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Pakistan

October 1973

Armed Forces

NATIONAL INTELLIGENCE SURVEY

SECRET
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27

NATIONAL INTELLIGENCE SURVEY PUBLICATIONS

The basic unit of the NIS is the *General Survey*, which is now published in a bound-by-chapter format so that topics of greater perishability can be updated on an individual basis. These chapters—Country Profile, The Society, Government and Politics, The Economy, Military Geography, Transportation and Telecommunications, Armed Forces, Science, and Intelligence and Security, provide the primary NIS coverage. Some chapters, particularly Science and Intelligence and Security, that are not pertinent to all countries, are produced selectively. For small countries requiring only minimal NIS treatment, the *General Survey* coverage may be bound into one volume.

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Initial dissemination, additional copies of NIS units, or separate chapters of the *General Surveys* can be obtained directly or through liaison channels from the Central Intelligence Agency.

The *General Survey* is prepared for the NIS by the Central Intelligence Agency and the Defense Intelligence Agency under the general direction of the NIS Committee. It is coordinated, edited, published, and disseminated by the Central Intelligence Agency.

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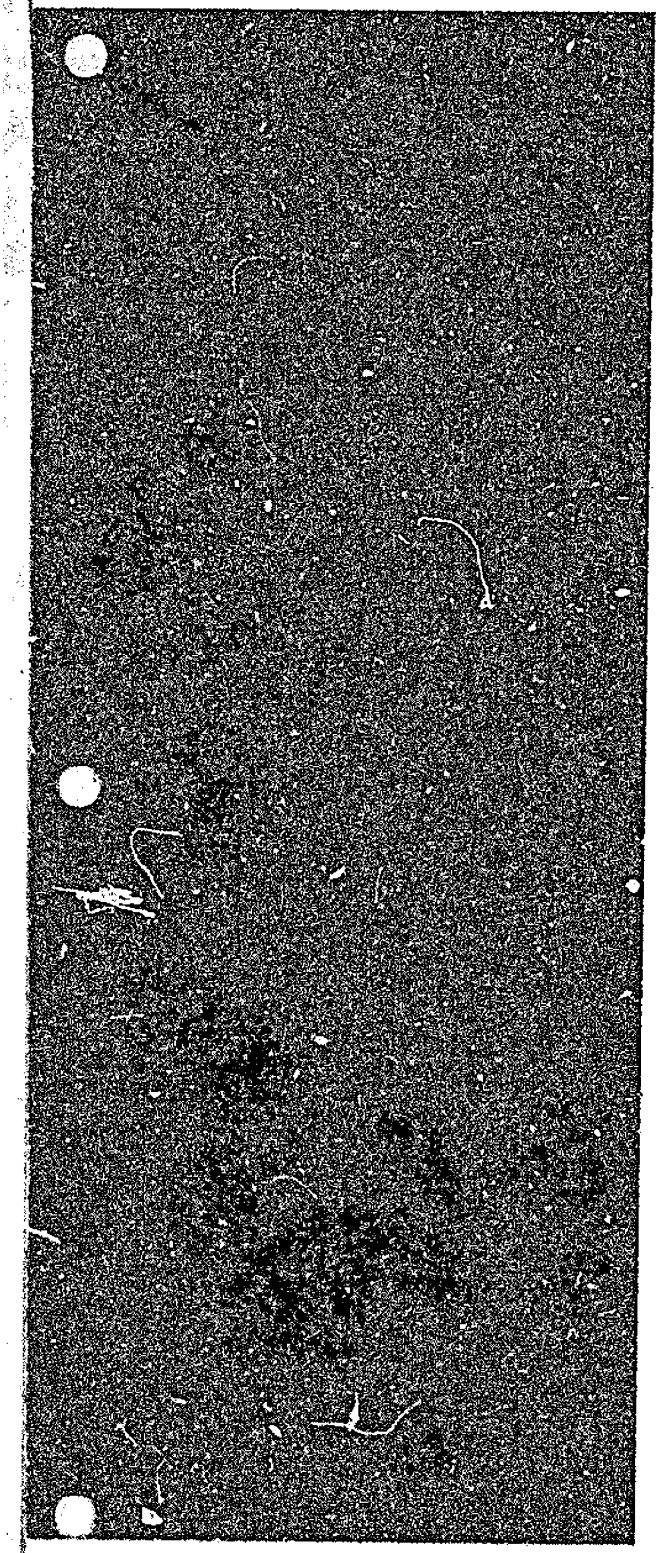
This chapter was prepared for the NIS by the Defense Intelligence Agency. Research was substantially completed by July 1973.



Pakistan

CONTENTS

This chapter supersedes the armed forces coverage in the General Survey dated November 1968.

