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The International Institute for Strategic Studies



THE MILITARY BALANCE 1982- 1983

The International Institute for Strategic Studies

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THE MILITARY BALANCE 1982- 1983

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This publication has been prepared by the Director of the Institute and his Staff, who accept full responsibility for its contents. These do not, and indeed cannot, represent a consensus of views among the world-wide membership of the Institute as a whole

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ERRATUM

The Military Balance 1982–1983

A typographical error appears on p. 136. The range for the SS-20 should be 5,000 km (*not* 5,600 km).

PREFACE

The Military Balance is an annual, quantitative assessment of the military power and defence expenditure of countries throughout the world.

It examines the facts of military power as they existed in July 1982, and no projections of force levels or weapons beyond this date have been included, except where specifically stated. The study should not therefore be regarded as a comprehensive guide to the balance of military power; in particular, it does not reflect the facts of geography, doctrine or efficiency, except where these are explicitly touched upon.

The book is organized in three sections. National entries are in general grouped geographically, but with special reference to the principal regional defence pacts and alignments. Information about some smaller countries, whose military forces are of a size which has not seemed to warrant fuller description at this stage, has been set out in a tabular form. Tables give comparative information on nuclear delivery vehicles and static measurements of the strategic nuclear balance, defence expenditure (with historical trends), military manpower (active and reserve) and arms-transfer agreements. Separate essays assess the European theatre balance, both conventional and nuclear, between NATO and the Warsaw Pact and the US-Soviet strategic balance. These essays go beyond the purely statistical presentation of military forces.

Notes, which follow this Preface, will help the reader to use the current edition of *The Military Balance*. It is important to read them, since they amplify and give precision to the data in the national sections and tables.

The Director and the staff of the Institute assume full responsibility for the facts and judgments which this study contains. The co-operation of governments has been sought and, in many cases, received. Not all countries have been equally co-operative, and some figures have necessarily been estimated. Inevitably, these estimates change as new information becomes available. The Institute owes a considerable debt to a number of its own members and consultants, who have helped in compiling and checking material.

September 1982

READER'S NOTES

Regions and Countries

The main geographical regions are shown in the Table of Contents on p.iii. An alphabetical list, showing where each entry is to be found, is on p. 2, following these notes. To the extent that national variations permit, each entry is arranged in a standard form: population, military service, total military manpower strength, Gross National Product (GNP)/Gross Domestic Product (GDP) and defence expenditure; separate sections on the army, navy and air force, with broad organization and equipment and, where relevant, the significant foreign deployment of forces. Where the information is available, reserves and para-military forces are included. Precise distinctions as to what are or are not para-military forces are difficult, and some latitude must be allowed: para-military forces are those elements whose equipment and training goes beyond that required for civil police duties and whose constitution and control suggest they may be usable in support, or in lieu, of regular military forces.

Defence Pacts and Agreements

A short description of multilateral and bilateral pacts and military aid agreements introduces each of the main regional sections of the study. Defence assistance given under less formal arrangements is also noted. Agreements which cover only economic aid are not included.

Defence Expenditure

For defence expenditure the latest available budget figures are quoted. Table 5 on pp.124–5 shows current and past expenditures, expressed in current United States dollars so as to afford international comparisons; however, since many countries update these each year, the figures will not necessarily correspond with those shown in previous editions of *The Military Balance*. In Table 3 there are comparisons of NATO defence expenditures 1970–1981 in constant prices; in this table, and for the NATO countries in Table 5, a standard NATO definition of defence expenditure is used, but in most other cases national definitions are used. The defence expenditures of the Soviet Union and the People's Republic of China are a range of estimates illustrating the variation of opinion as to these expenditures. The problem of arriving at Soviet defence expenditure and an exchange rate to afford comparability is discussed on pp. 12–13, whilst the difficulty of arriving at a figure for China is covered on p.79.

National Income

GNP and GDP figures are both used. GDP is equal to GNP minus net income from abroad. GNP figures are usually quoted at current market prices (factor cost for East European countries). Where figures are not currently available from published sources, estimates have been made, and Table 5 uses both published and estimated GNP figures. GNP/GDP growth rates refer to real growth in real terms. Inflation rates are based on available consumer price indices. Wherever possible the United Nations System of National Accounts, based on the latest available International Financial Statistics (IFS), has been used, rather than national figures, as a step towards greater comparability. For the Soviet Union GNP estimates are made in roubles, following R.W. Campbell, 'A Shortcut Method for Estimating Soviet GNP' (*Association for Comparative Economic Studies*, vol. XIV, no.2, Fall 1972). East European GNPs at factor cost are derived from Net Material Product. For China three estimates of GNP/GDP are given on p.79.

Currency Conversion Rates

To make comparisons easier, national currency figures have been converted into United States dollars, using the rate averaged for the national financial year (for 1982–83 figures, the average rate for the first half of calendar 1982). Wherever possible the exchange rates have been taken from the IFS. In all cases the conversion rates used are shown in the entry, though they may not always be applicable to commercial transactions, and high inflation rates in some countries make conversions unreliable. An exception has been made in the case of the Soviet Union, since the official exchange rate is unsuitable for converting rouble estimates of GNP. Various estimates of more appropriate conversion rates have been made, but they have shortcomings too great to warrant their being used here; the official rate is, however, given in the country section. Further exceptions are certain East European countries which are not members of the IMF and Hungary and Romania (which are), for which the conversion rates used are those described in T. P. Alton, 'Economic Growth and Resource Allocation in Eastern Europe', *Reorientation and Commercial Relations of the Economies of Eastern Europe*, Joint Economic Committee, 93rd Congress, 2nd Session (Washington DC: USGPO, 1974).

Manpower

Unless otherwise stated, the manpower figures given are those of active forces, regular and conscript. An indication of the size of militia, reserve and para-military forces is also included in the entry where appro-

appropriate. Reserve figures are generally estimates based on a five-year post-conscription period, though some national definitions are given. Manpower information is summarized in Table 5.

Equipment

The equipment figures in the entries show total holdings, with the exception of combat aircraft, where front-line squadron strengths are normally shown. The symbol (–) indicates that part of an establishment is detached. Except where the symbol < is used, naval vessels of less than 100 tons structural displacement have been excluded. The term 'combat aircraft' comprises aircraft normally equipped and configured to deliver ordnance (bomber, fighter-bomber, strike, interceptor, reconnaissance, counter-insurgency and armed trainer aircraft, including operational training or conversion units (OCU)) and armed helicopters when clearly identified as such. Basic technical details of the nuclear delivery vehicles (missiles, artillery and aircraft) available to NATO and Warsaw Pact countries are given in Table 1 on pp. 112–18.

Strength of Military Formations

The table below gives the approximate average establishment strength of the major military formations in the text. Military organization is flexible, and the manning and structure of formations may vary from these levels.

	Division					Brigade				Squadron
	Armoured		Mechanized		Airborne	Armoured		Mechanized		Fighter aircraft
	Men	Tanks	Men	Tanks	Men	Men	Tanks	Men	Tanks	
United States	18,300	324	18,500	216	16,800	4,500	108	4,800	54	18–24
Soviet Union	11,000	335 ^a	14,000	266 ^a	7,000	1,300 ^b	95 ^b	2,300 ^b	40 ^b	12–15
China	9,200	270	12,700 ^c	30 ^c	9,000	1,200 ^b	90 ^b	2,000	—	9–10
Britain ^d	8,500	148	—	—	—	—	—	—	—	8–15
Germany	17,000	300	17,500	250	8–9,000	4,500 ^e	110	5,000 ^e	54	15–21
India	15,000	200	17,500 ^c	—	—	6,000	150	4,500	—	12–20
Israel	—	—	—	—	—	3,500	80–100	3,500	36–40	15–20
Egypt	11,000	300	12,000	190	—	3,500	96	3,500	36	10–12

^a These tank strengths are for Soviet divisions in Eastern Europe; other Soviet divisions have fewer.

^b Strength of a regiment, which is the equivalent formation in the Soviet and Chinese command structures. (The term 'regiment' may also describe a battalion-size unit, particularly in West European countries. The term 'group', often used in Latin American countries, is imprecise and may apply to a reinforced battalion or understrength brigade with AFV and/or artillery.)

^c Infantry division.

^d Britain has reintroduced the brigade organization, but combat formations are battle groups based on an armoured regiment or mechanized battalion. Armoured division strength will rise to 11,500 on mobilization.

^e Manpower levels currently under review.

Divisional strengths cover organic units only and exclude support units or services outside the divisional structure. Warsaw Pact forces and those of other Soviet-supported countries have establishments similar to those of the Soviet Union. NATO formations and squadrons not included in the table above have similar totals to those of Germany unless otherwise mentioned in the text. Iran, Pakistan, the Philippines, Thailand, Japan, South Korea and Taiwan have tended to adopt American military organization, while Australia, New Zealand, Malaysia and Singapore have generally followed British practice.

Arms Transfers

Major arms supply agreements identified as being made during the year which ended on 1 July 1982 are listed, under geographical regions, in Table 4 on pp. 119–23. Because the actual transfer of arms may take place outside that year, an indication is also given there of expected delivery dates, where known. Licensing arrangements, widespread among industrialized countries, are not normally included.

Abbreviations and Terms

A list of the abbreviations used in the text is on p.viii, immediately following these notes. For the convenience of the reader, certain important abbreviations are explained again when first used. Where a \$ sign appears it refers to US dollars, unless otherwise stated. The term billion (bn) equals 1,000 million (m).

ABBREVIATIONS

<	under 100 tons	GDP	gross domestic product	msl	missile
-	indicates part of establishment is detached	GDR	German Democratic Republic	MT	megaton (1 million tons TNT equivalent)
AA	anti-aircraft	GLCM	ground-launched cruise missile(s)	n.a.	not available
AAM	air-to-air missile(s)	GNP	gross national product	Neth	Netherlands
AB	airborne	GP	general-purpose	nm	nautical miles
ABM	anti-ballistic missile(s)	gp	group		
ac	aircraft	GW	guided weapon(s)	OCU	operational conversion unit(s)
AD	air defence	hel	helicopter(s)	org	organized/organization
AEW	airborne early warning	how	howitzer(s)		
AFV	armoured fighting vehicle(s)	hy	heavy	para	parachute
ALBM	air-launched ballistic missile(s)	ICBM	inter-continental ballistic missile(s)	pdr	pounder
ALCM	air-launched cruise missile(s)	incl	includes/including	Pol	Polish
amph	amphibious	indep	independent	Port	Portuguese
APC	armoured personnel carrier(s)	inf	infantry	RCL	recoilless launcher(s)
Arg	Argentinian	IRBM	intermediate-range ballistic missile(s)	recec	reconnaissance
armd	armoured	km	kilometres	regt	regiment
arty	artillery	KT	kiloton (1,000 tons TNT equivalent)	RL	rocket launcher(s)
ASM	air-to-surface missile(s)			RV	re-entry vehicle(s)
ASW	anti-submarine warfare	LCA	landing craft, assault	SAM	surface-to-air missile(s)
ATGW	anti-tank guided weapon(s)	LCG	landing craft, gun	SAR	search and rescue
ATK	anti-tank	LCM	landing craft, medium/mechanized	sig	signals
Aus	Australian	LCT	landing craft, tank	SLBM	submarine-launched ballistic missile(s)
AWACS	airborne warning and control system	LCU	landing craft, utility	SLCM	sea-launched cruise missile(s)
AWX	all-weather fighter(s)	LCVP	landing craft, vehicles and personnel	Sov	Soviet
bbr	bomber	LHA	amphibious general assault ship(s)	SP	self-propelled
bde	brigade	log	logistic	spt	support
bn	battalion <i>or</i> billion(s)	LPD	landing platform(s), dock	sqn	squadron
Br	British	LPH	landing platform(s), helicopter	SRAM	short-range attack missile(s)
bty	battery	LSD	landing ship(s), dock	SRBM	short-range ballistic missile(s)
Can	Canadian	LSM	landing ship(s), medium	SSBN	ballistic-missile submarine(s), nuclear
cav	cavalry	LST	landing ship(s), tank	SSM	surface-to-surface missile(s)
cdo	commando	lt	light	SSN	submarine(s), nuclear
Ch	Chinese (PRC)	m	million(s)	sub	submarine
comd	command	MARV	manoeuvrable re-entry vehicle(s)	TA	Territorial Army
COIN	counter-insurgency	MBT	main battle tank	tac	tactical
comms	communications	MCM	mine counter-measures	tk	tank
coy	company	mech	mechanized	tp	troop
CW	chemical warfare	med	medium	tpt	transport
det	detachment	MICV	mechanized infantry combat vehicle(s)	trg	training
div	division	MIRV	multiple independently-targetable re-entry vehicle(s)	UNDOF	United Nations Disengagement Observation Force
ECM	electronic counter-measures	Mk	mark (model number)	UNFICYP	United Nations Force in Cyprus
ELINT	electronic intelligence	mod	modified/modification	UNIFIL	United Nations Interim Force in Lebanon
Elm(s)	element(s)	mor	mortar(s)	UNTSO	United Nations Truce Supervisory Organization
engr	engineer	mot	motorized	USGW	underwater-to-surface guided weapon
eqpt	equipment	MR	maritime reconnaissance		
EW	early warning	MRBM	medium-range ballistic missile(s)	veh	vehicle(s)
excl	excludes/excluding	MRCA	multi-role combat aircraft	VIP	very important person (tpt)
FAC(G)	fast attack craft (gun)	MRL	multiple rocket launcher(s)	V(/S)TOL	vertical (/short) take-off and landing
FAC(M)	fast attack craft (missile)	MRV	multiple re-entry vehicle(s)	Yug	Yugoslav
FAC(P)	fast attack craft (patrol)				
FAC(T)	fast attack craft (torpedo)				
fd	field				
FGA	fighter(s), ground-attack				
flt	flight				
Fr	French				
FRG	Federal Republic of Germany				

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COUNTRIES AND PRINCIPAL PACTS

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The United States

Strategic Forces

The Reagan Administration announced in October 1981 a programme for continuing the upgrading of American strategic nuclear forces, including both delivery systems and, most importantly, the associated command, control, communications and intelligence-gathering systems (C³I). This sets the direction for US procurement, but it is too soon for these changes to be reflected in the deployed forces. The US intends to bring 100 MX ICBM into service by the late 1980s (the precise basing mode remains undecided), to proceed with the rapid development of the *Trident II/D-5* SLBM, and to procure 100 B-1B intercontinental bombers and SLCM for land-attack.

Decisions taken by previous Administrations have resulted in the deployment during the year of the first *Ohio*-class SSBN with 24 *Trident I/C-4* missiles. Eight more are under construction or funded. Also, eight more *Lafayette*-class SSBN have been retrofitted with *Trident I/C-4* missiles, bringing the total carrying this longer-range missile to twelve. Twelve more of the *Poseidon* boats were to have been converted. Eight have been funded; no programme has yet been announced concerning the remaining four. All *Polaris*-equipped boats have now been retired.

The cumulative results of these changes have been to reduce the total SSBN inventory by four (from 36 to 32), while SLBM totals have gone down by 56 (from 576 to 520), and the number of SLBM warheads has temporarily fallen by 304 (from 5,072 to 4,768) until the C-4 missile is in full service. There has been virtually no change, however, in the sea-based deliverable megatonnage (at about 315 MT).

The operational ICBM inventory remains at 1,052 (reflecting the earlier loss of 2 *Titan II* silos). Although one damaged silo is expected to return to service later in 1982, all *Titan II* forces are scheduled to be retired from 1983. Conversions of *Minuteman II* ICBM to *Minuteman III* will result in a drop of 50 of the former and a corresponding increase in the latter by the mid-1980s. Of the present 550 *Minuteman III* ICBM, 300 are estimated to have been fitted with the new (and more powerful) W-78 warhead, containing three Mk 12A MIRV. Warhead totals for the ICBM force remain at 2,152, but there has been an increase of 123.75 in deliverable megatonnage (from 1,198.5 to 1,322.25) as a result of warhead changes. Other improvements to the existing missile force are expected to continue, including greater accuracy, penetration and protection against counter-measures. Significant development and purchase of improvements to early-warning, threat-assessment and C³I systems are also planned.

There has been no significant change in the US strategic bomber force. There are reports that two FB-111A aircraft are to be retired (presumably to be replaced from the active reserve), that the B-52D will be retired shortly, that 28 B-52H will be used to support the Rapid Deployment Joint Task Force (RDJTF) in a conventional mode, and that 14 B-52G are nearing the completion of their conversion to carry the AGM-86B Air-Launched Cruise Missile (ALCM), with a total programme of 104 G and possibly 96 H to be converted eventually. Introducing the TR-1 long-range strategic reconnaissance aircraft, upgrading the E-4A command aircraft to E-4B (replacing the aging EC-135N) and purchases of new tanker aircraft (KC-10A) round out current strategic modernization.

General-Purpose Forces

Despite the attention given by the Reagan Administration to strategic forces, it has been general-purpose forces which have received proportionately greater funding, and future investment plans concentrate largely on them. New equipment is being introduced in all branches of the conventional forces and more is planned.

In the ground forces, the *Abrams* tank appears largely to have overcome its development problems, although the M-60 is still being purchased in substantial numbers. The *Sheridan* light tank has been almost entirely phased out. M-2 and M-3 *Bradley* MICV are beginning to

enter service in significant quantities. Ground-based anti-air defences for the field army have not greatly improved, although a trial purchase of the *Roland* system has been made, and *Patriot* continues in development.

It is the size and shape of the US Navy which has perhaps caused most debate, but it is the hardest to change in the short run. A large programme has been funded or is envisaged, including three more *Los Angeles*-class SSN, a third *Nimitz*-class nuclear-powered aircraft carrier (CVN), additional escorts (2 *Kidd*-class guided-missile destroyers (DDG) and 4 *Perry*-class guided-missile frigates (FFG)) and a further air wing for the CVN. The US Marine Corps and the Navy are taking delivery of the F/A-18 fighter/bomber. In the longer run, a 600-ship Navy – including 15 carrier task forces (there are currently 12) – has become the target of this Administration.

The US Air Force is replacing the F-4 and F-106 with the F-16 and F-15 respectively and is enhancing its airborne early warning and control capability with additional E-3A *Sentry* aircraft. The future of the heavy-lift capability remains uncertain, but either additional (and modified) C-5 or Boeing 747 aircraft are likely to be ordered.

There has been little fundamental change in the RDJTF during the year, although the network of transit and prepositioning arrangements has been refined and added to, and exercising has begun in the Near and Middle East (including Oman). Nevertheless the political constraints remain considerable, and it may be some years before substantial improvement can be made to air and sea lift. Furthermore, command-and-control arrangements remain to be finalized and put into effect.

THE UNITED STATES

Population: 230,049,000.

Military service: voluntary.

Total armed forces: 2,116,800 (185,680 women).

GDP 1981: \$2,924.8 bn.

Estimated defence expenditure 1982–3: \$215.9 bn (national definition).*

GDP growth: -0.2% (1980), 2.0% (1981).

Inflation: 12.4% (1980), 8.9% (1981).

Strategic Nuclear Forces:†

OFFENSIVE:

(a) *Navy* (21,000): 520 SLBM in 32 SSBN.

1 *Ohio* SSBN with 24 *Trident* I/C-4.

31 *Lafayette* SSBN: 12 with 16 *Trident* I/C-4 (192 msls); 19 with 16 *Poseidon* C-3 (304 msls) (8 being retrofitted with C-4).

(On order: 8 *Ohio* SSBN; 320 *Trident* I/C-4 msls.)

(b) *Strategic Air Command* (SAC) (118,000): 2 Air Forces. 12 divs.

ICBM: 1,052: 9 strategic msl wings, 26 sqns.

9 sqns with 450 *Minuteman* II (50 to be replaced with *Minuteman* III).

11 sqns with 550 *Minuteman* III.

6 sqns with 52 *Titan* II (to be phased out).

(Some 100 ICBM in storage.)

Aircraft: 436 combat ac: 19 bomb wings.

Long-range bombers: 316.

16 sqns (2 trg) with 151 B-52G, 90 B-52H

(of which 28 normally have a conventional role).

(1 sqn of 14 B-52G being converted to carry 12 AGM-86B ALCM; a further 90 G and 96 H will be converted.)

5 sqns (1 trg) with 75 B-52D (to be retired).

Medium-range bombers: 60.

5 sqns (1 trg) with 60 FB-111A.

Active reserve: a further 3 FB-111A, 31 B-52 (perhaps 3 D, 22 G, 6 H).

Storage: 223 B-52 (all series).

ASM: perhaps 1,140 AGM-69A SRAM, 200 AGM-86B ALCM.

Strategic recce and cmd:

1 sqn with 9 SR-71A.

1 sqn with 8 U-2R.

1 sqn with 2 TR-1.

1 sqn with 4 E-4A/B (3 A to convert to B).

3 sqns with 16 RC-135, 7 EC-135N (to be replaced by E-4), 14 EC-135C, EC-135S/U/V.

Tankers: 49 sqns (1 trg) with 646 KC-135A (incl 13 Air National Guard with 107 ac, 3 Air Force Reserve with 21 ac), 6 KC-10A.

*Revised outlay requested in President's last budget proposal: Total Obligational Authority for FY 1983 was \$258.0 bn. and Budget Authority \$257.5 bn.

† Manpower included in Army, Navy and Air Force totals.

(On order: 100 B-1B bombers, 2 E-4B comd, 16 TR-1A recce (2 -1B trg), 10 KC-10A tankers, 720 AGM-86B ALCM.)

DEFENSIVE:

North American Aerospace Defense Command (NORAD) is a joint US-Canadian organization with HQ at Cheyenne Mountain near Colorado Springs, USA. It includes:

Aircraft: Interceptors: 258 (official total stated as 312, incl 54 Can CF-101).

(i) Regular: Air Defense (TAC), Alaskan Air Command (32 alert locations): 6 sqns; 5 with 75 F-106A (F-15 to replace), 1 with 18 F-15.

(ii) Air National Guard (ANG): 10 sqns; 5 with 90 F-4C/D, 5 with 75 F-106A.

(iii) 1 AD sqn (in Iceland) with 21 F-4 (being replaced by F-15).

(iv) Tactical Air Force augmentation: 1 sqn with 18 F-15. Additional ac on call from naval, marine and air forces.

AAM: *Genie, Falcon, Super Falcon, Sidewinder, Sparrow.*

Warning Systems:

1. ICBM, SLBM, satellites:

(a) *Satellites.* TRW Block 647: 1 over Indian Ocean: infra-red surveillance and warning system. Control stations at Guam, Pine Gap and Nurrungar (Australia).

(b) *Ballistic Missile Early Warning System* (BMEWS). USAF 474L system: 3 stations: Clear, Alaska (AN/FPS-49, FPS-50); Thule, Greenland (AN/FPS-50 and FPS-92); Fylingdales Moor, England (AN/FPS-49 + other). 12 radars detect and track satellites, ICBM and IRBM, but not MIRVs. 4,800-km range.

(c) *Space Detection and Tracking System* (SPADATS):

(i) *Space Defense Operations Center* (SPADOC). NORAD/ADCOM Combat Operation HQ, Cheyenne Mountain. Tracking, identification and cataloguing of all space objects; command, control and communications to all space-associated commands and agencies.

(ii) *Cobra Dane* phased-array radar system at Shemya, Aleutians. Augments BMEWS in Alaska. (*Cobra-Judy*, a Pacific-based, shipborne phased-array radar (AN/SPQ-11), supplements Shemya research programmes, but is not part of SPADATS and has no early-warning function.)

(iii) USAF 496L *Spacetrack*. FPS-17 detection, FPS-79 tracking radars at Pirinlik (Turkey); optical tracking systems in New Mexico, California, at St Margarets (NB, Canada), Pulmosan (S. Korea), San Vito (Italy), Maui (Hawaii), Mount John (New Zealand).

(d) *USN Space Surveillance System* (NAV-SPASUR). 9 field stations in south-east US (3 transmitting, 6 receiving sites and civilian agencies).

(e) *Perimeter Acquisition Radar Attack Characterization System* (PARCS). 1 north-facing phased-array, 130° arc, 2,800-km range system at Grand Forks ND (identifies and tracks individual re-entry vehicles, incl SLBM, in Central US, Arctic Ocean areas).

(f) *Miscellaneous radars.* US Army: Kwajalein Atoll (Pacific). USAF: Ascension Island (Atlantic), Antigua (Caribbean), Kaena Point (Hawaii); MIT Lincoln Laboratory, Westford, Mass.

(g) Two new systems are under development:

(i) Ground-based Electro-Optical Deep Space Surveillance System (GEODSS). A planned five-station system; stations now exist at White Sands NM, Taegu (S. Korea) and Maui (Hawaii).

(ii) Pacific Radar Barrier (PACBAR).

2. SLBM:

(a) *Pave Paws* system: 1 phased-array radar (AN/FPS-115) each on US East and West coasts; 5,500-km range. 2 more planned in south-east and south-west US.

(b) 1 FPS-85 and 1 AN/FSS-7 station in Florida. Alternate Space Defense Center. Linked to *Spacetrack* and *SPASUR* through NORAD HQ. Also to identify and track fractional-orbit bombardment systems (FOBS).

3. Anti-Air (aircraft, cruise missile):

(a) *Over-The-Horizon-Backscatter* (OTH-B). 414L system, 3,900-km range. 2 sites in Maine (2 transmitters, 5 receivers), arcs and range still under development; 1 in Washington state planned. Another in southern US under consideration.

(b) *Distant Early Warning* (DEW) Line. 31 AN/FPS-19/-30 radars (21 in Canada) roughly along the 70°N parallel from Point Lay Alaska to Greenland, and two in Iceland, detecting aircraft and cruise missiles to 12,000 m at 320-km range.

(c) *CADIN/Pinetree Line*: 24 stations in Southern Canada.

(d) Tactical Air Command:

(i) *Semi-Automatic Ground Environment* (SAGE). 416L air weapons control and warning system at 6 locations (2 in Canada); combined with BUIC and Manual Control Center (MCC) in Alaska.

(ii) *Back-up Interceptor Control* (BUIC). All stations but 1 semi-active (AD command and control to support Joint Surveillance System (JSS) in tactical control of interceptor forces).

(SAGE, BUIC and MCC will be replaced in 1983 by USAF/Federal Aviation Authority JSS,

with 7 Region Operations Control Centers (ROCC): 4 in US, 1 in Alaska, 2 in Canada. Will control 84 radars: 46 in US, 14 in Alaska and 24 in Canada, for co-ordination/control of military and civil air traffic, surveillance and tracking of objects in high- and medium-altitude trans-polar flight.)

4. Intermittent programmed photographic reconnaissance satellites:
- (a) USAF: *Titan* 3D launcher; 50–80 day life span.
- (b) CIA: KH-11.

Strategic (non-nuclear):*

Rapid Deployment Joint Task Force (RDJTF) (assigned from existing units).

- HQ: 1 Army Corps: 1 mech, 1 AB, 1 air assault divs, 1 air cav bde, special forces.
- 1 Naval Force: 3 carrier battle gps; 3 carrier spt gps; 1 surface action gp; 5 ASW patrol air sqns; 1 amph ready gp; 13 prepositioned spt ships; 1 marine amph force (div, 1 air wing), 1 marine amph bde.
- 1 Air Force: 2 sqns B-52H, 6 tac fighter wings, 1 tac fighter gp, 1 airborne warning and control wing, recon, tac airlift sqns.

Army: 790,800.

- 4 Army HQ; 5 corps HQ (1 AB) (1 forming).
- 4 armd divs (5–6 tk, 4 mech inf bns).
- 6 mech divs (4 tk, 5 mech inf, 3–4 arty, 1 hel, 1 SAM bns, 1 armd cav sqn, spt units).†
- 4 inf divs (1 to be reduced to 5,000-man cadre by 1986).†
- 1 airmobile div.
- 1 AB div: 3 bdes (each 3 para bns, 1 arty bn), 1 armd, 1 armed hel bn.
- 9 arty gps: 12–16 bns.
- 4 AA arty gps.
- 1 indep armd bde.
- 4 indep inf bdes.
- 1 indep air cav combat bde.
- 3 armd cav regts.
- 4 *Pershing* SSM bns (1 trg); 8 *Lance* SSM bns (in corps arty).
- 1 *Patriot* SAM bn forming (4 launchers, 32 msls); planned total 9 bns.
- 3 Special Forces Groups: 2 Ranger bns.
- Army Aviation: 1 air bde. Indep bns and dets, mixed types of eqpt, assigned to HQ for tac, tpt and medical duties.
- Tanks*: Some 12,130, incl 2,060 M-48A5, 1,555 M-60, 5,775 M-60A1, 540 M-60A2 with *Shillelagh* ATGW, 1,500 M-60A3, 300 M-1 *Abrams* MBT; 400 M-551 *Sheridan* lt tks with *Shillelagh* (330 trg).
- AFV: some 20,000 incl M-577, 1,100 M-901 *TOW*, 12,300 M-113 (some with *TOW*) APC, M-2, M-3 *Bradley* MICV.

Arty and Msls: about 2,500 105mm, 155mm towed guns/how; 2,959 155mm and 203mm SP how; 68 MLRS 203mm MRL (2,496 rockets); 3,500 81mm, 2,800 107mm mor; 1,000 90mm and 106mm RCL; 400 *Hellfire* ATGW, 6,200 *TOW*, 10,400 *Dragon* ATGW launchers; 144 *Pershing* and *Lance* SSM.

AA *Arty and SAM*: 20mm and some 550 40mm towed and SP AA guns; some 2,600 *Vulcan* towed and, SP 20mm AA guns; *Redeye*, FIM-92A *Stinger*, 600 *Chaparral*, 10 *Roland* systems; *Nike Hercules* and *Improved HAWK* SAM (being replaced by *Patriot*).

Aircraft/Hel: about 580 ac, incl 200 OV-10, 200 RU-21, RC-12D, 80 C-12A; some 8,000 hel, incl 300 AH-1G/Q, 700 AH-1S, 4,000 UH-1 (being replaced) and UH-19, 277 UH-60A, 436 CH-47A/B/C, 80 CH-54, 2,500 OH-6A/-58A.

AAM: MIM-92A *Stinger*.

Trainers incl about 100 T-41/-42 ac; 250 TH-55A hel.

(On order: 340 M-60A1, 981 M-60A3, 720 M-1 MBT; 892 M-901 *Improved TOW* AFV, 400 M-2/M-3 inf/cav MICV; 450 M-198 155mm towed, 232 M-109A2/A3 155mm, M-110A2 203mm SP how; 300 81mm mor; 44 MLRS MRL; 39 *Pershing* II SSM; 12,000 *TOW* ATGW; *Viper* ATK RL; 50 *Sgt York* DIVAD 40mm SP AA guns; 3,000 *Stinger*, 32 *Rapier*, 17 *Roland* (595 msls), 32 *Chaparral*, 795 *Improved HAWK*, 50 *Patriot* (244 msls) SAM launchers; 12 C-12A ac; 324 AH-1S, 11 AH-64, 354 UH-60A, 11 HH-60D *Nighthawk* hel; 680 *Hellfire* ATGW (ASM), 11 GLCM launchers (120 msls).

DEPLOYMENT: *Continental United States* (incl Alaska, Hawaii and Canal Zone):

Strategic reserve:

(i) Rapid Deployment Joint Task Force (RDJTF): 1 corps HQ, 1 mech, 1 AB, 1 air assault divs, 1 air cav bde (see above).

(ii) To reinforce 7th Army in Europe: 2 armd, 3 mech, 2 inf divs, 1 inf bde, 1 armd cav regt.‡

(iii) Alaska: 1 inf bde.

(iv) Panama: 1 inf bde (7,900).

(v) Hawaii: 1 inf div less 1 bde.

(See also *Forces Abroad*, below.)

RESERVES: 614,300.

(i) Army National Guard: (389,300). 3,285 units; capable after mobilization of manning 2 armd, 1 mech, 5 inf divs, 22 indep bdes (4 armd, 8 mech, 10 inf; 4 of them in regular army divs), 4 armd cav regts, 8 AA bns; plus HQ, reinforcements and

* Manpower included in Army, Navy and Air Force totals.

† One National Guard bde is incorporated in each of 2 mech and 2 inf divs.

‡ 1 armd, 1 mech divs, 1 armd cav regt have hy eqpt stockpiled in FRG. Storage facilities for 2 more divs being built.

spt units to fill regular formations. Indep bns: 5 tk, 2 mech, 50 arty, 4 ATK (*TOW*); 1 inf (Arctic recce) gp, 5 bns; 2 Special Forces gps, 6 bns; 105 air units, 150 sections; 2,568 ac.

(ii) Army Reserve: (225,000); 49,000 a year do short active duty. 3,410 units; 12 trg divs; 1 mech, 2 inf indep combat bdes; 67 indep bns, incl 1 tk, 2 inf, 15 arty; 2 Special Forces gps, 7 bns; 130 indep air units and sections with 566 ac.

Navy: 553,000; 90 attack submarines, 204 major surface combat ships. A further 27 major surface combat ships are in active reserve and storage. Four Fleets.

Submarines, Attack: 90:

85 nuclear (SSN): 18 *Los Angeles* with *Harpoon* SSM and *SUBROC*; 5 *Allen* (converted SSBN); 52 with *SUBROC* (1 *Lipscomb*, 1 *Narwhal*, 37 *Sturgeon*, 13 *Thresher*); 5 *Skipjack*, 4 *Skate*, 1 *Tullibee*.

5 diesel (SS): 3 *Barbel*, 1 *Grayback*, 1 *Darter*.

Aircraft carriers: 14 (1 trg).

4 nuclear (CVN): 3 *Nimitz* (91,400 tons), 1 *Enterprise* (89,600 tons).

10 conventional (CV): 3 *Kitty Hawk* (78/80,800 tons), 1 *Kennedy* (82,000 tons), 3 *Forrestal* (76/79,000 tons), 2 *Midway* (51/62,000 tons, 1 has no regular air wing), 1 *Intrepid* (trg, no ac assigned).

12 normally carry 1 air wing (70–95 ac) of 2 fighter sqns (with 24 F-14A (incl 6 RF-14 recce) or 24 F-4J), 3 attack (2 lt with 24 A-7E, 1 med with 10 A-6E), 2 ASW (1 with 10 S-3A ac, 1 with 6 SH-3A/D/G/H hel), 1 ECM with 4 EA-6B, 1 AEW with 4 E-2B/C; 5 KA-6D tankers, 1 lt tpt ac.

Other surface ships:

190 major combat vessels:

9 nuclear-powered GW cruisers (CGN) with 2 × 4 *Harpoon* SSM: 4 *Virginia* with 2 × 2 *Standard* SAM, *ASROC*, 2 SH-2F hel; 2 *California* with 2 × 1 *Standard*; 1 *Truxtun* with 1 × 2 *Standard*, 1 SH-2F hel; 1 *Long Beach*, 1 *Bainbridge* with 2 × 2 *Standard*.

18 GW cruisers (CG) with *Standard*, *ASROC*, some with 2 × 4 *Harpoon*: 9 *Leahy*, 9 *Belknap* with 1 SH-2F hel.

41 GW destroyers (DDG) with SAM, *ASROC*, some with *Harpoon*: 4 *Kidd*, 10 *Coontz*, 4 *Sherman/Hull*, 23 *Adams*.

43 gun/ASW destroyers (DD), most with SAM or *ASROC*: 30 *Spruance* (24 with 2 × 4 *Harpoon*), 13 *Sherman/Hull*.

24 GW frigates (FFG): 18 *Perry* with 1 *Harpoon/Standard*, 2 hel; 6 *Brooke* with 1 *Tartar/Standard*, 1 × 8 *ASROC*, 1 hel.

55 gun frigates (FF) with 1 × 8 *ASROC*: 42 *Knox* with 1 hel (most with *Harpoon* SSM, *Sea Sparrow* SAM), 10 *Garcia* (8 with 1 SH-2F hel), 2 *Bronstein*, 1 *Glover*.

7 minor surface combatants:

4 *Pegasus* GW hydrofoils (PHM) with 2 × 4 *Harpoon* SSM.

3 *Aggressive* ocean minesweepers.

65 amph warfare ships: 2 *Blue Ridge* comd (LCC); 5 *Tarawa* LHA (mix of AV-8A ac or 12 CH-46, 4 CH-53, 3 UH-1N, 4 AH-1T hel; 4 LCU); 7 *Iwojima* LPH (mix of 6 AV-8A, 4 OV-10 ac or 2 HH-46, 10 CH-53, 1 UH-1N hel); 12 *Austin*, 2 *Raleigh* LPD; 5 *Anchorage*, 8 *Thomaston* LSD, 18 *Newport* LST; 6 *Charleston* amph cargo ships (LKA).

90 LCU: 59 Type 1610, 31 Type 1466; many smaller amph craft.

44 replenishment and 20 depot and repair ships.

Military Sealift Command: 16 stores/cargo, 13 oil, 3 gasoline, 1 water tanker, 14 oceanographic research ships.

Anti-sub msls, nuclear: *ASROC*, *SUBROC*.

SSM: *Standard* (SM-1), *Harpoon*, *Tomahawk* (trials).

SAM: *Standard* (SA-1), *Aegis* (SM-2) (some nuclear), *Talos*, *Sea Sparrow*, *Tartar*, *Terrier*.

Ships in active reserve and storage:

6 CV, 4 battleships (planned reactivation begun), 4 cruisers, 9 DD, 4 FF, 1 LCC, 5 LST, 5 LKA, 46 log spt, 41 tp ships, 22 ocean minesweepers. National Defense Reserve Fleet: Ready Reserve Force, 27 dry cargo ships, 165 other vessels (579 govt-owned cargo ships and tankers could be used for auxiliary sea-lift).

(On order and funded (5 years): 8 SSBN, 1 CVN, 1 CV, 7 *Ticonderoga* CG, 1 DDG, 1 DD, 30 FFG, 2 PHM, 1 LSD, 3 landing craft, 18 auxiliaries, 8 ocean surveillance ships (AGOS); 240 *Harpoon* SSM/ASM.)

Aircraft: 12 attack carrier air wings; some 1,350 combat ac, some 218 armed hel.

26 fighter sqns: 15 with 180 F-14A, 45 RF-14A, some 130 more F-14 in reserve; 11 with 144 F-4 (3 converting to F-14).

24 attack sqns: 12 med with 116 A-6E, 36 KA-6D tankers; 12 lt with 164 A-7E.

2 recce sqns with 12 EA-3, 12 EP-3.

24 land-based MR sqns with 45 P-3B, 171 P-3C.

11 ASW sqns with 110 S-3A *Viking*.

9 electronic warfare sqns with 35 EA-6B *Prowler*.

13 AEW sqns with 48 E-2C *Hawkeye*.

18 ASW hel sqns: 11 with 110 SH-3A/D/G/H, 7 lt with 85 SH-2F LAMPS.

2 MCM hel sqns with 23 RH-53D.

17 misc spt sqns with 14 C-130F/LC-130C, 3 EC-130Q, 7 C-118, 31 C-1A, 17 C-2A, 2 C-9B, 16 CT-39, 13 C-131, 6 C-117, 57 UC-12B ac; CH-46, SH-3, SH-2B/C/D hel.

1 aggressor trg sqn with 13 F-5E/F.

21 OCU: 7 fighter trg (6 with 96 F-14/TA-4J/F; 1 with 34 F-18, 1 UC-880); 6 attack with 60 TA-7C, A-6; 1 recce with EA-3/-4; 2 MR with

32 P-3B/C; 3 AEW with E-2B; 1 ASW with S-3A ac, SH-2F hel; 2 hel with TH-12, TH-57A.

15 trg sqns with T-1A, T-2B/C, T-28/-29B/-44, 183 T-34C, TS-2A, TE-2 ac; 43 TH-57, UH-1D/N hel.

AAM: *Sparrow*, AIM-5A, AIM-5C *Phoenix*, *Sidewinder*.

ASM: *Standard*, *Bullpup*, *Shrike* (anti-radiation), *Walleye*, *Harpoon*, *Maverick*.

(On order: 30 F-14, 50 F-18 fighters, 12 A-6E attack, 6 E-2C AEW, 12 P-3C MR, 8 UC-12B, 18 EC-130Q, 6 EA-6B ECM, 39 C-2A tpt, 300 *Hawk*, 60 T-34C trg ac; 18 SH-2F, 26 CH-53E, 32 MH-53E *Super Stallion* MCM, 55 TH-57, 18 SH-60B hel; 30 AIM-5C AAM, 88 ALCM.)

DEPLOYMENT AND BASES (average strengths of major combat ships):

Second Fleet (Atlantic): 31 SSBN, 41 attack subs, 4-5 carriers, 76 surface combatants, 27 amph. Norfolk (HQ), Mayport, Roosevelt Roads (Puerto Rico), Charleston, Jacksonville, Brunswick, New London, Newport, Boston, New Orleans, Bangor, Kings Bay.

Third Fleet (Eastern Pacific): 1 SSBN, 30 SSN, 3 carriers, 44 surface combatants. Pearl Harbor (HQ), San Francisco, Whidbey Island, San Diego, Long Beach, Adak (Alaska).

(See also *Forces Abroad*, below.)

RESERVES: 87,900.

Ships in commission with the Reserve incl 5 DD, 4 FF, 4 amph warfare ships, 22 ocean mine-sweepers, 2 LST.

2 carrier wings: 18 sqns (6 attack with 60 A-7B; 4 fighter with 48 F-4N; 2 recce with 18 RF-8G; 2 AEW with 8 E-2B; 2 ECM with EA-6A, EKA-3B; 2 tanker with KA-3).

2 MR wings: 13 sqns with 110 P-3A/B.

1 tac spt wing: 12 sqns (2 composite with TA-4J; 1 tac EW with EA-6A; 9 spt with C-9, C-118, C-130).

1 hel wing: 7 sqns (4 ASW with 26 SH-3D, 2 lt attack with 16 HH-1K, 1 SAR with HH-3).

Naval Construction Bde: 9 regts, 17 bns.

2,126 specialist and spt units; 62 boats/patrol craft.

Marine Corps: 192,000.

3 divs, each of 9 inf, 1 recce, 1 tk, 1 engr, 1 amph bns, 1 arty regt.

1 indep bde (MAB) for Rapid Deployment Joint Task Force (see p. 6 above).

576 M-60A1 MBT; 985 LVTP-7 APC; 175mm SP guns; 150 105mm (being replaced), M-198 155mm towed, 218 155mm, 203mm SP how; 230 81mm mor; 106mm RCL; *Zuni* 5-in. MRL; *TOW*, *Dragon* ATGW; *Redeye*, *Stinger* SAM.

3 Air Wings: (35,600); some 441 combat aircraft, 102 armed hel.

12 fighter sqns with 144 F-4N/S (1 being replaced with 26 F-18).

14 FGA sqns: 3 lt with 45 AV-8A/C *Harrier* v/STOL; 6 lt with 114 A-4M; 5 med with 50 A-6A/E.

1 recce sqn with 21 RF-4B.

1 ECM sqn with 15 EA-6B.

2 observation sqns with 36 OV-10A.

2 command sqns with 16 OA-4M.

2 utility sqns with 24 C-117D/CT-31G.

3 assault tpt/tanker sqns with 36 KC-130F.

29 hel sqns: 8 hy with 128 CH-53D/-53E; 15 med with 180 CH-46F; 3 lt with 72 UH-1E/N; 3 attack with 72 AH-1J/T (*TOW*).

Other hel incl 140 CH-53D/E, 30 AH-1T/J.

7 trg sqns with TA-4F, TAV-8A.

2 SAM bns with *Improved HAWK*.

AAM: *Sparrow*, *Sidewinder*.

ASM: *Maverick*.

(On order: 329 LVTP-7 APC, 12 AV-8B ac, 12 CH-53E hel, *Stinger* SAM, 3 hovercraft (LCAC).)

RESERVES: 37,000.

1 Marine div: 3 regts, 21 combat and spt bns.

1 Fleet Marine Force: 1 regt, 7 bns.

1 air wing: 4 aviation, 1 service, 1 air control gps:

11 ac sqns (2 fighter with 24 F-4N, 6 attack with

72 A-4E, 1 EW with EA-6A, 1 observation with

16 OV-10A/E, 1 tpt/tanker with 12 KC-130F);

10 hel sqns (1 attack with 18 AH-1J, 3 hy with 18

CH-53A/D, 2 med with 36 CH-46, 4 lt with 21

UH-1N). 1 SAM bn with *HAWK*. 32 spt units.

DEPLOYMENT:

Continental United States: 2 divs.

Hawaii: 1 bde (from Japan-based div).

(See also *Forces Abroad*, below.)

Air Force: 581,000; some 3,650 combat aircraft.*

26 combat wings, comprising 83 sqns: 26 with 624

F-4 (14 to be replaced with F-16); 16 with 376

F-15; 13 with 312 F-16; 5 *Wild Weasel* (1 trg)

with 84 F-4G; 11 with 252 F-111A/D/E/F, 5

EF-111A; 12 with 288 A-10A.

6 tac recce sqns with 126 RF-4C.

3 AWACS sqns with 26 E-3A *Sentry*.

11 tac air control sqns; 6 with 96 OV-10/O-2A; 1

with 7 EC-130E; 1 with 11 EC-135K ac; 3 with

27 CH-3 hel.

5 special operations sqns: 3 with 18 MC-130 ac; 1

with 20 AC-130A/H ac, 9 CH-3E, 10 UH-1N

hel; 1 with 9 HH-53H hel.

4 aggressor trg sqns with 72 F-5E, T-38.

18 OCU: 1 with F-111A; 1 with 13 F-16; 7 with F-4;

1 with F-5; 2 with F-15; 2 with F-101/-106; 3

with 60 A-10; 1 with RF-4C.

14 tac airlift sqns with 231 C-130.

* Excluding ac in SAC and NORAD; incl ac in ANG and Air Force Reserve.

17 hy (strategic) tpt sqns: 4 with 73 C-5A, 13 with 254 C-141B.

Other tpts: 7 C-135, 5 VC-137B/C, 11 C-140A/B.

8 SAR sqns incl 1 SAC msl spt sqn: 25 HC-130 ac, 62 HH-3/-53, 79 T/H/UH-1 hel.

3 medical tpt sqns with 19 C-9.

3 weather recce sqns with 13 WC-130, 5 WC-135B.

Trials units: 12 MiG-21, 4 MiG-23, 14 F-16.

30 trg sqns: 8 F-16B, 120 T-33A, 662 T-37B, 620 T-38, 113 T-39, 100 T-41A/C, 13 T-43A, 4 C-5A, 28 C-130, 16 C-141B, 5 HC-130, 2 UV-18A (DHC-6) ac; 8 HH-53, 8 HH-3, 10 H/U/TH-1 hel.

Hel incl 40 UH-1, 23 HH-3E.

AAM: *Sidewinder, Sparrow.*

ASM: *Maverick; Standard Arm, Shrike, Harm* (anti-radiation); GBU-15 glide bomb.

(On order: 480 F-16, 36 F-15 fighters, 20 A-10 FGA, 5 F-5, 9 E-3A, 12 EF-111A, 8 C-130H, EC-130H ac; 11 UH-60A hel; 40 ALCM.)

DEPLOYMENT: *Continental United States* (incl Alaska):

(i) *Tactical Air Command* (incl NORAD assigned ac): (110,000); 2 Air Forces; 9 air divs; 28 wings; 36 sqns (30 fighter, 3 tac recce, 3 tac air spt).

(ii) *Alaskan Air Command*: (7,300): incl 1 fighter wing (1 sqn with F-4E/F-15), 1 composite wing (1 sqn with A-10, 1 sqn with O-2A), 1 control (warning) gp, 2 combat spt gps.

(iii) *Military Airlift Command*: (74,000): 2 Air Forces; 1 air div, 1 gp; 9 wings; 11 tac, 17 strategic airlift sqns; weather, SAR sqns.

(iv) Support elements: (171,500). Comms, log, systems trg, electronic security Comds.

(See also *Forces Abroad*, below.)

RESERVES: 160,400. 41 wing equivalents.

(i) Air National Guard: (98,500); 24 wings (12 tactical), 67 gps, 92 sqns; 1,074 combat ac.

10 interceptor sqns (NORAD-assigned, see p. 5); 34 fighter/FGA sqns (1 with 20 F-105B/D, 12 (1 OCU) with 160 F-4C, 1 *Wild Weasel* with 12 F-105G, 15 (1 OCU) with 375 A-7D/K (to get 24 F-16), 5 with 90 A-10); 8 recce sqns with 107 RF-4C; 5 tac air spt sqns (3 with 50 OA-37B, 2 with 75 O-2A); 19 tac tpt sqns with 168 C-130A/B/E; 13 tanker sqns with 107 KC-135 (NORAD-assigned); 1 special electronics sqn with 20 EC-130E; 2 SAR sqns with 8 HC-130 ac, 12 HH-3E hel. Trg ac incl 40 T-33, 6 T-43A.

(ii) Air Force Reserve: (61,900); 17 wings, 55 sqns: some 188 combat ac, 5 armed hel.

10 fighter sqns (1 with 35 F-105D/F, 5 with 55 F-4C/D; 4 with 88 A-10, more forming); 15 tac tpt sqns (12 (1 OCU) with 120 C-130A/B, 1 with 17 C-123K, 2 with 32 C-7A); 3 tanker sqns with 21 KC-135, 7 KC-10; 2 special operations sqns (1 with 10

AC-130 ac, 1 with 5 CH-3 hel); 1 weather recce sqn with 7 WC-130; 4 SAR sqns with 14 HC-130H/N ac, 8 C/HH-3E, 10 H/UH-1 hel.

20 Reserve Associate sqns (personnel only): 4 for C-5A, 13 for C-141, 1 for KC-10A, 1 for C-7A, 1 aero medical for C-9A.

(iii) Civil Reserve Air Fleet: 323 long-range commercial ac (numbers fluctuate): 215 passenger (Boeing 707/747, L-1011, DC-8/-10); 108 cargo and convertible (Boeing 707/747, DC-8/-10).

Para-Military Forces:

Coast Guard: 45,000; 41 destroyer-size vessels, 6 icebreakers, 79 patrol craft, 119 other vessels; 51 ac (4 HU-25A, 22 HC-130B/E/H, 17 HC-131, 1 VC-4A, 1 VC-11A, 6 HU-16E; 93 hel (24 HH-3F, 69 HH-52A (to be replaced by HH-65)). (On order: 9 cutters, 37 HU-25A ac, 90 HH-65 hel.)

Coast Guard Reserve: 11,600 (a further 9,700 have some Reserve obligation); 1 cutter, 167 Port Security units in 40 ports, 59 spt units, 63 reserve gps, 150 small vessels.

Civil Air Patrol: 59,000 (23,000 cadets): HQ, 8 Geographical Regions, 52 Wings, 1,883 units, 605 ac plus 7,570 private ac. Assist in SAR.

Forces Abroad:

General: Europe: 348,600; Pacific/Far East: 133,400; Caribbean/Latin America: 13,950; other areas: 4,500.

ARMY:

Europe: 221,300.

(i) Germany: (208,800). 1 Army, 2 corps HQ: 2 armd, 2 mech divs; 1 armd, 1 mech, 1 cav bdes; 2 armd cav regts; 30 AD btys with *HAWK*; 3,000 MBT.*

(ii) West Berlin: (4,300). HQ elements and 1 inf bde.

(iii) Greece: (440).

(iv) Italy: (3,800).

(v) Netherlands: (800).

(vi) Turkey: (1,100).

(vii) Other: (2,060).

Pacific (see also *Deployment*, above):

(i) South Korea: 28,500. 1 inf div (13,900), 1 AD bde (2 bns) with 4 *Improved HAWK* btys (4 more in 1982).

(ii) Japan: 2,500; base and spt personnel.

NAVY:

Second Fleet (Atlantic) (see also *Deployment and Bases*, above): Guantánamo Bay (Cuba), Bermuda, Keflavik (Iceland), Holy Loch (Britain).

* Includes those stockpiled for the Strategic Reserve formations. The armd and 2 mech bdes are from the divs in the US earmarked to reinforce 7th Army.

Sixth Fleet (Mediterranean): 5 subs, 2 carriers, 14 surface combatants. Gaeta (HQ), Naples, Sigonella, La Maddalena (Italy), Rota (Spain).

Seventh Fleet (Western Pacific): 8 subs, 3 carriers, 21 surface combatants. Yokosuka (Japan, HQ), Subic Bay (Philippines), Agaña, Apra Harbor (Guam), Midway.

Dets serve in the Indian Ocean: 1 carrier task force (some 6 surface combatants), 13 chartered stores ships. Middle East Force (Persian Gulf): 1 cmd ship, 4 surface combatants.

MARINES:

Caribbean: Cuba (Guantánamo) 420. 1 reinforced marine coy.

Pacific: Japan/Okinawa: 1 MAF (1 div (-), 1 air wing), 1 Marine Amphibious Unit (MAU), 1 bn landing team.*

Indian Ocean: 1,800: 1 MAU deployed intermittently.

AIR FORCE:

Europe: US Air Force, Europe (USAFE): (54,000); some 700 combat ac. *Britain* (22,000): 1 Air Force HQ: 4 combat wings: 315 ac in 15 sqns (7 with 156 F-111E/F, 6 with 126 A-10, 1 with 18 RF-4C, 1 combat trg with 15 F-5E); 1 tpt wing with 16 C-130 (MAC); 29 KC-135 (SAC), 4 EC-135H. *Germany*: 1 Air Force HQ: 5 combat wings: 12 sqns (2 with 48 F-16, 5 with 120 F-4E, 1 with 24 F-4G, 1 with 18 RF-4C, 3 with 72

F-15C/D); 1 special operations sqn with 4 MC-130E, 1 air control wing of 3 sqns (2 with OV-10A ac, 1 with HH-53C hel), 1 (MAC) tpt wing of 4 sqns (1 with 18 C-130E). *Netherlands*: 1 sqn with 24 F-15C/D. *Iceland*: 1 AD sqn with 24 F-4E. *Spain*: 1 Air Force HQ: 1 tac wing of 3 sqns with 54 F-4D, 1 trg wing (no ac assigned), units in Italy, Greece (2,400) and Turkey; 1 strategic recce unit (SAC).

1 tac fighter wing with F-4E in US on call as reinforcements.

Pacific: Pacific Air Forces (PACAF): (34,000).

Japan: 1 Air Force HQ: 1 div: 1 wing with 72 F-15C/D, 18 RF-4C, T-39A ac, UH-1E/F hel, det with 2 E-3A AWACS. *Korea*: 1 div: 2 wings: 6 sqns (2 with 36 F-4E, 2 with 48 F-16, 1 with 18 A-10, 1 with 18 OV-10). *Philippines*: 1 Air Force HQ: 1 wing, 2 fighter sqns (1 with F-4E, 1 with F-4E/G); 1 special operations sqn with 4 MC-130E; 1 tac airlift wing with 32 C-130 (MAC); 1 trg gp with 15 F-5E, T-33, T-38).

Middle East (all services): Sinai (MFO), 1,100; Egypt, 323; Saudi Arabia, 861.

Africa (all services): 120.

* MAUS are 5-7 amph ships with a composite Marine bn gp, incl tks, arty and hel, embarked. Only 1 in Mediterranean and 1 in Pacific are regularly constituted. 1 Bn Landing Team (MAU less hel) also deployed in Pacific; 1 occasionally formed for the Atlantic.

The Soviet Union

Strategic Forces

Soviet strategic forces show little change in the year. There has been a small shift in the composition of the ICBM inventory, as a few more SS-11 have been retired and some 10 SS-19 have replaced them in existing silos. Warhead numbers have been marginally increased, as each SS-19 has 6×550 -KT warheads against a single 1-MT warhead for the SS-11.

In the intermediate-range category, the switch from SS-4 and SS-5 to SS-20 continues. By 1 July 1982, 315 SS-20 MRBM were estimated to be deployed, with two or three more missile complexes reported under construction in the Western USSR, although in March 1982 the Soviet Union announced that for the time being no further SS-20 bases were being built in the European part of her territory. The SS-4 and SS-5 M/IRBM arsenals are being reduced quite sharply (from some 600 to 290 in the past three years), though warhead numbers in the force have risen from about 600 to some 1,235, as the great majority of SS-20 are equipped with three MIRV. Deliverable megatonnage, on the other hand, has declined by some 168 MT as 3×150 -KT MIRV replace the 1-MT single warheads on the withdrawn missiles. The numbers of now aging *Bear* (150) and *Bison* (45) aircraft of the Long Range Air Force (LRAF) are also believed to be slowly declining, while numbers of *Backfire* (in both naval and LRAF configurations) are increasing significantly. Some may be entirely new aircraft; others may be the earlier A models reworked into the later B configuration. A new long-range strike bomber (NATO codename: *Blackjack*) is reported under development, as is a new high-level, high-speed reconnaissance aircraft.

The first *Typhoon*-class SSBN has now entered service. Its missile, the SS-NX-20 SLBM, is believed to have a range of 8,300 km and to carry as many as 12 MIRV. Two more D-III SSBN (each with 16 SS-N-18 SLBM) became operational during the year, and three Y-I-class (with SS-N-6) retired, as did two older G-class diesel boats.

Organizational changes have occurred in the strategic defence forces. *PVO-Strany* and the Air Defence Troops of the Ground Forces appear to have merged, enabling better control and co-ordination of all air defence forces.

Modernization of the interceptor force continues, with increases in the numbers of MiG-23 at the expense of the older types. A variant of the MiG-25, the *Foxhound*, which carries a new AAM (the AA-X-9), is reported. This is believed to indicate a significant improvement in the *PVO*'s 'look-down/shoot-down' capability. The SA-3 *Goa* has been undergoing modifications which significantly add to the number of on-site launchers, and the SA-10 is entering service, although details are sketchy. The USSR is known to be building a new series of large phased-array radars to supplement her existing long-range early warning systems.

General-Purpose Forces

Earlier reports of an increase in the number of the army field formations have now been confirmed; the motor rifle division total has increased from 119 to 126. The extra divisions appear to have gone to the European USSR, Southern USSR (replacing those in Afghanistan) and the Sino-Soviet border. Although two divisions were withdrawn from East Germany in 1980/81, it is believed that the manpower of the divisions remaining has been augmented by an equivalent number of men. Inventories of most major equipment have increased, but the anticipated deployment of the new T-80 main battle tank has not yet been noted, and production of T-64/-72 MBT continues, although perhaps at a somewhat reduced rate. BTR-50/-60 APC are being replaced by BTR-70 APC and BMP MICV. Battlefield support SSM of a new generation are being slowly introduced, with SS-21/-22/-23 replacing *FROG*, SS-12 and *Scud* respectively.

The Soviet Navy continues with a steady if undramatic construction programme. The third *Kiev*-class carrier is on trials, a second *Kirov*-class nuclear-powered missile cruiser is fitting out, and the first of a new class of cruiser (temporary NATO designation 'Black Com-1') is in service, with more under construction. Two more *Udaloy*-class missile/ASW destroyers are building. A wide variety of new naval missiles are reported as deployed or under development: SS-N-19 and

SS-NX-22 SSM; SA-N-5 and SA-NX-7 SAM; and the SS-N-15 ASW missile, which may have a nuclear warhead. Mi-14 *Helix* ASW and MCM helicopters have been added to the fleet.

The Soviet Tactical Air Force continues to replace obsolescent aircraft with new models. The veteran MiG-21, Su-7 and Su-17 are all being phased out, to be replaced by a mix of MiG-27D/J and Su-24 attack aircraft, and an entirely new attack aircraft, the Su-25 *Frogfoot*, has been reported in Afghanistan. The Yak-28 is now represented only in its ECM version. The helicopter force has been reorganized to provide one support regiment in each Ground Army in East Germany and in Sino-Soviet border districts, marking the acceptance of the helicopter as an integral component supporting the field forces.

Defence Expenditure

No single figure for Soviet defence expenditure can be given, since precision is not possible on the basis of present knowledge. The declared Soviet defence budget is thought to exclude a number of elements such as military R&D, stockpiling and civil defence – indeed some contend that it covers only the operating and military construction costs of the armed forces. The problem of arriving at a current budgetary figure was discussed in *The Military Balance 1973–1974*, pp. 8–9, and on pp. 109–110 of the 1976–1977 edition. The official defence budget for 1981 of 17.05 bn roubles equals about 5.3% of the total government expenditure, or about 2.8% of GNP, according to non-Soviet estimates of the latter.

Source	Price base	Soviet Defence Expenditure					1970–1980	
		1970	1975	1979	1980	1981	% annual growth rate	Burden (% of GNP)
<i>Billions of Roubles</i>								
CIA ^a	1970	40–45	50–55	—	—	—	4.5	11–13
Lee ^b	1970	43–49	72–79	99–111	108–126	—	8–10	14–15
Lee ^b	Current	43–49	67–76	—	—	—	—	—
China ^c	Current	49	72.5	[102]	[110.43]	—	8.26	15+
USSR ^d	Current	17.9	17.43	17.2	17.1	17.05	—	5.3
Britain ^e	Current	—	—	76–81	81–86	[85–90]	4.0	12–14
France ^f	Current	34.0	42.3	—	—	—	—	—
<i>Billions of Dollars</i>								
CIA ^g	1979	131	152	180	185	[191–2]	3–4	—
CIA ^h	Current	66–99	105–108	165	[177.37]	—	—	—
Lee ⁱ	1970	80–105	97–133	[124–162]	[130–170]	—	5	—
Commercial bank estimates (consolidated)								(1980): 8.4–8.9

^a *Estimated Soviet Defense Spending in Roubles*, CIA SR 78-10121, June 1978.

^b W. T. Lee, 'Soviet Defense Expenditures in the 10th FYP', *Osteuropa Wirtschaft*, No. 4, 1977; Lee, *The Estimation of Soviet Defense Expenditures, 1955–75: An Unconventional Approach* (New York: Praeger, 1977); correspondence.

^c *Peking Review*, November 1975, January 1976. 1979, 1980 figures extrapolated, using the Chinese growth rate.

^d Official declared budget.

^e *Statement on the Defence Estimates 1981*, HMSO Cmnd 8212, April 1981, p.4. 1981 figures extrapolated.

^f Anonymous, 'Combien de Roubles pour la Défense?', *Défense Nationale*, November 1976, p.54.

^g *Soviet and US Defense Activities 1970–79: A Dollar Cost Comparison*, CIA SR 80–10005, January 1980. 1970 and 1975 figures taken from diagram. 1981 figures by extrapolation.

^h *Ibid.* 1979 prices converted to current ones using wholesale price index. 1980 figures by extrapolation.

ⁱ W. T. Lee, 'Soviet Defense Expenditures' in W. Schneider and F. P. Hoerber (eds), *Arms, Man & Military Budgets, Issues for Fiscal Year 1977* (New York: Crane Russak, 1976). 1979 and 1980 figures by extrapolation.

Soviet pricing practices are quite different from those in the West. Objectives are set in real terms with no requirement for money prices to coincide with the real costs of goods and services. The rouble cost of the defence effort may thus not reflect the real cost of alternative production forgone, and in turn a rouble value of defence expressed as a percentage of Soviet GNP measured in roubles may not reflect the true burden.

If rouble estimates are then converted into dollars to facilitate international comparisons, the difficulties are compounded, because the exchange rate chosen should relate the purchasing

power of a rouble in the Soviet Union to that of a dollar in the USA. The official exchange rate is considered inadequate for this purpose, and there is no consensus on an alternative.

An alternative approach – estimating how much it would cost to produce and man the equivalent of the Soviet defence effort in the USA – produces the index number problem: faced with the American price structure, the Soviet Union might opt for a pattern of spending different from her present one. This particular method tends to overstate the Soviet defence effort relative to that of the USA.

Accordingly, the estimates produced by a number of methods are given in the table, both in roubles and dollars, together with official figures for the defence budget published by the Soviet Union. Estimates produced by China are also given, but their basis is not known. For a critique of estimates of Soviet defence expenditure in general, see Franklyn D. Holzman, 'Soviet Military Spending: Assessing the Numbers Game', *International Security*, Spring 1982, pp. 78–101.

THE SOVIET UNION

Population: 269,650,000.

Military service: Army and Air Force 2 years, Navy and Border Guards 2–3 years.

Total armed forces: 3,705,000.*

Estimated NMP: 458.5 bn roubles (1980), 474.0 bn (1981).

Estimated GNP range: 620.0 – 1,002.62 bn roubles (1980), 614.25 – 939.16 bn (1981).

Estimated defence expenditure see above.

Strategic Nuclear Forces:

OFFENSIVE:

(a) *Navy*: 989 SLBM in 83 subs (950 SLBM and 62 subs within SALT Agreement, plus 39 SLBM and 21 subs outside it).

1 *Typhoon*-class SSBN with 20 SS-NX-20 (more building): (20 msls).

13 D-III SSBN, each with 16 SS-N-18: (208 msls).

4 D-II SSBN, each with 16 SS-N-8: (64 msls).

18 D-I SSBN, each with 12 SS-N-8: (216 msls).

1 Y-II SSBN with 12 SS-N-17 (trials): (12 msls).

25 Y-I SSBN, each with 16 SS-N-6 *Sawfly*: (400 msls).

1 H-III SSBN with 6 SS-N-8: (6 msls). } (msls but not subs counted under SALT)

6 H-II SSBN, each with 3 SS-N-5 *Serb*: (18 msls). } (msls but not subs counted under SALT)

1 G-III SSB with 6 SS-N-8: (6 msls). } (msls but not subs counted under SALT)

13 G-II SSB each with 3 SS-N-5: (39 missiles; non-SALT).

(b) *Strategic Rocket Forces* (SRF): 325,000 (50,000 civilians). ‡ 6 operational rocket armies, org in divs, regts, bns and btys; 1 msl launcher per tyt; 300 launch control HQ; 3 msl test centres.

ICBM: 1,398.§

570 SS-11 *Sego* (some 60 in SS-19 silos; may be modified to SS-19).||

60 SS-13 *Savage*.

150 SS-17 (mostly mod 1, 4 MIRV).

308 SS-18 (mostly mod 2, 8 MIRV; modification to mod 4 may have begun).

310 SS-19 (mostly mod 3, 6 MIRV).

IRBM and MRBM: some 606 deployed (perhaps 500 in Western USSR, rest in central and eastern USSR).

16 SS-5 *Skean* IRBM (being reduced).

315 SS-20 IRBM (mobile launchers capable of being reloaded).¶

275 SS-4 *Sandal* MRBM (being reduced).

Reserves: 520,000 personnel; a proportion of the msls withdrawn from service.

(c) *Long-Range Air Force* (LRAF): 68,000; some 809 combat aircraft.

3 Air Armies; 2 (North West and South West bomber corps) opposite NATO in Europe, 1 (Far East bomber corps) of 9 regts in Eastern USSR.**

Long-range bombers: 150.

105 Tu-95 *Bear* A/B/C, 45 Mya-4 *Bison* (some 70 *Bear* B have AS-3 ASM).

Medium-range bombers: 535 (425 in Western USSR).

310 Tu-16 *Badger* A/G, 125 Tu-22 *Blinder* A/B, 100 Tu-22M *Backfire* B (AS-4 ASM).

Recces: 34.

4 Tu-95 *Bear* E, 15 Tu-16 *Badger* D/E/F/K, 15 Tu-22 *Blinder* C. (A long-range high-altitude ac, 'Ram-M', reported under development.)

ECM: 90 Tu-16 *Badger* H/J.

Tankers: 45.

35 Mya-4 *Bison* A, 10 Tu-16 *Badger*.

* Excludes some 560,000 Border Guard, internal security, railroad and construction troops.

† See Reader's Notes. Official exchange rate 1979, \$1 = 0.657 roubles.

‡ The SRF and *PVO-Strany*, separate services, have their own manpower.

§ Figures may vary slightly during conversion.

|| There are 360 SS-19 silos.

¶ A possible 37 complexes – average 9 launchers (333 msls) – is believed to be planned (some 35 now built). Some launchers may have 1 ready reload.

** There are also staging and dispersal points in the Arctic.

ASM: AS-3 *Kangaroo*, AS-4 *Kitchen*, AS-5 *Kelt*, AS-6 *Kingfish*.

(A new bomber ('Ram-P'), possibly Tu-160 *Blackjack*, characteristics unknown, is reported under development.)

DEFENSIVE:

Troops of Air Defence (Air Defence Force (*PVO-Strany*) and Air Defence Troops of the Ground Forces have been merged). Domestic: 630,000;* 10 Air Defence Districts, numerous AD regiments; 14 specialist schools.

ABM: 32 ABM-1B *Galosh* (32 former launchers non-operational); range over 320 km, warheads nuclear, presumably MT range. 8 sites at 4 complexes around Moscow.

Aircraft: Some 2,250; in regts and sqns.

Interceptors: some 825 MiG-23 *Flogger* B/G, 240 MiG-25 *Foxbat* A, 90 MiG-25 *Foxhound*, 750 Su-15 *Flagon* D/E/F, 120 Tu-28P *Fiddler*, 200 Yak-28P *Firebar*. (New MiG-29 *Fulcrum* ('Ram-L') reported).

Airborne Warning and Control Aircraft: 10 modified Tu-126 *Moss*.

Trg ac incl 40 Su-11, 120 Su-15, 20 MiG-15, 60 MiG-17, 50 MiG-23, 50 MiG-25, 10 Yak-28.

AAM: AA-2 *Atoll*, AA-3 *Anab*, AA-5 *Ash*, AA-6 *Acrid*, AA-7 *Apex*, AA-8 *Aphid*, AA-X-9.

AA artillery: 9,000 23mm, 57mm, 85mm, 100mm, 130mm towed, ZSU-23-4, ZSU-30-6 (trials) and ZSU-57-2 sp guns.

SAM: About 10,000 launchers in some 1,400 fixed sites: some 13,000 launcher rails: SA-1 *Guild*; SA-2 *Guideline*; SA-3 *Goa* (over 400 sites, low-altitude msl, multiple launcher rails); SA-5 *Gammon* (over 100 complexes, long-range intercept); SA-10 low-altitude msls now entering service. Field: mobile systems: SA-4 *Ganef*, SA-6 *Gainful*, SA-7 *Grail* (man-portable), SA-8 *Gecko*, SA-9 *Gaskin*, SA-11, SA-12, SA-13 (replacing SA-9).

Warning Systems: Some 7,000, incl satellites and EW and ground control intercept radars.

(i) *Satellites:* 2 with highly elliptical semi-synchronous orbits may give a launch detection capability (anti-ICBM).

(ii) *Over-the-Horizon (Backscatter) radars:* 3 (possibly 4), near Minsk, near Nikolayev (Caucasus), and in the Far East; targeted on the US and polar areas.

(iii) *Long-range early-warning ABM radars:* At least 5 reported sites. Mostly *Hen*-series (e.g. *Hen House*), range 6,000 km, covering approaches from the west, north-east, south-east and, possibly, south. (Large phased-array radar to supplement system being built; 10 sites, range 2,000 km.)

(iv) *Intermediate-range radars:* *Dog House* and *Cat House*, associated with the Moscow ABM complex, range 3,000 km (new system report-

ed building).

(v) *ABM-associated control radars:* *Try Add* (with *Galosh*).

(vi) *High-altitude, aircraft-associated radars:* *Tall King*, 600 km range.

(vii) *SAM-associated short range radars:* *Yo-Yo* (with SA-1); *Fan Song*, *Spoon Rest* (SA-2); *Flat Face*, *Squint Eye*, *Squat Eye*, *Low Blow* (SA-3).

(viii) *Gun-associated radars:* *Fire Can*, *Flap Wheel*, *Gun Disc*.

Civil Defence: nationwide programme under Defence Ministry down to city/rural/industrial level includes some 75 comd posts within 120 km of Moscow, and accommodation for at least 110,000 officials.

Army: 1,825,000 (perhaps 1,400,000 conscripts). 46 tk divs.

126 motor rifle divs.

8 AB divs (each 3 para regts, 1 arty regt, 1 AA bn).

Some 8 air assault bdes (each 3 rifle bns, spt tps).

Front and Army tps:

14 arty divs.

Indep tk regts, arty, SSM, ATK, engr bdes, CW regts, bns, spt services.

Tanks: Some 50,000: some 38,000 T-10, T-10M hy, T-54/-55/-62, MBT; some 12,000 T-64/-72 MBT (most fitted for deep wading); PT-76 lt.

AFV: 62,000: BRDM scout cars; BMP and BMD MICV, BTR-50/-60/-70/-152 (-50/-60 being replaced by -70 and BMP), MT-LB APC.

Artillery: Some 20,000 122mm, 130mm, 152mm, 180mm towed, 122mm and 152mm sp guns/how; 7,200 82mm, 120mm, 160mm and 240mm (incl 240mm sp) mor; 4,000 122mm, 140mm and 240mm (incl BM-27) MRL.

ATK: 40mm RPG-7, 64mm RPG-15, 73mm RPG-16 RL; 73mm SPG-9 RCL; 10,800 76mm, 85mm, 100mm towed and ASU-75/-85 sp ATK guns; AT-2 *Swatter*, AT-3 *Sagger*, AT-4 *Spigot*, AT-5 *Spandrel*, AT-6 *Spiral* ATGW.

SSM (nuclear-capable): about 1,300 launchers (units organic to formations), incl some 680 *FROG* (482 facing NATO area, some 186 in Far East); some SS-21 (replacing *FROG*), 540 *Scud* A/B (450 NATO area, 90 Far East), SS-23 (replacing *Scud*), 120 SS-12 (70 NATO area, 50 Far East), being replaced by SS-22 (100).

DEPLOYMENT:

Central and Eastern Europe (565,000): 30 divs (15 tk, 15 motor rifle) plus 1 arty: 10,500 MBT.† East Germany (380,000): 9 tk, 10 motor rifle, plus 1 arty; Poland (40,000): 2 tk; Hungary (65,000): 2 tk, 2 motor rifle; Czechoslovakia (80,000): 2 tk, 3 motor rifle.

* The SRF and *PVO-Strany*, separate services, have their own manpower.

† Excluding from the area tks in reserve (replaced by new ones but not withdrawn).

European USSR Military Districts (MD): 69 divs (23 tk, 40 motor rifle, 6 AB), plus 7 arty. Baltic: 3 tk, 6 motor rifle, 2 AB, plus 2 arty; Belorussian: 9 tk, 3 motor rifle, 1 AB, plus 1 arty; Carpathian: 3 tk, 9 motor rifle, plus 1 arty; Kiev: 6 tk, 4 motor rifle, plus 1 arty; Leningrad: 8 motor rifle, 1 AB, plus 1 arty; Moscow: 2 tk, 4 motor rifle, 1 AB; Odessa: 6 motor rifle, 1 AB, plus 1 arty.

Central USSR: 6 divs (1 tk, 5 motor rifle). Ural: 1 tk, 2 motor rifle; Volga: 3 motor rifle.

Southern USSR: 24 divs (1 tk, 22 motor rifle, 1 AB) plus 3 arty. N. Caucasus: 1 tk, 6 motor rifle plus 1 arty; Trans-Caucasus: 11 motor rifle, 1 AB plus 1 arty; Turkestan: 5 motor rifle, plus 1 arty.

Sino-Soviet border: 47 divs (6 tk, 41 motor rifle), plus 3 arty. Central Asian: 1 tk, 6 motor rifle. Under High Command Far East (HQ Irkutsk): Siberian, 5 motor rifle; Transbaykal, 2 tk, 7 motor rifle, plus 1 arty; Far Eastern, 1 tk, 21 motor rifle, plus 2 arty; Mongolia, 2 tk, 2 motor rifle. (For Afghanistan, see *Forces Abroad*, below.)

Soviet divs have three degrees of combat readiness: Category 1, 75–100% strength, with complete eqpt; Category 2, 50–75% strength, complete with fighting vehicles; Category 3, about 25% strength, possibly complete with fighting vehicles (some obsolescent).

The 30 divs and 1 arty div in Eastern Europe and AB divs are Category 1. About 25% of the divs in European USSR and the Far East are in Category 1 or 2. Most of those in Central and Southern USSR are likely to be Category 3. Tk divs in Eastern Europe have some 335 MBT, motor rifle divs up to 266, but elsewhere holdings may be lower.

Navy: 450,000 (some 75% conscripts), incl Naval Air Force, Naval Infantry, and Coastal Artillery and Rocket Troops; 273 cruise-missile and attack subs (105 nuclear, 168 diesel), 290 major surface combat ships. A further 107 attack subs and 28 major surface combat ships are in reserve.

Submarines, cruise-missile: 69:

49 nuclear (SSGN): 1 O-class (24 SS-N-19); 1 P-class (10 msl tubes, possibly SS-N-7 or -9); 12 C-I, 6 C-II (8 SS-N-7 *Siren* each, some C-II may have SS-N-9); 29 E-II with 8 SS-N-3a each (some may carry SS-N-12).

20 diesel (SSG): 16 J-class (4 SS-N-3a each), 2 *W-Long Bin* (4 SS-N-3 each); 2 *W-Twin Cylinder* (2 SS-N-3 each) trg vessels.

Submarines, attack: 204:

56 nuclear (SSN): 6 A-, 13 N-, 16 V-1, 6 V-II-, 10 V-III-, 5 E-I-class. (A further 8 Y-1 SSBN may be converting to SSN.)

148 diesel (SS): 15 T-, 60 F-, 10 R-, 10 Z-IV-, 50 W-, 3 G-I-class (conversion).

(More modern A-, V-SSN, T-class SS may carry

some SS-N-16 and/or SS-N-15 ASW msls).

Surface Ships:

290 major combat vessels:

2 *Kiev* carriers (37,000 tons) with 4 × 2 SS-N-12 *Sandbox* SSM, 2 × 2 SA-N-3/-4 SAM, 1 × 2 SUW-N-1 ASW, 14 Yak-36 *Forger* A/B VTOL ac, 16 Ka-25 *Hormone* A/B hel; (1 more on trials).

2 *Moskva* ASW hel carriers with 2 × 2 SA-N-3 SAM, 1 × 2 SUW-N-1 ASW; 18 Ka-25 hel.

1 *Kirov* nuclear-powered GW cruiser (CGN) with 20 SS-N-19 SSM, 12 SA-N-6, 2 twin SA-N-4, SAM, 2 twin SS-N-14 *Silex* ASW, 2–4 Ka-25 hel (1 more fitting out).

18 GW ASW cruisers: 7 *Kara* with 2 × 2 SA-N-3, 2 × 2 SA-N-4 SAM, 2 × 4 SS-N-14 SSM, 1 hel; 10 *Kresta-II* with 2 × 2 SA-N-3, 2 × 4 SS-N-14, 1 hel; 1 'Black Com-1' with 16 SSM (?SS-N-12), SA-N-6 SAM, (?SS-N-14) ASW, 1 hel (more building).

8 GW cruisers: 4 *Kresta-I* with 2 × 2 SS-N-3b SSM, 2 × 2 SA-N-1 SAM; 4 *Kynda* with 2 × 4 SS-N-3b, 1 × 2 SA-N-1.

7 *Sverdlov* cruisers (2 with 1 × 2 SA-N-4, 1 hel).

42 GW destroyers (DDG): 7 SSM/SAM (1 *Sovremenny* with 2 × 4 SS-NX-22 SSM, 2 SA-NX-7 SAM (more building); 6 mod *Kashin* with 4 SS-N-2, 2 × 2 SA-N-1); 4 SSM *Kildin* with 4 SS-N-2; 29 SAM (13 *Kashin*, 8 *Kanin*, 8 SAM *Kotlin*); 2 ASW *Udaloy* with 2 × 4 SS-N-14, 2 *Helix* (modified Ka-25) hel (on trials, more building).

27 gun destroyers (DD): 15 *Kotlin*, 12 *Skory*.

77 GW frigates (FFG): 32 *Krivak-I/-II* with 1 × 4 SS-N-14, 2 twin SA-N-4; 1 *Koni*, 44 *Grisha-I/-III* with 1 × 2 SA-N-4.

106 gun frigates (FF): 6 *Grisha-II* (with KGB), 18 *Mirka*, 45 *Petya*, 37 *Riga*.

837 minor surface combatants:

25 GW corvettes: 1 *Tarantul II* with 2 × 2 SS-NX-22; 2 *Tarantul I* with 2 × 2 SS-N-2c; 22 *Nanuchka I/III* with 6 SS-N-9, 1 × 2 SA-N-4.

130 FAC(M): 15 hydrofoil (1 *Sarancha* with 2 × 2 SS-N-9, 1 × 2 SA-N-1; 14 *Matka* with 2 SS-N-2c); 70 *Osa-I*, 45 *Osa-II* with 4 SS-N-2b.*

219 FAC(T): 5 *Pauk* with 1 × 4 SA-N-5, 62 *Poti*, 90 *Stenka*, 28 *Shersten*, 1 *Slepen* (trials); 1 *Babochka*, 32 *Turya* hydrofoils.

68 patrol craft: 30 SO-1, 8 *Susanin*, 18 T-58; 2 T-58, 10 T-43/PFR radar pickets.

43 coastal patrol craft (mostly KGB): 18 *Pchela* hydrofoils, 25 *Zhuk*.

