.0050	0.877	0.832	0.985	42.0	0.903	1.000	0.714	0.025	0.023	30	4	0.120	
Feb 03	Shaw	0.967	0.048	0.155	0.074	0	0	0	11	1	0.726	0	0.859	0	0.0000	0.915	0.860	0.970	57.0	0.900	1.000	0.750	0.011	0.017	9	2	0.102	
Mar 03	Shaw	0.967	0.054	0.196	0.119	0	0	2	12	1	0.883	0	0.875	0	0.0010	0.940	0.855	0.971	52.0	0.909	1.000	0.600	0.036	0.029	14	1	0.097	
Apr 03	Shaw	0.967	0.065	0.185	0.136	1	1	1	27	1	0.766	1	0.857	0	0.0050	0.933	0.828	0.950	48.0	0.903	1.000	0.600	0.045	0.025	8	1	0.112	
May 03	Shaw	0.967	0.054	0.159	0.120	0	0	2	24	1	0.772	0	0.817	0	0.0080	0.944	0.838	0.953	61.0	0.920	0.944	0.833	0.009	0.034	15	2	0.115	
Jun 03	Shaw	0.967	0.048	0.148	0.108	0	1	0	31	3	0.818	0	0.875	0	0.0060	0.914	0.842	0.954	45.0	0.906	1.000	0.667	0.033	0.026	17	3	0.089	
Jul 03	Shaw	0.967	0.049	0.114	0.091	2	1	0	17	1	0.771	0	0.882	2	0.0060	0.955	0.843	0.934	63.0	0.932	1.000	0.800	0.018	0.028	16	1	0.106	
Aug 03	Shaw	0.967	0.034	0.114	0.112	0	0	0	17	2	0.775	0	0.889	0	0.0040	0.908	0.831	0.970	33.0	0.916	1.000	0.778	0.005	0.010	7	1	0.100	
Sep 03	Shaw	0.967	0.052	0.158	0.105	0	0	0	15	0	0.815	0	0.918	0	0.0020	0.952	0.881	0.981	27.0	0.919	1.000	1.000	0.013	0.009	11	2	0.076	13
Oct 03	Shaw	0.967	0.056	0.138	0.098	0	0	1	32	0	0.835	0	0.864	0	0.0030	0.929	0.830	0.855	75.0	0.930	0.957	0.667	0.014	0.010	8	0	0.116	14
Nov 03	Shaw	0.967	0.050	0.121	0.068	0	0	1	11	1	0.878	0	0.907	0	0.0060	0.940	0.864	0.990	41.0	0.928	0.955	0.667	0.016	0.018	9	0	0.081	6
Dec 03	Shaw	0.967	0.046	0.130	0.069	0	0	1	16	1	0.904	0	0.849	0	0.0020	0.944	0.883	0.986	41.0	0.931	1.000	1.000	0.021	0.008	7	0	0.074	6
Jan 04	Shaw	0.967	0.040	0.119	0.049	0	0	1	16	5	0.879	0	0.772	0	0.0030	0.927	0.875	0.971	31.0	0.905	0.960	0.500	0.015	0.017	22	2	0.078	17
Feb 04	Shaw	0.967	0.046	0.108	0.053	0	0	3	16	2	0.835	0	0.888	0	0.0030	0.955	0.837	0.963	48.0	0.925	1.000	0.750	0.020	0.010	13	5	0.117	16
Mar 04	Shaw	0.967	0.054	0.112	0.075	1	0	1	15	2	0.780	1	0.893	0	0.0090	0.955	0.824	0.964	45.0	0.919	0.984	1.000	0.007	0.028	23	2	0.123	18
Apr 04	Shaw	0.967	0.041	0.095	0.054	0	0	0	25	2	0.835	0	0.927	0	0.0040	0.970	0.852	0.985	34.0	0.909	0.932	1.000	0.030	0.010	17	2	0.096	16
May 04	Shaw	0.967	0.053	0.101	0.073	0	0	1	11	5	0.862	0	0.934	0	0.0120	0.911	0.851	0.938	42.0	0.911	0.960	0.833	0.022	0.018	18	4	0.088	6
Jun 04	Shaw	0.967	0.078	0.129	0.081	1	0	1	22	4	0.746	0	0.811	1	0.0110	0.959	0.836	0.938	72.0	0.925	0.983	0.833	0.026	0.026	25	1	0.108	12
Jul 04	Shaw	1.000	0.058	0.128	0.070	2	0	0	20	12	0.784	2	0.868	0	0.0060	0.978	0.838	0.926	40.0	0.940	0.991	0.750	0.010	0.021	22	2	0.108	5
Aug 04	Shaw	1.000	0.061	0.114	0.087	2	0	1	15	3	0.742	0	0.811	2	0.0020	0.902	0.822	0.969	55.0	0.916	0.984	0.714	0.014	0.005	7	2	0.116	12
Sep 04	Shaw	1.000	0.069	0.115	0.060	0	0	1	8	4	0.733	0	0.851	0	0.0040	0.885	0.889	0.977	32.0	0.924	0.980	0.750	0.019	0.013	14	4	0.069	9
Oct 04	Shaw	1.000	0.065	0.125	0.061	1	0	0	19	5	0.861	1	0.834	0	0.0100	0.926	0.858	0.966	52.0	0.911	0.990	1.000	0.019	0.002	11	1	0.094	10
Nov 04	Shaw	1.000	0.053	0.127	0.043	0	0	1	9	6	0.824	0	0.889	0	0.0070	0.969	0.866	0.980	41.0	0.916	0.977	0.500	0.020	0.018	15	4	0.088	7
Dec 04	Shaw	1.000	0.057	0.114	0.067	0	0	1	21	2	0.816	0	0.896	0	0.0090	0.970	0.862	0.978	56.0	0.922	1.000	1.000	0.006	0.008	11	2	0.092	19

Jan 03	Whiteman	0.850	0.055	0.107	0.098	0	3	7	11	2	0.385	0	0.540	0		1.000	0.263	0.864	16.0	0.881	0.980		0.033	0.008	9	2	0.737	5
Feb 03	Whiteman	0.850	0.025	0.065	0.130	1	3	3	6	2	0.400	0	0.443	1		0.882	0.327	0.955	27.0	0.907	0.962	1.00	0.030	0.045	4	0	0.673	11
Mar 03	Whiteman	0.850	0.036	0.082	0.100	1	3	4	9	3	0.222	1	0.620	0		1.000	0.630	0.951	10.0	0.926	1.000		0.028	0.022	4	1	0.369	26
Apr 03	Whiteman	0.850	0.058	0.081	0.081	0	1	2	8	0	0.250	0	0.766	0		0.905	0.633	0.957	7.0	0.921	0.991	1.00	0.037	0.047	4	1	0.356	12
May 03	Whiteman	0.850	0.022	0.174	0.114	0	1	1	7	4	0.696	0	0.773	0		0.889	0.454	0.799	13.0	0.914	0.976		0.087	0.016	10	3	0.537	19
Jun 03	Whiteman	0.850	0.049	0.085	0.077	0	1	5	12	6	0.500	0	0.632	0		0.971	0.486	0.866	21.0	0.931	0.973	1.00	0.042	0.032	7	0	0.514	22
Jul 03	Whiteman	0.850	0.071	0.108	0.100	0	0	8	8	1	0.769	0	0.846	0		0.875	0.417	0.783	11.0	0.930	1.000		0.021	0.021	1	0	0.583	11
Aug 03	Whiteman	0.850	0.009	0.054	0.036	0	2	6	8	3	0.677	0	0.709	0		0.941	0.375	0.925	7.0	0.907	0.991	1.00	0.060	0.012	8	2	0.618	10
Sep 03	Whiteman	0.884	0.023	0.059	0.118	0	3	2	6	2	0.800	0	0.703	0		1.000	0.478	0.954	4.0	0.929	1.000		0.062	0.031	2	0	0.522	17
Oct 03	Whiteman	0.884	0.066	0.063	0.070	0	0	2	6	2	0.750	0	0.725	0		0.957	0.537	0.870	11.0	0.945	0.986	1.00	0.036	0.000	5	0	0.459	4
Nov 03	Whiteman	0.884	0.050	0.079	0.009	0	0	4	7	1	0.778	0	0.732	0		1.000	0.530	0.980	11.0	0.911	0.652		0.035	0.023	3	0	0.444	6
Dec 03	Whiteman	0.884	0.085	0.064	0.026	2	2	4	4	1	0.400	2	0.567	0		0.773	0.520	1.000	19.0	0.903	1.000	1.00	0.000	0.000	5	0	0.472	14
Jan 04	Whiteman	0.921	0.075	0.147	0.020	0	0	5	5	3	0.667	0	0.593	0		0.875	0.500	1.000	28.0	0.912	0.947	1.00	0.011	0.011	13	2	0.492	18
Feb 04	Whiteman	0.921	0.069	0.126	0.027	0	2	4	8	4	0.357	0	0.617	0		0.885	0.293	0.995	18.0	0.906	0.922	0.00	0.000	0.010	12	1	0.707	22
Mar 04	Whiteman	0.921	0.055	0.179	0.057	0	1	3	10	4	0.500	0	0.717	0		0.824	0.394	0.979	19.0	0.923	0.985		0.044	0.029	12	0	0.606	21
Apr 04	Whiteman	0.921	0.044	0.083	0.038	0	2	8	21	4	0.364	0	0.556	0		1.000	0.424	0.990	44.0	0.938	1.000		0.000	0.000	16	2	0.576	12
May 04	Whiteman	0.921	0.053	0.157	0.065	0	0	5	4	5	0.529	0	0.692	0		0.938	0.441	1.000	24.0	0.948	1.000	1.00	0.019	0.028	13	0	0.557	6
Jun 04	Whiteman	0.921	0.026	0.034	0.013	0	3	5	8	1	0.600	0	0.702	0		0.800	0.402	0.975	15.0	0.934	1.000		0.028	0.009	13	0	0.597	34
Jul 04	Whiteman	0.921	0.023	0.111	0.071	0	0	3	6	5	0.500	0	0.659	0		0.808	0.341	1.000	24.0	0.898	0.895	1.00	0.030	0.030	27	2	0.659	13
Aug 04	Whiteman	0.921	0.074	0.069	0.050	1	2	2	7	0	0.714	0	0.655	1		0.708	0.354	0.990	13.0	0.904	0.984		0.025	0.016	13	1	0.646	5
Sep 04	Whiteman	0.921	0.072	0.132	0.059	0	0	4	11	2	0.444	0	0.776	0		0.947	0.431	0.992	4.0	0.912	1.000		0.024	0.012	24	3	0.569	30
Oct 04	Whiteman	0.921	0.084	0.089	0.089	1	1	3	8	3	0.571	1	0.719	0		0.923	0.642	0.880	14.0	0.904	0.987		0.012	0.000	14	1	0.348	17
Nov 04	Whiteman	0.921	0.061	0.105	0.053	0	0	2	11	0	0.600	0	0.573	0		0.923	0.429	1.000	16.0	0.930	1.000	1.00	0.030	0.020	11	2	0.545	4
Dec 04	Whiteman	0.921	0.025	0.037	0.051	0	1	2	4	4	0.375	0	0.900	0		0.889	0.390	0.975	30.0	0.888	0.989		0.033	0.033	12	1	0.589	14

Appendix BK-1: Barksdale AFB QA Manning Calculations for 2003

CY '03		Jan '03			Feb '03			Mar '03			Apr '03			May '03			Jun '03		
	MPN	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score
1	00284501C	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%
3	00455211C	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%
4	00292491C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	00292491C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
6	00292491C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
7	00292491C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
8	00309271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
9	04046331C	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
10	00392521C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
11	04351181C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
12	00292501C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
13	00299491C	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%
14	00455271C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
15	04029941C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
16	00284511C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
17	00387141C	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%
18	00624821C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
19	00633121C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
20	00350611C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
21	00377961C	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%
22	00321631C	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
23	00341521C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
24	00350621C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
Monthly Effectiveness				95%			95%			95%			95%			95%			95%

CY '03		Jul '03			Aug '03			Sep '03			Oct '03			Nov '03			Dec '03		
	MPN	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score
1	00284501C	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%
3	00455211C	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%
4	00292491C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	00292491C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
6	00292491C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
7	00292491C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
8	00309271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
9	04046331C	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
10	00392521C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
11	04351181C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
12	00292501C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
13	00299491C	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%
14	00455271C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
15	04029941C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
16	00284511C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
17	00387141C	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%	2A651A	NA	0%
18	00624821C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
19	00633121C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
20	00350611C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
21	00377961C	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%
22	00321631C	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
23	00341521C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
24	00350621C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
Monthly Effectiveness				95%			95%			95%			95%			95%			95%