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FIGURES

Armed Forces

A. Defense establishment (S)

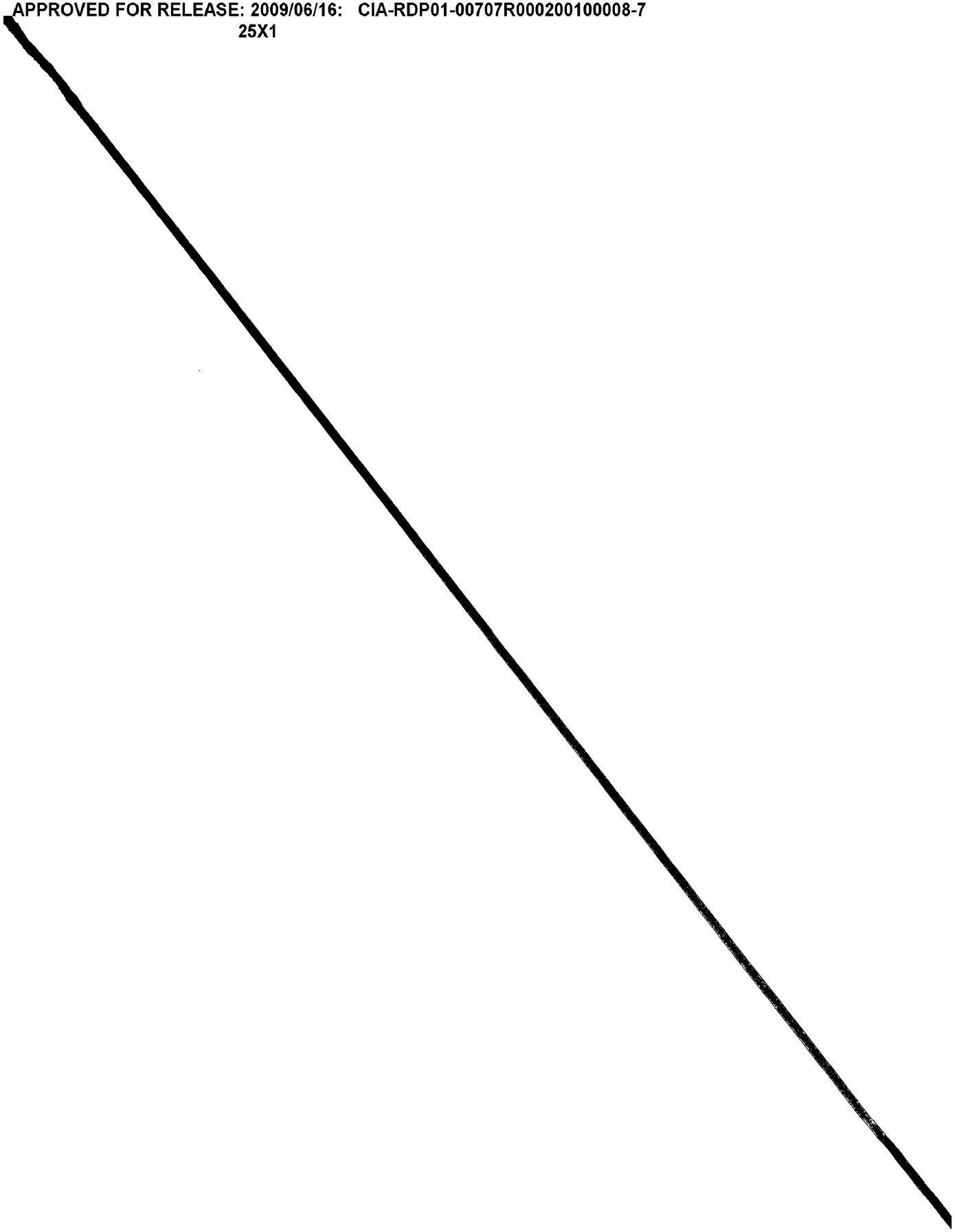
The armed forces of Pakistan are well trained and highly professional by Asian standards. The military is capable of maintaining internal security. In the event of an extended war, Pakistan could defend itself against neighboring Afghanistan or Iran but not against China or India. Pakistan's military could initially blunt a large-scale attack but would eventually succumb or revert to a guerrilla force. Furthermore, the armed forces are incapable of mounting a sustained attack, especially against India, without massive injections of foreign assistance. The army is the best equipped and the largest of the three services. Historically it has been the senior service to the detriment of the air force and navy, which have not acquired sufficient arms and equipment needed to achieve parity with the Indian Air Force and Navy. A limited industrial base severely hampers logistics efforts, rendering the military almost completely dependent on outside sources of military material. Until the nation builds up adequate petroleum fuels, oils, and lubricants (POL) reserves and becomes self-sufficient in the production of arms and equipment, Pakistan will be highly vulnerable to blockade during war, as witnessed in 1971.

The regular armed forces number about 417,000; the army, with 390,000 (including an augmentation of 30,000 Azad Kashmiri state force troops) is the predominant service. The air force has a strength of about 17,000 men and an inventory of more than 500 aircraft, including at least 392 jets. The 9,900-man navy operates a total of 51 ships and craft; major combatants consist of three submarines, one cruiser, and five destroyer/destroyer escorts.