3 *Alesha*-class minelayers.

125 ocean minesweepers: 35 *Natya*, 45 *Yurka*, 45 T-43.

165 coastal minesweepers: 2 *Andryusha*, 40

* Some *Osa*, *Alligator* and *Polnochny* units are fitted with SA-N-5 SAM.

Sonya, 3 *Zhenya*, 8 *Sasha*, 72 *Vanya*, 40 *Evgenya*).

59 minesweeping boats: 10 *Ilyusha*, 4 *Olya*, 5 TR-40, 40 K-8.

84 amph ships:

1 *Ivan Rogov* LPD with 1 × 2 SA-N-4; 14 *Alligator*; * 14 *Ropucha* LST; 51 *Polnocny*; * 4 MP-4 LSM.

Some 91 amph craft:

Some 35 LCU: 20 *Vydra*, 15 SMB-1.

56 hovercraft: 12 *Aist*, 3 *Uterok* (more building), 11 *Lebed*, 30 *Gus*.

214 principal auxiliary ships:

28 fleet replenishment oilers, 28 spt tankers, 107 msl spt, supply and cargo ships. 19 submarine tenders, 32 repair ships. Merchant fleet, 2,300 ships, could augment these.

59 intelligence collection vessels (AGI); 119 naval, 340 civilian oceanographic, space-associated, and hydrographic research vessels.

Additional ships in reserve:

7 Z-, 85 W-, 15 Q-class subs; 3 *Sverdlov* cruisers; 3 *Kotlin*, 12 *Skory* destroyers; 10 *Riga* frigates; 20 T-43 minesweepers.

(On order: *Typhoon* SSBN; O-class SSGN; A-, V-III-class SSN; T-class SS; 2 *Kiev* carriers; 3 *Kirov* CGN; 'Black Com-1' CG; 4 *Sovremenny*, 3 *Udaloy* DDG; *Krivak*, *Grisha* III frigates; *Tarantul* GW corvettes; *Matka* hydrofoil FAC(M); *Pauk* FAC; 1 *Rogov* LPD; *Ropucha* LST; hovercraft.

NAVAL AIR FORCE: (59,000); some 755 combat ac, some 300 hel.

Four Fleet Air Forces; org in air divs, each with 2-3 regts of HQ elements and 2 sqns; recce, ASW, transport org in indep regts or sqns.

Strike bdrs: 80 Tu-22M *Backfire* B with AS-4 ASM.

Med bdrs: 310: 240 Tu-16 *Badger* C/G with AS-2/-5/-6 ASM, 30 Tu-16 *Badger* A, some 40 Tu-22 *Blinder* A.

FGA: 75: 40 Yak-36 *Forger* A/B VTOL, 35 Su-17 *Fitter* C/D.

ASW: 190 ac: some 50 Tu-95 *Bear* F, 50 Il-38 *May*, 90 Be-12 *Mail*. Some 240 hel: 90 Mi-14 *Haze*, 150 Ka-25 *Hormone* A, *Helix*.

MR/ECM: 100: some 40 Tu-16 *Badger* D/E/F/K, 45 Tu-95 *Bear* D, 5 Tu-22 *Blinder* C, 10 An-12 *Cub* B ac; Ka-25 *Hormone* B, *Helix* B hel.

MCM: 20 Mi-14 *Haze* A (mod Mi-8) and Mi-8 *Hip* C hel.

Tankers: 70 Tu-16 *Badger*.

Tpt/trg ac: 330 ac and hel, incl An-12 *Cub* A, An-26 *Curl*, Il-14 *Crate*, Il-18 *Coot*, An-24 *Coke* ac; Mi-6/-8 *Hook/Hip*, Ka-25 *Hormone* hel.

ASM: AS-2 *Kipper*, AS-4 *Kitchen*, AS-5 *Kelt*, AS-6 *Kingfish*.

NAVAL INFANTRY (Marines): (13,500).
Some 5 naval inf bdes/regts (each 3 inf, 1 tk bn), one each with Northern, Baltic and Black Sea

Fleets; Marine div (of at least two regts) with Pacific Fleet.

50 T-54/55 MBT, 150 PT-76 lt tks; BTR-60P/PA/PB APC; M-1974 122mm SP how; BM-21 122mm MRL; ZSU-23-4 SP AA guns; SA-9 SAM.

COASTAL ARTILLERY AND ROCKET TROOPS: (8,000).

Hy coastal guns, perhaps 100 SS-C-1b *Sepal* ssm (similar to SS-N-3) to protect approaches to naval bases and major ports.

DEPLOYMENT AND BASES (average strengths, excluding units in reserve):

Northern Fleet: 45 SSBN, 140 other subs, 75 major (incl 1 carrier), 120 minor surface combatants, 15 amph, 75 principal auxiliary spt ships, 80 bombers. Severomorsk (HQ), Motovskij Gulf, Polyarny, Severodvinsk, Archangelsk. Some 10 subs serve in the Mediterranean.

Baltic Fleet: 30 subs (incl 6 G-II), 50 major, 292 minor surface combatants, 25 amph, 21 principal auxiliary spt ships, 100 bombers, marines, 6 SSM bns. Baltiysk (HQ), Kronshtadt, Tallin, Liepaja, Riga.

Black Sea Fleet (incl Caspian Flotilla; Mediterranean sqn with some 12 surface combatants): 20 subs, 80 major (incl 1 carrier, 2 ASW hel carriers), 210 minor surface combatants, 25 amph, 41 principal auxiliary spt ships, 90 bombers. Sevastopol (HQ), Poti, Odessa.

Pacific Fleet: 25 SSBN, 95 other subs, 85 major (incl 1 carrier), 215 minor combatants, 20 amph, 77 major auxiliary spt ships, 330 combat ac (incl 120 bombers). Vladivostok (HQ), Petropavlovsk, Sovyetskaya Gavan. Detachments from this fleet (average 3 subs, 7 surface combatants, 18 spt ships) serve in the Indian Ocean; facilities also in Vietnam (Da Nang and Cam Ranh Bay), South Yemen (Aden, Socotra) and Ethiopia (Dahlak Is).

Air Force: 475,000.†

Tactical Air Force: (195,000); some 4,480 combat aircraft, some 2,300 armed hel.

16 Air Armies of varying strengths (totalling 150 ac regts and some indep ac sqns), mostly org in divs of 3 regts (each regt usually of a single ac type in 3 sqns, totalling 45 ac).

FGA: some 2,050: some 100 MiG-21 *Fishbed*, 550 MiG-27 *Flogger* D/J, 150 Su-7 *Fitter* A, 650 Su-17 *Fitter* C/D/H, 550 Su-24 (Su-19) *Fencer*, 25 Su-25 *Frogfoot* ('Ram-J'), some Su-27 (on trials).

Fighters: 1,750: 500 MiG-21 *Fishbed* D to N (not H, M), 1,250 MiG-23 *Flogger* B/G.

Recce: 640: 150 MiG-25 *Foxbat* B/D, 130 MiG-21

* Some *Osa*, *Alligator* and *Polnocny* units are fitted with SA-N-5 SAM.

† Excluding Long-Range Air Force.

Fishbed H, 200 *Yak-28 Brewer D*, 160 *Su-17 Fitter H*.

ECM: 40 *Yak-28 Brewer E*.

Hel: 3,450: 1 regt per ground army in GSFG, Sino-Soviet border: 700 *Mi-1/-2 Hare/Hoplite*, 50 *Mi-4 Hound A*, 400 *Mi-6 Hook*, 1,500 *Mi-8 Hip C* (armed tpt) and *E* (gunship), 800 *Mi-24 Hind A/B/C/D/E* (armed).

Trainers: Some 1,000 ac; 700 hel.

AAM: *AA-1 Alkali*, *AA-2 Atoll*, *AA-7 Apex*, *AA-8 Aphid*, *AA-X-9*.

ASM: *AS-7 Kerry*, *AS-10*; hel-borne: *AT-2 Swat-ter*, *AT-6 Spiral*.

Military Transport Aviation: (65,000); some 600 aircraft. Org in regts. Incl some 400 *An-12 Cub med*, 150 *Il-76 Candid* (replacing *Cub*), 55 *An-22 Cock hy*. Some 200 *Cub* and *Candid*, and 1,100 med- and long-range passenger ac of the civil *Aeroflot* fleet could augment military ac.

DEPLOYMENT:

4 Tactical Air Armies (2,000 ac) in Eastern Europe, 1 in each of 12 MD in USSR (not in N. Caucasus, Siberia, Ural, Volga).

RESERVES (all services):

Soviet conscripts have a Reserve obligation to 50.

Total Reserves could be 25,000,000, of which some 5,000,000 have served in last five years.

Forces Abroad:

Afghanistan, 95,000:

(Army: 3 motor rifle, 1 AB divs, 1 air assault bde.

Air: possibly 1 air div: 1 air, 1 hel regts, tpts).

Algeria, 1,000; Angola, 200; Congo, 350; Cuba, 2,800; Ethiopia, 1,350; Iraq, 1,200; Kampuchea, 300; Laos, 500; Libya, 1,800; Mali, 200; Mauritania, 200; Mozambique, 300; Vietnam, 5,000; Syria, 2,500; N. Yemen, 500; S. Yemen, 1,500.

Para-Military Forces: 560,000.

KGB border tps 300,000, with tks, SP guns, AFV, ac and ships; MVD security tps 260,000, with tks and AFV. By law part of armed forces of USSR.

Part-time military training organization (DOSAAF) conducts such activities as flight training, shooting, parachuting and pre-military training of those aged 15 and over in schools, colleges and workers' centres. Claimed active membership 80 million, with 5 million in instructors and activists; effectives likely to be much fewer.

The Alliances and Europe

THE WARSAW PACT

Treaties

The Warsaw Pact is a multilateral military/politico alliance formed by the 'Treaty of Friendship, Mutual Assistance and Co-operation' signed in Warsaw on 14 May 1955 by the Governments of the Soviet Union, Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland and Romania; Albania left the Pact in September 1968. The Pact is committed to the defence only of the European territories of the member states.

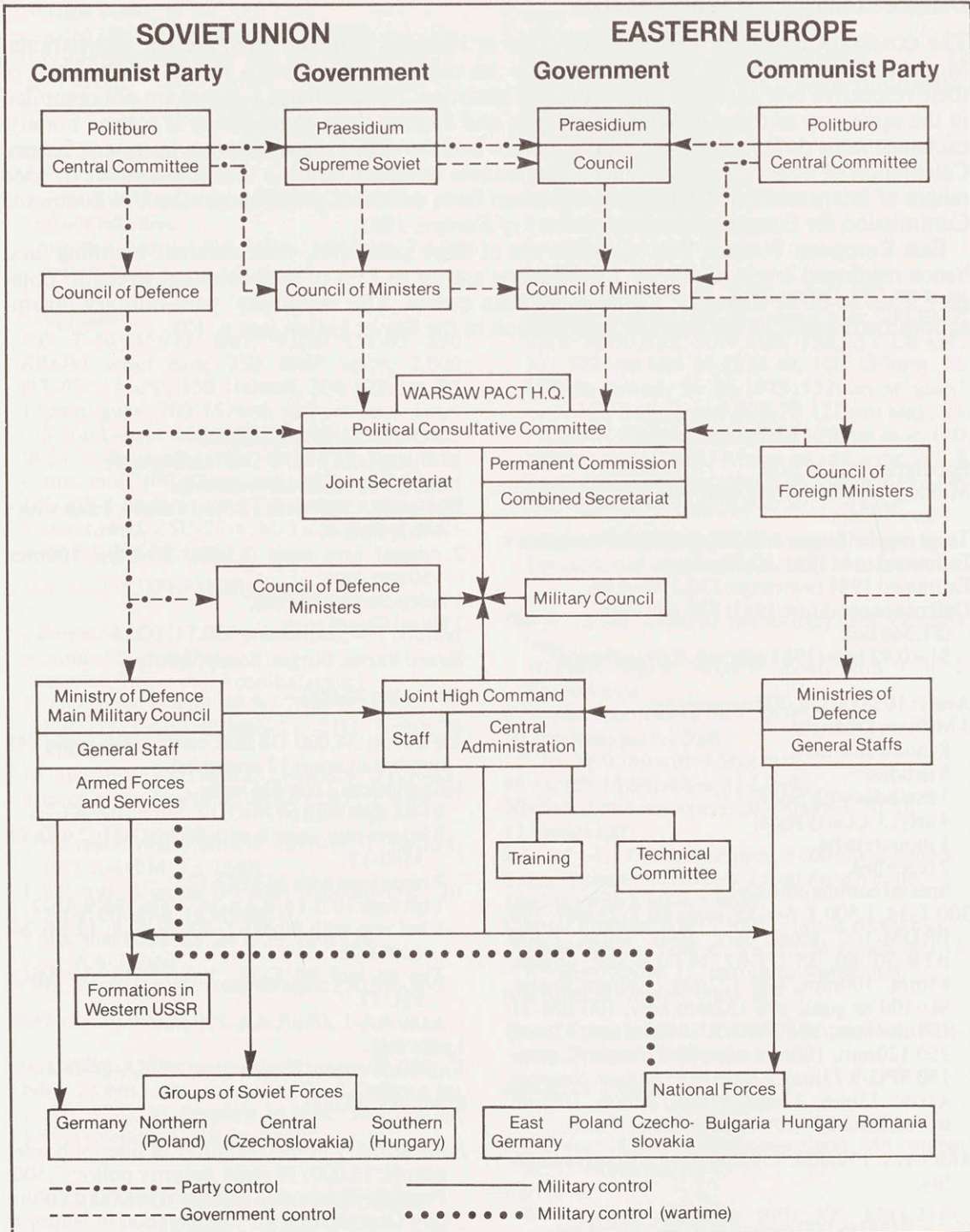
The Soviet Union is also linked by bilateral treaties of friendship and mutual assistance with Bulgaria, Czechoslovakia, East Germany, Hungary, Poland and Romania. These also have similar bilateral treaties with each other. The essence of East European defence arrangements is not therefore dependent on the Warsaw Treaty as such. The Soviet Union concluded status-of-forces agreements with Poland, East Germany, Romania and Hungary between December 1956 and May 1957, and with Czechoslovakia in October 1968; all remain in effect except the one with Romania, which lapsed in June 1958 when Soviet troops left Romania.

Organization

The senior formal political body is the Political Consultative Committee (PCC) which comprises the First Secretaries of the Communist Parties, Heads of Government or their representatives, the Foreign and the Defence Ministers of all the member countries, the Soviet Chief of General Staff and the Commander-in-Chief (C-in-C) and Chief of Staff (C of S) of the Pact Joint High Command. Its executive agency is the Joint Secretariat, with representatives from each country, which is responsible for armaments and logistics and for preparing the PCC's agendas. It also has a Permanent Commission responsible for recommendations on general questions of foreign policy. Both are located in Moscow.

The Council of Foreign Ministers advises the PCC on foreign policy, working with the permanent Commission and the Combined Secretariat. The senior military body is the Council of Defence Ministers. Chaired by the C-in-C, Warsaw Pact, it includes his C of S, the Deputy Ministers of Defence of the Pact nations, Deputy C-in-C, Soviet Air Defence Forces (whose operational area includes Central Europe), and probably the Inspector-General of the Pact and the Chairman of the Technical Committee. This Council meets infrequently to supervise the work of the Permanent Joint High Command (JHC). That Command is headed by a Soviet Marshal, who is also the Soviet First Deputy Minister of Defence. Each Pact Defence Ministry has a senior general as a permanent representative on the JHC staff, while a Soviet general is assigned to each national HQ, except in Romania. The Staff is responsible for operational plans and for managing the Pact field exercises. The Pact military representatives also form the Military Council which, chaired by the C-in-C, and including the C of S, advises the JHC on non-operational matters, and controls the Central Administration for training, standardization and, possibly, technical affairs. The offices of C-in-C and C of S and all important staff posts have always been held by Soviet officers.

The JHC controls the Soviet Forces in Eastern Europe and Western USSR. The East European Pact armies remain under national control until war breaks out, when they are expected to come under command of the JHC. Among the Soviet military HQ in the Warsaw Pact area are the Group of Soviet Forces, Germany (GSFG) at Zossen-Wünsdorf near Berlin; the Northern Group of Forces, (NGF) at Legnica, Poland; the Central Group of Forces (CGF) at Milovice, north of Prague, and the Southern Group of Forces (SGF) at Budapest. A Soviet Tactical Air Army is located with each Group of Forces. Command of the air defence system covering the whole Warsaw Pact area, with the probable exception of Romania, is centralized in Moscow and is directed by the C-in-C of the Soviet Air Defence Forces, *Voyska Protivovozdushnoy Oborony Strany* (PVO Strany).



Nuclear Weapons

The Soviet Union has deployed short-range surface-to-surface launchers and nuclear-capable aircraft in Eastern Europe. East European countries also have short-range SSM launchers, but there is no evidence that nuclear warheads have been supplied, nor is there any reason to assume so. Soviet longer-range SSM and aircraft are based in the Soviet Union.

Defence Economic and Readiness Data

The COMECON countries, with the exception of Hungary and Romania, are not International Monetary Fund members. GNP/GDP figures are calculated by various means on the basis of their respective Net Material Product (NMP) statistics. Their defence budgets are not compiled in the same way as those in Western nations, and data on their composition is scanty. Finally, exchange rates do not represent market values and are subject to arbitrary adjustment factors. Calculation of GNP/GDP and defence expenditures in dollar terms is therefore subject to wide ranges of interpretation. NMP figures are taken from estimates published in the UN Economic Commission for Europe's *Economic Survey of Europe, 1981*.

East European Warsaw Pact divisions are of three categories, with different manning (and hence readiness) levels. Category 1 formations are up to 75% of establishment strength: Category 2 up to 50%; Category 3 little more than cadres. The 'voluntary' para-military organizations correspond to the DOSAAF organization in the Soviet Union (see p. 17).

BULGARIA

Population: 8,950,000.

Military service: Army and Air Force 2 years,
Navy 3 years.

Total regular forces: 148,000 (94,000 conscripts).

Estimated NMP 1981: 22.0 bn leva.

Estimated 1981 GNP range: \$30.2-39.1 bn.

Defence expenditure 1981: 928.4 m leva
(\$1.346 bn).

\$1 = 0.93 leva (1981 official), 0.69 (adjusted).

Army: 105,000 (70,000 conscripts).

3 Military Districts:

8 motor rifle divs.

5 tk bdes.

3 SSM bdes with *Scud*.

4 arty, 3 AA arty regts.

1 mountain bn.

2 recce bns.

Special commando coys.

300 T-34, 1,500 T-54/-55, some 60 T-72 MBT; 290 BRDM-1/-2 scout cars; BMP MICV, 1,500 BTR-50/-60, 35 OT-62, MT-LB APC; 76mm, 85mm, 100mm, 400 122mm, 130mm towed, SU-100 SP guns; 100 152mm how; 100 BM-21 122mm MRL; 36 *FROG-7*, 30 *Scud* SSM; 82mm, 350 120mm, 160mm mor; 90 57mm ATK guns; 150 SPG-9 73mm, 82mm RCL; *Sagger*, *Snapper* ATGW; 23mm, 37mm, 57mm, 85mm, 100mm towed, ZSU-23-4 SP AA guns; SA-6/-7 SAM.

RESERVES: 150,000. 750,000 have a Reserve liability.

Navy: 9,000 (6,000 conscripts); 12 combat hel.

2 ex-Sov R-class subs.

2 *Riga* frigates.

3 *Poti* corvettes.

11 patrol craft: 6 SO-1, 5 *Zhuk* coastal.

4 FAC(M) with *Styx* SSM: 3 *Osa-I*, 1 *Osa-II*.

6 *Shershen* FAC(T).

28 MCM vessels: 2 T-43 ocean, 4 *Vanya* coastal, 18

PO-2, 4 *Yevgenya* (inshore).

19 *Vydra* LCU, 9 MFP D-3 landing craft.

1 underway replenishment ship.

2 hel sqns: 1 ASW with 12 Mi-14 *Haze*; 1 SAR with 6 Mi-2, 6 Mi-4.

2 coastal arty regts (1,000): 20 btys; 100mm, 150mm guns.

2 indep *Samlet* SSM bns.

3 Naval Guard coys.

Bases: Varna, Burgas, Sozopol, Atiya.

RESERVES: 25,000.

Air Force: 34,000 (18,000 conscripts); some 248 combat ac, some 12 armed hel.

1 air division: 3 combat regts:

6 FGA sqns with 64 MiG-17, some 20 MiG-23.

8 interceptor sqns: 6 with 80 MiG-21; 2 with 60 MiG-17.

2 recce sqns with 24 MiG-17.

1 tpt regt: 10 Il-14, 4 An-24, 2 Tu-134, 9 An-2.

1 hel regt with 30 Mi-2, 40 Mi-4/-8, 12 Mi-24, 12 Ka-26.

Trg ac incl 80 L-29, Yak-11/-18, 30 MiG-15UTI.

AAM: AA-1 *Alkali*, AA-2 *Atoll*.

1 para regt.

1 AD div: 3 zones: 30 SAM sites; 280 SA-2/-3/-4.

RESERVES: 20,000.

Para-Military Forces: Ministry of Interior border guards: 15,000, 16 regts. Security police: 7,500. People's Territorial Militia: 150,000. 'Voluntary Organization for Co-operation in National Defence'.

CZECHOSLOVAKIA

Population: 15,450,000.

Military service: Army 2 years, Air Force 3 years.

Total regular forces: 196,500 (117,000 conscripts).

Estimated NMP 1981 Kc 480.1 bn.
 Estimated 1981 GNP range: \$73.1-121 bn.
 Defence expenditure 1981: Kc 24.14 bn
 (\$3.796 bn).
 \$1 = 5.85 koruny (1981 official), 6.36 (adjusted).

Army: 142,500 (100,000 conscripts).
 2 Military Districts:
 5 armd divs (2 at Category 2 status).
 5 motor rifle divs.
 1 arty div: 2 arty, 1 AA, 3 *Scud* SSM bdes, 2 ATK regts (6 bns).
 1 AB bde.
 6 engr bdes.
 3,400 T-54/-55/-72 MBT; 1,250 OT-65 and BRDM scout cars; 950 BMP MICV, 2,800 OT-62/-64 APC; 150 100mm, 300 122mm, 25 130mm guns; 200 152mm SP how (incl Tatra 813 truck-mounted); 200 RM-70 122mm, 120 M-51 130mm MRL; 40 *FROG*, 27 *Scud* SSM; 81mm mor; 100 82mm RCL; 112mm P-27 RL; 285 AT-3 *Sagger* and AT-4 *Spigot* ATGW; 500 57mm towed, ZSU-23-4, M-53/59 30mm SP AA guns; SA-4/-6/-7 SAM.

RESERVES: 295,000 (liability to age 50).

Air Force: 54,000 (17,000 conscripts); 471 combat ac, some 12 armed hel.
 2 air armies: 3 air divs: 15 combat regts:
 13 FGA sqns: 6 with 80 Su-7BM/U; 1 with 12 MiG-23; 3 with 42 MiG-21/-21U; 3 with 30 MiG-15.
 18 interceptor sqns with 252 MiG-21/-21U/-23.
 3 recce sqns: 1 with 25 MiG-21RF; 2 with 30 L-29/-39.
 2 tpt regts with 6 An-24, 40 Il-14, 1 Tu-134, LET L-410M, Tu-154B.
 1 hel regt, 3 indep hel sqns with Mi-1/-2, 70 Mi-4, 20 Mi-8, 12 Mi-24.
 Trg ac incl 100 L-29, 24 L-39, Zlin 326.
 AAM: AA-2 *Atoll*.
 3 AD divs: 6 SAM regts: some 40 sites; 250 SA-2/-3.
 RESERVES: 30,000.

Para-Military Forces: border troops 11,000: 7 bdes, 28 bns, AFV, ATK guns. Civil Defence tps 2,500. 120,000 People's Militia. 'Association for Co-operation with the Army'.

GERMAN DEMOCRATIC REPUBLIC

Population: 16,750,000.
 Military service: 18 months.
 Total regular forces: 166,000 (92,000 conscripts).
 Estimated NMP 1981: 182.6 bn ostmarks.
 Estimated 1981 GNP range: \$96.8-142.13 bn.
 Defence expenditure 1982: 15 bn ostmarks (\$7.39 bn).
 \$1 = 2.26 ostmarks (1981 official), 2.03 (adj).

Army: 113,000 (67,000 conscripts).
 2 Military Districts, 2 Army HQ:
 2 tk divs (each 3 tk, 1 motor rifle regts).
 4 motor rifle divs (each 1 tk, 3 motor rifle regts).
 2 SSM bdes with *Scud*.
 2 arty, 1 AA arty regts.
 2 AD regts with SA-4 SAM.
 3 sigs regts.
 2 engr regts, 1 engr bn.
 1 railway construction regt.
 2 ATK bns.
 1 AB bn.
 About 1,500 T-54/-55, T-72 MBT (1,600 more in storage); 500 BRDM-1/-2 scout cars; 700 BMP MICV, 1,000 BTR-50P/-60P/-152, MT-LB APC; 335 122mm incl M-1974 SP, 100 130mm, 72 152mm towed, 36 M-1973 152mm SP guns/how; 108 BM-21 and RM-70 122mm MRL; 24 *FROG*-7, 18 *Scud* B SSM; 250 120mm mor; 120 100mm towed, ASU-85mm SP ATK guns; AT-3 *Sagger*, AT-4 *Spigot* ATGW; 36 57mm towed, 96 ZSU-23-4 SP AA guns; SA-4/-6/-7/-9 SAM.

RESERVES: 250,000. 8-yr active commitment; up to 3 months call-up per year to total 24 months.

Navy: 15,000 (10,000 conscripts) incl Frontier Bde.
 2 *Rostock* frigates (ex-Sov *Koni*) with 1 × 2 SA-N-4 SAM.
 6 *Parchim* corvettes with 2 SA-N-5 SAM.
 10 *Hai* large patrol craft.
 15 *Osa*-I FAC(M) with 4 *Styx* SSM.
 49 FAC(T): 18 *Shershen*, 31 *Libelle*.
 50 coastal minesweepers: 20 *Kondor*-I, 30 -II.
 12 *Frosch* LST.
 2 *Kondor*-I, 1 *Okean* intelligence collection vessels.
 8 supply ships and tankers, 2 mod *Frosch* lt tpts.
 1 hel sqn with 8 Mi-4, 5 Mi-8.
 Coastal Frontier Bde (2,500): 5 beach patrol bns, 2 afloat 'divs', 1 boat gp (recce); 34 vessels incl 18 *Kondor*-I above, 152mm guns, *Samlet* SSM.
 (On order: 6 *Parchim* corvettes).

Bases: Peenemünde, Rostock/Warnemünde, Sassnitz, Wolgast, Tarnewitz.

RESERVES: 25,000.

Air Force: 38,000 (15,000 conscripts); 359 combat ac, 15 armed hel.
 2 air divs:
 6 AD regts: 18 sqns with 300 MiG-21F/-MF/PF/U/-23.
 4 FGA sqns: 3 with 35 MiG-17; 1 with 12 MiG-23.
 1 recce sqn with 12 MiG-21.
 7 SAM regts, some 30 sites with 200 SA-2/-3.
 2 radar regts.
 1 tpt regt: 3 sqns: 20 Il-14, 15 Tu-134, An-2/-14.
 2 hel regts: 6 sqns with 40 Mi-2/-4, 70 Mi-8, 15 Mi-24.

Trg ac incl Yak-11, L-29/-39, Zlin 226, MiG-15UTI.

AAM: AA-2 *Atoll*. ASM: AT-3 *Sagger* ATGW.

RESERVES: 30,000.

Forces Abroad: Algeria, 250; Angola, 450; Ethiopia, 250; Guinea, 125; Iraq, 160; Libya, 400; Mozambique, 100; S. Yemen, 325; Syria, 210.

Para-Military Forces: 71,800. Ministry of Defence: Frontier Troops (45,000): 18 border, 2 indep, 1 special, 6 trg regts (some 66 bns), 1 boat section; 24 patrol craft. Ministry for State Security: 1 Guard regt (Berlin) (5,300): 6 motor rifle, 1 arty, 1 trg bns; PSZH-IV APC, 120mm mor, 85mm, 100mm ATK, ZU-23 AA guns, hel. Ministry of Interior: People's Police Alert Units (13,000): 21 bns; APC, 82mm mor. Transport Police (8,500): 16 coys; small arms, RPG-7 RL. Workers' Militia: 15,000 combat groups; AFV incl SK-1 APC, 82mm mor, 76mm ATK, 23mm, 37mm AA guns. 'Sport and Technology Society' (450,000, 75% active): 1 central, 14 regional subordinate district gps, some 15,000 units; small arms.

HUNGARY

Population: 10,750,000.

Military service (incl Border Guard): 18 months.

Total regular forces: 106,000 (58,000 conscripts).

Estimated NMP 1981: F 631.4 bn.

Estimated 1981 GDP range: \$37.7-52.8 bn.

Defence expenditure 1982: F 20.26 bn (\$1.318 bn).

\$1 = 34.4 forints (1981 official), 15.37 (adjusted).

Army: 85,000 (50,000 conscripts) incl Danube Flotilla.

1 tk div.

5 motor rifle divs.

1 arty bde, 1 SSM bde with *Scud*.

1 AA arty, 1 SAM regts.

1 AB bn.

About 1,200 T-54/-55, 30 T-72 MBT; 100 PT-76 lt tks; 125 BMP-1 MICV; about 300 BRDM and some 200 FUG-65 scout cars; 1,400 PSZH, MT-LB APC; 250 122mm, 40 M-1974 122mm SP how; 100 152mm guns/how; 50 BM-21 122mm MRL; 24 *FROG*, 12 *Scud* SSM; 300 82mm, 100 120mm mor; 150 SPG-9 73mm, 107mm RCL; 150 85mm, 100mm ATK guns; 100 *Sagger*, *Snapper* ATGW; 100 57mm towed, 50 ZSU-23-4 and ZSU-57-2 SP AA guns; 80 SA-6, 300 SA-7, 50 SA-9 SAM.

Danube Flotilla (700): 10 100-ton patrol craft, river MCM, 5 small LCU, small tp tpts.

Air Force: 21,000 (8,000 conscripts); 140 combat ac, 12 armed hel.

1 air div:

2 AD fighter regts: 6 interceptor sqns with 120 MiG-21/F/PF/bis/U, 20 MiG-23.

1 tpt regt: 2 tpt sqns with 24 An-2/-24/-26, Il-14, 2 Tu-134.

1 hel regt: 3 hel sqns: 1 with 35 Mi-4/-8, 1 with 12 Mi-24, 1 with 12 Ka-26.

Trg ac incl L-29, MiG-15UTI.

AAM: AA-2 *Atoll*.

1 AD div: 3 SAM regts, some 20 sites; 150 SA-2/-3.

RESERVES: (all services): 143,000.

Para-Military Forces: Border guards 15,000 (11,000 conscripts); 11 districts. Part-time Worker's Militia 60,000. 'Sport Association for National Defence'.

POLAND

Population: 35,900,000.

Military service: Army, internal security forces,

Air Force 2 years; Navy, special services 3 years.

Total regular forces: 317,000 (187,000 conscripts).

Estimated NMP 1980: Z1 1,936.2 bn.

Estimated 1981 GNP range: \$88.1-133.8 bn.

Defence expenditure 1981: Z1 75.18 bn (\$5.41 bn).

\$1 = 3.35 zloty (1981 official), 13.9 (adjusted).

Army: 207,000 (154,000 conscripts).

3 Military Districts:

5 armd divs.

8 mech divs.

1 AB div.

1 amph assault div.

3 arty bdes, 1 arty regt, 5 AA arty regts.

3 ATK regts.

1 AD bde with SA-4 SAM.

4 SSM bdes with *Scud*.

3,000 T-54/-55, 60 T-72 MBT, 130 PT-76 lt tks;

2,800 OT-65/FUG and BRDM-1/-2 scout cars;

5,500 BMP-1, SKOT/SKOT-2AP, MT-LB,

TOPAS APC; 400 100mm, 122mm guns; 200

122mm incl SP, 250 152mm guns/how; 250

BM-21 122mm, 130mm, 140mm, 240mm MRL;

51 *FROG*-3/-7, 36 *Scud* SSM; 650 82mm,

120mm mor; 450 85mm, 100mm towed ATK

guns; 73mm, 82mm, 107mm RCL; *Snapper*,

AT-4 *Spigot*, *Sagger* ATGW; 750 23mm, 37mm,

57mm, 85mm and 100mm towed, 75 ZSU-23-4

SP AA guns; SA-4/-6/-7/-9 SAM.

Navy: 22,000 (6,000 conscripts).

4 W-class submarines.

1 *Kotlin* destroyer with 1 × 2 *Goa* SAM.

13 *Osa* FAC(M) with 4 *Styx* SSM.

15 FAC(T); 5 *Pilica*, 10 *Wisla*.

23 large patrol craft: 13 *Obluze*, 1 *Oksywie*, 9 *Gdansk*.

49 MCM: 12 *Krogulec*, 11 T-43 ocean, 1 *Notec*

coastal minesweepers; 25 K-8 boats.

23 *Polnocny* LCT, 4 *Marabut* LCM, 15 *Eichstaden* LCA.

4 intelligence vessels (AGI): 1 B-10, 2 *Moma*, 1 T-43 radar picket.

1 Naval Aviation Div (52 combat aircraft):

1 attack regt: 3 sqns with 42 MiG-17.

1 recce sqn with 10 Il-28.

1 hel regt: 2 sqns with 25 Mi-2/-4/-8.

Bases: Gdynia, Hel, Swinoujscie, Kolobrzeg, Ustka.

Air Force: 88,000 (27,000 conscripts); 705 combat ac, 5 armed hel.

4 air divs:

6 FGA regts: 18 sqns: 3 with 35 Su-7/-7U; 3 with 35 Su-20; 12 with 150 MiG-17.

10 AD regts: 33 sqns with some 430 MiG-17/-21/-21U.

6 recce sqns: 35 MiG-21RF, 5 Il-28, 15 LIM-6.

2 tpt regts: 9 An-2, An-12, 12 An-26, 12 Il-14.

1 comms/liaison sqn with 2 Tu-134A, 5 Yak-40 Il-18 ac; 4 Mi-8 hel.

3 hel regts with 165 Mi-1/-2, 5 Mi-4, 22 Mi-8, 5 Mi-24.

300 trg ac: TS-8/-11, MiG-15/-21UTI, Su-7U.

AAM: AA-1 *Alkali*, AA-2 *Atoll*.

3 AD divs: 9 SAM regts: some 50 sites; 425 SA-2/-3.

RESERVES: (all services): 605,000.

Forces Abroad: Syria (UNDOF): 129.

Para-Military Forces: 85,000. Ministry of Interior border troops 20,000: 12 bdes, some 34 coast-guard patrol craft incl 5 *Obluze*, 9 *Gdansk* above. Internal defence troops 65,000: tks, AFV, ATK guns. Citizen's Militia 350,000. 'League for National Defence' (some 200,000 active).

ROMANIA

Population: 22,400,000.

Military service: Army and Air Force 16 months, Navy 2 years.

Total regular forces: 181,000 (109,000 conscripts).

Estimated NMP 1980: L 516.4 bn.

Estimated 1981 GNP range: \$77.1-120 bn.

Defence budget 1982: L 10.77 bn (\$1.4 bn).

\$1 = 4.47 lei (1980/2 official), 7.7 (adjusted).

Army: 140,000 (95,000 conscripts).

3 Military Districts:

2 tk divs.

8 motor rifle divs.

3 mountain bdes.

2 arty bdes, 2 arty, 2 AA arty, 4 ATK regts.

2 *Scud* SSM bdes.

1 AB regt.

200 T-34, 1,600 T-54/-55, some T-72, some M-77 MBT; 600 BRDM-1/-2 scout cars; 2,000 BTR-50/-60, TAB-72 (BTR-60), OT-810 APC; 150 76mm, 50 85mm, 100mm, 130 SU-100 SP guns; 600 122mm, 150 152mm guns/how; 122mm, 150 130mm MRL; 30 *FROG*, 20 *Scud* SSM; 500 82mm, 200 120mm mor; 57mm ATK guns; 73mm, 260 76mm and 82mm RCL; 120 *Sagger*, *Snapper* ATGW; 400 30mm, 37mm, 250 57mm, 85mm, 100mm towed, ZSU-23-4 SP AA guns; SA-6/-7 SAM.

RESERVES: 300,000.

Navy: 7,000 (4,000 conscripts).

Black Sea Fleet, Danube Sqn, Coastal Defence.

3 *Poti* corvettes.

5 *Osa* FAC(M) with 4 *Styx* SSM.

3 *Kronshtadt* large patrol craft.

19 *Shanghai* FAC(G/P/ASW).

32 FAC(T): 20 *Huchwan* hydrofoils, 6 ex-Sov P-4, 6 *Epitrop*.

46 river patrol craft incl 18 VB-76 monitors.

14 minesweepers (4 ex-GDR M-40 coastal, 10 ex-Sov T-301 inshore); 8 ex-Pol TR-40, 20 VD-141 minesweeping boats.

4 Mi-4 SAR hel.

Coastal Defence (2,000): HQ Constanta, 4 sectors; 18 arty btys with some 110 130mm, 150mm and 152mm guns, observer post tps, naval engineers. Would get 2 regts of naval inf on mobilization.

RESERVES: 20,000.

Bases: Mangalia, Constanta; Danube: Braila, Galati, Giurgiu, Sulina, Tulcea.

Air Force: 34,000 (10,000 conscripts); 328 combat aircraft.

2 air divs: 4 combat regts:

6 FGA sqns with 70 MiG-17.

12 interceptor sqns with 240 MiG-21F/PF/U and MiG-23.

1 recce sqn with 18 Il-28.

1 tpt regt with 3 Il-14, 4 Il-18, 1 Il-62, 10 An-24, 6 An-26, 5 Li-2, 1 Boeing 707.

1 hel regt: 10 Mi-4, 25 Mi-8, 45 IAR-316B (*Alouette* III), 15 IAR-330 (*Puma*).

Trg ac: 50 L-29, 50 MiG-15UTI.

AAM: AA-2 *Atoll*.

1 AD div:

Some 20 SAM sites with 108 SA-2.

(On order: 23 IAR-93 FGA/trg ac.)

RESERVES: 45,000.

Para-Military Forces: 37,000. Border guards: 17,000; 12 bdes. Ministry of Defence security troops: 20,000; AFV, ATK guns. Local Air Defence: some 900,000 Patriotic Guard. Youth Homeland Defence: 650,000. 'Voluntary Sports Association'.

THE NORTH ATLANTIC TREATY

Treaties

The Brussels Treaty of 1948 commits its signatories – Belgium, Britain, France, Luxembourg and the Netherlands – to give one another ‘all the military and other aid and assistance in their power’ if one is the subject of ‘armed aggression in Europe’. The Treaty’s duration is 50 years.

The North Atlantic Treaty was signed on 4 April 1949 by Belgium, Britain, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal and the United States; Greece and Turkey joined in 1952, West Germany in 1955 and Spain on 30 May 1982. The Treaty unites Western Europe and North America in a commitment to consult together if the security of any one member is threatened, and to consider an armed attack against one as an attack against all, to be met by such action as each of them deems necessary, ‘including the use of armed force, to restore and maintain the security of the North Atlantic area’. The Paris Agreements of 1954 added a Protocol aimed at strengthening the Alliance structure, revised the Treaty to enable West Germany and Italy to join, and established the principle that the Treaty had no date of termination. In 1966 France withdrew from the military organization but remains a member of the Alliance. Greece, which left the military structure in 1974, rejoined it in 1980. A 1969 amendment requires members to give one year’s notice of their intention to withdraw from the Alliance.

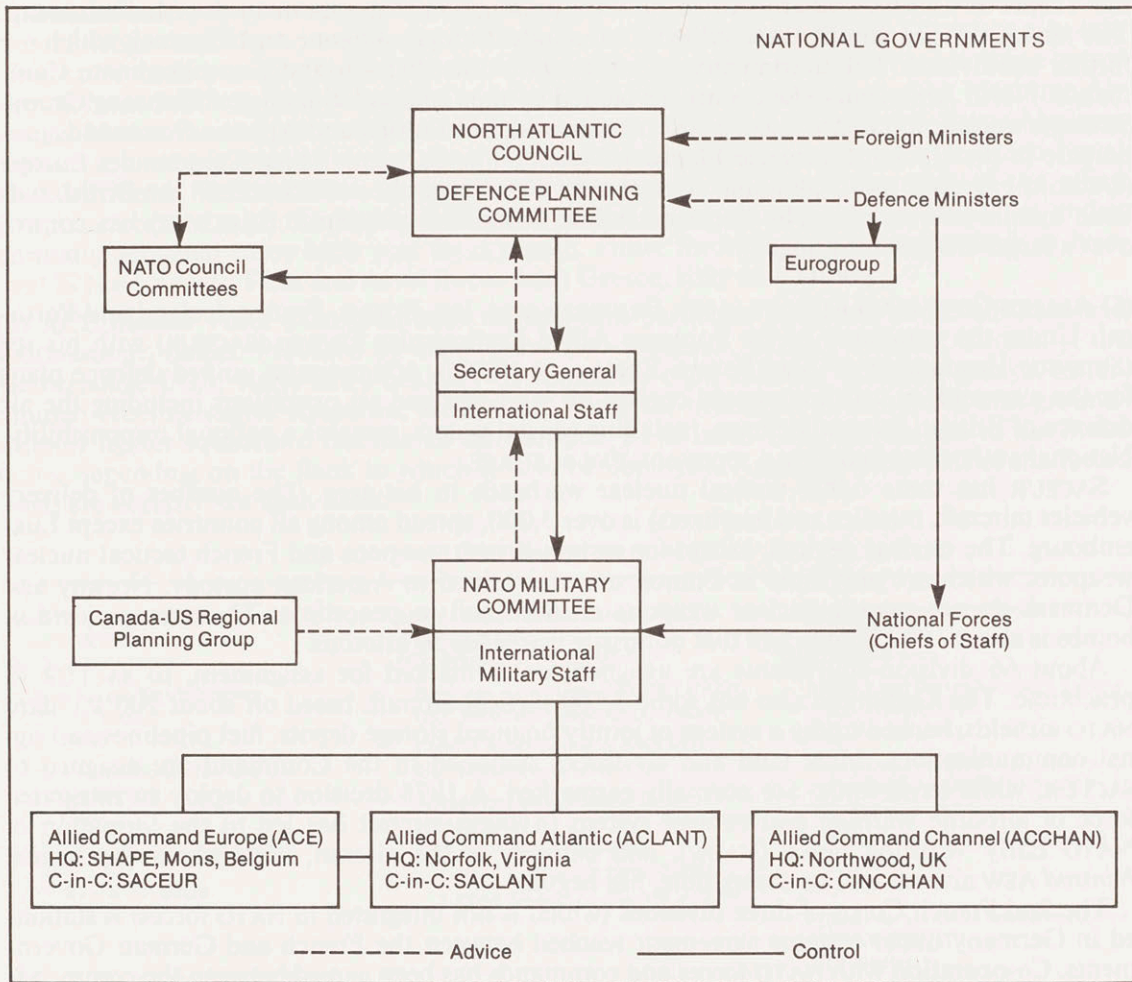
The US also maintains a number of important bilateral treaties with her European allies covering the stationing of US forces and the American use of bases and facilities. Iceland, Italy, Norway, Portugal, Spain and Turkey are among those which have such ties. Norway and the US reached agreement in January 1981 over pre-positioning military stores. The US–Turkish bilateral Treaty was revised in 1980.

Organization

The Organization of the Alliance is known as NATO. Its governing body is the North Atlantic Council, with its headquarters in Brussels, which consists of representatives from the sixteen member countries – usually the Foreign Ministers, who normally meet twice a year, and permanent ambassadors representing each government, who meet at least weekly. The Council has a President, appointed annually from each member nation in alphabetical order. The Secretary General is a permanent appointment; he is Chairman of the Council. With the International Staff, he advises the Council and its Committees on political, military, financial, economic and scientific aspects of defence planning.

The Council controls a number of specialist Committees. Their recommendations or decisions represent the collective views of the member governments. They include: Political Affairs, Economics, Defence Review, Armaments, Civil Emergency Planning, Logistics, Air Defence, the Nuclear Defence Affairs Committee (NDAC, open to all members except France, Iceland, Luxembourg and Portugal) and the Nuclear Planning Group (NPG, comprising all members except France and Iceland) which is responsible for the detailed work required as the basis for nuclear policy. The Council meets at various levels: Heads of State, Foreign Ministers, Permanent Representatives. It usually meets twice a year at the ministerial level and is in ‘permanent’ session at the Representative level. Agreement is by common consent. All aspects of military planning and policy are the responsibility of the Defence Planning Committee (DPC), composed of national Defence Ministers and their permanent ambassadors, which has essentially the same function and authority as the Council within its specialized field.

The Eurogroup, an informal advisory body of the West European Alliance members (except France and Iceland), was set up in 1968. It has produced the European Defence Improvement Programme (EDIP, 1970) and the Independent European Programme Group (IEPG, 1976) and agreements on principles of co-operation in the fields of armaments (1972), training (ENTG, 1973), logistics (1975), battlefield communications and procurement. It meets frequently to discuss and to recommend improvements in European defences.



The International Staff comprises the Offices of the Secretary General, of the Executive Secretary, of Security, of Management and of the Financial Controller, and five Divisions, each under an Assistant Secretary General. These are: Political Affairs; Defence Planning and Policy; Defence Support; Infrastructure, Logistics and Council Operations; and Scientific and Environmental Affairs. Of these, Defence Planning and Policy, and Defence Support, are the most directly involved in defence matters. Planning and Policy provides analysis and planning in the fields of force structures and nuclear and civil emergencies. Defence Support deals with armaments research, development, production and procurement; air defence systems; and command, control and communications. Its particular responsibility is the NATO Air Defence Ground Environment System (NADGE).

The highest military authority in the Alliance is the Military Committee. It comprises the Chiefs-of-Staff of all member countries except France, which maintains a liaison staff, and Iceland, which has no military forces. The Chiefs appoint Military Representatives who are in permanent session at NATO HQ in Brussels. The Committee has a President, who changes annually and is provided by member countries in alphabetical order, and a Chairman, elected for a two- to three-year term, who is the Committee's representative on the Council. The Committee makes recommendations to the Council and Defence Planning Committee on military questions and advises Allied Commanders and subordinate military authorities. The Committee controls a number of agencies through the International Military Staff (IMS).

The Treaty covers all member countries in Europe and North America, Turkey in Asia Minor, the islands under the jurisdiction of any member in the North Atlantic area north of

the Tropic of Cancer, and any Allied military presence in that area or in the Mediterranean. The area is divided among three Allied Commands: Europe, Atlantic and Channel, which are further subdivided. The accompanying tables show this division and the subordinate Commands. North American defences are developed by the Canada/US Regional Planning Group. Strategic nuclear forces are outside NATO command, but Europe and Atlantic Commands participate in the US Joint Strategic Planning System. The Supreme Allied Commander Europe (SACEUR) exercises NATO planning control over a small number of US and all the British ballistic missile submarines. The Supreme Allied Commander Atlantic (SACLANT) has control over a larger US SSBN contingent.

(I) ALLIED COMMAND EUROPE (ACE): European area, less Britain, France, Iceland and Portugal. Under the command of the Supreme Allied Commander Europe (SACEUR) with his HQ (Supreme Headquarters Allied Powers Europe, or SHAPE), ACE prepares unified defence plans for the area and, in wartime, would control all land, sea and air operations including the air defence of Britain. Internal defence, including coastal waters, remains a national responsibility. National authorities maintain a representative at SHAPE.

SACEUR has some 6,000 tactical nuclear warheads in his area. The number of delivery vehicles (aircraft, missiles and howitzers) is over 3,000, spread among all countries except Luxembourg. The nuclear devices, except for certain British weapons and French tactical nuclear weapons, which are only held in France, are maintained in American custody. Norway and Denmark do not permit nuclear weapons on their soil in peacetime. The average yield of bombs is about 100 kilotons and that of missile warheads 20 kilotons.

About 66 division-equivalents are assigned, or earmarked for assignment, to SACEUR in peacetime. The Command also has some 3,500 tactical aircraft, based on about 200 standard NATO airfields, backed up by a system of jointly financed storage depots, fuel pipelines and signal communications. Most land and air forces stationed in the Command are assigned to SACEUR, while naval forces are normally earmarked. A 1978 decision to deploy an integrated force of airborne warning and control system (AWACS) aircraft has led to the formation of NATO Early Warning Force (NAEW), and delivery of the aircraft, with which the British *Nimrod* AEW aircraft will be compatible, has begun.

The 2nd French Corps of three divisions (which is not integrated in NATO forces) is stationed in Germany under a status agreement reached between the French and German Governments. Co-operation with NATO forces and commands has been agreed between the commanders concerned.

(a) Allied Forces Central Europe (AFCENT) has command of both the land forces and the air forces in the Central European Sector. Allied Air Forces, Central Europe (AAFCE), set up in 1974, provides centralized control of air forces in the sector. Northern Army Group (NORTHAG), responsible for the sector north of the Göttingen-Liège axis, includes the Belgian, British and Dutch divisions, four German divisions and one American brigade and is supported by 2nd Allied Tactical Air Force (2 ATAF), composed of Belgian, British, Dutch and German units. American forces, seven German divisions and the Canadian brigade group are under Central Army Group (CENTAG), supported by 4 ATAF, which includes American, German and Canadian units and an American Army Air Defense Command.

(b) Allied Forces Northern Europe (AFNORTH) is responsible for the defence of Denmark, Norway, Schleswig-Holstein and the Baltic approaches. Most of the Danish and Norwegian land, sea and tactical air forces are earmarked for it, and most of their active reserves assigned to it. Germany has assigned it one division, two combat air wings and her Baltic fleet. Apart from exercises and some small units, US naval forces do not normally operate in this area. Some Allied equipment is pre-positioned in Norway.

(c) Allied Forces Southern Europe (AFSOUTH) is intended to safeguard the sea lanes of communication in the Mediterranean and to defend the territorial integrity of Greece, Italy and Turkey. It is responsible for the air defence of the Southern Region in peace and war and for naval operations in the Mediterranean and Black Seas. The ground defence system is based upon two separate commands: the Southern (LANDSOUTH), comprising Italy and its approach-

es, and South-eastern (LANDSOUTHEAST), covering Turkey. There is also an overall air command (AIRSOUTH) which includes the tactical air forces of these countries. There are also two naval commands (NAVSOUTH and STRIKEFORSOUTH) responsible to AFSOUTH. Maritime patrol aircraft from Southern Region nations and the United States are co-ordinated by Maritime Air Forces Mediterranean (MARAIMED); French aircraft participate. Submarine Force Mediterranean (SUBMED) is responsible for the conduct of all submarine operations. The Allied Naval On Call Force Mediterranean (NAVOCFORMED) consists of a ship from each of the allied powers concerned with the Southern Region, including Britain and the United States, and is normally activated twice each year for a month. Other forces have been earmarked, as have the US Navy's Sixth Fleet and naval forces from Greece, Italy and Turkey.

(d) **ACE Mobile Force (AMF)** has been formed with particular reference to the northern and south-eastern flanks. Provided by eight countries – Belgium, Britain, Canada, Germany, the Netherlands, USA, Italy, and Portugal – it comprises eight infantry battalion groups, an armoured reconnaissance squadron, six artillery batteries, helicopter detachments and ground-support fighter squadrons, but has no air transport of its own. The composition of the Force varies depending on the flank to which it is to be deployed. Approximately half of the forces listed are declared for each flank.

ALLIED COMMAND EUROPE

Allied Forces Northern Europe (AFNORTH)

HQ: Kolsaas, Norway

Allied Forces North Norway
(COMNOR)

HQ: Bodö

Allied Forces South Norway
(COMSONOR)

HQ: Oslo

Allied Forces Baltic Approaches
(BALTAP)

HQ: Karup, Denmark

Allied Forces Central Europe (AFCENT)

HQ: Brunssum, Netherlands

Northern Army Group (NORTHAG)

HQ: München-Gladbach, Germany

Central Army Group (CENTAG)

HQ: Seckenheim, Germany

Allied Air Forces Central Europe
(AAFCE)

HQ: Ramstein, Germany

2 Allied Tactical Air Force (2 ATAF)

4 Allied Tactical Air Force (4 ATAF)

Allied Forces Southern Europe (AFSOUTH)

HQ: Naples, Italy

Allied Land Forces Southern Europe
(LANDSOUTH)

HQ: Verona, Italy

Allied Land Forces South-Eastern
Europe (LANDSOUTHEAST)

HQ: Izmir, Turkey

Allied Air Forces Southern Europe
(AIRSOUTH)

HQ: Naples

Allied Naval Forces Southern Europe
(NAVSOUTH)

HQ: Naples

Maritime Air Forces

Mediterranean (MARAIMED)

*Submarine Force Mediterranean
(SUBMED)*

*Naval On Call Force Mediterranean
(NAVOCFORMED)*

*Western/Central/Eastern/North-
Eastern Mediterranean Com-
mands (COMMEDOC/CENT/
EAST/NOREAST)*

Naval Striking and Support Forces
Southern Europe

HQ: Naples

Allied Command Europe Mobile Force (AMF)

HQ: Seckenheim, Germany

United Kingdom Air Forces Command (UKAIR)

HQ: High Wycombe, UK

NATO Early Warning Command (NAEW Comd)

HQ: Maisieres, Belgium

(II) **ALLIED COMMAND ATLANTIC (ACLANT)** is responsible for the North Atlantic area from the North Pole to the Tropic of Cancer, including Portuguese coastal waters. In the event of war, its duties are to participate in the strategic strike role and to protect sea communications. The only forces assigned to the command in peacetime are the Standing Naval Force Atlantic (STANAVFORLANT), which normally consists, at any one time, of four destroyer-type ships. However, for training purposes and in the event of war, forces which are predominantly naval are earmarked for assignment by Britain, Canada, Denmark, Germany, the Netherlands, Portugal and the United States. There are six subordinate Area Commands: Western Atlantic, Eastern Atlantic, Iberian Atlantic, Striking Fleet Atlantic, Submarine Allied and STANAVFORLANT. The nucleus of the Striking Fleet Atlantic has been provided by the United States

Second Fleet with some five attack carrier groups; carrier-based aircraft share the nuclear strike role with missile-firing submarines.

ALLIED COMMAND ATLANTIC

Western Atlantic Command (WESTLANT) HQ: Norfolk, Virginia <i>Submarine Force Western Atlantic Area</i> <i>Ocean Sub-Area</i> <i>Canadian Atlantic Sub-Area</i> <i>Bermuda Island Command</i> <i>Azores Island Command</i> <i>Greenland Island Command</i>	Eastern Atlantic Command (EASTLANT) HQ: Northwood, UK <i>Maritime Air Eastern Atlantic Area</i> <i>Northern Sub-Area</i> <i>Maritime Air Northern Sub-Area</i> <i>Central Sub-Area</i> <i>Maritime Air Central Sub-Area</i> <i>Submarine Force Eastern Atlantic Area</i> <i>Iceland Island Command</i> <i>Faeroes Island Command</i>	Standing Naval Force Atlantic (STANAVFORLANT) HQ: Afloat Striking Fleet Atlantic Command HQ: Afloat Carrier Striking Force <i>Carrier Striking Groups One and Two</i> Iberian Atlantic Command (IBERLANT) HQ: Lisbon, Portugal
Submarines Allied Command Atlantic HQ: Norfolk, Virginia		

(III) **ALLIED COMMAND CHANNEL (ACCHAN)** would in wartime control the English Channel and the southern North Sea. Many of the smaller warships of Belgium, Britain and the Netherlands are earmarked for this Command, as are some maritime aircraft. There are arrangements for co-operation with French naval forces. A subordinate Standing Naval Force, Channel (STANAVFORCHAN) was formed in 1973 to consist of mine counter-measure ships from Belgium, Denmark, Germany, the Netherlands and Britain; Norway and the US participate on a temporary basis.

ALLIED COMMAND CHANNEL

Plymouth Channel Command (PLYMCHAN) HQ: Plymouth, UK <i>Maritime Air PLYMCHAN</i>	Nore Channel Command (NORECHAN) HQ: Rosyth, UK <i>Maritime Air NORECHAN</i>	Benelux Channel Command (BENCHAN) HQ: Walcheren, Netherlands
Standing Naval Force Channel (Mine Counter-Measures) (STANAVFORCHAN) HQ: Afloat		Allied Maritime Air Force Channel Command (COMMAIRCHAN) HQ: Northwood, UK

Commanders

Unlike the Warsaw Pact, high command of NATO forces is not restricted to one nation. Senior commanders reflect the major contributing components of the force. SACEUR and SACLANT have always been American Officers, and the Commander-in-Chief Channel (CINCCHAN), one of the two Deputies to SACEUR and the Deputy SACLANT, British; the other Deputy to SACEUR is German. SACEUR is also Commander-in-Chief of the United States Forces in Europe (CINCUSEUR). AFCENT is commanded by a German general, AFNORTH by a British general and AFSOUTH by an American admiral, with LANDSOUTH and LANDSOUTHEAST under Italian and Turkish commanders respectively, and MARAIRMED and SUBMED under American rear-admirals.

Weapons Procurement

NATO member nations have been reluctant to compromise over the design and production of weapons systems. This stems from national pride, economic and commercial considerations and tactical doctrines. In consequence much effort has been wasted in duplicate national programmes. Moves to co-ordinate design and production have been going on since 1952 and some success recorded. Notable examples of general co-operation include such weapons as the

7.62 standard small-arms round, the *HAWK* AD missile, *Sidewinder* AAM, *Milan* ATGW, and joint projects such as the FH-70 155mm towed howitzer, and the F-16 and *Tornado* aircraft programmes.

Spain and Portugal

The accession of Spain to the Alliance has added a sizeable but no longer modern military force. There are still many questions, political as well as military, which remain to be resolved. Spain's exact status with respect to the naval and air defence arrangements for the Iberian Peninsula and its approaches is still undefined. The status of Gibraltar is likely also to be affected. The Lisbon Government is particularly concerned lest the entry of its larger neighbour adversely affect Portugal's political position. This position is already difficult because of shortages of modern equipment in almost all areas of Portugal's military structure. Major modernization programmes must follow to support the changing roles of both nations.

BELGIUM

Population: 9,904,000.

Military service: 8 or 10 months.*

Total armed forces: 93,500 (3,600 women; 31,600 conscripts).

Estimated GDP 1981: fr 3,744.4 bn (\$100.84 bn).

Defence expenditure 1982: fr 128.873 bn (\$2.878 bn); NATO definition \$2.878 bn.†

GNP growth: 2.7% (1980), -1.3% (1981).

Inflation: 7.5% (1980), 8.1% (1981).

\$1 = 44.776 francs (1982), 37.131 (1981).

Army: 68,700 (incl Medical Service; 26,900 conscripts).

1 corps HQ, 2 div HQ.

1 armd bde.

3 mech inf bdes.

1 para-cdo regt.

3 recce bns.

1 tk bn.

2 mot inf bns.

3 arty bns.

1 SSM bn with 5 *Lance*.

4 AD bns: 2 SAM with 36 *Improved HAWK*; 2 AA with *Gepard*.

5 engr bns (3 fd, 1 bridge, 1 eqpt).

4 aviation sqns.

334 *Leopard*, 25 M-47 MBT, 133 *Scorpion* lt tks; 153 *Scimitar* AFV, 1,123 APC (M-75, AMX-VCI, 266 *Spartan*); 27 105mm, 17 203mm how; 90 M-108 105mm, 26 M-44, 41 M-109 155mm, 10 M-110 203mm SP how; 5 *Lance* SSM; 80 JPK C-90 SP ATK guns; 240 *Milan* ATGW; 43 *Striker* AFV with *Swingfire* ATGW; 115 20mm, 55 *Gepard* 35mm SP AA guns; 36 *Improved HAWK* SAM; 12 *Islander* ac, 68 *Alouette* II hel.

(On order: 514 MICV, 523 M-113 APC; 746 *Milan* ATGW.)

RESERVES: 133,000 (incl Medical Service), some on immediate recall status; 1 mech, 1 mot inf bdes;

combat, combat spt, and log spt tps, 11 mot inf regts, 4 mot inf bns for territorial defence.

Navy: 4,300 (1,100 conscripts).

4 E-71 frigates with 4 *Exocet* SSM, 1 × 8 *Sea Sparrow* SAM.

7 ex-US Type 498 ocean minehunters/mine-sweepers.

6 ex-US Type 60 coastal MCM (4 in reserve).

14 *Herstal* inshore minesweepers.

2 log spt and comd ships (MCM).

6 river patrol boats.

3 *Alouette* III hel.

(On order: 10 MCM vessels.)

Bases: Kallo, Ostend, Zeebrugge.

RESERVES: 4,500 (on immediate recall status).

Air Force: 20,500 (3,600 conscripts); 164 combat aircraft.

5 FGA sqns: 3 with 54 *Mirage* 5BA/5BD; 2 with 36 F/TF-104G (being replaced; 20 F-16A/B).

2 AD sqns with 36 F-16A/B.

1 recce sqn with 18 *Mirage* 5BR.

2 tpt sqns with 12 C-130H, 2 Boeing 727QC, 3 HS-748, 5 *Merlin* IIIA, 2 *Falcon* 20.

1 SAR hel sqn with 3 HSS-1, 5 *Sea King*.

Trg and liaison sqns ac incl 30 SF-260MB, 23 Fougac CM-170; 2 sqns with 32 *AlphaJet*.

AAM: *Sidewinder*.

8 SAM sqns with 72 *Nike Hercules*.

(On order: some 55 F-16A fighters.)

RESERVES: 4,000.

Forces Abroad: Germany: 25,000; 1 corps HQ, 1 div HQ, 1 armd, 1 mech inf bdes; 3 recce, 1 tk, 3

* Conscripts serve 8 months if posted to Germany, 10 months if serving in Belgium.

† NATO budget content is standardized and may differ from national.

arty, 1 SSM, 2 SAM, 2 AA, 3 engr bns; 3 aviation sqns.

Para-Military Forces: Gendarmerie 16,200; 62 FN armd cars, 5 *Alouette II*, 3 *Puma* hel. (On order: 80 BDX (*Timoney*) APC.)

BRITAIN

Population: 55,965,000.

Military service: voluntary.

Total armed forces: 327,600 incl 15,700 women and some 10,100 enlisted outside Britain.

Estimated GDP 1981: £235.27 bn (\$449.85 bn).

Defence expenditure 1982-3: £14.09 bn (\$25.4 bn); NATO definition \$26.2 bn.

GDP growth: -2.3% (1980), -2.0% (1981).

Inflation: 15.1% (1980), 12.0% (1981).

\$1 = £0.554 (1982), £0.523 (1981).

Strategic Forces

SLBM: 4 *Resolution* SSBN, each with 16 *Polaris A3* msls with 3 MRV (being modified with *Chevaline*).

Ballistic Missile Early Warning System (BMEWS) station at Fylingdales.

Army: 163,100 (incl 5,970 women and 9,750 enlisted outside Britain, of which 9,600 are Gurkhas).

1 corps, 4 armd, 1 arty div, 20 bde, 1 Field Force HQ.

11 armd regts.

8 armd recce regts.

48 inf bns (incl 1 demonstration bn disbanding August 1982).

6 Gurkha inf bns.

3 para bns (1 in inf, 2 in para role).

1 special air service (SAS) regt.

1 msl regt with *Lance* SSM (4 btys, each with 3 SSM).

3 AD regts with *Rapier* SAM (each of 3 btys with 12 fire units).

17 arty regts (1 hy, 14 fd (1 cdo), 1 GW, 1 locating), 4 indep ATK btys.

11 engr regts (incl 4 armd div, 1 armd, 1 amph, 1 Gurkha), 1 indep sqn.

6 army aviation regts.

AFV: 900 *Chieftain* MBT (60 in reserve), 271 FV 101 *Scorpion* lt tks; 243 FV 601 *Saladin* armd cars; 290 FV 107 *Scimitar*, 1,429 *Ferret*, 200 *Fox* recce; 2,338 FV 432, 600 FV 603 *Saracen*, 60 FV 103 *Spartan*, 500 FV 1611 APC.

Arty: 100 105mm lt guns, pack how; 195 FH-70 155mm towed how; FV 433 *Abbot* 105mm, 101 M-109/109A2 155mm, 31 M-107 175mm, 16 M-110 203mm SP guns/how; 12 *Lance* SSM.

ATK: *Carl Gustav* 84mm, 120mm RCL; *Milan*, *Swingfire* ATGW; FV 102 *Striker*, 178 FV 438/FV 712 AFV with *Swingfire* ATGW.

AD: *Blowpipe*, 108 *Rapier/Blindfire* SAM.

Air: *Beaver* ac; 100 *Scout*; 7 *Alouette II*, 155 *Gazelle*, 90 *Lynx* AH-1 hel, some with *TOW*.

14 landing craft (2 tk, 12 med).

(On order: 243 *Challenger* MBT; 1,900 MCV-80 MICV; 18 M-109A2 SP how; 10 2 27mm MLRS, *LAW-80* RL; *Milan*, *TOW* ATGW; 50 SP *Rapier*, 48 *Blowpipe* SAM; 25 *Gazelle*, 24 *Lynx* hel (6 with *TOW*.)

DEPLOYMENT (see also *Forces Abroad*, below):

United Kingdom Land Forces (UKLF): 1 inf div HQ; 1 Regular, 2 TA bdes (to reinforce Germany); *United Kingdom Mobile Force* (UKMF): 2 inf bde HQ, each with 3 regular, 2 TA inf bns and log spt gp; Home Defence: 1 inf bde with 3 regular, 2 TA bns; 1 bn gp (for ACE Mobile Force (Land), 1 SAS regt (part), 1 Gurkha inf bn.

HQ Northern Ireland: 9,128; 3 inf bde HQ, 1 armd recce regt, variable number of major units in inf role,* 1 SAS, 3 engr sqns, 2 army aviation sqns.

RESERVES: 217,200: Regular Reserves 139,600. Territorial Army (TA) 70,200 (to be 86,000 by 1990): 2 inf bdes, 2 armd recce regts, 38 inf bns, 2 SAS, 5 fd, 3 lt AD, 7 engr regts. Ulster Defence Regiment 7,400: 11 bns. Home Service Force (4,500) to form from September 1982.

Navy: 73,000 (incl Fleet Air Arm, Royal Marines, 3,960 women and 360 enlisted outside Britain); 63 major surface combat vessels (being reduced). *Submarines, attack*: 27.

11 SSN (6 *Swiftsure*, 3 *Churchill*, 2 *Valiant*), 16 diesel (13 *Oberon*, 3 *Porpoise*).

Surface Ships:

3 ASW carriers: 2 *Invincible* with 5 *Sea Harrier* V/STOL, 9 *Sea King* hel, 1 × 2 *Sea Dart* SAM (1 with *Phalanx* AD system); 1 (*Hermes*) with 5 *Harrier* V/STOL, 12 *Sea King* hel, 2 × 4 *Seacat* SAM.

12 GW destroyers: 3 *County* with 1 *Wessex* ASW hel, 1 × 2 *Seaslug*, 2 × 4 *Seacat* SAM, 4 *Exocet* SSM; 1 Type 82 with 1 × 2 *Sea Dart* SAM, 1 *Ikara* ASW; 8 Type 42 with 1 × 2 *Sea Dart*, 1 *Lynx* ASW hel.

44 GP frigates: 4 Type 22 with 4 *Exocet* SSM, 2 × 6 *Sea Wolf* SAM, 2 *Lynx* hel; 6 Type 21 with 4 × 1 *Exocet* SSM, 1 × 4 *Seacat* SAM, 1 *Wasp/Lynx* hel; 26 *Leander* (3 to retire by end 1983) with 1 *Wasp/Lynx* (8 with 4 *Exocet*, 3 × 4 *Seacat*; 8 with *Ikara* ASW, 2 × 4 *Seacat*; 10 converting to 1 × 4 *Exocet*, 1 × 6 *Sea Wolf*); 8 *Rothsay* (2 to retire by end 1983) with 1 × 4 *Seacat*, 1 *Wasp* hel.

3 *Tribal* frigates (being reactivated).

1 Type 12 ASW frigate (trg).

34 minesweepers/minehunters: 3 *Hunt*, 2 *Venturer* (trg), 29 *Ton* (9 Reserves, 9 Fishery Patrol). 1 *Abdiel* MCM spt ship.

* 5 resident inf bns, 4 units in inf role.

21 patrol craft: 7 *Island*, 2 *Castle*, 5 *Ton*, 4 *Bird* (2 trg), 2 *Loyal*, 1 *Ford* (trg).
 2 assault ships (LPD): 4 LCM, 4 LCVP, 4 × 4 *Sea-cat* SAM.
 Amphibious vessels incl: 1 hel spt ship, 4 landing ships, 16 LCM, 29 LCVP.
 1 ice patrol, 1 Royal Yacht/hospital, 5 depot/spt ships, 14 tankers (1 trg).
 3 hovercraft: 2 SRN-6, 1 BH-7.
 Included in above refitting or in reserve are: 1 SSBN, 2 SSN, 5 diesel subs, 1 GW destroyer 5 frigates, 1 MCM, 3 tankers.
 (On order: 1 ASW carrier, 4 *Trafalgar* SSN, 4 Type 42 destroyers, 4 Type 22 frigates, 6 *Hunt* MCM, 1 fleet tender, 3 *Phalanx* 20mm AD systems, *Sea Eagle*, 350 *Harpoon* SSM, *Seawolf*, *Lightweight Seawolf* SAM.)

Bases: Chatham (to close), Devonport, Faslane, Portland, Portsmouth, Rosyth.

FLEET AIR ARM: 15 combat ac, 102 armed hel.
 3 fighter sqns (1 trg) with 15 *Sea Harrier* FRS-1.
 6 ASW hel sqns: 5 with 41 *Sea King* HAS-2/-5 (4 sqns embarked); 1 with 8 *Lynx* HAS-2.
 48 hel flts: 25 with 28 *Lynx* HAS-2; 21 ASW (each 1 ac, plus 4 in HQ) with 23 *Wasp* HAS-1; 2 with 2 *Wessex* HAS-3.
 2 cdo assault sqns: 1 with 8 *Sea King* HU-4, 1 with 18 *Wessex* HU-5.
 7 SAR and trg hel sqns: 1 with 9 *Wessex* HAS-3; 2 with 24 *Wessex* HU-5; 1 with 14 *Sea King* HAS-2/-5; 1 with 11 *Wasp* HAS-1; 1 with 25 *Lynx* HAS-2; 1 with 18 *Gazelle* HT-2.
 3 hel flts with *Wasp* (hydrography/recce).
 2 *Sea Heron* C-2, 1 *Heron* C-4, 2 *Sea Devon* C-20, 2 *Chipmunk* T-10 ac.
 1 observer trg sqn with 13 *Jetstream* T-2, 1 trg flt with 10 *Chipmunk* T-10.
 1 fleet requirements unit with *Wessex* HU-5 hel.
 ASM: *Sea Skua*.
 (On order: 27 *Sea Harrier* FRS-1, 4 T-4 trg, 3 *Hunter* T-8M, 2 *Jetstream* T-2 ac; 18 *Sea King* HAS-5, 2 *Sea King* HU-4, 13 *Lynx* HAS-3 hel.)

ROYAL MARINES: 7,900.

1 cdo bde with 3 cdo gps; 1 cdo arty regt, 2 cdo/engr sqns (army); 1 lt hel sqn, 1 log regt, spt units.
 1 Special Boat, 2 Raiding sqns.
Milan ATGW; *Blowpipe* SAM; 8 *Gazelle* AH-1, 6 *Scout* AH-1 hel.
 (On order: 4 *Lynx*, 5 *Gazelle* hel.)

RESERVES (Navy and Marines): Regular 28,000; Volunteer 6,400: 1 Raiding sqn, 9 MCM vessels.

Air Force: 91,500 (incl 5,700 women); some 700 combat ac.

14 strike/attack sqns: 3 with some 54 *Vulcan* B-2/SR-2 (2 to be disbanded, 6 ac being converted to tankers); 1 with 12 *Tornado* GR-1 (1 more to form early 1983); 4 with some 50 *Buccaneer* S-2A/B; 6 with 72 *Jaguar* GR-1.

3 close support sqns with 44 *Harrier* GR-3/T-4 V/STOL.

9 interceptor sqns: 2 with 24 *Lightning* F-6/F-3 (24 more ac in reserve); 7 with 87 *Phantom* (5 with FGR-2, 2 with FG-1); (72 *Hawk* T-1 to be armed for role).

3 recce sqns: 2 with 24 *Jaguar* GR-1, 1 with 20 *Canberra* PR-9 (to be disbanded early 1983).

1 AEW sqn with 6 *Shackleton* AEW-2 (5 in reserve).

4 MR sqns with 28 *Nimrod* MR-1/-1A, MR-2 (*Harpoon* ASM being fitted).

2 tanker sqns with 16 *Victor* K-2.

1 strategic tpt sqn with 11 VC-10C1.

4 tac tpt sqns with 45 C-130H (4 being converted to tankers) incl 6 C-130HC3; 8 more C-130 in active reserve).

4 comms sqns with 6 HS-125 CC1/2, 4 *Andover*, 6 *Pembroke*, 13 *Devon* ac, 2 *Whirlwind*, 1 *Gazelle* hel.

Queen's Flt with 3 *Andover* ac, 2 *Wessex* hel.

3 ECM/target facilities/calibration sqns with 32 *Canberra*, 3 *Nimrod* MR-1, 5 *Andover* E-3/C-1.

12 OCU: 1 NATO with 21 Br, 22 FRG, 7 It *Tornado* GR-1; 11 others with: 9 *Vulcan* B-2, 22 *Tornado* GR-1, 13 *Buccaneer* Mk 2, 24 *Phantom* FGR-2, 22 *Jaguar* GR-1/T-2, 27 *Harrier* GR-3/T-4 V/STOL, 3 *Nimrod* MR, 4 *Canberra* B-2/T-4, 5 C-130, 3 *Victor* K-2 ac; 4 *Wessex* HC-2, 5 *Puma* HC-1, 2 *Sea King* HAR-3, 6 CH-47 *Chinook* hel.

2 tac weapons units with 59 *Hunter* F-6/GA-9/T-7, 45 *Hawk* T-1, 2 *Jet Provost*.

7 hel sqns: 5 tac tpt (1 with 20 *Wessex*, 2 with 26 *Puma* HC-1, 1 (1 more forming) with 24 CH-47 *Chinook*); 2 SAR (1 with 18 *Wessex* HAR-2, 1 with 14 *Sea King*).

Trg units with 83 *Hawk* T-1, 148 *Jet Provost*, 11 *Jetstream* T-1, 112 *Bulldog* T-1, 60 *Chipmunk* T-10, 19 *Dominie* T-1, 1 *Husky* T-1 ac; 5 *Whirlwind*, 5 *Wessex* Mk 5, 24 *Gazelle* HT-3 hel.

AAM: *Sidewinder*, *Sparrow*, *Red Top*, *Firestreak*, *Sky Flash*.

ASM: *Martel*, *Harpoon*.

8 SAM sqns: 2 with 64 *Bloodhound* 2, 6 (RAF Regt) with 48 *Rapier*.

(On order: 23 *Harrier* GR-3, 60 GR-5 (AV-8B), 123 *Tornado* (out of 220 GR-1 FGA, 165 F-2 AD planned), 8 *Nimrod* AEW-3, 46 *Hawk*, 9 VC-10 tankers (4 K-2, 5 K-3); 7 *Puma*, 3 *Chinook* hel; AIM-9L *Sidewinder*, *Sky Flash* AAM; *Sea Eagle* ASM.)

ROYAL AIR FORCE REGIMENT:

4 wing HQ.

6 SAM sqns (*Rapier*) and 5 fd sqns (2 with AFV).

6 *Scorpion* lt tks; 15 *Spartan* APC; *Blowpipe* SAM.

(On order: 30 *Scorpion* lt tks, 75 *Spartan* APC.)

DEPLOYMENT:

The Royal Air Force includes an operational

home command (Strike Command), responsible for the UK Air Defence Region and the Near and Far East, and 1 overseas command (RAF Germany).

RESERVES: Regular 29,500. Volunteer about 600: 3 def sqns, RAF Regt.

Forces Abroad:

Antarctica. Navy: 1 ice patrol ship.

Ascension Island. RAF: *Vulcan*, *Nimrod*, C-130 tpt, *Victor* tanker dets.

Belize 1,800. Army 1,400: 1 inf bn, 1 armd receve tp, 1 arty bty, 1 lt AD tp, 1 engr sqn (part), 1 hel flt (4 *Gazelle*). Navy: 1 destroyer/frigate (guard ship), 1 spt ship. RAF 200: 1 flt; 4 *Harrier* GR-3 FGA, 4 *Puma* hel, 1 *Rapier* AD det (4 units) RAF Regt.

Brunei. Army: 1 Gurkha inf bn.

Canada. Army training team.

Cyprus. Army 3,500: 1 inf bn less 2 coys, 1 armd receve sqn, 1 hel flt and log spt with UNFICYP (817); 1 inf bn plus 2 inf coys, 1 armd receve, 1 engr spt sqns, 1 hel flt in garrison at Sovereign Base Areas. RAF 1,400: 1 *Wessex* HC-2 sqn (incl 1 flt (4 ac) with UNFICYP), periodic dets of other ac, 1 fd sqn RAF Regt.

Egypt (Sinai MFO). 35 technical and administrative personnel.

Falkland Islands (Task Force, status uncertain). Army: 1 bde (3 bns), 2 para bns, spt tps. Navy: 1 SSN, 1 diesel sub, 2 ASW carriers, 1 Type 82, 1 *County*, 2 Type 42 destroyers, some 15 frigates, 2 LPD, 4 landing ships, spt and auxiliary ships. Marines: 1 bde: 3 bns, arty, engrs, special boat raiding sqns. RAF: *Harrier* dets, *Rapier* dets.

Germany. British Army of the Rhine (BAOR) 55,000: 1 corps HQ, 3 armd divs, 1 arty div, 8 armed bdes; Berlin Inf Bde: 3,100. RAF 10,300: 2 *Phantom* FGR-2, 2 *Buccaneer* (to be replaced by *Tornado*), 5 *Jaguar* (1 receve), 2 *Harrier*, 1 *Puma* (tpt), 1 *Bloodhound* (60 redeploy to Britain in 1983), 4 *Rapier* sqns, 1 fd sqn RAF regt.

Gibraltar. Army: 1 inf bn, 1 engr team, 1 arty surveillance tp. Navy: 1 destroyer, 1 spt ship, Base (to close 1983).

Hong Kong. Army 7,100: Gurkha Bde with 1 Br, 4 Gurkha inf bns, 1 each Gurkha engr, sigs, tpt regts, 1 hel sqn, indep engr sqn, spt units. Navy 300: 5 *Ton* patrol craft, 2 SRN-6 hovercraft, 1 Marine Raiding sqn. RAF 250: 1 *Wessex* sqn.

Indian Ocean (intermittent). 1-2 destroyers/frigates, 2 spt ships; Diego Garcia, 1 naval det.

Military Advisers 1,700. Bahrain, Brunei, Ghana, Kuwait, Mauritius, Nigeria, Oman (655), Qatar, Saudi Arabia, Sudan, Swaziland, UAE, Uganda, Zimbabwe.

Para-Military Forces: Royal Ulster Constabulary: 6,950, some 3,000 reserves.

CANADA

Population: 24,200,000.

Military service: voluntary.

Total armed forces: 82,858 (6,667 women).*

GDP 1981: \$C 340.29 bn (\$US 282.87 bn).

Defence expenditure 1982-3: \$C 7.04 bn (\$US 5.71 bn); NATO definition not available.

GNP growth: 0.0% (1980), 3.1% (1981).

Inflation: 11.2% (1980), 12.1% (1981).

\$US 1 = \$C 1.233 (1982), \$C 1.203 (1981).

Army (Land Forces): 13,000.*

Mobile Command (about 16,000 land and air).†

2 bde gps each comprising:

1 armd regt, 3 inf bns, 1 arty regt (2 close spt, 1 AD bty), 1 engr regt, spt units.

1 special service force (4,000) comprising:

1 armd regt, 1 inf bn, 1 AB regt, 1 arty regt, 1 engr regt, 1 spt unit.

1 mech bde gp (under command Canadian Forces, Europe) comprising:

1 armd regt, 2 mech inf bns, 1 med SP arty, 1 mech engr regts, 1 spt unit, 1 lt hel sqn.

114 *Leopard* C-1 MBT; 100 *Lynx*, 195 *Cougar* AFV, 955 M-113, 269 *Grizzly* APC; 55 105mm pack, 159 105mm how, 50 M-109 155mm SP how; 810 *Carl Gustav* 84mm RCL; 149 *TOW* ATGW; 42 40mm AA guns; 103 *Blowpipe* SAM.