Appendix BK-2: Barksdale AFB QA Manning Calculations for 2004

			Jan '04			Feb '04			Mar '04			Apr '04			May '04			Jun '04		
		MPN	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score
CY '04	1	00284501C	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**
	3	00455211C	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A590	100%	2A590	2A590	100%
	4	00292491C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	5	**00292491C**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**
	6	**00292491C**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**
	7	**00292491C**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**
	8	00309271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	9	04046331C	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
	10	00392521C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	11	04351181C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	12	00292501C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
	13	00299491C	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%
	14	00455271C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	15	04029941C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	16	00284511C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
	17	**00387141C**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**
	18	00624821C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
	19	00633121C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
	20	00350611C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
	21	00377961C	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%
	22	00321631C	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
	23	00341521C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
	24	00350621C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
Monthly Effectiveness					**95%**			**95%**			**95%**			**95%**			**95%**			**95%**

			Jul '04			Aug '04			Sep '04			Oct '04			Nov '04			Dec '04		
		MPN	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score
CY '04	1	00284501C	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**
	3	00455211C	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%	2A590	2A571	100%
	4	00292491C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	5	**00292491C**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**
	6	**00292491C**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**
	7	**00292491C**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**		**2A571**	**100%**
	8	00309271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	9	04046331C	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
	10	00392521C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	11	04351181C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	12	00292501C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
	13	00299491C	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%	2A573A	2A573B	100%
	14	00455271C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	15	04029941C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	16	00284511C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
	17	**00387141C**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**	2A651A	**NA**	**0%**
	18	00624821C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
	19	00633121C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
	20	00350611C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
	21	00377961C	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%	2M051	2M071	100%
	22	00321631C	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
	23	00341521C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
	24	00350621C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
Monthly Effectiveness					**95%**			**95%**			**95%**			**95%**			**95%**			**95%**

Appendix BL-1: Beale AFB QA Manning Calculations for 2003

CY '03		Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	387051	2A600	2A390	80%	2A600	2A390	80%	2A600	2A390	80%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%
2	847141										2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	361481	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
4	4500431							2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
5	357881	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4399131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	292511	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
8	365881	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
9	365891	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%
10	282011	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
11	282021	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
12	361471	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
13	381061	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
14	400511	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
15	4516771	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
16	633131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
17	361461	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
18	358211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
19	4517171	2A676																	
20	365861	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
21	4516161																		
22	4500441							2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%
23	313531	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	361491	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%
25	4516461	2A352																	
26	360361	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
27	381481	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
28	4399141	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
29	4399151	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
30	633141	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
31	4517111	2A656																	
32	4516681	2A353J																	
Monthly Effectiveness				66%			66%			61%			63%			63%			63%

CY '03		Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	387051	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%
2	847141	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	361481	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
4	4500431	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
5	357881	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4399131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	292511	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
8	365881	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
9	365891	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%
10	282011	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
11	282021	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
12	361471	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
13	381061	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
14	400511	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
15	4516771	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
16	633131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
17	361461	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
18	358211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
19	4517171	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
20	365861	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
21	4516161	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%
22	4500441	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%
23	313531	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	361491	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%
25	4516461										2A352	NA	0%	2A352	NA	0%	2A352	NA	0%
26	360361	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
27	381481	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
28	4399141	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
29	4399151	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
30	633141	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
31	4517111										2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
32	4516681										2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
Monthly Effectiveness				59%			59%			59%			56%			56%			56%

Appendix BL-2: Beale AFB QA Manning Calculations for 2004

CY '04

#	MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
1	387051	2A600	2A600	100%	2A600	2A600	100%	2A600	NA	0%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%
2	847141	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	361481	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
4	4500431	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
5	357881	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4399131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	292511	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
8	365881	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
9	365891	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%
10	282011	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
11	282021	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
12	361471	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
13	381061	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
14	400511	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
15	4516771	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
16	633131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
17	361461	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
18	358211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
19	4517171	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
20	365861	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
21	4516161	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%
22	4500441	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%
23	313531	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	361491	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%
25	4516461	2A352	NA	0%	2A352	NA	0%	2A352	NA	0%	2A352	NA	0%	2A352	NA	0%	2A352	NA	0%
26	360361	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
27	381481	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
28	4399141	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
29	4399151	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
30	633141	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
31	4517111	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
32	4516681	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
Monthly Effectiveness				56%			56%			53%			56%			56%			56%

CY '04

#	MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
1	387051	2A600	2A600	100%	2A600	NA	0%	2A600	NA	0%	2A600	NA	0%	2A600	NA	0%	2A600	NA	0%
2	847141	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	361481	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
4	4500431	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
5	357881	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4399131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	292511	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
8	365881	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
9	365891	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%
10	282011	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
11	282021	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
12	361471	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
13	381061	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	2A373	100%
14	400511	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
15	4516771	2A373	NA	0%	2A373	NA	0%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
16	633131	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
17	361461	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
18	358211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
19	4517171	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
20	365861	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
21	4516161	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%	2E171	NA	0%
22	4500441	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	NA	0%	2E271	2E271	100%
23	313531	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	361491	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%
25	4516461	2A352	NA	0%	2A352	NA	0%	2A352	NA	0%	2A352	NA	0%	2A352	NA	0%	2A352	2A352	100%
26	360361	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
27	381481	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
28	4399141	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	2A353J	100%
29	4399151	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
30	633141	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
31	4517111	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
32	4516681	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
Monthly Effectiveness				56%			53%			56%			56%			56%			69%

Appendix BM-1: Cannon AFB QA Manning Calculations for 2003

CY '03

	MPN	Jan '03 Auth'd	Jan '03 Assn'd	Score	Feb '03 Auth'd	Feb '03 Assn'd	Score	Mar '03 Auth'd	Mar '03 Assn'd	Score	Apr '03 Auth'd	Apr '03 Assn'd	Score	May '03 Auth'd	May '03 Assn'd	Score	Jun '03 Auth'd	Jun '03 Assn'd	Score
2	0106109	2A300	2A691A	90%	2A300	2A691A	90%	2A300	2A691A	90%	2A300	2A691A	90%	2A300	2A300	100%	2A300	2A300	100%
4	0106091	2A390	2A373	68%	2A390	2A373	68%	2A390	2A373	68%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%
5	0420948	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
6	0420948		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%
7	0106104	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
8	0422372	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	0106112	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
10	0106097	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
11	0420949	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
12	0106094	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
13	0106093	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
14	0106099	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
15	0106100	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
16	0106095	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
17	0106789	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	0106101	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
19	0106098	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
20	0106102	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
21	0428069	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%
22	0428072	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
23	0428071	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
24	0428070	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%
25	0106790	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
26	0428086	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
27	0106096	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
Monthly Effectiveness				90%			90%			90%			90%			90%			90%

CY '03

	MPN	Jul '03 Auth'd	Jul '03 Assn'd	Score	Aug '03 Auth'd	Aug '03 Assn'd	Score	Sep '03 Auth'd	Sep '03 Assn'd	Score	Oct '03 Auth'd	Oct '03 Assn'd	Score	Nov '03 Auth'd	Nov '03 Assn'd	Score	Dec '03 Auth'd	Dec '03 Assn'd	Score
2	0106109	2A300	2A300	100%	2A300	2A300	100%	2A300	2W191	60%	2A300	2W191	60%	2A300	2W191	60%	2A300	2W191	60%
4	0106091	2A390	2A373	80%	2A390	2A373	80%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%
5	0420948	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
6	0420948		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%
7	0106104	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
8	0422372	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	0106112	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
10	0106097	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
11	0420949	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
12	0106094	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
13	0106093	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
14	0106099	2A672	2A672	100%	2A672	2A652	100%	2A672	2A652	100%	2A672	2A652	100%	2A672	2A672	100%	2A672	2A672	100%
15	0106100	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
16	0106095	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
17	0106789	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	0106101	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
19	0106098	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
20	0106102	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
21	0428069	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%
22	0428072	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
23	0428071	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
24	0428070	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%
25	0106790	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
26	0428086	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
27	0106096	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
Monthly Effectiveness				90%			90%			88%			88%			88%			88%

Appendix BM-2: Cannon AFB QA Manning Calculations for 2004

CY '04

		Jan '04		Score	Feb '04		Score	Mar '04		Score	Apr '04		Score	May '04		Score	Jun '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0106109	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%
2	0106091	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%
3	0456686																		
4	0420948	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
5	0420948		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%
6	0106104	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
7	0422372	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
8	0106112	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	0106097	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
10	0420949	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
11	0106094	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
12	0106093	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
13	0106093																		
14	0106099	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
15	0106100	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
16	0106095	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
17	0106789	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	0106101	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
19	0106098	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
20	0106102	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
21	0428069	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%
22	0428072	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
23	0428071	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
24	0428070	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%
25	0106790	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
26	0428086	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
27	0106096	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
Monthly Effectiveness				85%			85%			85%			85%			85%			85%

CY '04

		Jul '04		Score	Aug '04		Score	Sep '04		Score	Oct '04		Score	Nov '04		Score	Dec '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0106109	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%	2A300	NA	0%
2	0106091	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%	2A390	2A372	55%
3	0456686										2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
4	0420948	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
5	0420948		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%		2A671A	100%
6	0106104	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%	2A372	NA	0%
7	0422372	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
8	0106112	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	0106097	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
10	0420949	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
11	0106094	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
12	0106093	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
13	0106093								2W171	100%		2W171	100%		2W171	100%		2W171	100%
14	0106099	2A672	2A672	100%	2A672	2A672	100%	2A672	2A652	100%	2A672	2A652	100%	2A672	2A652	100%	2A672	2A652	100%
15	0106100	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
16	0106095	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
17	0106789	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	0106101	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
19	0106098	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
20	0106102	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
21	0428069	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%	2A751	2A773	80%
22	0428072	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
23	0428071	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%	2A353B	2A373	100%
24	0428070	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%	2A654	2A674	100%
25	0106790	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
26	0428086	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
27	0106096	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
Monthly Effectiveness				85%			85%			86%			86%			86%			86%

Appendix BN-1: Davis-Monthan AFB QA Manning Calculations for 2003

CY '03

	MPN	Jan '03 Auth'd	Jan '03 Assn'd	Score	Feb '03 Auth'd	Feb '03 Assn'd	Score	Mar '03 Auth'd	Mar '03 Assn'd	Score	Apr '03 Auth'd	Apr '03 Assn'd	Score	May '03 Auth'd	May '03 Assn'd	Score	Jun '03 Auth'd	Jun '03 Assn'd	Score
1	00222941C	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A300	100%	2A300	2A300	100%
2	00443641C	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	00025511C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	04351271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	04351271C																		
6	00081601C	2A071D	2A071D	100%	2A071D	2A071D	100%	2A071D	2A071D	100%	2A071D	2A071D	100%	2A071D	2A071D	100%	2A071D	2A071D	100%
7	00443661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
8	00198001C	2A572	NA	0%	2A572	NA	0%	2A572	NA	0%	2A572	NA	0%	2A572	NA	0%	2A572	NA	0%
9	00631151C	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
10	00675631C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
11	00034871C	2A773	2A771	75%	2A773	2A771	75%	2A773	2A771	75%	2A773	2A771	75%	2A773	2A771	75%	2A773	2A771	75%
12	00443681C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
13	02745341C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
14	02745341C																		
15	02745341C																		
16	00443671C	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%
17	00443671C		2A351A	100%		2A351A	100%		2A351A	100%		2A351A	100%		2A351A	100%		2A351A	100%
18	00034851C	2A771	2A771	100%	2A771	2A771	100%	2A771	2A771	100%	2A771	2A771	100%	2A771	2A771	100%	2A771	2A771	100%
19	00631131C	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%
20	00631161C	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%
21	03998611C	2A754	2A754	100%	2A754	2A754	100%	2A754	2A754	100%	2A754	2A754	100%	2A754	2A754	100%	2A754	2A754	100%
24	01229741C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
25	02628711C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
26	00044011C	2A371	2A351	100%	2A371	2A351	100%	2A371	2A351	100%	2A371	2A351	100%	2A371	2A351	100%	2A371	2A351	100%
27	00443651C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
28	01229761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
29	01229751C	2A671A	NA	0%	2A671A	NA	0%	2A671A	NA	0%	2A671A	NA	0%	2A671A	NA	0%	2A671A	2A671A	100%
30	04075531C	2W171	NA	0%	2W171	NA	0%	2W171	NA	0%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
31	00099161C	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%	2A353J	NA	0%
32	00443861C	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
Monthly Effectiveness				80%			80%			80%			84%			84%			88%