The paramilitary forces, collectively known as the Civil Armed Forces, have the primary missions of border patrol, internal security, and smuggling prevention. They are under civil control but are available to and used by the Ministry of Defense during emergencies. These forces total about 35,500 men and are officered primarily by regular army personnel.

Pakistan had been a member of SEATO and CENTO since their inception. In November 1972, however, President Bhutto forwarded a notification of intent to withdraw from SEATO, and in January 1973 Pakistan withdrew its military representative from the organization. Membership in CENTO is currently being revitalized after years of dormancy.

Pakistan was a staunch ally of the West, particularly the United States, until October 1962, when the United States, the United Kingdom, and Canada provided military assistance to India during its confrontation with the People's Republic of China (PRC). Pakistan insisted India was at fault for the confrontation with the PRC and that China had no grand designs on Indian territory. The upgrading of India's forces constituted, in Pakistan's view, a direct threat to its national security. Dissatisfied with the U.S., British, and Canadian explanations regarding their military assistance to India, Pakistan saw that it



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were abandoned. In addition, the lack of patrolling and reconnaissance led to many tanks being knocked out by Indian antitank weapons. Logistical support appeared to be adequate during the fighting, but it is probable that there were critical shortages of many supply items and spare parts by the time of the cease fire. Especially affected by losses and the developing shortages of spare parts was the Pakistan Air Force, which had been almost totally dependent upon the United States for aircraft and spare parts. Interservice coordination appeared to be reasonably effective, but in isolated cases aircraft were attacked by their own air defense weapons. Although Pakistani aircraft losses (21 aircraft) were only about one-third of India's losses, Pakistan Air Force capabilities were substantially reduced as no replacement aircraft were available, and supply of spare parts was diminished.

A large percentage of Pakistan's military personnel, including most officers below the rank of colonel, experienced their first combat in the September 1965 fighting. The Pakistanis performed creditably but were overly optimistic regarding their capabilities vis-a-vis the Indian forces. Many valuable lessons were learned from their brief war, probably the most significant being an increased respect for the fighting abilities of the Indian forces.

The United Nations was able to effect a cease-fire, and a second observer group, the U.N. India-Pakistan Observer Mission, was established in the subcontinent. The mission of this group was separate and distinct from that of the U.N. Military Observer Group, which has been active along the Kashmir Cease-Fire Line since 1949. In December 1965, Pakistan and India accepted a recommendation by the Secretary General of the United Nations that he provide a senior military officer to assist in the withdrawal of military forces from the areas of conflict. A Chilean officer, Maj. Gen. Marambio, represented the Secretary General in this capacity. Shortly after Gen. Marambio's arrival in the subcontinent, the meeting of Pakistani President Ayub and Indian Prime Minister Shastri took place in Tashkent, with Soviet mediation. The resultant Tashkent declaration included a general plan for military withdrawal and lessening of tensions between the two countries and greatly facilitated Gen. Marambio's mission. Withdrawal was accomplished in February and early March and culminated in all forces being returned to locations within their respective international boundaries and on appropriate sides of the U.N.-established 1949 Kashmir Cease-Fire Line. The U.N. India-Pakistan Observer Mission was withdrawn late in March 1966.

Border clashes between Pakistani forces and tribal irregulars have occurred sporadically along the Pakistan-Afghanistan border because of tensions rising out of the Afghan concern for the Pathans (or Pushtuns) of Pakistan's North-West Frontier Province. However, activities subsided there during the 1965 hostilities with India, and many forces normally located in the tribal areas were deployed to the Pakistan-India frontier without noticeable effect on security in the tribal areas. Relations with Afghanistan, normally a concern in the deployment of Pakistani forces, were virtually ignored during the Pakistan-India fighting. Afghan sympathy for their Muslim brothers prevailed, and even propaganda efforts were greatly curtailed during this period.

The third major clash between Pakistan and India occurred during November and December 1971. The government in Islamabad disregarded the eastern province's demand for autonomy and ordered the army to suppress all opposition to the central government. Bengalee troops in the army's East Bengal Regiment and the paramilitary East Pakistan Rifles, plus provincial police, revolted, killed most of their West Pakistan officers, and deserted with their weapons. They and other Bengalee freedom fighters escaped to India where the independent Republic of Bangladesh was established in March 1971. In India the freedom fighters received training and weapons. In the face of a growing insurgency, Islamabad deployed two infantry divisions from the western province to reinforce the one infantry division stationed in East Pakistan, and within a few months another infantry division was formed in the eastern province. After 8 months of spiraling civil war, Indian armed forces intervened on 21 November in what was termed "defensive" reactions. Open hostilities broke out on 3 December following Pakistani air strikes on airfields in western India. Pakistan claimed these air attacks were in retaliation to Indian ground attacks in East Pakistan. Subsequently, on 4 December Indian ground forces swept into East Pakistan on three fronts. The defending Pakistani force, rather than withdraw toward Dacca in the face of a superior force, organized into indefensible pockets of resistance which were systematically reduced by the Indian forces. The ensuing struggle was a complete military and political disaster for Pakistan. On 13 December, Indian forces surrounded Dacca and a cease-fire was declared on 16 December. The Indians took some 93,000 prisoners, 75,000 of whom were either military or paramilitary personnel. Pakistan Air Force and Navy participation in the East Wing hostilities was insignificant. At the outset of hostilities the air force lost 8 F-86's and after 5 December cratered runways precluded additional air operations. The navy lost three of its four gunboats and several military launches. The remaining

Pakistani gunboat escaped to Malaysia and eventually returned to Karachi. The only notable naval engagement in the east took place during the night of 3–4 December off the Indian port of Vishakhapatnam, when the submarine *PNS Ghazi* apparently was sunk by a destroyer depth charge attack.