(On order: *Blowpipe* SAM.)

RESERVES: about 15,500 Militia; 131 combat arms units and spt units (all in *Mobile Command*), plus 1,560 in *Communications Reserves*.

Navy (Maritime): 5,500.*

Maritime Command (about 8,700).†

3 *Oberon* submarines.

23 ASW destroyers: 4 DD-280, each with 2 *Sea King* hel and 2 × 4 *Sea Sparrow* SAM; 2 *Annapolis*, 6 *St Laurent* with 1 hel; 4 *Improved Restigouche*, 4 *Mackenzie* with *ASROC*, 3 *Restigouche* (in reserve).

3 replenishment spt ships (2 with 3 *Sea King* hel each).

6 coastal patrol ships (trg).

6 small patrol craft.

DEPLOYMENT AND BASES

Atlantic: 3 subs, 13 surface (1 in reserve), 2 replenishment spt ships with 1 hel. Halifax.

* The Canadian Armed Forces were unified in 1968. Of the total strength, some 49,058 are not identified by service.

† *Mobile Command* commands army combat forces, and *Maritime Command* all naval forces. *Air Command* commands all air forces, but *Maritime Command* has operational control of maritime air forces. *Mobile Command* has operational control of 10 TAG. HQ 4 ATAF in Europe has operational control of 1 CAG. There are also a *Communications Command* and a *Canadian Forces Training System*.

Pacific: 10 surface (2 in reserve), 1 replenishment spt ship. Equimalt.

RESERVES: about 3,250.

Air Force (Air): 15,300;* some 208 combat ac, 32 armed hel.

Air Command (23,000).†

1 Air Group (1 CAG, Germany).

3 fighter sqns with 42 CF-104/CF-104D (to get 54 CF-18).

1 hel sqn with 11 CH-136 (*Kiowa*).

Fighter Group (forming). NATO assigned: 2 FGA sqns with 20 CF-116 (F-5A), 4 CF-116D (F-5D).

1 Tactical Air Group (10 TAG, Canada) (disbanding on reorganization).

6 hel sqns with 31 CH-135 (UH-1N), 36 CH-136, 8 CH-147 (*Chinook*).

Air Defence Group (NORAD-assigned: disbanding on reorganization; 7,800 military, 2,600 civilian).

3 AWX sqns and 1 OCU with 50 CF-101 *Voodoo*, 10 CF-104, 10 CF-104D (to get 84 CF-18).

1 ECM trg sqn with 3 CC-117 (*Falcon* 20, to be 6); 16 CT-133.

4 main, 17 auxiliary sites of Distant Early Warning (*DEW*) Line.

24 long-range radar sites (*CADIN/Pine Tree Line*).

1 Space tracking and identification site.

Maritime Air Group:

3 maritime patrol sqns, with 19 CP-140 *Aurora* (4 in reserve).

1 MR and 1 reserve sqns with 18 CP-121 *Tracker* (to get DHC-8).

2 ASW hel sqns and 1 trg sqn with 32 CH-124 (*Sea King*) (3 in reserve).

2 utility sqns with 9 T-33, 3 CP-121 ac and 2 CH-135 hel.

Air Transport Group:

5 tpt sqns: 3 with 27 CC-130E/H; 1 with 5 CC-137 (Boeing 707); 1 with 7 CC-109 *Cosmopolitan*, 4 CC-117 *Falcon*, 2 CC-132 (DHC-7R) (getting 4 CC-144 *Challenger*).

4 tpt/SAR sqns with 11 CC-115 (DHC-5), 8 CC-138 (DHC-6) ac; 3 CH-113 *Labrador*, 7 CH-113A *Voyageur*, 3 CH-135 (*Twin Huey*) hel.

1 SAR unit with 3 CH-113 *Labrador*.

4 base flts with 9 CH-118 *Iroquois*, 2 CH-135.

Training Group:

1 trg sqn with 14 CF-116 (F-5A), 21 CF-116D (F-5D) to go to fighter group.

3 schools: 1 with 18 CT-134 (*Musketeer*) ac, 14 CH-139 hel; 1 with 89 CT-114 *Tutor*; 1 with 2 CT-134, 17 CT-114; 2 CC-129 (C-47).

1 demonstration unit with 11 CT-114.

(On order: 138 CF-18A/B *Hornet* fighters; 4 CC-144 (Canadian *Challenger*)).

RESERVES: 950. Air Reserve Group; 2 wings with

16 CH-136 hel. Other ac incl 26 CF-104, 8 CF-104D, 3 CC-129.

Forces Abroad:

Europe: 5,400; 1 mech bde gp of 3,200 with 59 *Leopard* 1 MBT, 375 M-113 APC/recce, 24 M-109 155mm sp how, 40 *TOW* ATGW, 50 40mm AA guns, 70 *Blowpipe* SAM, 11 CH-136 hel. (Plus about 1,300 HQ and spt tps, 2,500 additional tps in Canada as reinforcements.)

1 Air Group: 764: 3 fighter sqns with 42 CF-104/CF-104D; 1 hel sqn with 11 CH-136 hel; 1 det with 2 CC-132, 4 CT-133 liaison ac.

Cyprus (UNFICYP): 515.

Syria/Israel (UNDOF): 220.

Other Middle East (UNTSO): 20.

Para-Military Forces:

Coast Guard: 18 icebreakers, 13 patrol craft, 2 DHC-7R ac, 35 hel; 3 SRN-5/-6 hovercraft.

Canadian Rangers 6,561 (civilian-manned): 1,300.

DENMARK

Population: 5,125,000.

Military service: 9 months.

Total armed forces: 31,200 (670 women; 9,500 conscripts).

GDP 1981: Kr 410.165 bn (\$57.58 bn).

Defence expenditure 1982: Kr 8.977 bn (\$1.102 bn); NATO definition \$1.148 bn.

GNP growth: -0.9% (1980), -1.0% (1981).

Inflation: 10.9% (1980), 12.2% (1981).

\$1 = 8.146 kroner (1982), 7.123 (1981).

Army: 18,000 (6,700 conscripts).

2 div HQ.

5 mech inf bdes, each with 1 tk, 2 mech, 1 arty bns, 1 AD bty, 1 engr coy, spt units.

3 regimental combat teams, each with 2 inf, 1 arty bns, 1 ATK gp, indep recce bns.

120 *Leopard* 1, 88 *Centurion* MBT; 48 M-41 lt tks; 650 M-113, 68 M-106 mor-armed APC; 24 155mm guns; 144 105mm, 96 155mm, 12 M-115 203mm how; 72 M-109 155mm sp how; 81mm, 120mm mor; 400 *Carl Gustav* 84mm, 252 106mm RCL; *LAW* RL; 84 *TOW* ATGW; 36 L/60 40mm AA guns; *Hamlet* (*Redeye*) SAM; 15 Saab T-17 lt ac; 12 Hughes 500A hel.

* The Canadian Armed Forces were unified in 1968. Of the total strength, some 49,058 are not identified by service.

† Mobile Command commands army combat forces, and Maritime Command all naval forces. Air Command commands all air forces, but Maritime Command has operational control of maritime air forces. Mobile command has operational control of 10 TAG. HQ 4 ATAF in Europe has operational control of 1 CAG. There are also a Communications Command and a Canadian Forces Training System.

RESERVES: Augmentation Force 6,000, subject to immediate recall; Field Army Reserve 43,000, comprising 12,000 Covering Force Reserve (to bring units to war strength and add 1 mech bn to each bde) and 31,000 to provide combat and log spt; Regional Defence Force 16,000 (being re-organized into 7 regimental combat teams) with 21 inf, 2 tk, 7 arty bns, ATK sqns, spt units; Army Home Guard 57,300 (7,600 women).

Navy: 5,800 (1,300 conscripts).

5 submarines: 2 *Narhvalen*, 3 *Delfinen*.

5 frigates with 8 *Harpoon* SSM, *Sea Sparrow* SAM: 2 *Peder Skram*, 3 *Niels Juel*.

5 *Hvidbjørnen* fishery-protection frigates, each with 1 hel.

10 *Willemoes* FAC(M) with *Harpoon* SSM.

6 *Søløven* FAC(T) (some in reserve).

22 large patrol craft: 8 *Daphne*, 3 *Agdlek*, 2 *Maagen*, 9 *Barso*.

5 *Botved* coastal patrol craft.

7 minelayers: 4 *Falster*, 2 *Lindormen*, 1 *Langeland*.

6 ex-US Type 60 coastal minesweepers.

Coastal defence unit:

8 *Lynx* hel.

(On order: 4 Type 210 submarines, 15 *Harpoon* SSM, *Sea Sparrows* SAM.)

Bases: Copenhagen, Korsør, Frederikshavn.

RESERVES: 4,200; Navy Home Guard 4,900 (1,400 women): 37 coastal patrol craft.

Air Force: 7,400 (1,500 conscripts); 112 combat aircraft.

4 FGA sqns: 1 with 16 F-35XD *Draken*, 1 with 8 F-100D/F, 2 with 32 F-16.

2 interceptor sqns each with 20 F-104G.

1 recce sqn with 16 RF-35XD *Draken*.

1 tpt sqn with 3 C-130H, 3 *Gulfstream* III.

1 SAR sqn with 8 S-61A hel.

Trainers: 8 F-16B, TF-35XD, 16 Saab T-17.

2 SAM bns: 1 with 18 *Nike Hercules*, 1 with 24 *Improved HAWK*.

AAM: *Sidewinder*. ASM: *Bullpup*.

(On order: 18 F-16A/B fighter ac.)

RESERVES: 10,100; Air Force Home Guard 11,900 (3,400 women).

Forces Abroad:

Cyprus (UNFICYP): 1 bn (326).

FRANCE

Population: 53,874,000.

Military service: 12 months; 18 months for overseas.

Total armed forces: 492,850* (12,300 women; 255,500 conscripts).

GDP 1981: fr 3,100.7 bn (\$570.51 bn).

Defence expenditure 1982: fr 122.855 bn (\$19.295 bn); NATO definition: \$22.677 bn.

GDP growth: 1.6% (1980), 0.9% (1981).

Inflation: 13.6% (1980), 14.0 (1981).

\$1 = 6.367 francs (1982), 5.435 (1981).

Strategic Nuclear Forces: (19,700; some 2,800 Army, 5,500 Navy, 10,600 Air Force, 800 *Gen-darmerie*).

SLBM: 5 SSBN, each with 16 M-20 msls (1 more building) (M-4 msl to replace M-20), 1 experimental/trials diesel boat with 4 SLBM tubes.

IRBM: 18 SSBS S-3 msls in 2 sqns.

Aircraft:

Bombers: 6 sqns with 34 *Mirage* IVA (AN-22 nuclear bombs); 15 to convert to theatre role with ASMP nuclear weapon.

3 trg sqns: 1 with 4 *Mirage* IVA; 1 with 4 *Mirage* IIIB/BRV; 1 with 5 *Noratlant* N-2501/SNB.

Tankers: 1 wing (3 sqns) with 11 KC-135F.

Reserve: 10 *Mirage* IVA (4 recce).

(On order: 1 SSBN, 16 M-4 SLBM, ASMP ASM.)

Army: 314,200, incl Army Aviation, 6,600 women (198,000 conscripts).

1 army HQ, 3 corps HQ.

8 armd divs.

2 mech inf, 2 motor rifle divs.

1 alpine div (9,800): 3 regts, 5 bns, 1 engr coy.

1 para div (16,950): 12 regts, 1 bn.

1 air portable marine div (9,230): 7 motor inf/inf/para regts, 1 coy.

1 lt armd bde (overseas intervention).

Berlin sector force (1 armd regt, 1 inf regt).

Army corps regts: 5 recce, 2 drone, 3 motor rifle, 6 arty, 5 arty (SSM) with 42 *Pluton*, 7 SAM (3 (11 btys) with 60 *HAWK*, 4 with 24 *Roland* I/II and twin 30mm AA guns), 1 para, 3 AA arty, 7 engr, 10 sigs, 2 cw defence, 8 tpt.

3 log bdes.

Indep regts: 6 sigs, 1 EW, 2 para, 4 engr.

AFV: 1,140 AMX-30/-30B2 MBT; 780 AMX-13 lt tks; 65 AMX-10RC, 250 Panhard EBR hy, 10 ERC-90S, 500 AML lt armd cars; 620 AMX-10P MICV, 1,050 AMX-13 VTT, 1,100 VAB APC.

Arty: 155 HM-2, 112 BF-50 105mm towed, 145 AU-50 105mm, 173 F-3 155mm sp how; 6 GCT 155mm sp guns; 42 *Pluton* SSM; 250 120mm mor.

ATK: 220 SS-11, 1,180 *Milan*, 86 *HOT*, *ENTAC* ATGW, 7,950 89mm RL.

AD: 140 20mm, 390 30mm and 40mm towed, 56 twin 30mm SP AA guns; 66 *HAWK*, 60 *Roland* SAM.

Air: R-20, CL-89 recce drones.

* Incl 10,250 on inter-service central staff.

ARMY AVIATION (ALAT): (6,700).

6 combat hel regts: 7 lt gps, 5 overseas sqns, 2 schools. 158 *Alouette* II, 66 *Alouette* III with AS-11 ATGW; 118 SA-330 *Puma*, 154 SA-341F and 42 SA-342M *Gazelle* hel with *HOT*; 20 *Broussard*, 40 L-19 lt ac.

(On order: 240 AMX-30/-30B MBT; 47 AMX-10RC, 100 ERC-90S armd cars; 155 AMX-10 MICV, 270 VAB APC; 230 155mm GCT SP guns; 160 TR 155mm how; 45 120mm mor; 38 *HOT*, 140 *Milan* ATGW; 60 twin 20mm AA guns; 21 *Roland* II SAM; 18 SA-341/-342 hel.).

RESERVES: 281,000 (14 inf divs, 4 formed from military schools; unit equivalents of 50 regts). 63 AMX-13/90 lt tks; 82 AML armd cars; 46 AMX-13 VTT APC; 180 75mm, 328 106mm RCL; 318 81mm mor.

Navy: 68,000 incl Naval Air, 18,000 conscripts (700 women); 46 major surface combat vessels. 4 comds: 2 home (CECLANT, CECMED), 2 overseas.

21 attack submarines: (1 nuclear *Rubis*; 4 *Agosta*, 9 *Daphne*, 1 *Arethuse*, 6 *Narval*).

2 *Clemenceau* carriers: 1 attack with 36 ac (2 flts with 16 *Super Etendard*, 1 with 10 F-8E, 1 with 7 *Alizé*), 1 det with 3 *Etendard* IVP, 2 hel); 1 ASW with 40 hel.

1 *Jeanne d'Arc* hel carrier (trg ship, capacity 8 *Lynx* hel) with 6 × 1 *Exocet* SSM.

1 command cruiser with 4 × 1 *Exocet* SSM, 1 × 2 twin *Masurca* SAM.

19 destroyers: 5 AA (2 *Suffren* with 4 × 1 *Exocet*, 1 *Malafon* ASW/SSM, 2 × 1 *Masurca* SAM; 3 T-47 with 1 *Tartar* SAM); 14 ASW (3 C-70 with 4 *Exocet*, 1 × 8 *Crotale*, 2 hel; 3 F-67 with 6 *Exocet*, 1 × 8 *Crotale*, 1 *Malafon*, 2 *Lynx* hel; 1 T-56 with 1 *Malafon*, 1 hel; 1 T-53 with 4 *Exocet*, 1 *Lynx* hel; 5 T-47 with 1 *Malafon*; 1 C-65 with 4 *Exocet*, 1 *Malafon*).

23 frigates: 8 *Rivière* with 4 *Exocet*; 14 Type A-69 (8 with 2 *Exocet*); 1 *Balny*.

5 FAC(M): 4 *Trident* with 6 SS-12; 1 *La Combattante* with 1 × 4 SS-12 SSM.

10 large patrol craft: 4 *Sirius*, 4 ex-Can *La Dunkerquoise*, 1 *Mercury*, 1 *Stern*.

2 *Eridan*, 5 *Circe* minehunters, 5 ex-US *Aggressive* ocean minehunters.

19 coastal minesweepers: 5 *Berliamont*, 5 Type D, 9 MSC-60.

4 assault ships: 2 *Ouragan* (with 3 *Super Frelon* or 10 *Alouette* hel, 18 LCM or 2 LCT), 2 *Batral*.

5 LST, 11 LCT, 26 LCM.

7 ocean-going tankers, 5 maintenance/log ships.

(On order: 4 SSN, 5 C-70 destroyers (3 ASW, 2 AA), 3 frigates, 8 FAC(M), 13 minehunters, 2 *Batral* assault ships, 2 ocean tankers, 11 fishery protection vessels.)

Bases: Cherbourg, Brest, Lorient, Toulon.

DEPLOYMENT: *Atlantic Fleet*: 10 subs, 1 hel carrier, 22 surface combatants; *Mediterranean Fleet*: 11 subs, 2 carriers, 14 surface combatants.

See also *Forces Abroad*, p. 36.

NAVAL AIR FORCE: (13,000); 141 combat ac, 32 armed hel.

3 strike sqns with 36 *Super Etendard* (AN-52 nuclear weapons).

1 interceptor sqn with 16 F-8E (FN) *Crusader*.

2 ASW sqns with 16 *Alizé* (mod).

5 MR sqns: 4 with 27 *Atlantic*, 1 with 6 SP-2H *Neptune*.

1 recce sqn with 8 *Etendard* IVP.

1 OCU with 12 *Etendard* IVM, 12 *Magister*, 5 *Alizé*.

3 ASW hel sqns with 19 *Lynx*.

2 assault hel sqns with 13 *Super Frelon*.

1 overseas section with 3 SP-2H *Neptune*, one tpt det with 2 C-47D.

4 comms sections: 1 with 8 *Paris* 8, 3 *Falcon* 10MER; 3 with 11 *Navajo*, 12 Nord 262, 2 *Falcon* 10MER, DC-6A.

2 comms/SAR/trg hel sections with 24 *Alouette* II/III.

1 trials unit with 6 *Alouette* II/III, 2 *Lynx*, 2 *Super Frelon*.

2 trg units: 1 with 8 Nord 262; 1 with 15 C-47D.

3 liaison/trg sections with 15 *Rallye* 100S, 6 CAP-10.

ASM: AM-39 (*Exocet*), AS-11/-12/-30, AS-37 *Martel*. AAM: R-530, *Sidewinder*, R-550 *Magic*.

(On order: 10 *Super Etendard* fighters, 42 *Atlantic* NG, 5 *Gardian* (HU-25A) MR; 16 EMB-121 *Xingu* tpt ac, 14 *Lynx* HAS-4 hel.)

COMMANDOS: 4 assault units (1 reserve), 1 submarine spt unit.

RESERVES: 64,000.

Air Force: 100,400 (38,500 conscripts, 5,000 women); 519 combat aircraft.

Air Defence Command (CAFDA): (10,700).

10 interceptor sqns: 2 with 30 *Mirage* IIIC (1 in Djibouti), 8 with 120 *Mirage* F-1C, 1 OCU with 15 *Mirage* F-1B.

4 liaison flts with 30 *Magister* T-53 and *Broussard*.

Air-defence system: automatic *STRIDA* II, 10 radar stations.

10 SAM sqns with 21 *Crotale* (1 trg).

104 AA btys with 20mm guns.

AAM: R-530, *Super 530*, R-550 *Magic*, *Sidewinder*.

Tactical Air Force (FATAC): (15,000).

5 strike sqns: 3 with 45 *Jaguar*, 2 with 30 *Mirage* IIIE (AN-52 nuclear weapons).

12 FGA sqns: 5 with 75 *Mirage* IIIE, 2 with 30 *Mirage* 5F, 5 with 75 *Jaguar* A (23 *Jaguar* A, 12 E in reserve).

3 recce sqns with 45 *Mirage* IIIR/RD (2 sqns to be replaced by *Mirage* F-1CR).
 2 OCU: 1 with 21 *Mirage* IIIB/BE, 1 with 38 *Jaguar* A/E.
 1 trg unit with *Mystère* 20.
 8 liaison flts with *Magister*, *Broussard*.
 AAM: *Sidewinder*, R-550 *Magic*, R-530.
 ASM: AS-30/-30L, AS-37 *Martel*.
 Attached to COTAM:
 1 AEW sqn with 8 *Noratlans*.
 1 liaison sqn with 10 *Magister*, 3 *Broussard*, 4 *Paris*.
 1 hel sqn with 13 *Alouette* II/III.
Air Transport Command (COTAM): (7,000).
 1 hy tpt sqn with 4 DC-8F.
 6 tac tpt sqns: 4 with 46 *Transall* C-160, 2 with 25 *Noratlans*, DHC-6.
 14 lt tpt/liaison sqns with 140 ac, incl 23 *Nord* 262, 8 *Mystère* 20, 1 *Mystère* 50, 20 *Paris*, 23 *Broussard*, 4 DHC-6, 3 C-160, 4 *Caravelle*.
 1 OCU with 10 *Noratlans*, 8 *Paris*.
 5 hel sqns with 32 *Alouette* II, 23 *Alouette* III, 21 *Puma*.
 1 hel OCU with 19 *Alouette* II, 10 *Alouette* III, 5 *Puma*.
Training Command (CEAA): (16,000).
 Some 400 aircraft, incl some 100 *AlphaJet*, 167 *Magister*, 35 MD-312 *Flamant*, *Noratlans*, 8 EMB-121, 8 *Xingu* (replacing MD-312), 51 CAP-10B/-20, 20 *Jodel*.
 Trials Units: 1 sqn with *Mirage* F-1/-III, *Jaguar*; 1 sqn with 4 *Noratlans*, 4 *Breguet* 941.
 Base Defence Force: (6,900); 50 VIB APC.
 (On order: 5 *Mirage* F-1B, 32 F-1C, 30 F-1R, 73 *Mirage* 2000 fighters; 4 E-2C *Hawkeye* AEW; 64 *AlphaJet* trg ac; 24 *Transall* C-160 tpts; 17 *Xingu*, 150 *Epsilon* trg ac; 10 hel, 56 20mm AA guns; SATCP SAM.)

RESERVES: 112,000

Forces Abroad:

Europe. *Germany*: 48,500; 3 armd divs. *Berlin*: 2,700; 1 armd regt, 1 inf regt.
 Overseas Dependencies: 16,500; Army 9,800, Navy 2,000, Air 1,700, *Gendarmerie* 3,000.
 Four inter-service overseas commands: Antilles-Guyana (1 marine, 3 inf regts, 1 inf bn); South Indian Ocean (1 para, 1 inf, 1 marine regt, 1 inf coy); New Caledonia (1 marine inf regt); Polynesia (1 marine, 1 inf regts). Two naval commands: Indian Ocean (ALINDIEN: 3,500, 22 ships) and Pacific (ALPACT).
 160 lt tks, 8 surface combatants, 9 patrol vessels, 10 *Mirage* IIIC, 7 MR, 15 tpt ac, 64 hel.
 Other Overseas: some 7,220 from all services (numbers vary according to local circumstances). Eqpt incl 120 AFV, 15 combat, 18 spt vessels, 25 combat and 25 tpt ac, 43 hel.

Deployed:

Central African Republic (1,500). Para, Legion marine units; armd cars, 120mm mor, *Milan* ATGW; 1 hel sqn with 7 *Puma*; 2 C-160 tpt ac.
Djibouti (3,250). 3 inf coys, 2 armd sqns, 2 arty (1 AA) btys; 1 sqn with 10 *Mirage* IIIC; naval elms.
Gabon (450). 1 marine inf bn; 4 *Jaguar*, 3 C-160, 1 *Atlantic* ac.
Ivory Coast (450). 1 marine inf bn.
Lebanon (UNIFIL) (1,338). 1 inf bn, engr coy, log unit.
Saudi Arabia (80). Technical advisers.
Senegal (1,170). 1 marine inf bn.
Zaire (128). Trg team.

Para-Military Forces: Gendarmerie 83,000 (5,400 conscripts; to be reinforced by 2,000 from Navy, Army, Air Force): 907 territorial units, 155 traffic units, 130 mobile squadrons, 225 overseas units; 36 AMX-13/75 lt tks, 120 AML armd cars, 33 AMX-13 VTT, 155 VRBG APC, 280 81mm mor, 6 patrol boats, 6 Cessna 206C ac, 42 *Alouette* II/III, 1 *Ecureuil* hel (on order: 36 VBC-90 armd cars, 4 hel). *Service de Santé* 6,900 (230 conscripts).

GERMANY: FEDERAL REPUBLIC

Population: 61,665,000 (incl West Berlin).
 Military service: 15 months (to be 18 months).
 Total armed forces: 495,000 (70 women, 229,000 conscripts)* on mobilization about 1,250,000.
 GDP 1981: DM 1,552.9 bn (\$687.12 bn).
 Defence expenditure 1982: DM 44.26 bn (\$18.44 bn); NATO definition \$22.68 bn.
 GNP growth: 1.8% (1980), -0.5% (1981).
 Inflation: 5.5% (1980), 6.3% (1981).
 \$1 = DM 2.40 (1982), DM 2.26 (1981).

Army: 335,500 (180,000 conscripts).

HQ Support Elements: General Army Office subordinate echelon and spt tps, Federal Armed Forces Supreme Command: 32,500.

Field Army: 265,000.

3 corps: 12 divs (6 armd, 4 armd inf, 1 mountain, 1 AB):

36 bdes: 17 armd (each with 3 tk, 1 armd inf, 1 armd arty bns), 15 armd inf (each with 1 tk, 3 armd inf, 1 armd arty bns), 1 mountain, 3 AB.

Total: 67 tk, 62 armd inf, 9 para bns.

3 AD regts with *Roland* II SAM.

11 AA regts with *Gepard* 35mm SP guns.

4 SSM bns with *Lance*.

* The military divisions of the Ministry of Defence, Central Military Agencies and Central Medical Agencies comprise 11,200 military personnel. The overall strength of the armed forces includes 6,000 reserve duty training positions.

3 army aviation comds, each with 1 lt, 1 med tpt hel regt; 1 ATGW hel regt.

Territorial Army: 38,000.

3 Territorial Commands, 5 Military Districts:

6 Home Defence bdes (each with 2 tk, 2 inf, 1 arty bns and manned, on average, at 60%).

6 more Home Defence bdes planned (each with 1 tk, 2 inf, 1 fd arty bns): weapons storage units only in peacetime.

Security troops: 15 Home Defence Regiments (with 45 mot inf bns), 150 coys, 300 security platoons; defensive, comms, military police and service units on mobilization.

AFV: 1,232 M-48A2/A2G2, 2,437 *Leopard* 1 269 *Leopard* 2 MBT; 411 SPz-2 *Luchs*, 824 SPz 11-2, 108 SPz 12-3 (HS-30) armd cars; 2,136 *Marder* MICV, 245 TPZ-1, 4,016 M-113 APC.

Arty: 191 105mm, 216 FH-70 155mm how; 586 M-109 155mm how, 149 M-107 175mm guns (being rebarrelled with 203mm in 1982), 77 M-110 203mm sp how; 955 120mm mor (500 sp); 209 *LARS* 110mm MRL; 26 *Lance* SSM.

ATK: 770 JPz 4-5 90mm SP ATK guns (some converting to *TOW*); 204 106mm RCL; 55 SS-11, 1,936 *Milan*, 346 *TOW* ATGW, 261 RJPz-(*HOT*) *Jaguar* 1 ATGW veh.

AD: 1,745 20mm, 200 40mm towed, 426 *Gepard* 35mm SP AA guns; 800 *Redeye*, 43 *Roland* SAM.

Air: 190 UH-1D, 180 *Alouette* II/III, 84 PAH-1 (BO-105P with *HOT*), 42 BO-105M, 107 CH-53G hel.

(On order: 1,531 *Leopard* 2 MBT; 751 TPZ-1 APC; 39 *Milan* ATGW, 55 RJPz-(*HOT*) *Jaguar* 1, 162 RJPz-(*TOW*) *Jaguar* 2 ATGW veh; 100 *Roland* II SAM; 128 PAH-1, 58 BO-105M hel.)

Navy: 36,400, incl naval air (11,000 conscripts).

24 submarines (18 Type 206, 6 Type 205).

7 destroyers: 3 *Adams* with 1 *Tartar* SSM and 8 *ASROC* (being retired); 4 *Hamburg* with 2 × 2 *Exocet* SSM.

7 frigates: 1 *Bremen* with 2 × 4 *Harpoon* SSM, 1 × 8 *Sea Sparrow* SAM, 2 *Lynx* hel; 6 *Köln*.

6 corvettes: 5 *Thetis*, 1 *Hans Bürkner*.

30 FAC(M) with 4 *Exocet* SSM: 10 Type 143, 20 Type 148.

9 Type 142 FAC(T) (T-143A FAC(M) to replace).

18 *Lindau* MCM: 12 Type 331 coastal minehunters (MHC), 6 Type 351 *Troika* drone control minesweepers (MSCD), 18 F-1 drone vessels (MCD).

21 *Schütze* coastal minesweepers.

18 inshore minesweepers: 4 Type 393/394B, 14 Type 393/394A.

10 *Rhein* depot, 8 *Lüneberg* spt ships, 6 tpts, 9 tankers.

22 Type 520 LCU, 28 Type 521 LCM.

(On order: 6 Type 122 frigates, 10 Type 143A FAC(M).)

Bases: Flensburg, Wilhelmshaven, Kiel, Olpenitz.

NAVAL AIR ARM: 107 combat ac; 12 armed hel.

3 attack sqns with 54 F-104G, 7 *Tornado* (2 sqns converting).

1 recce sqn with 27 RF-104G.

2 MR sqns with 14 *Atlantic*, 5 ELINT *Atlantic*.

1 SAR hel sqn with 22 *Sea King* Mk 41.

1 ASW hel sqn with 12 *Sea Lynx* Mk 88.

1 utility sqn with 20 Do-28-2 ac.

Trg: 12 TF-104F, 4 IAI *Westwind* target simulation ac.

ASM: AS-20, AS-30, AS-34 *Kormoran*.

(On order: 105 *Tornado* MRCA.)

Air Force: 105,900 (38,000 conscripts); 548 combat aircraft.

Tactical Command (GAFTAC): 473 combat ac.

12 FGA sqns: 8 with 144 F-104G; 4 with 60 F-4F.

7 lt FGA sqns: 5 with 125 *AlphaJet*; 2 will complete conversion from G-91 to 36 *AlphaJet* by Oct. 1982.

4 interceptor sqns with 59 F-4F.

4 recce sqns with 60 RF-4E.

1 OCU with 15 *Tornado*, 18 TF-104G, 5 HFB-320 *Hansa Jet* ECM trg.

8 SSM sqns with 72 *Pershing* 1A.

3 SAM regts (each of 2 bns of 4 btys) with 216 *Nike Hercules* launchers.

3 SAM regts (each of 3 bns of 4 btys) with 216 *Improved HAWK* launchers.

4 aircraft control and warning regts.

AAM: *Sidewinder*.

Transport Command (GAFTC).

4 tpt sqns with 86 Transall C-160 (some in reserve).

5 hel sqns with 114 UH-1D.

1 special air mission wing with 4 Boeing 707-320C, 3 C-140 *Jetstar*, 6 HFB-320 *Hansa Jet*, 3 VFW-614, 6 Do-28-2 *Sky-servant* ac, 4 UH-1D hel.

Training: 79 combat ac.

Combat trg wing (Luke Air Force Base US) with 30 F-104G (+ 10 in store), 17 TF-104G (+ 10 in store).

Combat trg: trinational *Tornado* trg det (Cottesmore, Britain) with 22 *Tornado*.

OCU (George Air Force Base US): 10 F-4E.

Pilot trg wing (Sheppard Air Force Base US) with 35 T-37B, 41 T-38A.

Primary trg unit with 34 P-149D.

Miscellaneous liaison, range and base flts with 21 G-91R3 (reserve), 92 Do-28D.

(On order: 173 *Tornado*, 28 *AlphaJet* FGA, 500 AGM-65B *Maverick* ASM.)

RESERVES: 750,000 (all services).

Para-Military Forces: Border Police (Ministry of Interior): 20,000. FV-601(D) (*Saladin*) armd cars; Mowag SW-1/-2 APC; 2 P-149D, 1 Do-27A-3 ac, 21 *Alouette* II hel.

GREECE

Population: 9,700,000.

Military service: Army 22, Navy 26, Air Force 24 months.

Total armed forces: 206,500 (834 women; 152,000 conscripts).

GDP 1981: dr 2,217.6 bn (\$40.02 bn).

Estimated defence expenditure 1981: dr 104.6 bn (\$1.887 bn); NATO definition \$2.27 bn.

GDP growth: 1.6% (1980), -0.2% (1981).

Inflation: 26.2% (1980), 22.5% (1981).

\$1 = 55.41 drachmas (1981).

Army: 163,000 (125,000 conscripts).

3 Military Regions, 4 corps HQ.

1 armd div.

1 mech div.

11 inf divs.

1 para-cdo div (1 para, 1 cdo bdes and 1 marine, 1 cdo bns).

3 armd bdes.

1 marine inf bde.

13 fd arty bns (1 more to form).

3 AA arty bns.

3 SSM bns with 12 *Honest John*.

2 SAM bns with *Improved HAWK*.

14 army aviation coys, 1 indep flt.

AFV: 100 M-26, 350 M-47, 818 M-48, 285 AMX-30 MBT; 190 M-24 lt tks; 180 M-8, 130 M-20 armd cars; 240 AMX-10P MICV, 160 *Leonidas*, 120 M-2, 460 M-3 half-track, 460 M-59, 820 M-113 APC.

Arty: 600 25-pdr, 36 M-107 175mm guns; 108 75mm pack, M-56 105mm, 180 M-101 105mm, 270 M-114A1 155mm, 72 M-115 203mm towed, 126 M-52A1 105mm, 54 M-44, 60 M-109A2 155mm, 20 M-110 203mm sp how; 36 *Honest John* SSM; M-18 57mm, 200 M-20 75mm, M-67 90mm, 700 106mm RCL.

ATK: 64 M-18, 32 *Kuerassier* SP ATK guns; SS-11, 400 *Cobra*, 1,431 *TOW*, *Milan* ATGW.

AD: RH-202 twin 20mm, 40mm, AA guns; *Improved HAWK* (108 msls), *Redeye*, 37 *Chaparral* (600 msls) SAM.

Air: 1 *Super King Air*, 2 *Aero Commander*, 50 U-17A ac; 8 CH-47C, 5 Bell 47G, 22 UH-1D, 50 AB-204B/-205 hel.

(On order: 55 AMX-30, 106 *Leopard* 1A4 MBT, 12 M-113A2, M-56 105mm pack, 48 M-109A2 155mm sp how, 48 *Kuerassier* SP ATK guns, 350 90mm RCL; 8 CH-47, 8 AH-1 hel with *TOW*, 50 *TOW* launchers.)

RESERVES: about 350,000, incl some 100,000 National Guard. 3 Territorial, 17 Sub-Commands: 12 indep inf bdes, some 100 Home Guard bns (mainly coastal defence); lt tks, M-20 armd cars, M-2, M-3 half-track, 75mm pack, 25-pdr, 105mm guns/how, M-18 57mm, 200 M-20 75mm, 106mm RCL, 40mm AA guns.

Navy: 19,500 (12,000 conscripts); 18 armed hel.

10 submarines: 8 Type 209, 2 ex-US *Guppy*.

16 ex-US destroyers: 7 *Gearing* (5 with 1 × 8 *ASROC*), 8 *Fletcher*, 1 *Sumner*.

6 frigates: 1 *Kortenaer* (8 *Harpoon* SSM, *Sea Sparrow* SAM), 4 ex-US *Cannon*, 1 ex-*Rhein* (trg).

14 *La Combattante* II/III FAC(M) (8 with 4 *Exocet*, 6 with 6 *Penguin* SSM).

11 FAC(T): 6 *Jaguar*, 5 *Nasty* (<).

9 coastal patrol craft (6 <).

2 coastal minelayers, 13 coastal minesweepers (9 MSC-294, 4 ex-US *Adjutant*).

1 LSD, 7 LST, 5 LSM, 2 LCT, 8 LCU, 13 LCM, 14 LCA, 34 LCVP.

2 ASW hel sqns: 1 with 13 AB-212, 1 with 5 *Alouette* III.

(On order: 2 *Kortenaer* frigates, 63 LCA, 48 *Harpoon* SSM, *Aspide* SAM.)

Bases: Patrai, Salamis, Thessaloniki, Suda Bay, Mitilini.

RESERVES: about 24,000.

Air Force: 24,000 (15,000 conscripts); 367 combat aircraft.

Tactical Air Force: 7 combat wings: 1 tpt wing.

11 FGA sqns: 3 with 54 A-7H, 6 TA-7H; 2 with 36 F/RF-4; 2 with 40 F/TF-104G; 2 with 42 F-5A/B/RF-5; 2 (reserve) with 54 F-84F.

5 interceptor sqns: 1 with 18 F-4E; 1 with 21 F-5A/B; 2 with 36 *Mirage* F-1CG; 1 with 24 F-104S.

1 FGA/recce sqn with 2 F-84F, 8 RF-4E, 18 RF-84F.

1 MR sqn with 8 HU-16B *Albatross* ac.

3 tpt sqns with 12 C-130H, 6 YS-11, 8 C-47, 21 *Noratlas*, 1 *Gulfstream*, 7 CL-215.

9 base flts with 6 C-47, 48 T-33A ac, 8 AB-205A hel.

3 hel sqns with 6 AB-205A, 2 AB-206A, 10 Bell 47G, 8 UH-19D, 2 AB-212, 8 CH-47C.

Air Training Command:

3 sqns: 1 with 20 T-41A; 1 with 24 T-37B/C; 2 sqns 36 T-2E.

AAM: *Sparrow*, *Sidewinder*, *Super Sidewinder*, *Falcon*, R-550 *Magic*.

ASM: *Maverick*, *Bullpup*.

1 SAM wing: 1 bn with 36 *Nike Hercules*; 1 with 36 *Nike Ajax*.

(On order: 280 AIM-7M *Sparrow*, 300 *Super Sidewinder* AAM, 200 *Maverick* ASM, 40 *Skyguard* AD systems plus 4 extra twin 35mm AA guns.)

RESERVES: about 30,000.

Forces Abroad: Cyprus: 1,300 incl 350 cdos; 450 officers/NCOS seconded to Greek-Cypriot forces.

Para-Military Forces: Gendarmerie: 25,000; *Mowag Roland*, 15 UR-416 APC. Coastguard and Customs: 4,000; some 100 patrol craft.

ITALY

Population: 57,300,000.

Military service: Army and Air Force 12, Navy 18 months.

Total armed forces: 370,000 (242,000 conscripts).

GDP 1981: L 398,125 bn (\$350.154 bn).

Defence expenditure 1982: L 10,148 bn (\$7.711 bn); NATO definition \$9.115 bn.

GDP growth: 4% (1980), -0.2% (1981).

Inflation: 21.2% (1980), 18.2% (1981).

\$1 = 1,316 lire (1982), 1,137 lire (1981).

Army: 257,000 (190,000 conscripts).

3 corps HQ.

1 armd div (2 armd, 1 mech bdes).

3 mech divs (each of 1 armd, 2 mech bdes).

2 indep mech bdes.

4 indep mot bdes.

5 alpine bdes.

1 AB bde.

2 amph bns.

1 msl bde (1 *Lance* SSM, 3 *Improved HAWK* SAM bns).

550 M-47, 350 M-60A1, 910 *Leopard* 1 MBT; 4,200 M-106, M-113, M-548 and M-577, AMX-VC1 APC; 1,080 how, incl 320 105mm pack, 724 155mm (incl 90 FH-70 towed and 190 M-109E sp), 36 203mm; 81mm, 107mm, 120mm mor; *Lance* SSM; 57mm, 106mm RCL; *Cobra*, SS-11, *TOW*, *Milan* ATGW; 40 *Improved HAWK* SAM.

(On order: 120 *Leopard* 1 MBT; 410 M-113 APC; 180 FH-70 155mm towed, SP-70, M-109 155mm sp how; 3,127 *TOW*, *Milan* ATGW.)

ARMY AVIATION: 20 units with 76 SM-1019, 30 O-1E lt ac, 100 AB-205A, 140 AB-206A/A1, 22 CH-47C, 5 A-109 *Hirundo*, 38 AB-204B, 70 AB-47G/J hel. (On order: 60 A-129 *Mangusta*, 10 AB-212 hel.)

RESERVES: 550,000.

Navy: 44,000, incl 1,500 air arm, 750 marines and 23,700 conscripts.

9 submarines: 3 *Sauro*, 4 *Toti*, 2 ex-US *Tang*.

1 *Vittorio Veneto* hel carrier with 9 AB-212 ASW hel, 1 × 2 *Terrier* SAM.

2 *Andrea Doria* cruisers: 4 ASW hel, 1 × 2 *Terrier*.

4 GW destroyers: 2 *Audace* with 2 ASW hel, 1 *Standard* SAM; 2 *Impavido* with 1 *Standard*.

1 *Impetuoso*-class destroyer.

11 frigates: 1 *Maestrale* with 4 *Otomat* SSM, 1 × 8 *Albatros/Aspide* SAM, 1 hel; 4 *Lupo* with 8 *Otomat*, 1 × 8 *Sea Sparrow* SAM, 1 hel; 2 *Alpino* with 2 hel; 2 *Bergamini* with 1 hel; 2 *Centauro* (to retire).

8 corvettes: 4 *De Cristofaro*, 4 *Albatross*.

3 *Sparviero* hydrofoils with 2 *Otomat* SSM.

4 FAC: 2 *Freccia* (1 with 1 × 5 *Sea Killer* SSM), 2 *Lampo*.

4 ex-US *Aggressive* ocean, 3 ex-US *Adjutant* and 13 *Agave* coastal, 5 *Aragosta* inshore mine-sweepers; 6 ex-US *Adjutant*, 1 *Agave* mine-hunters.

2 ex-US *De Soto County* LST, 19 ex-US LCM.

2 *Stromboli* replenishment tankers.

1 Marine inf gp with 30 VCC-1, 10 LVTP-7 APC, 16 81mm, 8 106mm RCL, 6 *Milan* ATGW.

(On order: 1 hel carrier, 2 *Audace* destroyers, 7 *Maestrale* frigates, 4 *Lerici* minehunters, 4 *Sparviero* hydrofoils.)

Bases: La Spezia, Taranto, Ancona, Brindisi, Augusta, Messina, La Maddalena, Cagliari, Naples, Venice.

NAVAL AIR ARM: (1,500); 88 combat hel.

5 ASW hel sqns: 2 with 24 SH-3D; 1 with 18 AB-204AS; 2 with 46 AB-212. (On order: 5 AB-212, 3 SH-3D hel.)

RESERVES: 221,000.

Air Force: 69,000 (28,300 conscripts); some 302 combat aircraft.

6 FGA sqns: 1 with 18 F-104G (getting *Tornado*), 3 with 54 F-104S, 2 with 36 G-91Y.

3 lt attack/recce sqns with 54 G-91R/R1/R1A.

6 interceptor sqns with 72 F-104S.

2 recce sqns with 24 F/RF-104G.

2 MR sqns with 14 *Atlantic* (Navy assigned).

1 ECM/recce sqn with 12 G-222, 6 PD-808.

1 OCU with 12 TF-104G.

3 tpt sqns: 2 with 32 G-222, 1 with 10 C-130H.

4 comms sqns with 26 P-166M, 32 SIAI-208M, 8 PD-808, 2 DC-9 ac; 2 SH-3D, 20 AB-47 hel.

4 SAR sqns with 15 AB-204, 20 HH-3F hel.

1 combat trg det (Cottesmore, Britain) with 7 *Tornado*.

6 trg sqns with 70 G-91T, 100 MB-326/-339A, 14 P-166M, 20 SF-260M ac; 35 AB-47J, 5 AB-204B hel.

AAM: AIM-7E *Sparrow*, AIM-9B *Sidewinder*, *Aspide* 1A.

8 SAM groups with 96 *Nike Hercules*.

(On order: 90 *Tornado* MRCA, 187 AMX FGA, 100 MB-339 trg, 12 G-222 tpt ac, *Kormoran* ASM.)

RESERVES: 28,000; some additional aircraft.

Forces Abroad:

Egypt (Sinai MFO): 90; 3 minesweepers.

Lebanon (UNIFIL): 34.

Para-Military Forces: *Carabinieri* 90,000: 1 mech bde with 13 bns, 1 AB bn, 2 cav sqns with 37 M-47 MBT, Fiat 6616, 80 M-6, M-8 armd cars, 470 Fiat 242/18AD, 240 M-113 APC, 23 AB-47, 2 A-109, 5 AB-205, 23 AB-206 hel. Public Security Guard 67,927: 12 mobile units with 40 Fiat 6614 APC, 3 P-64B ac, 1 AB-47J, 6 A-109, 13 AB-206A1, 4 AB-212 hel. Finance

Guards 46,780, with 10 AB-47J, 67 NH-500M hel, patrol craft.
(On order: 2 AB-212 hel.)

LUXEMBOURG

Population: 364,000.
Military service: voluntary, 3 years.
Total armed forces: 690.
Estimated GDP 1981: fr 140.0 bn (\$3.77 bn).
Estimated defence expenditure 1982: fr 1.44 bn (\$32.32 m); NATO definition: \$42.11 m.
\$1 = 44.55 francs (1982), 37.18 (1981).

Army: 690.
1 lt inf bn.
1 indep coy.
5 V-150 *Commando* APC; *LAW* RL; *TOW* ATGW.

[**Air:** Luxembourg has no air force of its own, but for legal purposes all NATO's AWACS ac will have Luxembourg registration.
1 sqn with 1 E-3A (NATO standard).
(On order: 17 E-3A.)]

Para-Military Forces: Gendarmerie 500.

NETHERLANDS

Population: 14,178,000.
Military service: Army 14-16, Navy and Air Force 14-17 months.
Total armed forces: 103,957 (1,450 women; 50,192 conscripts).
GDP 1981: G 346.3 bn (\$139.076 bn).
Defence expenditure 1982: G 12.124 bn (\$4.575 bn); NATO definition: \$4.565 bn.
GNP growth 1980: 0.6%.
Inflation: 6.7% (1980), 7.2% (1981).
\$1 = 2.65 guilders (1982), 2.49 guilders (1981).

Army: 67,000 (43,250 conscripts, though see Reserves).
2 armd bdes.
4 mech inf bdes.
1 SSM bn with *Lance*.
3 hel sqns (Air Force manned).
468 *Leopard* 1, 343 *Centurion* MBT; 126 AMX-13 lt tks; 66 AMX-VC1, 745 M-113, 742 YP-408 (to retire), 1,051 YPR-765 APC; 44 105mm, 140 155mm, 28 203mm how; 75 AMX 105mm (being phased out), 136 M-109 155mm, 12 M-107 175mm (being replaced by 203mm), 24 M-110 203mm SP guns/how; 6 *Lance* SSM; 81mm, 194 107mm, 153 120mm mor; *Carl Gustav* 84mm, 106mm RCL; *LAW* RL; 350 *Dragon*, *TOW* ATGW; 131 L-40/70 40mm towed, 95 *Gepard* 35mm SPAA guns; 48 *Alouette* III, 24 BO-105 hel (Air Force crews).

(On order: 445 *Leopard* 2 MBT; 850 YPR-765 APC; 37 M-110A2 203mm SP how; 464 *Stinger* SAM.)

RESERVES: 145,000: 1 armd, 2 mech inf bdes, corps troops and 1 indep inf bde would be completed by call-up of reservists. A number of inf bdes could be mobilized for territorial defence.

Navy: 16,850, incl marines and naval air arm (2,000 conscripts).
6 submarines: 2 *Zwaardvis*, 2 *Potvis*, 2 *Dolfijn*.
2 *Tromp* GW destroyers (flagships) with 8 *Harpoon* SSM, 1 *Standard*, 8 *Sea Sparrow* SAM, 1 *Lynx* hel.
12 frigates with 8 *Harpoon* SSM: 6 *Kortenaer* with *Sea Sparrow* SAM, 1 *Lynx* hel; 6 *Van Speijk* with 2 quad *Seacat* SAM, 1 hel.
6 *Wolf* corvettes.
5 *Balder* large patrol craft.
3 *Onversaagd* MCM spt ships; 15 *Dokkum* coastal minehunters/sweepers; 16 *Van Straelen* inshore minesweepers.
2 *Poolster* fast combat spt ships.
10 LCA.

Bases: Den Helder, Flushing, Curacao.

MARINES: (2,900).
2 amph combat gps.
1 mountain/arctic warfare coy.

NAVAL AIR ARM: (1,700); 11 combat ac, 17 armed hel.
2 MR sqns with 6 SP-13A *Atlantic*, 3 P-3C *Orion*, 2 F-27MPA.
2 ASW hel sqns with 17 *Lynx* HAS-27.
1 SAR hel sqn with 6 *Lynx* HAR-25.
(On order: 2 *Walrus* subs, 4 *Kortenaer*, 2 AD frigates, 15 *Alkmaar* minehunters, *Harpoon* SSM, 10 P-3C *Orion* II ASW ac.)

RESERVES: about 20,000; 9,000 on immediate recall.

Air Force: 19,000 (4,600 conscripts); 172 combat aircraft.
4 FGA sqns: 3 with 54 NF-5A; 1 with 18 F-104G (being replaced by F-16).
2 FGA/interceptor sqns with 36 F-16 (1 more converting (8 F-16)).
1 recce sqn with 18 RF-104G.
3 OCU: 1 with 18 NF-5B; 1 with 8 TF-104; 1 with 12 F-16A/B.
1 tpt sqn with 12 F-27.
1 SAR flt with 4 *Alouette* III.
AAM: AIM-9 *Sidewinder*.
11 SAM sqns with 66 *Improved HAWK* (8 in Germany).
4 SAM sqns with 16 *Nike Hercules*.
25 *Shorad/Flycatcher*, 40 L-70 AA systems.
(On order: 82 F-16 FGA, incl F-16B trainers.)
RESERVES: about 6,000.

Inter-Service Organization: 1,107 (342 conscripts).

Forces Abroad:

Germany: Army: 5,500; 1 armd bde, 1 recce, 1 engr bns, spt elements.

Lebanon (UNIFIL): Army: 810; 1 mech inf bn.

Egypt (Sinai MFO): 105.

Netherlands Antilles: Navy: 1 destroyer, 1 amph combat det, 1 MR det with 2 F-27MPA ac.

Para-Military Forces: 8,700. Royal Military Constabulary (*Koninklijke Marechaussee*): 3,900 regulars, 500 conscripts; 3 divisions comprising nine districts with 87 brigades. Home Guard: 4,300; 3 sectors; inf weapons.

NORWAY

Population: 4,100,000.

Military service: Army 12, Navy and Air Force 15 months.

Total armed forces: 42,100 (28,900 conscripts).

GDP 1981: kr 283.36 bn (\$49.37 bn).

Defence expenditure 1981: kr 9.45 bn (\$1.65 bn);* NATO definition not available.

GDP growth 1980: 3.8%.

Inflation: 13.7% (1980), 11.9% (1981).

\$1 = 5.739 kroner (1981).

Army: 24,400 (17,800 conscripts).

1 bde gp of 2 inf bns, 1 tk coy, 1 SP fd, 1 AA bty (North Norway).

1 all-arms gp: 1 inf bn, 1 tk coy, 1 SP fd, 1 AA bty (South Norway).

Indep armd sqns, inf bns and arty regts.

78 *Leopard* 1, 38 M-48 MBT; 70 NM-116 (M-24/90) lt tks; M-113 APC; 250 105mm and 155mm how; 130 M-109 155mm SP how; 107mm mor; *Carl Gustav* 84mm, 106mm RCL; *ENTAC*, *TOW* ATGW; Rh-202 20mm, 40mm AA guns; RBS-70 SAM; 24 O-1E, 8 L-18 lt ac.

RESERVES: 122,000: 4 divs: 11 Regimental Combat Teams (bdes) of about 5,000 men each, spt units and territorial forces; 21 days refresher training each 3rd/4th year. Home Guard (all services) 85,000 (90 days initial service).

Navy: 9,400, incl 1,600 coast artillery (6,100 conscripts).

14 Type 207 submarines.

5 *Oslo* frigates with 6 *Penguin* SSM, 1 × 8 *Sea Sparrow* SAM.

2 *Sleipner* corvettes.

39 FAC(M) with *Penguin* SSM: 19 *Storm*, 14 *Hauk*, 6 *Snögg*.

8 *Tjeld* FAC(T) (in reserve).

1 *Vadsø* patrol craft.

2 *Vidar* minelayers, 9 ex-US MSC-60 mine-

sweepers, 1 minehunter.

1 *Horten* depot ship.

7 LSM: 2 *Kvalsund*, 5 *Reinøysund*.

40 coast arty btys: 75mm, 105mm, 127mm, 150mm guns.

Bases: Horten, Bergen, Ramsund, Tromsø.

RESERVES: 16,000. Coastguard established as part of Navy; 3 *Nordcap* patrol vessels with 6 × 1 *Penguin* II SSM, 6 *Lynx* hel.

Air Force: 8,300 (5,000 conscripts); 114 combat aircraft.

4 FGA sqns: 3 with 51 F-5A; 1 with 16 CF-104G/D, 2 TF-104B.

1 interceptor sqn with 15 F-16A.

1 recce flt with 6 RF-5A.

1 MR sqn with 7 P-3B.

1 OCU with 13 F-5B, 4 F-16B.

1 ASW hel sqn with 6 *Lynx* (coastguard).

2 tpt sqns: 1 with 6 C-130H, 3 *Falcon* 20S; 1 with 4 DHC-6 ac, 8 UH-1B hel.

1 SAR hel sqn with 10 *Sea King* Mk 43.

2 utility hel sqns with 26 UH-1B.

16 *Safari* trg ac.

AAM: *Sidewinder*. ASM: *Bullpup*.

4 lt AA bns with L/70 40mm guns.

1 SAM bn (4 btys) with 128 *Nike Hercules*.

(On order: 44 F-16A, 8 F-16B fighters; RBS-70 SAM; *Penguin* III ASM.)

RESERVES: 20,000. 7 lt AA bns for airfield defence with L/60 40mm guns.

Forces Abroad: Lebanon (UNIFIL): 851; 1 bn, 1 service coy, 1 medical coy.

PORTUGAL

Population: 9,800,000.

Military service: Army 16, Navy 24, Air Force 21-24 months.

Total armed forces: 66,426 (18,700 conscripts).

GDP 1981: 1,358.0 bn escudos (\$22.063 bn).

Estimated defence expenditure 1982: 49.87 bn escudos (\$668.0 m); NATO definition: \$844.2 m.

GDP growth 1980: 5.5%.

Inflation: 14.9% (1980), 23.9% (1981).

\$1 = 74.65 escudos (1982), 61.55 escudos (1981).

Army: 41,000 (10,000 conscripts, 3 intakes a year, 4 months alternating service).

6 Territorial Commands (4 military regions, 2 island commands).

1 mixed bde.

2 cav regts.

12 inf regts, 1 indep inf bn.

1 cdo regt.

2 fd, 1 AA, 1 coast arty regts.

* Incl UNIFIL costs: kr 91.5 m (\$15.94 m).

2 indep AA/coast arty bns.
 2 engr regts.
 1 sigs regt.
 1 Special Forces, 4 spt, 1 MP bns.
 62 M-47, 23 M-48A5 MBT; 11 M-24 lt tks; 33 Panhard EBR/ETT hy, 63 AML lt armd, 32 *Ferret* Mk 4 scout cars; 86 M-113, 82 *Chaimite* APC; 68 5.5-in (140mm) guns; 54 M-101A1 105mm towed, 6 M-109A2 155mm sp how; 54 107mm, 82 120mm mor; 82 90mm, 127 106mm RCL; 21 *TOW* ATGW; 39 150mm, 152mm, 234mm coast arty; 16 20mm twin, 351 40mm AA guns.

Navy: 13,426 incl marines (5,200 conscripts).
 3 *Albacora* (Fr *Daphne*) submarines.
 17 frigates: 4 *Andrade*, 6 *Coutinho*, 4 *Belo*, 3 *Silva*.
 10 *Cacine* large patrol craft.
 8 coastal patrol craft.
 2 LCT, 11 LCM, 1 LCA.
 (On order: 3 modified *Kortenaer* frigates).

Base: Lisbon (Alfeite).

MARINES: (2,687; 1,000 conscripts).
 3 bns (2 inf, 1 police), spt units; *Chaimite* APC, mor, amph craft.

Air Force: 12,000, incl 2,500 para (3,500 conscripts); 87 combat aircraft.

1 combat, 5 administrative wings:
 3 FGA sqns: 1 with 20 A-7P; 1 with 20 G-91R3, 8 G-91T3; 1 with 21 G-91R4, 2 G-91T3.
 1 recce sqn with 4 CASA C-212B.
 1 OCU with 12 T-38 COIN ac.
 3 tpt sqns: 1 with 5 C-130H; 2 with 16 C-212 *Aviocar*.
 2 SAR hel sqns with 11 SA-330 *Puma*.
 2 hel/utility sqns with 34 *Alouette* III.
 2 liaison sqns with 24 Reims-Cessna FTB 337G.
 3 trg sqns: 1 with 2 C-212A ac, 3 *Alouette* III hel; 1 with 24 T-37C; 1 with 30 *Chipmunk*.
 1 para regt (3 bns).
 (On order: 12 A-109A hel (4 with *TOW*)).

RESERVES (all services): 90,000.

Para-Military Forces: National Republican Guard 14,600; *Commando* Mk III APC. Public Security Police 16,124; Fiscal Guard: 7,519.

SPAIN

Population: 37,900,000.
 Military service: 15 months.
 Total armed forces: 347,000 (234,000 conscripts).
 GDP 1981: pts 17,696 bn (\$191.7 bn).
 Defence expenditure 1981: pts 337.46 bn (\$3.65 bn).
 GDP growth 1980: 1.2%.
 Inflation: 15.2% (1980), 14.5% (1981).
 \$1 = 92.31 pesetas (1981).

Army: 255,000 (190,000 conscripts).

Immediate Intervention Force:

1 corps HQ.
 1 armd div } each with 2 bdes.
 1 mot div }
 1 mech div }
 1 armd cav bde.
 1 para bde (3 bns).
 1 air portable bde.
 1 arty bde.
 1 locating, 1 fd rocket, 1 lt AA regts.
 1 engr, 1 sigs, 1 chemical/nuclear defence regts.

Territorial Defence Force:

9 Military Regions, 4 overseas comds (see *Overseas Forces*).
 2 mountain divs (each 1 bde + 1 cadre bde).
 10 inf bdes (incl 1 Reserve bde).
 1 high mountain bde.
 1 arty bde (incl 1 *HAWK* SAM gp, 1 *Nike Hercules* bty).
 2 hy arty regts.
 7 coast/AA arty regts.

General Reserve Force:

1 ATK inf regt.
 3 engr regts (incl 2 railway).
 1 sigs regt.

Independent Units:

Army HQ inf gp.
 Royal Guard Regt (incl inf, naval, air force coys and escort cav sqn).

Overseas Forces:

2 Commands: (Balearic, Canary Islands):
 7 inf regts (1 cadre regt in Canaries).
 3 Foreign Legion regts (9 bns, 1 lt cav gp).
 6 coast/AA arty regts.
 2 engr regts, 1 engr gp (2 bns), 1 engr bn.
 2 armd cav regts, 2 lt cav gps.
 4 *Regulares* inf gps.
 2 cdo, 2 special sea coys.

Army Aviation (FAMET):

HQ with 1 hel, 1 spt, 4 trg sqns, 2 hel bns.
 1 attack bn.
 1 tpt bn: 1 med, 1 hy coys.
 Trg wing: 2 sqns; LHR-12B, HT-17, HU-10B hel.

AFV: 210 AMX-30, 390 M-47E, 130 M-48 (105mm) MBT; 180 M-41 lt tks; 60 AML-60, 80 AML-90 armd cars; 100 BMR-600 *Pegaso* MICV, 500 M-113 APC.

Arty: 860 105mm (incl M-56 pack), 200 122mm, 80 155mm, 24 203mm towed, 48 M-108 105mm, 24 M-44, 24 M-109 155mm, 12 M-107 175mm, 4 M-110 203mm sp guns/how; 200 88mm, 200 6-in. (152.4mm), 24 203mm, 12-in. (305mm), 15-in. (381mm) coast guns; 18 150mm, 24 203mm, 381mm MRL; 60mm, 1,200 81mm, 107mm, 400 120mm mor.

ATK: 106mm RCL; M-65 88.9mm RL; *Milan*, *Cobra*, *Dragon*, *HOT* ATGW.

AD: 54 35/90, 280 40/90, 120 90mm AA guns

Nike Hercules, Improved HAWK SAM.

Air: 3 *Puma*, 50 HU-8/-10B (UH-1B/H), 3 HA-16 (*Alouette III*), 30 HA-15 (BO-105), 1 AB-206A, 4 AB-212, 19 HE-7B (OH-13), 12 HR-12B (OH-58A), 10 HT-17 (CH-47) hel.
(On order: 100 AMX-30 MBT; 150 BMR-600 MICV, 180 M-113 APC; 18 M-109 155mm SP how; 113 *TOW* ATGW; 96 *Chaparral* SAM (1,760 msls); 28 *Skyguard* AD systems; 30 BO-105 (28 with *HOT* ATGW), 2 CH-47C, 18 OH-58A hel.)

DEPLOYMENT:

Balearic Islands: 5,800; 3 inf, 2 coast/AA regts, 1 engr bn, 1 lt cav gp, 1 cdo coy.

Canary Islands: 16,000; 3 inf, 1 Foreign Legion (incl 1 lt cav gp), 2 coast/AA regts, 1 engr gp (2 bns), 1 lt cav gp, 1 cdo coy.

Ceuta/Melilla: 19,000; 2 armd cav, 2 Foreign Legion, 2 coast/AA, 2 engr regts, 4 *Regulares* inf gps, 2 special sea coys.

Navy: 54,000, incl 11,000 marines (44,000 conscripts).

8 Commands: Combat, Escort, Amphibious, Naval Air, Submarine, Special Services and Patrol Units, Mine Warfare, Marines.

8 submarines: 1 *Agosta*, 4 *Daphne*, 3 ex-US *Guppy* IIA.

1 ex-US *Independence* ac carrier (7 AV-8A, 24 hel).

11 destroyers: 6 with 1 hel (1 *Marqués de la Enseñada*, 5 ex-US *Gearing* with 1 *ASROC*), 5 ex-US *Fletcher*.

20 frigates: 8 *Descubierta* with 1 × 8 *Sea Sparrow/Aspide* SAM; 5 *Balears* with 16 *Standard* SAM, 1 × 8 *ASROC*; 1 *Audaz*, 1 *Alava*, 1 *Pizarro*, 4 *Atrevida*.

12 FAC(P): 6 *Lazaga*, 6 *Barcelo*.

20 large patrol craft (6 ex-minesweepers).

64 coastal and inshore patrol craft (.

3 ex-US *Aggressive* ocean, 6 *Jucar* coastal MCM.

2 attack tpts, 1 LSD, 3 LST, 7 LCT, 2 LCU, 18 LCM, 17 LCA, 43 LCVP.

(On order: 3 *Agosta* subs, 1 ac carrier, 3 FFG-7 frigates, *Harpoon* SSM, *Aspide* SAM.)

NAVAL AIR:

1 attack sqn with 9 AV-8A *Matador*, 2 TAV-8A.

1 comms sqn with 4 *Commanche*.

5 hel sqns with 15 SH-3D *Sea King*, 12 AB-212, 11 Bell 47G, 11 Hughes 500HM ASW, 4 AH-1G.

(On order: 8 AB-212, 18 SH-60B hel.)

MARINES: (11,000)

1 marine bde (3 inf bns and spt units).

5 marine lt inf regts.

32 M-48S MBT; 48 *Ontos* AFV, each with 6 106mm RCL; LVTP-7 amph APC; 48 105mm SP how (trials); 81mm mor; M-72 66mm RL; 72 106mm RCL; *TOW*, *Dragon* ATGW.

Bases: El Ferrol (Galicia), Cadiz (San Fernando), Cartagena.

Air Force: 38,000; some 210 combat ac (being reduced).

Air Defence Command (MACOM):

3 wings.

6 interceptor sqns: 2 with 36 F-4C, 4 RF-4C; 2 with 21 *Mirage* IIIIEE, 6 IIIIED; 2 with 47 *Mirage* F-1CE, 3 F-1CE/BE.

1 liaison flt with 6 Do-27.

Tactical Command (MATAC):

2 wings.

2 FGA sqns: 1 with 6 F-5A, 9 RF-5A, 3 F-5B; 1 with 20 HA-220 *Super Saeta*.

1 recce sqn with 9 AR-10C (HA-220).

1 MR sqn with 2 P-3A, 4 P-3C.

1 liaison flt with 6 O-1E, 12 Do-27, Do-28.

AAM: *Sparrow*, *Sidewinder*, R-550 *Magic*.

Air Command, Canary Islands (MACAN):

1 FGA sqn with 14 F-5/RF-5A, 3 F-5B.

1 SAR sqn with 3 F-27-400 MR ac, 8 AB-205 hel.

1 tpt sqn with 7 CASA C-212, 2 Do-27.

Transport Command (MATRA):

3 wings.

5 sqns with 8 C-130H, 4 KC-130H, 6 CASA-207 *Azor*, 25 C-212 *Aviocar*, 12 DHC-4, 5 Do-27.

Training Command (MAPER):

2 OCU with 23 F-5A/B, 2 Do-27.

14 sqns with 6 *Aztec*, 29 F-33C *Bonanza*, 36 CASA C-101, 14 C-212E, 1 *Navajo*, 49 T-33A, 45 T-6, 6 *King Air*, 3 *Baron*, BU-131A/CASA I-131.

2 hel sqns with 28 HE-7A (AB-47), AB-205, Hughes 300C and UH-1H hel.

Air Force HQ Group (ACGA):

2 tpt sqns with 2 DC-8-52, 4 *Mystère* 20, 1 *Navajo*, 4 CASA C-212.

2 spt sqns with 14 CL-215, 2 Do-27, 5 C-212.

1 utility hel sqn with 5 *Puma*.

2 SAR sqns with 4 CASA C-212, 4 Do-27 ac, 9 AB-205, 4 AB-206, 3 AB-47, 3 *Alouette III* hel.

1 trg sqn with 4 C-101, 2 C-212, 10 T-6.

(On order: 21 *Mirage* F-1B/EE fighters; 2 P-3C *Orion* MR; 4 C-212 SAR, CASA C-101 trg ac; 12 *Super Puma* SAR, 17 Hughes 300C hel; 96 *Improved Chaparral* SAM launchers, 1,760 msls; *Super Sidewinder* AAM.)

RESERVES (all services): 1,085,000. 1 ATK inf, 3 engr, 1 sigs regts.

Para-Military Forces: *Guardia Civil* 65,000; 26 inf regts, 3 reserve mobile comds, 1 railway security, 1 traffic security gps, 1 anti-terrorist special gp (UAR). *Policia Nacional* 40,000; 26 inf bns, 2 cav sqn gps, 3 cav tps, 1 special ops cdo gp (GEO), Civil security gps.

TURKEY

Population: 47,000,000.
 Military service: 20 months.
 Total armed forces: 569,000 (489,000 conscripts).
 GDP 1980: 4,325.5 bn liras (\$51.32 bn).
 Defence expenditure 1981: 322.4 bn liras
 (\$2.62 bn); NATO definition \$2.63 bn.
 GNP growth 1980: -0.7%.
 Inflation: 86.2% (1980), 30.3% (1981).
 \$1 = 123.13 liras (1981), 84.29 (1980).

Army: 470,000 (420,000 conscripts).*

4 army HQ: 10 corps HQ.
 2 mech inf divs.
 14 inf divs.
 6 armd bdes.
 4 mech bdes.
 11 inf bdes.
 1 para bde, 1 cdo bde.
 4 SSM bns with 18 *Honest John*.
 Indep units: 8 armd recce, 32 arty, 8 AA arty bns,
 fortress defence regts.
 AFV: 100 M-26, 50 *Leopard* 1A3, 500 M-47,
 3,000 M-48 MBT; M-8 armd cars; 2,000 M-113,
 M-2/-3, 1,200 *Commando* APC; 60 M-59
 155mm towed, 36 M-107 175mm SP guns; 954
 M-116A1 75mm pack, some 140 M-101A1
 105mm, 288 M-114A1 155mm, 116 M-115
 203mm towed, 400 M-7/M-108 105mm, 210
 M-46 155mm, 48 M-110 203mm SP how; 1,750
 60mm, 81mm, 4.2-in (107mm), 120mm mor;
 54 *Honest John* SSM.
 ATK: 1,200 57mm, 390 75mm, 800 106mm RCL;
 M-18/M-36 76mm SP ATK guns; 85 *Cobra*,
 SS-11, *TOW* ATGW.
 AA: 300 twin 20mm, 900 40mm, M-51 75mm,
 M-117/M-118 90mm AA guns.
 Air: 2 DHC-2, 18 U-17, 6 Cessna 206, 3 Cessna
 421, 15 Do-27, 9 Do-28, 20 *Baron*, 5 T-42, 40
Citabria 150S trg ac; 156 AB-204/-205, 20 Bell
 47G, 48 UH-1D hel.
 (On order: 20 *Leopard* 1A3 MBT; *TOW*, 2,500
Milan ATGW, 27 UH-1H hel.)

RESERVES: 700,000.

Navy: 46,000, incl marines (36,000 conscripts); 20
 combat ac, 19 armed hel.
 16 submarines (2 in reserve): 4 Type 209, 10 ex-US
Guppy, 1 *Tang* (on loan), 1 ex-US *Balao*.
 15 ex-US destroyers: 9 *Gearing* (2 leased, 5 with
 1 × 8 *ASROC*), 4 *Fletcher*, 2 *Sumner*.
 2 *Berk* frigates, each with 1 hel.
 13 FAC(M): 4 *Dogan* (Lürssen FPB-57) with 2 × 4
Harpoon SSM; 9 *Kartal* (Type 141 *Jaguar*) with
 4 *Penguin* 2 SSM.
 8 FAC(T): 7 ex-FRG *Jaguar*, 1 *Girne*.
 49 large patrol craft (incl 2 ex-US *Asheville*, 6
 PC-1638, 4 PGM-71, 7 SAR-33 type), some

with Gendarmerie.
 4 83-ft coastal patrol craft.
 1 *Nusret*, 9 coastal minelayers.
 26 minesweepers: 12 ex-US *Adjutant*, 4 ex-Can
 MCB, 6 ex-Ger *Vegesack* coastal, 4 ex-US *Cape*
 inshore.
 4 LST (2 dual-purpose minelayers), 34 LCT, 16 LCU,
 20 LCM, 1 LSM.
 60 auxiliary ships incl 1 ex-Ger depot ship (trg), 9
 tankers (5 fleet).
 1 ASW sqn: 2 S-2A (in reserve), 18 S-2E ac; 3
 AB-204B, 16 AB-212 ASW hel.
 1 marine bde (5,000): HQ, 3 bns, 1 arty bn (18
 guns), spt units.
 (On order: 1 Type 209 sub, 4 Meko-360 frigates, 2
 Lürssen FAC(M), *Harpoon* SSM.)

Bases: Gölçuk, Istanbul, Izmir, Eregli, Iskenderun.

RESERVES: 70,000.

Air Force: 53,000 (33,000 conscripts); 402 combat
 aircraft.
 2 tactical, 1 administrative, 1 air training com-
 mand.
 18 FGA sqns: 6 with 72 F-5A, 12 F-5B; 4 with 66
 F-100C/D/F; 4 with 82 F-4E, 8 RF-4E; 3 with
 62 F/TF-104G.
 3 interceptor sqns with 36 F-104S.
 1 recce sqn with 16 RF-5A/F-5B.
 6 tpt sqns: 2 with 7 C-130E, 20 C-160D; 3 with 30
 C-47A; 1 (VIP) with 3 *Viscount* 794, 2 *Islander*
 ac, 12 UH-1D/H, 5 UH-19D hel.
 1 VIP flt with 2 C-47A.
 9 base flts with 40 T-33A, 2 C-47A ac, 2 UH-1H
 hel.
 OCUS with 12 G-91T, 36 F-100C/F.
 3 trg sqns with 24 T-34A, 25 T-37B/C, 60 T-38A,
 20 T-41D.
 AAM: *Sidewinder*, *Super Sidewinder*, *Sparrow*,
Falcon, *Shafirir*.
 ASM: AS-12, *Bullpup*, *Maverick*.
 8 SAM sqns with 36 *Nike Hercules*, 36 *Nike Ajax*.
 (On order: 33 F-104G, 14 F-100D/F fighters,
 C-160 tpt ac; 10 SAR, 4 ECM UH-1H hel; *Super*
Sidewinder, *Sparrow* AAM.)

RESERVES: 66,000.

Forces Abroad:

Cyprus: 1 corps of 2 inf divs (24,000); 150
 M-47/-48 MBT; M-113 APC; 212 105mm,
 155mm, 203mm guns/how; 40mm AA guns.

Para-Military Forces: Gendarmerie 120,000 (incl
 3 mobile bdes with *Commando* APC), large
 patrol craft. (On order: 7 SAR-33 FAC.)

* About half the divs and bdes are below strength, much
 eqpt is unserviceable.

OTHER EUROPEAN COUNTRIES

Albania: Albania joined the Warsaw Pact in 1955 but left it in 1968, moving into a closer relationship with China. After Chairman Mao's death in 1976, Chinese aid was progressively reduced. Since 1978 little military aid has been received from any source. The Constitution precludes the establishment of foreign bases or the stationing of foreign troops in Albania.

Austria: The State Treaty of 1955, which re-established Austrian independence, prohibits Austria from acquiring 'nuclear weapons, long-range artillery, chemical and biological weapons, self-propelled missiles, submarines, assault craft, manned torpedoes and sea mines'. Austria's constitution contains a declaration of permanent neutrality. A small indigenous arms industry supplies the armed forces and provides a few foreign sales.

Cyprus: Independent as a bi-national state in 1960, the Turkish occupation of the northern part of Cyprus since July 1974 has effectively produced two entities, each with its own small armed forces. Both Greece and Turkey are also entitled, under an associated Treaty of Alliance with the Republic of Cyprus, to maintain a contingent in the island. Britain – a signatory with Greece and Turkey of the 1959 Treaty of Guarantee which assures the independence, territorial integrity and security of the Republic – maintains a garrison in two Sovereign Base Areas at Akrotiri and Dhekelia. The United States maintains a signals establishment. The United Nations has a peace-keeping force (UNFICYP) on the island.

Eire: Independent since 1922, Eire plays an active role in UN peace-keeping operations. With no significant arms industry, Eire has bought arms from many sources, e.g. Britain, France, Sweden and the US.

Finland: A 1948 Treaty of Friendship, Co-operation and Mutual Assistance enables Finland to call upon the USSR for assistance to repel an aggressor. Finland has her own defence industry, but has tended to buy her major arms from the USSR and Sweden, together with some equipment from Britain, France and the United States.

Malta: After independence in 1964, Malta had a defence agreement with Britain. The island became a NATO base in 1972; NATO and Italy bore part of the cost until the Treaty expired in 1979 and NATO troops were withdrawn. In September 1980 Malta undertook to remain neutral, outside any alliances, and banned foreign troops and bases, including Soviet warship docking facilities. Italy agreed to consultation if Malta was attacked and to guarantee her independence. In December 1981 France and Algeria also agreed to support and guarantee her neutrality.

Sweden: Neutral in both world wars. Sweden's permanent peace-keeping organization has provided personnel for UN duties since 1964. Her self-defence organization is largely supported by a domestic defence industry but some external purchases have been made, mainly from the United States.

Switzerland: Permanently neutral since 1815, Switzerland belongs to no defence organization. Her small arms industry produces most of her equipment, but Austria, France, Britain and the US have also supplied material.

Yugoslavia: Expelled from the Cominform in 1948, she has since been a leading force in the Non-Aligned Movement, maintaining a balanced relationship with each bloc. She has no defence alliances, though a limited naval repair agreement exists with the USSR. She has her own defence industry but has bought most of her major military equipment from the USSR.

ALBANIA

Population: 2,730,000.
 Military service: Army 2 years; Air Force, Navy and special units 3 years.
 Total armed forces: 43,100 (23,000 conscripts).
 Estimated GNP 1978: 9.92 bn lekë (\$1.85 bn).
 Estimated defence expenditure 1981: 940 m lekë (\$188 m).
 \$1 = 5.0 lekë (1981), 5.36 (1978).

Army: 30,000 (20,000 conscripts)*

1 tk bde.
 5 inf bdes.
 1 arty regt.
 8 lt coastal arty bns.
 70 T-34, 15 T-54, 15 T-59 MBT; 20 BA-64 armd, BRDM-1 scout cars; BTR-40/-50/-152, K-63 APC; 76mm (incl SU-76 SP), 85mm, 122mm, 152mm guns; 122mm, 152mm how; 82mm, 120mm, 160mm mor; Type-63 107mm MRL; T-21 82mm RCL; 45mm, 57mm, 85mm ATK guns; 37mm, 57mm, 85mm, 100mm AA guns.

RESERVES: 100,000.

Navy: 3,100 (1,000 conscripts)*

3 ex-Sov W-class submarines.
 3 ex-Sov *Kronshadt* large patrol craft.
 44 FAC(T): 32 ex-Ch *Huchwan* hydrofoils, 12 P-4.
 6 ex-Ch *Shanghai-II* FAC(G).
 10 PO-2K patrol craft.
 8 ex-Sov minesweepers: 2 T-43 ocean, 6 T-301 (2 in reserve) inshore.

Bases: Durres, Valona, Sazan Island, Pasha Liman.

Air Force: 10,000 (2,000 conscripts); 100 combat aircraft.*

6 fighter sqns with 20 MiG-15/F-2, 30 MiG-17/F-4, 30 MiG-19/F-6, 20 MiG-21/F-7.
 1 tpt sqn with 4 Il-14, 10 An-2.
 2 hel sqns with 30 Mi-4.
 1 trg sqn with 10 MiG-15UTI.
 SAM: Some 5 SA-2 sites.

RESERVES: 5,000.

Para-Military Forces: 13,000. Internal security force 5,000; frontier guard 8,000.

AUSTRIA

Population: 7,504,800.
 Military service: 6 months, followed by 60 days during 15 years for reservists, additional 30-90 days for specialists.
 Total armed forces: 49,350 (34,000 conscripts; total mobilizable strength 172,000). In addition some 70,000 reservists called up for trg during the year.

GNP 1981: 1,043.6 bn schilling (\$65.5 bn).
 Defence expenditure 1981: 12.23 bn schilling (\$767.7 m).
 GDP growth: 3.1% (1980)-0.1% (1981).
 Inflation: 6.7% (1980), 6.4% (1981).
 \$1 = 15.93 schilling (1981).

Army: 44,950 (32,000 conscripts).

1 mech div of 3 mech bdes, incl 3 tk, 3 mech inf, 2 armd arty, 2 armd ATK, 1 AA, 1 engr, 1 sigs bns.
 28 *Landwehrstammregimente* (trg regts) to train and form reserves.
 3 ordnance (log) regts.
 1 arty bn.
 1 armd ATK bn.
 2 SP AA arty bns.
 2 engr bns.
 5 sigs bns.
 1 recce bn.
AFV: 50 M-60A3, 120 M-60A1 MBT; 467 Saurer 4K4F APC.
Arty: 300 M-68 105mm turret mounted, 36 SFKM2 155mm fortress guns; 108 IFH 105mm, 24 FHM-1 155mm, 38 M-109 155mm SP how; 18 Steyr 680M3 130mm MRL; 300 81mm, 100 M-2/M-30 107mm, 80 120mm mor; 334 20mm, 58 35mm towed, 38 M-42 40mm SP AA guns.
ATK: *LAW*, 74mm, 84mm, 397 M-40 106mm RCL; 240 M-52/M-55 85mm towed, 153 *Kuerassier* SK 105mm SP ATK guns.
 (On order: 42 155mm SP how.)

RESERVES: Regular: some 15,000, immediate reaction forces. Mobile Militia (45,000): 8 reserve bdes (each of 3 inf, 1 arty, 1 engr/ATK, 1 cmd and spt bns); Stationary Militia: 26 inf regts (*Landwehr*) distributed among 8 regional military cmds. 930,000 have a reserve commitment.

Air Force: †4,400 (2,000 conscripts); 32 combat aircraft.

4 FGA sqns with 32 Saab 105OE.
 1 tpt wing with 2 *Skyvan*, 12 *Turbo-Porter*.
 7 hel sqns with 13 AB-206A, 24 AB-212, 23 *Alouette* III, 12 OH-58B, 21 AB-204.
 1 trg sqn with 18 Saab 91D.
 Other ac incl 20 Cessna L-19, 2 DHC-2.
 3 indep AD bns with 86 20mm *Oerlikon*, 87 35mm, 60 L/70 40mm towed (reserves), M-42 40mm SP AA guns; *Super-Bat* and *Skyguard* AD systems.