CY '03

	MPN	Jul '03 Auth'd	Jul '03 Assn'd	Score	Aug '03 Auth'd	Aug '03 Assn'd	Score	Sep '03 Auth'd	Sep '03 Assn'd	Score	Oct '03 Auth'd	Oct '03 Assn'd	Score	Nov '03 Auth'd	Nov '03 Assn'd	Score	Dec '03 Auth'd	Dec '03 Assn'd	Score
1	00222941C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	00443641C	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	00025511C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	04351271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	04351271C											2A571	100%		2A571	100%			100%
6	00081601C	2A071D	2A071D	100%	2A071D	2A071D	100%	2A071D	2A071D	100%	2A573C	NA	0%	2A573C	NA	0%	2A573C	NA	0%
7	00443661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
8	00198001C	2A572	NA	0%	2A572	NA	0%	2A572	NA	0%	2A671B	NA	0%	2A671B	2A671B	100%	2A671B	2A671B	100%
9	00631151C	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
10	00675631C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
11	00034871C	2A773	2A771	75%	2A773	2A771	75%	2A773	2A771	75%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%
12	00443681C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
13	02745341C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
14	02745341C											2W171	100%		2W171	100%		2W171	100%
15	02745341C											2W171	100%		2W171	100%		2W171	100%
16	00443671C	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%
17	00443671C		2A351A	100%		2A351A	100%		2A351A	100%		2A351A	100%						
18	00034851C	2A771	2A771	100%	2A771	2A771	100%	2A771	2A771	100%	2A551J	2A551J	100%	2A551J	NA	0%	2A551J	NA	0%
19	00631131C	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	NA	0%	2A651B	2A651B	100%
20	00631161C	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%
21	03998611C	2A754	2A754	100%	2A754	2A754	100%	2A754	2A754	100%	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%
24	01229741C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	NA	0%	2A373	2A373	100%
25	02628711C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
26	00044011C	2A371	2A351	100%	2A371	2A351	100%	2A371	2A351	100%	2A371	NA	0%	2A371	2A371	100%	2A371	2A371	100%
27	00443651C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
28	01229761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
29	01229751C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
30	04075531C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
31	00099161C	2A353J	NA	0%	2A353J	NA	0%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
32	00443861C	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
Monthly Effectiveness				88%			88%			92%			80%			76%			83%

Appendix BN-2: Davis-Monthan AFB QA Manning Calculations for 2004

CY '04

		Jan '04			Feb '04			Mar '04			Apr '04			May '04			Jun '04		
	MPN	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score
1	00222941C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A000	60%	2A300	2A000	60%	2A300	2A000	60%	2A300	2A000	60%
2	00443641C	2A390	2W191	60%	2A390	2W191	60%	2A390	2W191	60%	2A390	2W191	60%	2A390	2W191	60%	2A390	2A390	100%
3	00025511C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	04351271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	00081601C	2A573C	NA	0%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%
6	00443661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	00198001C	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%
8	00631151C	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
9	00675631C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
10	00034871C	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%
11	00443681C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
12	02745341C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
13	02745341C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
14	02745341C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%			
15	00443671C	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%
16	00034851C	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%
17	00631131C	2A651B	NA	0%	2A651B	NA	0%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%
18	00631161C	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%
19	00631161C		2A654	100%		2A654	100%		2A654	100%		2A654	100%		2A654	100%		2A654	100%
20	00631161C		2A655	100%		2A655	100%		2A655	100%		2A655	100%		2A655	100%		2A655	100%
21	03998611C	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%
23	01229741C	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
24	02628711C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
25	00044011C	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
26	00443651C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
27	01229761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
28	01229751C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
29	04075531C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
30	00099161C	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
31	00443861C	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
Monthly Effectiveness				79%			82%			84%			84%			84%			85%

CY '04

		Jul '04			Aug '04			Sep '04			Oct '04			Nov '04			Dec '04		
	MPN	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score	Auth'd	Assn'd	Score
1	00222941C	2A300	2A000	60%	2A300	2A000	60%	2A300	2A000	60%	2A300	2A000	60%	2A300	2A000	60%	2A300	2A000	60%
2	00443641C	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	00025511C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	04351271C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	00081601C	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%
6	00443661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	00198001C	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%	2A671B	2A671B	100%
8	00631151C	2A673	NA	0%	2A673	NA	0%	2A673	2A673	100%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
9	00675631C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
10	00034871C	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%
11	00443681C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
12	02745341C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
13	02745341C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
15	00443671C	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%	2A351A	2A351A	100%
16	00034851C	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%	2A551J	2A551J	100%
17	00631131C	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%	2A651B	2A651B	100%
18	00631161C	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%	2A654	2A654	100%
19	00631161C		2A654	100%		2A654	100%		2A654	100%		2A654	100%		2A654	100%		2A654	100%
20	00631161C		2A655	100%		2A655	100%		2A655	100%		2A655	100%		2A655	100%			
21	03998611C	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%	2A754	NA	0%
23	01229741C	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%
24	02628711C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	NA	0%	2A373	2A373	100%	2A373	2A373	100%
25	00044011C	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
26	00443651C	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
27	01229761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
28	01229751C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
29	04075531C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
30	00099161C	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
31	00443861C	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%	2A353J	2A353J	100%
Monthly Effectiveness				85%			85%			88%			81%			85%			84%

Appendix BO-1: Dyess AFB QA Manning Calculations for 2003

CY '03

	MPN	Jan '03 Auth'd	Jan '03 Assn'd	Score	Feb '03 Auth'd	Feb '03 Assn'd	Score	Mar '03 Auth'd	Mar '03 Assn'd	Score	Apr '03 Auth'd	Apr '03 Assn'd	Score	May '03 Auth'd	May '03 Assn'd	Score	Jun '03 Auth'd	Jun '03 Assn'd	Score
1	00304821C	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
2	00304841C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
3	00304871C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
4	00304871C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
5	00317031C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
6	00338001C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
7	00368251C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
8	01047741C	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%
9	04145361C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
10	04245191C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
11	04246161C	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
12	04351311C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
13	00304801C	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
14	00304831C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
15	00304881C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
16	00365871C	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
17	00498491C	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
18	00563951C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
19	00624851C	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%
20	00633191C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
21	04218361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
22	04218371C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
23	04247021C	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
24	04247021C		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%
25	00624861C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
26	04145371C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
Monthly Effectiveness				100%			100%			100%			100%			100%			100%

CY '03

	MPN	Jul '03 Auth'd	Jul '03 Assn'd	Score	Aug '03 Auth'd	Aug '03 Assn'd	Score	Sep '03 Auth'd	Sep '03 Assn'd	Score	Oct '03 Auth'd	Oct '03 Assn'd	Score	Nov '03 Auth'd	Nov '03 Assn'd	Score	Dec '03 Auth'd	Dec '03 Assn'd	Score
1	00304821C	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
2	00304841C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
3	00304871C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
4	00304871C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
5	00317031C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
6	00338001C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
7	00368251C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%
8	01047741C	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%
9	04145361C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
10	04245191C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
11	04246161C	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
12	04351311C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
13	00304801C	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
14	00304831C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
15	00304881C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
16	00365871C	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
17	00498491C	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
18	00563951C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
19	00624851C	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%
20	00633191C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
21	04218361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
22	04218371C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
23	04247021C	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
24	04247021C		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%
25	00624861C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
26	04145371C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
Monthly Effectiveness				100%			100%			100%			100%			100%			100%

Appendix BO-2: Dyess AFB QA Manning Calculations for 2004

CY '04	#	MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
	1	00304821C	2A573B	2A573B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%
	2	00304841C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
	3	00304871C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	4	00304871C		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
	5	00317031C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	6	00338001C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
	7	00368251C	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	NA	0%
	8	01047741C	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%
	9	04145361C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	10	04245191C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	11	04246161C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
	12	04351311C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
	13	00304801C	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
	14	00304831C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	15	00304881C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	16	00365871C	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
	17	00498491C	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
	18	00563951C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
	19	00624851C	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%
	20	00633191C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
	21	04218361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	22	04218371C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
	23	04247021C	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
	24	04247021C		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%
	25	00624861C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
	26	04145371C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
Monthly Effectiveness					100%			100%			100%			100%			100%			96%

CY '04	#	MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
	1	00304821C	2A573B	2A553B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%	2A573B	2A553B	100%
	2	00304841C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
	3	00304871C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	4	00304871C		2A571	100%															
	5	00317031C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	6	00338001C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A590	80%	2A300	2A590	80%	2A300	2A590	80%	2A300	2A590	80%
	7	00368251C	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
	8	01047741C	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A553C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%
	9	04145361C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	10	04245191C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	11	04246161C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
	12	04351311C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
	13	00304801C	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
	14	00304831C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	15	00304881C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	16	00365871C	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%	2A773	2A773	100%
	17	00498491C	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
	18	00563951C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
	19	00624851C	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%	2A571	C2A571	100%
	20	00633191C	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%	2A656	2A676	100%
	21	04218361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	22	04218361C											2W171	100%		2W171	100%		2W171	100%
	23	04218361C														2W171	100%		2W171	100%
	24	04218371C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
	25	04247021C	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
	26	04247021C		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%		2A672	100%
	27	00624861C	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
	28	04145371C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
Monthly Effectiveness					96%			96%			95%			99%			99%			99%

Appendix BP-1: Ellsworth AFB QA Manning Calculations for 2003

CY '03

		Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	00352821C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	00305431C	2A590	2A694	80%	2A590	2A694	80%	2A590	2A694	80%	2A590	2A694	80%	2A590	2A694	80%	2A590	2A694	80%
3	00351291C	2A571	2A676	40%	2A571	2A676	40%	2A571	2A676	40%	2A571	2A676	40%	2A571	2A676	40%	2A571	2A676	40%
4	00351321C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
5	00368441C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	0120264641C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
7	00675531C	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%
8	00527771C	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%
9	01202611C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
10	01202631C	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%
11	01202651C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
12	00675541C	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%
13	00638551C	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
14	00527761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
15	01202581C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
16	01154221C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
17	00527781C	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%
18	01202601C	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%
19	01154231C	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%
20	01202621C	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%
21	00351301C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
22	00324251C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
23	01202661C	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%
24	04351331C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
25	00552701C	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%
26	00324242C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
27	00378321	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
28	00622941C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
Monthly Effectiveness				80%			80%			80%			80%			80%			80%

CY '03

		Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	00352821C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	00305431C	2A590	2W191	60%	2A590	2W191	60%	2A590	2W191	60%	2A590	2W191	60%	2A590	2W191	60%	2A590	2W191	60%
3	00351291C	2A571	2A676	40%	2A571	2A676	40%	2A571	2A676	40%	2A571	2A676	40%	2A571	2A676	40%	2A571	2W191	40%
4	00351321C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
5	00368441C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	0120264641C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
7	00675531C	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%
8	00527771C	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%
9	01202611C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
10	01202631C	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%
11	01202651C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
12	00675541C	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%
13	00638551C	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
14	00527761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
15	01202581C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
16	01154221C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
17	00527781C	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%
18	01202601C	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%
19	01154231C	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%
20	01202621C	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%
21	00351301C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
22	00324251C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
23	01202661C	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%
24	04351331C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
25	00552701C	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%
26	00324242C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
27	00378321	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
28	00622941C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
Monthly Effectiveness				79%			79%			79%			79%			79%			79%

Appendix BP-2: Ellsworth AFB QA Manning Calculations for 2004

CY '04

	MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
1	00352821C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	00305431C	2A590	2W191	60%	2A590	2W191	60%	2A590	2W191	60%	2A590	2A590	100%	2A590	2A590	100%	2A590	2A590	100%
3	00351291C	2A571	2W191	40%	2A571	2W191	40%	2A571	2W191	40%	2A571	2W191	40%	2A571	2W191	40%	2A571	2W191	40%
4	00351321C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
5	00368441C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	0120264641C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
7	00675531C	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%
8	00527771C	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%
9	01202611C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
10	01202631C	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%	2A051B	2A071	100%
11	01202651C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
12	00675541C	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%
13	00638551C	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%	2A071B	2A071B	100%
14	00527761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
15	01202581C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
16	01154221C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
17	00527781C	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%
18	01202601C	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%
19	01154231C	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%	2A676	2A754	20%
20	01202621C	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%	2A773	2A551	30%
21	00351301C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
22	00324251C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
23	01202661C	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	NA	0%	2A551K	2A551K	100%	2A551K	2A551K	100%
24	04351331C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
25	00552701C	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%
26	00324242C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
27	00378321	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A754	20%	2A753	2A754	20%	2A753	2A754	20%
28	00622941C	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%
Monthly Effectiveness				79%			79%			79%			78%			81%			81%