Pakistan strategy in the west envisioned a major offensive thrust into Kashmir with accompanying feints in the Punjab near Lahore. Islamabad hoped to obtain a cease-fire before losing East Pakistan and to gain control of Kashmir as a trade for Indian gains in East Pakistan. On 4 December two brigades supported by tanks attacked towards Chhamb; the Pakistani drive was stalled by strong Indian resistance, but sporadic fighting continued until 17 December. The Pakistan Army also made additional drives into Kashmir and elsewhere along the border but repeatedly was unable to exploit its initial successes. By the time the cease-fire was declared on 17 December, Pakistani gains into India had been more than offset by Indian seizures of Pakistani territory accomplished during counterattacks.

In the air war in the west, the Pakistan Air Force was unwilling or unable to take advantage of its preemptive air strikes of 3 December on Indian airfields, and their bombing of Indian targets was largely ineffective. The Pakistanis did comparatively well in air-to-air combat, and their AAA defenses were initially effective. However, as the war progressed, sagging morale and probable munitions shortages sharply reduced the effectiveness of the AAA units. Although forward air controllers were utilized, the air force commitment to close ground support appears to have been limited. Pakistan lost 23 aircraft in the west.

The 1971 conflict, unlike previous hostilities between the two countries, saw the first significant involvement by both navies. The Pakistan Navy was quickly defeated and thereby exposed its outdated doctrine and equipment. After the Pakistan Navy lost a destroyer and a minesweeper to Indian Navy OSA missile patrol boats firing STYX missiles, the Pakistan Navy Commander in Chief ordered his surface combatants back into port. Consequently, the Pakistan Navy went on the defensive early in the war and never seriously threatened Indian naval supremacy. Because there was no attempt to break the Indian naval blockade, the Pakistan war effort would have soon ground to a halt due to a lack of POL; however, the ending of the war on 17 December precluded this POL crisis.

2. Command structure

Under Pakistan's new constitution, the armed forces are raised and appointments made in the name of the President, but control and command of the armed forces is the responsibility of the Prime Minister and the Cabinet (Figure 1). As President, Bhutto sought to