Forces Abroad: Cyprus (UNFICYP): 1 inf bn (314). Syria (UNDOF): 1 inf bn (532). Other Middle East (UNTSO): 13.

*Spare parts are in short supply; some equipment may be unserviceable.

† Austrian air units, an integral part of the Army, are listed separately for purposes of comparison.

CYPRUS

Population: 650,000 (500,000 Greek, 150,000 Turkish Cypriots).

REPUBLIC OF CYPRUS

Military service: 26 months.

Total armed forces: 10,000.

GNP 1980: £C 767.7 bn (\$2,176 bn).

Defence expenditure 1981: £C 11.4 m (\$27.2 m).

\$1 = £C 0.4196 (1981), £C 0.3528 (1980).

Army: 10,000.*

1 armd bn.

2 recce/mech inf bns.

20 inf bns (under strength).

7 arty gps.

8 spt units.

10 T-34 MBT; 17 BTR-50 APC; 20 EE-9 *Cascavel*,

20 Marmon-Harrington armd cars; 120

100mm, 105mm and 25-pdr guns and 75mm

how; 40mm, 3.7-in AA guns; 1 30-ft patrol craft.

(On order: 20 EE-9 *Cascavel*.)

RESERVES: 30,000: 8,500 immediate; 21,500 second line.

Para-Military Forces: 3,000 armed police.

TURKISH FEDERATED STATE OF CYPRUS

Defence expenditure 1982: 750 m Turkish lira (\$4.98 m).

\$1 = 150.56 Turkish lira (1982).

About 4,500 men, org in some 7 inf bns. Some T-34 MBT.

RESERVES: first-line 5,500, second-line 10,000.

EIRE

Population: 3,440,000.

Military service: voluntary.

Total armed forces: 16,424.

GNP 1981: £E 10.82 bn (\$17.49 bn).

Defence expenditure 1981: £E 172 m (\$278.09 m).

GDP growth: 0.9% (1980), 1.7% (1981).

Inflation: 18.3% (1980), 23.3% (1981).

\$1 = £E 0.6185 (1981).

Army: 14,697.

1 inf HQ (2 inf bns).

3 mixed bdes: each with 2 inf bns, 1 fd arty regt (2 btys), 1 motor recce sqn, 1 engr coy.

1 static bde (2 inf bns, 1 armd recce sqn, 1 AD regt, 1 Ranger coy).

Total units:

11 inf bns (3 with 1 armd car tp).

1 tk sqn.

1 armd, 3 mot recce sqns.

3 fd arty regts (each of 2 btys).

1 AD regt (1 regular, 3 reserve btys).

3 fd engr coys.

1 Ranger coy.

12 *Scorpion* lt tks; 28 AML-90, 32 AML-60 armd cars; 60 Panhard VTT/M3, 5 *Timoney* APC; 48 25-pdr gun/how; 12 105mm lt guns; 119 60mm, 250 81mm, 92 120mm mor; 447 *Carl Gustav* 84mm, 96 PV-1110 90mm RCL; 4 *Milan* ATGW; 24 L/60, 2 L/70 40mm AA guns; 4 RBS-70 SAM. (On order: 81mm and 120mm mor).

RESERVES: 21,765. 720 first line, 21,045 second line. 4 second line Reserve Army Gps (garrisons): 2 Gps have 6 inf bns (1 has 4, 1 has 2), 2 fd arty regts (2 have 1); 3 Gps have 1 motor sqn, 1 engr, 1 supply/tpt coy, sigs sqn.

Navy: 832 (to be increased to about 1,500).

4 corvettes.

2 ex-Br *Ton* coastal MCM (fishery protection).

(On order: 1 P-31 frigate.)

Base: Cork.

RESERVES: 5 coys (390).

Air Force: 895; 14 combat aircraft.

1 COIN sqn with 6 *Super Magister*.

1 COIN/trg sqn with 8 SF-260WU, 2 *Chipmunk*.

1 liaison sqn with 8 Cessna 172H.

1 hel sqn with 8 *Alouette* III, 2 *Gazelle*, 1 *Puma* (leased) hel.

1 comms flt with 3 *King Air*, 1 HS-125-700.

Forces Abroad: Cyprus (UNFICYP): 6. Lebanon (UNIFIL): 1 bn+ (722), 4 AML-90 armd cars, 13 VTT/M3 APC. Other Middle East (UNTSO): 21.

FINLAND

Population: 4,810,000.

Military service: 8-11 months (11 months for officers and NCOs).

Total armed forces: 36,900 (27,200 conscripts; total mobilizable strength about 700,000).

GNP 1981: M 3,071 bn (\$712 m).

Defence expenditure 1981: M 2.874 bn (\$666 m).

GDP growth: 5.1% (1980), 0.9% (1981).

Inflation: 13.8% (1980), 9.9% (1981).

\$1 = 4.3153 markka (1981).

Army: 31,400 (24,000 conscripts).

7 Military Regions:

1 armd bde.

7 inf bdes.

3 fd arty regts.

*Greek-Cypriot National Guard, mainly Cypriot conscripts, but some seconded Greek Army officers and NCOs.

2 coast arty regts.
 7 indep inf bns.
 2 indep fd arty bns.
 3 indep coast arty bns (1 mobile).
 1 AA arty regt.
 4 indep AA arty bns.
 1 SAM bn with SAM-79 (SA-3 *Goa*).
 2 engr bns.
 1 sigs regt, 1 bn.
 T-54/-55 MBT; PT-76 lt tks; BTR-50P/-60 APC,
 BMP-1 MICV; 76mm, 105mm, 122mm, 130mm,
 150mm, 152mm, 155mm guns/how; 81mm,
 120mm mor; M-55 55mm, *Miniman* 74mm,
 95mm RCL; SS-11 ATGW; 20mm, 23mm, 30mm,
 35mm, 40mm, 57mm towed, ZSU-57-2 SP AA
 guns; SAM-79 (SA-3), SAM-78 (SA-7) SAM.

Navy: 2,500 (1,200 conscripts).
 2 *Turunmaa* corvettes.
 5 FAC(M) with MTO (*Styx*) SSM: 4 *Tuima* (ex-Sov
Osa-II), 1 *Isku*.
 13 FAC(G): 1 *Helsinki*, 11 *Nuoli* (7 to retire), 1
Hurja.
 5 large patrol craft: 3 *Ruissalo*, 2 *Rihtniemi*.
 3 minelayers, 6 *Kuha* inshore minesweepers.
 1 HQ/log/trg ship.
 14 small LCU/tpts, 7 utility/spt ships.
 (On order: 3 *Helsinki* FAC(G).)

Bases: Upinniemi (Helsinki), Turku.

Air Force: 3,000 (2,000 conscripts); 43 combat ac.
 3 AD districts: 3 fighter wings.
 2 fighter sqns with 22 MiG-21bis, 12 J-35S
Draken.
 1 OCU with 6 MiG-21U/UM, 3 J-35C.
 1 tpt sqn: 5 C-47, 2 F-27-100 ac; 1 hel flt with 6
 Mi-8, 2 Hughes 500.
 Trainers incl 60 *Magister*, 15 *Hawk*, 22 Leko 70.
 Liaison ac: 9 *Cherokee Arrow*, 2 Cessna 402.
 AAM: AA-2 *Atoll*, RB-27, -28 (*Falcon*).
 (On order: 3 *Learjet* 35A tpts, 8 Leko 70, 35 *Hawk*
 trg, 4 Piper *Chieftain* liaison ac.)

RESERVES: (all services): about 700,000 (38,000 a
 year do training).

Forces Abroad: Cyprus (UNFICYP) 11. Syria
 (UNDOF) 390. Other Middle East (UNTSO) 21.
 Pakistan (UNMOGIP) 4.

Para-Military Forces: 3,600 Frontier Guards (incl
 600 coastguard), 5 large, 9 coastal patrol craft,
 some 12 smaller patrol craft, 3 Mi-8 hel.

MALTA

Population: 355,000.
 Military service: voluntary.
 Total armed forces: 800.
 Estimated GNP 1981: £M 465 m (\$1.2 bn).

Defence expenditure 1981: £M 4.4 m (\$11.4 m).
 \$1 = £M 0.386 (1981).

Army: 800.

1 inf bn (incl 1 arty coy, 40mm AA guns, RPG-7
 RL).
 1 task force.
 1 marine section with 16 launches/patrol craft.
 1 air section with 1 AB-206, 3 *Alouette* III, 4
 AB-47G hel.

Para-Military Forces: pioneers/labour corps
 1,000.

SWEDEN

Population: 8,323,000.
 Military service: Army and Navy 7½–15 months,
 Air Force 8–12 months.
 Total armed forces: 64,500 (47,100 conscripts,*
 mobilizable to about 800,000 in 72 hours, excl
 500,000 auxiliary orgs).
 GNP 1981: Kr 561.4 bn (\$110.9 bn).
 Defence expenditure 1982–3: Kr 19.05 bn
 (\$3.22 bn).
 GDP growth: 1.9% (1980), -0.9% (1981).
 Inflation: 14.0% (1980), 9.2% (1981).
 \$1 = 5.91 kronor (1982), 5.06 (1981).

Army: 45,000 (36,000 conscripts).*

Peace establishment:

50 non-operational armd, cav, inf, arty, AA, engr
 and sig trg regts for basic conscript trg.

1 army aviation bn (35 hel).

11 arty aviation platoons (66 ac).

War establishment (700,000 on mobilization, incl
 100,000 Home Guard):

5 armd bdes.

19 inf, 4 *Norrland* bdes.

50 indep inf, arty and AA arty bns.

1 army aviation bn.

26 Local Defence Districts with 100 indep bns,
 400–500 indep coys and home guard units.

340 Strv-101, Strv-102 (*Centurion*), 330 Strv-
 103B MBT; 200 Ikv-91 lt tks; Pbv-302 APC;
 105mm, 150mm, 155mm how; 155mm sp guns;
 81mm, 120mm mor; *Miniman* 74mm, *Carl*
Gustav 84mm, PV-1110 90mm RCL; RB-53
Bantam ATGW; 20mm, 40mm AA guns; RB-69
(Redeye), RBS-70, RB-77 (*Improved HAWK*)
 SAM; 66 SK-61C (*Bulldog*) ac; 15 HKP-3
 (AB-204B), 24 HKP-6 (*Jet Ranger*) hel.
 (On order: FH-77 155mm how, 2,000 *TOW*
 ATGW.)

*There are normally some 95,500 more conscripts
 (70,000 Army, 4,500 Navy, 6,000 Air Force) plus 15,000
 officer and NCO reservists doing 11–40 days refresher
 training at some time in the year. Obligation is 5 times per
 reservist between ages 20 and 47.

Navy: 10,000, incl coast arty (6,600 conscripts),*
 10 combat hel.
 12 submarines (3 *Näcken*, 5 *Sjöormen*, 4 *Draken*).
 2 *Halland* destroyers with RB-08 SSM (1 trg, 1 reserve).
 17 *Hugin* FAC(M) with 6 RB-12 (*Penguin*) SSM.
 18 FAC(T): 12 *Spica* T-131, 6 *Spica* T-121.
 7 *Hanö* large, 26 coastal patrol craft.
 2 minelayers, 2 minelayer/trg ships.
 9 coastal, 36 inshore minelayers.
 11 *Arko* coastal, 20 inshore minesweepers.
 9 LCM, 81 LCU, 54 LCA.
 5 regts: 12 mobile, 45 static coastal arty btys with 75mm, 105mm, 120mm, 152mm, 210mm guns; RB-08, RB-52 SSM.
 2 hel sqns with 8 HKP-2 (*Alouette* II) utility, 10 HKP-4 (Vertol 107) ASW/MCM, 10 HKP-6 liaison.
 (On order: 4 A-17 submarines, 2 *Spica* III FAC(M), 4 coastal patrol craft, 2 M-80 minehunters, RBS-15 SSM.)

Bases: Stockholm, Karlskrona, Göteborg, Härnösand.

Air Force: 9,500 (4,500 conscripts);* 421 combat aircraft.
 13 Wings.
 6 FGA sqns: 5 with 97 AJ-37 *Viggen*, 1 with 20 SK-60B/C (Saab 105).
 13 AD sqns: 8 with 126 J-35F *Draken*, 3 with 54 J-35D, 2 with 36 JA-37 *Viggen*.
 3 recce sqns with 54 SH/SF-37 *Viggen*.
 2 OCU: 1 with 17 SK-37 *Viggen*; 1 with 17 SK-35C *Draken*.
 2 tpt sqns with 8 C-130E/H, 2 *Caravelle*, 4 C-47.
 5 comms sqns with 65 SK-60A.
 Trainers incl 124 SK-60A/B/C, 57 SK-61, 24 J-32D *Lansen* (drone).
 1 SAR sqn with 10 HKP-4 hel.
 1 utility sqn with 9 HKP-2, 7 HKP-3 hel.
 AAM: *Sidewinder*, RB-27 (*Falcon*), RB-28 (*Improved Falcon*), RB-71 (*Skyflash*).
 ASM: RB-04E, RB-05A, RB-75 (*Maverick*).
 Semi-automatic control and surveillance system, *Stril* 60, co-ordinates all AD components.
 (On order: 113 JA-37 *Viggen* fighter ac, *Skyflash* AAM.)

Forces Abroad: Cyprus (UNFICYP): 1 inf bn (428).
 Lebanon (UNIFIL): HQ/log tps (144).

RESERVES (all services): 735,500; voluntary auxiliary organizations 500,000.

Para-Military Forces: Coast Guard (550): 4 Regions (15 districts), 2 stations per district; 2 TV-171 fishery protection vessels, 45 cutters, 65 environment protection vessels.
 Air Arm: 2 Cessna 337G, 1 402C.

SWITZERLAND

Population: 6,370,000.

Military service: 17 weeks recruit training followed by reservist refresher training of 3 weeks for 8 out of 12 years for *Auszug* (20–32), 2 weeks for 3 years for *Landwehr* (33–42), 1 week for 2 years for *Landsturm* (43–50).

Total armed forces: about 1,500 regular and 18,500 recruits† (mobilizable to 625,000 in 48 hours).

GDP 1981: fr 196.05 bn (\$100.03 bn).

Defence expenditure 1981: fr 3.49 bn (\$1.78 bn).

GDP growth 1980: 4%.

Inflation: 4.4% (1980), 6.6% (1981).

\$1 = 1.96 francs (1981).

Army:

War establishment: 580,000 on mobilization.

3 fd corps, each of 1 mech, 2 inf divs.

1 mountain corps of 3 mountain inf divs.

17 indep bdes (11 frontier, 3 fortress, 3 redoubt).

Indep units: 3 hy arty, 2 engr, 2 sigs regts, 1 armd car bn.

325 Pz-55/57 (*Centurion*), 150 Pz-61, 340 Pz-68 MBT; 1,250 M-113 APC; 1,000 105mm guns/how; M-50 155mm how; 260 PzHb-66 (M-109U) 155mm sp how; 3,000 81mm, 120mm mor; 2,000 90mm ATK guns, 106mm RCL; 20,000 83mm RL; 800 *Bantam*, *Dragon* ATGW; 700 20mm, 300 35mm AA guns.

(On order: 60 Pz-68 MBT, 225 M-113 APC, 207 M-109 155mm sp how, *Dragon* ATGW.)

Air Force:‡ 45,000 on mobilization (maintenance by civilians); 334 combat aircraft.

3 air regts.

12 FGA sqns: 3 with 60 *Venom* FB-50; 9 with 148 *Hunter* F-58/T-68.

4 fighter sqns with 71 F-5E/F.

2 interceptor sqns with 30 *Mirage* IIIS/BS.

1 recce sqn with 18 *Mirage* IIIRS, 7 *Venom* FB-54.

4 liaison/SAR sqns with 16 *Porter*, 24 *Turbo-Porter*, 6 Do-27, 3 *Twin Bonanza*.

4 hel sqns with 21 *Alouette* II, 78 *Alouette* III hel.

Trainers incl 47 Pilatus P-2, 68 P-3.

AAM: *Sidewinder*, AIM-26B *Falcon*. ASM: AS-30.

1 air force fd bde (3 regts, 1 para coy, 1 lt ac wing).

1 air base bde with 3 regts.

1 AD bde with 1 SAM regt of 2 bns (each with 32 *Bloodhound*) and 7 AA arty regts with 20mm and 35mm guns, *Skyguard* fire control systems.

*There are normally some 95,500 more conscripts (70,000 Army, 4,500 Navy, 6,000 Air Force) plus 15,000 officer and NCO reservists doing 11–40 days refresher training at some time in the year. Obligation is 5 times per reservist between ages 20 and 47.

† Two recruit intakes a year (Jan/June) each of 17,000. Some 400,000 reservists a year do refresher training.

‡ Aviation Corps, an integral part of the Army.

3 comd and comms regts,
1 log regt.
(On order: 2 *Mirage* IIIB, 32 F-5E, 6 F-5F fighters;
40 PC-7 *Turbo-Trainer* ac; 60 *Rapier* SAM
launchers; 500 AGM-65 *Maverick* ASM.)

RESERVES (all services): 605,000.

YUGOSLAVIA

Population: 22,650,000.
Military service: 15 months.
Total armed forces: 250,500 (154,000 conscripts).
GNP 1980: 1,740.4 bn dinar (\$69,867 bn).
Estimated defence expenditure 1981: 101.89 bn
dinar (\$2.87 bn).
GDP growth: 2.4% (1980), 2.2% (1981).
Inflation: 37.8% (1980), 35.9% (1981).
\$1 = 35.51 dinar (1981), 24.91 (1980).

Army: 190,000 (140,000 conscripts).

7 Military Regions:

8 inf divs.

8 indep tk bdes.

17 indep inf bdes (incl mech, 3 lt).

1 mountain bde.

1 AB bde (bn strength in peacetime).

12 fd, 12 AA arty regts.

12 AA arty regts.

6 ATK regts.

1,240 T-34/-54/-55, 60 M-47 MBT; PT-76 lt tks;
M-3A1, M-8, BRDM-2 scout cars; M-980 MICV,
200 BTR-40/-50/-60/-152, some M-60 APC;
1,800 M-1955, SU-100 100mm SP, 122mm,
M-46 130mm and 152mm guns; M-48 76mm,
105mm incl SP, 122mm incl M-1974 SP, 155mm
how; 82mm, 120mm mor; 128mm MRL;
FROG-7 SSM; 57mm, PAK-40 75mm, T-12
100mm towed, ASU-57, 300 M-18 76mm,
M-36B2 90mm SP ATK guns; 57mm, 75mm,
82mm, 105mm RCL; *Snapper*, *Sagger* ATGW;
20mm, 30mm, 37mm, 40mm, 57mm, 85mm,
88mm, 90mm, 94mm towed, ZSU-23-4,
M-53/59, ZSU-57-2 SP AA guns; SA-6/-7/-9
SAM.

(On order: 500 M-980 MICV.)

RESERVES: 500,000; mobile bdes, bns with arty and
AA guns. (M-18 *Hellcat* 76mm, M-36B2 90mm
SP ATK guns, T-34/-85, M-4 MBT are held in
storage).

Navy: 15,500 incl 1,500 marines (6,000 con-
scripts).

9 submarines: 2 *Sava*, 3 *Heroj*, 2 *Sutjeska*, 2 *Mala*
midget.

1 *Koni* frigate with twin SA-N-4 SAM.

3 corvettes: 2 *Mornar*, 1 *Le Fougueux* (in reserve).

18 FAC(M): 16 with *Styx* (6 *Rade Koncar*, 10 ex-Sov
Osa-I), 2 Yug with improved *Styx* (X-15) SSM.

15 ex-Sov *Shershen* FAC(T).

20 large patrol craft: 10 *Kraljevica*, 10 Type 131.

31 minesweepers: 4 *Vukov Klanac* coastal, 10 in-
shore (4 *Ham*, 6 M-117), 17 river (10 M-301, 7
Nestin).

18 LCU/minelayers, 20 601-type LCA.

1 ASW hel sqn with Ka-25, Mi-8, *Partizan*
(*Gazelle*).

1 understrength marine bde (2 regts, each of 2 bns).

25 coast arty btys with *Samlet* SSM; M-44 85mm,
ex-Ger 88mm, M-37 122mm, M-54 130mm,
152mm guns.

(On order: 6 FAC(M).)

Bases: Lora/Split, Pula, Sibenik, Kardeljevo,
Kotor, Dubrovnik.

Air Force: 45,000 (8,000 conscripts); 400 combat
aircraft.

2 air divisions: 4 air regions.

12 FGA sqns with 25 *Kraguj*, 160 *Galeb/Jastreb*.

9 interceptor sqns with 130 MiG-21F/PF/M/bis;
20 MiG-21U.

2 recce sqns with 35 *Galeb/Jastreb*.

1 OCU with 30 *Jastreb*.

2 tpt sqns: 15 C-47, 6 Yak-40, 12 An-12, 10 An-26,
2 Boeing 727-200, 2 DC-6, 12 Il-14M, 2
Mystère-50, CL-215.

Trainers incl 60 *Galeb/Jastreb*, 3 T-33, 30
UTVA-75 ac, 15 *Partizan* hel.

4 hel tpt sqns: 5 AB-205, 18 Mi-4, 50 Mi-8, 5
Whirlwind, 5 *Partizan*, 1 A-109 *Hirundo*.

AAM: AA-2 *Atoll*.

Air Defence Force: (Army personnel, eqpt, Air
Force control):

24 AA regts.

8 SA-2, 6 SA-3 SAM bns.

(On order: 25 *Orao* FGA, Pilatus PC-6 tpt ac, 94
Partizan hel.)

Para-Military Forces: Frontier Guards 20,000.

Territorial Defence Force (Partisan) 1-3
million. Civil Defence 2 million on mobi-
lization. Workers' Militia State Police with APC.

The Middle East and North Africa

Bilateral Agreements with External Powers

The Soviet Union signed a fifteen-year Treaty of Friendship and Co-operation with Iraq in April 1972, and a further agreement in December 1978. A similar treaty was signed with Syria on 8 October 1980. A Treaty of Friendship and Co-operation, signed with South Yemen in October 1979, was ratified in February 1980. Soviet naval units use Aden's facilities. All three countries have received significant Soviet arms deliveries. Despite this, Iraq has been seeking to broaden her contacts with the West, particularly with France and Italy, and to establish herself as a major non-aligned country. In November 1979 Iran unilaterally abrogated two paragraphs of a 1921 treaty under which Moscow reserves the right to intervene in Iran's internal affairs if a third country threatens to attack the USSR from Iranian territory. Moscow has refused to accept this. Egypt signed a Treaty of Friendship and Co-operation with the Soviet Union in May 1971 and abrogated it in March 1976; the Soviet Union, formerly a major supplier, has delivered no significant arms supplies to Egypt since. Some supplies may be still coming from other Warsaw Pact nations but spare parts made by Western nations, domestic manufacture and modernization from Western suppliers are reducing the importance of this link.

The Defence Ministers of Bulgaria and the People's Democratic Republic of Yemen (South Yemen) signed a Protocol for Co-operation in April 1980 and a Treaty of Friendship and Co-operation on 14 November 1981. Similar agreements with Hungary were reported in April and November 1981.

The United States has varying types of security assistance programmes in the region. It concluded a mutual defence agreement with Israel in July 1952. A similar agreement with Egypt (April 1952) may have been in abeyance between 1971 and 1975. A 1981 agreement enables the US to use Egyptian bases. A similar agreement was reached with Morocco in May 1982. A 1959 mutual security agreement with Iran, though only an executive agreement, not a formally ratified treaty, has not been specifically abrogated. An agreement with Oman to provide economic and military aid in exchange for permission to use Salalah and Masirah as staging bases has been concluded. An agreement with Bahrain permits the US Navy to use port facilities. In November 1981 a strategic co-operation agreement was signed with Tunisia.

China signed a Treaty of Friendship with North Yemen in 1964, under which some economic development took place and minor arms were provided. China has also supplied arms and spare parts to Egypt under an agreement signed in 1978/9. Arms supplied to Sudan and a military co-operation agreement signed in January 1982 suggest more will follow.

Britain concluded treaties of friendship with Bahrain, Qatar and the United Arab Emirates (UAE) in August 1971. Iran ended her military purchases in January 1979. Britain has supplied arms to Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Sudan and the UAE. British military personnel are serving with Oman's forces.

France has continuing arms supply arrangements with Egypt, Iraq, Lebanon, Libya, Morocco, Sudan and Tunisia.

The United Nations withdrew the 4,000-man United Nations Emergency Force (UNEF) from the Sinai on 24 July 1979; its duties were assumed by the United Nations Truce Supervisory Organization (UNTSO), 298 officers, which has been active in the region since 1949.

The United Nations also deploys in the Golan Heights the 1,279-man Disengagement Observer Force (UNDOF), made up of contingents from Austria, Canada, Finland and Poland.

The United Nations Interim Force in Lebanon (UNIFIL) consists of some 7,000 men from Eire, France, Fiji, Ghana, Italy, Nepal, Netherlands, Nigeria, Norway, Senegal and Sweden.

The withdrawal of Israeli forces from the Sinai, occupied since 1967, was complete by 25 April 1982. The border is now patrolled by the 2,600-man Multinational Force and Observers (MFO), from the US (1,100), Australia (110), Britain (35), Colombia (361), Fiji (469), France (72), Italy (90), the Netherlands (105), New Zealand (40) and Uruguay (70).

Arrangements within the Region

Algeria, Bahrain, Djibouti, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, the Palestine Liberation Organization (PLO), Qatar, Saudi Arabia, Somalia, Syria, Tunisia and North and South Yemen are members of the League of Arab States (Egypt's membership was suspended in March 1979). Among its subsidiary bodies are the Arab Supreme Defence Council, comprising Foreign and Defence Ministers (set up in 1950), the Permanent Military Committee of army general staffs (1950), which is an advisory body, and the Unified Arab Command (1964).

Syrian forces, which had entered the fighting in Lebanon in April 1976, and which then totalled some 13,000, were augmented by a symbolic Lebanon Peace-keeping Force of Libyan, Saudi and Sudanese troops. Fighting continued, and a 30,000-man Arab Deterrent Force, mostly Syrian, was approved at Riyadh on 18 October 1976. Subsequently this Force also included forces from Lebanon, Kuwait, the Palestine Liberation Army (PLA), Sudan and the UAE. All but the Syrian and the PLA contingents have now been withdrawn and their position is uncertain.

The Palestine Liberation Organization was deployed in southern Lebanon until June 1982 and, despite splits and differences between and among its leaders, increased its stocks of weapons from the USSR, Hungary, North Korea and elsewhere and recruited and trained its own and some foreign guerrillas. It had much heavy equipment, including T-34 MBT, 122mm guns and BM-21 122mm MRL.

Algeria and Libya signed a defence agreement in 1975. Egypt and Sudan signed another in 1977, which may be the authority for the Joint Defence Council and some joint training activity which exists. Saudi Arabia has long supported Morocco against *Polisario* guerrillas; a security pact was signed in February 1982. An understanding between Saudi Arabia and Iraq is believed to have been signed in 1979. Jordan and Iraq ratified a Defence agreement in March 1981. The Gulf Co-operative Council, created in May 1981 by Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE, is developing a mutual defence structure. It is being reinforced by pacts covering questions of internal security between Saudi Arabia and Bahrain, Qatar, Oman and the UAE. A draft Gulf security agreement is now circulating among the members. Libya, South Yemen and Ethiopia formed the Aden Treaty Tripartite Alliance in August 1981. It includes a joint defence commitment. North and South Yemen have agreed to a merger, the details of which are obscure. Libya has announced a merger with Algeria but, with no statement from Algeria, this union's status is in doubt. Jordan, Morocco and North Yemen have announced the departure of unspecified numbers of volunteers to assist Iraq against Iran. Iraq has announced the presence of multinational composite units but numbers, roles and equipment are obscure.

Arms movements in the region are complex. Egypt has supplied arms to Morocco, Sudan and Iraq. Algeria and Libya reportedly supply arms to *Polisario*, and most countries have supplied arms to the Palestinian guerrillas. In some cases a third nation funds the recipient's foreign arms purchases. Iran reportedly received arms supplies and spares from France, Israel, North Korea and Eastern Europe. Iraq apparently received arms from Egypt, the USSR, France, Portugal and Brazil.

In 1975 an Arab Organization for Industrialization (AOI) was set up in Egypt to encourage indigenous Arab arms production. Initially under the aegis of Saudi Arabia, Qatar, the UAE and Sudan, this project was ended following Egypt's rapprochement with Israel. Egypt is attempting to continue it with British, French and US support. To replace the AOI, Iraq, Kuwait, Qatar, Saudi Arabia and the UAE agreed in 1979 to set up an \$8-bn arms industry in the UAE. This is now developing under the Gulf Co-operative Council.

ALGERIA

Population: 19,400,000.
 Military service: 6 months.
 Total armed forces: 168,000.
 GNP 1981: 159.38 bn dinar (\$36.8 bn).
 Defence operating budget 1982: 3.89 bn dinar (\$856.8 m).
 GDP growth 1980: 6.5%.
 Inflation 1980: 9.7%.
 \$1 = 4.54 dinar (1982), 4.33 dinar (1981).

Army: 150,000.

6 Military Regions:
 2 armd bdes.
 4 mech bdes.
 6 mot inf bdes.
 1 AB/special force bde.
 3 indep tk bns.
 20 indep inf bns.
 2 para bns.
 5 indep arty bns.
 11 AD bns.
 4 engr bns.
 12 coys desert troops.

400 T-54/-55, 200 T-62, 30 T-72 MBT; 50 AMX-13 lt tks; 50 AML-60, 100 BRDM-2 armd cars; 500 BMP-1 MICV, 830 BTR-40/-50/-60/-152, *Walid* APC; 100 85mm, 350 SU-100 SP, 122mm incl ISU-122, 152mm SP guns; 122mm incl M-1974 SP how, 152mm guns/how; 150 BM-21 122mm, 140mm and 240mm MRL; 230 75mm, 76mm and 85mm ATK guns; 180 120mm and 160mm mor; 20 *Sagger*, 18 *Milan* ATGW; 440 37mm, 57mm, 85mm, 100mm, 130mm towed, 100 ZSU-23-4 and ZSU-57-2 SP AA guns; SA-6/-7/-9 SAM.

RESERVES: up to 100,000.

Navy: 6,000.

2 *Koni* frigates with 2 × 2 SA-N-4 SAM.
 2 *Nanuchka* corvettes with 4 SS-N-2bis SSM, 2 × 2 SA-N-4 SAM.
 6 ex-Sov SO-1 large patrol craft.
 17 ex-Sov FAC(M) with *Styx* SSM: 3 *Osa-I*, 8 *Osa-II*, 6 *Komar*.
 10 ex-Sov P-6 FAC(T) (2 unarmed trg).
 2 ex-Sov T-43 ocean minesweepers (in reserve).
 1 ex-Sov *Polnocny* LCT.
 (On order: *Nanuchka* corvettes, 4 FAC(M), 2 LST, 6 patrol craft.)

Bases: Algiers, Annaba, Mers el Kebir.

Air Force: 12,000; some 306 combat aircraft, 37 armed hel.
 1 lt bbr sqn with 12 Il-28.
 7 FGA sqns: 2 with 20 Su-7BM; 2 with 60 MiG-17; 3 with some 40 MiG-23BM, some 12 Su-20 (*Fit-*

ter C), 8 MiG-19.
 4 interceptor sqns: 3 with 95 MiG-21MF/F; 1 with 18 MiG-25 *Foxbat A*.
 1 recce sqn with 4 MiG-25R *Foxbat B*.
 1 COIN sqn with 26 *Magister*.
 1 MR sqn with 7 F-27 (Navy-assigned).
 1 OCU with 4 MiG-15.
 1 tpt sqn with 8 An-12, 6 C-130H/H-30, 1 Il-18, 2 *Mystère-Falcon*, 3 *Caravelle*.
 6 hel sqns with 4 Mi-6, 28 Mi-4, 12 Mi-8, 37 Mi-24, 5 *Puma*, 6 Hughes 269A, 4 *Alouette II*.
 Other ac incl 6 *King Air*, 2 *Super King Air* T-200T (MR), 3 *Queen Air*.
 Trainers incl MiG-15/-17/-21UTI, Su-7U, 2 MiG-23U, 3 MiG-25U, 6 T-34C.
 1 SAM regt: 20 SA-2 (80 msls), some SA-3/-6.
 AAM: AA-2 *Atoll*.
 (In store: 16 Il-28 bbrs).

Para-Military Forces: Gendarmerie 24,000.
 Coastguard: 2 P-6 FAC(T), 15 Baglietto FAC(G) (6 Gemini 36, 9 Type 20).

BAHRAIN

Population: 400,000.
 Military service: voluntary.
 Total armed forces: 2,550.
 GNP 1980: 832.9 m dinar (\$2.21 bn).
 Defence expenditure 1981: 51.0 m dinar (\$135 m).
 Inflation 1980: 9.0%.
 \$1 = 0.377 dinar (1980, 1981).

Army: 2,300.

1 inf bn.
 1 armd car sqn.
 1 arty bty.
 1 air wing.
 8 *Saladin* armd, 8 *Ferret* scout cars; 20 AML-90 armd cars; 110 M-3 APC; 8 105mm lt guns; 6 81mm mor; 6 120mm RCL; 6 RBS-70 SAM, 12 AB-212 hel.
 (On order: *Improved HAWK* SAM, 2,000 *TOW* ATGW).

Navy: 150.

2 Lürssen 45-metre FAC(M) with 4 *Exocet* SSM.
 2 Lürssen 38-metre FAC(G).

Air Force: 100.

1 FGA sqn with 4 F-5E, 2 F-5F (forming).
 AAM: *Sidewinder*.

Para-Military Forces: Coastguard: 180; 17 coastal patrol craft, 1 hovercraft, 2 landing craft (1 *Loadmaster*, 1 60-ft). Police: 2,500; 2 Bell 412, 2 *Scout*, 3 BO-105, 2 Hughes 500D hel.

EGYPT

Population: 42,600,000.

Military service: 3 years (selective).

Total armed forces: 452,000 (255,000 conscripts).

GNP 1980: £E 14.4 bn (\$20.6 bn).

Defence expenditure 1981-2: £E 1.47 bn (\$2.10 bn).

GDP growth 1980: 9%.

Inflation 1981: 9%

\$1 = £E 0.699 (1980, 1981).

Army: 320,000 (180,000 conscripts).

2 corps HQ.

3 armd divs (each with 1 armd, 2 mech bdes).

4 mech inf divs (each with 2 mech, 1 armd bdes).

3 inf divs (each with 2 inf, 1 mech bdes).

2 Republican Guard Brigades.

2 indep armd bdes.

9 indep inf bdes.

2 airmobile bdes.

1 para bde.

12 arty bdes.

2 hy mor bdes.

6 ATGW bdes.

7 cdo gps.

2 SSM regts (12 *FROG-7*, 12 *Scud B*).

AFV: 1,250 T-54/-55, 600 T-62, 250 AM-60 (M-60A3) MBT; 30 PT-76 lt tks; 300 BRDM-1/-2 scout cars; 200 BMP-1 MICV, 2,500 OT-62, BTR-40/-50/-60/-152, *Walid*, 300 M-113A2 APC.

Arty: 1,500 85mm, 100mm (incl 200 SU-100), 122mm, 130mm, 152mm (incl SU-152) and 180mm guns; 122mm, 152mm how; 300 120mm, 160mm and 240mm mor; about 300 122mm (incl *Sagr* 30), 132mm, 140mm and 240mm MRL; 12 *FROG-7*, 12 *Scud B* SSM.

ATK: 900 57mm (incl SP), 76mm and 100mm guns; 900 82mm and 107mm RCL; 1,000 *Sagger*, *Snapper*, *Swatter*, *Milan*, *Beeswing*, *Swingfire* and *TOW* ATGW.

AD: 350 ZSU-23-4 and ZSU-57-2 SP AA guns; SA-7/-9, 16 *Crotale* SAM.*

(On order: 189 M-60A3 MBT; 750 M-113A2 APC; 52 M-901 SP *TOW* ATGW AFV; 100 M-106A2 and M-125A2 mor carriers; 200 *TOW* launchers, 4,000 msls (incl 2,500 Improved *TOW*), 2,000 *Swingfire* ATGW, 4 *Crotale* SAM.)

RESERVES: about 300,000.

Navy: 20,000 (15,000 conscripts).*

12 ex-Sov submarines: 4 W- (may be unserviceable), 8 R-class (2 ex-Ch).

5 destroyers: 4 ex-Sov *Skory* (1 with 1 × 2 *Styx* SSM), 1 ex-Br Z-class.

3 ex-Br frigates: 1 *Black Swan*, 1 *Hunt*, 1 *River* (sub spt ship).

19 FAC(M): 8 ex-Sov *Osa-I* with SA-7 SAM, 4 *Styx* SSM; 4 *Komar*, 5 *October-6* (P-6), 2 *Ramadan* with 4 *Otomat* SSM.

12 ex-Sov SO-1 large patrol craft: 6 with BM-21 MRL, some with SA-7 SAM.

16 ex-Sov FAC(T): 2 *Shersten*, 10 P-6, 4 P-4.

14 ex-Sov FAC(G): 4 *Shersten* with BM-21 MRL, SA-7 SAM; 10 P-6.

14 ex-Sov minesweepers: 10 ocean (6 T-43, 4 *Yurka*), 4 inshore (2 T-301, 2 K-8).

3 SRN-6 hovercraft (may be minelayers).

3 ex-Sov *Polnocny* LCT.

14 ex-Sov LCU (10 *Vydra*, 4 SMB1).

1 ASW hel sqn with 6 *Sea King* Mk 47.

Coastal defence unit (Army manpower, Navy control): SM-4-1 130mm guns, 30 *Otomat* and *Samlet* SSM.

(On order: 1 *October-6*, 4 *Ramadan* FAC(M), 14 SRN-6 hovercraft, *Otomat* SSM.)

Bases: Alexandria, Port Said, Mersa Matruh, Port Tewfig, Hurghada, Safaqa.

RESERVES: about 15,000.

Air Force: 27,000 (10,000 conscripts); 429 combat ac, 24 armed hel.

1 bbr regt with 14 Tu-16 (some with AS-5 ASM).

3 interceptor regts: 7 sqns with 142 MiG-21MF/U; 2 forming, 1 with 10 F-16A.

5 FGA regts: 2 with 35 F-4E, 47 Ch F-6; 2 with 50 MiG-17, 40 Su-7BM; 1 with 46 *Mirage* 5.

4 hel sqns with 60 *Gazelle* (24 with *HOT* ATGW).

2 recce sqns with 6 *Mirage* 5SDR, 12 MiG-21R, 20 Su-7.

1 MR sqn with 5 Il-28.

ELINT ac: 2 EC-130H.

1 tpt bde of 5 sqns with 18 C-130H, 18 Il-14, 10 An-12, 4 *Falcon* 20 VIP, 20 DHC-5D *Buffalo*, 1 Boeing 707, 1 Boeing 737.

8 utility hel sqns with 20 Mi-4, 55 Mi-8, 28 *Com-mando* (2 VIP), 15 CH-47C.

Trainers incl 30 MiG-15UTI, 80 L-29, 60 *Gom-houria*, 36 Yak-18, *Wilga* 35/80, 4 Ch FT-6, 5 *Mirage* 5SDD, 4 F-16B.

AAM: AA-2 *Atoll*, R-530, *Sparrow*, *Sidewinder*.

ASM: AS-1 *Kennel*, AS-5 *Kelt*, *Maverick*, *HOT*.

(Further ac in reserve incl up to 50 MiG-21, 17 MiG-23BN/U, 72 MiG-17, 47 Su-7, 40 Su-20, 43 F-6, 3 An-24 ac; 12 Mi-6 hel.)

(On order: 70 F-16A/B, 20 *Mirage* 2000, 16 *Mirage* 5E2 fighters; 45 *AlphaJet* (15 -A FGA, 30 -E trg); 6 C-130H tpt ac; 20 *Gazelle*, 4 AS-61 hel; *Sparrow*, 300 *Sidewinder* AAM; *Maverick* ASM.)

RESERVES: about 20,000.

Air Defence Command: 85,000 (50,000 conscripts).*

12 centres under construction.

2 AD divs: regional bdes:

* Spares for Soviet equipment are scarce: active holdings being reduced to 1/3 of listed total; replacement or reconstruction using Western material planned.

100 msl and AA bns, radar bns; some 80 SA-2, 65 SA-3 sites. 360 SA-2, 200 SA-3, 75 SA-6, 6 *Improved HAWK*, 16 *Crotale* SAM; 2,500 20mm, 23mm, 37mm, 40mm, 57mm, 85mm, and 100mm AA guns; *Fan Song*, *Low Blow*, *Straight Flush* missile/gun and *Squint Eye*, *Long Track* EW radars.
(On order: Ch CSA-1, *Spada*, 6 btys *Improved HAWK* SAM.)

Forces Abroad: Oman, Sudan, Somalia, Zaire.

Para-Military Forces: 139,000: National Guard, 60,000; Frontier Corps, 12,000; Defence and Security, 60,000; Coast Guard, 7,000; 3 *Nisr*, 2 PO-2, 6 *Bertram* patrol boats, 2 fast launches.
(On order: 6 *Crestitalia* patrol boats.)

IRAN

Population: 39,100,000.
Military service: 24 months.
Total armed forces: 235,000.
GNP 1980: 8,015.1 bn rial (\$112.1 bn).
Defence expenditure 1981: 350 bn rial (\$4.4 bn).
GDP growth 1980: -10%.
Inflation: 25.8% (1980), 35% (1981).
\$1 = 79.5 rial (1981), 71.5 rial (1980).

Army: 150,000 (100,000 conscripts).†
4 armd 'divs' (at least 2 are bdes).
4 inf 'divs' (at least 2 are bdes).
1 AB 'div' (bde).
4 SAM bns with *HAWK*.
Army Aviation Command.
190 T-54/-55/-62, 420 *Chieftain* Mk 3/5, 300 M-47/-48, 200 M-60A1 MBT; 100 *Scorpion* lt tks; EE-9 *Cascavel* armd cars, BMP MICV, about 220 M-113, 360 BTR-40/-50/-60/-152 APC; some 1,000 75mm pack, 85mm, M-101 105mm, 200 122mm, 130mm towed, M-107 175mm SP guns, M-114 towed, M-109A1 SP 155mm, M-115 towed, M-110 SP 203mm how; 65 BM-21 122mm MRL; 81mm, 4.2-in, 120mm mor; 57mm, 75mm, 106mm RCL; RPG-7 RL; *ENTAC*, SS-11/-12, *Dragon*, *TOW* ATGW; 1,800 ZU-23, ZSU-23-4 SP 23mm, 37mm, ZSU-57-2 SP 57mm, 75mm and 85mm AA guns; *HAWK/Improved HAWK*, SA-7 SAM.
Ac incl 40 Cessna 185, 6 Cessna 310, 10 O-2A, 2 F-27, 5 *Shrike Commander*, 2 *Falcon*.
Hel incl 160 AH-1J, 270 Bell 214A, 35 AB-205A, 15 AB-206, 92 CH-47C.

RESERVES: 400,000.

Revolutionary Guard Corps (*Pasdaran*): 40,000; small arms, spt weapons from Army inventory.

Navy: 10,000, incl naval air and marines.†
3 destroyers with 4 *Standard* SSM: 1 ex-Br *Battle*

with 1 × 4 *Seacat* SAM; 2 ex-US *Sumner* with 1 hel.
4 *Saam* frigates with 1 × 5 *Seakiller* SSM, 1 × 3 *Seacat* SAM (1 probably non-operational).
2 ex-US PF-103 corvettes.
10 *Kaman* (*La Combattante* II) FAC(M) with 4 *Harpoon* SSM.
7 large patrol craft: 3 *Improved PGM-71*, 4 *Cape*.
3 ex-US coastal, 2 inshore minesweepers.
14 hovercraft: 8 SRN-6, 6 BH-7.
2 landing ships, 1 ex-US LCU.
2 fleet supply ships.
3 Marine bns.
(On order: 1 replenishment ship).

Bases: Bandar Lengel (Abbas), Booshehr, Kharg Island, Bandar-e-Enzli.

NAVAL AIR: 2 combat ac, 16 armed hel.†
1 MR sqn with 2 P-3F *Orion*.
1 ASW hel sqn with 10 SH-3D.
1 MCM hel sqn with 6 RH-53D.
1 tpt sqn with 4 *Shrike Commander*, 4 F-27, 1 *Mystère* 20.
Other hel incl 7 AB-212.

Air Force: 35,000; some 90 serviceable combat ac.†
10 FGA sqns with 90 F-4D/E (perhaps 30 serviceable).
8 FGA sqns with perhaps 50 serviceable F-5E/F.
4 interceptor/FGA sqns with 77 F-14A (perhaps 5 serviceable).
1 rece sqn with RF-4E.
2 tanker/tpt sqns with 12 Boeing 707, 7 Boeing 747.
5 tpt sqns: 4 with 53 C-130E/H; 1 with 18 F-27, 2 *Aero Commander* 690, 4 *Falcon* 20.
Hel: 10 HH-34F, 10 AB-206A, 5 AB-212, 39 Bell 214C, 10 CH-47 *Chinook*, 2 S-61A4.
Trainers incl 45 F33A/C *Bonanza*, 9 T-33.
5 SAM sqns with *Rapier*, 25 *Tigercat*.
AAM: *Phoenix*, *Sidewinder*, *Sparrow*.
ASM: AS-12, *Maverick*.

Para-Military Forces: *Bassej* volunteers, mostly youths, small arms, ancillary to main field forces. Gendarmerie (5,000); *Mujaheddin* (30,000); *Mostazafin* (Guards); Border Tribal Militia. Cessna 185/310 lt ac, AB-205/-206 hel, patrol boats.†

IRAQ

Population: 13,600,000.
Military service: basic 21-24 months, extended for war.

* One source estimates \$13.3 bn for 1981-2 (i.e. 41.6% of total budget).

† Losses and low serviceability make eqpt estimates tentative only.

Total armed forces: 342,250 (263,200 conscripts)*.

GNP 1980: 11.5 bn dinar (\$38.98 bn).

Defence expenditure 1980: 879 m dinar (\$2.98 bn).

GDP growth 1980: 10%.

\$1 = 0.295 dinar (1980, 1981).

Army: 300,000 (250,000 conscripts)*.

4 corps HQ.

6 armd divs (each with 2 armd, 1 mech bdes).

3 mech divs (each with 1 armd, 2 or more mech bdes).

4 mountain inf divs (2 additional HQ may have formed to command Reserve or militia bdes).

1 Republican Guard armd bde.

3 special forces bdes.

9 Reserve bdes.

10 Peoples Army/Volunteer inf bdes.

AFV: 2,300 T-54/-55/-62/-72 MBT; 100 PT-76 lt tks; about 3,000 AFV, incl BRDM, FUG-70, ERC-90, Mowag *Roland*, 200 EE-9 *Cascavel*, EE-3 *Jararaca* armd cars, BMP MICV, BTR-50/-60/-152, OT-62/-64, 100 VCRTH (with *HOT* ATGW), Panhard M-3, EE-11 *Urutu* APC.

Arty: 800 85mm, 100mm SU-100 SP, 122mm incl ISU SP, 130mm guns; M-56 105mm pack, 122mm including SP-74, 152mm (incl SP-73) how; FGT 108-R 108mm, BM-21 122mm MRL; 19 *FROG-7*, 9 *Scud* B SSM; 120mm, 160mm mor.

ATK: 107mm RCL; 75mm, 85mm, 100mm, 100 *Kuerassier* 105mm SP guns; *Sagger*, SS-11, *Milan*, *HOT* ATGW.

AD: 1,200 23mm, ZSU-23-4 SP, 37mm, 57mm, ZSU-57-2 SP, 85mm, 100mm, 130mm AA guns; SA-2/-3/-6/-7/-9 SAM.

(On order: T-62 MBT; 100 EE-9 *Cascavel*, EE-3 *Jararaca* armd cars; 80 EE-11 *Urutu* APC; SP-73 152mm SP how; X-40, *Scud* B SSM; SS-11 ATGW; *Roland* SAM).

(Some captured Iranian eqpt, incl tks, AFV, arty, ATGW, has been taken into service.)

RESERVES: 75,000.

Navy: 4,250 (3,200 conscripts)*.

1 frigate (trg).

8 ex-Sov *Osa* FAC(M) with 4 *Styx* SSM.

Ex-Sov large patrol craft: SO-1, *Polucha*l.

Ex-Sov P-6 FAC(T).

Ex-Sov coastal patrol craft: *Nyryat* II, PO-2, *Zhuk*. Minesweepers: *Yug Nestin*; ex-Sov T-43 ocean, *Yevgenya*l inshore.

3 ex-Sov *Polnocny* LCT.

(On order: 4 *Maestrale* frigates, 6 Italian 650-ton corvettes, 1 spt ship.)

Bases: Basra, Umm Qasr.

Air Force: 38,000 incl 10,000 AD personnel (10,000 conscripts); some 330 combat aircraft, some 60 armed hel.*

1 bbr sqn with 9 Tu-22.

1 lt bbr sqn with 8 Il-28.

11 FGA sqns: 4 with 75 MiG-23BM; 6 with 80 Su-20; 1 with 12 *Hunter* FB-59/FR-10.

5 interceptor sqns with 115 MiG-21, 32 *Mirage* F-1EQ, 4 F-1BQ.

2 tpt sqns with 10 An-2, 10 An-12, 8 An-24, 2 An-26, 12 Il-76 (6 civilian), 2 Tu-124, 13 Il-14, 1 *Heron*.

11 hel sqns with 35 Mi-4, 15 Mi-6, 150 Mi-8, 41 Mi-24, 47 *Alouette* III (some with AS-12 ASM), 11 *Super Frelon*, 50 *Gazelle* (some with *HOT* ATK ASM), 13 *Puma*, 28 BO-105 (some with SS-11 ATGW), 7 *Wessex* Mk 52.

Trainers incl MiG-15/-21/-23U, Su-7U, *Hunter* T-69, 10 Yak-11, 40 L-29, 24 L-39, 48 AS-202/18A, 16 *Flamingo*, 5 PC-7 *Turbo-Trainer*.

AAM: AA-2 *Atoll*.

ASM: 360 *HOT*, AS-11/-12, *Swatter* ATGW, AM-39 *Exocet*.

(On order: 150 MiG-23/-25/-27, 24 *Mirage* F-1 fighters; 42 PC-7 *Turbo-Trainer*; 3 *Super Frelon*, 10 *Gazelle*, *Lynx*, 26 *Puma*, Mi-24, 6 AS-61TS, 8 AB-212 (ASW) hel; MPS-1 ASM; *Super* 530 AAM.)

Para-Military Forces: security troops 4,800; People's Army 7,000; 100 T-34 MBT. Perhaps 20,000 volunteers from Arab countries.

ISRAEL

Population: 4,000,000.

Military service: men 36 months, women 24 months (Jews and Druze only; Christians may volunteer). Annual training for reservists thereafter up to age 54 for men, 34 (or marriage) for women.

Total armed forces: 174,000 (120,300 conscripts); mobilization to 500,000, of which 100,000 can be mobilized in about 24 hours.

GNP 1981: 219.8 bn shekels (\$21.1 bn).

Defence expenditure 1981: 62.99 bn shekels (\$6.06 bn).

GDP growth 1980: 1.8%.

Inflation 1981: 101%.

\$1 = S10.4 (1981).

Army: 135,000 (110,000 conscripts, male and female), 450,000 on mobilization, incl civil defence units.

11 armd divs.

33 armd bdes (3 tk, 1 mech inf bns).

* Losses make estimates tentative only.

10 mech inf bdes (5 para-trained).
 12 territorial/border inf bdes with *Nahal* militia.
 15 arty bdes (each 5 bns of 3 btys).
 AFV: 3,600 MBT, incl 1,100 *Centurion*, 650 M-48, 1,010 M-60, 250 T-54/-55, 150 T-62, 200 *Mer-kava* I/II; about 4,000 AFV incl RBY *Ramta*.
 BRDM-1/-2 recce vehs; *Shoet* Mk 2, M-2/-3, 4,000 M-113, OT-62, BTR-40/-50P/-60P/-152, *Walid* APC.
 Arty: 130mm, 60 M-107 175mm SP guns; 30 M-101 105mm, 30 122mm, M-68/-71 155mm towed, 500 155mm L-33 and M-50, Soltam M-72, 120 M-109 155mm, 48 M-110 203mm SP how; 122mm, 135mm, 240mm, 290mm, MRL; *Lance* SSM; 900 81mm, 120mm and 160mm mor (some SP).
 ATK: *Ze'ev* (Wolf) RL; 106mm RCL; *TOW*, *Cobra*, *Dragon*, *Picket*, *Milan* ATGW.
 AA: 2 btys with 24 *Vulcan/Chaparral* 20mm gun/msl systems, 900 20mm, 30mm and 40mm AA guns; *Redeye* SAM.
 (On order: 125 M-60 MBT; 800 M-113 APC; 200 M-109A1B SP 155mm how, M-107 175mm SP guns; *Lance* SSM; *TOW*, *Dragon* ATGW.)
 Navy: 9,000 (3,300 conscripts), 10,000 on mobilization.
 3 Type 206 submarines.
 2 *Aliya* (Saar 4.5) corvettes with 4 *Gabriel*, 2 *Harpoon* SSM, 1 hel.
 27 FAC(M): 15 *Reshef* (Saar 4) with 4 *Gabriel* and 8 *Harpoon* SSM; 12 *Saar* 2/3 with 8 or 6 *Gabriel*.
 1 *Flagstaff* 2 hydrofoil FAC(M) with 2 *Gabriel*, 2 *Harpoon* SSM.
 43 coastal patrol craft: 35 *Dabur*, 2 *Dvora*, 6 *Hawk*.
 1 LST, 3 ex-US LSM, 3 LCU.
 4 *Seascan* 1124N MR ac.
 Naval cdo: (300).
 (On order: 4 *Saar* 2, 3 *Reshef* FAC(M); 2 *Aliya* corvettes; 2 *Flagstaff* hydrofoils with 4 *Harpoon*, 2 *Gabriel* III SSM; 3 *Seascan* MR ac.)
 Bases: Haifa, Ashdod, Sharm-el-Sheikh, Eilat.
 Air Force: 30,000 (7,000 conscripts, mostly in AD), 37,000 on mobilization; 634 combat ac (incl perhaps 270 in store), 42 armed hel.
 13 FGA/interceptor sqns: 1 with 40 F/TF-15; 5 with 138 F-4E; 6 with 20 *Mirage* IIICJ/BJ, 160 *Kfir*-C1/C2; 1 with 66 F-16A, 8 F-16B.
 6 FGA sqns: with 174 A-4E/H/M/N *Skyhawk*.
 1 recce sqn with 14 RF-4E, 2 OV-1E; 4 E-2C AEW; 2 RU-21J, 2 C-130, 4 Boeing 707 ECM ac.
 Tpts incl 7 Boeing 707, 22 C-130E/H, 21 C-47, 2 KC-130H, 2 KC-707 (tankers), 6 *Arava*, 5 *Islander* (3 leased).
 Liaison: 15 Do-27, 11 Do-28D, 18 Cessna U-206, 23 Cessna 185, 3 *Westwind*.
 Trainers incl 22 TA-4H, 50 *Kfir* (incl TC-2), 85 *Magister*, 12 *Queen Air*, 36 *Super Cub*.

Hel incl 8 *Super Frelon*, 33 CH-53D, 12 AH-1G/S, 2 S-65C, 29 Bell 206, 24 Bell 212, 25 UH-1D, 30 Hughes 500MD hel.
 15 SAM bns with *Improved HAWK*.
 AAM: *Sidewinder*, AIM-7E/F *Sparrow*, *Shafir*.
 ASM: *Luz*, *Maverick*, *Shrike*, *Walleye*, *Bullpup*.
 (On order: 20 F-15, 75 F-16 fighters, 200 *Improved HAWK* SAM.)

RESERVES: (all services): 326,000.

Para-Military Forces: 4,500 Border Guards; BTR-152 APC. Arab Militia: small arms. Coast-guard: 3 ex-US PBR, 3 other patrol craft.

JORDAN

Population: 3,158,000.
 Military service: voluntary.
 Total armed forces: 72,800.
 GNP 1980: 1.07 bn dinar (\$3.6 bn).
 Defence expenditure 1981: 138 m dinar (\$424.6m).
 GDP growth 1981: 4.7%.
 Inflation: 3.3% (1980), 15% (1981).
 \$1 = 0.325 dinar (1981), 0.298 dinar (1980).

Army: 65,000.
 5 armd bdes.
 6 mech bdes.
 2 inf bdes.
 1 indep Royal Guards bde.
 16 arty bns.
 2 AA bdes, incl 6 SAM btys with 48 *Improved HAWK* SAM.
 3 AB bns.
 350 M-47/-48/-60, 30 *Khalid*, 189 *Centurion* MBT; 140 *Ferret* scout cars; 850 M-113, 32 *Saracen* APC; 17 M-59 155mm guns; 30 M-102 105mm, 38 M-114 towed, 23 M-44, 85 M-109A2 SP 155mm, 22 M-115 towed, 27 M-110 SP 203mm guns/how; 400 81mm, 107mm and 120mm mor; 315 106mm and 120mm RCL; 330 *TOW*, 310 *Dragon* ATGW; 100 M-163 *Vulcan* 20mm, 200 M-42 40mm SP AA guns; *Redeye*, SAM-2/-7/-8, *Improved HAWK* SAM.
 (On order: 248 *Khalid*, 40 M-60A3 MBT; 78 M-113 APC.)

Navy (Coast Guard): 300.
 9 patrol craft.
 (On order: 3 patrol boats.)

Base: Aqaba.

Air Force: 7,500; 94 combat aircraft.
 1 FGA sqn with 25 F-5E, 4 F-5F.
 3 interceptor sqns with 25 F-5E, 4 F-5F, 16 *Mirage* F-1.

*Excl foreign subventions: perhaps 140 m dinar (\$430m).

1 OCU with 15 F-5A, 5 F-5B.
 1 tpt sqn: 3 C-130B/H, 2 *Sabreliner* 75A, 3 C-212A *Aviocar*.
 1 hel sqn: 15 *Alouette* III, 4 S-76, 16 Hughes 500D.
 Trainers: 14 T-37C, 9 *Bulldog*, 1 Boeing 727.
 AAM: *Sidewinder*.
 (On order: 20 *Mirage* F-1, 20 F-5E/F fighters; 5 *Bulldog* trg ac; 24 AH-1Q *Cobra* hel with *TOW*.)

RESERVES: 35,000 (all services).

Forces Abroad: Iraq: 3,000 (volunteers).

Para-Military Forces: 11,050. Mobile Police Force 3,550; Civil Militia 7,500.

KUWAIT

Population: 1,400,000.
 Military service: 18 months.
 Total armed forces: 12,400.
 GNP 1981: 8.56 bn dinar (\$30.7 bn).
 Defence expenditure 1981: 366 m dinar (\$1.3 bn).
 GDP growth 1980: -9.4%.
 Inflation 1980: 9.1%
 \$1 = 0.279 dinar (1981).

Army: 10,000.
 2 armd bdes.
 3 mech inf bns.
 1 SSM bn.
 70 Vickers Mk 1, 10 *Centurion*, 160 *Chieftain* MBT; 100 *Saladin* armd, 80 *Ferret* scout cars; 97 M-113, 130 *Saracen* APC; 10 25-pdr guns; 80 AMX Mk F-3 155mm SP how; *FROG-7* SSM; 81mm mor; *HOT*, *TOW*, *Vigilant* ATGW; SA-7 SAM.
 (On order: *Scorpion* lt tks, 188 M-113 APC, 56 M-113 SP *TOW* veh, 4,800 *Improved TOW* ATGW.)

Navy: 500 (coastguard).
 57 coastal patrol craft (15 armed).
 3 88-ft landing craft.
 (On order: 6 Lürssen TNC-45, 2 FPB-57 FAC.)

Air Force: 1,900; *49 combat aircraft.
 2 FB sqns with 30 A-4KU.
 1 interceptor sqn with 17 *Mirage* F-1C, 2 F-1B.
 Tpts: 2 DC-9, 1 L-100-20.
 3 hel sqns with 23 SA-342K *Gazelle*, 9 *Puma*.
 Trainers incl 9 *Strikemaster*.
 1 SAM bn with *Improved HAWK*.
 AAM: R-550 *Magic*, *Sidewinder*.
 ASM: *Super 530*, SS-11/-12.
 (On order: 4 L-100-30 tpt ac.)

Para-Military Forces: 18,000 Police.

LEBANON

Population: 3,100,000.
 Military service: voluntary.
 Total armed forces: 23,750.
 Estimated GDP 1981: £L18 bn (\$4.19 bn).
 Defence expenditure 1981: £L1.0 bn (\$232.6 m).†
 \$1 = £L4.30 (1981).

Army: 22,250.‡
 1 mech inf bde (1 armd recce, 3 inf bns).
 (5 inf bdes forming).
 1 armd recce bn
 9 inf bns
 2 arty bns } below strength.
 13 AMX-13 lt tks; 100 *Saladin* armd cars; 127 M-113, *Saracen*, 5 VAB APC; 10 122mm, 36 155mm guns; 200 81mm, 83mm, RPG-7 85mm, 88mm RL; 106mm RCL; *ENTAC*, 18 *Milan*, *TOW* ATGW; 20mm, ZU-23 23mm, 30mm towed, M-42 40mm SP AA guns.
 (On order: M-48 MBT (ex-Jordanian), 228 M-113A2 APC.)

Navy: 250.
 10 patrol craft: 1 large, 9 inshore (6 *Aztec*, 3 *Byblos*).
 1 LCU (trg).

Air Force: 1,250; 8 combat ac, 4 armed hel.
 1 sqn with 8 *Hunter* F-70.
 1 hel sqn with 11 *Alouette* II/III, 11 AB-212, 6 *Puma*, 4 *Gazelle* (with SS-11/-12 ASM).
 Trainers: 6 *Bulldog*, 5 *Magister*.
 Tpts: 1 *Dove*, 1 *Turbo-Commander* 690A.
 (On order: 6 *Gazelle* hel.)

RESERVES: (none serviceable): 2 *Hunter* T-66, 9 *Mirage* IIIEL, 1 IIIBL ac, 5 *Alouette* hel, R-530 AAM.

Para-Military Forces: Internal Security Force: 7,500; 30 *Chaimite* APC. Customs: 2 *Tracker* patrol craft.
 Many private militias with small arms; strength unknown.

LIBYA

Population: 3,125,000.
 Military service: conscription.
 Total armed forces: 65,000.
 Estimated GNP 1980: 11.57 bn dinar (\$39.1 bn).
 Defence expenditure 1980: 148.6 m dinar (\$502 m).
 \$1 = 0.296 dinar (1980).

*Excluding expatriate personnel.

†Plus £L3 bn (\$955 m) spread over 10 years to rebuild the armed forces.

‡1,500 serve with UNIFIL.

Army: 55,000.
 20 tk bns.
 30 mech inf bns.
 1 National Guard bn.
 10 arty, 2 AA arty bns.
 2 special forces gps.
 2 SSM bns.
 2,600 T-54/-55/-62, 200 T-72, 100 OF-40 (*Lion*) MBT; 200 BRDM-2, 300 EE-9 *Cascavel* armd cars; 700 BMP MICV, 900 BTR-50/-60, OT-62/-64, 100 EE-11 *Urutu*, Fiat 6614, 160 M-113A1 APC; 360 130mm guns; some 600 M-101 105mm, 122mm incl M-1974 SP, 152mm incl M-1973 SP, 40 M-109 155mm SP how; some 600 BM-11 107mm, BM-21/RM-70 122mm and M-51 130mm MRL; 200 106mm RCL; 450 81mm, 120mm, 160mm and 240mm mor; 3,000 *Vigilant*, *Milan* and *Sagger* ATGW; 48 *FROG-7*, 70 *Scud B* SSM; 450 23mm, ZSU-23-4 SP, 30mm incl M-53/59 SP, 57mm AA guns; SA-6/-7/-9 SAM.*

(On order: 100 *Lion*, 300 T-72 MBT; Fiat 6616 armd cars; 100 *Urutu* APC; 200 *Palmaria* 155mm SP how; *Scud B/C* SSM; SA-9 SAM.)

Navy: 5,000.

5 ex-Sov F-class submarines.
 1 Vosper Mk 7 frigate (under refit) with 4 *Otomat* SSM, 4 *Albatros/Aspide* SAM.
 6 corvettes: 4 *Wadi* with 4 *Otomat* SSM, 1 Vosper 440-ton, 1 ex-Sov *Nanuchka II*.
 18 FAC(M): 12 ex-Sov *Osa-II* with 4 *Styx* SSM; 3 *Susa* with 8 SS-12M SSM; 1 Lürssen-type with SSM/SAM, 2 *La Combattante* with 4 *Otomat* SSM.
 10 large patrol craft: 4 *Garian*, 6 Thornycroft.
 2 ex-Sov *Natya* minesweepers.
 1 LSD (log spt/HQ ship); 2 PS-700 LST; 3 *Polnocny*, 2 C-107 LCT.

1 Thornycroft repair ship.
 (On order: 8 *La Combattante II*, 13 Lürssen-type FAC(M); 12 C-107 LCT, *Otomat* SSM.)

Bases: Tarabulus, Benghazi, Darnah, Tubruq, Bandiyah.

Air Force: 5,000; some 555 combat ac, 30 armed hel.*

1 bbr sqn with 7 Tu-22 *Blinder A*.
 3 interceptor sqns and 1 OCU: 26 *Mirage F-1ED*, 6 F-1BD, 143 MiG-23 *Flogger E*, 50 MiG-25 *Foxbat A*, 72 MiG-21.
 5 FGA sqns and OCU with 45 *Mirage 5D/DE*, 13 5DD, 14 *Mirage F-1AD*, 18 MiG-23BM *Flogger F*, 14 MiG-23U, 5 MiG-25U, some 100 Su-20/-22 *Fitter E/F/J*.
 1 COIN sqn with 30 J-1 *Jastreb*.
 1 recce sqn with 7 *Mirage 5DR*, 6 MiG-25R (Libyan and Soviet crews).
 2 tpt sqns with 8 C-130H, 1 Boeing 707, 8 G-222, 2 *Mystère-Falcon*, 4 C-140 *Jetstar*, 2 CL-44, 8 Il-76, 1 *Corvette 200*, 2 *King Air*.

4 hel sqns with 10 *Alouette III*, 9 AB-47, 5 AB-206, 1 AS-61A, 2 AB-212, 8 *Super Frelon* (SAR), 19 CH-47C, 20 Mi-2, 2 Mi-8, 5 Mi-14, 25 Mi-24.
 2 trg sqns with 61 *Galeb*.
 Trainers incl 2 Tu-22 *Blinder D*, 100 L-39Z0, 12 *Magister*, 119 SF-260WL.

3 SAM bdes with 30 *Crotale* (60 systems), 300 SA-2/-3/-6 SAM.

AAM: AA-2 *Atoll*, R-550 *Magic*.

ASM: *Swatter* ATGW.

(On order: 50 MiG-25, 140 MiG-23, 40 *Mirage F-1* fighters; 12 G-222, 10 *Twin Otter* tpts; 70 SF-260 trainers; *Gazelle*, 2 A-109 hel; Super 530 AAM.)

Para-Military Forces: Pan-African Legion (5,000); Muslim Youth. Militia cav div forming.

MOROCCO

Population: 21,200,000.

Military service: 18 months.

Total armed forces: 141,000.

GNP 1980: 71.3 bn dirham (\$18.1 bn).

Defence expenditure 1981: 5.7 bn dirham (\$1.11 bn).

GDP growth 1980: 4%.

Inflation 1980: 10%

\$1 = 5.15 dirham (1981), 3.93 dirham (1980).

Army: 125,000.

7 armd groups.

12 mech inf regts.

1 lt security bde.

1 para bde.

1 AA bde.

9 arty groups.

1 Royal Guard bn.

5 camel corps bns.

2 desert cav bns.

1 mountain bn.

3 cdo bns.

4 engr bns.

4 armd car sqns.

120 M-48, 15 T-54 MBT; 60 AMX-13 lt tks; 1,000 armd cars, incl 20 EBR-75, 15 AMX-10RC, 100 AML-90 and M-8; 364 M-113, 400 VAB, 40 M-3 half-track, 50 OT-62/-64, 15 UR-416, 80 *Ratel*, M-3, Steyr 4K-7FA APC; M-116 75mm, 76mm, 40 85mm, 20 SU-100 100mm SP, 20 M-101 105mm, 18 105mm lt guns; 12 130mm, 152mm, 20 M-114 155mm towed, 24 Mk-61 105mm, 36 Mk F-3 155mm, 36 M-109 155mm SP how; 300 60mm, 600 81mm, 70 82mm, 320 120mm mor; 36 BM-21 122mm MRL; 20 M-56 90mm, 121 *Kuerassier* 105mm SP ATK guns;

*Some eqpt, incl 1,400 MBT, 450 combat ac (Tu-22, MiG-21/-23/-25, Su-22) in storage. Soviet, Pakistani and Palestinian pilots also fly Libyan aircraft.

75mm, 106mm RCL; STRIM-89 RL, *Dragon*, *Milan*, TOW ATGW; 100 20mm, 37mm, 57mm and 100mm AA guns; SA-7, 30 *Chaparral*, *Crotale* SAM; 4 *Alouette* II, 3 *Gazelle*, 6 A-109 hel.
(On order: 108 M-60 MBT; AML-90, 76 AMX-10RC arm'd cars; 126 VAB APC; 40 M-163 *Vulcan* 20mm SP AA.)

Navy: 6,000 incl naval infantry.
2 PR-72, 3 *Cormoran*-class FAC(G).
3 large patrol craft.
12 coastal patrol craft.
1 minesweeper.
4 landing ships (3 *Batral*).
1 naval inf bn (600).
(On order: 1 *Descubierta* msl frigate; 1 *Cormoran* FAC(M) with 4 *Exocet* SSM; 6 P-32 coastal patrol craft, *Aspide* SAM.)

Bases: Casablanca, Safi, Agadir, Kenitra, Tangier.

Air Force: 10,000; 97 combat aircraft.
5 FGA sqns: 3 with 27 *Mirage* F-1E, 18 F-1C; 2 with 5 F-5A, 9 F-5E, 5 RF-5A, 3 F-5B, 4 F-5F.
1 COIN/recce sqn with 22 *Magister*, 4 OV-10.
1 tpt sqn with 11 C-130H, 3 KC-130H, 1 *Gulfstream*, 8 *King Air*, 3 Do-28D, 6 *Broussard*.
2 hel sqns with 33 AB-205A, 5 AB-206, 13 AB-212, 27 *Puma*, 4 HH-43B SAR, 11 CH-47C.
Trainers: 11 T-34C, 11 AS-201/18 *Bravo*, 28 SF-260M, 24 *AlphaJet*.
AAM: *Sidewinder*, R-550 *Magic*.
(On order: 7 Do-28D, 2 C-130H tpt ac; 24 *Gazelle*, 19 AB-206 hel; 381 *Maverick* ASM.)

Forces Abroad: Equatorial Guinea: 400.

Para-Military Forces: 30,000, incl 11,000 *Suret  Nationale* with 2 *Rallye* ac; 5 *Alouette* II/III, 3 *Lama*, 6 *Gazelle*, 6 *Puma* hel.

OMAN

Population: 948,000.
Military service: voluntary.
Total armed forces: 18,000.*
Estimated GNP 1981: 1.35 bn rial (\$3.91 bn).
Defence expenditure 1981: 582 m rial (\$1.69 bn).
\$1 = 0.345 rial (1981).

Army: 15,000.
2 bde HQ.
1 Royal Guard bde.
3 arty regts (2 lt, 1 med).
1 sigs regt.
1 arm'd regt (3 arm'd car, 2 tk sqns).
8 inf bns.
1 special force.
1 engr sqn.
1 para sqn.

6 M-60A1, 12 *Chieftain* MBT; 36 *Saladin* arm'd cars; V-150 *Commando* APC; 25 25-pdr, 36 105mm, 12 130mm guns; 12 155m SP how; 81mm, 4.2-in, 120mm mor; TOW ATGW; 4 ZU-23-2 AA guns.
(On order: 15 *Chieftain* MBT).

RESERVES: National Volunteer Reserve Force.

Navy: 1,000.
1 corvette (Royal Yacht).
3 FAC(M): 1 *Province* with 2 x 3 *Exocet* SSM; 2 *Brooke Marine* with 2 *Exocet*.
4 *Brooke Marine* FAC(G).
1 log spt ship (amph).
5 LCU.
(On order: 2 *Province* FAC(M), 4 25-metre FAC(P), 3 *Skima*-12 hovercraft, 1 LCM).

Bases: Muscat, Raysut, Ghanam Island.

Air Force: 2,000;* 37 combat aircraft.
1 FGA/recce sqn with 12 *Hunter* FGA-6, 4 T-7.
1 FGA sqn with 7 *Jaguar* S(O) Mk 1, 2 T-2.
1 COIN/trg sqn with 12 BAC-167.
3 tpt sqns: 1 with 3 BAC-111, 1 *Falcon* 10; 2 with 7 *Defender*, 15 *Skyvan*, 1 C-130H.
Royal flt with 1 *Gulfstream*, 1 VC-10, 1 DC-8 tpts; 2 AS-202 *Bravo* trainers; 4 AB-212 hel.
1 hel sqn with 15 AB-205, 2 AB-206, 5 AB-214B.
2 AD sqns with 28 *Rapier* SAM.
(On order: 12 *Jaguar* FGA; 2 C-130H, 2 DHC-5D tpts; 28 *Blindfire* radar.)

Para-Military Forces: tribal Home Guard (*Firgats*) 3,300. Police Marine Wing: 6 40-ft, 5 75-ft patrol boats; Air Wing: 1 *Learjet*, 2 *Turbo-Porter*, 2 *Merlin* IVA, 2 *Buffalo* ac; 5 AB-205, 3 AB-206 hel.

QATAR

Population: 240,000.
Total armed forces: 6,000.
Estimated GNP 1981: 24 bn rial (\$6.58 bn).
Defence expenditure 1981: 3.26 bn rial (\$893.1 m).
\$1 = 3.65 rial (1981).

Army: 5,000.
1 tk bn.
1 Royal Guard regt.
5 inf bns.
1 arty bty.
24 AMX-30 MBT; 10 *Ferret* scout cars; 30 AMX-10P MICV, 25 *Saracen*, 136 VAB APC; 8 25-pdr guns, 6 155mm how; 81mm mor.
(On order: *HAWK* SAM.)

*Excluding expatriate personnel.

Navy: 700 incl Marine Police.
 2 *La Combattante* FAC(M) with 4 *Exocet* SSM.
 6 Vosper Thornycroft large patrol craft.
 36 coastal patrol craft (2 75-ft, 2 45-ft, 7 P-1200 type, 25 *Spear*).
 2 *Interceptor* fast assault/SAR craft.
 (On order: 1 *La Combattante* FAC(M), 3 *Exocet* coast defence systems.)

Base: Doha.

Air Force: 300; 9 combat aircraft.
 2 *Hunter* FGA-6, 1 T-79, 6 *AlphaJet* FGA/trg ac.
 1 *Islander*, 1 Boeing 727, 2 707 tpt ac.
 2 *Whirlwind*, 4 *Commando*, 3 *Lynx* hel.
SAM: *Tigercat*.
 (On order: 14 *Mirage* F-1 fighters, *Puma* hel.)

Para-Military Forces: Police: 3 *Lynx* M-28, 2 *Gazelle* hel.

SAUDI ARABIA

Population: 8,100,000.
 Military service: conscription, males aged 18-35.
 Total armed forces: 52,200.
 GNP 1981: 402.2 bn rial (\$118.99 bn).
 Defence expenditure 1981: 82.5 bn rial (\$24.4 bn).
 GDP growth 1980: 8.1%.
 \$1 = 3.38 rial (1981).

Army: 35,000.
 2 armd bdes (1 cadre only).
 2 mech bdes.
 2 inf bdes.
 1 AB bde (2 para bns, 1 special forces coy).
 1 Royal Guard Regt (3 bns).
 4 arty bns.
 18 AA arty btys.
 18 SAM btys: 16 with *Improved HAWK*; 2 with 12 *Shahine* (48 msls).
 300 AMX-30, 150 M-60A1 MBT; 200 AML-60/90 armd, 100 *Fox* scout cars; 250 AMX-10P (some with *HOT* ATGW), 600 M-113, Panhard M-3 APC; Model 56 105mm pack, M-101/-102 105mm, 18 M-198 towed and GCT 155mm, M-110 203mm SP how; 81mm, M-30 107mm mor; 75mm, 90mm, 106mm RCL; *TOW*, *Dragon*, *HOT* ATGW; M-163 *Vulcan* 20mm, AMX-30SA 30mm, 86 35mm, M-42 40mm SP AA guns; *Redeye*, *Shahine*, *Improved HAWK* SAM.
 (On order: 150 M-60A3 conversion kits; Engesa armd cars; 60 AMX-10P MICV; 200 VCC-1 *TOW* AFV; 72 FH-70 155mm how; *Shahine* SAM.)

Navy: 2,200.
 4 PCG-1 corvettes with 2 x 4 *Harpoon* SSM.
 5 PGG-1 FAC(M) with 2 x 2 *Harpoon* SSM.
 1 large patrol craft (ex-US coastguard cutter).

3 *Jaguar* FAC(T).
 53 coastal patrol craft.
 4 MSC-322 coastal minesweepers.
 2 ex-US LCU, 4 ex-US LCM-6.
 (On order: 4 F-2000 frigates; 4 PGG-1 FAC(M); 2 log spt ships; 2 *Atlantic II* MR ac; 24 AS-365N *Dauphine* 2 hel (4 SAR, 20 with ASM), *Otomat* coast defence SSM, 200 AS-15TT ASM.)

Bases: Jiddah, Al Qatif/Jubail, Ras Tanura, Daman, Yanbo, Ras al Mishab.

Air Force: 15,000; 128 combat aircraft.
 3 FGA sqns with 65 F-5E.
 1 interceptor sqn with 15 *Lightning* F-53, 2 T-55; 1 more sqn with F-15 (forming).
 2 OCU with 24 F-5F, 16 F-5B, 4 F-15C, 2 TF-15D.
 3 tpt sqns with 39 C-130E, 24 C-130H, 6 KC-130H, 2 *Jetstar*.
 2 hel sqns with 12 AB-206, 12 AB-205, 10 AB-212.
 Other hel incl 2 *Alouette* III, 1 AB-206, 1 Bell 212.
 Trainers: 46 BAC-167, 12 Cessna 172G/H/L.
AAM: *Red Top*, *Firestreak*, *Sidewinder*.
ASM: *Maverick*.
 (In reserve: 17 *Lightning* F-53/T-55.)
 (On order: 31 F-15, 4 F-5E fighters; 15 TF-15, 1 F-5F trainers; 10 RF-5E recon; 5 E-3A *Sentry* AWACS; 1 Boeing 747, 40 C-212-200 tpts; 6 Boeing KC-135 tankers; 1,177 *Sidewinder* AAM; 916 *Maverick* ASM.)

Para-Military Forces:
 National Guard (25,000): Bde HQ; 4 all-arms, 16 regular inf, 24 irregular inf bns, 1 ceremonial cav sqn, spt units: 240 V-150 *Commando* APC, M-102 105mm how, 81mm mor; 106mm RCL, *TOW* ATGW, 20mm *Vulcan*, 90mm AA guns.
 (On order: 489 *Commando* incl V-300 APC, V-150 SP 20mm AA, SP *TOW*, 90mm armed AFV.)
 Ministry of Interior: Counter-terrorist unit: hel. Frontier Force and Coastguard: 6,500; 90 small patrol boats, 8 SRN-6 hovercraft. (On order: MM-40 *Exocet* SSM).
 General Civil Defence Administration units.

SUDAN

Population: 19,310,000.
 Military service: conscription.
 Total armed forces: 58,000.
 Estimated GDP 1981: £5 6.08 bn (\$12.16 bn).
 Defence expenditure 1981: £5 166.5 m (\$333 m).
 GDP growth 1980: -3%.
 Inflation 1980: 13%.
 \$1 = £5 0.50 (1981).

Army: 53,000 (incl AD).
 2 armd bdes.
 7 inf bdes.

1 para bde.

3 arty regts.

1 engr regt.

Air Defence (3,000):

3 AA arty regts.

1 SAM regt with SA-2, *HAWK*.

70 T-54, 53 T-55, 17 T-34, 50 M-60A1 MBT; 55 M-41, 27 Ch Type-62 lt tks; 48 *Saladin* armd, 20 BTR-40, 55 *Ferret*, BRDM-1/-2 scout cars; 100 BTR-50/-152, 60 OT-62/-64, K-63, 49 *Saracen*, 45 V-150 *Commando*, M-113, *Walid* APC; 55 25-pdr, 40 100mm guns; 20 M-101 105mm, 18 122mm, 11 155mm F-3 sp how; 30 120mm mor; 30 85mm ATK guns; 80 37mm, 80 40mm, 100mm towed, 24 M-163 *Vulcan* 20mm SPAA guns; 20 SA-2, SA-7, *HAWK* SAM.