CY '04

	MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
1	00352821C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A691	90%
2	00305431C	2A590	2A590	100%	2A590	2A590	100%	2A590	2A590	100%	2A590	2A590	100%	2A590	2A590	100%	2A590	2A590	100%
3	00351291C	2A571	2W191	40%	2A571	2W191	40%	2A571	2W191	40%	2A571	2W191	40%	2A571	2A571	100%	2A571	2A571	100%
4	00351321C	2A573A	2A573A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%	2A573A	2A553A	100%
5	00368441C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	0120264641C	2A551K	2A551K	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%
7	00675531C	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%	2A071B	2A774	17%
8	00527771C	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%	2A571	2A573C	41%
9	01202611C	2A676	2A676	100%	2A676	2A071B	34%	2A676	2A071B	34%	2A676	2A071B	34%	2A676	2A071B	34%	2A676	2A071B	34%
10	01202631C	2A051B	2A071	100%	2A051B	2A071B	100%	2A051B	2A071B	100%	2A051B	2A071B	100%	2A051B	2A071B	100%	2A051B	2A071B	100%
11	01202651C	2A553C	2A553C	100%	2A553C	2A533B	100%	2A553C	2A533B	100%	2A553C	2A533B	100%	2A553C	2A533B	100%	2A553C	2A533B	100%
12	00675541C	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%	2A051B	2A051B	100%
13	00638551C	2A071B	2A071B	100%	2A071B	2A573A	56%	2A071B	2A573A	56%	2A071B	2A573A	56%	2A071B	2A573A	56%	2A071B	2A573A	56%
14	00527761C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
15	01202581C	2A671A	2A671A	100%	2A671A	2A671	100%	2A671A	2A671	100%	2A671A	2A671	100%	2A671A	2A671	100%	2A671A	2A671	100%
16	01154221C	2A672	2A672	100%	2A672	2A652	100%	2A672	2A652	100%	2A672	2A652	100%	2A672	2A652	100%	2A672	2A652	100%
17	00527781C	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%
18	01202601C	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%	2A675	2W171	13%
19	01154231C	2A676	2A754	20%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
20	01202621C	2A773	2A551	30%	2A773	2W171	10%	2A773	2W171	10%	2A773	2W171	10%	2A773	2W171	10%	2A773	2W171	10%
21	00351301C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
22	00324251C	2A551K	2A551K	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%
23	01202661C	2A551K	2A551K	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%
24	04351331C	2A551K	2A551K	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%	2A551K	2A551	100%
25	00552701C	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%	2A553B	2A553B	100%
26	00324242C	2A553C	2A553C	100%	2A553C	2A573C	100%	2A553C	2A573C	100%	2A553C	2A573C	100%	2A553C	2A573C	100%	2A553C	2A573C	100%
27	00378321	2A753	2A754	20%	2A753	2A774	20%	2A753	2A774	20%	2A753	2A774	20%	2A753	2A774	20%	2A753	2A774	20%
28	00622941C	2A551K	2A551	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
Monthly Effectiveness				81%			80%			80%			80%			82%			81%

Appendix BQ-1: Holloman AFB QA Manning Calculations for 2003

CY '03		Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0225451	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%
2	0225461	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
3	1231211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	4247911	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	0225611	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
6	4247901	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
7	0633841	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
8	0225541	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	1231221	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
10	0225571	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
11	0225601	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%
12	0633831	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
13	0574331	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
14	4247921	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
15	0220551	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
16	0220511	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%
17	0225561	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
18	0225581	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
19	4247951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
20	0598971	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
22	4247941	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
Monthly Effectiveness				100%			100%			100%			100%			100%			100%

CY '03		Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0225451	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%	2A390	2A373	100%
2	0225461	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
3	1231211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	4247911	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	0225611	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
6	4247901	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
7	0633841	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
8	0225541	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	1231221	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
10	0225571	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
11	0225601	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%	2A151	2A151	100%
12	0633831	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
13	0574331	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
14	4247921	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
15	0220551	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
16	0220511	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%
17	0225561	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
18	0225581	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
19	4247951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
20	0598971	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
22	4247941	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
Monthly Effectiveness				100%			100%			100%			100%			100%			100%

Appendix BQ-2: Holloman AFB QA Manning Calculations for 2004

			Jan '04		Score	Feb '04		Score	Mar '04		Score	Apr '04		Score	May '04		Score	Jun '04		Score
		MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
CY '04	1	0225571	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	2	0225541	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	3	0225601	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%
	4	0633831	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
	5	0574331	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
	6	4247921	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
	8	0220551	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
	9	0225451	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	10	0225461	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	11	1231211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	12	0225611	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
		0225611		2A353B	100%		2A353B	100%		2A353B	100%		2A353B	100%		2A353B	100%		2A353B	100%
	13	4247901	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
	14	4247941	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
	15	0633841	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
	16	1231221	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
	17	0225561	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
	18	4247911	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	19	0220511	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%
	20	0225581	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	21	4247951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	22	0598971	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
Monthly Effectiveness					100%			100%			100%			100%			100%			100%

			Jul '04		Score	Aug '04		Score	Sep '04		Score	Oct '04		Score	Nov '04		Score	Dec '04		Score
		MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
CY '04	1	0225571	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	2	0225541	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	3	0225601	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%	2A051C	2A051C	100%
	4	0633831	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
	5	0574331	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
	6	4247921	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
	8	0220551	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
	9	0225451	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	10	0225461	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	11	1231211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	12	0225611	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
		0225611		2A353B	100%		2A353B	100%		2A353B	100%		2A353B	100%		2A353B	100%		2A353B	100%
	13	4247901	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%	2A353B	2A353B	100%
	14	4247941	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
	15	0633841	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
	16	1231221	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
	17	0225561	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
	18	4247911	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	19	0220511	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%
	20	0225581	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	21	4247951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	22	0598971	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
Monthly Effectiveness					100%			100%			100%			100%			100%			100%

Appendix BR-1: Langley AFB QA Manning Calculations for 2003

CY '03		Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	3869591	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%
2	3869621	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
3	4378691	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	4378721	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	00056701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
6	4351401	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
7	3869631	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
8	675991	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	4378741	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
10	120431	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
11	3869691	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
12	633851	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
13	675981	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
14	4220801	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
15	633861	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
16	4220821	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%
17	3869681	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
18	4220811	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%
19	3869611	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
20	4220331	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
21	3869651	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
22	4378701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
23	3869701	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
24	4220831	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%
25	3869711	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
26	01187751	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
27	3869471	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
28	3869861	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%
29	120441	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%
30	4378711	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%
31	4378731	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
Monthly Effectiveness				85%			85%			85%			85%			85%			85%

CY '03		Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	3869591	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%
2	3869621	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
3	4378691	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	4378721	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	00056701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
6	4351401	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
7	3869631	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
8	675991	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	4378741	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
10	120431	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
11	3869691	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
12	633851	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
13	675981	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
14	4220801	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
15	633861	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
16	4220821	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%
17	3869681	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
18	4220811	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%
19	3869611	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
20	4220331	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
21	3869651	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
22	4378701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
23	3869701	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
24	4220831	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%
25	3869711	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
26	01187751	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
27	3869471	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
28	3869861	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%
29	120441	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%
30	4378711	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%
31	4378731	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
Monthly Effectiveness				85%			85%			85%			85%			85%			85%

Appendix BR-2: Langley AFB QA Manning Calculations for 2004

CY '04

	MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
1	3869591	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
2	3869621	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
3	4378691	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	4378721	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	00056701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
6	4351401	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
7	3869631	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
8	675991	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	4378741	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
10	120431	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
11	3869691	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
12	633851	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
13	675981	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
14	4220801	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
15	633861	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
16	4220821	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%
17	3869681	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
18	4220811	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%
19	3869611	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
20	4220331	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
21	3869651	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
22	4378701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
23	3869701	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
24	4220831	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%	2A773	NA	0%
25	3869711	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
26	01187751	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
27	3869471	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
28	3869861	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%
29	120441	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%
30	4378711	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	20%	2W171	20%	2A353A	2W171	20%
31	4378731	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
Monthly Effectiveness				85%			85%			85%			85%			85%			85%

CY '04

	MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
1	3869591	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
2	3869621	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
3	4378691	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
4	4378721	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	00056701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
6	4351401	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
7	3869631	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
8	675991	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
9	4378741	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
10	120431	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
11	3869691	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
12	633851	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
13	675981	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
14	4220801	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
15	633861	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
16	4220821	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%
17	3869681	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
18	4220811	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%	2A674	NA	0%
19	3869611	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
20	4220331	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
21	3869651	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
22	4378701	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
23	3869701	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
24	4220831	2A773	2A772	50%	2A773	2A772	50%	2A773	2A772	50%	2A773	2A772	50%	2A773	2A772	50%	2A773	2A772	50%
25	3869711	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
26	01187751	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
27	3869471	2W071	2W051	100%	2W071	2W051	100%	2W071	2W051	100%	2W071	2W051	100%	2W071	2W051	100%	2W071	2W051	100%
28	3869861	2A371	NA	0%	2A371	NA	0%	2A371	NA	0%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
29	120441	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%	2A373	2A772	30%
30	4378711	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%	2A353A	2W171	20%
31	4378731	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
Monthly Effectiveness				84%			84%			84%			87%			87%			87%

Appendix BS-1: Minot AFB QA Manning Calculations for 2003

CY '03

	MPN	Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0348271	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	0302821	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
3	0760551	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
4	0760551	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
5	4186991	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
6	0286781	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
7	4046461	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
8	4046511	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%
9	4063091	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%
10	0256201	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
11	0677831	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%
12	0348281	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%
13	0298291	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%
14	0334011	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
15	0760561	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
16	0295971	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
17	0344611	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%
18	0298281	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
19	0315261	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%
Monthly Effectiveness				88%			88%			88%			88%			88%			88%

CY '03

	MPN	Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0348271	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	0302821	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
3	0760551	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
4	0760551	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
5	4186991	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
6	0286781	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
7	4046461	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
8	4046511	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%
9	4063091	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%
10	0256201	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
11	0677831	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%
12	0348281	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%
13	0298291	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%	2A676	2A656	100%
14	0334011	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
15	0760561	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
16	0295971	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
17	0344611	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%
18	0298281	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
19	0315261	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%
Monthly Effectiveness				88%			88%			88%			88%			88%			88%

Appendix BS-2: Minot AFB QA Manning Calculations for 2004

CY '04

	MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
1	0348271	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	0302821	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
3	0760551	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
4	4186991	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%
5	0286781	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
6	4046461	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
7	4046511	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%
8	4063091	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%
9	0256201	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
10	0256201		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%
11	0256201		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%
12	0677831	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%
13	0348281	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
14	0298291	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
15	0334011	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
16	0334011																		
17	0760561	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
18	0295971	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
19	0344611	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%
20	0298281	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
21	0315261	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%
Monthly Effectiveness				94%			94%			94%			94%			94%			94%

CY '04

	MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
1	0348271	2A300	2A300	100%	2A300	2A300	100%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%
2	0302821	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
3	0760551	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
4	4186991	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W271	2W271	100%	2W171	2W271	100%	2W271	2W271	100%
5	0286781	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
6	4046461	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
7	4046511	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%	2W251	2W251	100%
8	4063091	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%	2A590	2A571	80%
9	0256201	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
10	0256201		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%
11	0256201		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%		2A573B	100%
12	0677831	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573C	100%	2A573C	2A573A	100%	2A573C	2A573A	100%
13	0348281	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
14	0298291	2A676	2A676	100%	2A676	2A676	100%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%	2A676	NA	0%
15	0334011	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
16	0334011								2M071	100%		2M071	100%		2M071	100%		2M071	100%
17	0760561	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%	2A551K	2A571	100%
18	0295971	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
19	0344611	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%	2A573	2A573	100%
20	0298281	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%	2W051	2W071	100%
21	0315261	2W151	NA	0%	2W151	NA	0%	2W151	NA	0%	2W151	2W071	46%	2W151	2W071	46%	2W151	2W071	46%
Monthly Effectiveness				94%			94%			89%			91%			91%			91%

Appendix BT-1: Mountain Home AFB QA Manning Calculations for 2003

CY '03		Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	00232951C	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2A600	90%	2A300	2W100	60%
2	00232981C	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%
3	00232991C	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%
4	00233001C	2A373A	2A675	43%	2A373A	2A675	43%	2A373A	2A675	43%	2A373A	2A675	43%	2A373A	2A675	43%	2A373A	2A675	43%
5	01165901C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
6	00404661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	00233021C	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
8	00411071C	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
9	00404681C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
10	01165911C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
11	01165911C		2A373	100%		2A373	100%		2A373	100%		2A373	100%		2A373	100%		2A373	100%
12	04383921C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
13	04383931C	2A673	2A673	100%	2A673	2A673	100%	2A673	2A655	19%	2A673	2A655	19%	2A673	2A655	19%	2A673	2A655	19%
14	00632991C	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	40%	2A373	40%
15	00233081C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
16	00233091C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
17	00233091C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
18	01165951C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
19	01165951C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
20	00232971C	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
21	00233061C	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%
22	01165961C	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
23	00632981C	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
24	00633001C	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%
25	01165971C	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%
26	00621981C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
27	00233101C	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%
28	00651801C	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%
Monthly Effectiveness				86%			86%			83%			83%			83%			82%

CY '03		Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	00232951C	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%
2	00232981C	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%
3	00232991C	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%
4	00233001C	2A373A	2A675	43%	2A373A	2A675	43%	2A373A	2A675	43%	2A373A	2A675	43%	2A373A	2A373A	100%	2A373A	2A373A	100%
5	01165901C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
6	00404661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	00233021C	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
8	00411071C	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
9	00404681C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
10	01165911C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
11	01165911C		2A373	100%		2A373	100%		2A373	100%		2A373	100%		2A373	100%		2A373	100%
12	04383921C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
13	04383931C	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%
14	00632991C	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%
15	00233081C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
16	00233091C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
17	00233091C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
18	01165951C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
19	01165951C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
20	00232971C	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
21	00233061C	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%
22	01165961C	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
23	00632981C	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
24	00633001C	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%
25	01165971C	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%
26	00621981C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
27	00233101C	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%
28	00651801C	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%
Monthly Effectiveness				82%			82%			82%			82%			84%			84%