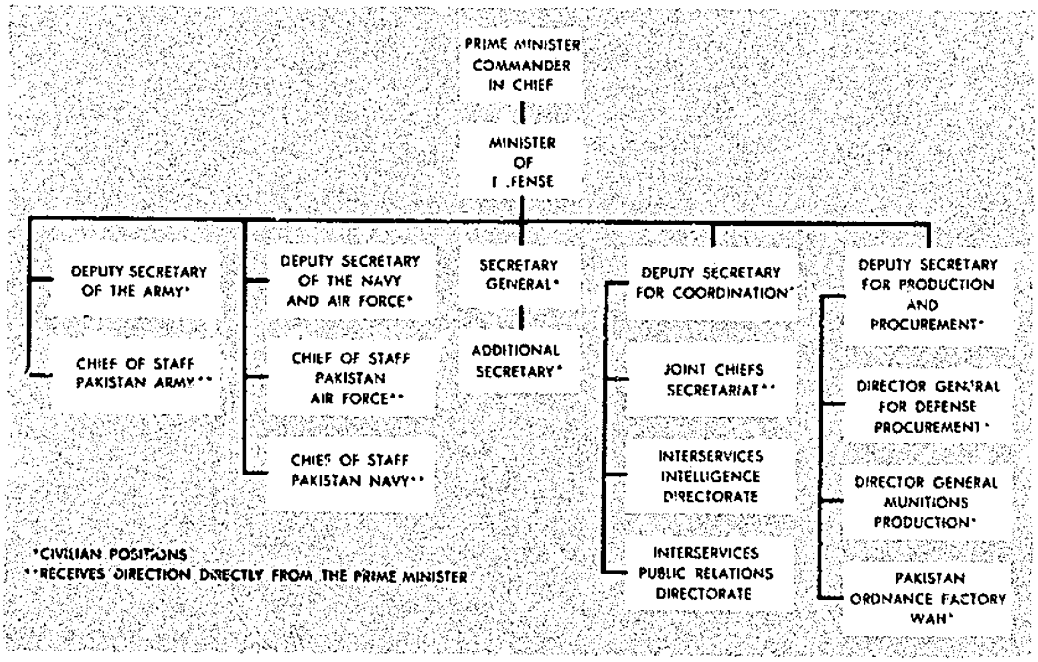
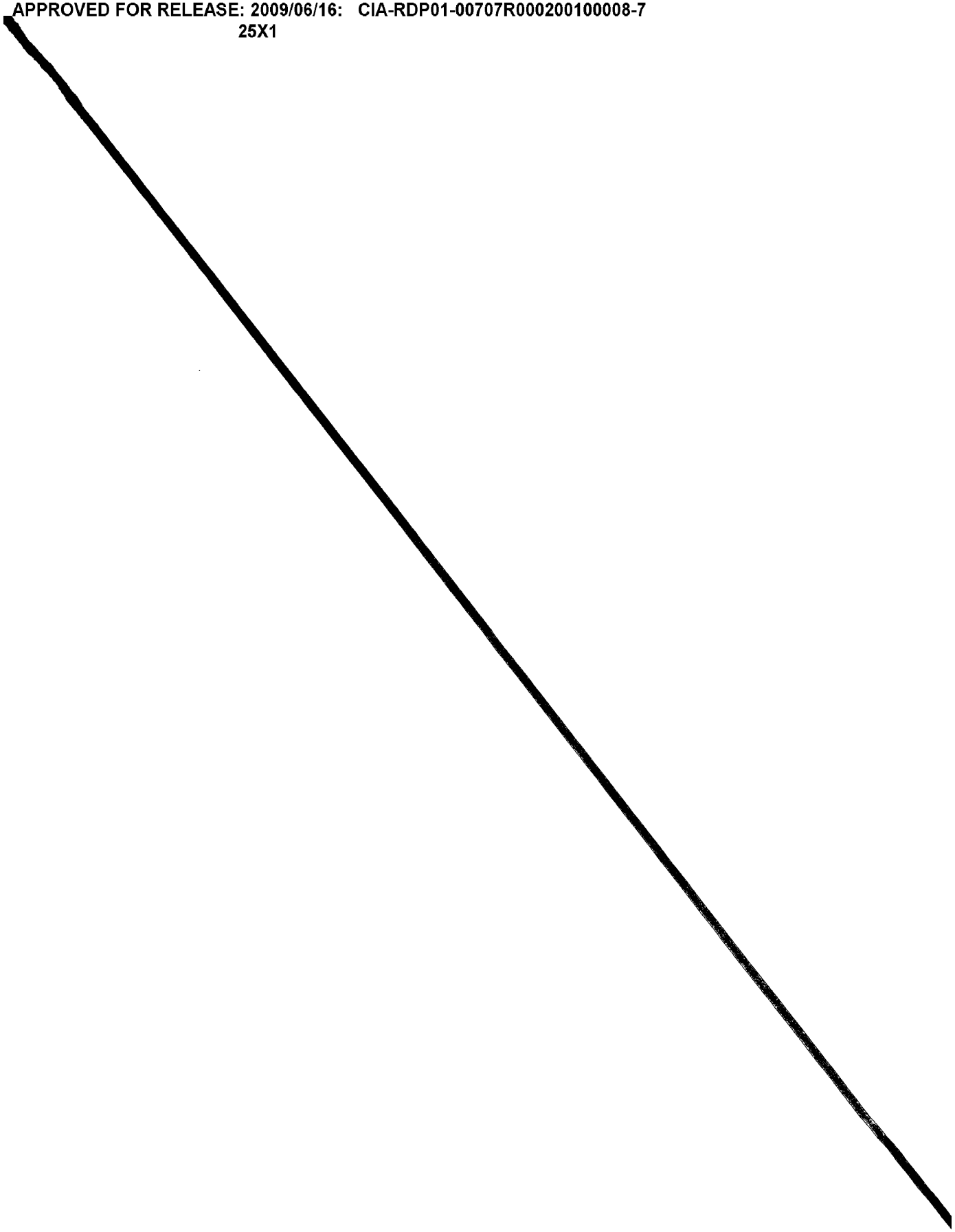


FIGURE 1. Organization of the Ministry of Defense (C)



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17 for 7 years; air force enlistees are accepted at age 16 for 9 years. Members of the armed forces are generally intelligent, although many lack a formal education. Illiteracy is high (over 80%), and the services must provide extensive basic educational training courses for recruits, particularly those going into fields requiring mechanical skills. The average recruit has an aggressive spirit and is eager to learn.

In spite of the low health standard in the country, the armed forces have maintained a fairly high state of health through a process of careful selection and enforcement of hygienic and dietary measures. Armed forces personnel are generally slender, wiry, and energetic, with outstanding endurance and ability to withstand hardship. Although their normal level of food consumption is high, they can, if necessary, subsist on a very meager diet and still perform creditably.

No formal active reserve system exists, but all personnel, upon completion of regular enlistment, remain on the reserve roles for a period of 6 to 8 years. An attempt at organizing reserve or militia-type units was the National Assembly-authorized Mujahid (Islamic Warrior) Plan of late 1963. This concept involved the organization of militia-type units in towns and villages of each district to strengthen Pakistan's defenses against possible attack from India. The Mujahid training of about 4 weeks per year has been supervised by regular army personnel. Retired and reserve personnel have been utilized as the hard core of the Mujahid units. These units fought in the Kashmir area during 1965 and 1971.