(On order: 80 M-113 APC; 12 M-114 155mm towed how; M-163 *Vulcan* 20mm SP AA guns; *HAWK* SAM.)

Navy: 2,000.

6 ex-Yug large patrol craft: 2 *Kraljevica*, 4 PBR.

6 ex-Yug '101' FAC(G).

3 70-ton coastal patrol craft.

2 ex-Yug DTK-221 LCT, 1 DTM-231 LCU.

Base: Port Sudan.

Air Force: 3,000; 30 combat aircraft.

1 FGA/interceptor sqn: 2 F-5E, 2 F-5F, 8 MiG-21.

1 FGA sqn with 5 Ch F-5 (MiG-17PF), 13 F-6 (MiG-19).

1 tpt sqn with 6 C-130H, 1 *Mystère-Falcon*, 4 DHC-5D, 8 *Turbo-Porter*, 6 EMB-110P2.

1 hel sqn with 15 Mi-8 (unserviceable), 2 *Puma*, 10 BO-105.

Trainers incl 5 BAC-145, 4 *Jet Provost* Mk 55 (5 in storage), 3 MiG-15UTI, 2 MiG-21U, 2 Ch FT-5, 2 FT-6.

AAM: AA-2 *Atoll*.

(On order: 6 F-5E fighters; 2 C-130 tpts.)

Para-Military Forces: 3,500: National Guard 500; Republican Guard 500; Border Guard 2,500.

SYRIA

Population: 8,900,000.

Military service: 30 months.

Total armed forces: 222,500 (some 120,000 conscripts).

Estimated GNP 1981: £S 47.1 bn (\$11.98 bn).

Defence expenditure 1981: £S 9.378 bn (\$2.39 bn).

GDP growth 1980: 9.7%.

Inflation 1980: 25%.

\$1 = £S 3.93 (1981).

Army: 170,000 (120,000 conscripts).

4 armd divs (each 2 armd, 1 mech bdes) (1 is Presidential Guard unit).

2 mech divs (each 1 armd, 2 mech bdes).

2 indep armd bdes.

4 indep mech bdes.

2 arty bdes.

5 cdo regts.

1 para regt.

2 SSM regts: 1 with *Scud*, 1 with *FROG*.

26 SAM btys with SA-2/-3/-6.

2,200 T-54/-55, 1,000 T-62, 790 T-72 MBT; BRDM recce vehs; BMP MICV, 1,600 BTR-40/-50/-60/-152, OT-64 APC; 2,600 122mm incl ISU-122 and M-1974 SP, 130mm, 152mm and 180mm guns; 122mm, 152mm how; 122mm, 140mm, 240mm MRL; 24 *FROG-7*, 9 *Scud* SSM; 82mm, 120mm, 160mm, 240mm mor; 57mm, 85mm, 100mm ATK guns; 1,300 *Snapper*, *Sagger*, *Swatter*, *Spigot* and *Milan* ATGW; 23mm, 37mm, 57mm, 85mm, 100mm towed, ZSU-23-4, ZSU-57-2 SP AA guns; SA-2/-3/-6/-7/-9 SAM; 40 *Gazelle* hel.

(On order: BMP-1, BTR-60 APC; M-1974 122mm, M-1973 152mm SP how; *Spigot* ATGW; SA-6/-8 SAM; *Gazelle* hel.)

Forces Abroad: Lebanon: (Arab Deterrent Force): 21,000; 1 armd, 2 mech bdes, cdo bns.

RESERVES: 100,000 (being reorganized).

Navy: 2,500.

2 ex-Sov *Petya* I frigates.

18 ex-Sov FAC(M) with *Styx* SSM: 6 *Osa-I*, 6 *Osa-II*; 6 *Komar*.

8 ex-Sov P-4 FAC(T).

1 ex-Fr CH large patrol craft.

3 ex-Sov minesweepers: 1 T-43 ocean, 2 *Vanya* coastal.

(On order: FAC(M).)

Bases: Latakia, Tartus, Minet el-Baida.

RESERVES: 2,500.

Air Force: 50,000 (incl AD command); some 450 combat ac, some 16 armed hel.*

11 FGA sqns: 4 with 85 MiG-17; 1 with 18 Su-7; 2 with 40 Su-20; 4 with 62 MiG-23BM *Flogger* F.

12 interceptor sqns: 1 with 24 MiG-25 *Foxbat* A; 11 with 200 MiG-21PF/MF, 20 MiG-23 *Flogger* E.

2 tpt sqns with 3 An-24, 4 An-26, 4 Il-76, 8 Il-14, 4 Il-18, 2 *Mystère* 20F.

Trainers incl 40 L-39, 60 L-29, 10 MiG-15UTI, 50 MBB-223 *Flamingo*.

Hel incl 10 Mi-2, 75 Mi-8, 12 Mi-24, 4 Ka-25 (ASW), 49 *Gazelle*.

AAM: AA-2 *Atoll*.

ASM: AT-2 *Swatter* ATGW.

*Some aircraft believed to be in storage. Casualties and reinforcements of Lebanon during June 1982 are difficult to estimate.

(On order: MiG-23 fighters; 18 AB-212, 21 *Super Frelon* hel; AAM.)

AIR DEFENCE COMMAND: (20,000).*

50 SAM btys with SA-2/-3; 25 with SA-6; AA arty, and radar.

Para-Military Forces: 9,800: 8,000 Gendarmerie, 1,800 Desert Guard (Frontier Force). 2 Palestine Liberation Army Brigades of 6,000 with some Syrian officers (nominally under PLO); 90 T-54/-55 MBT; 105mm how; AT-3 *Sagger* ATGW; SAM. Workers Militia (People's Army).

TUNISIA

Population: 6,500,000.

Military service: 12 months selective.

Total armed forces: 28,600.

GDP 1980: 3.5 bn dinar (\$8.6 bn).

Defence expenditure 1981: 104.4 m dinar (\$211 m).

\$1 = 0.494 dinar (1981), 0.405 dinar (1980).

Army: 24,000.

2 combined arms bdes (each with 1 armd, 2 mech infbns).

1 Sahara bde.

1 para-cdo bde.

1 armd rece regt.

2 fd, 2 AA arty regts.

1 engr regt.

14 M-48 MBT; 55 AMX-13, 20 M-41 lt tks; 20 *Saladin*, 30 EBR-75, 10 AML armd cars; 30 M-113A1, Steyr 4K-7FA, V-150 *Commando* APC; 6 25-pdr, 40 105mm, 10 155mm how; 60mm, 81mm, 82mm and 107mm mor; 54 *Kuerassier* 105mm SP ATK guns; STRIM-89 RL; *TOW*, *Milan*, SS-11 ATGW; 45 37mm and 40mm AA guns; RBS-70, 62 MIM-72 *Chaparral* SAM; 1 Hughes 500MD hel.

(On order: 54 M-60A3 MBT; STRIM-89 RL; 800 *TOW* ATGW.)

Navy: 2,600 (500 conscripts).

1 ex-US *Savage* frigate.

4 large patrol craft: 1 ex-Fr *Le Fougoux*, 3 P-48 with 8 SS-12 SSM.

2 Vosper Thornycroft 103-ft FAC(P).

2 ex-Ch *Shanghai-II* FAC(G).

2 ex-US *Adjutant* coastal minesweepers.

10 coastal patrol boats.

(On order: 3 *La Combattante III* FAC(M) with *Exocet* SSM; 2 23-metre FAC.)

Bases: Tunis, Susa.

Air Force: 2,000 (500 conscripts); 8 combat ac.

1 COIN sqn with 5 MB-326K, 3 MB-326L.

1 C-130H tpt.

Trainers: 17 SF-260, 7 MB-326B, 12 T-6, 12 *Safir*. Liaison ac: 4 S-208M.

1 hel wing: 7 *Alouette II*, 5 *Alouette III*, 4 UH-1H, 1 *Puma*, 18 AB-205, 6 Bell 205-A1, 6 AS-350B.

(On order: 6 F-5E FGA, 6 F-5F trg ac.)

Para-Military Forces: Gendarmerie 5,000: 3 bns; 110 Fiat 6614 APC. National Guard 3,500.

UNITED ARAB EMIRATES (UAE)

Population: 1,040,000.

Military service: voluntary.

Total armed forces: 48,500.†

GNP 1980: 109.8 bn dirham (\$29.68 bn).

Defence expenditure 1980: 4.5 bn dirham (\$1.2 bn).

GDP growth 1980: 1%.

\$1 = 3.70 dirham (1980).

Army: 46,000.

1 Royal Guard 'bde'.

5 armd/armd car bns.

9 infbns.

1 arty, 1 AD bde (each 3 bns).

100 AMX-30, 18 OF-40 (*Lion*) MBT; 60 *Scorpion* lt tks; 6 *Shorland*, *Saladin*, 90 AML-90, VBC-40 armd cars; 30 AMX VCI, VCR TT, 300 Panhard M-3, VAB APC, AMX-10P MICV; 50 105mm guns; M-56 105mm pack, 20 AMX 155mm SP how; 81mm mor; 84mm RCL; *Vigilant* ATGW; *Rapier*, *Crotale*, RBS-70 SAM.

(In store: 70 *Saladin* armd, 60 *Ferret* scout cars; 12 *Saracen* APC.)

(On order: OF-40 MBT; 20 *Scorpion* lt tks; 54 *TOW* ATGW, 7 *Improved HAWK* SAM btys, 343 msls.)

Navy: 1,000.

6 *Jaguar II* (TNC-45) FAC(M) (2 twin *Exocet* SSM).

6 Vosper Thornycroft large patrol craft.

3 Keith Nelson coastal patrol craft.

(On order: 5 coastal patrol craft.)

Base: Abu Dhabi.

Air Force (Police Air Wing & Central Air Force):

1,500; 52 combat ac, 7 armed hel.

2 interceptor sqns with 25 *Mirage 5AD*, 3 *5RAD*, 2 *5DAD*.

1 FGA sqn with 10 *Hunter* FGA-76, 2 T-77.

1 COIN sqn with 10 MB-326KD/LD.

Tpts incl 3 C-130H, 1 L-100-30, 1 Boeing 720-023B, 1 G-222, 2 C-212 *Aviocar*, 5 *Islander*, 3 DHC-4, 4 DHC-5D, 1 Cessna 182.

Hel incl 6 AB-205, 6 AB-206, 3 AB-212, 7

* Under Army Command, with Army and Air Force manpower.

† The Union Defence Force and the armed forces of the United Arab Emirates (Abu Dhabi, Dubai, Ras Al Khaimah and Sharjah) were formally merged in May 1976.

Alouette III with AS-11, 9 *Puma*, 13 *Gazelle*.
Trg ac: 3 Pilatus PC-7.
AAM: R-550 *Magic*.
ASM: AS-11/-12.
(On order: 6 *AlphaJet* FGA/trg, 1 G-222, 2 C-212
tpt, 11 PC-7 trg ac; *Lynx* hel.)

Para-Military Forces: Coastguard: 45 coastal
patrol boats/craft.

YEMEN ARAB REPUBLIC (NORTH)

Population: 7,200,000.
Military service: 3 years.
Total armed forces: 32,050 (20,000+ conscripts).
GNP 1980: 20.47 bn rial (\$4.49 bn).
Defence expenditure 1980: 1.51 bn rial (\$331 m).
\$1 = 4.56 rial (1980).

Army: 30,000 (20,000 conscripts).
6 armd bdes (1 trg).
1 mech, 9 inf bdes (1 reserve).
1 para bde.
1 central guard force.
2 infgps.
3 arty bdes.
3 AA arty, 2 AD bns.
150 T-34, 500 T-54/-55, 64 M-60 MBT; 50 *Saladin*
armd, *Ferret* scout cars; 12 M-106 mor-armed,
90 M-113, 425 BTR-40/-60/-152, *Walid* APC;
250 76mm, 105mm and 122mm towed, 50
SU-100 SP guns; 200 82mm and 120mm mor; 65
BM-21 122m MRL; 75mm, 82mm RCL; *LAW* RL;
20 *Vigilant*, *TOW*, *Dragon* ATGW; ZU-23
23mm, 37mm, 57mm, 85mm towed, 24
ZSU-23-4, 72 M-163 *Vulcan* 20mm SP AA guns;
SA-2/-7 SAM.

Navy: 550.
3 ex-Sov P4 FAC(T)X.
8 patrol craft: 3 ex-US *Broadsword*; 5 ex-Sov (2
Zhuk, 3 *Poluchat*).
2 LCM.
(On order: 2 *Osa* FAC.)

Base: Hodeida.

Air Force: 1,500; 75 combat ac.*
5 fighter sqns: 2 with 30 MiG-21; 1 with 20
MiG-17F: 1 with 10 F-5E; 1 with 15 Su-22.
Tpts: 2 C-130H, 2 C-47, 2 *Skyvan*, 1 Il-14, 1
An-24, 3 An-26.
Trainers: 4 F-5B, 4 MiG-15UTI.
Hel: 1 Mi-4, 12 Mi-8, 6 AB-206, 6 AB-212, 2
Alouette.
1 AD regt with 12 SA-2 SAM.
AAM: AA-2 *Atoll*, AIM-9 *Sidewinder*.
(In storage: 17 MiG-21.)

Para-Military Forces: 20,000 tribal levies.

YEMEN: PEOPLE'S DEMOCRATIC REPUBLIC (SOUTH)

Population: 1,955,000.
Military service: 2 years.
Total armed forces: 26,000 (18,000 conscripts).
GNP 1980: 343.8 m dinar (\$996.5 m).
Defence expenditure 1980: 42.7 m dinar
(\$123.7 m).
\$1 = 0.345 dinar (1980).

Army: 22,000.
1 armd bde (trg).
1 mech bde.
10 inf bdes (some being mechanized).
1 arty bde.
1 rocket bde (trg) and 10 arty bns.
1 marine unit.
1 SSM bde with *FROG* and *Scud B*.
470 T-54/-55/-62 MBT; 10 *Saladin* armd, 10 *Fer-*
ret, BRDM-2 scout cars; BMP MICV, 300
BTR-40/-60/-152 APC; 310 85mm, 100mm,
130mm guns (incl coastal); 122mm how; BM-21
122mm MRL; 120mm, 160mm mor; 12
FROG-7, *Scud B* SSM; 170 ZU-23-2 23mm,
37mm, 57mm, 85mm towed and ZSU-23-4 SP
AA guns; SA-2/-7 SAM.

Navy: 1,000.
1 ex-Sov corvette (converted T-58 minesweeper).
6 ex-Sov *Osa* FAC(M) with 4 *Styx* SSM.
2 ex-Sov SO-1 large patrol craft.
4 ex-Sov FAC(T): 2 *Mol*, 2 P-6X.
2 ex-Sov *Zhuk* FAC(P)X.
5 coastal patrol craft (with Public Security Force):
1 *Tracker 2*, 3 *Spear*, 1 *Interceptor*.
1 ex-Sov *Ropucha* LST; 3 ex-Sov *Polnocny* LCT; 3
ex-Sov T-4 LCA.

Bases: Aden, Mukalla, Rihan, Al-Aned.

Air Force: 3,000; 114 combat ac, 15 armed hel.†
1 lt bbr sqn with 8 Il-28.
4 FGA sqns: 2 with 30 MiG-17F; 1 with 10 MiG-21;
1 with 30 Su-20/-22.
3 interceptor sqns with 36 MiG-21F.
1 tpt sqn with 4 Il-14, 3 An-24.
1 hel sqn with Mi-4, 8 Mi-8, 15 Mi-24.
1 SAM regt with SA-2.
Trainers: 3 MiG-15UTI.
AAM: AA-2 *Atoll*.
ASM: AT-2 *Sagger*.

Forces Abroad: Syria 500: 1 infbn.

Para-Military Forces: Popular Militia. Public
Security Force: 15,000 (to be increased).

*Some aircraft are believed to be in storage.

† Some eqpt believed in storage; some ac believed flown by Soviet and Cuban crews.

Sub-Saharan Africa

Multilateral Agreements

The Organization of African Unity (OAU), constituted in May 1963 to include all internationally recognized independent African states except South Africa, has a Defence Commission – responsible for defence and security co-operation and the defence of the sovereignty, territorial integrity and independence of its members. In 1979 this considered and approved in principle the establishment of an African Intervention Force and ordered planning for its formation, funding and equipping. Little progress has been reported. It did agree in 1981 on a force for Chad, with troops provided by Nigeria, Senegal and Zaire. Financing was inadequate, the force had little success and is now being disbanded.

Bilateral Agreements

The US has had mutual defence and assistance agreements with Ethiopia (1975), Ghana (1972), Kenya (1980), Liberia (1972), Mali (1972), Niger (1962), Senegal (1962) and Zaire (1972); most may now be in abeyance. Agreements have been negotiated with Somalia and Kenya to allow limited US access to naval and air facilities.

The Soviet Union has Treaties of Friendship and Co-operation with Angola (October 1976), Mozambique (March 1977) and Ethiopia (November 1978, ratified April 1979). Relations with the Congo Republic are close but no such agreement is known to exist. Military aid has been given to Angola under an additional Military Co-operation Agreement, Ethiopia, Guinea, Guinea-Bissau, Mali, Mozambique, Nigeria, Somalia, Uganda and Zambia (1980). The Soviet Navy uses facilities on Dahlak Island, Ethiopia.

China has military assistance agreements with Cameroon, Equatorial Guinea, Guinea, Mali and Tanzania, and has given aid to Mozambique and Zaire.

Britain maintains overflying, training and defence agreements with Kenya, is helping Zimbabwe form and train her forces, and is making similar arrangements with Uganda.

France signed defence and/or military co-operation agreements with Benin, the Cameroons (February 1974), the Central African Republic, Chad (status obscure), Congo, Gabon (1974), Ivory Coast, Madagascar, Mali (since terminated), Mauritania, Niger, Senegal (March 1974), Togo, Upper Volta and Zaire. The agreement with the Central African Republic was terminated briefly (May–September 1979) before the change of government there. In 1977 France concluded an agreement with Djibouti which permits her to station forces.

Belgium has a military co-operation agreement with Zaire.

Spain maintains close links with Equatorial Guinea.

Cuba has some 18,000 men in Angola, training the Angolan armed forces and assisting with internal security, and 10,000 in Ethiopia. Cuban, Soviet and East German advisers are present in a number of other African countries.

Some military links exist between South Africa and Israel, and between Mozambique and Angola and East Germany and Bulgaria. Hungary signed a Friendship Treaty with Ethiopia and with Mozambique in September 1980. North Korea signed a Treaty of Friendship and Co-operation with Togo in October 1981; she also had a 100-man training team with Zimbabwe's elite armoured brigade.

Arrangements within the Region

In 1961 the Central African Republic, Chad, the Congo and Gabon formed the Defence Council of Equatorial Africa, with French help. Chad's present position in relation to the Council is unclear.

In May 1981 the Economic Community of Western African States (ECOWAS) adopted a Protocol on Mutual Assistance on Defence Matters calling for a joint Defence Commission, comprising Defence Ministers and their Chiefs of Defence Staff, and a Defence Council of the Heads of State. It is intended to create a joint force, using assigned units of the national armies,

which could serve as an intervention or peace-keeping force. Of the then 16 ECOWAS members (Benin, Cape Verde, The Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo and Upper Volta), 12 have signed, Cape Verde, Guinea-Bissau and Mali declined, and Mauritania signed only after the Protocol was amended to call for the withdrawal of foreign troops once ECOWAS could guarantee mutual defence.

Kenya and Ethiopia signed a Treaty of Friendship and Co-operation in January 1979. Sierra Leone and Guinea signed a Defence Agreement in 1971 and a Mutual Defence Pact in August 1981. In December 1981 Senegal and The Gambia signed a confederation pact which united the two countries as Senegambia and integrated their armed forces. Tanzania and Uganda signed a defence pact in August 1981 under which Tanzania provides instructors.

The only country in the area with an indigenous arms industry is South Africa, which builds equipment under licence and some also of her own design.

ANGOLA

Population: 7,000,000.
Military service: 2 years.
Total armed forces: 37,500.*

Army: 35,000.

2 mot inf bdes (each of 1 tk, 2 inf bns).
17 inf bdes.
4 AA arty bdes.
175 T-34, 150 T-54 MBT; some 50 PT-76 lt tks;
200 BRDM-1/-2, AML armd cars; 150
BTR-60/-152 APC; 200 guns/how, incl 76mm,
85mm, 100mm, SU-100 SP, 122mm, 130mm,
152mm; 500 82mm and 120mm mor; 50 BM-21
122mm MRL; 2,000 75mm, 82mm and 107mm
RCL; *Sagger* ATGW; ZPU-4 14.5mm, ZU-23
23mm, 37mm towed, ZSU-23-4, 40 ZSU-57-2
SP AA guns; SA-7 SAM.†

Navy: 1,000.

4 ex-Sov *Shershen* FAC(T).
5 ex-Port *Argos* large patrol craft.
9 coastal patrol craft: 3 ex-Sov (1 *Zhuk*, 2 *Polu-
chat*), 6 ex-Port (1 *Jupiter*, 5 *Bellatrix*).
4 LCT: 3 ex-Sov *Polnocny*, 1 ex-Port *Alfange*.
5 ex-Sov T-4 LCM.

Bases: Luanda, Lobito, Moçâmedes.

Air Force: 1,500; 68 combat aircraft.†

2 FGA sqns with 40 MiG-21MF, 25 MiG-17F, 2
G-91R4 fighters.
MR ac: 1 F-27MPA.
2 tpt sqns: 6 *Noratlak*, 2 L-100-20, 3 C-47, 6 An-2,
16 An-26, 4 *Turbo-Porter*, 8 *Islander*, 10
Do-27, 1 F-27-400M, 1 FH-227.
2 hel sqns: 35 Mi-8, 13 *Alouette* III.
Trainers incl 1 MiG-15UTI, 6 Yak-11.
AAM: AA-2 *Atoll*.
SAM: 20 SA-3 *Goa*, some SA-6 *Gainful*.

Para-Military Forces: Militia infantry: 10,000; 11
bns (to increase to 15). 'Organization of Popular
Defence': 500,000.

ETHIOPIA

Population: 30,500,000.
Military service: selective conscription, term un-
known.
Total armed forces: 250,500.‡
GNP 1980: 8.47 bn birr (\$4.09 bn).
Estimated defence expenditure 1980: 751 m birr§
(\$362.8 m).
\$1 = 2.07 birr (official).

Army: 244,500.||

14 inf and 3 mot inf divs with some 20 tk bns.
2 mountain divs, each of 6 bdes.
1 lt div.
4 para/cdo bdes.
30 arty bns.
2 engr bns.
15 AD bns.
40 M-47, 150 T-34, 600 T-54/-55 MBT; 40 M-41 lt
tks; 100 BRDM-1/-2 scout cars; 40 BMP-1
MICV, about 70 M-113, 600 BTR-40/-60/-152,
V-150 *Commando* APC; some 700 guns/how,
incl 75mm, 52 105mm, 250 122mm (incl SP),
130mm, 152mm, 12 155mm towed, 12 M-109

*Some 18,000 Cubans and 450 E. Germans operate ac and hy eqpt. There are also Portuguese and some 700 Soviet advisers and technicians.

†Forces opposed to the Angolan regime: UNITA: some 15,000; BM-21 122mm MRL; 82mm mor, 75mm RCL.
‡Eqpt totals uncertain.

§Some 1,400 Soviet, 13,000 Cuban and about 250 E. German technicians and advisers operate ac and hy eqpt. Some S. Yemeni troops may also serve.

||Incorporating 150,000 People's Militia.

155mm SP; 60mm, 81mm, 82mm, 120mm, 280 M-2/-30 4.2-in (107mm), 120mm mor; BM-21 122mm MRL; *Sagger* ATGW; ZU-23 23mm, 37mm towed, ZSU-23-4, ZSU-57-2 SP AA guns; SA-2/-3/-7 SAM.*

Navy: 2,500.*

9 large patrol craft: 1 ex-Yug *Kraljevica*, 4 ex-US PGM, 4 105-ft *Swift*.

4 ex-Sov *Osa-II* FAC(M) with *Styx* SSM.

1 *Poluchat* coastal patrol craft.

1 *Polnocny* LSM.

(Non-operational: 1 ex-US *Barnegat* frigate, 1 ex-Neth *Wildervank* patrol ship, 2 ex-Sov *Mol* FAC(T), 4 *Sewart* 15-ton FAC(P), 4 LCM, 2 LCVP.)

Bases: Massawa, Assab.

Air Force: 3,500; some 113 combat aircraft.*

6 FGA sqns: 1 with 7 F-5A/E; 1 with 10 MiG-17; 3 with 70 MiG-21; 1 with 20 MiG-23.

1 COIN sqn with 6 T-28A.

1 tpt regt with 14 An-12, 4 An-22, 3 C-47, 2 C-54, 6 C-119G, 2 *Dove*, 1 Il-14, 1 DHC-3, 3 DHC-6, 2 Do-28.

Trainers incl MiG-21U, 10 T-33A, 2 F-5B, T-28.

Hel incl 6 AB-204, 3 *Alouette* III, 20 Mi-8, 12 Mi-24, 6 UH-1H.

RESERVES (all services): 20,000.

Para-Military Forces: 169,000. Mobile emergency police force 9,000. People's Militia 150,000; in 12 divs with mor, ATK guns. People's Protection bdes 10,000. Some national military training and 'civil defence' may have been instituted.

GHANA

Population: 12,000,000.

Military service: voluntary.

Total armed forces: 14,600.

GDP 1980: 29.425 bn cedi (\$10.7 bn).

Defence expenditure 1981: 387.9 m cedi (\$141.05 m).

GDP growth 1980: 2%.

Inflation: 88% (1980), 130% (1981).

\$1 = 2.75 cedi (official).

Army: 12,000.

2 bdes (6 inf bns and spt units).

1 rece bn.

1 mor bn.

1 fd engr bn.

1 sigs bn.

1 AB coy.

Saladin armd cars; 100 Mowag *Piranha* APC; 81mm, 20 Tampella 120mm mor; 50 *Carl Gustav* 84mm RCL.

Forces Abroad: Lebanon (UNIFIL): 1 bn (697).

Navy: 1,200.

2 *Kromantse* ASW corvettes.

4 FAC(G): 2 FPB-57, 2 TNC-45.

2 *Sahene*, 2 ex-Br *Ford* patrol craft.

4 *Spear* II coastal patrol craft.

Bases: Sekondi, Tema.

Air Force: 1,400; 12 combat aircraft.

1 COIN sqn with 6 MB-326F, 6 MB-326KB.

2 tpt sqns with 8 *Islander*; 6 *Skyvan* 3M.

1 comms/liaison sqn with 5 F-27, 1 F-28.

Hel: 2 *Alouette* III, 2 Bell 212.

1 trg sqn with 11 *Bulldog*.

Para-Military Forces: Border Guard 5,000; 3 bns.

KENYA

Population: 17,000,000.

Military service: voluntary.

Total armed forces: 16,650.

GNP 1980: 50.5 bn shillings (\$6.4 bn).

Defence expenditure 1980: 1.263 bn shillings (\$160 m).

GDP growth 1980: 2.9%.

Inflation 1980: 13%.

\$1 = 7.89 shillings (1980).

Army: 13,000.

2 bde HQ.

2 armd bns.

1 armd rece bn.

5 inf bns.

2 arty bns.

1 air cav bn.

2 engr bns.

1 tpt bn.

60 Vickers Mk 3 MBT; 12 *Fox*, 40 AML-60/-90, 8 *Shorland* armd cars; 50 UR-416, 4 Panhard M-3 APC; 40 lt, 16 pack 105mm guns; 20 81mm, 10 120mm mor; 50 *Carl Gustav* 84mm, *Wombat* 120mm RCL; *Milan*, 8 *Swingfire* ATGW; 32 Hughes 500 MD hel (15 *Scout*, 15 with *TOW* ATGW, 2 trg).

(On order: 12 Vickers Mk 3 MBT.)

Navy: 650.

4 Brooke Marine FAC(M) with *Gabriel* SSM (1 37.5-metre, 3 32.6-metre).

3 Vosper 31-metre (*Simba*) large patrol craft.

(On order: *Gabriel* SSM (for *Simba* patrol craft).)

Base: Mombasa.

Air Force: 3,000; 29 combat aircraft.

1 FGA sqn with 10 F-5E, 2 F-5F.

1 COIN sqn with 5 BAC-167 *Strikemaster*, 12 *Hawk* T-52.

*War situation makes equipment data suspect; some ex-US eqpt now being refurbished.

2 lt tpt sqns: 1 with 5 DHC-4 *Caribou*; 1 with 6 DHC-5D *Buffalo*, 7 Do-28D.
 1 trg sqn with 14 *Bulldog* 103.
 Other ac incl 1 *Turbo Commander*, 1 *Navajo*.
 Hel: 10 *Puma*, 2 Bell 47G.
 AAM: *Sidewinder*.
 (On order: 2 F-5F ac.)

Para-Military Forces: Police (General Service Unit) 1,800; Police Air Wing, 7 Cessna lt ac, 3 Bell hel.

MADAGASCAR

Population: 8,900,000.
 Military service: 18 months.
 Total armed forces: 20,900.
 Estimated GDP 1980: 690 bn francs (\$3.26 bn).
 Defence expenditure 1981: 27.456 bn francs (\$98.5 m).
 \$1 = 278.7 francs (1981), 211.3 francs (1980).

Army: 20,000.
 2 bn gps.
 1 engr regt.
 1 sigs regt.
 1 service regt.
 7 construction regts.
 8 M-8 armd, M-3A1, 10 *Ferret*, BRDM-2 scout cars; M-3A1 half-track APC; 12 ZIS-3 76mm guns; 81mm mor; 106mm RCL; 50 ZPU-4 14.5mm AA guns.

Navy: 400 (incl 150 marines).
 1 Type-48 large patrol craft.
 1 *Batram* landing craft with 8 SS-12 SSM.
 5 LCM: 2 ex-N. Korean *Nampo*, 3 ex-US.
 1 marine coy.

Air Force: 500; 12 combat ac.
 1 FGA sqn with 4 MiG-17, 8 MiG-21FL.
 1 tpt sqn with 2 Yak-40, 1 C-53D, 5 C-47, 1 *Defender*, An-12, 1 *Aztec*, 3 *Super Skymaster*; 5 lt ac.
 1 hel sqn with 1 Bell 47, 3 *Alouette* II/III, 2 Mi-8.

Para-Military Forces: Gendarmerie 8,000, incl maritime police with 5 patrol craft.

MOZAMBIQUE

Population: 11,500,000.
 Military service: 2 years (incl women).
 Total armed forces: 21,600.*
 Estimated GNP 1980: 81.17 bn metiça (\$2.8 bn).
 Estimated defence expenditure 1981: 5.6 bn metiça (\$191.85 m).
 \$1 = 29.19 metiça (1981), 28.99 metiça (1980).

Army: 20,000.
 1 tk bde.
 10 inf bdes (each 3 inf, 2 mech, 1 arty bn, 1 AD gp, spt units).
 1 Presidential Guard bde.
 7 AD bns.
 200 T-34 MBT; 35 BRDM-1/-2 recce; 200 BTR-60/-152 APC; 250 76mm, 85mm, 100mm, 122mm, 130mm guns; M-101 105mm how; BM-21 122mm MRL; 325 60mm, 82mm and 120mm mor; 75mm, 82mm RCL; *Sagger* ATGW; 300 20mm, ZU-23, 23mm, 37mm, 57mm towed and ZSU-23-4 SP AA guns; 30 SA-3, SA-7 SAM.

Navy: 600.
 15 coastal patrol craft: 7 ex-Sov (6 *Zhuk*, 1 *Poluchat*), 6 ex-Port (1 *Antares*, 3 *Jupiter*, 2 *Bellatrix*), 2 other.
 1 ex-Port *Alfange* LCT.

Bases: Maputo, Beira, Nacala, Pemba, Metangula.

Air Force: 1,000; 25 combat aircraft, 4 armed hel. 2 sqns with 25 MiG-17.
 1 hel sqn with 4 armed *Alouette* II/III.
 1 tpt sqn with 1 Tu-134, 4 An-26, 6 *Noratlas*, 4 Cessna 182.
 Trg ac: 7 Zlin.

Para-Military Forces: Border Guard 6,000; 4 bdes. People's Militia (village self-defence force).

NIGERIA

Population: 79,000,000.
 Military service: voluntary.
 Total armed forces: 138,000.
 GDP 1981: 60.2 bn naira (\$92.9 bn).
 Defence expenditure 1981: 548 m naira (\$845.6 m).
 GDP growth 1980: 7%.
 Inflation 1981: 20%.
 \$1 = 0.648 naira (1981).

Army: 125,000.
 1 armd div (4 armd, 1 mech bdes).
 1 composite div (incl 1 AB, 1 air portable, 1 amph bdes).
 2 mech divs (each 3 mech bdes).
 1 Guards bde.
 4 arty bdes
 4 engr bns
 4 recce bns } organic to divs (1 each).
 65 T-55 MBT, 50 *Scorpion* lt tks; 20 *Saladin*, 90 AML-90 armd, 55 *Fox* scout cars; 10 *Saracen*, 6

*Chinese, Cuban, East German, Romanian and Soviet advisers are reported with Mozambique's forces.

M-3 VPC, 4 AMX VTT, 26 Steyr 4K-7FA APC; 76mm, 200 122mm guns; 200 M-56 105mm pack how; 200 81mm mor; 20mm, 40mm towed, 30 ZSU-23-4 SP AA guns.*

(On order: 36 Vickers Mk 3 MBT; 57 Mowag *Piranha* APC; 25 *Palmaria* 155mm SP how; *Blowpipe*, 16 *Roland* SAM.)

Navy: 4,000.

2 ASW frigates: 1 *Meko* 360 with 2 × 4 *Otomat* SSM, 1 × 8 *Aspide* SAM, 1 hel; 1 *Nigeria* (trg).

4 corvettes: 2 Vosper Thornycroft Mk 9 (*Hippo*) with 2 × 3 *Seacat* SAM; 2 Mk 3.

6 FAC(M): 3 Lürssen Type-57 with 4 *Otomat* SSM; 3 *La Combattante* III with 2 × 2 *Exocet*.

8 large patrol craft: 4 Brooke Marine, 4 Abeking & Rasmussen.

2 RoRo 1300 (*Crocodile*-class) LST.

9 coastal patrol boats.

(On order: 12 coastal patrol boats, 2 LCT; 3 *Lynx* hel).

Bases: Apapa (Lagos), Calabar.

Air Force: 9,000; 30 combat aircraft.*

3 FGA/interceptor sqns: 1 with 12 *AlphaJet*; 2 with 18 MiG-21MF.

2 tpt sqns with 6 C-130H, 5 F-27, 1 F-28 (VIP), 1 *Gulfstream* II (VIP).

1 SAR sqn with 20 BO-105C/D hel.

3 service sqns with 26 *Bulldog*, 14 Do-28.

Hel incl: 15 *Puma*, 10 *Alouette* II (in storage).

Trg ac incl: 2 MiG-15UTI, 2 MiG-21U, 20 L-29.

AAM: AA-2 *Atoll*.

(On order: 2 F-27MPA MR, 5 *Bulldog* lt ac, Hughes 300C hel).

Forces Abroad: Lebanon (UNIFIL): 1 bn (696).

Para-Military Forces: Coastguard (forming); 18 FAC(P). (On order: 3 landing craft, 3 launches).

Police: 1 hovercraft (1 more on order).

SENEGAMBIA

(Senegal and The Gambia signed and ratified a Confederation Pact in December, 1981. The pre-Confederation organizations and inventories are shown separately below; the Gambian Army may now have been disbanded, and the other Services' roles taken over by civilians.)

SENEGAL

Estimated population: 5,900,000.

Military service: selective.

Total armed forces: 9,700.

GNP 1981: 525 bn francs (\$2.23 bn).

Defence expenditure 1981: 14.14 bn francs (\$60.1 m.)

\$1 = 235.26 CFA francs (1981).

Army: 8,500.

5 inf bns.

1 engr bn.

1 trg bn.

1 Presidential Guard (horsed).

1 recce sqn.

1 arty bty.

2 para coys.

3 construction coys.

10 M-8, M-20, 40 AML-60/-90 armd cars; 12 Panther M-3, VXB-170 APC; M-3 half-track; M-116 75mm pack, 6 M-101 105mm how; 8 81mm mor; STRIM-89 RL, *Milan* ATGW; 40mm AA guns.

Navy: 700.

1 PR-72M, 3 P-48 large; 5 coastal patrol craft; 1 LCT, 2 LCM.

Base: Dakar.

Air Force: 500.

1 EMB-111 MR; 1 Boeing 727-200, 5 C-47, 6 F-27-400M, 1 *Caravelle*, 2 *Broussard* tpts; 1 Cessna 337 lt ac; 2 *Magister* trg ac; 1 *Gazelle*, 2 *Puma*, 2 *Alouette* II hel.

Forces Abroad: Lebanon (UNIFIL): 1 bn (561).

Para-Military Forces: 6,800; 12 VXB-170 APC.

THE GAMBIA

Estimated population: 600,000.

Military service: voluntary.

Total armed forces: 475 (Para-Military).

Estimated GDP 1981: 515 m dalasi (\$294.6 m).

Defence expenditure 1981: 5.2 m dalasi (\$2.97 m).

\$1 = 1.748 dalasi (1981).

Army (Field Force): 400.

1 coy: 8 *Ferret* scout cars; 4 M-20, 3.5-in RL.

Navy: 50.

1 40-ton Keith Nelson, 1 31-ton *Tracker*, 1 17-ton *Lance* coastal patrol boats.

Base: Banjul.

Air: 25.

1 *Skyvan* 3M, 1 *Defender* tpts.

SOMALI DEMOCRATIC REPUBLIC

Estimates of population: 3.65–6.12 m.

Military service: voluntary.

Total armed forces: 62,550.

Army: 60,000.

3 corps, 7 div HQ.

*There are additional unserviceable AFV and aircraft.

3 tk/mech bdes.
 20 inf bdes.
 1 cdo bdes.
 1 SAM bde.
 13 fd, 10 AA arty bns.
 100 T-34/-54/-55, 40 *Centurion* MBT; BRDM-2
 recee, 10 BTR-40/-50/-60, 100 BTR-152,
 V-150 *Commando*, 200 Fiat 6614/6616
 APC/AFV; about 150 76mm, 85mm, 100mm, 60
 122mm guns/how; 81mm, 120mm mor;
 106mm RCL; 100 *Milan* ATGW; 250 14.5mm,
 ZU-23 23mm, 37mm, 57mm and 100mm
 towed, 10 ZSU-23-4 SP AA guns; 30 SA-2/-3
 SAM.*

Navy: 550.*

2 ex-Sov *Osa-II* FAC(M) with *Styx* SSM.
 8 ex-Sov FAC(T); 4 *Mol*, 4 P-6.
 5 ex-Sov *Poluchat* large patrol craft.
 1 ex-Sov *Polnocny* LCT, 4 ex-Sov T-4 LCM.

Bases: Berbera, Mogadishu, Kismayu.

Air Force: 2,000; 55 combat aircraft.*

1 lt bbr sqn with 3 Il-28.
 2 FGA sqns with 9 MiG-17.
 3 fighter sqns with 7 MiG-21MF, 30 ex-Ch F-6.
 1 COIN sqn with 6 SF-260W.
 1 tpt sqn with 2 An-24/-26, 3 C-47, 4 G-222.
 1 hel sqn with 4 Mi-4, 2 Mi-8, 1 AB-204, 2 AB-212
 (VIP).
 Trainers incl 6 P-148, 2 MiG-15UTI.
 Other ac: 9 SF-260W.
 AAM: AA-2 *Atoll*.
 (On order: SIAI S-211 COIN, 2 P-166-DL3 lt tpt ac;
 2 AB-212 hel.)

Para-Military Forces: 29,500. Police 8,000, 2
 Do-28 ac; border guards 1,500; People's
 Militia 20,000.

SOUTH AFRICA

Population: 29,500,000 total (of which 'home-
 lands': 5,500,000).
 Military service: 24 months, plus 12 years Active
 Reserve commitment.
 Total armed forces: 81,400 (53,100 conscripts;
 total mobilizable strength 404,500).
 GDP 1981: 72.4 bn rand (\$81.1 bn).
 Defence expenditure 1981: 2.465 bn rand
 (\$2.76 bn).
 GDP growth 1981: 4.7%.
 Inflation 1981: 14%.
 \$1 = 0.8928 rand (1981).

Army: 67,400 (10,000 White, 5,400 Black and
 Coloured regulars, 2,000 women, 50,000 con-
 scripts); 9 territorial commands.
 2 div HQ (1 armd, 1 inf).

1 armd bde (2 tk, 2 APC-borne inf bns).†
 1 mech bde (1 tk, 3 APC-borne inf bns).†
 4 mot bdes (each 3 inf bns, 1 armd car bn).†
 1 para bde (3 para bns).†
 1 special recee unit (cdo).
 9 fd, 4 med, 7 lt AA arty regts.†
 1 AA missile regt (2 *Crotale* btys, 3 *Tiger* cat btys).
 15 fd engr sqns.†
 3 sigs regts, 3 sigs sqns.
 Some 250 *Centurion/Olifiant*, MBT; 1,400 AML
Eland Mk IV armd cars; 1,200 *Ratel*, AFV; 500 lt
 APC, incl *Buffalo*, *Hippo*, *Rhino*; 65 25-pdr, 75
 5.5-in towed, 50 *Sexton* 25-pdr SP, 40 G-5
 155mm towed how; 127mm MRL; 81mm, 200
 120mm mor; 900 6-pdr (57mm) and 17-pdr
 (76mm), M-67 90mm ATK guns; 106mm RCL;
 SS-11, 120 *ENTAC* ATGW; 20mm, 55 K-63
 twin 35mm, 25 L/70 40mm, 15 3.7-in AA guns;
 24 *Cactus* (*Crotale*), 54 *Tiger* cat SAM.

RESERVES: Active Reserve 130,000. Reservists
 serve for 12 years, in which they spend 720 days
 on duty. They then transfer to the Active Citizen
 Force and may be recalled up to age 60, when
 transfer to the Commandos may occur.

Navy: 5,000, incl 900 marines, 2,100 conscripts.

3 *Daphne* submarines.
 1 *President* (ex-Br *Whitby*) ASW frigate with 1
Wasp hel.
 6 *Minister* (*Reshef*) FAC(M) with 6 *Skerpioen* (*Gab-
 riel*) SSM.
 5 ex-Br *Ford*, 2 *Ton* large patrol craft.
 6 ex-Br *Ton* minesweepers, 2 *Ton* minehunters.
 1 fleet replenishment ship.
 (On order: 6 *Minister* FAC(M).)

MARINES: (900; 600 conscripts); 9 local harbour de-
 fence units.

Bases: Simonstown, Durban.

RESERVES: 2,000 Citizen Force.

Air Force: 9,000 (1,000 conscripts); 211 combat
 aircraft (incl 96 with Citizen Force), at least 12
 armed hel.

Main Threat Area Command:

2 lt bbr sqns: 1 with 5 *Canberra* B(1)12, 3 T-4; 1
 with 6 *Buccaneer* S-50.
 4 FGA sqns: 1 with 32 *Mirage* F-1AZ; 3 with 82
 MB-326 M/K *Impala* V/II.
 2 FGA/interceptor/recee sqns: 1 with 16 *Mirage*
 IICZ, 6 RZ/R2Z; 1 with 13 F-1CZ.
 4 hel sqns with 5 *Super Frelon*, 35 *Puma*, 40
Alouette II.
 3 tpt sqns: 1 with 7 C-130B, 9 Transall C-160Z;

*Spares are short and much equipment is un-
 serviceable. Combat losses make equipment data sus-
 pect. Ex-Ch F-6 believed to lack armament.

† Cadre formations completing the 2 divs when brought
 to full strength on mobilization of Citizen Force.

1 with 4 DC-4, 12 C-47; 1 with 4 HS-125 *Mercurius*, 1 *Viscount* 781, 7 *Merlin* IVA (1 air ambulance).

3 liaison sqns with 15 AM-3C *Bosbok*, 25 C-4M *Kudu*.

Southern Air Command:

2 MR sqns: 1 with 5 *Shackleton* MR-3; 1 with 18 *Piaggio* P-166S.

2 attack sqns with 25 *Impala* I/II.

1 ASW hel sqn with 11 *Wasp* HAS-1.

2 utility hel sqns with 7 *Super Frelon*, 15 *Puma*, 25 *Alouette* III.

1 tpt sqn with 12 C-47B.

Western Air Command:

Namibia; no integral operational sqns.

Training Command:

6 Training schools with 100 T-6G *Harvard*; 60 *Impala* I/II; 26 *Mirage* III (16 EZ, 10 D2Z); 12 C-47 ac; 30 *Alouette* II/III hel.

AAM: *Sidewinder*, R-530, R-550 *Magic*, V-3.

ASM: AS-20/-30.

RESERVES: Active Citizen Force 25,000. 15 L-100 (*Hercules*) in civil airline service.

South West Africa Territory Force (SWATF):

Formed 1 Aug 1980 as a separate force under South African control. Conscription: 24 months (all race groups), selective. Four sectors (Northern, Eastern, Central and Southern) comprising 26 *Area Force* units organized similarly to the Commandos in South Africa, 1 engr, 1 sigs bns. Air element (one sqn) with 1t ac manned by Citizen Force. Northern sector has six Regular SWATF lt inf bns, one mounted Specialist Unit. Mobile Reserve: 1 mot inf bde (3 mot inf bns, 1 armd car regt, 1 arty regt, support units). 1 mot inf bn regulars; rest Citizen Force. Para-military: Industrial Defence units.

Para-Military Forces: Commandos 90,000: inf bn-type protective units in formations of 5+; 12 months initial, 19 days annual trg. 13 Air Commando sqns with private ac. South African Police 35,500 (19,500 White, 16,000 Non-white), Police Reserves 20,000.

TANZANIA

Population: 19,000,000.

Military service: voluntary.

Total armed forces: 40,350.

GNP 1980: 40.3 bn shillings (\$4.9 bn).

Defence expenditure 1980: 1.48 bn shillings (\$180 m).

\$1 = 8.21 shillings (1980).

Army: 38,500.

2 div HQ.

8 inf bdes.

1 tk bn.

2 fd arty bns, 2 AA arty bns (6 btys).

2 mor bns.

1 SAM bn with 9 SA-3, SA-6.

2 ATK bns.

2 sigs bns.

30 ex-Ch Type-59 MBT; 30 ex-Ch Type-62, 36 *Scorpion* lt tks; 20 BRDM-2 scout cars; 50 BTR-40/-152 APC; 40 76mm, 200 122mm, 50 D-30 130mm guns; 350 82mm and 120mm mor; 540 M-20 75mm RCL; 50 BM-21 122mm MRL; 280 ZPU-2/-4 14.5mm, 40 ZU-23, 120 37mm AA guns; SA-3/-6/-7 SAM.

Forces Abroad: Seychelles: 250.

Navy: 850.

10 FAC(G): 6 ex-Ch *Shanghai* II, 4 ex-GDR P-6.

8 FAC(T): 4 ex-Ch *Huchwan* hydrofoils, 4 ex-N. Korean P-4.

13 coastal patrol craft: 1 ex-Sov *Poluchat*, 2 ex-GDR *Schwalbe*, 2 ex-FRG 40 ton, 4 ex-Ch *Yulin*; 4 Vosper Thornycroft 75-ft in Zanzibar.

2 ex-Ch LCM.

Bases: Dar es Salaam, Zanzibar.

Air Force: 1,000; 29 combat aircraft.

3 fighter sqns with 11 MiG-21/F-7, 15 MiG-19/F-6, 3 MiG-17/F-4.

1 tpt sqn: 1 An-2, 3 HS-748, 6 DHC-5D.

Trainers: 2 MiG-15UTI, 6 *Cherokee*, 6 Cessna 310, 2 404.

Hel: 2 Bell 47G, 5 AB-205, 6 AB-206.

Para-Military Forces: 1,400 Police Field Force, Police Marine Unit; 50,000 Citizen's Militia.

ZAIRE

Population: 29,800,000.

Military service: voluntary.

Total armed forces: 26,000.

GNP 1980: 15.99 bn zaires (\$5.71 bn).

Defence expenditure 1979: 92m zaires (\$53.18 m).

GDP growth 1980: 2.5%.

Inflation 1980: 26.6%.

\$1 = 2.80 zaires (1980), 1.73 zaires (1979).

Army: 22,000.

3 Military Regions.

1 div.

1 armd bde.

2 inf bdes (each 3 inf bns, 1 spt bn.)

1 para bde (3 para bns, 1 spt bn.)

1 special force (cdo) bde.

1 Presidential Guard bde.

60 ex-Ch Type-62 lt tks; 95 AML-60, 60 AML-90 armd cars; 12 M-113, K-63, 60 M-3, BTR-152, M-3 half-track APC; 75mm pack, 122mm,

130mm guns/how; 82mm, 4.2-in, 120mm mor; 83mm *Blindicide*, 107mm RL; 57mm ATK guns; 57mm, 75mm, 106mm RCL; 37mm, 40mm AA guns.

(On order: 120mm mor.)

Navy: 1,500 incl marines.

4 ex-Ch *Shanghai* II patrol boats.

35 patrol craft: 4 *Huchwan*, 6 *Sewart*, 3 N. Korean P-4, 8 ex-US, 14 others.

MARINES: (600).

Bases: Matadi, Kalemie, Kinshasa, Banana.

Air Force: 2,500; 19 combat aircraft.

1 fighter sqn with 7 *Mirage* 5M/5DM.

2 COIN sqns with 6 MB-326K, 6 AT-6G.

1 liaison sqn with 20 Reims Cessna FTB-337.

1 tpt wing with 6 C-130H, 2 DC-6, 2 DHC-4A, 3 *Buffalo*, 8 C-47, 4 C-54, 2 MU-2, 1 *Falcon*-20.

1 hel sqn: 3 *Alouette* III, 5 *Puma*, 1 *Super Frelon*.

Trg ac incl 15 Cessna 310, 12 Cessna 150, 13 MB-326GB, 8 SF-260MC.

(On order: S-211 COIN/trg, 4 F-27-500 tpt ac.)

Para-Military Forces: Gendarmerie 22,000; 40 bns.

ZAMBIA

Population: 6,000,000.

Military service: voluntary.

Total armed forces: 14,300.

GNP 1980: 3.294 bn kwacha (\$4.18 bn).

Defence expenditure 1979: 488.8 m kwacha (\$617.2 m).

GDP growth 1980: 0.9%.

Inflation 1980: 11.4%.

\$1 = 0.788 (1980), 0.792 kwacha (1979).

Army: 12,500.

1 armd regt (incl 1 armd recce bn).

6 inf bns.

3 arty btys, 2 AA arty btys.

1 engr, 2 sigs sqns.

4 T-34, 30 T-54/-55 and Type-59 MBT; 130 BRDM-1/-2 armd cars; 13 BTR-60 APC; 76mm, 35 130mm guns; 18 105mm pack, 25 122mm how; 50 BM-21 122mm MRL; M-18 57mm, *Carl Gustav* 84mm RCL; *Sagger* ATGW; 50 20mm, 40 37mm, 55 57mm, 16 85mm AA guns; SA-7 SAM.

Air Force: 1,800; 51 combat aircraft.

3 FGA sqns: 1 with 13 MiG-19/F-6; 1 with 6 *Jas-treb*; 1 with 14 MiG-21 (forming).

1 COIN/trg sqn with 18 MB-326GB.

2 tpt sqns: 1 with 3 Yak-40, 5 DHC-4, 6 DHC-5D,

1 HS-748; 1 with 10 Do-28, 2 C-54.

Trainers incl 2 MiG-21UTI, 8 SF-260MZ, 20 Saab *Safari*, 6 DHC-2, 5 *Broussard*, 2 MiG-15/FT-3, 2 *Galeb*.

1 hel sqn with 3 AB-205A, 3 AB-206, 2 AB-212, 2 Bell 47G, 11 Mi-8.

1 SAM unit with 12 *Rapier*, 3 *Tigercat*, SA-3 *Goa*.

Para-Military Forces: 1,200. Police Mobile Unit (PMU) 700; 1 bn of 4 coys. Police Para-Military Unit (PPMU) 500; 1 bn of 3 coys.

ZIMBABWE

Population: 7,500,000.

Military service: selective.

Total armed forces: 63,000.*

Estimated GDP 1980: \$Z 3.205 bn (\$US 5.08 bn).

Defence expenditure 1981: \$Z 350 m (\$US 555 m).

\$US 1 = approx \$Z 0.63 (1980-81).

Army: 60,000.

5 bde HQ.

1 armd regt.

40 inf bns.

1 arty regt.

1 cdo bn, 1 para bn.

7 engr, 6 sigs sqns.

10 T-34, 18 T-54 MBT; 28 AML-90 *Eland* armd, 15 *Ferret*, BRDM-2 scout cars; 20 BTR-152, UR-416, *Buffalo*, *Hippo*, *Hyena*, *Leopard*, *Crocodile* APC; 18 25-pdr, M-56 105mm pack, 8 122mm, 8 5.5-in guns/how; 81mm mor; 106mm RCL; 8 SA-7 SAM.

Air Force: 3,000; some 41 combat aircraft.

1 lt bbr sqn with 5 *Canberra* B-2, 2 T-4.

2 FGA sqns: 1 with 9 *Hunter* FGA-9, 1 T-7; 1 with 5 *Vampire* FB-9.

1 COIN/recce sqn with 10 Cessna 337 (O-2) *Lynx*, 9 AL-60FS *Trojan*.

1 trg/recce/liaison sqn with 17 SF-260W/C *Genet*.

1 tpt sqn with 12 C-47, 6 *Islander*.

2 hel sqns with 27 *Alouette* II/III, 11 Bell/AB 205A.

2 AA sqns with 20mm, 23mm AA guns.

2 security sqns.

(On order: 8 *Hawk* COIN/trg ac).

Para-Military Forces: Zimbabwe Republic Police Force 10,000. Police Support Unit 1,500. National Militia to be formed.

*Being cut to about 42,000 total.

ARMED FORCES OF OTHER AFRICAN STATES

Country	Estimated population (000)	Estimated GNP 1980 (\$m)	Defence expenditure 1981 (\$m)	Total armed forces	Army		Navy	Air Force	Para-military forces
					Manpower and formations	Equipment	Manpower and equipment	Manpower and equipment	
Benin	3,600	1,140	n.a.	3,160	3,000 3 inf bns 1 para/cdo bn 1 engr bn 1 service bn 1 armd sqn 1 arty bty	7 M-8, M-20 armd cars; BRDM-2 recce vehs; 4 M-101 105mm how; 60mm, 81 mm mor	60 7 patrol boats: 2 P-6, 1 Fr, 5 <i>Zhuk</i> (some inoperable)	100 2 C-47, 2 An-26, 1 F-27, 3 An-2, 1 <i>Falcon</i> 20, 1 Aero <i>Commander</i> , 1 <i>Corvette</i> 200, 2 <i>Broussard</i> tpts; 1 Cessna 337 lt ac; 1 Bell 47, 1 <i>Alouette</i> II hel	1,100
Botswana	900	604 (1979)	29.3 (1980)	3,000*	2,850 1 inf bn gp	<i>Shorland</i> , Cadillac Gage armd cars; 30 BTR-60 APC; 81 mm mor; 84mm <i>Carl Gustav</i> RCL; SA-7 SAM	—	150 5 <i>Defender</i> COIN; 2 <i>Skyvan</i> tpts; 2 Cessna 152, 6 <i>Bulldog</i> lt ac	1,260 (Police)
Burundi	4,500	889	37.4	5,200*	5,000 2 inf bns 1 para bn 1 cdo bn 1 armd car coy	12 AML-60/-90, <i>Shorland</i> armd cars; 20 BTR, <i>Walid</i> APC; 15 75mm RCL; 83mm <i>Blindicide</i> RL; 18 82mm mor; 15 14.5mm AA guns	50 3 <i>Lambro</i> patrol boats (2 in reserve)	150 3 SF-260 COIN; 3 DC-3, 2 Do-27 tpts; 3 <i>Alouette</i> III hel	1,500
Cameroon	9,000	5,500	63	7,250	6,600 1 armd car bn 1 para bn 4 inf bns 1 engr bn 1 arty bty 1 AA bty Spt units	M-8 armd, <i>Ferret</i> scout cars; 18 <i>Commando</i> APC, M-3 half-track; 75mm pack, M-101 105mm how; 60mm, 20 81 mm mor; 13 57mm ATK guns; 89mm ACL-STRIM ATK RL; 40 106mm RCL; <i>Milan</i> ATGW; 18 Type-58 14.5mm, 18 35mm, 18 Type-63 37mm, 18 40mm AA guns	300 2 <i>Shanghai</i> -II FAC(G); 1 PR-48, 10 coast patrol craft (1 LCM, 5 LCVP; 6 lt assault craft	350 1 mixed sqn, 1 Presidential flt; 6 <i>AlphaJet</i> FGA; 4 <i>Magister</i> COIN; 2 C-130H, 3 C-47, 2 HS-748, 2 DHC-4, 2 DHC-5D, 2 Do-28, 2 Do-128-6 (MR), 7 <i>Broussard</i> , 1 Boeing 727-20 tpts; 1 <i>Puma</i> , 1 <i>Lama</i> , 3 <i>Alouette</i> II/III, 1 Mi-4, 4 <i>Gazelle</i> (2 with <i>HOT</i> ATGW) hel	5,000
Cape Verde	290	n.a.	15 (1980)	1,000	900 1 inf bn Spt elms	8 BRDM-2 recce vehs; mor; 3.5-in RL	50 2 <i>Shersten</i> FAC; 1 coast patrol craft	50 2 An-26 tpt ac	—

Armed Forces of Other African States (cont.)

Country	Estimated population (000)	Estimated GNP 1980 (\$m)	Defence expenditure 1981 (\$m)	Total armed forces	Army		Navy	Air Force	Para-military forces
					Manpower and formations	Equipment	Manpower and equipment	Manpower and equipment	
Central African Republic	2,400	550	13.3 (1980)	2,300	2,000 1 regt HQ 1 inf bn 1 engr coy 1 sigs coy 1 tpt coy	4 BRDM-2, 10 <i>Ferret</i> scout cars; 81mm mor; 10 106mm RCL; 9 river patrol craft	—	300 10 AL-60, 2 <i>Rallye Guerrier</i> , 1 DC-4, 4 DC-3/C-47, 1 <i>Caravelle</i> , 1 <i>Corvette</i> , 6 <i>Broussard</i> , 2 <i>Skymaster</i> tpts; 1 <i>Alouette II</i> , 4 H-34 hel	1,500
Chad	4,500	n.a.	n.a.	3,200	3,000 3 inf bns (incl 5 para coys) 1 recce coy	AML-60/-90 armd cars; 90mm, 122mm guns; 81mm, 120mm mor; 68mm, 89mm ATK RL	—	200 10 AL-60, 3 C-54, 12 C-47, 1 <i>Noratlant</i> , 1 <i>Caravelle</i> , 2 PC-6, 3 <i>Broussard</i> tpts; 4 Cessna 337 lt ac; 11 <i>Alouette II/III</i> , 4 <i>Puma</i> hel	6,000
Congo	1,600	1,000	82.1	8,700	8,000 1 armd bn 1 inf bn 1 arty gp 1 engr bn 1 para/cdo bn	14 Ch T-62, 3 PT-76 lt tks; 15 BRDM-1/-2 scout cars; M-3, 20 BTR-50, 2 BTR-60, 44 BTR-152 APC; 6 75mm, 10 100mm, 8 122mm how; 82mm, 10 120mm mor; 13 57mm, 76mm, 100mm ATK guns; 57mm RCL; 28 37mm AA guns	200 1 <i>Shershen</i> FAC(T); 3 <i>Shanghai</i> FAC(G); 3 <i>Pirana</i> coastal; 4 river patrol craft	500 1 MiG-15, 20 MiG-17 FGA; 1 F-28, 5 An-24, 5 Il-14, 3 C-47, 1 <i>Frégate</i> , 2 <i>Broussard</i> tpts; 4 L-39 trg ac; 1 <i>Puma</i> , 4 <i>Alouette II/III</i> hel	3,000
Djibouti	310	350	3.1 (1980)	2,700*	2,600 1 inf regt 1 armd sqn 1 spt bn 1 border cdo bn 1 para coy	12 BRDM-2, 2 AML-60, 8 AML-90 armd cars; 12 BTR-60 APC; 105mm pack how; 81mm, 4 120mm mor; 89mm RL; 106mm RCL	20 3 coast patrol boats	80 1 <i>Rallye 235</i> ; 1 <i>Mystere 20</i> , 2 <i>Noratlant</i> tpts; 1 Cessna 206G lt ac; 1 <i>Alouette II</i> hel	2,100
Equatorial Guinea	260	100	2.5 (est)	1,550	1,400 1 inf bn Spt unit	10 BRDM-2 recce vehs; 10 BTR-152 APC; mor	100 1 ex-Sov P-6 FAC; 1 <i>Poluchat</i> patrol craft	50 2 MiG-17, 1 Reims Cessna 337, 2 C-212, 1 Yak 40 ac; 2 <i>Alouette III</i> hel	2,000 (Police)

Gabon	660	3,700 (1981)	50 (est)	2,150	1,500 1 bn gp 8 inf coys 1 engr coy 1 para coy 1 service coy	16 <i>Cascavel</i> , 15 AML-90 armd cars; 6 <i>Com-</i> <i>mando</i> , M-3, 12 VXB-170 APC; 81mm mor; 106mm RCL; 10 37mm, 240mm AA	150 1 FAC(M) with 4 SS-12 SSM; 4 FAC(G); 2 patrol craft (C); 1 LCM	500 7 <i>Mirage</i> 5G/DG FGA; 1 EMB-111P1 MR ac; 1 C-130H, 2 L-100-20/ -30, 3 C-47, 1 DC-8-63, 2 EMB-110, 2 EMB- 110P1K, 1 <i>Falcon</i> , 1 YS-11A, 3 Nord 262, 4 <i>Broussard</i> tpts; 2 Reims 337, 2 <i>Magister</i> , 4 T-34 C lt ac; 4 <i>Puma</i> , 3 <i>Alouette</i> III hel	2,800 (Coast guard)
Guinea	5,300	1,500	n.a.	9,900	8,500 1 armd bn 5 inf bns 1 arty bn 1 engr bn 1 cdo bn 1 special force bn	30 T-34/-54 MBT, 20 PT-76 lt tks; 25 BRDM-1/-2 armd cars; 40 BTR-40/-50/-60/ -152 APC; 76mm, 85mm, 105mm, 122mm guns/how; 57mm ATK guns; 37mm, 57mm, 100mm AA guns	600 6 <i>Shanghai-II</i> FAC(G); 3 <i>Shershen</i> , 4 P-6 FAC(T) (C); 3 <i>Poluchat</i> , 2 MO-6, 5 other coastal patrol craft (C); 1 T-58 minesweeper; 2 LCU	800 6 MiG-17F FGA; 5 II-14, 4 An-14, 2 II-18, 2 C-119, 1 Yak-40 tpts; 1 Reims F-337 lt ac; 2 MiG-15UTI, 5 Yak -18, 3 L-29 trg ac; 1 Bell 47G, 1 <i>Puma</i> , 1 <i>Gaz-</i> <i>elle</i> , 1 UH-12B hel	9,200
Guinea- Bissau	800	200	n.a.	6,300	6,000 4 inf bns 1 engr unit 1 tk sqn	10 T-34 MBT; BTR-40/ -50/-60/-152 APC; 85- mm, 105mm, 122mm guns; 120mm mor; 89mm RL; 75mm RCL; 23mm, 57mm AA guns; SA-7 SAM	250 1 ex-Sov <i>Shershen</i> , 1 P-6 FAC(T); 2 <i>Pol-</i> <i>uchat</i> , 2 other coast patrol craft (C); 2 T-4 LCVP, LCU	50 2 Do-27, 2 Yak-40 tpts, 1 Cessna 337 lt ac; 2 <i>Alouette</i> III, 1 Mi-8 hel	5,000
Ivory Coast	8,300	10,300 (GDP)	235 (1980)	5,070	4,000 3 inf bns 1 marine inf bn 1 armd sqn 1 arty bty 1 AA arty bty 1 HQ coy 1 engr coy 1 spt coy 1 para coy	5 AMX-13 lt tks; 7 ERC- 90 armd cars; 13 VAB, 22 M-3 APC; 4 105mm how; 81mm, 120mm mor; 89mm STRIM RL; 6 M-3 VDA 20mm SP, 10 40mm towed AA guns	500 4 Fr patrol boats (2 with 6 SS-12 SSM); 4 river patrol craft (C); 1 lt tpt, 2 amph boats; 10 landing craft	570 5 <i>AlphaJet</i> FGA; 2 C-130H, 3 F-27, 2 F-28, 6 F-33C, 2 Reims F-337, 1 Cessna 421, 1 <i>King</i> <i>Air</i> , 2 RC-150, 1 <i>Falcon</i> , 1 <i>Gulfstream</i> tpts; 3 <i>Puma</i> , 3 <i>Alouette</i> II/III, 4 <i>Dauphin</i> hel	3,000

Armed Forces of Other African States (cont.)

Country	Estimated population (000)	Estimated GNP 1980 (\$m)	Defence expenditure 1981 (\$m)	Total armed forces	Army		Navy	Air Force	Para-military forces
					Manpower and formations	Equipment	Manpower and equipment	Manpower and equipment	
Liberia	2,000	1,060 (GDP)	16.5	5,400	4,900 5 inf bns 1 Guard bn 1 arty bn 1 engr bn 1 service bn	12 M-3A1 scout cars; 75mm pack, 8 105mm how; 20 60mm, 10 81mm, 4.2-in mor; 3.5-in RL; 57mm, 106mm RCL	250 3 50-ton patrol craft, 2 38-ton, 1 11-ton <i>Swift</i>	250 2 C-47 tpts; 14 Cessna lt ac (2 172, 1 185, 1 207, 10 337)	1,750
Malawi	6,200	982	40.6 (1980)	4,650*	4,500 3 inf bns 1 spt bn (incl 1 recce sqn)	10 <i>Fox</i> , BRDM-2 scout cars; 9 105mm guns; 81mm mor; 3.5-in RL; 57mm; 14 <i>Blowpipe</i> SAM	100 1 <i>Spear</i> , 3 lake patrol boats	50 6 Do-27, 6 Do-28 tpts; 3 <i>Puma</i> , 1 <i>Alouette</i> III hel	1,000
Mali	7,000	1,100	33.4 (1980)	4,950	4,600 4 inf bns 1 arty bn 1 engr bn 1 para bn 1 special force bn 1 tk coy 1 SAM bty	37 T-34 MBT, 12 Type-62 lt tks; 20 BRDM-2 recce; 30 BTR-40, 10 BTR-152, BTR-60 APC; 85mm, 100mm guns; 81mm, 120mm mor; 37mm, 57mm AA guns; SA-3 SAM	50 3 river patrol craft	300 5 MiG-17 FGA; 2 C-47, 3 An-2, 2 An-24, 1 <i>Corvette</i> 200 tpts; 1 MiG-15UTI, 6 Yak-11/-18 trg ac; 2 Mi-4, 1 Mi-8 hel	5,000
Mauritania	1,500	700 (GDP)	59.9	8,470	8,000 1 inf bn 1 arty bn 1 Camel Corps 3 armd recce sqns 1 AA bty 1 engr coy 1 para coy	15 EBR-75 hy, 39 AML-60, 14 AML-90 armd cars; 40 M-3 half-track, 4 M-3 APC; 81mm, 120mm mor; 57mm, 75mm, 106mm RCL; 14.5mm, ZU-23-2, 37mm AA guns; SA-7 SAM	320 8 patrol craft: 1 <i>Patra</i> , 2 ex-Sov <i>Mirny</i> , 3 <i>Barcelo</i> , 2	150 5 <i>Defender</i> , 2 Cessna 337 COIN; 2 Piper <i>Cheyenne</i> MR; 1 DHC-5D, 1 <i>Caravelle</i> , 1 <i>Skyvan</i> , 1 <i>Islander</i> tpts	2,500
Niger	5,800	2,700 (GDP)	17.6 (1980)	2,220	2,150 2 armd recce sqns 4 inf coys 1 engr coy 1 para coy 1 log/spt coy	10 M-8, 30 ERC-60-20 armd cars; 14 M-3 APC; 60mm, 81mm mor; 57mm, 75mm RCL; 10 M-3 VDA 20mm SP AA guns	—	70 1 C-54B, 2 C-47, 2 C-130H, 1 Boeing 737, 4 <i>Noratlant</i> , 3 Do-28D, 1 <i>Flamant</i> , 1 <i>Aero Commander</i> tpts; 2 Cessna 337 lt ac	2,060

Rwanda	5,400	1,053 (GDP)	21.9	5,150*	5,000 1 cdo bn 1 recce sqn 8 inf coys 1 engr coy	12 AML-60/-90 armd cars; M-3 APC; 6 57mm ATK guns; 8 81mm mor; 83mm <i>Blindicide</i> RL	—	150 2 C-47, 1 <i>Islander</i> , 2 <i>Defender</i> (COIN) tpts; 3 AM-3C liaison, 1 <i>Magister</i> trg ac; 2 <i>Alouette</i> III hel	1,200
Seychelles	66	82.7 (GDP)	n.a.	1,000*	750* 1 inf bn 1 arty tp Spt coy	6 BRDM-2, <i>Shorland</i> recce; 3 122mm guns; 6 82mm mor; RPG-7 RL; SA-7 SAM	150 1 <i>Zhuk</i> , 1 ex-Fr large patrol craft; 1 ex-Br patrol boat; 1 LCT	100 1 <i>Defender</i> , 1 <i>Islander</i> , 2 <i>Rallye</i> ac; 2 <i>Alouette</i> III hel	900
Sierra Leone	3,500	1,340 (GDP)	21 (1980)	3,150	3,000 2 inf bns 1 engr sqn	<i>Saladin</i> armd car; Mowag <i>Piranha</i> APC; 10 25pdr guns/how; 60mm, 81mm mor; M-20 3.5-in RL; <i>Carl Gustav</i> 84mm RCL; 1 BO-105 (VIP) hel	150 (coastguard) 1 <i>Tracker</i> 2 coast patrol boat	—	800
Togo	2,700	1,200	21	3,600*	3,400 1 mot inf bn 2 inf bns 2 para bns 1 cdo bn 1 arty bty 1 engr coy	10 M-8/-20, 3 AML-60, 7 AML-90 armd cars; 5 M-3, 30 UR-416 APC; 4 HM-2 105mm guns; M-18A1 57mm RCL	100 2 coastal patrol craft	100 6 EMB-326GB COIN; 1 C-47, 1 Boeing 727, 1 <i>Gulfstream</i> II, 2 DHC-5D, 1 F-28 tpts; 5 <i>Magister</i> trg, 2 lt ac; 1 <i>Puma</i> , 1 <i>Lama</i> hel	1,500
Uganda	13,200	800 (GDP)	n.a.	5,000	5,000 3 bdes (9 inf bns)	10 T-34/-54/-55, M-4 MBT; 150 BTR-40/-152, OT-64 and <i>Saracen</i> APC; 60 76mm, 20 122mm guns; 40 <i>Sagger</i> ATGW; 40 23mm, 40mm AA guns; SA-7 SAM†	—	—	6,000
Upper Volta	6,200	1,000 (est)	n.a.	3,775*	3,700 3 inf regts 1 recce sqn 1 arty bty 1 para coy	15 AML-60/-90, 10 M-8, M-20 armd cars, 30 <i>Ferret</i> scout cars; M-3 APC; M-101, M-56 pack 105mm how; 60mm, 81mm mor; M-20 3.5-in RL; 75mm RCL	—	75 2 C-47, 2 Nord 262, 2 HS-748, 1 <i>Aero Commander</i> , 3 <i>Broussard</i> , 2 <i>Super Skymaster</i> , 1 Cessna 172 tpts	900

* All services form part of the Army

† Serviceability doubtful

Asia and Australasia

CHINA

Chinese defence policy has for many years maintained a balance, at times uneasy, between the two concepts of nuclear deterrence and People's War. The former aims to deter strategic attack, the latter, by mass mobilization of the population, to deter or repel conventional land invasion. Despite changes in the political leadership, supporters of the strategic concept that mass manpower is the primary deterrent remain. However, efforts to develop more modern general-purpose forces in order to meet more limited military contingencies than the extremes of nuclear deterrence or mass war appear to be gaining ground.

The conventional arms inventory of the People's Liberation Army (PLA), generally behind that of nations with advanced technology, is being gradually updated under the Four Modernizations. Involved, in many cases, is the replacement of Soviet and Soviet-designed equipment by indigenous designs and Western technology and equipment. The June 1981 United States agreement in principle to sell China arms, in addition to the logistic and dual-use equipment and technology agreed under the Carter Administration, has added to China's potential sources of supply. But the current phase of economic readjustment has meant a succession of cuts in the defence budget, and modernization is likely to be quite slow (see the note on defence expenditure which follows the country entry). Britain has sold aircraft engines, artillery and fire-control equipment and radar, and the United States has sold computers and radars and is contemplating the sale of a much wider range of defensive and non-combat military equipment.

Nuclear Weapons

The research programme continues, but no nuclear test has been recorded since 1980. The total then was at least 26 since testing started in 1964. A nuclear force capable of reaching large parts of the Soviet Union and Asia is operational. The stockpile of weapons, both fission and fusion, is believed to amount to several hundreds and probably will continue to grow slowly. Fighter aircraft could be used for tactical delivery, and for longer ranges there are some 90 B-6/Tu-16 medium bombers, with a radius of action up to 3,000 km. MRBM with a range of some 1,100 km are operational and are being augmented by operational IRBM with ranges from 2,700 to 5,600 km. The missile forces are controlled by the Second Artillery, the missile arm of the PLA.

A multi-stage ICBM with a limited range of 6,000–7,000 km was first tested in 1976 and some have been deployed. An ICBM thought to have a range of some 13,000 km has also been under development, and it is believed that it is now being deployed. No indication has been received of the deployment of multiple warheads, but a missile has been successfully used (and thus tested) as a launcher for three space research satellites. China has one G-class nuclear submarine with 3 missile launching tubes, believed to be an experimental boat. A nuclear-powered submarine with 12 missile tubes may now also have been launched. So far all missiles have been liquid-fuelled. Solid propellants being developed are reported to have powered the 1980 ICBM test vehicle and may power the new T-5 ICBM.

Conventional Forces

The PLA embraces all arms and services, including naval and air elements. China is organized in 11 Military Regions (MR) with 29 Military Districts (MD) and divided into Main and Local Forces. Main Force (MF) divisions, which comprise the field army, are commanded by the Ministry of National Defence, although command is being transferred to the MR in which they are stationed and which are already responsible for their administration. They are available for operations in any region. Local Forces (LF), which include Border Defence and Internal

Defence units, are predominantly infantry, are less well equipped and are intended to defend their own Provinces together with para-military units. Command of them may be vested in the MR.

Artillery, engineer and railway units are controlled directly by the Ministry of National Defence. Infantry units account for most of the ground-force manpower and 119 of the some 158 MF line divisions; there are only 12 armoured divisions.

The naval and air elements of the PLA have only about one-fifth of the total manpower, compared with about a quarter for their counterparts in the Soviet Union, but naval strength is increasing, and the equipment for both arms is also steadily being modernized. The PLA, essentially a defensive force, lacks facilities and logistic support for protracted large-scale operations outside China.

Major weapons systems produced include F-7/-8 and A-5 fighters, SA-2-type SAM, Type-59 MBT, Types-60/-63 amphibious and Type-62 light tanks and K-63 APC. Two *Han*-class nuclear attack submarines are in service. These carry the CSS-N-4, about which no details are known, but which may be a cruise missile. R- and W-class medium-range diesel submarines are being built, together with SSM destroyers, frigates and fast patrol boats.

Bilateral Agreements

The 1950 Treaty of Alliance and Friendship with the Soviet Union, which contained mutual defence obligations, expired on 10 April 1980. There is a mutual defence agreement with North Korea, dating from 1961, and an agreement to provide free military aid. There are non-aggression pacts with Afghanistan, Burma and Kampuchea. Chinese military equipment and logistic support have been offered to a number of countries. Major recipients include Albania, Egypt, Pakistan and Tanzania.

Gross National Product and Defence Expenditure

There are no official Chinese figures equivalent to Western data for GNP or National Income. An official 1980 figure for the total value of industrial and agricultural output, only in 1970 prices, is 661,900 m yuan. A GNP figure would include the service sector. Western estimates have varied greatly, and it is difficult to choose from a range of figures, variously defined and calculated. One recent British estimate for 1980 is \$628 bn.

GNP/GDP Estimates

		British	Commercial bank	CIA
1980	Yuan (bn)	450.0 ^a	485.1	828.195
	\$ (bn)	300.0	323.4	552.13 ^b
1981	Yuan (bn)	470.0 ^a	540.26	996.773
	\$ (bn)	276.47	317.8	568.69 ^b

GDP growth range (1980): 4.0–7.1%.

Official exchange rates: \$1 = 1.50 yuan (1980), 1.70 (1981).

^a Constant 1980 yuan.

^b 1980 dollars.

The official Chinese defence expenditure figure, released in 1981 for the first time, at 20,170 bn yuan (\$11.87 bn) was 20.7% of planned government expenditure. It was subsequently variously reported to have been cut to 16.5 bn yuan (\$9.7 bn) and then only to 17.4 bn yuan (\$10.2 bn). This figure is not comparable to Western defence estimates, since it excludes a number of items, notably pay and allowances for the troops. Chinese pricing practices are not known in detail, but they are certainly different from those in the West. The official budget figure, in that it excludes a number of items normally included in defence budgets in Western countries, does not therefore provide an accurate indication of defence costs.

CHINA

Population: 1,024,890,000.

Military service: voluntary.

Total regular forces: 4,000,000 (incl railway troops).*

GNP and defence expenditure: see note above.

Strategic Forces:

OFFENSIVE:

(a) Second Artillery (under Army control):

ICBM: 4 T-5 (range 13,000 km), 5-MT warhead. (T-4 experimental only (10,000 km). 10-MT warhead tested.)

IRBM: 10 T-3 (range 4,800–5,600 km), 2–3 MT.

50 T-2 (range 2,700–3,200 km), 200 KT, 1 MT.

MRBM: Some 50 T-1 *Tong Feng* (*East Wind*) (range 1,100 km), 20 KT.

(b) Aircraft (under Air Force control):

3 regts with 90 B(Hong)-6 med bbrs.

(c) Submarines:

SSBN: 1 G-class, 3 launch tubes (experimental boat).

DEFENSIVE:

(a) Tracking station in Xinjiang and a limited ship-borne capability.**(b) Ballistic missile EW phased-array radar complex.****(c) Air Force AD system**, capable of limited defence of key urban and industrial areas, military installations and weapon complexes, with over 4,000 naval and air force fighters, about 100 CSA-1 (SA-2) SAM units and over 16,000 AA guns.**(d) A civil defence shelter and evacuation system** in Beijing and other key cities.

Army: 3,150,000.*

Main Forces (Field Army):

11 Military Regions, 29 Military Districts (some reorganization is taking place).

Some 42 armies (46,300 men), each normally of 3 divs, 1 arty regt and spt tps (some have 1 indep tk regt, some have 1 arty, 1 AA regts), comprising:

12 armd divs.

119 inf divs.

Some 17 field arty divs.

4 ATK divs.

6 AA arty divs.

Some arty, ATK, AA regts.

Some 19 sigs, CW regts; 20 indep recce, engr, sigs, chemical bns (Army tps).

14 railway divs.

50 indep engr regts.

Local Forces (29 provinces):

97 inf divs (incl Local Force, garrison, and Internal Defence divs).

130 indep regts (incl Border Guard).

Tks: 10,500 Sov IS-2 hy, T-34, T-54, Ch Type-59 and mod Type-59 (T-69) MBT, 600 Type-60 (PT-76), Type-62 amph and Type-63 lt.

AFV: 4,000 K-63 and Type-55/-56 (BTR-40/-152) APC.

Arty: 11,800 guns/how (Type-56 85mm, Type-60 122mm, Type-59-1 130mm towed, ISU-122, ISU-152 SP guns, Type-66 152mm towed gun/how, Type-54 122mm and 152mm towed, K-63 122mm SP how); 3,900 Type-63-1 107mm, 132mm, 140mm incl SP and 320mm SP MRL; *FROG*-type ssm; 13,500 82mm, Type-55 120mm and Type-56 160mm mor.