Appendix BT-2: Mountain Home AFB QA Manning Calculations for 2004

CY '04

		Jan '04		Score	Feb '04		Score	Mar '04		Score	Apr '04		Score	May '04		Score	Jun '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	00232951C	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W191	60%
2	00232981C	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%
3	00232991C	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%
4	00233001C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
5	01165901C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
6	00404661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	00233021C	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
9	00411071C	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
10	00404681C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
11	01165911C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
12	01165911C		2A373	100%		2A373	100%		2A373	100%		2A373	100%		2A373	100%		2A373	100%
13	04383921C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
14	04383931C	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%
15	00632991C	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%
16	00233081C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
17	00233091C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
18	00233091C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
19	01165951C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
20	01165951C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
21	00232971C	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
22	00233061C	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%
23	01165961C	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
24	00632981C	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
25	00633001C	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%
26	01165971C	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	37%	2A674	37%
27	00621981C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
28	00233101C	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%
29	00651801C	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%
Monthly Effectiveness				84%			84%			84%			84%			84%			84%

CY '04

		Jul '04		Score	Aug '04		Score	Sep '04		Score	Oct '04		Score	Nov '04		Score	Dec '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	00232951C	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%	2A300	2W100	60%
2	00232981C	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	2A390	2A373	80%	80%	2A373	80%
3	00232991C	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%	2A373B	2A373A	100%
4	00233001C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
5	01165901C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
6	00404661C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
7	00233021C	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
9	00411071C	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
10	00404681C	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%	2A373A	2A373	100%
11	01165911C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
12	01165911C		2A373	100%		2A373	100%		2A373	100%									
13	04383921C	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%	2A373A	2A373A	100%
14	04383931C	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%	2A673	2A675	19%
15	00632991C	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%	2A676	2A373	40%
16	00233081C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
17	00233091C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
18	00233091C		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%		2W171	100%
19	01165951C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
20	01165951C		2W171	100%		2W171	100%		2W171	100%		2W171	100%						
21	00232971C	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
22	00233061C	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%	2A353A	2A373A	100%
23	01165961C	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%	2A651A	2A671A	100%
24	00632981C	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
25	00633001C	2A656	2A675	35%	2A656	2A675	35%	2A656	2A675	35%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
26	01165971C	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%	2A656	2A674	37%
27	00621981C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
28	00233101C	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%	2A353A	2A676	40%
29	00651801C	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%	2A353B	2A675	43%
Monthly Effectiveness				84%			84%			84%			82%			82%			82%

Appendix BU-1: Nellis AFB QA Manning Calculations for 2003

CY '03

	MPN	Jan '03 Auth'd	Jan '03 Assn'd	Score	Feb '03 Auth'd	Feb '03 Assn'd	Score	Mar '03 Auth'd	Mar '03 Assn'd	Score	Apr '03 Auth'd	Apr '03 Assn'd	Score	May '03 Auth'd	May '03 Assn'd	Score	Jun '03 Auth'd	Jun '03 Assn'd	Score
1	0063201	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	0043451	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	00633251	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
4	03482731	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	0906021	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	03483311	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	03482751	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
8	04481861	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%
9	04450631	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
10	04354401	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
11	04481401	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
12	03121111	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
13	04481351	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
14	0043491	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%
15	04481371	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
Monthly Effectiveness				87%			87%			87%			87%			87%			87%

CY '03

	MPN	Jul '03 Auth'd	Jul '03 Assn'd	Score	Aug '03 Auth'd	Aug '03 Assn'd	Score	Sep '03 Auth'd	Sep '03 Assn'd	Score	Oct '03 Auth'd	Oct '03 Assn'd	Score	Nov '03 Auth'd	Nov '03 Assn'd	Score	Dec '03 Auth'd	Dec '03 Assn'd	Score
1	0063201	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	0043451	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	00633251	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
4	03482731	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	0906021	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	03483311	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	03482751	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
8	04481861	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%
9	04450631	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
10	04354401	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
11	04481401	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
12	03121111	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
13	04481351	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
14	0043491	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%	2A071	2A071	100%
15	04481371	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
Monthly Effectiveness				87%			87%			87%			87%			87%			87%

Appendix BU-2: Nellis AFB QA Manning Calculations for 2004

CY '04

	MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
1	0063201	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	0043451	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	00633251	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
4	03482731	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	0906021	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	03483311	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	03482751	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
8	04481861	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%
9	04450631	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
10	04354401	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
11	04481401	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
12	03121111	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
13	04481351	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
14	0043491	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%
15	04481371	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
Monthly Effectiveness				87%			87%			87%			87%			87%			87%

CY '04

	MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
1	0063201	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	0043451	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
3	00633251	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
4	03482731	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	0906021	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
6	03483311	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	03482751	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
8	04481861	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%	2A774	2A774	100%
9	04450631	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
10	04354401	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
11	04481401	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
12	03121111	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
13	04481351	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
14	0043491	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%	2AO71	2AO71	100%
15	04481371	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
Monthly Effectiveness				93%			93%			93%			93%			93%			93%

Appendix BV-1: Offutt AFB QA Manning Calculations for 2003

			Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
		MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
CY '03	1	0109657	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%
	2	0452284	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%
	3	0028204	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	4	0028454	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	5	0063319	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
	6	0404041	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	7	0040158	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%
	8	0029777	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	9	0452345	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	10	0039766	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%
	11	0063320	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
	12	0063321	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
	13	0452343	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	14	0089258	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	15	0089258		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
	16	0452341	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%
	17	0028467	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
	18	0033568	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
	19	0033801	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%
	20	0028466	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	21	0452287	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%
	22	0052406	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	23	0062489	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
	24	0062490	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
	25	0052405	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%
	26	0063322	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%
	27	0032756	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
Monthly Effectiveness					65%			65%			65%			65%			65%			65%

			Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
		MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
CY '03	1	0109657	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%
	2	0452284	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%
	3	0028204	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	4	0028454	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	5	0063319	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
	6	0404041	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	7	0040158	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%	2A573A	NA	0%
	8	0029777	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	9	0452345	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	10	0039766	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%
	11	0063320	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
	12	0063321	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
	13	0452343	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	14	0089258	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
	15	0089258		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
	16	0452341	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%
	17	0028467	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
	18	0033568	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
	19	0033801	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%
	20	0028466	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
	21	0452287	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%
	22	0052406	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
	23	0062489	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
	24	0062490	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
	25	0052405	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%
	26	0063322	2A656	NA	0%	2A656	NA	0%	2A656	NA	0%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
	27	0032756	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
Monthly Effectiveness					65%			65%			65%			69%			69%			69%

Appendix BV-2: Offutt AFB QA Manning Calculations for 2004

CY '04

#	MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
1	0109657	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A691	100%	2A600	2A691	100%
2	0452284	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	NA	0%
3	0028204	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
4	0028454	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	0063319	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
6	0404041	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
7	0040158	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
8	0029777	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	2A551L	100%
9	0452345	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
10	0039766	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%
11	0063320	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
12	0063321	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
13	0452343	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
14	0089258	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
15	0089258		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
16	0452341	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%
17	0028467	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
18	0033568	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
19	0033801	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%
20	0028466	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
21	0452287	2A672	NA	0%	2A672	NA	0%	2A672	NA	0%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
22	0052406	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
23	0062489	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
24	0062490	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
25	0052405	2A553A	2A571	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%
26	0063322	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
27	0032756	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
Monthly Effectiveness				73%			73%			73%			76%			76%			76%

CY '04

#	MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
1	0109657	2A600	2A691	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%	2A600	2A600	100%
2	0452284	2A691	NA	0%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%	2A691	2A691	100%
3	0028204	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
4	0028454	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	0063319	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
6	0404041	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
7	0040158	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
8	0029777	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
9	0452345	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
10	0039766	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%
11	0063320	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%	2A651A	2A651A	100%
12	0063321	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%	2A655	2A655	100%
13	0452343	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
14	0089258	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
15	0089258		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%		2A571	100%
16	0452341	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%	2A571	NA	0%
17	0028467	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
18	0033568	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
19	0033801	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%	2A573C	2A071D	60%
20	0028466	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
21	0452287	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
22	0052406	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%	2A551L	NA	0%
23	0062489	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
24	0062490	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%	2A551L	2A551L	100%
25	0052405	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%	2A553A	2A553B	100%
26	0063322	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
27	0063322					2A656	100%		2A656	100%		2A656	100%		2A656	100%		2A656	100%
28	0032756	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
Monthly Effectiveness				76%			81%			81%			81%			81%			81%

Appendix BW: Pope AFB QA Manning Calculations for 2004

CY '04

	MPN	Jan '04		Score	Feb '04		Score	Mar '04		Score	Apr '04		Score	May '04		Score	Jun '04		Score
		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0399948	2A390	NA	0%	2A390	NA	0%	2A390	NA	0%	2A390	NA	0%	2A390	2A390	100%	2A390	2A390	100%
2	0399949	2A373	2A651	47%	2A373	2A651	47%	2A373	2A651	47%	2A373	2A651	47%	2A373	2A651	47%	2A373	2A651	47%
3	0399954	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
4	0399953	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
5	0399950	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	0399951	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	NA	0%	2A373	2A373	100%
7	0399955	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
8	0399960	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%
9	0399959	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%
10	0399956	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
11	0399957	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
12	0399958	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
13	0435149	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
14	0399952	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%
15	0437275	2A051	2A071	100%	2A051	2A071	100%	2A051	2A071	100%	2A051	2A071	100%	2A051	2A071	100%	2A051	2A071	100%
16	0399962	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%
17	0399963	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	0399964	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%
Monthly Effectiveness				76%			76%			76%			76%			81%			87%

CY '04

	MPN	Jul '04		Score	Aug '04		Score	Sep '04		Score	Oct '04		Score	Nov '04		Score	Dec '04		Score
		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0399948	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
2	0399949	2A373	2A651	47%	2A373	NA	0%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
3	0399954	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
4	0399953	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
5	0399950	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	0399951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	0399955	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
8	0399960	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%	2A051D	2A071	100%
9	0399959	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%	2A351B	NA	0%
10	0399956	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
11	0399957	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
12	0399958	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
13	0435149	2A353	2A353	100%	2A353	NA	0%	2A353	NA	0%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
14	0399952	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%
15	0437275	2A051	2A071	100%	2A051	2A071	100%	2A051	2A071	100%	2A051	2A071	100%	2A051	2A071	100%	2A051	NA	0%
16	0399962	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%	2A373	2W071	12%
17	0399963	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	0399964	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%	2W171	2W151	100%
Monthly Effectiveness				87%			78%			84%			90%			90%			84%

Appendix BX-1: Seymour-Johnson AFB QA Manning Calculations for 2003

			Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
		MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
CY '03	1	0109511	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A790	90%	2A390	2A790	90%	2A390	2A790	90%
	2	0109501	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	3	0109521	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	4	0109571	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
	5	0574241	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
	6	0109561	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	7	1070531	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%
	8	0630661	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%
	9	0537411	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
	10	0109591	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	11	0109601	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	12	0537421	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
	13	0769561	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	14	0630671	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%
	15	0109611	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
	16	0109541	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%
	17	0109621	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%
	18	4075491	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	19	1070541	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%
	20	0537431	2A373	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	21	0109531	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	22	0765391	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	23	0109581	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
	24	0234961	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	25	0109391	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
Monthly Effectiveness					92%			92%			92%			92%			92%			92%

			Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
		MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
CY '03	1	0109511	2A390	2A790	90%	2A390	2A790	90%	2A390	2A790	90%	2A390	2A790	90%	2A390	2A790	90%	2A390	2A790	90%
	2	0109501	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	3	0109521	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	4	0109571	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
	5	0574241	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
	6	0109561	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	7	1070531	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%
	8	0630661	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%
	9	0537411	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
	10	0109591	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	11	0109601	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	12	0537421	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
	13	0769561	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	14	0630671	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%
	15	0109611	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
	16	0109541	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%
	17	0109621	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%
	18	4075491	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	19	1070541	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%
	20	0537431	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	21	0109531	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	22	0765391	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	23	0109581	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
	24	0234961	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	25	0109391	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
Monthly Effectiveness					92%			92%			92%			92%			92%			92%