In late 1972 the government instituted a comprehensive national guard scheme to assist in internal defense and civic action in times of national crisis. The aim of the national guard-militia is to provide the necessary training on a voluntary basis to all able-bodied citizens, thus involving them in Pakistan's defense. This new organization will include the present Mujahid Force, a Janbaz (Venturesome) Force, a National Cadet Corps, and a Women's Guard.

All physically fit males between the ages of 18 and 30 will be eligible to join the Mujahid Force. Its personnel will be entitled to adequate pay, a uniform allowance, and disability and retirement benefits. The Janbaz Force will be composed of males 18-50 years, and exservicemen who have fulfilled their reserve commitments will be the mainstay of this force. Training will occur in the vicinity of their employment. During a national emergency or war, the Janbaz Forces will be stationed normally in home districts. Personnel will receive the same pay, allowances, and other benefits of the Mujahids. The National Cadet Corps will be composed of male college students, initially on a voluntary basis which may later become mandatory. It is intended to introduce military science and promote physical fitness in the college curriculum. The Women's Guard will be open to all Pakistani women between 18 and 35 years of age. They will be trained in nursing, family welfare, use of small arms, first aid, clerical and secretarial work, and telecommunications. Women's Guard personnel will be paid suitable remuneration, and training will be conducted so as not to interfere with normal occupations. Initially these national guard forces will be introduced as a pilot project in Peshawar, Rawalpindi, Karachi, Lahore, Quetta, and Hyderabad. Their further expansion to other areas of Pakistan will depend on the success of the pilot project.

Reserve personnel were called up during the 1965 and 1971 wars with India, but their exact number is unknown. The callup was probably on a need basis involving officers above the rank of major who could assume positions in newly created army formations and pilots, many of whom flew commercially for Pakistan International Airlines. The airlines' aircraft were also put at the disposal of the air force in both wars.

2. Strength trends (S)

The overall strength of the Pakistani armed forces and paramilitary forces increased significantly in the early 1950's but then remained fairly constant at slightly over a quarter million until the Pakistan-India war of 1965. One of the long-term consequences of the 1965 war was the positive growth of the Pakistan Army which rose to approximately 312,000 just prior to the outset of the 1971 war; the total armed forces strength was then 400,000. Subsequent to the 1971 dissection of Pakistan, the manpower of the Pakistani armed forces, particularly the army, expanded at an unprecedented rate. Besides compensating for the losses suffered in East Pakistan, the present 390,000-man army expanded rapidly in order to defend the country against a larger Indian military force. The increase within the military has been accomplished by the retention of personnel beyond their normal release date, an intensive recruitment program (recruitment for the army is approximately 2,000 per month), and the continuance on active duty service of reserves mobilized in 1971. When the approximately 75,000 military and paramilitary personnel held by India are released, those fit for duty will be reassigned to units which in turn will permit the release from active duty of reservists and persons serving past their original

FIGURE 2. Armed forces personnel strengths (S)

DATE	ARMY	AZAD KASHMIR FORCES	CIVIL ARMED FORCES	NAVY	AIR FORCE	TOTAL
1947	131,000	4,000	*na*	3,300	3,000	*na*
1950	191,000	54,000	16,000	4,200	4,000	270,100
1955	152,000	20,000	48,000	6,700	12,500	239,200
1960	175,000	22,000	57,000	7,300	14,500	275,800
1961	164,000	22,000	53,000	6,800	14,000	259,800
1962	157,000	22,000	52,000	6,800	15,600	253,400
1963	157,000	22,000	51,000	9,000	14,700	253,700
1964	160,000	22,000	55,000	9,000	14,200	260,200
1965	167,000	22,000	55,000	9,000	14,200	267,200
1966	190,000	22,000	55,000	9,000	14,200	290,200
1967	233,000	30,000	59,000	9,000	14,200	345,200
1968	233,000	30,000	63,000	9,000	17,000	352,000
1969	263,000	30,000	63,000	9,000	17,000	382,000
1970	284,000	30,000	58,000	9,700	17,000	398,700
1971	312,000	30,000	45,000	9,700	17,000	413,700
1972	255,000	30,000	33,000	9,000	17,100	345,000
1973	*390,000	...	35,500	9,900	17,000	452,400

na Data not available.
*Figure includes the 30,000 Azad Kashmir Forces.

commitment. The air force strength has been fairly stable through the 1960's, generally between 14,000 and 17,000, and is expected to continue at about this level. The navy strength is approximately 9,900. However, plans are underway to eventually increase this to 30,000 (Figure 2).

3. Training (S)

Little combined arms training is conducted by the Pakistani armed forces, and this inadequacy explains the poor coordination experienced between the services during the 1965 and 1971 hostilities with India. An exchange program exists between service technical schools and senior staff colleges, and in 1971 the Pakistan National Defense College was established in Rawalpindi. The defense college, created to meet the increased requirement for high-level defense education of senior military officers and civil servants, annually holds two courses, each of 10 months duration. The Armed Forces War Course is attended by lieutenant colonels and naval commanders in order to qualify them as commanders and staff officers of divisions and higher formations. The National Defense Course is for selected brigadiers and naval commodores to qualify them as commanders and staff officers of the highest ranks and positions in the military. Both defense courses can accommodate 30 officers per session.