ATK: 40mm, 57mm, 90mm RL; 7,800 57mm, 75mm and 82mm RCL; 57mm, Type-54 76mm guns; *HOT*, AT-3 *Sagger/Sagger*-type ATGW.

AA: 10,000 37mm incl Type-63 SP, 57mm, 85mm and 100mm guns.

DEPLOYMENT:

Excluding arty and engr, MF and LF divs may be as follows:

North-east: Shenyang MR (Heilongjiang, Jilin, Liaoning MD): 3 armd, 18 inf; 16 LF.†

North: Beijing MR (Hebei, Nei Monggol, Shanxi MD): 4 armd, 25 inf; 15 LF.

North-west: Lanzhou MR (Gansu, Ningxia, Qinghai, Shaanxi MD): 1 armd, 9 inf; 4 LF.†

West: Ürümqi MR (East, North and South Xinjiang MD): 6 inf; 8 LF.†

South-west: Chengdu MR (Sichuan, Xizang MD): 8 inf; 6 LF.†

South: Kunming MR (Guizhou, Yunnan MD): 6 inf; 2 LF. Guangzhou MR (Guangdong, Guanxi MD, Hainan independent sub-MD, Hunan MD): 12 inf; 12 LF.†

Centre: Wuhan MR (Henan, Hubei MD): 2 armd, 10 inf, 3 AB (Air Force); 8 LF.

East: Jinan MR (Shandong MD): 1 armd, 9 inf; 7 LF. Nanjing MR (Anhui, Jiangsu, Zhejiang MD): 1 armd, 10 inf; 12 LF. Fuzhou MR (Fujian, Jiangxi MD): 6 inf; 7 LF.

Navy: 360,000 incl 38,000 Naval Air Force and 38,000 Coast Defence Forces: 34 major surface combat ships, 103 attack subs.*

2 *Han* nuclear-powered cruise-missile subs (SSGN), 6 tubes, 'CSS-N-4-type' msl reported.

101 subs (78 R-, 21 W-class, 2 *Ming* trg).

13 destroyers: 9 *Lüda* (*Kotlin*-type) with 2 × 3 CSS-N-2 (*Styx*) ssm (2 more building); 4 *Anshan* (ex-Sov *Gordy*) with 2 × 2 CSS-N-2.

21 frigates: 16 msl: (9 *Jianghu* with 2 × 2 CSS-N-2, 3 *Jiangdong* with 2 × 2 SAM, 4 *Chendu* (ex-Sov

* The People's Liberation Army is one service; naval and air components are listed separately for purposes of comparison.

† There are 2–3 divs worth of border tps in this MR.

Riga) with 1 × 2 CSS-N-2); 5 *Jiangnan* (*Riga*-type).

12 patrol escorts (9 ex-Jap, 2 ex-Br, 1 ex-Aus).

209 FAC(M) with CSS-N-2: 110 *Hola/Osa* (4 msls), 98 *Hoku* ◊, 1 *Homa* hydrofoil (2 msls).

44 patrol craft: 24 *Hainan*, 20 *Kronshtadt*.

350 FAC(G): 10 *Shanghai I*, 295 *Shanghai II/III/IV/V*, 3 *Haikou*, 40 *Swatow* ◊; 2 *Shandong* hydrofoils ◊.

270 FAC(T)◊: 135 *Huchwan* hydrofoils, 70 P-6, 65 P-4 (40 in reserve).

About 120 coastal and river patrol craft ◊.

23 T-43 ocean minesweepers.

19 LST (14 ex-US 511-1152), 16 LSM, 4 inf landing ships, 321 LCU, 150 LCM.

5 sub, 2 other spt, 9 supply ships; 25 (3 fleet) tankers.

Coastal Defence Forces: (38,000): indep arty regts deployed near naval bases, offshore islands, and other vulnerable points; 85mm, 100mm, 130mm guns; CSS-N-2 (land-based) SSM.

DEPLOYMENT AND BASES:

North Sea Fleet: about 500 vessels (over half ◊), incl 2 sub sqns; from the Yalu River to south of Lianyungang. Qingdao (HQ), Lüda, Lüshun, Huludao, Weihai, Chengshan.

East Sea Fleet: about 750 vessels (about 400 ◊); from south of Lianyungang to Dongshan with air, AD and coastal missile units. Ningbo (HQ), Zhoushan, Taohua Dao, Haimen, Wenzhou, Fuzhou.

South Sea Fleet: about 600 vessels (perhaps half ◊), incl 25 submarines, 4 destroyers, 1 frigate, 200 FAC, amph vessels; from Dongshan to the Vietnamese frontier; Zhanjiang (HQ), Shantou, Guangzhou, Haikou, Yulin, Beihai.

Some 800 ocean-going vessels and several thousand junks could augment the existing limited sealift capacity.

NAVAL AIR FORCE: (38,000); about 800 shore-based combat aircraft, org in 3 bbr, 6 fighter divs. Incl about 100 B(Hong)-5 torpedo-carrying and 50 Il-28 lt bbrs; some 600 fighters, incl F(Jian)-5/-6/-7 interceptors; F-6 recce and 10 ex-Sov Be-6 MR ac; 40 H(Zhi)-5, 13 *Super Frelon* hel; some 60 lt tpt ac. Naval fighters are integrated into the AD system.

Air Force: 490,000, incl strategic forces and 220,000 AD personnel; some 5,300 combat ac.*

8 Military Air Regions, 3 minor regional commands, HQ Beijing; combat elements in Armies of varied numbers of air divs. Fighter divs each with 3 regts of 3 sqns of 3 flts of 4 ac. Bbr and tpt ac may be in regts. Each sqn with spt and ground duties elements.

Med bbrs: 120 B(Hong)-6/Tu-16 *Badger*.

Lt bbrs: about 580 B-5/Il-28 *Beagle*.

FGA: about 500 F(Jian)-4 and A(Qiang)-5.

Fighters: some 4,000, incl 300 F-5, about 3,000 F-6, 280 F-7, 2 sqns of 30 F-8 *Finback* (MiG-23) to be formed.

Recce: Some 130 F-6, B-5.

Tpts: Some 550 fixed-wing, incl some 300 Y(Yun)-5/An-2, some Y-7, Y-8 (An-12), about 100 ex-Sov (Li-2, 50 Il-14 (to be retired), Il-18, some An-12/-24/-26), 18 *Trident*. (These could be supplemented by about 350 ac, incl some 150 hy tpts, from Civil Aviation Administration).

Hel: 350: incl H(Zhi)-5/-6; the H-9 (Fr *Dauphin*) is under development.

Trainers: incl BT-5, MiG-15, FT-4/-5/-6.

AAM: AA-2 *Atoll/Atoll*-type.

Airborne tps: 1 corps of 3 divs, 1 indep div: 82mm, 120mm mor; 82mm RCL; 37mm AA guns.

20 AA arty divs, 28 indep AD regts (100 SAM units) with CSA-1 SAM, 16,000 57mm, 85mm and 100mm guns.

Para-Military Forces: Some 12,000,000.

Militia. *Basic Militia*: some 4.3 million; men aged 16–40, women 16–35, who have had, or will have, military service, grouped in the Armed Militia; organized into about 75 cadre divisions and 2,000 regts. *Ordinary Militia*: up to 6 million (ages 17–48) including the Urban Militia receive some basic training but are generally unarmed. Some play a local AD role.

Border security forces comprise 'Armed Border Security' forces (Militia) and 'Border Police' (Public Security Bureau): small arms only.

* The People's Liberation Army is one service; naval and air components are listed separately for purposes of comparison.

OTHER ASIAN COUNTRIES AND AUSTRALASIA

Bilateral Agreements

The United States has mutual co-operation and security treaties with Japan (1960), the Republic of Korea (1954), and the Philippines (1951); military co-operation agreements with Australia (1951, 1963, 1974 and 1980); and a military aid agreement with Thailand. That with Taiwan lapsed on 1 January 1980, although some arms supply and production arrangements continue under the 1979 Taiwan Relations Act. The United States also provides military aid on either grant or credit basis to Indonesia, South Korea, Malaysia, Pakistan, the Philippines and Thailand. There are major US bases in Japan, South Korea and the Philippines, and air (B-52) and naval refuelling facilities in north and west Australia.

In 1965 Britain purchased the Chagos Archipelago, which includes Diego Garcia, from Mauritius for \$3m and established it as the British Indian Ocean territory. A joint US/British base was constructed on Diego Garcia, and a small British naval contingent was deployed there. Treaties in 1972 and 1976 gave the US a 50-year tenure and provided for the development of the US naval communications station on the island into a major US naval and air support facility. Britain also has a Defence Agreement with Sri Lanka (1947).

The Soviet Union has Treaties of Friendship, Co-operation and Mutual Assistance with Afghanistan (1978), India (1971), Mongolia (1966), North Korea (1961) and Vietnam (1978). The Soviet Union concluded a stationing of forces agreement with Afghanistan in April 1980. Bulgaria has Friendship Treaties with Cambodia (1960), Laos (1979), Mongolia (1967) and Vietnam (1979), as have Czechoslovakia with Laos and Vietnam (1980) and Afghanistan (1981), and East Germany with Vietnam (1977) and Kampuchea (1980).

Australia has supplied defence equipment to Papua New Guinea, Singapore, and Indonesia.

In July 1977 Vietnam and Laos signed a series of agreements which contained military provisions and a border pact, and may have provided for the stationing of Vietnamese troops in Laos. A similar series of agreements seems to have been negotiated between Vietnam and the Heng Samrin regime in Kampuchea in February 1979.

Multilateral Agreements

In 1951 Australia, New Zealand and the United States signed a tripartite treaty (ANZUS), which is of indefinite duration. Each agrees to 'act to meet the common danger' in the event of attack on either metropolitan or island territory of any one of them, or on armed forces, public vessels or aircraft in the Pacific. In February 1982 the US agreed to provide additional aid to New Zealand under this pact.

The Manila Pact, signed on 8 September 1954 by Australia, Britain, France, New Zealand, Pakistan, the Philippines, Thailand and the United States, remains in force, though France and Pakistan subsequently withdrew, and the South East Asia Treaty Organization (SEATO), set up to implement it, was disbanded in 1977. The Pact calls for action by each Party to meet the common danger posed by armed aggression, and for consultation if any other threat is posed to the territory, sovereignty or political independence of any Party. Since 1962 the US commitment to Thailand has been based on this Pact.

Five-Power Defence Arrangements, relating to the defence of Malaysia and Singapore and involving Australia, Malaysia, New Zealand, Singapore and Britain, came into effect on 1 November 1971. These stated that, in the event of any externally organized or supported armed attack or threat of attack against Malaysia or Singapore, the five governments would consult together for the purpose of deciding what measures should be taken, jointly or separately. Britain withdrew her forces in March 1976, but New Zealand troops remain in Singapore, as do Australian air forces in Malaysia.

AFGHANISTAN

Population: 15,300,000 (including exiles).
 Military service: conscription to age 35; 3 years.
 Total armed forces: 46,000.*
 Estimated GNP 1981: 164.5 bn afghanis (\$3.23 bn).
 Estimated defence expenditure 1981: 4.93 bn afghanis (\$97 m).
 GDP growth 1981: 1.5%.
 Inflation 1981: 10%.
 \$1 = 50.9 afghanis (1981).

Army: 40,000 (mostly conscripts).*

3 corps HQ.
 11 inf divs.
 3 armd divs (under strength bdes).
 2 mountain inf bdes.
 1 arty bde with 3 arty regts.
 2 cdo regts.
 1 para bn.
 50 T-34, 700 T-54/-55, 100 T-62 MBT; 60 PT-76 lt tks; BMP-1 MICV, 800 BTR-40/-50/-60/-152 APC; 900 76mm, M-1944 100mm guns; M-30 122mm, D-1 152mm how; 82mm, 100 120....., 160mm mor; 50 BM-13-16 132mm MRL; 82mm RCL; 76mm, 100mm ATK guns; *Snapper* ATGW; 350 23mm, 37mm, 57mm and 100mm towed, 20 ZSU-23-4 SP AA guns; SA-7 SAM.

RESERVES: No viable reserve force identified; call-up from ex-servicemen, Youth League and regional tribes from age 20 to age 40.

Air Force: 6,000 (includes Air Defence Command); perhaps 117 combat ac, some 30 armed hel.*

3 lt bbr sqns with 20 Il-28.
 7 FGA sqns: 4 with 40 MiG-17, 2 with MiG-19, 1 with 12 Su-17 *Fitter* C.
 3 interceptor sqns with 25 MiG-21.
 2 tpt sqns with some 10 An-2, 15 An-26, 4 An-24, 2 Il-18D.
 4 hel sqns with up to 14 Mi-4, 30 Mi-8, 30 Mi-24.
 Trainers incl MiG-15/-17UTI/-21U, Il-28U, Yak-18, L-39C

AAM: AA-2 *Atoll*.

1 AD div: 1 SAM bde (3 bns) with 120 SA-2, 115 SA-3; 1 AA bde (2 bns) with 37mm, 85mm, 100mm guns; 1 radar bde (3 bns).

Para-Military Forces: 30,000 Gendarmerie. Border forces (being absorbed by Army). Ministry of Interior: *Khad* (secret police); *Sarandoli* 'Defence of the Revolution' forces org in provincial regiments; Regional 'Revolution Defence Groups'; Pioneers; Afghan Communist Party Guards; Khalki Youth Militia (at least one bn); Pashtun Tribal Militia.

*Actual strength suspect due to defections. All units well below establishment. Divs reported to average 2,500 (i.e. about a quarter strength). The Soviet High Command in

AUSTRALIA

Population: 15,065,000.
 Military service: voluntary.
 Total armed forces: 73,183.
 GDP 1980: \$A 122.43 bn (\$US 142.03 bn).
 Defence expenditure 1980-81: \$A 3.646 bn (\$US 4,229 bn).
 GDP growth 1980: 2.4%.
 Inflation 1980: 9.3%.
 \$US 1 = \$A 0.862 (1980-81).

Army: 32,850.

1 inf div with 3 bdes of 2 inf bns.
 1 armd regt.
 2 cav regts.
 4 arty regts (1 med, 2 fd, 1 AD).
 1 fd engr, 1 construction, 1 fd survey regts.
 5 sigs regts.
 1 Special Air Service regt.
 1 aviation regt.
 1 tpt, 1 air tpt spt regts.
 103 *Leopard* 1A3 MBT; 790 M-113 APC, incl 63 recce AFV with 76mm gun (48 with *Scorpion*, 15 with *Saladin* turret); 34 5.5-in guns; 227 105mm how; 51 M-40 106mm RCL; *Redeye*, 20 *Rapier* SAM launchers; 16 *Porter*, 11 *Nomad* ac; 47 Bell 206B-1 hel; 37 watercraft, 87 LARC-5 amph vehs.

(On order: 36 M-198 155mm how.)

RESERVES: 31,738 (with trg obligations); 2 inf div HQ, 4 bde HQ, 188 fd, spt, log and trg units; 1 cdo bn, 1 regional surveillance force.

Navy: 17,626 (incl Fleet Air Arm).

6 *Oxley* (*Oberon*) submarines.
 3 *Perth* (ex-US *Adams*) ASW msl destroyers with *Standard* SAM, 2 *Ikara* ASW.
 1 modified *Daring* destroyer (trg).
 2 *Adelaide* (FFG-7) frigates with 1 *Harpoon* SSM, 1 *Standard* SAM, 1 hel.
 6 *River* frigates with 1 × 4 *Seacat* SAM/SSM, 1 *Ikara* ASW.
 5 PCF-420 *Freemantle*, 11 *Attack* large patrol craft.
 3 mod Br *Ton* coastal MCM.
 6 LCT (1 trg).
 1 hy amph tpt ship; 1 destroyer tender with *Seacat*, 1 hel; 1 training ship (ex-ocean ferry); 1 fleet tanker.

Afghanistan now effectively controls the Afghan forces, and it is not possible to differentiate between Soviet and Afghan holdings of identical equipment.

Resistance to the Soviet presence involves many among male population, and perhaps 90,000 guerrillas (perhaps 20,000 intermittently active) supported by some 15 exile political groups, six of them active. Equipment: mainly small arms, 60mm, 2-in, 82mm mor; RPG-7 RL; 75mm, 82mm RCL; 12.7mm, 14.5mm AA machine guns, SA-7 SAM, and ATK mines.

FLEET AIR ARM: (1,650); 20 combat ac, 6 armed hel.

1 attack sqn with 4 A-4G *Skyhawk*.

1 ASW sqn with 7 S-2G *Tracker*.

1 composite sqn with 7 S-2G, 2 HS-748 (ECM).

1 ASW hel sqn with 6 *Sea King* Mk 50.

1 utility/SAR hel sqn with 10 *Wessex* 31B, 4 Bell UH-1B, 4 Bell 206B.

1 trg sqn with 8 MB-326H, 2 TA-4G, 4 A-4G.

In storage: 5 S-2G ac, 9 *Wessex* 31B hel.

(On order: 1 ASW carrier, 2 FFG-7 frigates, 1 *Durance*-type replenishment ship, 10 PCF-420 large patrol craft, 2 minehunters, *Harpoon* SSM, *Phalanx* 20mm AA guns, 2 *Sea King* hel.)

Bases: Sydney, Melbourne, Jervis Bay, Brisbane, Cairns, Darwin, Cockburn Sound.

RESERVES: 1,090 (with trg obligations; list being reorganized).

Air Force: 22,707; 128 combat aircraft.

2 FGA/recce sqns with 16 F-111C, 4 F-111A, 4 RF-111C.

3 interceptor /FGA sqns with 53 *Mirage* IIIIO.

2 MR sqns: 1 with 10 P-3B *Orion*; 1 with 10 P-3C.

1 OCU with 15 *Mirage* IIIIO/D, 10 MB-326H.

1 forward air controller flt with 6 CA-25 *Winjeel*.

5 tpt sqns: 2 with 24 C-130E/H, 1 flt with 2 Boeing 707-320C; 1 with 4 DHC-4 ac, 3 UH-1B hel; 1 with 14 DHC-4 (C-7A); 1 with 2 BAC-111, 2 HS-748, 3 *Mystère* 20.

1 med tpt hel sqn with 8 CH-47 *Chinook*.

2 utility hel sqns with 32 UH-1B/H *Iroquois*.

Trainers incl 59 MB-326H, 8 HS-748T2, 49 CT-4 *Airtrainer*.

AAM: *Sidewinder*, R-530.

(4 *Chinook* hel in reserve.)

(On order: 75 F/A-18 FGA/interceptor/trg, 10 P-3C MR ac; R-550 *Magic* AAM; *Harpoon* ASM.)

RESERVES: 900 (with trg obligations) in 7 auxiliary sqns.

Forces Abroad: Egypt (Sinai MFO): 110; 8 UH-1H hel. India/Kashmir (UNMOGIP): 6. Malaysia/Singapore: 2 sqns with *Mirage* IIIIO, 1 flt with DHC-4 ac, UH-1H hel.

Para-Military Forces: Bureau of Customs. (On order: 10 *Searchmaster* MR ac.)

BANGLADESH

Population: 93,000,000.

Military service: voluntary.

Total armed forces: 77,000.

GNP 1980: 170 bn taka (\$10.4 bn).

Estimated defence expenditure 1980: 2.5 bn taka (\$153 m).

GNP growth 1980: 7.6%.

Inflation 1980: 13.2%.

\$1 = 16.34 taka (1980).

Army: 70,000.

5 inf div HQ.

12 inf bdes (27 inf bns).

2 armd regts.

10 arty regts.

6 engr bns.

30 T-54/-55 MBT; 6 M-24 *Chaffee* lt tks; 30 Model 56 pack, M-101 105mm, 5 25-pdr guns/how; 81mm, 50 120mm mor; 57mm (6-pdr) ATK guns; 106mm RCL.*

(On order: 36 Ch tks.)

Navy: 4,000.*

3 ex-Br frigates (1 Type 61, 2 Type 41).

4 ex-Ch *Shanghai* II FAC(G).

4 large patrol craft (2 ex-Yug *Kraljevica*, 2 ex-Ind *Akshay*).

5 *Pabna* river patrol boats(.

1 trg ship.

Bases: Chittagong (HQ), Dacca, Khulna, Chalna.

Air Force: 3,000; 26 combat aircraft.*

2 FGA sqns with 20 Ch F-6.

1 interceptor sqn with 6 MiG-21 MF.

1 tpt sqn with 1 An-24, 6 An-26.

1 hel sqn with 4 *Alouette* III, 6 Bell 212, 6 Mi-8, some Mi-4.

Trainers incl 2 MiG-21U, 8 *Magister*, 12 Ch BT-6.

AAM: AA-2 *Atoll*.

(On order: 12 F-6 FGA.)

Para-Military Forces: 66,000: Bangladesh Rifles 30,000, Armed Police Reserve 36,000.

BURMA

Population: 35,000,000.

Military service: voluntary.

Total armed forces: 179,000.

Estimated GNP 1981: 35.6 bn kyat (\$4.8 bn).

Defence expenditure 1981: 1.4 bn kyat (\$189 m).

\$1 = 7.42 kyat (1981).

Army: 163,000.

6 lt inf divs.

2 armd bns.

85 indep inf bns.

3 arty bns.

1 AA bty.

25 *Comet* MBT; 40 Humber armd, 45 *Ferret* scout cars; 50 25-pdr, 5.5-in guns/how; 120 76mm, 80

*Spares are short; some equipment, incl 1 DC-6, 4 DHC-3, 1 DHC-4, 2 F-27, 1 Yak-40, is unserviceable.

M-101 105mm how; 120mm mor; 50 6- and 17-pdr ATK guns; 10 40mm, 3.7-in AA guns.*

Navy: 7,000.*

1 ex-Br *Algerine* frigate.

4 corvettes: 2 ex-US (1 PCE-827, 1 *Admirable*), 2 *Nawarat*.

36 gunboats (15).

41 river patrol craft.

1 ex-US LCU, 8 ex-US LCM.

(On order: 6 *Carpentaria* coastal patrol boats).

Bases: Bassein, Mergui, Moulmein, Seikyi, Sim-malaik, Sittwo.

Air Force: 9,000; 16 combat aircraft.*

2 COIN sqns with 5 AT-33, 11 SF-260MB.

Tpts incl 1 F-27, 4 FH-227, 7 Pilatus PC-6/-6A, 1 An-26, 6 Cessna 180.

Hel incl 10 KB-47G, 2 KV-107/II, 7 HH-43B, 10 *Alouette* III, 14 UH-1.

Trainers incl 20 PC-7 *Turbo-Trainer*, 10 T-37C.

(On order: 9 SF-260MB, 6 Cessna 180, 12 PC-7.)

Para-Military Forces: 73,000. People's Police Force 38,000; People's Militia 35,000. Fishery Dept: 3 *Osprey*, 9 patrol boats (◊).

INDIA

Population: 688,600,000.

Military service: voluntary.

Total armed forces: 1,104,000.

Estimated GNP 1981: 1,409 bn rupees (\$157.8 bn).

Defence expenditure 1981-2: 47 bn rupees (\$5.26 bn).

GDP growth 1980: 8%.

Inflation 1981: 12.7%.

\$1 = 8.93 rupees (1981).

Army: 944,000.

2 armd divs (being reorganized to bdes).

18 inf divs.

11 mountain divs.

5 indep armd bdes.

7 indep inf bdes.

1 para bde.

17 indep arty bdes, incl about 20 AA regts.

950 T-54/-55, 78 T-72, 1,100 *Vijayanta* MBT, 140 AMX-13 lt tks; BMP-1 MICV; 700 BTR-50/-60/-152, OT-62A/-64A APC; 75mm pack, 76mm, 25-pdr (retiring), 300 M-1944 100mm, 105mm, 550 M-46 130mm (some SP), 5.5-in (retiring), S-23 180mm guns; 75mm pack, 75/24 mountain, 105mm (incl pack, *Abbot* SP) how; 500 120mm, 160mm mor; M-18 57mm, *Carl Gustav* 84mm, 106mm RCL; SS-11-B1, *Harpon* ATGW; 57mm ATK guns; 40mm 3.7-in towed, ZSU-23-4 SP AA guns; SA-6, SA-9, 40 *Tigercat* SAM.

(On order: 130 T-72 MBT; BMP-1 MICV; *Milan* ATGW launchers, 3,700 msls.)

RESERVES: 200,000. Territorial Army 40,000.

Navy: 47,000, incl naval air force.

8 ex-Sov F submarines.

1 ex-Br *Majestic* aircraft carrier (capacity 18 *Sea Hawk*, 4 *Alizé*).

1 ex-Br *Fiji* cruiser (trg).

2 ex-Sov *Kashin* destroyers with 4 *Styx* SSM, 2 × 2 SA-N-1 SAM, 1 hel.

21 frigates: 6 *Leander* with 2 × 4 *Seacat* SAM, 1 hel; 2 ex-Br *Whitby* with 2 *Styx* SSM; 9 ex-Sov *Petya* II; 4 trg (3 ex-Br *Leopard*, 1 *Black Swan*).

3 ex-Sov *Nanuchka* corvettes with 4 SS-N-2 SSM, 1 SA-N-4 SAM.

16 ex-Sov *Osa-I/II* FAC(M) with 4 *Styx* SSM.

1 *Abhay*, 3 SDB-2 large patrol craft.

6 ex-Sov *Natya* ocean, 4 ex-Br *Ton* coastal, 4 ex-Br *Ham* inshore minesweepers.

1 ex-Br, 6 ex-Sov *Polnocny* LCT, 4 LCU.

(On order: 4 Type 209 submarines, 6 *Godevari* (modified *Leander*) frigates, 2 *Nanuchka* corvettes, 6 *Polnocny* LCT.)

Bases: Western Fleet: Bombay, Goa, Cochin. Eastern Fleet: Vishakapatnam, Calcutta, Port Blair.

NAVAL AIR FORCE: (2,000); 35 combat ac, 26 armed hel.

2 attack sqns with 20 *Sea Hawk* (10 in carrier).

1 ASW sqn with 5 *Alizé* 1050 (4 in carrier).

2 MR sqns with 5 *Super Constellation*, 5 Il-38 *May*.

5 ASW hel sqns with 10 *Sea King*, 5 Ka-25, 11 *Alouette* III.

1 SAR/liasion hel sqn with 10 *Alouette* III.

3 trg/comms sqns with 7 HJT-16 *Kiran*, 4 *Vampire* T-55, 10 *Islander*, 1 *Devon*, 2 *Sea Hawk* ac; 4 Hughes 300 hel.

(On order: 8 *Sea Harrier* fighters, 1 Il-38 MR, 6 *Islander* trg ac.)

Air Force: 113,000; 635 combat aircraft.

4 lt bbr sqns with 45 *Canberra* B(I)58, B(I)12 (to be replaced by *Jaguar*).

10 FGA sqns: 3 with 48 Su-7BM/KU; 3 with 48 *Hunter* F-56/-56A (to be replaced by *Jaguar*); 1 with 16 *Jaguar* GR-1, 2 T-2; 2 with 50 HF-24 *Marut* (being replaced by *Ajeet*); 1 with 10 MiG-23BN/UM *Flogger* H/C (2nd forming).

19 AD sqns: 15 with 300 MiG-21/FL/PFMA/MF/bis/U; 4 with 100 *Ajeet* (*Gnat* Mk II).

2 recce sqns with 8 *Canberra* PR-57 (being replaced), 8 MiG-25.

4 hel sqns with some 60 *Cheetah* (*Lama*).

3 trg and conversion sqns with 12 *Canberra* T-4/T-13/T-67, 40 *Hunter* F-56/T-66, 40 MiG-21U.

*Spares are short; some equipment is unserviceable.

10 tpt sqns: 2 with An-32 (replacing 46 C-119G); 2 with 30 An-12; 2 with 20 DHC-3; 3 with An-32 (replacing 36 C-47); 1 with 16 DHC-4, 2 Boeing 737-248 (leased).

1 comms sqn with 16 HS-748M.

2 liaison flts with 16 HS-748, 4 C-47.

5 tpt hel sqns with 60 Mi-8.

3 liaison hel sqns with 100 *Chetak* (*Alouette* III), some with 4 SS-11 ATGW.

Trainers incl 65 HT-2, 90 *Kiran* 1/1A, 15 *Marut* Mk 1T, some HPT-32 (replacing HT-2) 45 TS-4 *Iskra*, 27 HS-748 ac, *Chetak* hel.

AAM: AA-2 *Atoll*.

ASM: AS-30.

30 SAM sqns with 180 SA-2/-3.

(On order: 150 *Mirage* 2000, 85 *Jaguar* (45 to be locally assembled), 62 MiG-23BM, 13 MiG-23UM, MiG-21bis, 40 *Ajeet* fighters; 40 An-32, 10 HS-748 tpts; 40 *Iskra*, 90 *Kiran* Mk 2, 140 HPT-32 trg ac; Mi-8, Mi-24, 45 *Chetak* hel.)

Para-Military Forces: Border Security Force 85,000; 175,000 in other organizations. Coast-guard: 2 ex-Br Type 14 frigates, 2 FAC(P), 5 *Polu-chat* FAC(P), 5 *Defender* ac, 6 *Alouette* III hel.

(On order: 3 offshore, 9 inshore patrol vessels, 9 lt tpt ac, 3 hel.)

INDONESIA

Population: 156,000,000.

Military service: selective.

Total armed forces: 269,000.

GNP 1980: 42,424 bn rupiahs (\$67.66 bn).

Estimated defence expenditure 1981: 1,714 bn rupiahs (\$2.69 bn).

GDP growth 1980: 9.6%.

Inflation: 17.1% (1980), 12.3% (1981).

\$1 = 636.67 rupiahs (1981), 626.99 (1980).

Army: 200,000.*

1 armd cav bde (10 cav bns, spt units).†

13 inf bdes (39 inf bns).†

2 AB inf bdes (6 bns).†

1 fd arty regt.†

1 AA arty regt.

4 Special Warfare Gps.†

2 construction engr regts (4 bns).

8 fd engr bns.

37 indep inf, arty, engr bns.

Army Aviation:

1 composite sqn; 1 hel sqn.

93 AMX-13, 41 PT-76 lt tks; 75 *Saladin* armd, 60 *Ferret* scout cars; 200 AMX-VC1 MICV, 60 *Saracen*, 60 V-150 *Commando*, BTR-40/-152 APC; 180 76mm, 18 105mm (incl lt) guns/how; 480 80/81mm mor; 480 90/106mm RCL; 20 20mm, 90 40mm, 200 57mm AA guns; 2 Aero *Com-*

mander 680, 1 Beech 18 ac; 6 Bell 205, 2 *Alouette* III, 16 BO-105 hel.

(On order: 133 M-101A1 105mm how (replacing 76mm); 6 Bell 212 hel.)

RESERVES: National Strategic Command: HQ only to command Special Reserve forces in strategic operations. Incl army, KOSTRAD, AB, naval forces incl marines, combat and tpt ac.

Navy: 40,000: incl naval air and marines.†

4 submarines: 2 Type 209, 2 ex-Sov W (1 trg).

10 frigates: 3 *Fatahilla* with 4 *Exocet* SSM, 1 with 1 *Wasp* hel; 4 ex-US *Jones*; 3 ex-Sov *Riga*.

15 large patrol craft: 5 ex-Sov *Kronshtadt*, 5 ex-Yug *Kraljevica*, 1 *Kelabang*, 3 *Attack*, 1 ex-US PGM-39.

4 PSSM Mk 5 FAC(M) with 4 *Exocet* SSM.

3 Lürssen TNC-45 FAC(T).

1 Boeing hydrofoil.

8 coastal patrol craft: 2 *Spear*, 6 Aus *Carpentaria*.

4 ex-Sov T-43 ocean minesweepers.

1 comd/spt ship; 1 trg ship with 4 *Exocet*, 1 hel.

13 LST, 3 LCU, 38 LCM.

(Plus in reserve: 1 *Pattimura* frigate; 1 *Kronshtadt*, 1 *Kelabang*, 2 PGM-39 patrol craft; 1 R-class coastal minesweeper; 1 comd/spt ship.)

(On order: 2 Type 209 subs, 2 minehunters, 4 LST.)

Bases: Jakarta, Surabaya.

NAVAL AIR: (1,000); 8 combat ac, 10 armed hel.

1 ASW hel sqn with 10 *Wasp*.

3 MR sqns: 2 with 6 *Nomad*, 1 C-130H-MP, 1 Boeing 737-200.

Other ac incl 5 HU-16, 5 C-47, 4 Aero *Commander* ac; 4 Bell 47G, 6 *Alouette* II/III, 3 BO-105 hel.

(On order: 2 *Nomad*, 2 Boeing 737-200 MR ac, 8 BO-105 hel.)

MARINES: (12,000).

2 inf regts (6 bns); 1 close spt regt; 3 amph assault, 1 arty, 1 AA bns.†

30 PT-76 lt tks; 3 VPX-10 PAC 90 armd cars; 38 APC, incl 6 AMX-10P; 40mm AA guns.

(On order: 37 VPX-10/90 armd cars, AMX-10P APC).

Air Force: 29,000; 45 combat aircraft.*

2 FGA sqns with 13 A-4E, 2 TA-4H *Skyhawk*.

2 interceptor sqns with 11 F-5E, 4 F-5F.

* Some armed forces elements are engaged in rural aid administrative duties.

† KOPKAMTIB (Operational Command for the Restoration of Law and Order): no forces assigned.

KOSTRAD = Strategic Reserve Command: army command (16,500-19,000 men) under direct control of the Minister of Defence and Security. Incl ground combat command (1 armd, 3 inf bdes, 1 arty regt), air combat command (with 2 AB bdes).

KOPNESANDHA = Special Forces Command 4,000: 4 special para/cdo gps.

1 COIN sqn with 15 OV-10F.
 3 tpt sqns: 2 with 18 C-130H-30/-30B, 1 L-100-30;
 1 with 1 C-140 *Jetstar*, 12 C-47, 1 SC-7 *Skyvan*,
 8 F-27, 10 CASA C-212, 1 Transall C-160F.
 1 liaison sqn with 2 DHC-3, 12 Cessna
 207/401/402.
 1 hel sqn with 2 Bell 204B, 1 S-61A, 6 *Puma*.
 1 trg sqn: 2 T-6, 12 T-34C1, 6 *Hawk* T-53, 20
 AS-202 *Bravo*.
 (On order: 16 A-4E FGA; 6 C-212, 2 C-160F tpt ac.)

Para-Military Forces: Police mobile bde 12,000
 (getting 2 BO-105 hel). About 70,000 Militia.
 Coastguard: 7 patrol boats. Customs: 7
 28-metre, 8 57-metre Lürssen patrol boats.

JAPAN

Population: 118,519,000.
 Military service: voluntary.
 Total armed forces: 245,000 (to increase to
 270,184).
 Estimated GNP 1981: 264,800 bn yen (\$1,153 bn).
 Estimated defence expenditure 1981: 2,399.9 bn
 yen (\$10.45 bn).
 GNP growth 1981: 2.9%.
 Inflation 1981: 4.4%.
 \$1 = 229.59 yen (1981).

Army: 155,000.

1 armd div.
 12 inf divs (7-9,000 men each).
 1 AB bde.
 2 composite bdes.
 1 arty bde, 2 AD arty bdes.
 1 sigs bde.
 5 engr bdes.
 8 SAM gps (each of 4 btys) with 192 *HAWK/Im-*
proved HAWK.
 Army Aviation:
 1 hel wing and 24 sqns.
 AFV: 560 Type 61, 350 Type 74 MBT; 530 Type
 SU-60 and Type 73 APC.
 Arty: 650 105mm, 155mm and 203mm guns/how;
 130 Type 74 105mm and Type 75 155mm how;
 Type 30 SSM; 1,320 81mm and 107mm mor
 (some SV and SX SP); 30 Type 75 130mm MRL.
 ATK: 1,600 57mm, 75mm, *Carl Gustav* 84mm,
 106mm (incl Type 60 SP) RCL; 230 Type 64, 15
 Type 79, *TOW* ATGW.
 AA: 210 35mm twin, 37mm, 40mm incl M-42 SP,
 75mm AA guns; 54 *Improved HAWK* SAM.
 Air: some 27 ac and 372 hel: 15 LR-1, 2 TL-1, 10
 L-19 ac; 2 AH-1S, 55 KV-107, 70 UH-1H, 65
 UH-1B, 30 TH-55, 140 OH-6J/D, 2 H-13, 8
 KH-4 hel.
 (On order: 57 Type 74 MBT; 4 Type 73 APC, 24
 Type 75 155mm, 6 M-110A2 203mm SP how; 8
 Type 75 130mm MRL; 9 Type 79, *MAT* ATGW;
 219 84mm RCL; 14 *Stinger*, 4 *Tan*, 54 *Improved*

HAWK SAM; 1 LR-1 ac; 8 OH-6D, 5 UH-1H, 10
TOW-armed AH-1S hel.)

RESERVES: 43,000.

Navy: 45,000 (including naval air).

14 submarines: 3 *Yushio*, 7 *Uzushio*, 4 *Asashio*.
 33 destroyers: 2 *Shirane* with *Sea Sparrow* SAM, 1
 × 8 *ASROC*, 3 ASW hel; 2 *Haruna* with 1 × 8
ASROC, 3 ASW hel; 2 *Tachikaze* with *Standard*
 SAM, 1 × 8 *ASROC*; 1 *Amatsukaze* with 1 *Stan-*
standard SAM, 1 × 8 *ASROC*; 4 *Takatsuki* with 1 ×
 8 *ASROC*; 1 *Hatsuyuki* with 2 × 4 *Harpoon*
 SSM, 1 *Sea Sparrow*, 1 × 8 *ASROC*, 1 hel; 6
Yamagumo with 1 × 8 *ASROC*; 3 *Minegumo*
 with 1 × 8 *ASROC*; 2 *Akizuki*; 3 *Murasame*; 7
Ayanami (2 trg).
 16 frigates: 1 *Ishikari* with 2 × 4 *Harpoon* SSM; 11
Chikugo with 1 × 8 *ASROC*; 4 *Isuzu*.
 5 large patrol craft: 3 *Mizutori*, 2 *Umitaka*.
 5 FAC(T).
 9 coastal patrol craft.
 3 MCM spt ships, 31 coastal minesweepers (7 *Hat-*
sushima, 19 *Takami*, 5 *Kasado*), 6 *Nanago* MCM
 boats.
 1 *Katori* trg, 1 *Azuma* trg spt ships.
 6 LST (3 *Miura*, 3 *Atsumi*); 2 LCU; 37 landing craft.
Bases: Yokosuka, Kure, Sasebo, Maizuru, Omin-
 ato.
 NAVAL AIR ARM: (14,000); 110 combat ac, 61
 armed hel.
 6 Air Wings.
 7 MR sqns with 68 P-2J, 28 S-2F-1, 14 PS-1.
 6 ASW hel sqns with 54 HSS-2/-2A/-2B.
 1 MCM hel sqn with 7 KV-107.
 1 tpt sqn with 4 YS-11M, 1 B-65.
 1 test sqn with 4 P-3C, 3 P-2J, 5 PS-1, 3 UP-2J ac; 3
 HSS-2A/B hel.
 7 SAR flts with 7 US-1 ac, 12 S-61A/-62B hel.
 5 trg sqns with 7 YS-11T, 11 TC-90, 14 B-65, 31
 KM-2, 19 P-2J ac; 3 OH-6J, 6 Bell 47G, 13
 HSS-2 hel.
 (On order: 3 *Yushio* submarines, 8 *Hatsuyuki*
 destroyers, 2 *Yubari* frigates; 4 *Hatsushima*
 MCM; 14 P-3C, 1 KM-2, 1 US-1, 4 TC-90 ac; 8
 HSS-2B, 1 S-61A hel; 3 *Phalanx* 20mm AD
 systems).
 RESERVES: 600.
Air Force: 45,000; 314 combat aircraft.
 6 combat air wings; 1 composite air div; 1 recee
 sqn.
 3 FGA sqns with 60 F-1.
 11 interceptor sqns: 6 with 130 F-4EJ; 4 with 90
 F-104J, 10 F-104DJ; 1 OCU with 10 F-15J/DJ.
 Recce Air Group: HQ sqn; aerobatic team; 1 recee
 sqn with 14 RF-4E.
 3 tpt sqns with 30 C-1, 10 YS-11.
 1 SAR wing (9 dets) with T-34A, MU-2 ac; 6 V-107,
 S-62 hel.

1 air test wing with F-4EJ, F-15J, F-104J, T-1, 11 T-2, 10 T-3, T-33A, C-1, 1 E-2C.
1 weather group with YS-11, MU-2J, T-33A.
5 trg wings: 10 sqns with 50 T-1A/B, 70 T-2, 50 T-3, 60 T-33A.

AAM: *Sparrow*, *Falcon*, *Sidewinder*.

6 SAM gps: 19 sqns with 180 *Nike-J*.

A Base Defence Ground Environment with 28 control and warning units (new system planned).
(On order: 38 F-15J, 4 TF-15DJ, 7 F-1 fighters, 4 C-130H tpt, 10 T-2 trg, 7 E-2C AEW ac; *Sidewinder* AAM; 6 *Stinger*, 2 *Tan* SAM launchers.)

Para-Military Forces: Coast Guard: 41 large patrol vessels, 4 with 1 hel; 47 med, 76 small patrol vessels (61); 1 C-130HMP, 5 YS-11, 2 *Skyvan*, 2 *King Air* ac, 5 Bell 212 hel.

KAMPUCHEA/CAMBODIA

Population: 5,100,000.

Military service: conscription, term unknown.

Total armed forces: some 20,000.

Armed Forces:

4 inf divs (perhaps 3 bdes, 3 bns each).

Some 50 indep units incl cav (recce), arty.

(On order: tks, arty, ships, ac, 2 Mi-8 hel – details unknown.)

Para-Military Forces: Militia; Regional Armed Forces/Self Defence forces (org in coys); People's Police force.*

KOREA: DEMOCRATIC PEOPLE'S REPUBLIC (NORTH)

Population: 18,600,000.

Military service: Army, Navy 5 years; Air Force 3–4 years.

Total armed forces: 784,000.

Estimated GNP 1981: 33.6 bn won (\$18.8 bn).

Estimated defence expenditure 1982: 3.2 bn won (\$1.7 bn).†

\$1 = 1.88 won (1982), 1.79 won (1981).

Army: 700,000.

9 corps HQ.

2 armd divs.

3 mot inf divs.

35 inf divs.

5 armd bdes.

4 inf bdes.

Special forces (100,000): 1 corps HQ: 20 bdes (incl 3 amph cdo), AB element.

2 indep tk, 5 indep inf regts.

250 arty bns.

80 rocket bns.

5 SSM bns with 54 *FROG*.

5 river crossing regts (13 bns).

300 T-34, 2,200 T-54/-55/-62, 175 Type-59 MBT; 100 PT-76, 50 Type-62 lt tks; 140 BA-64 armd cars, 1,000 BTR-40/-50/-60/-152, K-3 APC; BMP-1 MICV; 4,100 76mm, M-46 85mm, 100mm, 122mm, 130mm towed, SU-76, SU-100 SP guns; 122mm, ML-20 152mm how; 11,000 82mm, 120mm and 160mm mor; 2,000 107mm, 122mm, 140mm, 200mm and 240mm MRL; 1,500 B-10 82mm RCL; 45mm, 57mm, Type-52 75mm ATK guns; AT-3 *Sagger* ATGW; 54 *FROG-5/-7* SSM; 8,000 23mm, 37mm, 57mm, 85mm and 100mm towed, ZSU-23-4, ZSU-57-2 SP AA guns; SA-7 SAM.

RESERVES: 260,000, 23 divs (cadre).

Navy: 33,000.

19 submarines (4 ex-Sov W-, 4 ex-Ch R-class, 11 local-built).

4 *Najin* frigates (2 may be in reserve).

18 ex-Sov FAC(M) with *Styx* SSM: 8 *Osa-I*, 10 *Komar*.

33 large patrol craft: 3 ex-Sov (2 *Tral*, 1 *Artilerist*), 15 SO-1, 3 *Sariwan*, 6 ex-Ch *Hainan*, 6 *Taechong*.

151 FAC(G): 20 ex-Sov MO-IV; 23 ex-Ch (15 *Shanghai II*, 8 *Shantou*), 4 *Chodo*, 4 K-48, 64 *Chaho*, 36 *Chong-Jin*.

180 FAC(T): 78 ex-Sov (4 *Shersten*, 62 P-6), 12 P-4; 102 (9 *Sinpo*, 15 *Iwon*, 6 *An Ju*, 72 *Ku Song/Sin Hung*).

30 coastal patrol craft (10 ex-Sov KM-4, 20 misc gunboats).

9 LCU, 15 LCM, 75 *Nampo* landing craft.

Samlet coast defence msls; 2 sites.

RESERVES: 40,000.

Bases: Wonsan, Nampo.

Air Force: 51,000; some 700 combat aircraft.

3 lt bbr sqns with 70 Il-28.

13 FGA sqns: 1 with 20 Su-7; 9 with some 290 MiG-15/-17; 3 with 72 MiG-19.

12 interceptor sqns with 120 MiG-21, 120 MiG-19.

Tpts incl 180 An-2, 40 An-24, 5 Il-14, 4 Il-18, 1 Tu-154.

Hel incl 20 Mi-4, 20 Mi-8.

Trainers incl 20 Yak-11, 70 Yak-18, 100 MiG-15UTI/-19UTI/-21U, Il-28, 30 BT-6.

AAM: AA-2 *Atoll*.

4 SAM bdes (12 bns, 40 btys) with 250 SA-2 in 40 sites.

*Forces opposed to the regime: Democratic Kampuchean Government (*Khmer Rouge*): some 30,000 org in bdes and bns. *Sereika*: some 6,000, small arms, incl mor, RCL. *Moulinaka*: perhaps 1,000. Merging.

† It is uncertain whether this covers all defence expenditure, and there is no consensus on a suitable exchange rate for the dollar conversion.

Forces Abroad: Madagascar, 400.

Para-Military Forces: security forces and border guards: 38,000. Workers-Farmers Red Guard (civilian militia): 760,000, with small arms, some AA arty.

KOREA: REPUBLIC OF (SOUTH)

Population: 38,900,000.

Military service: Army and Marines 30 months, Navy and Air Force 3 years.

Total armed forces: 601,600.

GNP 1981: 42,900 bn won (\$63.1 bn).

Defence expenditure 1981: 2,700 bn won (\$3.97 bn).

GNP growth 1981: 7.1%.

Inflation 1981: 12.6%.

\$1 = 680 won (1981).

Army: 520,000.

3 Army, 6 corps HQ.

1 mech inf div (3 bdes: 3 mech inf, 3 mot, 3 tk, 1 recce bns, 1 fd arty bde).

20 inf divs (each 3 inf regts, 1 recce, 1 tk, 1 engr bn, arty gp).

3 AB divs (3 bdes: 4 AB, 1 recce, 1 hel bns, arty gp).

2 special forces bdes.

2 AA arty bdes.

2 SSM bns with 12 *Honest John*.

2 SAM bdes: 3 *HAWK*, 2 *Nike Hercules* bns.

1 army aviation bde.

1,000 M-47/-48 (incl A5) MBT; M-8 armd cars; 500 M-113/-577, 350 Fiat 6614 APC; 2,000 M-59 155mm, 12 M-107 175mm SP guns; M-101 towed, M-52 SP 105mm, M-114 towed, 76 M-109A2 SP 155mm, M-115 and 16 M-110 SP 203mm how; M-10 126mm MRL; 5,300 81mm and 107mm mor; 12 *Honest John* SSM; 80 M-18 76mm, 100 M-36 90mm SP ATK guns; *LAW* RL; 57mm, 75mm, 106mm RCL; *TOW* ATGW; 66 *Vulcan* 20mm, 40 40mm AA guns; 80 *HAWK*, 100 *Nike Hercules* SAM; 14 O-2A ac; 100 UH-1B, 100 OH-6A, 5 KH-4, 25 Hughes 500MD *Defender* hel with *TOW*; 90 *Scout*.

(On order: 37 M-109 155mm SP how; *TOW* ATGW; *Stinger*, 28 *Improved HAWK* SAM kits; 56 OH-6A, 25 Hughes 500MD hel with *TOW*).

RESERVES: 1,100,000; 23 inf divs (cadre). (Another 2.4 m have some reserve obligation.)

Navy: 49,000 incl marines.

11 ex-US destroyers: 7 *Gearing* with 8 *Harpoon* SSM (2 with 1 *Alouette III* hel), 2 *Sumner*, 2 *Fletcher*.

7 ex-US frigates: 1 *Rudderow*, 6 *Lawrence/Crosley*.

3 ex-US *Auk* corvettes.

8 FAC(M) with SSM: 6 with *Standard* (5 PSMM Mk

5, 1 ex-US *Asheville*), 2 *Kist* with 2 *Exocet*.

8 ex-US *Cape* large patrol craft.

28 coastal patrol craft(: 6 CPIC FAC(P); 13 *Sewart* (9 65-ft, 4 40-ft), 9 *Schoolboy I/II*.

8 MSC-268/-294 coastal minesweepers, 1 mine-sweeping boat(.

28 ex-US landing ships (8 LST, 10 LSM, 10 LCU).

(On order: 1 sub, 1 frigate, 20 FAC(M), 75 *Harpoon* SSM.)

Bases: Chinhae, Cheju, Inchon, Mokpo, Pukpyong, Pohang, Pusan.

RESERVES: 25,000.

MARINES: (24,000).

2 divs, 1 bde; LVTP-7 APC.

RESERVES: 60,000.

Air Force: 32,600; some 434 combat ac, 10 armed hel.

7 combat, 2 tpt wings.

18 FGA sqns: 14 with 250 F-5A/B/E; 4 with 70 F-86F.

3 AD sqns with 60 F-4D/E.

1 COIN sqn with 24 OV-10G, some A-37.

1 recce sqn with 10 RF-5A.

2 ASW sqns: 1 with 20 S-2A/F ac; 1 with 10 Hughes 500MD hel.

1 SAR hel sqn with 6 UH-19, 20 UH-1B/H.

5 tpt sqns with 10 C-54, 20 C-123J/K, 2 HS-748, 6 C-130H, *Aero Commander*.

Trainers incl: 20 T-28D, 40 T-33A, 14 T-37C, 20 T-41D, 35 F-5B, 61 F-5F.

AAM: *Sidewinder*, *Sparrow*.

(On order: 30 F-16A, 6 F-16B, 36 F-5E, 32 F-5F fighters; AIM-9Q *Sidewinder* AAM; *Maverick* ASM.)

RESERVES: 55,000.

Para-Military Forces: Homeland Reserve Defence Force, 3,300,000; Civilian Defence Corps, 4,400,000; Student Homeland Defence Corps, 1,820,000. Coastguard: 25 small craft, 9 Hughes 500D hel.

LAOS

Population: 3,200,000.

Military service: conscription, 18 months.

Total armed forces: 48,700.

Estimated GNP 1980: 3 bn kip (\$300 m).

Estimated defence expenditure 1980: 210 m kip (\$21 m).*

\$1 = 10 kip (1980, official).

Army: 46,000 (Regional forces only).

1 armd bn.

70 inf bns.

* Estimates for 1980 range upward to 520 m kip.

4 arty, 4 AA arty bns.
 11 infcoys.
 1 lt ac liaison flt.
 10 M-24, 25 PT-76 lt tks; 8 BTR-40, BTR-152, M-113 APC; 80 M-116 75mm, 105mm, 155mm how; 81mm, 82mm, 107mm, 4.2-in mor; 107mm RCL; M-1939 37mm AA guns; 4 U-17A lt ac.*

Navy: 1,700.*

6 ex-Sov *Shmel*; 28 other river patrol craft (many in reserve).
 7 LCM, 7 tpts (many in reserve).

Air Force: 1,000; 36 combat aircraft.*

1 interceptor sqn with 20 MiG-21.
 1 COIN sqn with 12 T-28A/D, 4 AC-47 gunships.
 2 tpt sqns with 1 Yak-40, 7 C-47, 5 C-123, 6 An-24, 3 An-26, 1 *Aero Commander*, 1 DHC-2.
 1 hel sqn with 8 UH-34, 7 Mi-8.
 Trainers: 6 T-41D.
 AAM: AA-2 *Atoll*.

Para-Military Forces: Militia, Self-Defence forces.

MALAYSIA

Population: 14,661,000.
 Military service: voluntary.
 Total armed forces: 99,100.
 GNP 1981: 57.07 bn ringgits (\$24.81 bn).
 Estimated defence expenditure 1981: 4.73 bn ringgits (\$2.05 bn).
 GDP growth 1980: 7.8%.
 Inflation 1981: 8.7%.
 \$1 = 2.30 ringgits (1981).

Army: 80,000 (110,000 planned).

1 corps, 4 div HQ.
 12 inf bdes, (one more to form) consisting of 38 inf bns, 3 cav, 4 fd arty, 1 APC regts, 2 AA arty btys, 1 special service unit, 5 engr, 5 sigs regts and administrative units.
 140 AML armd, 60 *Ferret* scout cars; AT-105, 200 V-150 *Commando* APC; 12 5.5-in guns, 92 Model 56 105mm pack how; 81mm mor; M-20 89mm RL; 5 120mm RCL; SS-11 ATGW; 35 40mm AA guns.
 (On order: 38 *Scorpion* lt tks; 165 SIBMAS AFV; 20 *Stormer*, 450 *Condor* APC; 18 *Scorpion* SP AA guns.)

RESERVES: Territorial Army, Local Defence Corps, 30,000.

Navy: 8,100 (being expanded).

2 frigates: 1 *Yarrow* (1 × 4 *Seacat* SAM); 1 Type 41.
 8 FAC(M) with *Exocet* SSM: 4 *Spica*, 4 *Perdana*.
 8 *Jerong* FAC(G).
 22 large patrol craft: 4 *Kedah*, 4 *Sabah*, 14 *Kris*.

4 ex-Br *Ton* coastal minesweepers.

3 ex-US 511-1152 LST.

1 spt ship.

(On order: FS-1500 frigate, 2 msl corvettes, 6 FAC(P), 4 minehunters.)

Bases: Woodlands, Kuantan, Labuan, Lumut.

RESERVES: 1,000.

Air Force: 11,000 (being expanded); some 37 combat aircraft.

2 FGA sqns with 13 F-5E, 4 F-5F, 2 RF-5E.

2 COIN/trg sqns with 15 CL-41G *Tebuan* (to be replaced by A-4).

1 MR sqn with 3 PC-130H.

4 tpt/liasion sqns: 1 with 6 C-130H; 1 with 2 HS-125, 2 F-28, 12 Cessna 402B; 2 with 15 DHC-4A.

2 tpt hel sqns with 37 S-61A; 2 liaison sqns with 25 *Alouette* III.

2 trg sqns: 1 with 11 *Bulldog* 102 ac; 1 with 9 Bell 47, 4 UH-1H hel.

AAM: *Sidewinder*.

(On order: 54 A-4 FGA, 14 TA-4 trg (status of additional 20 for spares in doubt), 1 *Super King Air*, 4 NC-212 *Aviocar* tpts, 44 Pilatus PC-7 trg ac; 10 BO-105 hel; *Super Sidewinder* AAM.)

Para-Military Forces: 90,000. Police Field Force 19,000; 21 bns (incl 2 Aboriginal), *Shorland* armd cars and SB-301 APC, 40 patrol boats. Customs and Excise: (On order: 6 32-metre patrol craft). People's Volunteer Corps (RELA), over 350,000.

MONGOLIA

Population: 1,700,000.

Military service: 3 years.

Total armed forces: 34,600.

Estimated defence expenditure 1981: 802.6 m tugrik† (\$239.6 m).

\$1 = 3.35 tugrik (1981-2).

Army: 31,500.

3 inf bdes (may be forming a div).

T-54/-55/-62 MBT; BMP MICV, BTR-60 APC; 76mm, 100mm, 122mm, 130mm guns; 152mm how; SU-100 SP guns; *Snapper* ATGW; 37mm, 57mm AA guns

RESERVES: 40,000.

Air Force: 3,100 (1,000 conscripts); 12 combat aircraft.

1 fighter sqn with 12 MiG-21.

2 tpt sqns with 20 An-2, 6 Il-14, 4 An-24.

1 hel sqn with 10 Mi-4.

* Equipment serviceability unknown.

† Official figure.

Trainers: Yak-11/-18, 3 PZL-104 utility.
1 SAM bn with 18 SA-2.

Para-Military Forces: Ministry of Public Security (10,000): Militia (Police), internal security troops, frontier guards.

NEPAL

Population: 14,600,000.
Military service: voluntary.
Total armed forces: 25,000.
GDP 1980: 23.87 bn rupees (\$1.99 bn).
Estimated defence expenditure 1981: 288 m rupees (\$22.2 m).
\$1 = 12.96 rupees (1981), 12.0 (1980).

Army: 25,000.
5 inf bdes (1 Palace Guard, 1 cav sqn, 1 garrison bn).
1 arty bn.
1 engr bn.
1 sigs bn.
1 para bn.
1 tpt bn.
1 air sqn (1 comms flt, 1 Army flt).
AMX-13 lt tks; 4 3.7-in mountain how; 4 4.2-in, 18 120mm mor; 2 40mm AA guns; 2 *Skyvan*, 1 HS-748, 1 *Twin Otter*, 1 *Turbo-Porter* tpt ac; 3 *Alouette III*, 2 *Puma* hel.

Forces Abroad: Lebanon (UNIFIL): 460; 1 bn.

Para-Military Forces: police force 15,000.

NEW ZEALAND

Population: 3,160,000.
Military service: voluntary, supplemented by Territorial Army service: 12 weeks basic, 20 days per year.
Total armed forces: 12,913.
GNP 1981: \$NZ 25.41 bn (\$US 21.19 bn).
Defence expenditure 1981: \$NZ 555.47 m (\$US 463.28 m).
\$1 = \$NZ 1.199 (1981).

Army: 5,675.
2 inf bns.
1 arty bty.
5 M-41 lt tks; 72 M-113 APC; 10 5.5-in guns; 44 105mm (incl pack) how; 23 106mm RCL.
(On order: 26 *Scorpion* lt tks.)

RESERVES: 1,412 Regular, 5,934 Territorial. 6 Territorial inf bns, 1 fd arty regt (3 btys), 2 APC sqns.

Navy: 2,843.
4 frigates: 2 *Leander* (1 × 4 *Seacat* SAM, 1 *Wasp*

hel), 2 Type 12 (1 with 1 × 4 *Seacat*, 1 trg).
4 *Lake* large patrol craft.
(On order: 2 *Leander* frigates, SAR hovercraft, 2 *Wasp* hel.)

Base: Auckland.

RESERVES: 958 Regular, 280 Territorial.

Air Force: 4,395; 32 combat ac.
1 FGA sqn with 9 A-4K, 2 TA-4K *Skyhawk*.
1 OCU with 16 BAC-167 *Strikemaster*.
1 MR sqn with 5 P-3B *Orion*.
2 med tpt sqns with 5 C-130H, 6 *Andover*, 2 Boeing 727-100C, 3 Cessna 421.
1 tpt hel sqn with 6 *Sioux*, 3 *Wasp*, 9 UH-1D/H.
1 comms sqn with 4 *Andover*, 3 Cessna 421C, 3 F-27.
Trainers: 4 *Airtourer* ac; 3 *Sioux* hel.

RESERVES: 1,039 Regular, 158 Territorial.

Forces Abroad: Singapore: 1 inf bn with log spt; 1 spt hel unit (3 UH-1). Egypt (Sinai (MFO)): 40.

PAKISTAN

Population: 88,950,000 (Afghan refugees *not* incl).
Military service: voluntary.
Total armed forces: 478,600.
GNP 1981: 270.2 bn rupees (\$27.3 bn).
Defence expenditure 1981: 18.7 bn rupees (\$1.89 bn).
GDP growth 1981: 7.4%.
Inflation 1981: 14%.
\$1 = 9.9 rupees (1981).

Army: 450,000 (incl 29,000 *Azad Kashmir* tps).
7 corps HQ.
2 armd divs.
16 inf divs.
4 indep armd bdes.
5 indep inf bdes.
7 arty bdes.
2 AA arty bdes.
6 armd rece regts.
9 SAM btys with 18 *Crotale*.
1 Special Services Group.
M-4, 250 M-47/-48 (incl A5), 35 T-54/-55, 1,000 Type-59 MBT; 15 PT-76, Type-60/-63, 50 M-24 lt tks; 550 M-113, K-63 APC; some 1,000 25-pdr, 100mm, 130mm, 5.5-in and 155mm guns; 75mm pack, 105mm incl pack and 12 M-7 SP, 155mm towed and M-109 SP how; 270 107mm, 120mm mor; 57mm, 100mm ATK guns; 75mm, 83mm, 3.5-in RL; 106mm RCL; *Cobra* ATGW; 37mm, 60 40mm, 57mm AA guns; 18 *Crotale* SAM.

Army Aviation:
1 liaison sqn with 45 Saab *Supporter* lt ac; 4 hel sqns.

Indep army observation flts: 45 O-1E, Cessna 421, *Turbo Commander*, *Queen Air* ac; 16 Mi-8, 35 *Puma*, 23 *Alouette* III, 13 Bell 47G hel.

(On order: 100 M-48A5 MBT; M-113 APC; 75 M-198 towed 155mm, 100 M-109A2 SP 155mm, 40 M-110 SP 203mm how; *TOW* ATGW launchers (incl 24 M-901 SP); 10 AH-1S hel.)

RESERVES: 500,000.

Navy: 11,000.

11 submarines: 2 *Agosta*, 4 *Daphne*, 5 SX-404 midget.

1 ex-Br *Dido* cruiser (cadet trg/AA ship).

9 destroyers: 1 ex-Br *County* with 1 *Sea Slug*, 2 × 4 *Seacat* SAM, 1 hel; 4 ex-US *Gearing* with 1 × 8 *ASROC* ASW; 4 ex-Br (1 *Battle*, 1 CH, 2 CR).

5 large patrol craft: 1 *Town*, 4 ex-Ch *Hainan*.

12 ex-Ch *Shanghai-II* FAC(G).

4 ex-Ch *Huchwan* hydrofoil FAC(TX).

3 coastal patrol craft: 1 *Spear*, 2 M-55 Type.

6 ex-US *Adjutant* and 268 coastal MCM.

1 ex-US *Mission* underway replenishment tanker.

NAVAL AIR: 3 combat ac, 6 armed hel.

1 ASW/MR sqn with 3 *Atlantic* with AM-39 *Exocet* ASM.

ASW/SAR hel sqns with 6 *Sea King* ASW with AM-39, 4 *Alouette* III.

ASM: AM-39 *Exocet*.

Base: Karachi.

RESERVES: 5,000.

Air Force: 17,600; 219 combat aircraft.

1 lt bbr sqn with 11 B-57B (*Canberra*).

3 FGA sqns: 1 with 17 *Mirage* IIIIEP; 2 with 34 *Mirage* 5PA/DP.

8 interceptor/FGA sqns with 144 MiG-19/F-6 (one converting to *Mirage* 5PA).

1 recce sqn with 13 *Mirage* IIIIRP/R2P.

2 tpt sqns: 1 with 13 C-130B/E, 1 L-100; 1 with 1 *Falcon* 20, 1 F-27, 1 *Super King Air*, 1 *Bonanza* ac, 1 *Puma* hel.

1 SAR hel sqn with 10 HH-43B, 16 *Alouette* III.

1 utility hel sqn with 4 *Super Frelon*, 12 Bell 47G.

1 trg sqn with 25 T-33A, 4 MiG-15UTI.

Other trainers incl 3 *Mirage* IIIIDP, 87 *Supporter*, 35 T-37C, 15 Shenyang FT-5 (MiG-17U), 10 FT-6, 24 Reims FTB-337.

AAM: *Sidewinder*, R-530, R-550 *Magic*.

(On order: 40 F-16, 35 *Mirage* 5DA/DPA, 18 *Mirage* III, 42 Ch A-5 FGA; 30 *Supporter*.)

RESERVES: 8,000.

Para-Military Forces: 109,100: National Guard 22,000; Frontier Corps 65,000; Pakistan Rangers 15,000; Coastguard 2,000; Frontier Constabulary 5,100.

PHILIPPINES

Population: 50,350,000.

Military service: selective.

Total armed forces: 112,800.

GNP 1981: 309.2 bn pesos (\$39.5 bn).

Estimated defence expenditure 1981: 6.75 bn pesos (\$862 m).

GNP growth 1981: 4.9%.

Inflation 1981: 12.7%.

\$1 = 7.83 pesos (1981).

Army: 70,000.

4 lt inf divs.

1 Special Services bde.

2 engr bdes.

1 lt armd regt.

4 arty regts.

1 army air bde (3 bns) forming.

28 *Scorpion*, 7 M-41 lt tks; 80 M-113, M-3 half-track, 20 *Chaimite* APC; 120 105mm (incl pack), 10 M-114 155mm how; 81mm, 40 107mm mor; M-20 75mm, M-67 90mm, M-40 106mm RCL; 60 UH-1H, 8 Hughes 500D, 6 BO-105 hel.

(On order: 45 MiCV; 95 105mm how; 10 Hughes 500D hel.)

RESERVES: 96,000, 6 divs.

Navy: 26,000 (6,800 marines, 250 naval engrs).

8 ex-US frigates: 1 *Savage*, 3 *Cannon*, 4 *Barnegat* (ex-seaplane tenders).

10 ex-US corvettes: 2 *Auk*, 7 PCE-827, 1 *Admirable*.

11 large patrol craft: 4 *Katapangan*, 5 PGM-39/-71, 2 ex-US PC-461.

59 coastal patrol craft.

28 ex-US landing ships (21 LST, 4 LSM, 3 spt), 61 LCM, 7 LCVP, 3 LCU.

1 SAR sqn with 9 *Islander* ac, 3 BO-105 hel, 3 patrol boats.

2 marine bdes (each with 7 bns) with LVT-4, LVTP-5, 55 LVTP-7 APC; 105mm how.

(On order: 6 PSM FAC(M), 12 LST.)

Base: Sangley Point.

RESERVES: 12,000.

Air Force: 16,800; 131 combat ac, 18 armed hel.

1 FGA sqn with 24 F-8H.

1 AD sqn with 19 F-5A, 3 F-5B.

1 fighter/trg sqn with 25 T-34A.

5 COIN sqns: 1 with 16 SF-260WP; 2 with 32 T-28D; 1 with 12 AC-47 ac; 1 with 18 UH-1D hel.

1 SAR/recce sqn with 4 HU-16B, 3 F-27 MR ac.

1 SAR hel sqn with 27 UH-1H.

1 Presidential tpt sqn with 1 Boeing 707, 1 BAC-111, 1 F-28, 4 YS-11 ac; 2 S-62A, 4 UH-1, 1 *Puma* hel.

6 tpt sqns: 1 with 4 C-130H, 4 L-100-20; 1 with 5

C-47; 1 with 8 F-27; 1 with 12 *Nomad*; 1 with 12 *Islander* ac; 1 with 18 UH-1H, 4 BO-105 hel.

1 liaison sqn with O-1E, 20 Cessna U-17A/B, 8 *Beaver* (being withdrawn).

3 trg sqns: 1 with 10 T/RT-33A; 1 with 12 T-41D; 1 with 30 SF-260MP.

1 weather sqn with 3 Cessna 210.

AAM: *Sidewinder*.

(On order: 11 F-5E fighters, 18 OV-10 *Bronco* COIN, T-160 *Cali* (*Super Pinto*) trg ac; 5 BO-105 hel.)

RESERVES: 16,000. 14 F-8H fighters.

Para-Military Forces: 110,500; 43,500 Philippine Constabulary (1 bde, 12 bns), 65,000 Civil Home Defence Force. Coastguard: 2,000.

SINGAPORE

Population: 2,400,000.

Military service: 24-36 months.

Total armed forces: 42,000.

Estimated GNP 1981: 26.3 bn (\$US 12.4 bn).

Defence expenditure 1981: \$S 1.50 bn (\$US 707.6 m).

GDP growth 1981: 9.9%.

Inflation 1981: 9%.

\$US 1 = \$S 2.12 (1981).

Army: 35,000.

1 div HQ.

1 armd bde (1 recce, 1 tk, 2 APC bns).

3 inf bdes (each 3 inf bns).

6 arty bns.

1 cdo bn.

6 engr, 3 sigs bns.

200 AMX-13 lt tks; 500 M-113, 250 V-150/-200 *Commando* APC; 30 155mm how; 60mm, 81mm, 60 120mm mor; 89mm RL; 84mm *Carl Gustav*, 60 106mm RCL; 20mm AA guns.

(On order: 120 AMX-13 lt tks.)

RESERVES: 120,000; 16 inf, 6 arty, 3 engr, 1 sigs bns.

Navy: 3,000.

6 TNC-45 FAC(M) with 5 *Gabriel* SSM.

6 Vosper FAC(G): 3 Type A, 3 Type B.

2 large patrol craft (trg ships).

2 ex-US *Redwing* coastal minesweepers.

6 ex-US 511-1152 LST (1 in reserve), 6 landing craft.

(On order: 12 *Capricornia* coastal patrol boats).

Base: Singapore.

Air Force: 4,000; 93 combat aircraft.

2 FGA sqns with 32 A-4S, 5 TA-4S *Skyhawk*.

2 FGA/recce sqns with 35 *Hunter* (24 FGA-74, 4 FR-74, 7 T-75).

1 AD sqn with 18 F-5E, 3 F-5F.

1 tpt/SAR sqn with 6 C-130B/H, 6 *Skyvan*.

1 hel sqn with 25 UH-1B/H, 3 AB-212.

3 trg sqns: 1 with 20 BAC-167, 5 *Jet Provost*; 1 with 6 SF-260W, 8 SF-260MS; 1 with 12 T-33A.

2 SAM sqns: 1 with 28 *Bloodhound* 2; 1 with 10 *Rapier*.

AAM: *Sidewinder*.

(On order: 40 A-4, 6 F-5E fighters, 5 SF-260MS COIN/trg ac; *Rapier/Blindfire*, *Improved HAWK* SAM; 200 AGM-65 *Maverick* ASM.)

Para-Military Forces: police/marine police 7,500 with 10 patrol craft; Gurkha guard units; some 30,000 Peoples Defence Force.

SRI LANKA

Population: 14,900,000.

Military service: voluntary.

Total armed forces: 16,425.

GNP 1980: 67.23 bn rupees (\$4.07 bn).

Estimated defence expenditure 1981: 566 m rupees (\$29.42 m).

\$1 = 19.24 (1981), 16.53 rupees (1980).

Army: 11,000.

5 inf bdes (each with 1 regular, 2 reserve bns).

2 armd recce regts (bns) } (each with one

1 fd arty, 1 AA regts } regular and

1 engr regt } one reserve unit).

1 sigs bn.

Support services.

18 *Saladin* armd, 15 *Ferret* scout cars; 10 BTR-152 APC; 14 76mm, 12 85mm guns; 12 82mm, 8 4.2-in (107mm) mor; 24 40mm, 24 3.7-in (94mm) AA guns.

RESERVES: 15,000; 10 bns, plus supporting services and a Pioneer Corps.

Navy: 2,825.

7 *Sooraya* (ex-Ch *Shanghai-II*), 1 ex-Sov *Mol* FAC(G).

19 coastal patrol craft.

Bases: Trincomalee, Karainagar, Colombo, Tangalla, Kalpitiya.

RESERVES: Naval Volunteer Force 1,100.

Air Force: 2,600.

1 tpt sqn with 1 HS-748, 2 DC-3, 2 Riley, 1 *Heron*, 3 Cessna 337, 1 421C.

1 hel sqn with 7 Bell 206, 2 Bell 47G, 2 SA-365.

Trainers incl 6 Cessna 150, 6 *Chipmunk*, 3 *Dove*.

(Ac in storage: 3 MiG-17F, 1 MiG-15UTI, 2 *Jet Provost* Mk 51.)

RESERVES: 1,000; 3 sqns Air Force Regt, 1 sqn Air-field Construction Regt.

Para-Military Forces: Police Force 17,000; Volunteer Force 5,000.

TAIWAN

Population: 18,200,000.

Military service: 2 years.

Total armed forces: 464,000.

GNP 1980: \$NT 1,368 bn (\$US 38 bn).

Estimated defence expenditure 1980: \$NT 115.1 bn (\$US 3.2 bn).

GNP growth 1980: 6.6%.

Inflation 1980: 22.2%.

\$US1 = \$NT 36.0 (1980).

Army: 310,000.

3 Army, 6 Corps HQ.

12 hy inf divs.

6 lt inf divs.

6 armd/inf bdes.

3 AB bdes.

4 tk gps.

20 fd arty bns.

5 SAM bns: 2 with *Nike Hercules*, 3 with *HAWK*.

6 army aviation sqns.

310 M-48 MBT; 325 M-24 (90mm gun), 795 M-41 lt tks; M-8 armd cars; M-3 half-track, 1,100 M-113, 150 V-150 *Commando* APC; 300 M-59 155mm guns/how; 350 M-116 75mm pack, 550 M-101 (T-64) 105mm, 90 M-114 (T-65) 155mm, 10 M-115 203mm towed, 225 M-108 105mm, 125 M-109 A-1 155mm, 75 M110 203mm SP how; 81mm mor; *Kung Feng* towed and SP 127mm MRL; *Hsiung Feng* coastal defence SSM, *Ching Feng* SSM/SAM; 150 M-18 76mm SP ATK guns; 500 106mm RCL; *Kun Wu TOW* (some SP) ATGW; 300 40mm AA guns (some M-42 SP); 400 *Nike Hercules*, 800 *HAWK*, 20 *Chaparral* SAM; 118 UH-1H, 2 KH-4, 7 CH-34 hel.

(On order: ; 125 M-109 155mm, 75 M-110A 203mm SP how; 1,000 *TOW*, *Kun Wu* ATGW; 370 *Improved HAWK* SAM.)

DEPLOYMENT: *Quemoy*: 60,000; *Matsu*: 20,000.

RESERVES: 1,500,000: 9 divs; an additional 1.3 million have some reserve obligation.

Navy: 38,000.

2 ex-US *Guppy*-II submarines.

23 ex-US destroyers: 10 *Gearing* with 1 hel (1 with 3 *Hsiung Feng* (*Gabriel*-type) SSM, 9 with 1 × 8 *ASROC*); 1 *Gearing* radar picket with 3 *Hsiung Feng*; 8 *Sumner* (1 with 1 × 3, 2 with 2 × 3 *Hsiung Feng*); 4 *Fletcher* with 1 × 2 *Sea Chaparral* SAM.

9 ex-US frigates: 8 *Lawrence*, 1 *Crosley*.

3 ex-US *Auk* corvettes.

21 FAC(M) with *Hsiung Feng* SSM: 2 *Lung Chiang* with 4 × 1, 19 *Tzu Chiang* (*Dvora*) with 2 × 1.

6 FAC(T): 4 ex-US 71-ft/79-ft, 2 Japanese-built.

14 ex-US *Adjutant* and 268 coastal MCM.

2 LSD, 22 LST, 4 LSM, 22 LCU.

1 repair ship; 2 tpts; 7 tankers.

(On order: 2 *Zwaardvis* subs, 1 *Gearing* destroyer, *Tzu Chiang* FAC(M), *Harpoon*, *Gabriel* SSM, *ASROC* ASW, 284 *Improved Sea Chaparral* SAM.)

Bases: Tsoying, Makung (Pescadore), Keelung.

RESERVES: 45,000.

Marines: 39,000.

3 divs.

LVT-4/-5 APC; 105mm, 155mm how; 106mm RCL.

RESERVES: 35,000.

Air Force: 77,000; some 484 combat ac, 12 armed hel.

5 combat wings.

13 FGA sqns: 9 with 92 F-5A, 226 F-5E, 22 F-5F; 2 with 42 F-100A/D; 2 with 40 F-104G/D.

1 interceptor sqn with 19 F-104A.

1 recce sqn with 4 RF-104G.

1 MR sqn with 9 S-2A, 30 S-2E.

(1 electronic warfare sqn with 16 F-104S forming).

1 ASW hel sqn with 12 Hughes *Defender* 500MD.

1 SAR sqn with 8 HU-16B ac, 10 UH-1H hel.

6 tpt sqns with 50 C-47, 5 C-54 1 C-118B, 40 C-119, 10 C-123, 1 Boeing 720B.

Trainers incl 55 PL-1B *Chien Shou*, 50 T-CH-1, 32 T-33, 30 T-28, F-5B/F, 3 TF-104G, 6 F-104D, F-100F.

2 hel sqns with 7 UH-19, 10 Bell 47G.

AAM: *Sidewinder*, *Shafir*.

ASM: *Bullpup*.

(On order: F-5E/F, 16 F-104S fighters; 50 YAT-3 trg ac, *Shafir* AAM, *Maverick* ASM.)

RESERVES: 90,000.

Para-Military Forces: Taiwan Garrison Command, 25,000. Police use Hughes 300C/D hel.

THAILAND

Population: 49,000,000.

Military service: 2 years.

Total armed forces: 233,100.

GNP 1980: 659.3 bn baht (\$31.1 bn).

Defence expenditure 1981: 27.72 bn baht (\$1.31 bn).

GDP growth: 5.8% (1980), 7.6% (1981).

Inflation: 16.4% (1980), 13% (1981).

\$1 = 21.22 baht (1980-81).

Army: 160,000.

4 Regions.

1 cav div (2 cav, 1 arty regts).

1 arm'd div (1 tk, 1 cav, 1 mech regts).
 7 inf divs (5 with 1 tk bn).
 2 AA arty regts.
 11 engr bns.
 8 indep inf bns.
 4 special forces bns.
 4 recce coys.
 50 M-48A5 MBT; 200 M-41, 144 *Scorpion*, M-24 lt tks; 32 *Shorland* Mk 3 recce; 300 M-113, M3A1 half-track, 120 V-150 *Commando*, 20 *Saracen* APC; 300 M-116 75mm pack, M-101 105mm, 80 M-114 155mm how; 81mm, 120mm mor; M-72 *LAW* RL; 57mm, M-20 75mm, 215 106mm RCL; *TOW*, *Dragon* ATGW; 80 40mm AA guns, incl M-42 SP; *Redeye* SAM.

Army Aviation:

2 airmobile coys, some hel flts.
 80 O-1, 1 Beech 99 lt ac; 80 UH-1B/H, 4 CH-47A, 10 OH-13H, 6 OH-23F, 28 KH-4 hel.
 (On order: 100 M-48A5, 16 M-60A3 MBT; 56 *Cas-cavel* arm'd cars; 40 M-113, 164 V-150 APC; 34 M-114 155mm how; 24 M-167A1 20mm *Vulcan* AA; *Blowpipe*, SAM.)

RESERVES: 500,000.

Navy: 30,000, incl naval air and marines.

6 frigates: 1 *Yarrow*-type with 1 × 4 *Seacat* SAM; 2 PF-103; 2 ex-US *Tacoma*; 1 *Cannon*.
 6 FAC(M): 3 50-metre with 4 *Exocet* SSM; 3 45-metre with 5 *Gabriel* SSM.
 28 ex-US large patrol craft: 7 PC-461, 10 PGM-71, 7 *Liulom*, 4 *Cape*.
 19 coastal, 40 river patrol craft.
 2 *Bangranchan* coastal minelayers.
 4 ex-US *Bluebird* coastal minesweepers, 5 mine-sweeping boats.
 1 MCM spt ship.
 5 LST, 3 LSM, 2 LSIL-351, 1 LCG, 6 LCU, 25 LCM (all ex-US), LCA, 8 LCVP.
 3 trg ships: 2 ex-Br (1 *Algerine*, 1 *Flower*), 1 *Maeklong*.
 (On order: 3 400-ton FAC(G).)

NAVAL AIR: some 11 combat ac.

1 MR/ASW sqn with 9 S-2F MR.
 1 MR/SAR sqn with 2 HU-16B, 2 CL-215, 10 C-47.
 1 trg/SAR hel sqn with 8 Bell 212, 4 UH-1H.
 1 observation sqn with 7 T-37B *Skymaster*, 10 U-17, 1 O-1G.

MARINES: (10,000).

1 bde: 2 inf, 1 arty regts; 1 amph assault bn; 40 LVTP-7 amph APC, 24 M-68 155mm guns/how, support weapons.

Bases: Bangkok, Sattahip, Songkla, Phangnga.

Air Force: 43,100; some 176 combat aircraft.

1 FGA sqn with 14 F-5A/B, 1 RF-5A.
 2 AD sqns with 30 F-5E, 6 F-5F.

10 COIN sqns: 3 with 40 T-28D; 2 with 31 OV-10C; 1 with 16 A-37B; 2 with 31 AU-23A *Peacemaker*; 1 with AC-47; 1 with 4 T-33A, 3 RT-33.
 3 tpt sqns, incl Royal flt: 1 with 5 C-47, 4 *Merlin* IVA; 2 with 30 C-123B, 3 C-130H; 2 HS-748.
 3 liaison sqns with 5 U-10A, 6 NC-212, 24 O-1.
 2 hel sqns with 20 CH-34C, 18 S-58T, 49 UH-1H, 13 UH-19.
 Trainers incl 10 *Chipmunk*, 16 T-33, 14 T-37B, 4 T-41A, 12 SF-260MT, 15 CT-4.