Appendix BX-2: Seymour-Johnson AFB QA Manning Calculations for 2004

CY '04		MPN	Jan '04 Auth'd	Jan '04 Assn'd	Score	Feb '04 Auth'd	Feb '04 Assn'd	Score	Mar '04 Auth'd	Mar '04 Assn'd	Score	Apr '04 Auth'd	Apr '04 Assn'd	Score	May '04 Auth'd	May '04 Assn'd	Score	Jun '04 Auth'd	Jun '04 Assn'd	Score
	1	0109511	2A390	2A790	90%	2A390	2A790	90%	2A390	2A600	90%	2A390	2A600	90%	2A390	2A600	90%	2A390	2A600	90%
	2	0109501	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	3	0109521	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	4	0109571	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
	5	0574241	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
	6	0109561	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	7	1070531	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%
	8	0630661	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%
	9	0537411	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
	10	0109591	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	11	0109601	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	12	0537421	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
	13	0769561	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	14	0630671	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%
	15	0109611	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
	16	0109541	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%
	17	0109621	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%
	18	4075491	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	19	1070541	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%
	20	0537431	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	21	0109531	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	22	0765391	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	23	0109581	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
	24	0234961	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	25	0109391	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
Monthly Effectiveness					92%			92%			92%			92%			92%			92%

CY '04		MPN	Jul '04 Auth'd	Jul '04 Assn'd	Score	Aug '04 Auth'd	Aug '04 Assn'd	Score	Sep '04 Auth'd	Sep '04 Assn'd	Score	Oct '04 Auth'd	Oct '04 Assn'd	Score	Nov '04 Auth'd	Nov '04 Assn'd	Score	Dec '04 Auth'd	Dec '04 Assn'd	Score
	1	0109511	2A390	2A600	90%	2A390	2A600	90%	2A390	2A300	100%	2A390	2A300	100%	2A390	2A300	100%	2A300	2A300	100%
	2	0109501	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	3	0109521	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	4	0109571	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%	2A071A	2A071A	100%
	5	0574241	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%	2A071C	2A071C	100%
	6	0109561	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	7	1070531	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%	2A671A	2A651A	100%
	8	0630661	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%	2A673	2A653	100%
	9	0537411	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
	10	0109591	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
	11	0109601	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	12	0537421	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%	2A353A	2A353A	100%
	13	0769561	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	14	0630671	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%	2A651A	2A671	100%
	15	0109611	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%	2A652	2A672	100%
	16	0109541	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%	2A371	2A671A	25%
	17	0109621	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%	2A371	2A373	40%
	18	4075491	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	19	1070541	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%	2A351B	2A373	40%
	20	0537431	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%	2A353A	2A373	100%
	21	0109531	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	22	0765391	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
	23	0109581	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%	2A371	2A371	100%
	24	0234961	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
	25	0109391	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
Monthly Effectiveness					92%			92%			92%			92%			92%			92%

Appendix BY-1: Shaw AFB QA Manning Calculations for 2003

CY '03

	MPN	Jan '03 Auth'd	Jan '03 Assn'd	Score	Feb '03 Auth'd	Feb '03 Assn'd	Score	Mar '03 Auth'd	Mar '03 Assn'd	Score	Apr '03 Auth'd	Apr '03 Assn'd	Score	May '03 Auth'd	May '03 Assn'd	Score	Jun '03 Auth'd	Jun '03 Assn'd	Score
1	0002411	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	4281191	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
3	0062131	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
4	0134851	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	4281211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4281221	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	4281241	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
8	1119251	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
9	4281201	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
10	0003101	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
11	4281231	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
12	0419651	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
14	0406621	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
15	0003061	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
16	0002961	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
17	0652201	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	4029951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
19	0906071	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
20	0041711	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
21	1119211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
22	0002991	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%
23	0003111	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	0003321	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
25	0003361	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
26	0065221	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
27	01119181	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
28	0003211	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
29	1119171	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
30	1119191	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
31	1119201	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
Monthly Effectiveness				97%			97%			97%			97%			97%			97%

CY '03

	MPN	Jul '03 Auth'd	Jul '03 Assn'd	Score	Aug '03 Auth'd	Aug '03 Assn'd	Score	Sep '03 Auth'd	Sep '03 Assn'd	Score	Oct '03 Auth'd	Oct '03 Assn'd	Score	Nov '03 Auth'd	Nov '03 Assn'd	Score	Dec '03 Auth'd	Dec '03 Assn'd	Score
1	0002411	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	4281191	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
3	0062131	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
4	0134851	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	4281211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4281221	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	4281241	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
8	1119251	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
9	4281201	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
10	0003101	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
11	4281231	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
12	0419651	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
14	0406621	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
15	0003061	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
16	0002961	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
17	0652201	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	4029951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
19	0906071	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
20	0041711	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
21	1119211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
22	0002991	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%
23	0003111	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	0003321	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
25	0003361	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
26	0065221	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
27	01119181	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
28	0003211	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
29	1119171	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
30	1119191	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
31	1119201	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
Monthly Effectiveness				97%			97%			97%			97%			97%			97%

Appendix BY-2: Shaw AFB QA Manning Calculations for 2004

CY '04		Jan '04		Score	Feb '04		Score	Mar '04		Score	Apr '04		Score	May '04		Score	Jun '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0002411	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	4281191	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
3	0062131	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
4	0134851	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	4281211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4281221	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	4281241	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
8	1119251	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
9	4281201	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
10	0003101	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
11	4281231	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
12	0419651	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
14	0406621	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
15	0003061	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
16	0002961	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
17	0652201	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	4029951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
19	0906071	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
20	0041711	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%	2A673	NA	0%
21	1119211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
22	0002991	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%
23	0003111	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	0003321	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
25	0003361	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
26	0065221	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
27	01119181	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
28	0003211	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
29	1119171	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
30	1119191	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
31	1119201	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
Monthly Effectiveness				97%			97%			97%			97%			97%			97%

CY '04		Jul '04		Score	Aug '04		Score	Sep '04		Score	Oct '04		Score	Nov '04		Score	Dec '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	0002411	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	4281191	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
3	0062131	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%	2A372	2A372	100%
4	0134851	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
5	4281211	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
6	4281221	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
7	4281241	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
8	1119251	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
9	4281201	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
10	0003101	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
11	4281231	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%	2A656	2A656	100%
12	0419651	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
14	0406621	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
15	0003061	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%	2A390	2A390	100%
16	0002961	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
17	0652201	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
18	4029951	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%	2A373	2A373	100%
19	0906071	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%	2A671	2A671	100%
20	0041711	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%	2A673	2A673	100%
21	1119211	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
22	0002991	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%	2A675	2A675	100%
23	0003111	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	0003321	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
25	0003361	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
26	0065221	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%	2A353	2A353	100%
27	01119181	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%	2A651	2A651	100%
28	0003211	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
29	1119171	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
30	1119191	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
31	1119201	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%	2W151	2W151	100%
Monthly Effectiveness				100%			100%			100%			100%			100%			100%

Appendix BZ-1: Whiteman AFB QA Manning Calculations for 2003

CY '03

		Jan '03		Score	Feb '03		Score	Mar '03		Score	Apr '03		Score	May '03		Score	Jun '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	391101C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	391111C	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%
3	422161C	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%
4	391151C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	422181C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
6	391041C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
7	422241C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
8	903801C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
9	625131C	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%
10	625141C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
11	391201C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
12	391051C	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
13	421211C	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%	2A553C	NA	0%
14	903791C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
15	622081C	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
16	1025021C	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%
17	633711C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
18	598931C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
19	598361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
20	610661C	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
21	391181C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
22	422221C	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
23	391171C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	391161C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
25	393081C	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%
26	422191C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
27	633701C	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%
28	633721C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
29	391141C	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%	2A674	2A674	100%
Monthly Effectiveness				85%			85%			85%			85%			85%			85%

CY '03

		Jul '03		Score	Aug '03		Score	Sep '03		Score	Oct '03		Score	Nov '03		Score	Dec '03		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	391101C	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%	2A300	2A300	100%
2	391111C	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%	2A690	2A690	100%
3	422161C	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%	2A571	2W171	20%
4	391151C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	422181C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
6	391041C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
7	422241C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
8	903801C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
9	625131C	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%
10	625141C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
11	391201C	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%	2A573A	2A573A	100%
12	391051C	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
13	421211C	2A553C	NA	0%	2A553C	NA	0%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
14	903791C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
15	622081C	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
16	1025021C	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%	2A752	NA	0%
17	633711C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
18	598931C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
19	598361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
20	610661C	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
21	391181C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
22	422221C	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
23	391171C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	391161C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
25	393081C	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%	2A671A	2A571	45%
26	422191C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
27	633701C	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%	2A652	NA	0%
28	633721C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
29	391141C	2A674	2A674	100%	2A674	2A674	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%
Monthly Effectiveness				85%			85%			88%			88%			88%			88%

Appendix BZ-2: Whiteman AFB QA Manning Calculations for 2004

CY '04		Jan '04		Score	Feb '04		Score	Mar '04		Score	Apr '04		Score	May '04		Score	Jun '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	391101C	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**
2	391111C	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**
3	422161C	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**
4	391151C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	422181C	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**
6	391041C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
7	422241C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
8	903801C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
9	625131C	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%
10	625141C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
11	391201C	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%
12	391051C	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
13	421211C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
14	903791C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
15	622081C	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
16	1025021C	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**
17	633711C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
18	598931C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
19	598361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
20	610661C	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
21	391181C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
22	422221C	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
23	391171C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	391161C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
25	393081C	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**
26	422191C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
27	633701C	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
28	633721C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
29	391141C	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%
Monthly Effectiveness				92%			92%			92%			92%			92%			92%

CY '04		Jul '04		Score	Aug '04		Score	Sep '04		Score	Oct '04		Score	Nov '04		Score	Dec '04		Score
	MPN	Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd		Auth'd	Assn'd	
1	391101C	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**	2A300	**2A600**	**90%**
2	391111C	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**	2A690	**2A590**	**80%**
3	422161C	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**	2A571	**2W171**	**20%**
4	391151C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
5	422181C	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**
6	391041C	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%	2A571	2A571	100%
7	422241C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
8	903801C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
9	625131C	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%	2A571	2A551K	100%
10	625141C	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%	2A551K	2A551K	100%
11	391201C	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%	2A553A	2A573A	100%
12	391051C	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%	2A573B	2A573B	100%
13	421211C	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%	2A553C	2A553C	100%
14	903791C	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%	2A753	2A773	100%
15	622081C	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%	2A753	2A753	100%
16	1025021C	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**	2A752	**2A753**	**90%**
17	633711C	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%	2A676	2A676	100%
18	598931C	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%	2W151	2W171	100%
19	598361C	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%	2W171	2W171	100%
20	610661C	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%	2W051	2W051	100%
21	391181C	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%	2W251	2W271	100%
22	422221C	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%	2M071	2M071	100%
23	391171C	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%	2W071	2W071	100%
24	391161C	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%	2A671A	2A671A	100%
25	393081C	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**	2A671A	**2A571**	**45%**
26	422191C	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%	2A672	2A672	100%
27	633701C	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%	2A652	2A652	100%
28	633721C	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%	2A655	2A675	100%
29	391141C	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%	2A674	2A654	100%
Monthly Effectiveness				92%			92%			92%			92%			92%			92%

Appendix CA: Survey, Part-1 Results w/ Validation

Composite Results w/ Validation

Rating Scale		
Descriptor	Rating	% Effect
Strongly Disagree	1	0%
Disagree	2	20%
Somewhat Disagree	3	40%
Somewhat Agree	4	60%
Agree	5	80%
Strongly Agree	6	100%