Military personnel have attended training courses in the United States; however, since 1965, when U.S. military assistance was temporarily suspended, fewer training spaces have been provided. In all, over 3,600 Pakistanis have been trained in U.S. service schools, and a large number of others have been trained in Pakistan by U.S. mobile advisory teams to use equipment provided by the United States. Pakistani servicemen have also received training in the United Kingdom, Australia, the U.S.S.R. and the People's Republic of China (PRC). Training in the PRC commenced in 1963 when seven officers were sent to a Chinese language course. It is estimated that several hundred have been trained in the PRC on equipment such as MiG aircraft and T-59 tanks which are presently in the Pakistan inventory. An unknown number of Chinese military advisers are presently in Pakistan, but it is believed the majority of them are involved in the expansion of armaments complexes at Wah and Taxilla.

4. Military budget (C)

The annual military budget is prepared by the Joint Chiefs Committee, based on estimates of expenditures submitted by the service chiefs and the separate defense agencies, and in coordination with the Ministry of Finance, Planning, and Development. The defense budget, as part of the central government budget, is forwarded to the National Assembly for final approval. The legislature has the authority to amend all budgets but in practice does not attempt to change executive proposals on fiscal matters.

Pakistan's military budgets have fluctuated widely for over a decade. Prior to the 1965 war with India, defense expenditures averaged about US$245 million annually. By FY70 (1 July-30 June) defense expenditures had increased to US$577 million. Because of the 1971 civil war in former East Pakistan and the December war with India, actual defense expenditures during FY72 totaled about $727 million, a 16% increase over the previous year. The FY73 revised defense budget was 19% higher in terms of rupee outlays than the previous year. This reflected little change in real terms because most of the increase was used to cover the higher cost of military imports following the rupee devaluation in May 1972 and higher local costs resulting from domestic inflation. Expenditures for fiscal years 1970 through 1972, the revised estimate for FY73, and the defense budget for FY74 are shown in Figure 3.

5. Logistics (C)

Pakistan has an underdeveloped economy based primarily on agriculture. The country is generally self-sufficient in the production of food, but the small industrial sector is dependent on imports of raw materials, fuels, plant equipment and machinery, and transportation equipment. Domestic production of crude oil accounts for less than 10% of total petroleum requirements, but local refineries produce nearly 90% of domestic requirements for petroleum products.

Pakistan has the capability to produce limited types and quantities of materiel for its armed forces (Figure 4). Current production includes small arms, recoilless rifles, ammunition up to 105-mm, and the Cobra antitank missile. The United States, through its Military Assistance Program (MAP) (Figure 5), and to a lesser extent the United Kingdom, were Pakistan's leading suppliers until late 1965. Since then, the People's Republic of China has become the principal source for materiel (Figure 6), and France has become the second most important supplier. Between 1965 and 1971 the United States provided, on a cash basis, approximately US$75 million worth of materiel. In 1971, the United States placed an embargo on deliveries of military equipment to Pakistan. However, in March 1973, the embargo was modified to allow the sale of nonlethal end items and selected spare parts for lethal items on a case-by-case basis. The United States will also allow, as a one-time exception to its ban on the delivery of lethal materiel to Pakistan, the delivery of 300 armored personnel carriers valued at US$13 million which were contracted for in 1970.

C. Army

At the time of partition, the British Indian Army was divided into the two national armies of Pakistan and India, and a proportionate division of materiel was agreed upon. The largest tactical units received intact by Pakistan were only of company size since there had been no larger units composed entirely of Muslims. The new army also finally received only a minor part of the 165,000 tons of military equipment and supplies that had been allocated to it. Only six senior officers (one major general and five brigadiers) opted to serve with Pakistan. (C)

Despite these initial handicaps, the Pakistan Army has made considerable progress in becoming an effective force. It is supplemented by the state forces of the Azad Kashmir Government in the Pakistan-occupied portion of Jammu and Kashmir. These forces function under the operational control of the Pakistan

FIGURE 3. Annual defense expenditures (C)
(Millions of Pakistani rupees and U.S. dollars*)

	FY70**	FY71	FY72	FY73 (REVISED)	FY74 (BUDGET)
Ministry of Defense expenditures/budget	PRs2740.2	PRs3201.5	PRs3725.5	PRs4439.6	PRs4233.0
	$577.3	$672.3	$726.9	$420.4	$427.6
Percent of central government budget	23	28	32	33	27
Percent of GNP***	3.8	4.3	7.6	7.9	na

na Data not available.

*Converted at exchange rate as follows: through mid-May 1972 at 4.7619 rupees equal US$1.00; from that time through mid-February 1973, at 11 rupees equal US$1.00; since mid-February 1973, at 9.9 rupees equal US$1.00.