AAM: *Sidewinder*.

Airfield defence troops: 4 bns, *HAWK* SAM.

(On order: 8 F-5E fighters, 14 OV-10C COIN, 20 NC-212 *Aviocar*, 2 C-130H-30 ac; 12 UH-1H hel.)

Para-Military Forces: Volunteer Defence Corps 33,000. Marine Police 1,700. Police Aviation 500. Border Police 1,500. Special Action force 3,800. Rangers 13,000. Village Scouts. National Defence Volunteers. 20 V-150 *Commando* APC, 1 Coastguard cutter, 3 *Skyvan*, 4 *Turbo-Porter*, 3 DHC-4, 3 Do-28, 5 AU-23, 1 CT-4 ac; 15 Bell 205, 4 206, 10 204B hel. (On order: 20 *Nomad*.)

VIETNAM

Population: 56,000,000.

Military service: 3 years. Specialists longer; some ethnic minorities 2 years.

Total armed forces: 1,029,000.

Estimated GNP 1980/81: estimates range from \$9.5 bn to \$16 bn.
 \$1 = 2.18 dong (1982).

Army: 1,000,000.

16 Corps HQ.

1 arm'd div.

57 inf divs.*

2 marine divs.

7 engr, 15 economic construction divs.

5 indep fd, 4 indep AA arty bdes.

4 indep engr bdes.

6 indep arm'd regts.

1,500 T-34/-54/-55/-62, Type-59, 400 M-48, T-10 MBT; 450 PT-76 and Type-60/63, 150 M-41 lt tks; M-8, M-20 arm'd cars; BRDM-2 recce, 1,500 BTR-40/-50/-60/-152, Type-56, K-63, 800 M-113, V-100 *Commando* APC; 300 76mm, 85mm, 100mm, 122mm, 200 130mm, M-107 175mm guns; 75mm pack, M-101/-102 105mm, 122mm, 100 152mm, M-114 155mm how; 90 SU-76, SU-100, ISU-122, 200 M-109 155mm, and M-110 203mm SP how; Type-63 107mm, BM-21 122mm, BM-14-16 140mm MRL; 82mm, 107mm, 120mm, 160mm mor; 75mm, 82mm, 107mm RCL; *Sagger* ATGW;

* Inf divs, normally totalling 8-10,000 men, include 1 tk bn, 3 inf, 1 arty regts and spt elements.

4,000 23mm, 30mm, 37mm, 40mm, 57mm, 85mm, 100mm and 130mm towed, Type-63 37mm, M-42 40mm, ZSU-23-4, ZSU-57-2 sp AA guns; SA-2/-3/-6/-7/-9 SAM.*

Navy: 4,000.*

5 frigates: 4 ex-Sov *Petya*, 1 ex-US *Barnegat*.

8 ex-Sov *Osa-II* FAC(M) with *Styx*SSM.

23 large patrol craft: 4 ex-Sov SO-1, 19 ex-US PGM-59/-71.

17 FAC(T): 3 ex-Sov P-4, 6 ex-Ch P-6, 8 *Sheriden*.

22 ex-Ch FAC(G): 8 *Shanghai*, 14 *Swatow*.

6 *Zhuk*, 2 PO-2 coastal patrol craft.

3 510-1152 LST, 3 *Polnocny* LCT.

1 SAR hel sqn with 10 Mi-4.

Air Force: 25,000; 470 combat ac (many in store).*

1 lt bbr sqn with 10 Il-28.

20 FGA sqns with 90 MiG-17/F-4, 60 MiG-19/F-6, 60 Su-7/-20, 15 F-5A, 25 A-37B.

12 interceptor sqns: 4 with 60 MiG-21bis; 8 with 150 MiG-21F/PF.

Tpts incl 35 An-2 and Li-2, An-12, 9 An-24, 12 Il-14, 4 Il-18, C-130.

Hel incl 15 Mi-4, 16 Mi-6, 50 Mi-8, 10 CH-47, 45 UH-1.

About 60 trainers incl Yak-11/-18, MiG-15UTI/-21U.

AAM: AA-2 *Atoll*.

Air Defence Force: (strength unknown, possibly included in Air Force).

25 SAM regts: 10 with 180 SA-2, 10 with 180 SA-3, 5 with 45 SA-6.

Forces Abroad: Laos: 45,000; 3 inf divs and spt tps (numbers fluctuate). Kampuchea/Cambodia: 170,000 (20 army, 2 marine divs plus spt tps, fighter ac incl MiG-21).

Para-Military Forces: Frontier, Coast Security and People's Armed Security Forces 70,000; Regional Armed Militia of about 1,500,000; includes draft age persons and ex-servicemen org in coys, platoons and squads.

* Some US eqpt may be inoperable through lack of spares.

ARMED FORCES OF OTHER ASIAN COUNTRIES

Country	Estimated population (000)	Estimated GNP 1981 (\$m)	Defence expenditure 1981 (\$m)	Total armed forces	Army		Navy	Air Force	Para-military forces
					Manpower and formations	Equipment	Manpower and equipment	Manpower and equipment	
Brunei	230	n.a.	195 (est.)	3,200*	2,750 2 inf bns 1 armd recce sqn 1 lt AA arty bty (forming) 1 engr tp	16 <i>Scorpion</i> lt tks; 24 Sankey AT-104 APC; 16 81 mm mor	350 3 <i>Waspada</i> FAC(M) with 2 <i>Exocet</i> SSM; 3 <i>Perwira</i> coastal, 3 river patrol craft (< 2 <i>Load-master</i> landing craft, 24 assault boats, 1 special boat sqn	100 1 HS-748 tpt, 2 <i>Cherokee</i> lt ac; 2 Bell 206, 6 BO-105 COIN, 11 Bell 212 (1 VIP), 1 HS-76 (VIP) hel	1,750 (Police)
Fiji	645	1,529	11.3 (est.)	2,051	1,924 2 inf bns 1 engr sqn 1 arty tp Spt units	4 25-pdr guns/how; 10 81 mm mor	127 3 ex-US <i>Bird</i> -class coastal mine-sweepers; 3 marine survey vessels	-	1,488 (Police)
Papua New Guinea	3,200	2,682	38.0	3,775*	3,400 2 inf bns 1 engr bn Log units	-	300 4 <i>Attack</i> -class large patrol craft; 2 310-ton landing craft	75 1 tpt sqn with 4 C-47, 6 <i>Nomad</i> MR ac	400 (Police)

* All services form part of the Army.

Latin America

Continental Treaties and Agreements

The Act of Chapultepec. Signed by Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, the US, Uruguay and Venezuela in March and April 1945, this Act declared that if any aggression across boundaries established by treaty occurred, or was threatened, the signatories would consult and agree upon measures up to and including the use of armed force to prevent or repel such aggression.

The Inter-American Treaty of Reciprocal Assistance (Treaty of Rio). Signed in September 1947 by all parties to the Act of Chapultepec except Ecuador and Nicaragua, this Treaty expands the Act, constrains signatories to the peaceful settlement of disputes among themselves and provides for collective self-defence should any member party be subject to external attack. Since coming into force on 3 December 1948, it has been invoked some 12 times. Cuba withdrew in March 1960.

The Charter of the Organization of American States (OAS). Dated April 1948, this embraces declarations based upon the Treaty of Rio. The members of the OAS – the signatories to the Act of Chapultepec plus Antigua and Barbuda, Barbados, Dominica, El Salvador, Grenada, Jamaica, St Lucia, St Vincent, Suriname, and Trinidad and Tobago – are bound to peaceful settlement of internal disputes and to collective action in the event of external attack upon one or more signatory states. Amendments (Rio, 1965; Bogotá, 1966) reiterated the goal of peaceful settlement of disputes. In 1965–6 an Inter-American Peace Force was formed for service in the Dominican Republic. Subsequent attempts to create a permanent force have failed, but an Inter-American Defence Board has been formed to co-ordinate planning. Declarations condemning Communism in the Western Hemisphere, signed in Bogotá in 1948 by 17 nations (Brazil, Chile, the Dominican Republic and the US abstaining), were reiterated at Caracas (1954, 1973), San José (1960), Punta del Este (1962) and Washington (1972). In 1962 the Foreign Ministers and, later, the Council excluded Cuba. In 1975 the OAS agreed to normalize relations with Cuba.

Treaty for the Prohibition of Nuclear Weapons in Latin America (The Tlatelolco Treaty). This was signed in February 1967 by 25 Latin American countries, 24 of which have ratified it (Argentina has not). Brazil and Chile will not implement it until all other Latin American states have done so. Cuba and Guyana have not signed it. The Treaty is not, therefore, in force for those five countries. Britain and the Netherlands have ratified it for the territories within the Treaty area for which they are internationally responsible and, with France and the US, have signed Protocol I (which commits states outside the region to accept, for their territories within it, the Treaty restrictions regarding the emplacement or storage of nuclear weapons); Britain, China, France, the USSR and the US have signed Protocol II (an undertaking not to use or threaten to use nuclear weapons against the parties to the Treaty). The parties have set up an Agency to monitor compliance with the Treaty.

Other Agreements

The 1903 treaty with the Republic of Panama, granting the United States virtual sovereign rights over the Canal Zone in perpetuity, was renegotiated, and the resulting 1977 Treaties came into force in October 1979. About 40% of the former Canal Zone will remain under US control until 31 December 1999. Panama received 11 of 14 US bases. Defence of the Canal will be the joint responsibility of both nations, with Panama assuming an increasing role until the total accession of the Canal to her sovereignty.

Belize (British Honduras) became independent on 21 September 1981. Britain agreed to leave troops as protection and for training the Belizean defence forces 'for an appropriate time'. The US is providing aid and training. Britain, Barbados, Bahamas, Canada, Guyana, Jamaica and Trinidad and Tobago will meet and consult in the event of a threat to Belize's independence.

In July 1965 El Salvador, Guatemala, Honduras and Nicaragua agreed to form a military bloc, with a Defence Council, reportedly to co-ordinate measures against possible Communist aggression. This may now be in abeyance. In November 1981 El Salvador, Guatemala and Honduras agreed an informal alliance against Cuba, Nicaragua and domestic guerrilla movements in each. What mutual action is to be taken is unclear. A similar regional grouping, *Comunidad Democrática Centroamericana*—Costa Rica, Honduras and El Salvador—agreed in January 1982 to provide mutual aid in case of external aggression. Colombia, Venezuela and the US are 'observer' members.

The United States has had a bilateral agreement with Cuba for jurisdiction and control over Guantánamo Bay since 1934. In 1960 the US stated that it could be modified or abrogated only by mutual agreement and that she had no intention of giving such an agreement. In 1941 it leased 2.3 square miles from Bermuda for a naval and air base. This lease continues.

The United States has bilateral military sales arrangements at varying levels with most countries of the region and concluded a status of forces agreement with Antigua in 1977/8. The Soviet Union has no formal defence agreements with any of the states in the area.

Argentina and Brazil design and manufacture for export their own military equipment; some is sold in Latin America. Chile assembles *Mirage 50* aircraft and light AFV under licence.

ARGENTINA

Population: 28,000,000.

Military service: Army and Air Force 1 year, Navy 14 months.

Total armed forces: 180,500 (118,000 conscripts).

GNP 1981: 548,576 bn pesos (\$124.6 bn.)

Estimated defence expenditure 1981: 44,400 bn pesos (\$10.08 bn).*

GDP growth 1981: 6.1%.

Inflation: 87.6% (1980), 131.3% (1981).

\$1 = 4,402.7 pesos (1981).

Army: 125,000 (90,000 conscripts).

5 army corps.

2 armd cav bdes (6 armd cav regts).

3 mech inf bdes (2 more forming), each with 3 regts, plus armd, arty and engr bns.

3 mountain bdes.

1 jungle bde.

1 AB bde.

10 arty groups.

4 indep armd cav regts (1 Guard).

1 mech recce gp (regt sized).

1 AD gp (regt) of 4 AD bns.

1 engr gp (regt), 4 engr bns.

1 aviation bn (4 dets).

125 M-4 *Sherman*, 160 *TAM* MBT; 50 M-41, 60 AMX-13 lt tks; VBC-90 armd cars; * 300 AMX-VTP, some 100 *TAM* VCPT MICV; 75 M-3, 250 M-113, 120 Mowag *Roland*, 5 BDX APC; 20 M-59 155mm towed guns,* 200 105mm incl pack,* 70 M-114 155mm towed,* 20 105mm, 24 Mk F3, 6 M-109 155mm SP how; 81mm, 120mm mor; 127 *Kuerassier* 105mm SP ATK guns; 75mm, 89mm, 90mm, 105mm RCL; SS-11/-12, *Bantam*, *Cobra*, *Mamba* ATGW; 30mm, 40mm, 90mm AA guns; *Tigercat*, *Blowpipe*, 4 *Roland* SAM.*

Aircraft and hel: 3 G-222, 3 DHC-6, 5 *Turbo-Commander* 690A, 1 *Sabreliner*, 4 *Navajo*; 3 *Turbo-Porter*, 4 *Merlin* IIIA, 4 *Queen Air*; Cessna: 15 182, 20 U-17A/B, 5 207, 1 *Citation*, 5 T-41 ac; 7 A-109,* Bell: 7 206, 20 UH-1H,* 4 47G, 4 212; 6 FH-1100, 1 CH-47C, 2 SA-315B *Lama*, 8 SA-330 *Puma* hel.*

(On order: 85 *TAM* MBT; 7 *Puma*, 9 A-109 hel.)

RESERVES: 250,000: National Guard, 200,000; Territorial Guard 50,000.

Navy: 36,000 (18,000 conscripts), incl naval air force and marines.

3 submarines: 2 Type 209, 1 ex-US *Guppy*.

1 ex-Br *Colossus* aircraft carrier (capacity 14 A-4, 6 S-2 ac; 4 S-61 hel).

8 destroyers: 2 Type 42 with 4 *Exocet* SSM, 1 × 2 *Sea Dart* SAM, 1 *Lynx* hel; 6 ex-US (3 *Sumner*, 1 *Gearing* with 4 *Exocet*; 2 *Fletcher*).

3 ex-Fr A-69 corvettes with 2 *Exocet* SSM.*

6 patrol ships: 2 ex-US *Cherokee*, 2 *King* (1 trg), 2 ex-US *Sotoyomo*.

1 large patrol vessel.

2 TNC-45 FAC(G).

4 *Dabur* FAC(P).

2 ex-US *Higgins* FAC(TX).

6 ex-Br *Ton* coastal minesweepers/hunters.

1 LSD, 2 LST, some LCVP, 4 LCM(L).

1 14,000-ton fleet tanker, 1 fleet spt, 1 tpt ships.

(On order: 4 TR-1700, 2 TR-1400 submarines, 4 *Meko* 360 destroyers, 6 *Meko* 140 corvettes.)

Bases: Buenos Aires, Río Santiago, Puerto Belgrano, Mar del Plata, Ushuaia.

NAVAL AIR FORCE: (3,000); 28 combat aircraft.*

1 attack sqn with 11 A-4Q, 4 *Super Etendard*.*

*Combat casualties, subsequent operational attrition and reported replacements make this figure suspect.

1 MR sqn with 5 S-2E, 5 SP-2H, 3 P-95 (EMB-111) *Bandeirante* (on loan).

1 tpt sqn with 3 *Electra*, 1 HS-125, 3 F-28.

1 liaison sqn with 8 *Super King Air*, 5 *Queen Air*, 3 *Turbo-Porter*.

Hel incl 7 S-61D/NR, 9 *Alouette A-103*(III), 4 WG-13 (*Sea Lynx*).

3 trg sqns with 7 EMB-326GB, 15 T-34C, 12 T-28, 10 MB-339A.*

ASM: AM-39 *Exocet*.*

(On order: 8 *Super Etendard* fighters, 6 WG-13 hel.)

MARINES: (10,000).

2 Fleet Forces (each one weak bde), 1 amph spt force:

5 marine inf bns.

1 cdo bn.

1 amph bn.

1 fd arty bn.

1 AD bn.

1 sigs bn.

1 service bn.

6 indep infcoys.

20 LVTP-7,* 15 LARC-5, 6 Mowag *Roland* APC; 105mm how;* 81mm, 106mm mor; 75mm, 105mm RCL; *Bantam* ATGW; 30mm AA guns; 10 *Tigercat* SAM.

(On order: 12 Panhard ERC-90 *Lynx* armd cars.)

Air Force: 19,500 (10,000 conscripts); some 97 combat ac, 20 armed hel.*

6 air bdes.

1 bbr sqn with 7 *Canberra* B-62, 2 T-64.*

5 FGA sqns: 3 with 40 A-4P *Skyhawk*; 2 with 15 MS-760A *Paris II*.*

3 FGA/interceptor sqns: 1 with 12 *Mirage III*EA, 2 *II*DA; 2 with 6 *Dagger (Nesher)*.* (Some 31 of these are reported destroyed.)

2 COIN/trg sqns with 31 IA-58A *Pucará*.*

1 COIN hel sqn with 14 Hughes 500M, 6 UH-1H.

1 SAR hel sqn with 6 *Lama*, 2 S-58T.

5 tpt sqns with 1 Boeing 707-320B, 6 C-130E/H, 1 *Sabreliner*, 3 *Learjet* 35A, 5 C-47, 12 F-27, 7 F-28, 6 DHC-6, 15 IA-50 *Guaraní II*, 2 *Merlin IVA* ac.

1 Antarctic sqn with 2 DHC-2, 3 DHC-3, 1 LC-47 ac; 3 S-61R/NR, 6 UH-19, 3 CH-47C (SAR); Bell: 4 UH-1D, 4 47G, 8 212 hel.

1 comms sqn with 14 *Shrike Commander*.

Trainers incl 24 *Paris*, 48 T-34C,* 35 Cessna 182.

AAM: R-530. ASM: AS-11/-12.

(On order: 10 *Mirage* 5, 24 *Skyhawk* FGA; 11 IA-58 *Pucará* COIN; 16 *Turbo-Commander* tpts; 10 MB-339 trg ac.)

Para-Military Forces: 43,000. Gendarmerie 12,000: *Shorland* armd cars, 40 M-113 APC, 20 lt ac, 10 hel under Army command, mainly for frontier duties. Argentine Naval Prefecture (coastguard) 9,000: 4 large, 20 coastal patrol

craft (5 corvettes on order), 13 ac incl 5 C-212, 4 *Skyvan*, 6 Hughes 500M, 3 *Puma* hel. Federal Police 22,000: APC, 4 hel.

BOLIVIA

Population: 5,600,000.

Military service: 12 months, selective.

Total armed forces: 26,600.

GNP 1981: 181.37 bn pesos (\$7.4 bn).

Defence expenditure 1981: 4.356 bn pesos (\$177.7 m).

GDP growth 1980: 0.6%.

Inflation: 23.9% (1980), 35.0% (1981).

\$1 = 24.51 pesos (1981).

Army: 20,000.

3 corps, 10 div HQ.

4 cav regts (horsed).

2 mech regts (each 2 bns).

13 inf regts (incl 1 Presidential Guard, 1 mountain), each with 2 bns.

3 arty regts.

1 armd (ATK) bn.

2 ranger bns.

1 para bn.

6 engr bns.

10 *Scorpion* lt tks; EE-9 *Cascavel* armd cars; 18 M-113, 10 V-100 *Commando*, 20 Mowag *Roland*, 24 EE-11 *Urutu* APC; 26 75mm guns; 25 M-116 75mm pack, 25 M-101 105mm how; 60mm, 80mm mor; 36 *Kuerassier* 105mm SP ATK guns.

Navy: 2,600.

1 transport.

36 lake and river patrol craft (35%).

Bases: Tiquina, Puerto Suárez, Riberalta, Trinidad, Puerto Villarroel, Guaramerin.

Air Force: 4,000; 22 combat ac.

1 fighter/trg sqn with 12 T-33A/N.

2 COIN sqns with 10 AT-6G.

1 SAR hel sqn with 8 SA-315B *Gaviao (Lama)*.

Tpts incl 1 DC-6B, 1 *Electra*, 1 L-100-30, 1 C-130H, 1 *Sabreliner*, 1 *Learjet*, 5 *Arava*, 3 CV-440, 3 CV-580, 6 C-47, 1 *Super King Air*, 6 F-27.

Liaison ac incl 1 *Turbo-Porter*; 25 Cessna: 3 *Turbo-Centurion*, 11 185, 9 *Stationair*, 1 402, 1 421.

2 trg sqns with 10 T-6G, 6 T-41D, 18 T-23 *Uirapuru*, 6 SF-260M, 20 PC-7 *Turbo-Trainer*.

1 para bn.

1 airbase defence regt (Bofors L/40mm AA guns).

(On order: 52 F-104 *Starfighter* ac; 3 *Lama* hel.)

*Combat casualties, subsequent operational attrition and reported replacements make this figure suspect.

Para-Military Forces: 5,000. *Carabineros*, National Police.

BRAZIL

Population: 125,000,000.
 Military service: 12 months.
 Total armed forces: 272,850 (133,900 conscripts).
 GNP 1980: 12,700 bn cruzeiros (\$240.98 bn).
 Defence expenditure 1980: 106.44 bn cruzeiros (\$2.02 bn).
 GDP growth: 8% (1980), -3.5% (1981).
 Inflation: 110% (1980), 95.2% (1981).
 \$1 = 52.7 cruzeiros (official).

Army: 182,750 (132,000 conscripts).
 2 army, 2 regional comds, 8 military regions, 7 div HQ.
 1 armd car bde.
 3 armd inf bdes.
 5 mech cav bdes.
 1 mech inf bde.
 11 motor inf bdes.
 1 mixed, 1 para bdes.
 2 lt 'jungle' inf bdes.
 2 engr gps.
 75 M-4 MBT; some 250 M-3A1, some 300 M-41 lt tks; 138 EE-9 *Cascavel*, M-8 armd cars; some 120 EE-11 *Urutu*, some 60 M-59, some 600 M-113 APC; 500 M-116 75mm pack, 413 105mm, 135 M-114 155mm towed, some 60 M-7 and M-108 105mm SP how; some 240 57mm to 304.8mm (12-in. naval) coast arty guns; 81mm, 4.2-in, 120mm mor; SS-60 108mm MRL; 240 M-18A1 57mm RCL; 3.5-in RL; 106mm RCL; 300 *Cobra* ATGW; 30 35mm, 30 40mm, some 180 57mm, 90mm AA guns; 4 *Roland II* SAM.
 (On order: 50 X-1A2 lt tks; SS-60 (FGT-X40) 300mm MRL.)

RESERVES: Trained first line 1,115,000: 400,000 subject to immediate recall. Second line (limited trg) state military police schools, centres: 225,000.

Navy: 47,300 incl naval air force, marines (1,900 conscripts).
 8 submarines: 3 *Oberon*, 5 ex-US *Guppy* II/III.
 1 ex-Br *Colossus* aircraft carrier (capacity 20 ac, incl 7 S-2A ASW ac; 4 *Sea King* hel).
 12 ex-US destroyers: 5 *Sumner* (1 with 1 × 4 *Seacat* SAM, 4 with 1 *Wasp* hel); 2 *Gearing* with ASROC, 1 *Wasp* hel; 5 *Fletcher*.
 6 *Niteroi* frigates with 2 × 3 *Seacat* SAM, 1 *Lynx* hel: 2 with 2 × 2 *Exocet* SSM, 4 with *Ikara* ASW.
 10 *Imperial Marinheiro* patrol vessels.
 5 river patrol ships; 2 *Pedro Teixeira*, 3 *Roraima*.
 1 river monitor with 1 × 3-in., 2 × 40mm, 6 × 20mm guns.

6 *Piratini* large patrol craft.
 6 *Schütze* coastal minesweepers.
 2 ex-US LST; 4 ex-US 1610 LCU.
 3 tp, 1 river tpts.
 1 repair, 1 spt, 2 tanker, numerous auxiliary ships.
 (On order: 1 submarine, 4 corvettes.)

Bases: Rio de Janeiro, Aratu (Salvador), Val-de-Caes (Belem), Natal, Ladario (Mato Grosso).

NAVAL AIR FORCE: (13,100); 13 combat hel.
 2 ASW sqns with 4 SH-3D *Sea King*, 9 *Lynx* Mk-89 hel.
 1 liaison sqn with 9 *Wasp*, 7 AB-206B, 6 AS-350M *Esquilo* hel.
 1 trg sqn with 10 AB-206B hel.

MARINES: (14,500).
 Fleet Force: 1 amph div (1 comd, 3 inf, 1 service bns, 1 arty gp).
 1 Reinforcement Comd: 5 bns incl 1 engr, 1 special operations, supply.
 Internal Security Force: 9 Regional Gps.
 EE-9 *Cascavel* armd cars; EE-11 *Urutu* APC; 105mm how.

Air Force: 42,800; 227 combat ac.
Air Defence Command: (15 combat ac)
 1 interceptor sqn with 13 *Mirage* IIIIEBR, 2 DBR.
Tactical Command: (183 combat ac)
 2 FGA sqns with 32 F-5E, 4 F-5B.
 8 COIN/recce sqns with 139 AT-26 *Xavante* (11 RT-26 recce); 8 RC-95 (photo/lt observation).
Maritime Command: (29 combat ac)
 1 ASW sqn with 8 S-2E, 9 S-2A (7 in carrier).
 1 MR sqn with 12 P-95 (EMB-111).
 4 SAR sqns with 3 RC-130E, 8 SC-95 ac; 2 Bell 47G, 6 SA-330 *Puma* hel.

Transport Command:
 1 hel sqn with 9 UH-1D.
 13 tpt sqns with 2 Boeing 737, 31 EMB-810C (U-7/A) *Seneca* II, 9 C-130E/H, 2 KC-130H, 8 HS-125, 1 *Viscount*, 12 HS-748, 19 DHC-5, 98 EMB-110 *Bandeirante* (58 C-95, 20 C-95A, 20 -B), 5 EMB-121 (VU-6) *Xingu*, 5 C-47 ac.
 3 liaison sqns with 62 U/LU-42 *Regente* ac; 23 UH-1H hel.

Training Command:
 50 T-23 *Uirapuru* (being replaced by 100 YT-17), 86 T-25 *Universal* (being replaced by T-27), 59 AT-26 ac; 16 Bell 47 (H-13J) hel.
 1 calibration unit: 2 HS-125, 2 C-95A, 4 EC-95.
AAM: R-530, *Piranha*.
 (On order: 88 AM-X, 12 EMB-120 *Brasilia* tpts, 100 YT-17 *Tangara*, 115 T-27 *Tucano* (EMB-312) trg ac, 8 UH-1H *Iroquois* hel.)

Para-Military Forces: Some 185,000 Public Security Forces; state, private militias in addition.

CHILE

Population: 11,300,000.

Military service: 1 year (Army and Navy only).

Total armed forces: 97,000 (31,600 conscripts).

GDP 1980: 1,095 bn pesos (\$28.08 bn).

Estimated defence expenditure 1980: 56 bn pesos (\$1.436 bn).

GDP growth 1980: 6.5%.

Inflation 1980: 31.2%.

\$1 = 39.00 pesos (1980), 37.25 pesos (1979).

Army: 53,000 (30,000 conscripts).

6 div HQ.

2 armd regts.

8 cav regts (2 mech, 6 mot).

24 inf regts (18 with 2 bns, 6 mountain with 1 bn each).

12 arty bns (6 fd, 6 mountain).

7 engr bns.

1 hel-borne ranger unit.

2 btys *Cactus* (*Crotale*) SAM.

140 mod M-4, 21 AMX-30 MBT; 10 M-3, 50 M-41, 47 AMX-13 lt tks; 30 EE-9 *Cascavel* armd cars; 75 M-113, 30 EE-11 *Urutu*, 20 *Piranha* APC; 30 M-56 105mm pack, 115 105mm how; 8 Mk F3 155mm SP how; 81mm, 120mm mor; 106mm RCL; *Milan* ATGW; 20mm, 35mm AA guns; 12 *Cactus* SAM; 6 CASA C-212 tpts, 2 *Cherokee*, 4 *Navajo*, 4 O-1E, 18 R-172 *Hawk* XP, 1 *Sky-master* liaison/trg ac; 14 *Puma*, 10 *Lama*, 2 AB-206 hel.

(On order: *Piranha* APC).

RESERVES: 160,000.

Navy: 29,000 (1,600 conscripts), incl naval air and marines.

3 submarines: 2 *Oberon*, 1 ex-US *Balao*.

3 cruisers: 1 ex-Swed *Gota Lejon*; 2 ex-US *Brooklyn* with 1 hel.

7 destroyers: 1 ex-Br *County* with 4 *Exocet* SSM, 1 × 2 *Seaslug*, 2 × 4 *Seacat* SAM; 2 *Almirante* with 4 *Exocet*, 2 × 4 *Seacat*; 2 ex-US *Sumner* with 1 hel; 2 ex-US *Fletcher*.

5 frigates: 2 *Leander* with 4 *Exocet* SSM, 1 × 4 *Seacat* SAM, 1 hel; 3 ex-US *Lawrence* with 2 LCU.

2 *Reshef* FAC(M) with 6 *Gabriel* SSM.

4 Lürssen-type FAC(T).

6 large patrol craft: 4 ex-US (2 *Sotoyomo*, 1 *Cherokee*, 1 PC-1638), 2 25-metre.

26 coastal patrol craft, incl 4 *Dvora*, 10 *Anchova*.

2 511-1152 LST, 2 *Batral*-class lt tpts, 2 LCM, 11 LCVP.

2 tankers, 5 transports.

(On order: 2 Type 209 submarines; 1 *County* destroyer; 4 LST; 1 tanker).

Bases: Talcahuano, Valparaiso, Puerto Montt, Punta Arenas, Puerto Williams, Iquique.

NAVAL AIR FORCE: (500); 6 combat aircraft.

1 ASW sqn with 6 EMB-111.

1 SAR/liasion sqn with 3 EMB-110C(N) *Banderante*, 4 CASA C-212, 1 *Navajo*.

1 SAR/liasion hel sqn with 10 *Alouette* III, 2 S-58, 4 Bell 206, 12 Bell 47G.

Trainers: 8 PC-7 *Turbo-Trainer*.

MARINES: (5,000).

1 bde.

1 embarked bn.

Coast-defence units.

5 dets.

Air Force: 15,000; 84 combat aircraft.

3 FGA sqns with 16 *Hunter* F-71, 4 *Hunter* T-77, 15 F-5E, 3 F-5F.

3 COIN sqns with 32 A-37B.

1 fighter sqn with 8 *Mirage* 50C.

1 SAR hel sqn with 6 S-55.

1 tpt sqn with 1 Boeing 727, 2 C-130H, 1 DC-6B, 5 C-47.

2 utility sqns with 16 DHC-6, 3 *Twin Bonanza*.

1 hel sqn with 1 *Puma*, 10 UH-1H.

4 trg sqns with 30 T-34A, 25 T-37B, 8 T-41, 9 Beech 99, 1 CASA C-101, 10 T-25 *Universal*, 5 Piper *Pillan*.

AAM: *Sidewinder*, *Shafirir*. ASM: AS-11/-12.

1 AA arty regt.

(On order: 12 *Mirage* 50 fighters, 20 T-25, 7 C-101 *Aviojet*, F-8L *Falco* trg ac.)

Para-Military Forces: 27,000 *Carabineros*, with 15 Mowag MR-8 APC, 14 Cessna 310, 4 *Metroliner* ac, 6 BO-105, 1 FH-1100 hel. (On order: 10 lt patrol craft).

COLOMBIA

Population: 27,520,000.

Military service: 2 years.

Total armed forces: 67,800 (28,500 conscripts).

GNP 1980: 1,548 bn pesos (\$32.74 bn).

Defence expenditure 1980: 14.235 bn pesos (\$301.1 m).

GDP growth 1980: 4.0%.

Inflation 1980: 24.6%.

\$1 = 47.28 pesos (1980).

Army: 57,000 (28,500 conscripts).

10 inf bdes ('Regional Bdes') each 3 inf, 1 arty, 1 engr gp, 1 mech or horsed cav gp.

1 trg bde, incl Presidential Guard.

M-4A3 MBT, * 12 M-3A1 lt tks*; M-8 armd cars; 45 M-3A2, M-113A1 APC; 48 M-101 105mm how; mor; 40mm AA guns.

(On order: MBT; EE-3 *Jararaca*, 200 EE-9 *Cascavel* armd cars; EE-11 *Urutu* APC; fd arty; 12 UH-1H hel).

RESERVES: 70,000.

* May no longer be serviceable.

Navy: 7,000 incl 3,000 marines.
 2 Type 209 submarines.
 2 SX-506 midget submarines (in reserve).
 3 destroyers: 2 *Halland* (1 in reserve), 1 ex-US *Sumner*.
 1 ex-US *Courtney* frigate.
 3 large patrol craft (ex-US *Cherokee*).
 4 gunboats: 3 *Arauca*, 1 *Barranquilla*.
 2 coastal, 8 river patrol craft.
 3 marine bns.
 (On order: 4 FV-1500 corvettes.)

Bases: Cartagena, Buenaventura.

Air Force: 3,800; 28 combat ac, 10 armed hel.
 1 fighter/recce sqn with 12 *Mirage* 5COA, 4 5COR/D.
 1 COIN sqn with 12 AT-33A.
 1 recce hel sqn with 10 Hughes 500C (OH-6A).
 Tpts incl 2 C-130E, 4 C-54, 20 C-47, 2 HS-748, 3 *Arava*, 1 F-28, 10 DHC-2.
 Other hel incl 10 UH-1B/H, 12 Hughes 500M.
 Trainers incl 8 T-37C, 27 T-41D, 3 RT-33, 12 T-33A, 25 T-34A/B, 10 A-37B ac; 8 Bell 47 (OH-13) hel.
 AAM: R-530.
 (On order: 12 *Kfir* C-2 FGA; 1 HS-748-2B, *Arava* tpt ac; AAM; ASM.)

Para-Military Forces: 50,000 National Police Force, 1 HS-748 ac, 30 hel; Coastguard, 9 craft.

CUBA

Population: 9,900,000.
 Military service: 3 years.
 Total armed forces: 127,500.
 Estimated GNP 1980: \$18.4 bn.
 Estimated defence expenditure 1980: 811 m pesos (\$1.126 bn).
 \$1 = 0.72 pesos (1980).

Army: 100,000.
 9 inf divs (some mech).
 Some arty bdes.
 60 IS-2, 400 T-34, 200 T-54/-55, T-62 MBT; PT-76 lt tks; BRDM-1/-2 armd cars; BMP MICV, 400 BTR-40/-60/-152 APC; 76mm, 85mm, 122mm, 130mm, 152mm guns/how; 100 SU-100 SP guns; 50 *FROG-4* SSM; 57mm ATK guns; 57mm RCL; *Sagger*, *Snapper* ATGW; ZU-23, 37mm, 57mm, 85mm, 100mm towed, ZSU-23-4, 30mm M-53 (twin)/BTR-60P SP AA guns; SA-7 SAM.

RESERVES: Ready Reserves 190,000; to fill out Regular and 18 Reserve inf (some mech) divs.

Navy: 11,500.
 3 ex-Sov submarines: 2 F-, 1 (non-operational) W-class.

1 ex-Sov *Koni*-frigate.
 10 ex-Sov large patrol craft: 9 SO-1, 1 *Kronshtadt*.
 26 ex-Sov FAC(M) with *Styx* SSM: 5 *Osa-I*, 13 *Osa-II*, 8 *Komar*.
 24 ex-Sov FAC(T): 6 *Turya*, 6 P-6, 12 P-4.
 16 ex-Sov *Zhuk* FAC(P); 12 coastal patrol craft.
 9 ex-Sov minesweepers: 2 *Sonya*, 7 *Yevgenya*.
 7 T-4 LCM.
 Some 50 *Samlet* coast-defence SSM (may not be operational).

Bases: Cienfuegos, Cabanas, Havana, Mariel, Punta Ballenatos, Banos.

Air Force: 16,000, incl air defence forces; 189 combat ac, 12 armed hel.
 4 FGA sqns: 2 with 30 MiG-17; 2 with 20 MiG-23BN *Flogger* F.
 14 interceptor sqns: 2 with 30 MiG-21F; 3 with 34 -21PFM; 2 with 20 -21PFMA; 6 with 70 -21bis; 1 with 15 MiG-23 *Flogger* E.
 4 tpt sqns: 20 Il-14, 12 An-2, 2 An-24, 20 An-26.
 7 hel sqns: 60 Mi-4, 40 Mi-8, 12 Mi-24.
 Trainers incl 2 MiG-23U, 10 MiG-21U, some An-2, 30 Zlin 326.
 AAM: AA-1 *Alkali*, AA-2 *Atoll*, AA-8 *Aphid*.
 30 SAM bns with 200 SA-2/-3/-6.

Forces Abroad: Angola 18,000; Congo 750; Ethiopia 13,000; Mozambique 750; Other Africa 500; S. Yemen 800; Nicaragua 2,000; Grenada 300.

Para-Military Forces: State Security 15,000. Frontier Guards 3,500. 20 craft. Youth Labour Army 100,000. Territorial Militia 50,000.

DOMINICAN REPUBLIC

Population: 5,900,000.
 Military service: voluntary.
 Total armed forces: 24,500.
 GNP 1981: 7.1 bn pesos (\$7.1 bn).
 Defence expenditure 1981: 117.8 m pesos (\$117.8 m).
 \$1 = 1 peso (1981).

Army: 14,000.
 3 inf bdes.
 1 arty bn.
 1 mixed armd bn.
 1 Presidential Guard bn.
 1 engr bn.
 20 AML armd cars; 6 V-150 *Commando*, 25 M-3A1 half-track APC; 20 M-101 105mm how.

Navy: 4,500, incl naval inf.
 1 ex-Can *River* frigate.
 5 ex-US corvettes: 2 *Admirable* (ex-minesweepers), 3 *Cohoes*.
 5 large patrol craft (3 ex-US *Argo*, in reserve).

8 coastal patrol craft.
1 LSM, 1 LCU.
1 naval inf bn.
(On order: PTF-23 patrol boats.)

Bases: Santo Domingo, Bani, Haina.

Air Force: 6,000; 13 combat aircraft.
1 fighter/trg sqn with 10 F-51D *Mustang*, 3 A-37B.
1 tpt sqn with 6 C-47, 1 Aero *Commander*.
Hel incl 1 SA-365 *Dauphin* 2, Bell 205, 3 *Alouette* II/III; 2 H-19, 2 UH-1, 2 UH-12E, 7 OH-6A.
Trainers incl 3 Cessna 170, AT-6, 4 T-41, T-34.
1 para gp.

Para-Military Forces: Gendarmerie 10,000.

ECUADOR

Population: 8,350,000.
Military service: 2 years, selective.
Total armed forces: 38,800.
GNP 1980: 271.05 bn sucres (\$10.84 bn).
Defence expenditure 1980: 4.85 bn sucres (\$194 m).
\$1 = 25.0 sucres (1980).

Army: 30,000.
1 armd bde.
7 inf bdes.
1 para bde.
5 mech recce gps.
4 arty bns.
40 M-3, 130 AMX-13 lt tks; 45 AML-60/-90, armd cars; 15 M-113, 25 AMX-VCI APC; M-56 pack, 18 M-101 105mm towed, 10 Mk F3 155mm SP how; 28 M-167, 10 40mm AA guns; *Blowpipe* SAM; *Turbo-Porter*, 1 *Learjet*, 3 DHC-5D tpt ac; 20 hel.

Navy: 4,000 incl 1,000 marines.
2 Type 209 submarines.
2 ex-US *Gearing* destroyers.
1 ex-US *Lawrence* frigate.
3 Lürssen-type FAC(M) with 4 *Exocet* SSM.
3 *Manta* FAC(M) with *Gabriel* SSM.
2 ex-US PGM-71 large, 5 coastal patrol craft.
1 511-1152 LST, 2 LSM (all ex-US).
1 *Super King Air*, 1 *Arava*; Cessna: 4 T-37G, 2 T-41, 1 320, 1 177, 3 T-34C ac; 2 *Alouette* III hel.
3 marine bns, one on garrison duties.
(On order: 6 *Esmeraldas* corvettes, *Exocet* SSM.)

Bases: Guayaquil, San Lorenzo, Galápagos Is.

Air Force: 4,000; 40 combat aircraft.
1 lt bbr sqn with 3 *Canberra* B-6.
1 FGA sqn with 5 *Jaguar* S, 2 *Jaguar* B, 10 *Kfir*.
1 interceptor sqn with 15 *Mirage* F-1JE, 2 F-1JB
1 COIN sqn with 5 A-37B.

1 COIN/trg sqn with 8 BAC-167 *Strikemaster*.
Tpts incl 1 Boeing 727-2T3, 1 737, 4 *Electra*, 1 C-130H, 3 DC-6B, 5 HS-748 ac; 2 *Puma*, 6 *Alouette* hel.
Trainers incl 20 T-34C, 10 T-41.
AAM: R-550 *Magic*.
1 para sqn.
(On order: 10 F-5E, 2 F-5F fighter ac).

Para-Military Forces: 5,800, National Civil Police.

EL SALVADOR

Population: 4,800,000.
Military service: conscription, selective, 1 year.
Total armed forces: 16,000.*
GNP 1981: 8.33 bn colones (\$3.33 bn).
Defence expenditure 1981: 290.5 m colones (\$116.2 m).
\$1 = 2.50 colones (1981).

Army: 14,900 (being reorganized).
5 inf bdes (each 2 bns).
1 mech cav regt.
1 arty regt (2 bns).
1 engr bn.
1 AA arty bn.
1 para bn.
2 special forces gps.
12 AMX-13 lt tks; 12 AML-90 armd cars; 10 M-113, 20 UR-416 APC; 30 M-101 105mm how; 81 mm mor; 57mm RCL; *LAW* RL.

Navy: 100.
4 armed patrol boats.

Air Force: 1,000; 27 combat ac, 14 armed hel.
1 FGA sqn with 4 *Ouragan*, 6 A-37.
1 lt COIN sqn with 7 *Magister*, 6 *Rallye*.
1 recce unit with 4 O-2.
1 tpt sqn with 1 C-47, 25 *Arava*.
2 COIN hel sqns with 14 UH-1H hel.
Trg ac incl: 3 T-34, 10 T-6, 6 T-41.
Other hel: 1 *Alouette* III, 1 FH-1100, 1 *Lama*.
1 para bn.
(On order: 3 C-123 tpt ac; 6 UH-1H hel).

Para-Military Forces: National Guard 4,000; National Police 3,000; Treasury Police 2,000; territorial civil defence committees 60-80,000.

GUATEMALA

Population: 7,260,000.
Military service: conscription; 24-30 months.
Total armed forces: 18,550 (being increased).

* Forces opposed to the regime: full-time, 5,000; part-time, 5,000. 40mm ATK RL, 57mm RCL.

GNP 1981: 7.9 bn quetzal (\$7.9 bn).
 Defence expenditure 1981: 90.7 m quetzal
 (\$90.7 m).
 \$1 = 1.0 quetzal (1981).

Army: 17,000.
 4 Regional bde HQ.
 1 Presidential Guard bde.
 1 armd bn.
 15 inf bns.
 4 fd arty gps (12 btys).
 1 para/special forces bn.
 1 engr bn.
 4 recce sqns.
 10 M-41, 7 M-3A1 lt tks; 15 M-8, 10 RBY-1,
 M-3A1 armd cars; M-3 half-track, 10 M-113, 7
 V-150 *Commando* APC; 12 75mm pack, 36
 105mm how; 81mm, 12 4.2-in mor.

Navy: 950 incl 650 marines (4 coys).
 15 coastal patrol craft.
 1 LCM.
 2 small tp carriers.
 6 *Zodiac*-type assault boats (marines).

Bases: Santo Tomás de Castillas, Sipacate.

Air Force: 600; 16 combat ac, 4 armed hel.
 1 COIN sqn with 10 A-37B, 6 PC-7 *Turbo-Trainer*.
 1 tpt sqn with 1 DC-6B, 10 C-47, 9 *Arava*, 1 *Super
 King Air 2000* (VIP).
 1 maintenance sqn with Cessna: 12 172, 2 180, 4
 U-206C, 1 310.
 1 hel sqn with 4 armed UH-1H, 3 Bell 212, 6 412, 8
 206B, 6 206L-1, 3 *Lama*, 4 *Alouette III*.
 1 trg sqn with 5 PC-7 *Turbo-Trainer*, 12 T-41.

Para-Military Forces: National Police 9,500;
 Treasury Police 2,100.

HONDURAS

Population: 4,000,000.
 Military service: conscription; 18–24 months.
 Total armed forces: 11,700.
 GNP 1981: 4.546 bn lempiras (\$2.27 bn).
 Defence expenditure 1981: 82.6 m lempiras
 (\$41.3 m).
 \$1 = 2 lempiras (1981).

Army: 11,500.
 1 armd car regt.
 11 indep inf bns.
 3 arty bns.
 1 engr bn.
 1 special forces unit.
 17 *Scorpion* lt tks; 12 M-116 75mm pack, 12
 M-101 105mm how; 81mm, 120mm mor;
 57mm RCL.
 (On order: 105mm how.)

Navy: 300.
 6 *Swift* patrol craft: 2 105-ft fast, 4 65-ft coastal.
 (On order: 1 *Swift* 105-ft patrol craft.)

Bases: Puerto Cortés.

Air Force: 1,200; 25 combat aircraft.
 1 FGA sqn with 12 *Super Mystère B2*.
 1 COIN sqn with 4 F-86F *Sabre*, 6 A-37B.
 1 recce sqn with 3 RT-33A.
 Tpts incl 2 C-54, 2 C-45, 1 C-47, 3 *Arava*, 1 *West-
 wind*.
 1 liaison sqn with 2 Cessna 180, 2 185.
 Hel: 2 UH-19D, 10 UH-1H.
 1 trg sqn: 6 T-6, 24 T-28F, 5 T-41A.
 (On order: A-37B COIN, T-37B trg ac.)

Para-Military Forces: 3,000 Civil Guard.

MEXICO

Population: 71,500,000.
 Military service: voluntary, with part-time con-
 script militia.
 Total armed forces: 119,500 regular, 250,000 part-
 time conscripts.
 GNP 1981: 5,615 bn pesos (\$229.04 bn).
 Defence expenditure 1981: 34.4 bn pesos
 (\$1.403 bn).
 GDP growth 1980: 8.3%.
 Inflation: 29.8% (1980), 28.7% (1981).
 \$1 = 24.515 pesos (1981).

Army: 95,000 regular, 250,000 conscripts.
 1 inf div HQ.
 1 mech bde gp (Presidential Guard) (3 bns).
 2 inf bde gps (each of 2 inf, 1 armd recce, 1 arty
 bns).
 1 para bde (2 bns).
 1 recce regt.
 1 armd bn.
 35 Zonal Garrisons incl:
 28 indep cav (being mech), 3 arty regts, 64 indep
 inf bns.
 AA, engr and support units.
 40 M-3, M-5 lt tks; 70 M-3A1, M-8, 15 MAC-1
 armd cars; 50 HWK-11, M-3 APC; M-116 75mm
 pack, M-101 105mm towed; 80 M-8 75mm,
 M-7 105mm SP how; 1,600 60mm, 81mm and
 120mm mor; 37mm ATK guns; 40 12.7mm AA
 guns.
 (On order: 40 Panhard ERC-90 *Lynx* armd cars,
 AMX-10P MICV).

Navy: 20,000, incl naval air force and marines.
 4 ex-US destroyers: 2 *Fletcher*, 2 *Gearing*.
 6 frigates: 4 ex-US *Lawrence/Crosley*, 1 *Durango*,
 1 ex-US *Edsall* (trg ship).
 34 ex-US patrol ships: 18 *Auk*, 16 *Admirable* ex-
 minesweepers.

32 *Azteca* large patrol craft.
 15 patrol craft: 4 *Polimar*, 2 *Azueta*, 1 *Guajuato* coastal, 8 river.
 3 tpts incl 2 ex-US 511-1152 LST; 1 repair ship, 6 fleet tugs.

(On order: 5 large patrol craft, 6 *Hawk* FAC.)

Bases: Gulf: Vera Cruz, Tampico, Chetumal, Ciudad del Carmen, Yukalpetén. Pacific: Acapulco, Ensenada, La Paz, Puerto Cortés, Guaymas, Mazatlán, Manzanillo, Salina Cruz, Puerto Madero, Lázaro Cárdenas.

NAVAL AIR FORCE: (350); 11 combat aircraft.

1 MR sqn with 11 HU-16 *Albatross*.

1 liaison sqn with 1 *Learjet* 24D, 1 DC-3, 2 F-27, 6 *Bonanza*, 4 *Baron*; Cessna: 4 150, 8 152, 1 337, 1 402; 1 Stearman N-2-55.

1 hel sqn with 1 *Alouette* II, 4 *Alouette* III, 5 Bell 47G, 2 UH-1H.

Trainers: 2 T-34B.

MARINES: (3,810).

3 bn HQ.

19 security coys.

Air Force: 4,500; 14 combat aircraft.

1 FGA sqn with 4 F-5E, 3 F-5F forming.

1 COIN sqn with 7 AT-33A.

1 SAR sqn with 18 LAsA-60 ac; 7 *Alouette* III, 1 Hiller 12E hel.

1 Presidential (tpt) sqn with 2 Boeing 727, 1 *Jetstar*, 1 BAC-111, 2 C-47.

4 tpt sqns with 5 Boeing 737, 1 DC-7, 2 C-118, 5 C-54, 1 *Electra*, 25 C-47, 3 *Sabreliner*, 1 HS-125-400, 3 *Skyvan*, 12 *Islander*, 10 *Arava*, 20 *Aero Commander*, 1 DHC-5D.

1 hel sqn with: 5 *Puma*, 1 Bell 47G, 5 206B, 3 212, 10 205.

6 trg sqns: 2 with 20 T-6G; 4 with 45 T-28D.

Trainers incl 1 *Baron*, 20 Beech F-33-9, 34 *Musketeer*, 14 PC-7 *Turbo-Trainer*.

1 para bn.

(On order: 6 F-5E fighters.)

NICARAGUA

Population: 2,700,000.

Military service: regulars, voluntary; emergency conscription for militia.

Total armed forces: 21,500 (to be increased).

GNP 1981: 29.14 bn cordobas (\$2.9 bn).

\$1 = 10.05 cordobas (1981).

Army: 20,000 (plus Border Guard).

2 armd bns.

10 inf bns (being reorganized).

1 fd arty gp (2 bty).

1 engr bn.

1 AA arty bty.

3 M-4, 25 T-54/-55 MBT; 30 *Staghound* armd cars;

12 BTR-60 APC; 12 105mm how; 100 68mm *SARPAC* RL; 24 120mm mor; 48 Z1S-2 37mm AA guns.

Navy: 200.

4 *Dabur*, 1 Sewart, 9 other coastal patrol craft; 1 LCM.

(On order: 2 ex-Fr patrol craft).

Air Force: 1,500, incl Air Defence; 8 combat ac.

4 T-33A, 4 T-28D COIN; 2 *Aviocar*, 1 *Arava*, 4 C-47 tpt ac; 1 OH-6A, 1 Hughes 500 hel.

AA units: 90 14.5mm, 23mm and 37mm guns, SA-7 SAM.

(On order: 2 *Alouette* III hel.)

RESERVES: (all services): 60,000.

Para-Military Forces: Border Guard, some 5,000 (under Army). Civilian Militia, perhaps 50,000. Ministry of Transportation, 2 Mi-8 hel.

PARAGUAY

Population: 3,300,000.

Military service: 18 months; Navy 2 years.

Total armed forces: 16,000.

GNP 1981: 671.5 bn guaranies (\$5.33 bn).

Defence expenditure 1981: 11.04 bn guaranies (\$87.6 m).

\$1 = 126 guaranies (1981).

Army: 12,500.

3 corps HQ.

1 cav div (bde) (2 mech cav regts, 1 inf bn, 1 arty bty).

7 inf divs (bn gps).

2 indep horsed cav regts.

2 indep inf bns.

1 Presidential Guard bn.

1 spt cmd with arty, engr, sigs.

14 M-4 med, 15 M-3A1 lt tks; 12 M-8 (mod) armd cars; 12 M-3 (mod) APC; 25 M-116 75mm pack, 48 M-101 105mm how; 20mm, 40mm AA guns.

Navy: 2,500 incl 500 marines and naval air.

2 *Humaita* river defence vessels.

3 corvettes (ex-Arg *Bouchard* minesweepers).

9 patrol craft: 1 large, 8 coastal.

1 ex-US LSM.

1 marine 'regt' (bn).

1 C-47, 3 Cessna U-206, 1 Cessna 150M, 2 AT-6 trg ac; 4 OH-13 hel.

Bases: Asunción/Puerto Sajonia, Bahía Negra.

Air Force: 1,000; 28 combat aircraft.

2 COIN sqns: 1 with 8 EMB-326 *Xavante*; 1 with 20 AT-6G *Texan*.

1 tpt sqn with 3 DC-6B, 1 CV-131, 25 C-47, 1 *Dove*, 2 DHC-2.

1 liaison flight with 3 Cessna 185, 1 Cessna 337.
 1 hel sqn with 7 OH-13A, 1 FH-1100, 2 UH-12E.
 1 trg sqn with 8 T-23 *Uirapuru*, 10 T-6.
 1 para regt (bn).
 (On order: 10 EMB-110 tpts.)

Para-Military Forces: 4,000: civil police, internal security forces.

PERU

Population: 18,300,000.
 Military service: 2 years, selective.
 Total armed forces: 135,500 (51,000 conscripts).
 GNP 1981: 8,316.8 bn soles (\$19.5 bn).
 Estimated defence expenditure 1981: 170 bn soles (\$398.5 m).
 GDP growth 1980: 3%.
 Inflation: 60.8% (1980), 72.7% (1981).
 \$1 = 426.59 soles (1981).

Army: 75,000 (51,000 conscripts).
 3 armd divs (bdes).
 1 cav div: 2 horsed regts.
 7 inf divs (bdes), each of 4 bns, 1 arty gp.
 1 para-cdo div (bde).
 1 jungle div (bde).
 1 AA gp, 1 SAM gp.
 4 engr bns.
 3 armd recce sqns.
 2 air sqns: 1 liaison, 1 hel.

350 T-54/-55, 25 M-4 MBT; 110 AMX-13 lt tks;
 M-8 armd, 50 M-3A1, 15 Fiat 6616 scout cars;
 200 M-113, 40 *Chaimite*, 10 UR-416 APC; M-56
 pack, 90 M-101 105mm, 122mm incl SP,
 130mm, 155mm guns/how; 120mm mor; 40
 40mm, 76mm towed, ZSU-23-4 SP AA guns;
 SA-3/-7 SAM; 41 Mi-8, 4 *Alouette III* hel.
 (On order: 50 M-48A2 med tks; 100 SPz-12-3
 MICV, 10 Fiat 6614, 150 M-113 APC; 2 *Nomad* lt
 tpt ac.)

Navy: 20,500 incl naval air, 1,400 marines; 12
 combat aircraft, 10 armed hel.
 10 submarines: 4 Type 209, 6 ex-US (2 *Guppy* I, 4
Abtao).

3 cruisers: 2 ex-Neth *De Ruyter* (1 with 4 *Exocet*
 SSM, 3 hel), 1 ex-Br *Ceylon*.

9 destroyers: 2 ex-Br *Daring* with 8 *Exocet* SSM; 1
 ex-US *Fletcher*; 6 ex-Neth (1 *Holland*, 5 *Fries-*
land).

2 *Carvajal* frigates with 8 *Otomat* SSM, 1 × 8
Aspide SAM, 1 hel.

6 PR-72P FAC(M) with 4 *Exocet* SSM.
 5 river gunboats, 5 river, 4 lake patrol craft.

3 ex-US LST, 2 ex-US LSM.

2 tpts, 3 replenishment, 3 spt tankers.

1 ASW sqn with 9 S-2E *Tracker*.

1 ASW hel sqn with 4 SH-3D, 6 AB-212.

1 MR sqn with 2 F-27MPA, 1 CASA C-212.

1 hel utility sqn with 10 Bell 206B, 6 UH-1D/H, 2
Alouette III.

Tpts: 3 C-47, 1 *Aztec*.

Trg: 6 T-34C ac; 4 Bell 47G hel.

1 Marine bde (1,400): 3 bns with amph veh, armd
 cars, twin 20mm AA guns, 84mm RL.

(On order: 2 Type 209 submarine, 2 frigates, 3
 C-212 MR ac).

Bases: Callao, San Lorenzo, Talara, Iquitos (river),
 Puno (lake), Madre de Dios (river).

Air Force: 40,000; 114 combat aircraft.

2 lt bbr sqns with 20 *Canberra* B-2/B(I)-8/B(I)-56.

5 FGA sqns: 2 with 14 *Mirage* 5P; 3 with 52 Su-22.

2 COIN sqns with 25 A-37B.

1 OCU with 2 *Canberra* T-4, 1 *Mirage* 5DP.

6 tpt sqns: 8 L-100-20, 1 DC-8-62, 16 An-26, 1
 F-28, 10 DHC-6, 15 DHC-5, 6 *Turbo-Porter*, 5
 C-47.

2 liaison sqns with 18 *Queen Air*.

4 hel sqns: 1 with 6 *Alouette III*; 1 with 15 Bell 47G;
 1 with 17 Bell 212; 1 with 8 Mi-6, 7 Mi-8.

Trainers incl 4 Su-22UTI, 19 T-41, 26 T-37B/C.

ASM: AS-30.

(On order: 14 MB-339A COIN, 1 DC-8-62 tpt ac.)

Para-Military Forces: *Guardia Civil* 25,000 with
 Mowag *Roland* APC; Coastguard with 11 large,
 15 other patrol craft.

URUGUAY

Population: 3,000,000.

Military service: voluntary.

Total armed forces: 29,700.

GNP 1980: 89.5 bn pesos (\$9.77 bn).

Estimated defence expenditure 1979: 1.676 bn
 pesos (\$211.6 m).

\$1 = 9.16 pesos (1980), 7.92 pesos (1979).

Army: 22,000.

4 div HQ (regional).

4 cav bdes.

3 inf bdes, each with 3 bns.

1 arty bde.

17 M-24, 29 M-3A1, 22 M-41 lt tks; FN-4-RM-62,
 10 M-3A1 scout cars; 15 M-113 APC; 10 75mm
 guns; 25 M-101 105mm how.

(On order: 15 *Scorpion* lt tks.)

Navy: 4,700 incl naval air, naval infantry.

3 ex-US frigates: 1 *Dealey*, 2 *Cannon*.

1 *Auk* corvette.

4 large (1 *Adjutant*, 3 *Vigilante*) 7 coastal patrol
 craft.

2 ex-US LCM, 3 LCU.

3 S-2A/G, 1 CASA C-212/200 *Aviocar* MR ac, 1
Super King Air, 6 SNB-5 (C-45) tpts, 2 SNJ-4/6,
 9 T-28, 1 T-34B ac; 2 Bell 47G, 2 OH-13, 4
 SH-34J, 1 Bell 222 SAR hel.

1 naval inf bn.
(On order: 6 S-2G *Tracker* MR ac.)

Base: Montevideo.

Air Force: 3,000; some 24 combat aircraft.
1 COIN sqn with 5 AT-33A, 8 A-37B, 5 IA-58B *Pucará*.
1 recce/trg sqn with 8 T-6G.
1 SAR sqn: 7 U-17A ac; 2 Bell 212, 6 UH-1B, 3 UH-1H, 2 H-23F hel.
3 tpt sqns with 4 C-212, 2 F-27, 3 Cessna 182A/D, 7 *Queen Air*, 6 EMB-110B/C, 2 FH-227 ac, 1 Bell 212 hel.
Trainers incl 6 T-41D, 25 T-34B.
(On order: IA-58B *Pucará* COIN ac.)

Para-Military Forces: Coastguard 1,500 with 6 coastal patrol craft.

VENEZUELA

Population: 17,000,000.
Military service: 18 months, selective.
Total armed forces: 40,800.
GNP 1980: 259.42 bn bolivares (\$60.43 bn).
Estimated defence expenditure 1980: 3.703 bn bolivares (\$862.7 m).
GDP growth 1980: -1.2%.
Inflation: 19.6% (1980), 14.0% (1981).
\$1 = 4.2925 bolivares (1980).

Army: 27,000.
5 div HQ (regional), 10 bde HQ.
1 armd bde (2 med, 1 lt tk bns).
1 Ranger bde.
1 cav regt (horsed).
26 inf bns.
4 arty gps, 1 AA arty gp.
5 engr bns.
75 AMX-30 MBT, 40 AMX-13 lt tks; AML-60/-90, 12 M-8 armd cars; AMX-VCI, V-100 APC; 75mm pack, M-56 105mm pack, 35 M-101 105mm towed, 20 Mk F3 155mm SP how; 81mm, 120mm mor; 40 M-18 76mm SP ATK guns; 106mm RCL; SS-11, AS-11 ATGW; 40mm AA guns.
Army Aviation:
1 tpt sqn with 2 *Arava*, 1 *Islander*, 1 *Queen Air*, 2 *King Air*.
1 hel sqn with 3 Bell 206B, 6 UH-1D/H.

Navy: 9,000 incl naval air and marines.
3 submarines: 2 Type 209, 1 ex-US *Guppy* II.
2 ex-US *Sumner* destroyers (1 with 1 hel).
6 frigates: 4 *Sucre* with 8 *Otomat* SSM, 1 × 8 *Aspide* SAM, 1 hel; 2 *Almirante Clemente*.
3 Vosper Thornycroft FAC(M) with 2 *Otomat* SSM.
3 Vosper Thornycroft FAC(G).
2 LST, 2 LSM, 2 transports, 12 LCVP (all ex-US).
(On order: 2 Type-209 submarines, 2 *Sucre* (*Lupo*) frigates.)

NAVAL AIR: 6 combat aircraft, 6 armed hel.
1 ASW sqn with 6 S-2E.
1 ASW hel sqn (afloat) with 6 AB-212.
1 SAR sqn with 2 C-212/200 MR.
1 tpt sqn: 1 HS-748, 1 *King Air* ac, 6 Bell 47J hel.
(On order: 4 AB-212 ASW hel.)

MARINES: (4,500).
3 bns.
1 AA coy.
1 amph coy.
M-48A1 MBT, APC, M-42 SP 40mm AA guns.

Bases: Caracas, Puerto Cabello, La Guaira, Puerto de Hierro.

Air Force: 4,800; 87 combat aircraft.
2 lt bbr/recce sqns with 20 *Canberra* (12 B-82, 5 B(I)-82, 1 PR-83, 2 T-84).
1 FGA sqn with 16 *Mirage* (9 IIIEV, 5 5V, 2 5DV).
2 interceptor/FGA sqns: 1 with 14 CF-5A, 4 CF-5B; 1 with 18 F-86K.
1 COIN sqn with 15 OV-10E.
1 Presidential (tpt) sqn with 1 Boeing 737, 1 DC-9, 1 HS-748, 1 Cessna *Citation* ac.
2 tpt sqns with 1 HS-748, 8 C-130H, 12 C-123A.
2 utility/liaison sqns with 1 *King Air*, 9 *Queen Air*, 12 Cessna 182N, 2 Cessna 310R.
2 hel sqns: 1 with 13 *Alouette* III, 20 UH-1D/H; 1 with 9 UH-19, 2 Bell 212, 2 214ST, 2 412.
Trg Command: 12 *Jet Provost*, 23 T-2 *Buckeye* (12 armed), 25 T-34 *Mentor*.
AAM: R-530.
1 para bn.
(On order: 18 F-16A fighters, 2 G-222 tpts, 6 F-16 B/D trg ac.)

Para-Military Forces: *Fuerzas Armadas de Cooperación:* 20,000: 28 MICV; 120 60mm mor; 3 *Arava*, 1 *Islander*, 1 *King Air* ac; hel; 43 coastal patrol craft.

ARMED FORCES OF OTHER LATIN AMERICAN STATES*

Country	Estimated population (000)	Estimated GNP 1980 (\$m)	Defence expenditure 1981 (\$m)	Total armed forces	Army		Navy	Air Force	Para-military forces
					Manpower and formations	Equipment	Manpower and equipment	Manpower and equipment	
Guyana	870	559	24.2	7,000†					
					3 inf bns 1 arty tp	4 <i>Shorland</i> armd cars, 130mm guns; 12 81mm, 18 82mm, 18 120mm mor; SA-7 SAM	(150) 3 large, 7 coastal patrol craft <	6 BN-2A, 1 <i>Super King Air 200</i> , 1 Cessna U-206, 2 <i>Skyvan</i> tpts; 2 Bell 206B, 2 212 hel	5,000
Haiti	6,000	1,555	15.3 (est)	7,500	7,000 Pres Guard (1 inf bn) 1 inf bn Garrison det	5 M-5A1 lt tks; 6 V-150 <i>Commando</i> APC; 75mm pack, M-101 105mm how; 81mm mor; 57mm RCL; 37mm, 57mm ATK guns	300 (Coastguard) Coastal patrol craft <	200 8 Cessna 337 COIN; 3 DC-3, 3 DHC-3, 1 <i>Baron</i> , 1 Cessna 402 tpts; 3 Cessna 150, 1 172, 1 <i>Bonanza</i> trg ac; 1 H-34, 2 S-58T, 4 Hughes 300/500 hel	14,900 (Police)
Jamaica	2,300	3,200	39.9 (est)	1,700†	1,520 2 inf bns 1 Reserve bn 1 spt bn	<i>Ferret</i> armd cars; V-150 <i>Commando</i> APC; 6 81mm mor	100 1 large; 3 coastal patrol boats <	80 2 <i>Islander</i> , 1 DHC-6-300 ac; 4 Bell 206B, 3 212 hel	8,200
Trinidad and Tobago	1,200	5,185	100 (est 1979)	1,950	1,400 1 inf bn 1 reserve inf bn 1 spt bn	6 81mm mor	500 6 large, 3 coastal patrol craft (On order: 4 FAC)	50 1 Cessna 337 lt ac; 1 <i>Gazelle</i> hel. 2 S-76 (SAR) hel (para-mil)	—

Smaller states in the area: Bahamas, Barbados, Grenada, St Vincent have small para-military marine components. Belize and Bermuda have small infantry forces.

* Costa Rica and Panama maintain para-military forces, numbering 7,000 and 9,000 respectively.

† All services form part of the Army.

TABLES

1. NUCLEAR DELIVERY VEHICLES:

(A) UNITED STATES AND SOVIET UNION

(1) MISSILES AND ARTILLERY

UNITED STATES						
Category and type	Deployed		Range (km) ^a	Throw- weight (000 lb) ^b	Circular Error Probable (CEP) (m) ^c	Warheads, max. yield ^d and notes
	Total 7/82	First year				
STRATEGIC						
Land-based (ICBM)^e						
Titan II	52	1962	15,000	8.3	1,300	1 × 9 MT, General Electric Mk6. To be phased out.
Minuteman II	450	1966	11,300	1.6	370	1 × 1-2 MT, Avco Type 11B/C. 50 to be upgraded to III.
Minuteman III	250	1970	13,000	2.4	280	3 × 170 KT W-62 warhead, GE Mk 12 penetrating vehicle (MIRV).
	300	n.a.	n.a.	n.a.	220	3 × 335 KT W-78 warhead, Mk 12A MIRV.
Sea-launched (SLBM)						
Poseidon C-3	304	1971	4,600	3.3	450	10 × 50 KT (MIRV) or 14 over reduced range.
Trident C-4	216	1980	7,400	2.9	450	8 × 100 KT W-76 warheads (14 RV over 4,600 km), Mk 4 MIRV.
INTERMEDIATE						
Land-based (I/MRBM)						
Pershing II	(some 39)	(1983)	1,500	n.a.	30	1 × 250 KT (2 types of warhead).
(GLCM)						
BGM-109A	(some)	(1983)	(some 2,250)	n.a.	n.a.	n.a.
TACTICAL^f						
Land-based (SRBM)^e						
Pershing IA	108	1962	160-720	n.a.	n.a.	Dual-capable, 1 × 60-400 KT.
Lance	36	1972	110	n.a.	50	Dual-capable, 1 × 50 KT W-70 warhead.

For notes, see p. 118.

COMPARATIVE STRENGTHS AND CHARACTERISTICS

(1) MISSILES AND ARTILLERY

SOVIET UNION							
Category and type ^g	Deployed		Range (km) ^a	Throw- weight (000 lb) ^b	Circular Error Probable (CEP) (m) ^c	Warheads, max. yield ^d and notes	
	Total 7/82	First year					
STRATEGIC							
Land-based (ICBM)^e							
SS-11 <i>Sego</i>	Mod 1	570(-)	1966	10,500	2	1,400	1 MT
	Mod 3	some	1973	8,800	2.5	1,100	3 × 100–300 KT MRV. Replaced some Mod 1.
SS-13 <i>Savage</i>	Mod 1	60	1968	10,000	1	2,000	1 × 750 KT.
SS-17 (RS-16)	Mod 1	150(-)	1975	10,000	6	450	4 × 750 KT MIRV. In mod SS-11 silos.
	Mod 2	few	1977	11,000	3.6	450	1 × 6 MT. In mod SS-11 silos.
SS-18 (RS-20)	Mod 1		1975	12,000	16.5	450	1 × 20 MT.
(cold launch)	Mod 2		1977	11,000	16.7	450	8 × 900 KT MIRV.
	Mod 3	308	1979	10,500	16	350	1 × 20 MT.
	Mod 4		1982	9,000	16.7	300	10 × 500 KT MIRV.
	(Mod 5)		(1985)	(9,000)	(16)	(250)	(10 × 750) KT MIRV.
SS-19 (RS-18)	Mod 1	–	1974	11,000	8	500	6 × 550 KT MIRV (out of service).
(cold launch)	Mod 2	few	1979	10,000	7.5	300	1 × 5 MT. In mod SS-11 silos.
	Mod 3	310(-)	1982	(10,000)	8	300	6 × 550 KT MIRV. In mod SS-11 silos.
Sea-launched (SLBM)							
SS-N-5 <i>Serb</i>		57	1964	1,400	n.a.	2,800	1 × 1 MT range. (Includes 39 non-SALT.)
SS-N-6 <i>Sawfly</i>							
	Mod 1		1968	2,400	1.5	900	1 × 1 MT Liquid fuel.
	Mod 2	400	1973	3,000	n.a.	900	1 × 1 MT. Liquid fuel.
	Mod 3		1974	3,000	1.5	1,400	2 × 200 KT MIRV. Liquid fuel.
SS-N-8	Mod 1		1972	7,800	1.5	1,300	1 × 1 MT.
	Mod 2	292	n.a.	9,100	8	900	1 × 800 KT
	Mod 3		n.a.	n.a.	n.a.	450	3 × 200 KT MIRV.
SS-NX-17		12	1977	3,900	2.5	1,500	1 × MT; 7 × 200 KT MIRV tested. May be solid-fuel successor to SS-N-6.
SS-N-18	Mod 1			7,400	5	1,400	3 × KT MIRV. Solid-fuel SS-N-8 successor.
	Mod 2	208	1978	8,300	n.a.	600	1 × 450 KT.
	Mod 3			6,500	n.a.	600	7 × 200 KT MIRV.
SS-NX-20		20	(1981)	8,300	n.a.	n.a.	12 MIRV. Solid fuel (under development).
INTERMEDIATE							
Land-based (I/MRBM)^e							
SS-4 <i>Sandal</i>		275	1959	2,000	3	2,300	1 × 1 MT. Being withdrawn.
SS-5 <i>Skean</i>		16	1961	4,100	3.5	1,100	1 × 1 MT. Being withdrawn.
SS-20	Mod 1			5,000	n.a.	n.a.	1 × 1.5 MT.
	Mod 2	315	1977	5,000	n.a.	400	3 × 150 KT MIRV.
	Mod 3			7,400	n.a.	n.a.	1 × 50 KT.
TACTICAL							
Land-based (SRBM)^{ef}							
SS-1b <i>Scud A</i>			1957	150			
SS-1c <i>Scud B</i>		450	1965	160–300	n.a.	n.a.	1 × KT range. Being replaced by SS-23.
<i>FROG-7</i>		482	1965	70	n.a.	400	1 × 200 KT. Being replaced by SS-21.
SS-12 <i>Scaleboard</i>		70	1969	490–900	n.a.	900	1 × 200 KT. Being replaced by SS-22.
SS-21	(some 10)		1978	120	n.a.	300	Dual capable.
SS-22	(100)		1979	1,000	n.a.	n.a.	500 KT.
SS-23	(some 10)		1979–80	350	n.a.	n.a.	Dual-capable.
(GLCM)							
SS-C-1b <i>Sepal</i>		(100)	1962	450	n.a.	n.a.	1 × KT range. Similar to SS-N-3.

UNITED STATES						
Category and type	Deployed		Range (km) ^a	Throw- weight (000 lb) ^b	Circular Error Probable (CEP) (m) ^c	Warheads, max. yield ^d and notes
	Total 7/82	First year				
Sea-launched (SLCM)						
<i>Air-launched</i>						
<i>ALCM</i>						
AGM-86B	some	1982	2,500	2.8	n.a.	W-80, 300 kt.
<i>SRAM</i>						
AGM-69A	1,250	1972	55-160	2.2	370	1 × 200 kt. Carried on B-52G/H (20), FB-111A (6). W-69, possibly W-80 warheads.
<i>Artillery^f</i>						
M-110 203mm sp how (mod)	200	1962	21	—	170	1 × kt range.
M-109 155mm sp how	252	1964	18	—	n.a.	W-48, W-74. 1 × 2 kt.

(II) AIRCRAFT^h

UNITED STATES						
Category ⁱ and type ^g	Deployed		Range ^a (km) ^a	Max. speed (Mach)	Weapons load (000 lb)	
	Total 7/82	First year				
Bombers						
<i>Long-range</i>						
B-52D	75 ^j	1956	9,900	0.95	60	
B-52G	151 ^j	1959	12,000	0.95	70	
B-52H	90 ^j	1962	16,000	0.95	70	
<i>Medium-range</i>						
FB-111A	60	1969	4,700	2.5	37.5	
Strike aircraft^f						
<i>Land-based</i>						
F-4C/D/E	198	1962	2,200	2.4	16	
F-111/E/F	156	1967	4,700	2.2/2.5	28	
F-16	48	1979	3,800	2+	20	
<i>Carrier-based</i>						
A-6E	(60)	1963	3,200	0.9	18	
A-7E	(144)	1966	2,800	0.9	20	

SOVIET UNION

Category and type	Deployed		Range (km) ^a	Throw- weight (000 lb) ^b	Circular Error Probable (CEP) (m) ^c	Warheads, max. yield ^d and notes
	Total (7/82)	First year				
Sea-launched (SLCM)						
SS-N-3 <i>Shaddock</i>	356	1962	450	2	n.a.	1 × 350 kT or conventional. Numerous versions.
SS-N-7 <i>Siren</i>	154	1968	45	1.2	n.a.	1 × 200 kT or conventional.
SS-N-9	136(+)	1968/9	280	n.a.	n.a.	1 × 200 kT or conventional.
SS-N-12 (<i>Sandbox</i>)	32	1976 n.a.	1,000 550	2.2 n.a.	n.a. n.a.	1 × 350 kT or conventional. SS-N-3 replacement.
SS-N-14 (<i>Silex</i>)	292	1974	55	n.a.	n.a.	kT range. ASW.
SS-N-19	44	1980	460	n.a.	n.a.	Carried in O-class SSGN, <i>Kirov</i> cruisers.
Air-launched						
<i>ALCM</i>						
AS-2 <i>Kipper</i>	n.a.	1961	200	2.2	n.a.	1 × kT range or conventional.
AS-3 <i>Kangaroo</i>	(70)	1961	650	n.a.	n.a.	1 × MT range.
AS-4 <i>Kitchen</i>	(180)	1962	300	n.a.	n.a.	1 × kT range.
AS-6 <i>Kingfish</i>	(65)	1977	250	n.a.	n.a.	200 kT.
Artillery						
S-23 180mm towed gun	(168)	1950/55	30	0.2	n.a.	Dual-capable. 1 × kT range.

(II) AIRCRAFT^g

SOVIET UNION

Category ⁱ and type ^g	Deployed		Range (km) ^a	Max. speed (Mach)	Weapons load (000 lb)
	Total 7/82	First year			
Bombers					
<i>Long-range</i>					
Tu-95 <i>Bear</i>	105	1956	12,800	0.78	40
Mya-4 <i>Bison</i>	45 ^k	1956	11,200	0.87	20
<i>Medium Range</i>					
Tu-16 <i>Badger</i>	580 ^{kl}	1955	4,800	0.8	20
Tu-22 <i>Blinder</i>	165 ^l	1962	4,000	1.5	12
Tu-22M/-26 <i>Backfire</i>	180 ^l	1974	8,000	2.5	17.5
Strike aircraft					
<i>Land-based</i>					
Su-7 <i>Fitter A</i>	150	1959	1,400	1.7	5.5
MiG-21 <i>Fishbed</i>	100	1970	1,100	2.2	2
MiG-27 <i>Flogger D</i>	550	1971	1,400	1.7	7.5
Su-17/-20 <i>Fitter C/D</i>	650	1974	1,800	1.6	11
Su-19/-24 <i>Fencer</i>	550	1974	4,000	2.3	8

(B) OTHER NATO AND WARSAW PACT COUNTRIES

(I) MISSILES AND ARTILLERY

NATO (excluding USA)						
Category and type ^m	Deployed		Range (km) ^a	Warheads and max. yield ^c	Circular Error Probable (CEP) (m) ^c	Countries equipped
	Total 7/82	First year				
Land-based						
<i>IRBM^e</i>						
SSBS-3	18	1980	3,500	1 × 1 MT	n.a.	France.
<i>SRBM^e</i>						
<i>Honest John</i>	90	1953	40	1 × KT range	n.a.	Greece, Turkey. ^{no}
<i>Pershing IA</i>	72	1962	720	1 × KT range	n.a.	FRG (in Air Force). ^{no}
<i>Phuton</i>	42	1974	120	1 × 10 KT	n.a.	France.
<i>Lance</i>	61	1976	110	1 × 50 KT	n.a.	Belgium, Britain, FRG, Italy, Netherlands. ^{no}
Sea-launched						
<i>SLBM</i>						
<i>Polaris A-3</i>	64	1967	4,600	3 × 200 KT (MRV)	900	Britain. <i>Chevaline</i> (? 6 warheads) to be fitted from 1983.
MSBS M-20	80	1977	3,000	1 × 1 MT	n.a.	France. M-4 to replace.
Artillery (dual-capable)						
M-110 203mm SP how	231	1962	16	1 × KT range.	170	Belgium, Britain, FRG, Greece, Italy, Netherlands, Turkey. ^{no}
M-109 155mm SP how	1,454	1964	18	1 × 2 KT range.	n.a.	Belgium, Britain, Canada, Denmark, FRG, Greece, Italy, Netherlands, Norway, Turkey. ⁿ

(II) AIRCRAFT^h

NATO (excluding USA)						
Category ⁱ and type ^q	Deployed		Range (km) ^a	Max Speed (Mach)	Weapons load (000 lb)	Countries equipped
	Total (7/82)	First year				
Bombers						
<i>Medium-range</i>						
<i>Vulcan B2</i>	48	1960	6,400	0.95	21	Britain. <i>Tornado</i> to replace.
Strike aircraft						
<i>Land-based</i>						
F-104	290	1958	2,400	2.2	4	Belgium, FRG, Greece, Italy, Netherlands, Turkey.
F-4	172	1962	2,200	2.4	16	FRG, Greece, Turkey.
F-16	20	1982	3,800	2+	20	Belgium.
<i>Buccaneer</i>	50	1962	3,700	0.95	12	Britain. <i>Tornado</i> to replace.
<i>Mirage IVA</i>	34	1964	3,200	2.2	16	France. 1 × AN-22 60-KT.
<i>Mirage IIIE</i>	30	1964	2,400	1.8	19	France. (2) × AN-52 15-KT.
<i>Jaguar</i>	117	1974	1,600	1.4	10	Britain, France.
<i>Carrier-based</i>						
<i>Super Etendard</i>	36	1980	1,500	1.0	16	France. (2) × AN-52 15-KT.

For notes, see p. 118.

(I) MISSILES AND ARTILLERY

WARSAW PACT (excluding USSR)

Category and type ^g	Deployed		Range (km) ^a	Warheads and max. yield ^c	Circular Error Probable (CEP) (m) ^c	Countries equipped
	Total 7/82	First year				
Land-based						
<i>SRBM (dual capable)^e</i>						
SS-1c Scud B,						
<i>KY-3 Scud C</i>	143	1965	160-450	1 × KT range.	n.a.	All. ^p
<i>FROG-3/-7</i>	205	1957-65	40-60	1 × 200 KT.	380	All. ^p (<i>FROG-3</i> obsolescent.)