Q#	Ratings	Mean	Effect Rating	Std Dev	Var	Coeff of Var	% Affected by QA	Median	If 2d Quartile > 50%=V (Valid), ow/ NV (Not Valid)
Q1: The overall impact of work performed by aircraft maintenance Quality Assurance personnel as a whole is related to having the correct AFSC/skill levels assigned to the designated Unit Manpower Document positions.							80.0%	5.0	V
Q1	6 4 6 5 5 6 6 4 4 6 6 5 4 6 4 5 2 5 4 6 6 5 6 5 6 3 6 5 6 6 6 5 5 1	5.00	80.0%	1.23	1.52	0.25			
Q2: ACC aircraft unit/wing Ground Abort rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							57.6%	4.0	V
Q2	4 4 5 4 5 2 4 3 4 3 4 4 6 3 3 4 4 4 2 1 6 4 6 2 6 4 4 5 4 2 4 5 3 4	3.88	57.6%	1.23	1.50	0.32			
Q3: ACC aircraft unit/wing In-Flight Emergency Abort rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							55.9%	4.0	V
Q3	4 4 5 5 5 2 4 3 4 3 4 3 5 3 3 4 4 4 2 1 4 4 6 2 6 2 3 5 4 6 4 4 3 4	3.79	55.9%	1.20	1.44	0.32			
Q4: ACC aircraft unit/wing Aircraft Hung Ordnance rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							46.5%	3.5	NV
Q4	3 3 4 5 4 2 1 3 2 3 4 4 3 2 4 4 2 4 2 3 4 4 5 2 6 4 3 5 2 1 4 4 3 4	3.32	46.5%	1.17	1.38	0.35			
Q5: ACC aircraft unit/wing Aircraft Dropped Object rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							54.7%	4.0	V
Q5	5 3 4 3 5 2 5 3 2 4 4 5 4 1 5 4 4 3 2 1 5 5 6 2 5 4 4 5 4 2 4 5 3 4	3.74	54.7%	1.29	1.66	0.34			
Q6: ACC aircraft unit/wing Aircraft Tire/Foreign Object Damage rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							61.2%	4.0	V
Q6	5 4 5 6 5 2 5 3 3 4 4 5 5 1 5 4 4 5 2 5 6 4 6 2 5 3 4 5 3 5 4 4 3 2	4.06	61.2%	1.28	1.63	0.31			
Q7: ACC aircraft unit/wing Engine Foreign Object Damage rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							65.3%	4.5	V
Q7	5 4 5 6 5 2 5 4 3 4 5 5 6 1 4 4 4 5 2 5 6 4 6 2 6 5 4 5 5 5 4 4 3 2	4.26	65.3%	1.31	1.72	0.31			
Q8: ACC aircraft unit/wing Aircraft Class-B Mishap rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							56.5%	4.0	V
Q8	4 4 4 5 5 2 5 4 3 4 5 4 4 1 4 4 5 4 2 1 5 4 6 2 5 4 4 5 4 4 4 4 3 2	3.82	56.5%	1.19	1.42	0.31			
Q9: ACC aircraft unit/wing Aircraft Class-C Mishaps rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							57.1%	4.0	V
Q9	4 4 4 5 5 2 5 4 3 4 5 4 4 1 4 4 5 4 2 1 4 4 6 2 5 5 4 5 4 4 4 5 3 2	3.85	57.1%	1.21	1.46	0.31			
Q10: ACC aircraft unit/wing Maintenance Personnel Training pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							61.8%	4.0	V
Q10	6 4 4 6 4 5 6 3 5 4 4 6 2 3 2 4 3 5 2 4 5 4 6 5 5 4 4 5 2 1 6 3 3 4	4.09	61.8%	1.36	1.84	0.33			
Q11: ACC aircraft unit/wing Phase Dock Inspection pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							75.3%	5.0	V
Q11	6 3 5 6 6 5 6 4 5 4 5 6 2 3 5 5 4 4 5 5 6 4 6 5 6 6 5 5 3 5 6 6 3 2	4.76	75.3%	1.21	1.46	0.25			
Q12: ACC aircraft unit/wing Repeat rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							51.2%	4.0	V
Q12	3 3 5 5 4 2 3 3 2 3 4 4 2 5 4 4 1 4 2 1 4 4 6 2 4 5 4 5 3 4 5 4 3 4	3.56	51.2%	1.21	1.47	0.34			
Q13: ACC aircraft unit/wing Recur rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							50.6%	4.0	V
Q13	3 3 5 5 4 2 3 3 2 3 3 4 2 5 4 4 1 4 2 1 4 4 6 2 5 4 4 5 4 4 4 4 3 4	3.53	50.6%	1.19	1.41	0.34			
Q14: ACC aircraft unit/wing Late Takeoff rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							38.8%	3.0	NV
Q14	2 3 3 5 4 2 3 3 2 3 3 4 5 5 2 3 1 4 2 1 1 3 6 2 1 2 2 5 3 2 4 5 2 2	2.94	38.8%	1.35	1.81	0.46			
Q15: ACC aircraft unit/wing Safety rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							71.8%	5.0	V
Q15	4 5 5 6 6 3 6 4 4 4 3 5 4 5 5 4 3 4 5 5 4 5 6 5 6 4 4 5 4 5 6 5 3 4	4.59	71.8%	0.92	0.86	0.20			
Q16: ACC aircraft unit/wing HHQ Inspection (i.e. IG, LOCAT, ESHOCAMP, SAVs, etc.) pass rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.							81.2%	5.0	V
Q16	4 5 6 6 6 5 6 4 3 4 5 5 6 5 6 4 5 4 5 5 6 6 4 5 6 5 5 5 5 6 6 5 3 6	5.06	81.2%	0.89	0.78	0.18			

Appendix CB: Survey, Part-1 Results, Fill-In w/ Validation

Q#	Fill-In Ratings			
Q17/Q18/Q19: ACC aircraft unit/wing _________ rates are affected by the quality of work performed by aircraft maintenance Quality Assurance personnel.				
Rating	Metric	% Affected by QA	Median	If 2d Quartile > 50%=V (Valid), ow/ NV (Not Valid)
6	Key Task list	90%	5.5	V
5	KTL			
6	Quality Verification Inspections	100%	5.0	V
5	Flying Scheduling Effectiveness	80%	6.0	V
4	mission capable	70%	4.0	V
4	MC rates			
4	mission capable			
5	MC rates			
5	8 hour fix	80%	5.0	V
4	8/12 hour fix rate			
6	12 hr fix rates			
5	Fix rates			
5	Deficiency reporting rate	80%	5.0	V
5	Cruise Missile Availability Rate	80%	5.0	V
2	cut tires	20%	2.0	NV
6	ORI	100%	6.0	V
6	Donor aircraft	100%	6.0	V
5	TNMCM	80%	5.0	V
5	technical order compliance	80%	5.0	V
5	technical order improvement initiatives	80%	5.0	V

Appendix CC: Regression for QA Manning Effectiveness and Break Rate

Dependent Variable: LOG(100*BREAK)				
Method: Least Squares				
Date: 03/17/05 Time: 12:32				
Sample: 1 400 IF B2=0				
Included observations: 348				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	4.17838	0.278083	15.02567	0
100*QAMANN1	**-0.008314**	**0.003349**	**-2.482781**	**0.0135**
FIGHTER	-0.939144	0.075903	-12.3729	0
SPECIAL	-1.235644	0.094082	-13.1337	0
R-squared	0.454402	Mean dependent var		2.743067
Adjusted R-squared	**0.449644**	S.D. dependent var		0.631322
S.E. of regression	0.468352	Akaike info criterion		1.332236
Sum squared resid	75.45773	Schwarz criterion		1.376514
Log likelihood	-227.809	F-statistic		95.50027

Appendix CD: Regression for QA Manning Effectiveness and CANN Rate

Dependent Variable: LOG(100*CANN)				
Method: Least Squares				
Date: 03/17/05 Time: 12:34				
Sample: 1 400 IF B2 = 0				
Included observations: 348				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	6.264102	0.617573	10.1431	0
100*QAMANN1	**-0.02647**	**0.006767**	**-3.911597**	**0.0001**
FIGHTER	-1.775096	0.07899	-22.47253	0
SPECIAL	-3.17734	0.243735	-13.03602	0
R-squared	0.615017	Mean dependent var		2.510841
Adjusted R-squared	**0.61166**	S.D. dependent var		1.137491
S.E. of regression	0.708849	Akaike info criterion		2.16108
Sum squared resid	172.8488	Schwarz criterion		2.205358
Log likelihood	-372.028	F-statistic		183.1823
Durbin-Watson stat	0.50671	Prob(F-statistic)		0

Appendix CE: Regression for QA Manning Effectiveness and DOP Count

Dependent Variable: DOP				
Method: ML/QML - Poisson Count (Quadratic hill climbing)				
Date: 03/17/05 Time: 12:34				
Sample (adjusted): 1 384				
Included observations: 372 after adjustments				
Convergence achieved after 5 iterations				
QML (Huber/White) standard errors & covariance				
Variable	**Coefficient**	**Std. Error**	**z-Statistic**	**Prob.**
C	2.080573	0.623371	3.337616	0.0008
100*QAMANN1	**-0.01058**	**0.006675**	**-1.585147**	**0.1129**
FIGHTER	-0.825581	0.124662	-6.622577	0
SPECIAL	-1.975846	0.338648	-5.834512	0
R-squared	0.14663	Mean dependent var		1.822581
Adjusted R-squared	**0.139673**	S.D. dependent var		2.390621
S.E. of regression	2.217392	Akaike info criterion		3.86131
Sum squared resid	1809.393	Schwarz criterion		3.903449
Log likelihood	-714.2037	Hannan-Quinn criter.		3.878044
Restr. log likelihood	-800.1408	Avg. log likelihood		-1.919902
LR statistic (3 df)	1.72E+02	LR index (Pseudo-R2)		0.107403

Appendix CF: Regression for QA Manning Effectiveness and FSE Rate

Dependent Variable: LOG(100*FSE)				
Method: Least Squares				
Date: 03/17/05 Time: 12:36				
Sample: 1 400 IF B2=0				
Included observations: 348				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	4.430337	0.096676	45.82686	0
100*QAMANN1	**-0.003558**	**0.001165**	**-3.053087**	**0.0024**
FIGHTER	0.260302	0.035266	7.381124	0
SPECIAL	0.18321	0.03986	4.596377	0
R-squared	0.237439	Mean dependent var		4.302517
Adjusted R-squared	0.230788	S.D. dependent var		0.253688
S.E. of regression	0.222496	Akaike info criterion		-0.156385
Sum squared resid	17.02958	Schwarz criterion		-0.112107
Log likelihood	31.21101	F-statistic		35.70372
Durbin-Watson stat	1.632206	Prob(F-statistic)		0

Appendix CG: Regression for QA Manning Effectiveness and KTL Pass Rate

Dependent Variable: LOG(100*KTLPASS)				
Method: Least Squares				
Date: 03/17/05 Time: 12:36				
Sample: 1 400 IF B2=0				
Included observations: 312				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	4.640279	0.068834	67.41267	0
100*QAMANN1	**-0.001385**	**0.000742**	**-1.867712**	**0.0628**
FIGHTER	-0.035739	0.011959	-2.988606	0.003
SPECIAL	-0.030501	0.024361	-1.252011	0.2115
R-squared	**0.058592**	Mean dependent var		4.497526
Adjusted R-squared	0.049422	S.D. dependent var		0.083941
S.E. of regression	0.08184	Akaike info criterion		-2.155356
Sum squared resid	2.062933	Schwarz criterion		-2.107369
Log likelihood	340.2356	F-statistic		6.389833
Durbin-Watson stat	1.24087	Prob(F-statistic)		0.000327

Appendix CH: Regression for QA Manning Effectiveness and MSE Rate

Dependent Variable: LOG(100*MSE)				
Method: Least Squares				
Date: 03/17/05 Time: 12:37				
Sample: 1 400 IF B2=0				
Included observations: 348				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	4.748972	0.029954	158.5413	0
100*QAMANN1	**-0.002095**	**0.000339**	**-6.1744**	**0**
FIGHTER	0.002535	0.005563	0.455772	0.6488
SPECIAL	-0.079813	0.016268	-4.906287	0
R-squared	0.109202	Mean dependent var		4.559457
Adjusted R-squared	**0.101434**	S.D. dependent var		0.056189
S.E. of regression	0.053263	Akaike info criterion		-3.015717
Sum squared resid	0.975914	Schwarz criterion		-2.971439
Log likelihood	528.7348	F-statistic		14.05694
Durbin-Watson stat	1.280335	Prob(F-statistic)		0

Appendix CI: Regression for QA Manning Effectiveness and QVI Pass Rate

Dependent Variable: LOG(100*QVIPASS)				
Method: Least Squares				
Date: 03/17/05 Time: 12:37				
Sample (adjusted): 1 384				
Included observations: 365 after adjustments				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	4.62219	0.025762	179.4163	0
100*QAMANN1	**-0.001238**	**0.000293**	**-4.231535**	**0**
FIGHTER	-0.020465	0.005103	-4.01058	0.0001
SPECIAL	0.001102	0.008372	0.131653	0.8953
R-squared	0.182803	Mean dependent var		4.50452
Adjusted R-squared	**0.176011**	S.D. dependent var		0.045217
S.E. of regression	0.041046	Akaike info criterion		-3.537367
Sum squared resid	0.608192	Schwarz criterion		-3.494628
Log likelihood	649.5695	F-statistic		26.91791
Durbin-Watson stat	0.83104	Prob(F-statistic)		0

Appendix CJ: Regression for QA Manning Effectiveness and Repeat Rate

Dependent Variable: LOG(100*QVIPASS)				
Method: Least Squares				
Date: 03/17/05 Time: 12:37				
Sample (adjusted): 1 384				
Included observations: 365 after adjustments				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	4.62219	0.025762	179.4163	0
100*QAMANN1	**-0.001238**	**0.000293**	**-4.231535**	**0**
FIGHTER	-0.020465	0.005103	-4.01058	0.0001
SPECIAL	0.001102	0.008372	0.131653	0.8953
R-squared	0.182803	Mean dependent var		4.50452
Adjusted R-squared	**0.176011**	S.D. dependent var		0.045217
S.E. of regression	0.041046	Akaike info criterion		-3.53737
Sum squared resid	0.608192	Schwarz criterion		-3.49463
Log likelihood	649.5695	F-statistic		26.91791
Durbin-Watson stat	0.83104	Prob(F-statistic)		0

Appendix CK: Regression for QA Manning Effectiveness and STV Count

Dependent Variable: STV				
Method: ML/QML - Poisson Count (Quadratic hill climbing)				
Date: 03/17/05 Time: 12:38				
Sample: 1 400 IF B2 =0				
Included observations: 338				
Convergence achieved after 5 iterations				
QML (Huber/White) standard errors & covariance				
Variable	**Coefficient**	**Std. Error**	**z-Statistic**	**Prob.**
C	0.091283	0.448298	0.203621	0.8386
QAMANN1	**2.479759**	**0.501996**	**4.939795**	**0**
FIGHTER	0.220037	0.099749	2.205909	0.0274
SPECIAL	**0.181072**	0.186595	0.970402	0.3318
R-squared	0.132606	Mean dependent var		11.18935
Adjusted R-squared	**0.124815**	S.D. dependent var		8.174267
S.E. of regression	7.647135	Akaike info criterion		8.814526
Sum squared resid	19531.88	Schwarz criterion		8.859769
Log likelihood	-1485.655	Hannan-Quinn criter.		8.832557
Restr. log likelihood	-1613.39	Avg. log likelihood		-4.395429
LR statistic (3 df)	255.4695	LR index (Pseudo-R2)		0.079172
Probability(LR stat)	0			

Appendix CL: AFSC Job Descriptions (3-sheets)

AFSC	AFS Title	Job Descriptions	AFSCs	Shreds
2A0X1	AVIONICS TST STA AND COMP JYMN/CRFTMN	These personnel perform and manage avionics test station functions and activities. They operate, inspect, maintain, program, and calibrate computer and manually operated avionics test equipment, support equipment, and aircraft avionics system components.	2A051; 2A071	A=F-15; B=All helos and acft other than F-15; C=Sensors for all helos and acft; D=EWS for all helos and acft
2A0X0	PT, AVIONICS TST STA AND COMP JYMN/CRF	Manages and directs maintenance functions and activates. Included areas are avionics sensors, communications and navigation, guidance and control, airborne warning and control radar, inertial and radar navigation, airborne command post communication systems, avionics test stations, electronic warfare systems, and avionics support equipment.	2A090; 2A000	N/A
2A3X0	MX SUPT (TAC ACFT)	Manages maintenance activities engaged in planning, inspecting, and servicing tactical aircraft and related support equipment.	2A390; 2A300	N/A
2A3X1	AVIONICS SYS (A10/F15/U2) JYMN/CRFTMN	Isolates malfunctions and repairs and inspects A-10, F-15, and U-2 integrated avionics systems at operational levels. Inspects, services, and performs aircraft handling procedures.	2A351; 2A371	A=Attack Control; B=Instruments and Flt Controls; C=Comm, Nav, & Pen Aids
2A3X2	VIONICS SYS (F16/117/RQ1/CV22) JYMN/CRFTN	Maintains F-16, F-117, RQ-1, and CV-22 acft avionics systems at the organizational level. Performs and supervises general acft servicing and handling procedures.	2A352; 2A372	A=Attack Control; B=Instruments and Flt Controls; C=Comm, Nav, & Pen Aids
2A3X3	CREW CHIEF (TAC ACFT) JYMN/CRFTMN	Maintains tactical acft, support equipment, and forms and records. Performs and supervises flight chief, expediter, crew chief, repair & reclamation, quality assurance, and maintenance support functions	2A353; 2A373	A=F-15; B=F-16/F-117; E=A-10; F=T-1/T-38; G=T-37/QA-37; H=U-2; J=General acft except F-15/F-16
2A590	MX SUPT (NON-TAC ACFT)	Manages maintenance and staff activities engaged in maintenance planning, inspecting, repairing, and servicing aircraft, helicopters, and aerospace equipment.	2A590	N/A
2A5X1	CREW CHIEF (NON-TAC ACFT) JYMN/CRFTMN	Maintains acft, support equipment, and forms and records. Performs production supervisor, flight chief, expediter, crew chief, support, aero repair, and maintenance functions.	2A551; 2A571	A=C-9/C-20/C-21/C-22/C-141/T-39/T-43; B=C-12/C-26/C-27/C-130; C=C-5; D=C-17; E=B-1/B-2; F=B-52; G=C-18/C-135/E-3/VC-25/VC-137; H=KC-10/E-4; J=C-5/C-9/C-12/C-17/C-20/C-21/C-22/C-26/C-27/C-130/C-141/T-39/T-43; K=B-1/B-2/B-52; L=All C-135/C-18/E-3/E-4/KC-10/VC-25/VC-137.
2A5X2	CREW CHIEF (HELO) JYMN/CRFTMN	Performs and supervises helicopter maintenance functions and activities. Inspects, repairs, maintains, and services helicopters and support equipment. Maintains acft forms and records. Performs crew chief functions.	2A552; 2A572	A=MH-53; B=H-60; C=H-1
2A5X3	VIONICS SYS (NON-TAC ACFT) JYMN/CRFTMI	Analyzes malfunctions; inspects, removes, maintains, and installs integrated avionics systems. Performs and supervises maintenance and general acft servicing and handling.	2A553; 2A573	A= Comm, Nav, and Mission; B=Inst and Flt Cont; C=EW; D=Airborne Surv Radar Systems

2A600	ACFT SYS SUPERINTENDENT	Manages maintenance functions in aircrew egress systems, and aircraft fuel, in-flight refueling, hydraulic, electrical, and environmental systems	2A600	N/A
2A6X1	PROP JYMN/CRFTMN/SUPERINTENDENT	Inspects, maintains, modifies, tests, and repairs propellers, turboprop and turbine engines, jet engines, small gas turbine engines, and engine ground support equipment. Manages aerospace propulsion functions and activities.	2A651; 2A671; 2A691	A=Jet Eng; B=Turboprop and Turbo shaft Propulsion; C=TF33/CF6/F103/F108/F117/JT3D-3/TF34/TF39/PW2020 Jet Eng; D=F100/F119 Jet Eng; E=F101/F110/F118/F404/J85 Jet Eng.
2A6X2	AGE JYMN/CRFTMN	Maintains aerospace ground equipment (AGE) to support acft systems or subsystems. Manages AGE functions and activities.	2A652; 2A672; 2A692	N/A
2A6X3	EGRESS SYS JYMN/CRFTMN	Maintains acft egress systems including ejection seats, canopies, hatches, and modules; explosive components; electro-explosive devices; subsystems; and related support equipment.	2A653; 2A673	N/A
2A6X4	FUEL SYS JYMN/CRFTMN	Removes, repairs, inspects, and modifies acft fuel systems including integral fuel tanks, bladder cells, and external tanks. Maintains assoicated hardware and equipment.	2A654; 2A674	N/A
2A6X5	HYDR SYS JYMN/CRFTMN	Troubleshoots, removes, repairs, overhauls, inspects, and installs acft hydraulic systems and components, including support equipment.	2A655; 2A675	N/A
2A6X6	ELEC/ENV SYS JYMN/CRFTMN	Performs and supervises acft electrical and environmental (E&E) functions and activities. Troubleshoots, inspects, removes, installs, repairs, modifies, overhauls, and operates acft E&E systems, components, and associated support equipment.	2A6556; 2A676	N/A
2A7X1	AIRCRAFT METALS TECHNOLOGY	Designs, welds, heat treats, fabricates, and machines precision tools, components, and assemblies for aerospace weapons systems and realetd support equipment.	2A751; 2A771	N/A
2A7X2	NON-DESTRUCTIVE INSPECTION	Inspects aerospace weapons systems components and support equipment for structural integrity using non-destructive methoda and performs fluid analysis.	2A752; 2A772	N/A
2A7X3	STRUCT MX JYMN/CRFTMN	Designs, repairs, modifies, and fabricates acft metal, plastic, composite, advanced composite, low observables, and bonded structural parts and components. Applies preservative treatments to acft, missiles, and support equipment.	2A753; 2A773	N/A
2A7X4	SURV EQUIP JYMN/CRFTMN	Disassembles, assembles, inspects, fabricates, cleans, repairs, and packs aerospace weapons system component such as protective clothing, upholstery, thermal radiation barriers, protective covers, flotation equipment, emergency evacuation systems, parachutes.	2A754; 2A774	N/A

2E1X1	SAT, WIDEBAND, AND TELEMETRY SYS JYMN/CRFTMN	Deploys, operates, and sustains ground and space-based satellite, Beyond Line-of-Sight, wideband communication, telemetry, and instrumentation systems. Manages and performs design support, installation, calibration, testing, operation, maintenance, and repair of facilities, systems equipment, and related subsystems. Monitors, analyzes, and directs performance checks and measurements to ensure acceptable performance. Configures equipment. Establishes and maintains communications links with distant terminals. Operates earth terminal control console and monitors system performance indicators. Implements operations directives. Manages wideband and satellite earth terminal facilities or activities.	2E151; 2E171	N/A
2E2X1	COMP NETWORK SWITCHING AND CRYPTO SYS	Sustains network infrastructure, cryptographic equipment, and deployable switching systems in a fixed and deployed environment. Sustains and operates systems through effective troubleshooting, repair, diagnostics, and system performance analysis.	2E251; 2E271	N/A
2M0X1	MSL/SPC SYS MX JYMN/CRFTMN	Maintains, operates, and supervises maintenance on ground and air missiles, unmanned aerial vehicles (UAV), space lift boosters, payload guidance and control systems and subsystems. Monitors, analyzes, and compiles system performance data. Supervises maintenance on automated and manual electronic test, launch control, checkout, and support equipment. Designs and supervises assembly, calibration, operation, troubleshooting, and testing of research and development systems and support equipment. Launches, tracks, and recovers UAVs, and operates and maintains support equipment.	2M051; 2M071	A=ICBM; B=ALCM
2W0X1	MUN SYS JYMN/CRFTMN	Performs and manages munitions production and material tasks and activities. Identifies munitions and equipment requirements. Operates and maintains automated data processing equipment to perform munitions accounting, computations, and research. Stores, maintains, assembles, issues, and delivers assembled non-nuclear munitions. Routinely demilitarizes nonhazardous munitions. Operates and maintains munitions material handling equipment. Develops and implements munitions material management concepts and procedures. Complies with explosive, missile, and ground safety, security, and environmental directives and practices. Identifies munitions by filler color code, marking, or physical characteristics. receives, stores, handles, and transports nuclear weapons.	2W051; 2W071	N/A
2W1X1	ACFT ARM SYS JYMN/CRFTMN	Loads and unloads nuclear and non-nuclear munitions, explosives, and propellant devices from acft. Manages, controls, maintains, and installs act bomb, rocket, missile release, launch, suspension, monitor systems; guns and gun mounts; and related munitions handling, loading, and test equipment.	2W151; 2W171	C=A-10; D=F-4; E=F-15; F=F-16; H=F-111; K=B-52; L=B-1; Z=All Other
2W100	SUPT, ACFT ARMAMENT SYSTEMS	Loads and unloads nuclear and non-nuclear munitions, explosives, and propellant devices from acft. Manages, controls, maintains, and installs act bomb, rocket, missile release, launch, suspension, monitor systems; guns and gun mounts; and related munitions handling, loading, and test equipment.	2W191, 2W100	N/A
2W2X1	NUC WPNS JYMN/CRFTMN	Performs and manages maintenance, inspection, storage, handling, modification, accountability, and repair of nuclear weapons components, associated equipment, and general or specialized test and handling equipment.	2W251; 2W271	N/A

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Vita

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His prior duty assignments include Hill Air Force Base, Utah; Kunsan Air Base, Republic of Korea; Shaw Air Force Base, South Carolina; Nellis Air Force Base, Nevada; Moody Air Force Base, Georgia; Ramstein Air Base, Germany; Aviano Air Base, Italy, Langley Air Force Base, Virginia. In September 2003, he entered the Acquisitions Logistics and Graduate Logistics Management Programs at the Air Force Institute of Technology (AFIT), Wright-Patterson Air Force Base, Ohio. Upon graduation from AFIT he will be assigned to Headquarters, Air Force Material Command at Wright-Patterson Air Force Base as the Command 2A0, 2A6, and 2A7 Career Field Manager.

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14. ABSTRACT The purpose of this research was to examine the impact that current USAF Quality Assurance (QA) manning practices has on key aircraft wing- and unit-level metrics. Interviews and surveys culminated in development of a QA Manning Effectiveness Matrix. We then used the matrix to calculate historical QA manning effectiveness at 16 ACC bases. Effectiveness scores were regressed with associated historical data for 26 metrics derived from a Delphi survey. Nine metrics were deemed statistically significant, including break rates, cannibalization rates, flying schedule effectiveness rates, key task list pass rates, maintenance scheduling effectiveness rates, quality verification inspection pass rates, repeat rates, dropped objects counts and safety/technical violations counts. An example benefit cost analysis for changes in QA manning effectiveness was performed, using reasonable cost values. The results present compelling evidence for maintenance managers to carefully weigh decisions to leave QA manning slots empty, or to assign personnel possessing other than authorized credentials. Maintenance managers can use this tool to help determine mitigating strategies for improving unit performance with respect to the nine metrics.

15. SUBJECT TERMS
Quality Assurance Manning Effectiveness, Unit Manpower Document, Maintenance Metrics, USAF Accident Rate, Dropped Object, Foreign Object Damage, Safety, Mission Capable Rate, Statistical Correlation Analysis, Benefit Cost Ratio Analysis, Delphi Study, Computer-Based Survey.

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