Sea-launched

Artillery

(II) AIRCRAFT^h

WARSAW PACT (excluding USSR)

Category and type ^g	Deployed		Range (km) ^a	Max Speed (Mach)	Weapons load (000 lb)	Countries equipped
	Total 7/82	First year				
Bombers						
Strike aircraft						
<i>Land-based^p</i>						
<i>Su-7 Fitter A</i>	115	1959	1,400	1.7	5.5	Czechoslovakia, Poland. ^p
<i>Su-20 Fitter C</i>	35	1974	1,800	1.6	4.0	Poland. ^p

Notes to Table 1

^a Ranges given in km; for nautical miles, divide by 1.852. Use of maximum payload may reduce a missile's operational range by up to 25% of figures shown. Figures for aircraft are theoretical maximum unrefuelled range at optimum altitude and speed. Higher speeds, lower altitudes and full weapons loads reduce range, especially with strike ac; for instance an A-6, at operational height and speed and with typical weapons load, has a combat radius of some 1,500 km, compared with a maximum ferry range of 4,700 km.

^b Throw-weight is the weight of post-boost vehicle (warheads, guidance systems, penetration aids) deliverable over a given range. Throw-weight will be less than shown maximum ranges.

^c CEP = the radius of the circle around a target within which there is a 50% probability that a weapon aimed at that target will fall.

^d Warhead yields vary greatly; figures given are estimated maxima. KT range = under 1 MT; MT range = over 1 MT. Yield figures for dual-capable weapons (which can deliver conventional or nuclear warheads) refer to nuclear warheads only.

^e ICBM = range of over 6,400 km; IRBM = 2,400–6,400 km; MRBM = 800–2,400 km; SRBM = 800 km or less.

^f Deployment figures for systems in Europe only, incl European USSR. Carrier-based ac figures assume 6 carriers in European area (Atlantic and Mediterranean fleets).

^g Names of Soviet missiles and aircraft (e.g. *Scarp*, *Bear*) are of

NATO origin. Numerical designations of Soviet missiles (but not aircraft) are of US origin.

^h All the types listed are dual-capable, but some in the strike categories are not presently configured for the nuclear role.

ⁱ Long-range = over 9,000 km; medium-range = 5,600–9,000 km; bomber = aircraft primarily designed for bombing missions.

^j Excluding ac in storage or reserve. B-52D being retired. B-52G/H being modified for cruise missile launch.

^k Excluding tankers (LRAF: 35 Mya-4, 10 Tu-16; Naval Air: 70 Tu-16).

^l Including Naval Air Force bombers (some 270 Tu-16, 40 Tu-22, 80 Tu-22M/-26).

^m Listed as a medium-range bomber on the basis of reported range characteristics.

ⁿ All NATO missiles of American origin, except SSBS, *Pluton* and MSBS (French). All Warsaw Pact vehicles of Soviet origin.

^o Nuclear warheads held in American custody. No nuclear warheads held on Danish or Norwegian soil. In few cases is the M-109 likely to have a nuclear role.

^p Nuclear warheads held in Soviet custody.

^q *Vulcan* and *Buccaneer* of British origin; F-104 and F-4 American; *Mirage* and *Super Etendard* French; *Jaguar* Anglo-French. All Warsaw Pact aircraft of Soviet origin. It is uncertain how many are nuclear capable.

2. HISTORICAL SUPER-POWER LAUNCHER STRENGTHS

	UNITED STATES					SOVIET UNION				
	1978	1979	1980	1981	1982	1978	1979	1980	1981	1982
ICBM	1,054	1,054	1,054	1,052	1,052	1,400	1,398	1,398	1,398	1,398
SLBM	656	656	656	576	520	1,028	1,028	1,028	989	989
Long-range bombers (incl trg ac but not reserves)	366	365	338	316	316	135	156	156	150	150

3. INDICES OF NATO DEFENCE EXPENDITURE IN CONSTANT PRICES^a
(in local currency, 1975 = 100)

Country	1970	1977	1978	1979	1980	1981 (provisional)	% Growth ^b		
							1960–70	1970–80	1975–80
Belgium	78.8	107.9	115.1	117.6	119.9	119.4	3.3	4.29	3.70
Britain	96.5	102.7	104.0	113.0	121.2	123.3	0	2.31	3.92
Canada	92.3	116.7	116.7	113.6	118.0	123.5	-0.5	2.49	3.36
Denmark	83.4	100.3	102.9	96.9	93.6	111.2	3.4	1.16	-1.31
France	89.4	109.1	115.0	118.4	120.1	123.0	1.6	3.00	3.73
Germany	91.7	101.8	105.0	106.1	106.5	110.2	3.6	1.51	1.267
Greece	71.0	102.1	123.0	n.a.	125.7	124.8	8.5	5.88	4.68
Italy	n.a.	122.8	114.8	118.7	110.6	121.9	4.1	n.a.	2.04
Luxembourg	83.0	114.3	117.8	121.0	133.2	142.0	2.1	4.84	5.90
Netherlands	82.3	100.8	105.6	110.8	114.8	115.3	4.3	3.38	2.80
Norway	91.9	114.1	123.7	134.9	138.8	153.8	5.4	4.21	6.78
Portugal	127.0	85.7	74.5	76.6	71.0	67.5	10.4	-5.65	-6.62
Spain	60.1	72.3	92.2	99.7	123.2	107.7	n.a.	7.44	4.26
Turkey ^c	45.4	110.2	96.1	85.2	58.0	104.0	3.9	2.48	-10.32
United States	118.7	102.5	99.1	99.6	102.0	119.0	2.7	-1.50	0.40

^a Constant price series defence expenditures are deflated by consumer price indices. These reflect general (not defence sector) rates of inflation.

^b Average annual compound growth rates.

^c Based on national, not NATO, definitions of defence expenditure.

4. MAJOR IDENTIFIED ARMS AGREEMENTS JULY 1981-JUNE 1982

Recipient	Primary supplier	Date of agreement	System	Quantity	Cost (\$m)	Expected delivery	
(a) USA	Britain	11/81	<i>Hawk</i> trg ac	300+	1,000	1987	
(b) Western Europe and NATO							
Austria	USA	3/82	M-109A2 155mm SP how	24	22	n.a.	
Belgium	USA	n.a.	<i>Milan</i> ATGW	566	n.a.	n.a.	
Britain	USA	12/81	<i>Harrier</i> GR-5 (AV-8B) V/STOL ac	60	1,400	n.a.	
		5/82	<i>Phalanx</i> AD system	1	9.4	1982	
		6/82	<i>Phalanx</i> AD system	3	20	1982	
		n.a.	227mm MLRS MRL	10	n.a.	n.a.	
Canada	Britain	1981	<i>Blowpipe</i> SAM	n.a.	n.a.	n.a.	
Cyprus	Brazil	1/82	EE-9 <i>Cascavel</i> armd car	20	n.a.	n.a.	
Finland	USA	n.a.	Piper <i>Chieftain</i> liaison ac	4	n.a.	n.a.	
France	USA	n.a.	E-2C <i>Hawkeye</i> AEW ac	4	n.a.	n.a.	
FRG	USA	4/82	AGM-65B <i>Maverick</i> ASM	500	50	n.a.	
Greece	Austria	1982	<i>Kuerassier</i> 105mm SP ATK gun	80	n.a.	1982-3	
		Italy	1982	<i>Aspide</i> SAM	n.a.	n.a.	n.a.
	Netherlands	7/81	n.a.	M-56 105mm pack how	n.a.	n.a.	n.a.
			n.a.	<i>Kortenaer</i> frigate	2	235	1985
			Switzerland	2/82	<i>Skyguard</i> AD system	40	n.a.
	USA	10/81	Twin 35mm AA gun	4			
	USA	10/81	2/82	M-109A2 155mm SP how	48	37	n.a.
			2/82	AIM-7M <i>Sparrow</i> AAM	280	98	n.a.
			5/82	<i>Harpoon</i> SSM	32	32	1982
			1982	CH-47 tpt hel	2	n.a.	n.a.
Italy	France	n.a.	<i>TOW</i> ATGW launcher	50	n.a.	n.a.	
			<i>Milan</i> ATGW launchers	286	100	1982-4	
USA	8/81	n.a.	<i>Milan</i> ATGW	3,510			
			<i>TOW</i> ATGW	2,211	n.a.	n.a.	
Netherlands	USA	7/81	<i>Stinger</i> SAM launcher	464	56	1981-2	
			<i>Stinger</i> SAM	646			
			12/81	F-16 fighter ac	18	230	1985
Spain	France	4/82	<i>Super Puma</i> SAR hel	12	n.a.	n.a.	
	USA	11/81	SH-60B ASW hel	18	510	n.a.	
Sweden	Britain	7/81	<i>Skyflash</i> AAM	n.a.	21	n.a.	
		4/82	<i>Skyflash</i> AAM	n.a.	25.8	n.a.	
Turkey	Belgium	n.a.	F/TF-104G fighter/trg ac	16	n.a.	n.a.	
	Denmark	n.a.	F-100D/F fighter ac	23	n.a.	n.a.	
	FRG	4/82	Meko-360 frigate	4	n.a.	n.a.	
		1982	C-160 tpt ac	16	aid	n.a.	
	Netherlands	n.a.	F/TF-104G fighter/trg ac	31	n.a.	n.a.	
	USA	12/81	UH-1H hel	12	32	n.a.	
			UH-1H hel	15	34	n.a.	
USA	n.a.	UH-1H SAR hel	10	n.a.	n.a.		
		UH-1H ECM hel	4				
Yugoslavia	Switzerland	2/82	PC-6 <i>Turbo-Porter</i> lt tpt ac	9	n.a.	1982	
	USSR	8/81	M-1974 122mm SP how	n.a.	n.a.	12/81	
(c) Middle East and North Africa							
Algeria	Britain	4/82	LST	2	n.a.	n.a.	
			42-metre patrol craft	6	n.a.	n.a.	

Recipient	Primary supplier	Date of agreement	System	Quantity	Cost (\$m)	Expected delivery
Algeria	USA	12/81	C-130H/H-30 tpt ac	6	100	1982
	USSR	n.a.	<i>Nanuchka</i> corvette	n.a.	n.a.	n.a.
Bahrain	USA	12/81	<i>Improved Hawk</i> SAM	n.a.	200	n.a.
		1/82	Bell 412 tpt hel	2	n.a.	1982
		4/82	F-5E fighter ac	4	22	n.a.
			F-5F trg ac	2		
Egypt	Canada China France France Italy USA	11/81	DHC-5D <i>Buffalo</i> tpt ac	10	83	6/82
		2/82	R-class submarine	2	n.a.	3/82
		11/81	<i>Mirage</i> 2000 fighter ac	20	1,000	1983
		2/82	<i>AlphaJet</i> trg ac	15	n.a.	n.a.
		11/81	<i>Spada</i> AD system	n.a.	n.a.	1983
		n.a.	AS-61 tpt hel	4	n.a.	n.a.
		11/81	<i>TOW</i> ATGW launcher	127	n.a.	n.a.
			<i>TOW</i> ATGW	218		
			<i>Improved TOW</i> ATGW	2,500		
			F-16A/B fighter/trg ac	40	1,400	n.a.
			AIM-9L <i>Sidewinder</i> AAM	300	34	n.a.
	11/81	M-60A3 MBT	128	213	n.a.	
Iraq	Brazil	1/82	MPS ASM	n.a.	n.a.	1983-6
		11/81	X-40 SSM	n.a.	n.a.	n.a.
	France	1981	<i>Roland II</i> SAM	n.a.	n.a.	n.a.
	Switzerland	n.a.	PC-7 <i>Turbo-Trainer</i> trg ac	n.a.	n.a.	n.a.
Israel	USA	4/82	<i>Improved HAWK</i> SAM	200	47	n.a.
		5/82	F-16 fighter ac	75	2,500	1982-6
Jordan	Greece	n.a.	30-metre patrol craft	6	n.a.	1982-3
	USSR	12/81	SA-7 SAM	n.a.	n.a.	1982
		1/82	SA-8 SAM	n.a.	200	1982
Kuwait	USA	3/82	M-113A2 APC	16	97	n.a.
			M-901 <i>Improved TOW</i> veh	56		
			<i>Improved TOW</i> ATGW	4,800		
		12/81	<i>Improved HAWK</i> SAM launcher	27	1,000	n.a.
			<i>Improved HAWK</i> SAM	164		
	1/82	L-100-30 tpt ac	4	90	1983	
Lebanon	Jordan	9/81	M-48 MBT	n.a.	n.a.	1982-3
Libya	France	1981	<i>Mirage</i> F1 fighter ac	40	n.a.	n.a.
	Italy	1981	<i>Palmaria</i> 155mm SP how	200	n.a.	n.a.
	USSR	11/81	T-72 MBT	300	8,000	n.a.
			<i>Scud</i> B/C SSM	n.a.		
			SA-9 SAM	n.a.		
	MiG-25 fighter ac	50				
	MiG-23 FGA ac	140				
Morocco	France	n.a.	P-32 coastal patrol craft	6	n.a.	n.a.
	Italy	4/82	<i>Aspide</i> SAM	n.a.	n.a.	n.a.
Oman	Britain	11/81	<i>Chieftain</i> MBT	15	n.a.	1982-3
	USA	11/81	C-130H tpt ac	2	45	n.a.
Saudi Arabia	FRG	5/81	FH-70 155mm towed how	72	75	1982-3
	Italy	2/82	VCC-1 <i>TOW</i> veh	200	280	n.a.
	USA	5/82	RF-5E recce ac	10	350	1984
			F-5F trg ac	5		
		10/81	KC-135 tanker ac	6	2,500	1984-5
			AIM-9L <i>Sidewinder</i> AAM	1,177	200	1984
		E-3A <i>Sentry</i> AWACS	5	6,000	1985	
	2/82	M-198 155mm towed how	18	n.a.	1982	

Recipient	Primary supplier	Date of agreement	System	Quantity	Cost (\$m)	Expected delivery
Sudan	USA	10/81	M-114 155mm towed how	12	n.a.	1982
			F-5E fighter ac	8	n.a.	n.a.
			F-5F trg ac	2	n.a.	n.a.
Syria	USSR	11/81	BMP-1 MICV	n.a.	n.a.	1982-3
			BTR-60 APC			
			M-1974 122mm SP how			
			M-1973 152mm SP how			
			<i>Spigot</i> ATGW			
			SA-6 SAM			
	SA-8 SAM					
Tunisia	France	2/82	<i>La Combattante</i> III FAC(M)	3	n.a.	1983
		8/81	M-60A3 MBT	54	92	n.a.
	USA	3/82	F-5E fighter ac	6	200	n.a.
			F-5F trg ac	6		
United Arab Emirates	Britain	1982	Coastal patrol craft	5	n.a.	n.a.
	France	5/82	<i>AlphaJet</i> FGA/trg ac	6	n.a.	n.a.
	Switzerland		PC-7 trg ac	11	n.a.	n.a.
	USA	11/81	<i>TOW</i> ATGW launchers	54	n.a.	n.a.
			<i>Improved HAWK</i> SAM launchers	7 btys	547	n.a.
	<i>Improved HAWK</i> SAM	343				
(d) Sub-Saharan Africa						
Benin	Libya	11/81	<i>Mystère-20</i> VIP tpt ac	1	gift	12/81
Botswana	USSR	9/81	BTR-60 APC	30	n.a.	9/81
			SA-7 SAM	100+	n.a.	9/81
Cameroon	Britain	7/81	<i>AlphaJet</i> trg ac	6	n.a.	5/82
	FRG	7/81	Do-128-6 MR ac	2	n.a.	3/82
	Italy	2/82	35mm towed AA gun btys	6	n.a.	1982
Gabon	USA	1/82	T-34C-1 trg ac	4	n.a.	1982
Kenya	Israel	n.a.	<i>Gabriel</i> SSM	n.a.	n.a.	n.a.
Nigeria	Britain	7/81	Vickers Mk III MBT	36	125	1983
		10/81	<i>Lynx</i> ASW hel	3	23	1982-3
		1981	<i>Blowpipe</i> SAM	n.a.	n.a.	n.a.
		<i>Bulldog</i> 123 lt ac	4	n.a.	n.a.	
	France	1/82	<i>Roland II</i> SAM	16	136	n.a.
	Italy	1982	<i>Palmaria</i> 155mm SP how	25	n.a.	n.a.
	Switzerland	1981	Mowag <i>Piranha</i> APC	57	n.a.	n.a.
	USA	n.a.	Hughes 300C hel	n.a.	n.a.	n.a.
Somalia	Italy	7/81	P-166-DL3 lt ac	2	n.a.	n.a.
		11/82	SIAI S-211 COIN ac	n.a.	n.a.	n.a.
Zaire	Italy	11/81	SIAI S-211 COIN/trg ac	n.a.	n.a.	1982
Zimbabwe	Britain	1/82	<i>Hawk</i> FGA/trg ac	8	35	12/82
(e) Asia and Australia						
Australia	Britain	8/81	<i>Sea King</i> Mk 50 ASW hel	2	n.a.	n.a.
		1982	<i>Invincible</i> ASW carrier	1	324	n.a.
	France	11/81	R-500 <i>Magic</i> AAM	n.a.	17.2	n.a.
	USA	10/81	F-/A-18 fighter/FGA ac	75	2,400	1984
		11/81	P-3C <i>Orion</i> MR ac	10	n.a.	1985-7
Bangladesh	Britain	3/82	Type 41 frigate	1	n.a.	1982
India	France	2/82	<i>Mirage</i> 2000 fighter ac	40	2,600	1985
	FRG		Type 209 submarine	4	350	1985-6
	USSR	8/81	Mi-24 hel	n.a.	n.a.	n.a.

Recipient	Primary supplier	Date of agreement	System	Quantity	Cost (\$m)	Expected delivery	
Indonesia	FRG	2/82	Type 209 submarine	2	110	n.a.	
	USA	11/81	M-101 105mm how	133	16	n.a.	
		11/81	Bell 212 hel	6	n.a.	1982	
		2/82	Hydrofoil FAC(M)	1	n.a.	6/82	
Japan	USA	11/81	AH-1S <i>TOW</i> -armed hel	10	n.a.	n.a.	
		6/82	<i>Phalanx</i> 20mm AA gun	3	50	n.a.	
			<i>Harpoon</i> SSM control and launching system	3			
			<i>Sidewinder</i> AAM	300			n.a.
S. Korea	USA	n.a.	Hughes 500MD <i>TOW</i> -armed hel	25	n.a.	n.a.	
Malaysia	Belgium	12/81	SIBMAS AFV	163	n.a.	n.a.	
		2/82	<i>Scorpion</i> lt tk	38	331	n.a.	
			<i>Stormer</i> APC	20			
			<i>Scorpion</i> SP AA gun	18			n.a.
	FRG	1/82	<i>Condor</i> APC	450	n.a.	1984	
	Switzerland	11/82	Pilatus PC-7 <i>Turbo-trainer</i> trg ac	44	65	10/82	
New Zealand	USA	6/82	<i>Super King Air</i> lt tpt ac	1	n.a.	n.a.	
	Britain	10/81	<i>Leander</i> frigate	2	83	1982-3	
Pakistan	Britain	2/81	<i>County</i> destroyer	1	n.a.	6/82	
	China	5/82	A-5 FGA ac	42	n.a.	n.a.	
	USA	11/81	M-48A5 MBT	100	80	n.a.	
			M-198 155mm towed how	75	117	n.a.	
			M-109A2 155mm SP how	64			
	M-110A2 203mm SP how	10					
			2/82	M-109A2 155mm SP how	36	30	n.a.
			12/81	M-901 <i>Improved TOW</i> SP ATGW	24	21	n.a.
			<i>Improved TOW</i> ATGW	1,005			
		11/82	AH-1S <i>TOW</i> -armed hel	10	82	n.a.	
		10/81	F-16 fighter ac	25	1,100	1982-3	
Philippines	USA	3/82	LTVP-7A1 APC	55	64	1982	
		4/82	UH-1H hel	15	36	n.a.	
Singapore	Britain	6/81	<i>Rapier</i> SAM	n.a.	85.6	n.a.	
			<i>Blindfire</i> radar	n.a.			
Thailand	USA	11/81	A-4 FGA ac	40	n.a.	1982-3	
	Australia	8/81	<i>Nomad</i> tpt ac	20	n.a.	1982-3	
	Britain	12/81	<i>Blowpipe</i> SAM	n.a.	n.a.	n.a.	
		USA	11/81	C-130H tpt ac	2	n.a.	n.a.
			12/81	<i>Redeye</i> SAM	20	n.a.	2/82
			3/82	M-167A1 <i>Vulcan</i> towed AA gun	24	23	1982
			4/82	UH-1H hel	12	n.a.	1982
			M-114 155mm towed how	34	n.a.	n.a.	
(f) Latin America							
Argentina	France	8/81	<i>Puma</i> tpt hel	9	n.a.	1982-3	
			Panhard ERC-90 armd car	12	n.a.	n.a.	
Bolivia	Belgium	10/81	F-104G fighter ac	52	70	n.a.	
	USA	8/81	Cessna <i>Stationair</i> liaison ac	9	n.a.	1981	
			Cessna <i>Turbo-Centurion</i> liaison ac	1			
Chile	Britain	1981	<i>County</i> destroyer	1	n.a.	1982	
			Fleet tanker	1	n.a.	1982	

Recipient	Primary supplier	Date of agreement	System	Quantity	Cost (\$m)	Expected delivery
Chile	Switzerland	n.a.	<i>Piranha</i> APC	n.a.	n.a.	n.a.
	USA	9/81	F-8L <i>Falco</i> trg ac	1	n.a.	n.a.
Colombia	Britain	8/81	HS-748-2B tpt ac	1	n.a.	1982
	Brazil	11/81	EE-9 <i>Cascavel</i> armd car	200	n.a.	n.a.
			EE-11 <i>Urutu</i> APC			
	Israel	2/81	<i>Kfir</i> C2 FGA ac	12	n.a.	1982
			MBT	n.a.	n.a.	1982
			Fd arty guns	n.a.	n.a.	1982
<i>Arava</i> tpt ac			n.a.	n.a.	n.a.	
Ecuador	USA	10/81	UH-1H hel	12	10	n.a.
	USA	10/81	F-5E fighter ac	10	n.a.	1982
		F-5F trg ac	2			
El Salvador	USA	7/81	Patrol boat	1	n.a.	1982
		2/82	A-37 FGA/COIN ac	6	25	n.a.
			O-2 COIN ac	4		
			C-123 tpt ac	3		
			UH-1H hel	6		
Mexico	France	n.a.	<i>Panhard</i> ERC-90 armd car	40	n.a.	n.a.
			AMX-10P MICV	n.a.		
	Spain	n.a.	Large patrol craft	5	n.a.	n.a.
			<i>Hawk</i> -type FAC	6	n.a.	n.a.
Nicaragua	France	1/82	68mm SARPAC RL	100	16	1982
			68mm SARPAC ATK rocket	7,000		
			Patrol boat	2		
			<i>Alouette</i> II hel	2		
			T-55 MBT	25		
Peru	Spain	n.a.	C-212 MR ac	3	n.a.	n.a.
	USA	n.a.	DC-8-62 tpt ac	1	n.a.	n.a.
Uruguay	USA	8/81	S-2G <i>Tracker</i> MR ac	6	n.a.	1982
Venezuela	Italy	5/82	G-222 tpt ac	2	n.a.	1982-3
	USA	12/81	Bell 214ST hel	2	13.4	1982
	USA	2/82	F-16A fighter ac	18	600	1983-4
F-16B trg ac			6			

5. COMPARISONS OF DEFENCE EXPENDITURE AND MILITARY MANPOWER 1975-82

Country	\$ million			\$ per capita			% of government spending ^a			% of GNP ^b		Numbers in armed forces (000)			Est. reservists ^c (000)	Para-military (000)
	1975	1980	1981	1975	1980	1981	1975	1980	1981	1975	1981	1975	1981	1982	1982	1982
Warsaw Pact^d																
Bulgaria	457	1,254	1,346	52	141	150	6.0	6.4	6.0	2.7	4.2	152.0	149.0	148.0	795.0	172.5
Czechoslovakia	1,706	3,601	3,796	116	234	246	7.3	7.5	8.2	3.8	n.a.	200.0	194.0	196.5	325.0	133.5
Germany, East	2,550	4,793	6,953	148	286	415	7.9	8.2	8.6	5.5	7.7	143.0	167.0	166.0	305.0	409.3
Hungary	506	1,067	1,237	48	99	115	3.5	3.8	3.9	2.4	3.0	105.0	101.0	106.0	143.0	75.0
Poland	2,011	5,063	5,408	59	141	151	7.0	5.6	5.1	3.1	4.3	293.0	319.5	317.0	605.0	635.0
Romania	707	1,361	1,351	33	61	60	3.7	3.5	4.0	1.7	2.0	171.0	184.5	181.0	365.0	1.59m
Soviet Union ^e	124,000	n.a.	n.a.	490	n.a.	n.a.	n.a.	n.a.	n.a.	8.4-15.0%		3,575.0	3,673.0	3,705.0	5,000.0 ^f	80.56m
NATO^g																
Belgium	1,971	3,958	3,342	200	399	337	10.0	9.2	9.2	3.0	3.3	87.0	89.5	93.5	141.5	16.2
Britain	11,118	25,921	24,223	198	463	433	11.6	10.7	12.1	4.9	5.4	345.0	343.6	327.6	281.7	9.95
Canada ^h	2,965	4,253	4,914	130	178	203	11.9	n.a.	8.3	2.2	1.7	77.0	79.5	82.86	21.3	1.3
Denmark	939	1,608	1,434	185	314	280	7.3	7.3	7.3	2.2	2.5	34.0	32.6	31.2	153.4	—
France	13,984	26,067 ^g	23,545	264	483	437	20.2	19.5	20.7	3.9	4.1	502.0	504.6	492.9	457.0	89.9
Germany ⁱ	16,142	33,611	29,047	259	548	471	24.4	28.3	28.2	3.7	4.3	495.0	495.0	495.0	750.0	20.0
Greece	1,435	2,275 ^g	2,273	159	239	237	25.5	22.5	20.3	6.9	5.7	161.2	193.5	206.5	404.0	29.0
Italy	4,700	9,579	8,769	84	168	153	9.7	5.4	5.6	2.6	2.5	421.0	366.0	370.0	799.0	204.7
Luxembourg	22	52.5	46	65	144	128	3.0	3.2	3.5	1.1	1.2	0.6	0.7	0.7	n.a.	0.5
Netherlands	2,978	5,534	4,717	218	395	333	11.0	9.9	9.7	3.6	3.4	112.5	102.8	104.0	171.0	8.7
Norway	929	1,618 ^h	1,646 ^h	232	394	401	8.2	10.7	9.0	3.1	3.3	35.0	37.0	42.1	243.0	—
Portugal	1,088 ^h	868	840	124	88	88	35.2	11.7	10.2	6.0	3.8	217.0	70.9	66.4	90.0	38.2
Spain ^h	1,701	3,991	3,655	48	106	96	14.5	12.2	11.7	1.8	1.9	302.3	342.0	347.0	1,085.0	105.0
Turkey	2,200	2,306	2,632	55	51	56	26.6	18.5	20.7	9.0	4.5	453.0	569.0	569.0	836.0	120.0
United States ^h	88,983	142,200	176,100	417	644	782	28.8	23.6	25.3	5.8	6.1	2,130.0	2,049.1	2,116.8	899.6	125.3
Other European																
Austria	410	914	768	54	121	102	3.9	3.9	3.6	1.0	1.2	38.0	50.3	49.4	930.0	—
Eire	128	292	278	41	85	80	4.3	3.7	3.5	1.6	1.6	12.1	14.0	16.4	22.2	—
Finland	388	734	712	83	153	148	5.0	6.1	6.0	1.4	1.5	36.3	39.9	36.9	700.0	3.6
Sweden	2,483	3,834	3,431	303	460	412	10.5	7.8	7.8	3.4	3.1	69.8	64.3	64.5	735.5	500.5
Switzerland	1,047	1,957	1,780	160	310	281	19.3	19.0	19.8	1.8	1.8	18.5	20.5	20.0	605.0	—
Yugoslavia	1,705	3,008	2,870	80	135	126	49.9	n.a.	n.a.	5.6	4.6	230.0	252.5	250.5	500.0	3-5m
Middle East																
Algeria	285	704	804	17	36	41	4.7	5.3	5.1	2.2	2.2	63.0	101.0	168.0	100.0	24.0
Egypt	6,103	2,146	2,103	163	53	49	42.0	26.3	20.6	50.4	7.3	322.5	367.0	452.0	335.0	139.0
Iran	8,800	4,461	4,402	268	117	113	24.9	11.2	10.6	17.4	3.6	250.0	195.0	235.0	400.0	(55.0*)
Iraq	1,064	2,980	n.a.	107	227	n.a.	43.7	24.1	n.a.	7.9	n.a.	135.0	252.3	342.0	75.0	704.8
Israel	3,552	4,834	6,056	1,045	1,239	1,514	50.1	33.6	30.6	35.9	28.7	156.0	172.0	174.0	326.0	4.5
Jordan	155	404	425	57	130	134	22.0	24.1	22.0	12.2	11.4	80.2	67.5	72.8	35.0	11.0

Kuwait	n.a.	1,014	1,311	n.a.	769	936	n.a.	5.9	6.9	n.a.	4.3	10.2	12.4	12.4	n.a.	18.0
Libya	203	502	n.a.	83	171	n.a.	13.7	11.8	n.a.	1.7	n.a.	32.0	55.0	65.0	n.a.	5.0 ⁺
Morocco	224	1,308	1,106	13	65	52	4.5	17.3	18.8	2.8	7.0	61.0	120.0	141.0	n.a.	30.0
Oman	n.a.	1,158	1,687	n.a.	1,245	1,785	n.a.	41.2	41.2	n.a.	n.a.	14.1	14.5	18.0	n.a.	3.3 ⁺
Qatar	n.a.	618	892	n.a.	2,809	3,717	n.a.	20.6	23.8	n.a.	13.6	2.2	9.7	6.0	n.a.	n.a.
Saudi Arabia	6,771	20,766	24,417	1,153	2,525	3,014	20.0	28.1	27.7	18.0	20.5	47.0	51.7	52.2	n.a.	31.5
Sudan	120	287	333	7	16	17	15.1	10.9	10.9	n.a.	2.7	48.6	71.0	58.0	n.a.	3.5
Syria	706	2,240	2,386	96	254	268	25.3	35.4	30.7	15.1	20.0	177.5	222.5	222.5	102.5	9.8
United Arab Emirates	n.a.	1,214	n.a.	n.a.	1,316	n.a.	n.a.	43.3	n.a.	n.a.	n.a.	15.6	42.5	48.5	n.a.	n.a.
Africa																
Ethiopia	84	363	378	3	12	13	19.4	31.7	n.a.	2.9	8.9	44.8	230.0	250.5	20.0	19.0
Nigeria	1,786	1,769	846	28	23	11	11.8	8.2	n.a.	7.1	0.9	208.0	156.0	138.0	n.a.	n.a.
Somalia	25	119	n.a.	n.a.	n.a.	n.a.	n.a.	23.5	n.a.	n.a.	n.a.	23.0	62.6	62.6	n.a.	28.0
South Africa	1,332	2,552	2,760	53	89	94	18.5	17.5	15.5	5.3	3.4	50.5	92.7	81.4	157.0	145.0
Zimbabwe	102	793	555	16	108	74	12.3	36.5	21.9	3.0	n.a.	5.7	34.0	63.0	n.a.	11.5
Asia																
Australia	2,492	4,229	4,778	184	294	317	8.6	10.0	n.a.	3.2	3.0	69.1	72.6	73.2	33.7	—
China	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3,250.0	4,750.0	4,000.0	4,300.0	7.7m
India	2,660	4,816	5,263	4	7	8	21.1	16.6	17.3	3.0	3.3	956.0	1,104.0	1,104.0	240.0	260.0
Indonesia	1,108	2,115	2,692	9	14	17	16.7	12.5	12.3	3.8	3.3	266.0	273.0	269.0	n.a.	82.0
Japan	4,620	12,637	10,453	42	108	89	6.6	5.8	4.8	0.9	0.9	236.0	243.0	245.0	43.6	—
Korea, North	878	1,341	1,681	54	74	92	n.a.	14.6	14.7	n.a.	8.9	467.0	782.0	784.0	300.0	798.0
Korea, South	943	3,471	3,970	28	91	102	29.2	36.0	34.2	5.1	6.3	625.0	601.6	601.6	3,640.0	9.52m
Malaysia	385	1,561	2,055	31	115	140	17.3	16.0	19.7	4.0	8.3	61.0	102.0	99.1	31.0	440.0
New Zealand	243	431	463	79	137	147	4.3	4.7	4.9	1.8	2.2	12.7	12.9	12.9	9.8	—
Pakistan	725	1,422	1,888	10	172	212	12.3	24.4	28.1	7.2	6.9	392.0	450.6	478.6	513.0	109.1
Philippines	407	770	862	10	157	171	19.3	13.3	12.7	2.6	2.2	67.0	112.8	112.8	124.0	110.5
Singapore	344	599	707	152	250	295	18.1	16.6	15.6	5.3	5.7	30.0	42.0	42.0	120.0	37.5
Taiwan	1,007	3,197	3,106	61	178	171	n.a.	59.3	46.2	6.9	6.6	494.0	451.0	464.0	2,970.0	25.0
Thailand	542	1,095	1,306	13	23	27	25.7	20.5	19.3	3.7	3.5	204.0	238.1	233.1	500.0	53.5
Latin America																
Argentina	1,031	3,060	10,084	41	113	360	9.7	15.1	64.2	0.9	8.1	133.5	185.5	180.5	250.0	43.0
Brazil	1,283	2,019	1,344	12	16	11	9.3	8.7	6.6	1.3	0.5	245.5	272.6	272.9	625.0	185.0
Chile	n.a.	1,436	1,474	n.a.	128	132	n.a.	16.6	15.8	n.a.	4.6	73.8	92.0	97.0	160.0	27.0
Cuba	n.a.	1,100	n.a.	n.a.	111	n.a.	n.a.	n.a.	n.a.	n.a.	8.5	117.0	227.0	127.5	130.0	168.5
Mexico	586	1,076	1,403	10	150	203	2.4	2.4	1.3	0.7	0.6	332.5	369.5	119.5	250.0	—
Peru	383	575	398	24	33	22	15.3	15.8	9.1	3.1	2.0	56.0	130.0	135.5	127.5	25.0
Venezuela	494	863	950	41	52	56	5.4	8.6	7.1	1.7	1.4	44.0	40.8	40.8	n.a.	20.0

^a This series is designed to show national trends only; differences in the scope of the government sector invalidate international comparisons.

^b Based on local currency. GNP estimated where official figures unavailable.

^c Reservists with recent training.

^d The difficulty of calculating suitable exchange rates makes conversion to dollars and international comparisons imprecise. GNP estimates derived from NMP figures.

^e See pp. 12–13.

^f Total available reserves could be up to 25,000,000.

^g Defence expenditures are based on the NATO definition. Figures from 1981 provisional only. GDP figures used.

^h Expenditure and GNP figures estimated from nationally-defined data.

ⁱ Incl. aid to W. Berlin.

ANALYSIS

The East–West Conventional Balance in Europe

Any assessment of the military balance between NATO and the Warsaw Pact involves comparison of the deployed strengths of both men and equipment and of reinforcement potential, consideration of qualitative characteristics, of factors such as geographical advantages, military technology, deployment, training and logistic support, and of differences in national doctrine and philosophy. It must be set within the context of the strategic nuclear balance, of military forces world-wide and, in particular, of the relative strengths of the navies and long-range air forces of both sides.

Certain elements in the equation change very little over time. Warsaw Pact equipment, doctrine and procedures are standardized, whereas those of NATO are not, despite long-standing attempts to improve interoperability and encourage uniformity. The Pact's advantages in flexibility and logistic support will be obvious, as will the geographical advantages which permit it to reinforce any of its fronts on interior lines and, in almost every case, overland. The West has hitherto relied on its superior technology and – although there is evidence that the East has been catching up and, in some instances, has actually overtaken the West – some Western advantage still remains, though this is now much smaller than it was.

The question of balance, as a practical calculation, begins by a comparison of the relative numerical strengths of each side, and this is shown in the table at the end of this essay.

Manpower

The total numbers of men in uniform in the armed forces of the countries which comprise NATO and the Warsaw Pact are given in the table, as are the ground force figures. Yet much of this manpower will be employed elsewhere than in Europe – particularly in the case of the United States and the Soviet Union – and so figures are given for the ground forces in place in Europe. (For convenience, Europe in this case is assumed to exclude the territory of the Soviet Union.) However, in the event of hostilities erupting or threatening to erupt, two kinds of augmentation can take place: first, standing forces not in Europe can be moved there; second, reserve forces can be mobilized either for combat in place or in order to be moved to Europe by external powers. A *total* reserve figure can be assessed but, as with standing manpower, not all these reserves would be allocated to Europe – particularly, again, of non-European powers.

Formations

Totals for the numbers and types of divisions and division-equivalents in place and manned in time of peace are shown in the table. Estimates of the

numbers of divisions existing in peacetime which are not in Europe but are presumed to be earmarked for it as reinforcements *prior* to mobilization, and of the number of divisions or division-equivalents on both sides which could be added to the order of battle on mobilization and earmarked for the European Theatre, are also listed.

Some qualifications and explanations are necessary. First, divisions on the two sides, and within the two sides, are very unequal both in strengths and equipment holdings. Second, the assumption is made that only European Military Districts of the Soviet Union (see p.15) would in fact provide forces for the European Theatre. Third, territorial defence units have been excluded from the figures in the table. Fourth, rates of mobilization and of forward movement would not be equal. A Norwegian brigade mobilized in place should be ready for defence long before a Soviet division could be mobilized around Leningrad and moved to attack it. On the other hand, an American division based in the continental United States and without equipment prepositioned in Europe will in all likelihood be slower to move into action than a Soviet division from Belorussia. Fifth, Europe is divided into distinct areas of possible confrontation where local balances may look very different to the overall balance and where, particularly on the NATO side, communications between battlefronts will prove very difficult. As a simplification in this analysis, NATO has been divided into North and Central Europe, on the one hand, and Southern Europe (Italy, Greece and Turkey), on the other. Finally, substantial combat elements are held outside divisional establishments and are not listed.

Equipment

Equipment holdings can be broken down into categories. The complicating factors are that total holdings of equipment do not necessarily match what is in divisional establishments (there are equipment reserves, non-divisional units and stockpiles), and not all equipment will be in theatre at the outbreak of hostilities. In the case of Soviet formations moving from the Western USSR, they will be expected to take their full unit inventories. In the case of American reinforcing formations, some plan to equip themselves from stockpiles in Europe. For these reasons, the table includes for each side only the total holdings of equipment known or estimated to be *in Europe*. As a separate category, estimates of the *additional* equipment presumed to come with Soviet reinforcing divisions moved to Europe have also been included; these figures are shown with a + sign below the line for USSR and in Pact total figures. Two ratios for equipment are given: one without rein-

forcement and one after Soviet divisions have reinforced the Pact in Europe.

Naval Forces

The assessment lists the numbers of vessels presumed to be in the Atlantic, Channel, North Sea and Mediterranean for NATO and, for the Warsaw Pact, the Soviet Northern, Baltic and Black Sea Fleets, together with non-Soviet Pact vessels in the Baltic and Black Seas. Soviet naval forces in the Mediterranean are drawn from the Black Sea Fleet or, in the case of submarines, from the Northern Fleet. As with ground force equipment, there are great disparities within categories, both with respect to capability and age. In the case of naval or maritime aircraft, classification by type is necessarily somewhat arbitrary but conforms to the nomenclature used in the country entries. The figures include both land- and sea-based aircraft with a clear maritime role in the above sea areas.

Air Forces

Assessment of land attack aircraft and fighters (including armed helicopters) requires similar assumptions to those made in the case of ground forces. The figures for US aircraft are for those based in Europe and do not take account of possible reinforcements from the continental US; the Soviet figures show a possible augmentation of frontal aviation from the Western military districts as a result of reinforcement. These figures are necessarily estimated. In the case of bombers, in particular, the question of allocation to the nuclear role is important. An assessment of nuclear systems is given in the Table on p. 136, and the figures given here are for all medium-range bombers, regardless of whether or not they might be reserved for nuclear delivery. It is necessary to stress the point that the increasing number of multi-role aircraft on both sides tends to make mission distinctions otiose. Aircraft intended primarily for ground attack often have a limited self-defence capability, but national terminology separates the standard air-superiority fighter and the interceptor, and this distinction has been applied.

Defining the Combat Zone

The Northern and Central European sectors are shown as one entity. Yet this is inevitably an incomplete notion. Norwegian defences, for example, are pulled in two directions. The land forces have as their main responsibility the protection of the northern approaches to the country and they have either deployed or plan to deploy virtually all their active field forces to the north because the Soviet formations in the northern Leningrad Military District pose a substantial potential threat. The Norwegian Navy must assign its larger vessels to support the coastal flank of the forces in Northern Norway; but the Soviet Baltic Fleet poses a

threat to Southern Norway, forcing the Navy to attend also to that area. The Air Force has to be prepared to support both sectors. Schleswig-Holstein, although also part of NATO's Northern Command, must anticipate attack from East Germany.

NATO's Southern Flank is even more divided. Italy must contest any Pact threat from Central Europe towards the central Mediterranean basin. Greece and Turkey must between them defend Thrace and the Aegean Sea and its air space, while Turkey must also defend her border in the Caucasus. This means that NATO has to be prepared to fight here on three widely separated fronts, each with its own tactical challenges and each with its own peculiar supply requirements. Yet it is impossible, without making a number of assumptions, to forecast the size and composition of the forces on both sides which would be assigned to those three fronts during hostilities. Pact forces in the south-western sector and threatening Thrace and the Dardanelles would be based on the Southern Group of Forces – Hungary, Bulgaria and Romania plus the Soviet formations – perhaps supported by formations from the Carpathian and Odessa Military Districts. The south-eastern sector, threatening Eastern Turkey, would be the responsibility of the Trans-Caucasus MD, and reserves for this front would most probably come from the North Caucasus MD. Trans-Caucasus MD is also responsible for the border with Iran.

Mobilization

The rate at which nations *can* mobilize will depend upon the system adopted, staff procedures and competence, distances and the transport facilities available. The rate at which nations *will* mobilize will depend on the warning received, on the political will to mobilize, on the ability to make decisions and put them into effect, and on how far enemy action obstructs mobilization.

The Warsaw Pact has maintained a reserve based upon large numbers of conscripts who have completed their period of obligatory service. The Soviet Union in particular uses the Military District organization for recalling and placing reservists into skeleton formations for war. The limitations of Soviet internal communications might make it difficult to switch divisions from one part of the USSR to another, but the links between the central USSR and the borders are more than adequate for rapid movement towards potential battlefronts so long as they stay free from attack.

Within Europe many countries can mobilize in place, although very many distinctively different methods are adopted. In the case of Britain, movement to the mainland of Europe is less easy and is liable to interdiction. Those countries which must move reinforcements across the Atlantic clearly face the possibility of serious interruption. Finally,

it must be noted that the United States, Britain and Canada do not have a pool of trained reserve manpower comparable to that available to other nations which have universal conscription.

Commonality and Technology

The accompanying table shows that the Warsaw Pact enjoys numerical advantage in virtually all categories of weapons shown, the notable exceptions being in crew-served anti-tank missiles, a number of naval vessel types and some naval aircraft. What is not shown by these figures is a primary advantage enjoyed by the Warsaw Pact, namely that the weapons in service, and the tactical doctrines for their use, are common throughout the Pact. NATO, in marked contrast, suffers from doctrines which are by no means identical and from a wide variety of everything from weapon systems to support vehicles, with consequent duplication of supply systems and some difficulties of interoperability.

The question of technological superiority is impossible to answer without the test of combat. In general, however, Soviet equipment is thought to be rugged, relatively immune to mishandling and apparently reliable. However, crew comfort and safety standards are significantly lower than those demanded in the West. While these factors may not be detrimental to efficiency over the short term, under the stress of combat the accident rate could rise and efficiency decline rather severely.

Logistics

NATO's logistic system is based almost entirely on national supply lines, and the difficulties are compounded by lack of standardization between nations and by lack of central co-ordination. In these respects it is inferior to that of the Warsaw Pact. Certain NATO countries, too, still lack sufficient spares and ammunition. Some Pact nations may also suffer from shortages, but the fact that their equipment is standardized would enable them to restock more quickly. The Soviet logistic system, which uses a mix of rail, road and pipeline, has been greatly improved in recent years.

Air Power

The Warsaw Pact has long contemplated the use of surface-to-surface missiles to deliver high-explosive, nuclear and chemical warheads against targets deep in enemy rear areas. However, the Soviet Union is also increasing her inventory of modern fighter-bombers and these pose an increasingly significant long-range threat. In terms of Pact defence against air attack, a large number of interceptors must be added to an impressive array of surface-to-air missiles and artillery pieces. It is clear that in war NATO air forces would face a formidable task in maintaining air support for the NATO ground forces on the European battlefield.

The Warsaw Pact continues to enjoy the benefits of standardized aircraft servicing and handling facilities. Although its aircraft cannot generally operate from unimproved runways, there are a very large number of modern airfields available with hardened aircraft shelters. NATO, on the other hand, still suffers from too few airfields and too many types of aircraft, although considerable improvements have been made in interoperability and in hardening airfields. NATO probably still enjoys a measure of overall electronic superiority and may enjoy a somewhat greater flexibility in command and control in combat conditions, but electronic counter-measures are being emphasized by the Pact, and tend to negate NATO's advantage.

Summary

The numerical balance over the last 20 years has slowly but steadily moved in favour of the East. At the same time the West has largely lost the technological edge which allowed NATO to believe that quality could substitute for numbers. One cannot necessarily conclude from this that NATO would suffer defeat in war, but one can conclude that there has been sufficient danger in the trend to require remedies.

Assessing the balance between NATO and the Warsaw Pact based on comparisons of manpower, combat units or equipment contains a large element of subjectivity. In the first place, the Pact has superiority in some areas and NATO in others, and there is no fully satisfactory way to compare these asymmetrical advantages. Tank superiority can be negated by combinations of many different kinds of anti-tank systems. Secondly, it is not possible to reduce to numbers such qualitative factors as training, morale, leadership, tactical initiative, terrain and geographical advantage, all of which are vitally significant in warfare. Thirdly, there is no agreement as to the form and scope that any hostilities which might break out would be likely to take. Such an assessment would have a vital bearing on the composition of the forces involved, resupply stocks, reinforcements and many other considerations. The table which forms part of this presentation attempts to distinguish between forces in being and those which might be made available over the longer term. It can pass no judgements as to the reliability of the forces or the political will and cohesion of the two alliances.

The overall balance continues to be such as to make military aggression a highly risky undertaking. Though tactical redeployments could provide a local advantage in numbers sufficient to allow an attacker to believe that he might achieve tactical success, there would still appear be insufficient overall strength on either side to guarantee victory. The consequences for an attacker would be unpredictable, and the risks, particularly of nuclear escalation, incalculable.

Comparison of NATO and Warsaw Pact Manpower and Equipment

	NATO (less US)				Ratios			USSR	Non-Soviet Pact
	N. Europe ^a	S. Europe	US	Total	NATO Europe: Pact	Total NATO: Pact	Total		
Manpower (000)									
Total manpower in uniform	1,670	1,211	2,117	4,998	1:1.67	1.04:1	4,821	3,705	1,116
Reserves (all services)	2,050	2,129	900	5,079	1:1.71	1:1.41	7,138	5,200	1,938
Total ground forces	998	931	791	2,720	1:1.36	1.04:1	2,618	1,825	793
Total ground forces in Europe (incl Trans Caucasus)	975	931	219	2,125	1.15:1	1.28:1	1,664	871 ^b	793
Divisions^c									
Divs in Europe and manned in peacetime	Tk	18	4 ^{1/3}	2 ^{1/3}	24 ^{2/3}		29	15	14
	Mech	11	6 ^{2/3}	2 ^{1/3}	20 ^{1/3}		49	26	23
	Other	9 ^{1/3}	30	0	39 ^{1/3}		1	1	0
Divs manned and available for immediate reinforcement	Tk	1	1	2	4		1	1 ^d	0
	Mech	0	0	3	3		1	1 ^d	0
	Other	^{2/3}	6	2 ^{1/3}	9		6	6 ^d	0
Extra divs available on mobilizing reserves	Tk	0	0	3	3		25 ^{2/3}	23 ^d	2 ^{2/3}
	Mech	^{2/3}	0	3 ^{1/3}	4		59	44 ^d	15
	Other	22	8	8	38		4	0	4
Ground Force Equipment									
Main battle tanks	7,531	7,098	3,000	17,629	1:1.87	1:1.55 (1:2.64)	27,300 (+19,200)	13,000 (+19,200 ^{bd})	14,300
Arty, MRL	4,100 ^b	5,167	562	9,829	1:1.11	1:1.05 (1:2.07)	10,300 (+10,000)	5,000 ^b (+10,000 ^{bd})	5,300 ^b
SSM launchers	163	96	144	403	1:2.39	1:1.54 (1:3.24)	620 (+685)	272 (+685 ^d)	348
ATK guns	850	146	0	996	1:1.99 (1:3.74)	—	1,978 (+1,746)	678 (+1,746 ^{bd})	1,300 ^b
ATGW launchers (crew-served)	3,000 ^b	1,000 ^b	644	4,644	2.78:1	3.23:1 (2.55:1)	1,437 (+385)	287 (+385 ^{bd})	1,150 ^b
AA guns	3,500 ^b	1,587	120	5,207	1.42:1	1.45:1 (1:1.25)	3,586 (+2,900)	1,086 ^{be} (+2,900 ^{bde})	2,500 ^b
SAM launchers (crew-served)	1,202	280	180	1,662	1:2.13	1:1.90 (1:3.79)	3,151 (+3,142)	1,751 ^{be} (+3,142 ^{bde})	1,400 ^b

Naval Units									
Submarines: cruise missile attack	0	0	0	0	–	–	54	54	0
	100	38	46	184	1.06:1	1.27:1	174	166	8
Carriers	6	1	6	13	1.75:1	3.25:1	4	4	0
Cruisers	1	2	12 ^b	15	1:9.00	1:1.80	27	27 ^b	0
Destroyers	42	32	35 ^b	109	1.36:1	2.06:1	53	52 ^b	1
Frigates	111	37	27 ^b	175	1.34:1	1.58:1	111	107 ^b	4
Corvettes/large patrol craft	56	67	0	123	1.03:1	1.03:1	119	60 ^b	59
FAC (M/T/P)	135	74	3	212	1:1.98	1:1.95	414	200 ^b	214
MCM ^f	214	83	3	300	1:1.36	1:1.35	405	264 ^b	141
Amphibious ^g	180	191	33	404	1.80:1	1.96:1	206	124 ^b	82
Naval and Maritime Aircraft									
Bombers	0	0	0	0	–	–	280	280	0
Attack	90	0	204 ^b	294	1:1.47	2.23:1	132	90 ^b	42
Fighters	31	0	126 ^b	157	–	–	0	0	0
ASW	16 ^b	20	60 ^b	96	1:3.47	1:1.30	125	125 ^b	0
MR/ECM	168	22	84 ^b	274	2.71:1	3.91:1	70	60 ^b	10
ASW hel	147	125	36 ^b	308	1.58:1	1.79:1	172	160 ^b	12
Land Attack Aircraft and Fighters^h									
Bombers	88	0	0	88	1:4.83	–	425	425	0
FGA	1,069	758	528	2,355	1.08:1	1.40:1	1,685	1,100 ^b	585
						(1:1.10)	(+900)	(+900 ^b)	
Fighters	42	0	96	138	1:16.7	1:5.07	700	700 ^b	0
						(1:12.3)	(+1,000)	(+1,000 ^b)	
Interceptors	407	207	0	614	1:7.14	–	4,382	2,880 ^b	1,502
Reconnaissance ⁱ	213	96	36	348	1:1.83	1:1.63	564	400 ^b	164
						(1:2.79)	(+400)	(+400 ^b)	
Armed hel	460 ^j	5 ^j	330 ^b	795 ^j	1:1.63	1.05:1	756	700	56
	[+180 ^b]	[+460 ^b]					(+650)	(+650 ^b)	

^a Includes French forces and Canadian forces in Europe, but not Spanish forces.

^b Estimated figures.

^c 'Tk' includes tank and armoured divs; 'Mech' includes mechanized, motorized and motor rifle; 'Other' includes airborne, airportable, mountain, amphibious and light infantry. Structure, readiness have been re-evaluated since the 1981–2 edition.

^d From western and southern European USSR.

^e Field forces only; PVO-Strany would provide additional AD equipment.

^f Includes support craft and inshore boats.

^g All types.

^h OCU aircraft are not included in these totals.

ⁱ Includes EW/ECM aircraft.

^j Known totals. Figures in square brackets show additional potential armed hel.

Theatre Nuclear Forces in Europe

East and West have traditionally maintained nuclear delivery systems to cover targets in Europe. These include both weapon systems of intercontinental range (which could be delivered over shorter distances) and shorter-range systems. Any comparison of nuclear systems of greater than simply battlefield range (over 160 km) intended for the destruction of targets in Europe is therefore inevitably artificial.

Moreover, this assessment does not necessarily imply that a nuclear war confined to Europe is feasible. On the contrary, even a modest exchange of nuclear warheads in Europe would, in all probability, escalate rapidly to the strategic nuclear level.

Nevertheless, despite both technical and conceptual difficulties in defining a neat regional relationship for nuclear forces, it is important to identify and assess those weapon systems on both sides whose primary mission, is *prima facie*, to cover targets in Eastern Europe, the Western USSR and Western Europe. There are two related reasons for making the attempt. First, the threat that they pose and the means of response must be taken into account by military planners. Second, the major investment that the Soviet Union has made in recent years in modern medium-range nuclear systems suggests that there are, in the Soviet perspective, tangible military and political advantages to be derived from nuclear preponderance in the European region.

Assumptions made at the outset determine the result, and these can be controversial. Many weapon systems are technically flexible, and there are bound to be uncertainties over mission priorities. Moreover, the weapon systems in East and West are not identical and some judgment as to qualitative factors must be included.

In the following assessment the Institute applies the method of evaluation evolved for *The Military Balance 1980-1981* and *1981-82*. Numbers have in some cases changed (due to retirements, to re-evaluation and to the introduction of new systems) resulting in changes in sub-totals and totals.

Assumptions

1. This evaluation is based on the assumption that the relevant delivery systems are those of beyond battlefield range which can be available after a period of warning sufficient to permit dispersal but not long enough for reinforcement or redeployment. The analysis is thus confined to the consideration of forces which can be expected to survive a pre-emptive attack *after* dispersal has taken place, the total number of warheads that each side might be expected to have available for launching against the other, and the number that

might be expected to survive to penetrate the other side's defences.

To go further would require an extremely complex analysis dependent on assumptions about raid size, accuracy, vulnerability, meteorological conditions, timing and many other factors. At best this could only result in a series of scenarios which would do little to clarify the pre-release relationship of forces which is all that this analysis attempts.

Even the method of comparing systems likely to survive a pre-emptive attack contains artificiality, since any retaliatory strike in reaction to the pre-emptive attack would find fewer nuclear targets, because silos, launchers and airfields would be empty; nor would that retaliation necessarily be a *theatre* nuclear retaliation.

The presentation given here cannot therefore be taken as a scenario of a European nuclear war; rather it seeks to assess the question of theatre nuclear forces from the perspectives of the respective military planners who need to be able to count on the functioning of a certain number of delivery systems.

2. As to the forces counted, Soviet Strategic Rocket Forces (specifically SS-11 and SS-19 missiles), which could be given targets in Europe, have not been included. There is little doubt that some of these missiles have in the past been so targeted, and all modern Soviet ICBM could be quite rapidly re-targeted on Europe should the need arise. Soviet *Yankee*-class SSBN and other maritime systems could also be targeted on Europe. The decision to exclude these systems from the assessments rests on plausibility, not certainty. It is based on the inference that the *primary* missions of these systems (those for which they have been acquired and for which they are primarily deployed) suggest other roles than that of being used against targets on land in Europe, and that, since the number and accuracy of the warheads of the Soviet M/IRBM force has increased substantially with the rapid deployment of the SS-20 missile, Soviet planners are no longer likely to need to divert ICBM, SLBM or maritime systems to cover targets on land in Western Europe.
3. On the Western side, where many similar considerations apply, the Institute's assessment does, however, include 400 US SLBM *Poseidon*/*Trident* warheads, albeit in a separate category. The reason for this is that they were explicitly allocated to SACEUR's planning authority in the 1960s in order to remedy a shortfall in NATO's nuclear delivery systems. Because SACEUR is presumed to be able to count on these warheads to cover targets in Eastern Europe and the Soviet Union *before* the implementation of the full US

SIOP (Single Integrated Operational Plan), it is appropriate to include them in an assessment of those systems whose primary mission is related to the European Theatre. We do include British and French strategic systems in the table, for they fall within our definition of theatre nuclear systems, but would note that they have not been included in the Intermediate Nuclear Forces arms-control negotiations in Geneva. We would also acknowledge that their missions tend to be distinctively different from those of the other systems listed.

4. Range estimation for aircraft poses another major definitional problem. It will depend critically upon speed and flight profile, whether external tanks are carried and, most obviously, whether aircraft are refuelled in flight. The figures given are *radii* and are believed to be the *operational* maxima for the aircraft concerned, rather than ferry ranges. This distinction was not always applied in the first assessment made in *The Military Balance 1979-1980*. Strike aircraft do not, of course, have to return to their bases but can recover on any friendly territory if this extends their effective range; this is *not* taken into account.
5. The designation of aircraft for a theatre nuclear strike role is also inevitably somewhat uncertain. Nuclear *capability* does not necessarily imply a primary nuclear *role*, and, in the case of NATO at least, the nuclear role for aircraft has progressively diminished. A substantial number of Soviet aircraft types which could be adapted for nuclear strike are probably retained in the interceptor role, and this has led to some reduction in numbers of Soviet nuclear-capable aircraft, particularly of MiG-23/-27 *Flogger*, among which only the MiG-27 is likely to be used in the ground-attack role.
6. The Table lists the types and numbers of systems presumed to be available, and warheads available are deduced by assessing the number of warheads each system can deliver, the presumed utilization of those systems in the nuclear role in Europe and their serviceability. A judgment is

then made as to the number of warheads which might be expected to arrive on target by assessing survivability, reliability and penetration and multiplying the warheads available by these factors. Additional criteria are explained in footnotes to the Table.

Conclusion

Comparison of the two halves of the table at the end of this essay shows that, if *Poseidon/Trident* is excluded from the calculations, the Warsaw Pact relies more heavily on the missile element of its theatre nuclear systems than NATO. It is also significant that the Warsaw Pact's aircraft appear to be better able to survive and penetrate to their targets than NATO's. This reflects the facts that Soviet aircraft are generally newer than NATO's and that Pact air defences are somewhat denser.

Without *Poseidon/Trident* being included on the NATO side, the Warsaw Pact overall advantage in arriving warheads is about 3.6:1; with *Poseidon/Trident* that advantage falls to about 1.7:1. This emphasizes the critical nature of the assumption as to whether or not to include *Poseidon/Trident* warheads. Nevertheless, even with the inclusion of *Poseidon/Trident* on the Western side and the continued exclusion of Soviet strategic systems, the balance is distinctly unfavourable to NATO and is becoming more so. The Soviet SS-20 programme, intended to replace the older SS-4 and SS-5 missiles, has continued during the year, resulting in an increase in Pact warhead numbers based on more survivable launchers. It is not clear that all SS-4s and SS-5s will be taken out of operation once the SS-20 deployment is complete, although the numbers of the older missiles are still falling steadily. However, nothing has yet been done to reduce substantially the vulnerability of NATO's existing nuclear delivery systems or to increase their ability to penetrate Pact defences. Improvement in both respects must await the implementation of NATO's decision of December 1979 to deploy 464 long-range ground-launched cruise missiles (GLCM) and 108 *Pershing II* MRBM in Europe, a programme unlikely to be completed before the end of the decade.

For the Table accompanying this essay, see overleaf.

Long- and Medium-range Nuclear Systems for the European Theatre

Category and type	Range/ combat radius (km) ^a	First deployment ^b	Inventory	Factors			Warheads available (approx.) ^d	Indices			Arriving warheads (approx.) ^h	Operating countries and notes
				Warheads per system	Utilization ^c	Serviceability		Survivability ^e	Reliability ^f	Penetration ^g		
WARSAW PACT												
IRBM												
SS-20	5,600	1977	315 ⁱ	3	0.66 ⁱ	0.9	561	0.9	0.8	1.0	404	MIRV (? 1 reload per system)
SS-5 <i>Skean</i>	4,100	1961	16 ⁱ	1	1.0	0.75	12	0.6	0.7	1.0	5	
MRBM												
SS-4 <i>Sandal</i>	1,900	1959	275 ⁱ	1	1.0	0.7	193	0.5	0.65	1.0	63	
SRBM												
SS-12 <i>Scaleboard</i>	900	1969	70	1	1.0	0.8	56	0.7	0.75	1.0	29	All Pact
<i>Scud A/B</i>	300	1965	450	1	1.0	0.8	360	0.7	0.75	1.0	189	
<i>Scud B/C</i>	300	1965	143	1	1.0	0.8	114	0.7	0.75	1.0	60	
SS-22	1,000	1978	(100) ⁱ	1	1.0	0.8	80	0.8	0.8	1.0	51	
SS-23	350	1980	(10) ⁱ	1	1.0	0.8	8	0.8	0.8	1.0	5	
SLBM												
SS-N-5 <i>Serb</i>	1,400	1964	57 ⁱ	1	1.0 ^k	0.45 ^l	26	0.8	0.6	1.0	12	On 13 G-II, 6 H-II subs
Ballistic missile sub-totals			1,436					1,410		818		
Aircraft												
Tu-22M/-26 <i>Backfire B</i>	4,025	1974	100 ^m	4 ^{no}	0.4	0.8	128	0.7	0.85	0.7	53	Poland Czechoslovakia, Poland
Tu-16 <i>Badger</i>	2,800	1955	310	2 ^o	0.4	0.7	174	0.7	0.75	0.5	46	
Tu-22 <i>Blinder</i>	3,100	1962	125	2 ^o	0.4	0.7	70	0.7	0.8	0.55	22	
Su-24 (Su-19) <i>Fencer</i>	1,600	1974	550	2	0.2	0.8	176	0.55	0.8	0.65	50	
MiG-27 <i>Flogger D</i>	720	1971	550 ^m	1	0.4	0.8	176	0.6	0.8	0.65	55	
Su-17 <i>Fitter C/D</i>	600	1974	688	1	0.2	0.8	110	0.55	0.8	0.65	31	
Su-7 <i>Fitter A</i>	400	1959	265	1	0.2	0.7	37	0.5	0.7	0.5	6	
MiG-21 <i>Fishbed J-N</i>	400	1970	100 ^m	1	0.2	0.8	16	0.5	0.8	0.6	4	
Air-delivered weapon sub-totals			2,688					887		267		
Warsaw Pact totals			4,124					2,297		1,085		

NATO

IRBM

SSBS-3 3,000 1971/80 18 1 1.0 0.9 16 0.6 0.8 1.0 8 France

SRBM

Pershing 1A 720 1962 180 1 1.0 0.9 162 0.7 0.8 1.0 91 US, FRG

SLBM												
<i>Polaris A-3</i>	4,600	1967	64	1 ^p	1.0	0.45 ^m	29	0.9	0.8	1.0	21	Britain. MRV; MARV (<i>Chevaline</i>) in service shortly
MSBS M-20	3,000	1977	80	1	1.0	0.45 ^m	36	0.9	0.8	1.0	26	France
Ballistic missile sub-totals			342					243		146		
Land-based aircraft												
<i>Vulcan B-2</i>	2,800	1960	48	2	1.0	0.7	67	0.6	0.8	0.5	16	Britain. Incl 9 OCU ac
F-111E/F	1,900	1967	156 ^q	2	0.5	0.8	125	0.6	0.8	0.75	45	US ac in Europe
<i>Mirage IVA</i>	1,600	1964	34	1	1.0	0.7	24	0.6	0.8	0.5	6	France
<i>Buccaneer</i>	950	1962	50	2	0.5	0.7	35	0.6	0.8	0.5	8	Britain. <i>Tornado</i> to replace
F-104	800	1958	290	1	0.3	0.7	61	0.4	0.8	0.3	6	Belgium, FRG, Greece, Italy, Netherlands, Turkey
F-4	750	1962	172	1	0.3	0.8	41	0.4	0.8	0.55	7	FRG, Greece, Turkey
F-4	750	1962	252	1	0.3	0.8	60	0.4	0.8	0.55	11	US Europe-/dual-based ac
F-16	900	1979	48	1	0.3	0.8	12	0.5	0.8	0.75	4	US ac in Europe
F-16	900	1982	20	1	0.3	0.8	5	0.5	0.8	0.75	2	Belgium
<i>Jaguar</i>	720	1974	117 ^r	1	0.5	0.8	47	0.4	0.8	0.6	9	Britain, France
<i>Mirage IIIIE</i>	600	1964	30	1	0.5	0.8	12	0.4	0.8	0.45	2	France
Carrier-based aircraft												
A-6E	1,000	1963	20 ^s	2	0.5	0.8	16	0.5	0.8	0.6	4	US. B43 bombs
A-7E	900	1966	48 ^s	2	0.5	0.8	38	0.5	0.8	0.4	6	US. B43 bombs
<i>Super Etendard</i>	560	1980	16 ^t	2	0.5	0.8	13	0.5	0.8	0.5	3	France. AN-52 bombs
Air-delivered weapon sub-totals			1,301					556		129		
NATO totals (excluding <i>Poseidon/Trident</i>)			1,643					799		275		
US CENTRAL SLBM												
<i>Poseidon C-3</i> or <i>Trident C-4</i>	4,600 or 7,400	1971/ 1980					400 ^u	0.9	0.8	1.0	288	
NATO totals (including <i>Poseidon/Trident</i>)							1,199		563			

^a Range for missiles; average combat radius for aircraft, assuming high-level transit, low-level penetration of air defences and average payload, unrefuelled.

^b Production runs will continue for up to 10 years from first in-service date.

^c Approx. percentage thought likely to be allocated to nuclear role against Europe. For USSR, assumes about 25% generally deployed in East (except where noted) and some 50% of bbrs and some 25% of FGA ac retained in nuclear role.

^d Given by: Inventory × Warheads × Utilization × Serviceability.

^e Survivability is a function of weapon system characteristics, tactics and location in relation to attacking force.

^f Estimated likelihood of system functioning as planned after launch.

^g Dependent on effectiveness of defence against specific system and ECM fit. For NATO, assumes Moscow ABM defences not targeted or after ABM suppression.

^h Given by: Warheads available × Survivability × Reliability × Penetration.

ⁱ Total nuclear-capable systems available.

^j Assumes 33% in W. USSR, 33% in 'swing-zone' in the Central USSR and with range to threaten NATO and Far East.

^k All assumed in Western Sea Areas (primarily Baltic). H-II SSBNSALT-counted.

^l Takes account of approximate submarine refit time and missile serviceability.

^m Numbers in nuclear strike role reassessed from 1981-82.

ⁿ Some authorities give 3 as average warhead loading.

^o ASM could be carried instead of free-fall bombs, and this would improve the penetration figure substantially.

^p MRV counts as one regardless of dispersal pattern (warheads not separately targetable).

^q F-111E/F could be reinforced by F-111D (not SALT-counted and might be assumed available to reinforce Europe), but these are not available on day-to-day alert. FB-111A not assumed available for theatre use.

^r Only 80 nuclear-capable aircraft in Anglo-French inventory of 219. Half of these assumed retained for nuclear role.

^s Assumes 2 carriers in US 6th Fleet (Mediterranean); temporary redeployment not allowed for. Half strike inventory retained for nuclear role against land targets.

^t Assumes one out of two French carriers in range.

^u Figure assumed to be available to SACEUR for NATO targeting. SALT-counted systems.

Estimating the Soviet-US Strategic Balance

The strategic nuclear systems deployed by the United States and the Soviet Union can be compared using a wide variety of measures. Perhaps most commonly, such comparisons are expressed in terms of the basic characteristics of the forces in peacetime—such as the number of delivery systems available to each side, or the number of warheads which those systems can deliver. Alternatively, analysts can attempt to assess the military potential inherent in nuclear systems by estimating, for example, missile throw-weight and bomber payload, the total destructive power ('yield') of each side's strategic nuclear weapons, or the effectiveness of strategic nuclear weapons against specific kinds of targets. A number of these measures are described below.

It is, however, important to note at the outset that no single measurement can give a full representation of the strategic nuclear balance. One measure may be useful for some purposes but not for others, and there is considerable debate among analysts as to which measures should be given greatest weight in assessing the overall balance. Moreover, estimates of many of these measures are often either themselves subject to considerable uncertainties (e.g., deliverable warheads, aggregate yield), or else very sensitive to predicted performance or to other assumptions which are also highly uncertain (e.g., effectiveness against particular classes of targets). Finally, all these estimates are in any case essentially *static* measures of the balance; they provide alternative indices of the potential of strategic nuclear forces in peacetime, but they cannot portray how these forces might interact in the event of war. Nor can these measures necessarily be applied in the same way to the specific purposes of arms control. (In the US-Soviet SALT II Treaty, for example, verification considerations required 'counting rules' which assumed that *all* missiles of a given type carried the maximum number of warheads with which any missile of that type had been tested.)

Delivery Systems and Deliverable Weapons

The most straightforward means of measuring the strategic nuclear balance is to count the total number of delivery systems—ICBM, SLBM and long-range bombers—available to the two sides. However, this measure alone is of limited relevance, for it neglects the fact that almost all delivery systems now can carry several (and, in some cases, a varying number of) warheads which can be directed against separate targets. It is more relevant, therefore, to assess the numbers of separately-targetable warheads that each system can carry. However, ICBM and SLBM are frequently deployed with a number of modifications, in order to provide a

degree of employment flexibility in terms of yield, accuracy, operational range and numbers of warheads. To take an extreme case, the Soviet SS-18 is deployed in four (and perhaps shortly five) modifications which carry warheads ranging from 1×20 MT to 10×50 KT.

Because it is often difficult, if not impossible, to determine precisely which missiles embody which modifications, total numbers of warheads on missiles (and consequently their total yields) cannot be estimated with precision. Similarly, the force loadings of aircraft (i.e., the numbers and yields of gravity bombs, and the numbers and yields of stand-off air-to-surface missiles) cannot be precisely stated, beyond the fact that there is a maximum payload a given aircraft can carry over its operational range. Plans for specific force loadings for specific targets can also be changed. Here we have assessed probable *operational* loadings.

Measuring Destructive Power

A second general approach to measuring the balance seeks to assess the military potential inherent in the nuclear systems of the two sides. The crudest method is to assess bomber payload and missile throw-weight to reach a rough measure of the total destructive power available in a strategic force. This takes no account of the sub-division of available payload and throw-weight into separately-targetable weapons, but it does give a measure of the total weight of nuclear ordnance that could be delivered against an opponent. It also takes little account of technological developments. For example, miniaturizing warheads and increasing their accuracy can significantly augment the destructive effects of any given payload. Nor do estimates of payload and throw-weight relate the destructive power of nuclear weapons to potential targets. To do so, it is necessary not only to distinguish between 'area' targets (such as cities and major military concentrations), on the one hand, and 'point' targets (such as hardened missile sites, command-and-control centres, etc.), on the other, but also to account for the effects of yield and accuracy.

A crude measurement of capability against area targets is aggregate warhead yield, expressed in megatons. But destructive power does not grow proportionately with a simple increase in yield; a 10-MT weapon is not ten times as destructive as a 1-MT weapon. Hence, a more accurate indicator is 'equivalent megatonnage' (EMT), which for a given warhead is usually expressed as the two-thirds power of its explosive yield, or $Y^{2/3}$. (Thus the EMT of a 200-KT warhead is $(0.2)^{2/3}$, or 0.34.) However, EMT may overstate the effectiveness of very large weapons, because the area of potential destruction

is likely to exceed the area of the target to be destroyed.

In the case of point targets, one must relate the predicted level of destruction (normally blast overpressure, measured in pounds per square inch above atmospheric pressure) to the degree of protection ('hardness') of the target. Here the accuracy of delivery systems and their warheads becomes critical. One widely used measure of weapon capability against point targets is 'counter-military potential' (CMP). Accuracy is taken into account by the use of the formula

$$\text{CMP} = \frac{(\text{Yield})^{2/3}}{(\text{CEP})^2}$$

CEP (circular error probable) being the radius of a circle within which half of the warheads are expected to fall. Because it varies inversely with the square of CEP, CMP is critically dependent not only on predicted system accuracy but also on the precision with which this accuracy can be assessed. As CEPs become very low, the CMPs of particular weapons systems tend towards infinity. If the CMPs for such systems are aggregated with those of less accurate systems, the point target kill capability of the whole force may be exaggerated.

Of all the characteristics of strategic nuclear weapons systems, accuracy is one of the hardest to predict. It can at best be only an estimate derived from the observation of a number of test firings. But this estimate is bound to be subject to major uncertainties. The numbers of tests conducted for a specific model are not statistically large; tests are not carried out over the operational trajectories of the delivery systems; when observing tests it can be difficult to determine the precise point of aim, and thus to measure deviation; and meteorological conditions in the impact area can also cause significant deviations. While it is clear that the trend of delivery technologies has been towards greater accuracy, the uncertainty in assessing accuracy may be as high as $\pm 50\%$. Since accuracies are squared in the equation above, it becomes obvious how tentative any assessment of CMP must be.

However, even if EMT and CMP could be precisely determined and then aggregated for entire strategic forces, they would not be wholly effective in-

struments for measuring the balance of these forces. Such forces are targeted against a *mix* of area and point targets, and these yardsticks would only be valid if an entire force were to be applied exclusively to either area targets (in the case of EMT) or point targets (in the case of CMP). Thus, both EMT and CMP would be uncertain measures even if warhead numbers, yields and accuracies were known precisely for both sides (though the uncertainties of EMT are significantly less than those of CMP).

For these reasons, there is no single, fully satisfactory way of comparing the strategic nuclear forces of the US and the USSR. Numbers of warheads and bombs loaded on the delivery systems (particularly, but not only, aircraft) are subject to major uncertainties. The alternative method – relating delivery systems to specific targets – depends critically on factors of performance and accuracy which cannot be measured with precision. It is important to recognize these shortcomings in any evaluation of the strategic nuclear balance between the US and the USSR and to understand that all such evaluations rely on many assumptions to provide a basis for assessment.

In the following two tables – the first comparing the number of deliverable warheads available to either side, the second the equivalent megatonnage (EMT) – the Institute provides its assessment on the basis of certain assumptions about warhead loadings, numbers, ranges and yields. These assumptions are made clear in the notes to the accompanying Tables. The sign ~ is used to show approximation. Subject to the qualifications and uncertainties noted above, what these Tables suggest is approximate equality between the strategic forces of the Soviet Union and the United States in deployed ICBM and SLBM warheads, at about 7,000. When bomber-delivered weapons (including SRAM) are added, the US total rises to about 9,300 and the Soviet total (due to the much smaller size of the Soviet strategic bomber force) to about 7,300. Our estimates of total EMT, on the other hand, suggest a Soviet advantage of over 2.65:1 in ICBM and SLBM, and of roughly 1.6:1 when bomber-delivered weapons are included.

For the Tables accompanying this essay, see overleaf.

Estimated Strategic Nuclear Warheads

United States				Soviet Union			
System	Number deployed	Warheads per launcher	Total warheads	System	Number deployed	Warheads per launcher	Total warheads
ICBM				ICBM			
<i>Minuteman II</i>	450	1	450	SS-11	570	1 ^a	570
<i>Minuteman III</i>	550	3	1,650	SS-13	60	1	60
<i>Titan</i>	52	1	52	SS-17	Mod 1 150 Mod 2 few	4 1	~600
				SS-18	Mod 1 Mod 2 Mod 3 Mod 4	1 8 1 10	~2,500 ^b
				SS-19	Mod 2 Mod 3	1 6	~1,500 ^c
SLBM				SLBM			
<i>Poseidon C-3</i>	304	10 ^d	3,040	SS-N-5	57	1	57
<i>Trident C-4</i>	216	8 ^d	1,728	SS-N-6	Mod 1 Mod 2 Mod 3	1 1 2	~400 ^e
				SS-N-8	Mod 1 Mod 2 Mod 3	1 1 3	~300 ^f
				SS-NX-17	12	1	12
				SS-N-18	Mod 2 Mod 3	3 7	~1,040 ^a
<i>Sub-total (ICBM and SLBM):</i>			6,920	<i>Sub-total (ICBM and SLBM):</i>			~7,000 ^h
Aircraft				Aircraft			
B-52D	75	4 ⁱ	300	Tu-95	105	2 ^j	210
B-52G	151	8 ⁱ	1,208	Mya-4	45	2 ^j	90
B-52H	90	8 ⁱ	720				
FB-111A	60	2 ⁱ	120				
TOTAL:			9,268	TOTAL:			~7,300^h

^a There are two Mods, but Mod 1 has a single RV, and the three MRV on Mod 2 are counted as one RV.

^b Estimate based on the assumption that the bulk of SS-18 are Mod 2. While Mods 1 and 3 may carry a large single warhead, Mod 4 and Mod 5 (not yet deployed) may carry 10 RV.

^c Assumes about 75% are Mod 3.

^d May carry up to 14 RV.

^e Very few Mod 3 believed in service. Discounted.

^f Very few Mod 3 believed in service.

^g Assumes half are Mod 2, half Mod 3.

^h Due to approximation, these are not precise totals of the figures in the column.

ⁱ Assumes 4 gravity bombs and no SRAM for B-52D, 4 gravity bombs and 4 SRAM for B-52G/H, and 2 gravity bombs for FB-111A; these are operational, not maximum, loadings. SRAM counted as deliverable warhead.

^j Assumes 2 gravity bombs or ASM per aircraft.

Estimated Equivalent Megatonnage

United States				Soviet Union				
System	Total warheads (N)	Yield (in MT) per warhead (Y)	Total EMT (N × Y ^{2/3})	System	Total warheads (N)	Yield (in MT) per warhead (Y)	Total EMT (N × Y ^{2/3})	
ICBM				ICBM				
<i>Minuteman II</i>	450	1.2	508	SS-11	570	1.0	570	
<i>Minuteman III</i>	750 ^a	0.17	230	SS-13	60	0.75	50	
	900 ^a	0.34	440	SS-17	Mod 1 } Mod 2 }	~ 600	0.75	~ 495
<i>Titan</i>	52	9.0	225	SS-18	Mod 1 } Mod 2 } Mod 3 }	~ 2,500	{ 20.0 } { 0.9 } { 20.0 }	~ 2,300 ^b
				SS-19	Mod 2 } Mod 3 }	~ 1,500	{ 5.0 } { 0.55 }	~ 1,200 ^c
SLBM				SLBM				
<i>Poseidon C-3</i>	3,040	0.05	413	SS-N-5	57	1.0	57	
<i>Trident C-4</i>	1,728	0.10	372	SS-N-6	Mod 1 } Mod 2 } Mod 3 }	~ 400	{ 1.0 } { 1.0 } { 0.003 }	~ 400
				SS-N-8	Mod 1 } Mod 2 } Mod 3 }	~ 300	{ 1.0 } { 0.8 } { 0.2 }	~ 250 ^d
				SS-NX-17	12	1.0	12	
				SS-N-18	Mod 2 } Mod 3 }	~ 1,040	{ 0.45 } { 0.2 }	~ 430 ^e
<i>Sub-total (ICBM and SLBM):</i>			2,188	<i>Sub-total (ICBM and SLBM):</i>			~ 5,800 ^f	
Aircraft				Aircraft				
B-52D/G/H	1,114 ^g	1.0	1,114	Tu-95	210	1.0	210	
	964 ^h	0.2	330	Mya-4	90	1.0	90	
FB-111A	120 ^g	1.0	120					
TOTAL:			3,752	TOTAL:			~ 6,100^f	

^a Assumes 250 msls carry 3 × 0.17-MT MIRV, 300 carry 3 × 0.34-MT MIRV.

^b Assumes 250 msls carry 8 × 0.9-MT MIRV, 58 carry 20-MT single RV.

^c Assumes 250 msls carry 6 × 0.55-MT MIRV, 60 carry 5-MT single RV.

^d Assumes all are Mod 2 msls, carrying 0.8-MT single RV.

^e Assumes 104 msls carry 3 × 0.45-MT MIRV, 104 carry 7 × 0.2-MT MIRV.

^f Due to approximation, these are not precise totals of the figures in the column.

^g Gravity bombs.

^h SRAM.

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