**Fiscal year ending 30 June of stated year.

***FY70 and 71, percent of East and West Pakistan GNP; FY72 and 73, percent of Pakistan (former West Pakistan) GDP.

FIGURE 4. The domestically produced G3 rifle is the army's individual infantryman's weapon. This 7.62-mm rifle is made primarily by steel stampings; the only machine parts are the barrel and bolt components. (C)

Army. The mission of the army is the ground defense of the country, with the additional tasks of assisting in maintenance of internal security when required and, although no known units are so earmarked, to provide forces, when available, to honor Pakistan's CENTO commitments. The army also takes part in civic action programs such as agricultural work and disaster relief. (C)

In an all-out war the Pakistan Army would be unable to defend the country successfully against India because of the superior numbers of men and the preponderance of sophisticated weaponry in the hands of the Indian Army. Furthermore, Pakistani ground

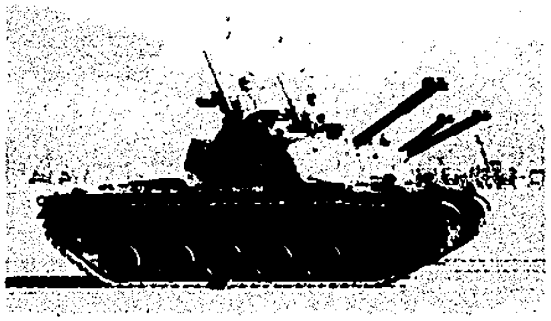

FIGURE 5. The U.S. M47/48 medium tank was acquired by Pakistan through U.S. MAP. During the 1960's this tank, which mounts a 90-mm main gun, was the mainstay of Pakistan's armor force. (C)

forces do not possess sufficient war supplies to engage in a long-term high intensity defensive or offensive struggle of more than 30 days without extensive outside support. The army has the capacity to defend the country initially with conventional tactics, and if command and control, logistical support, and communications collapse, the troops could promptly turn into a potent guerrilla force. (C)

The principal strengths of the Pakistan Army are the excellent fighting qualities (ruggedness, loyalty, and esprit de corps), and discipline of the Pakistani soldier and the general high state of combat readiness of the divisions facing India. Immediately following the 1971 hostilities, the army's morale plummeted to an alltime low, which caused a temporary lapse in discipline within some units. Morale was restored although later hurt, especially in the officer corps, by alleged civilian political interference in the military. It appears now, however, that the ordinary soldier's fighting spirit and hatred of India is as strong as ever.

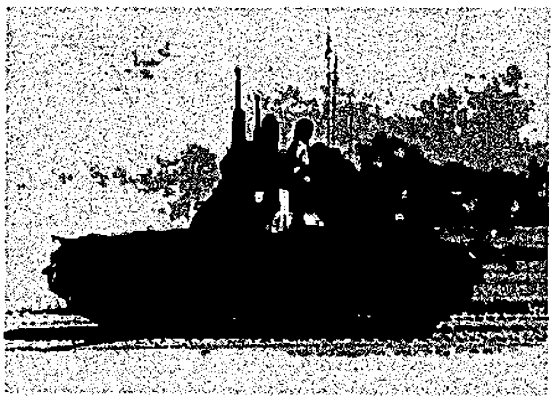

FIGURE 6. The Chinese T-59 medium tank mounting a 100-mm main gun has replaced the U.S. M47/48 as Pakistan's principal tank. (C)

A fundamental handicap of the army is the low literacy standards of the recruits. Although enlistments are more than sufficient to fulfill the army's recruitment, the lack of basic educational skills among recruits necessitates extensive individual training periods. The end result is an efficiently trained infantryman, but normally he cannot be assigned to the technical services without months and perhaps years of additional training. Limited skills severely restrict employment of modern weaponry, and consequently, much of the army's inventory is nonoperational because of inadequate maintenance and improper use. Other important weaknesses include the army's almost total reliance on other nations for equipment (which in the past has caused acute spare parts shortages) and inadequate training and maintenance facilities. Attempts to overcome these deficiencies are hampered by budgetary restraints and scarcity of foreign exchange. (C)

While the junior officers of the Pakistan Army appear aggressive and well trained, the 1971 war demonstrated the inefficiency of many of Pakistan's senior officers, especially in the field of tactical deployment. Between 1965 and 1971 practically no attention was devoted to modernizing the army's tactical doctrine. Instead, the army hierarchy was preoccupied with martial law administration of Pakistan. Despite the excellent fighting qualities of the Pakistani soldier, the absence of new ideas and perpetuation of doctrine based almost completely on World War II tactics must be considered prime contributing factors to the army's relatively poor performance during the 1971 hostilities. (C)

1. Organization (C)

The Chief of Staff, as the commander of the Pakistan Army, commands the army through the General Headquarters (GHQ), Pakistan Army, Rawalpindi (Figure 7). The staff organization of the headquarters includes the Chief of the General Staff, Adjutant General, Quartermaster General, Master General of Ordnance, Engineer in Chief, Military Secretary, and Judge Advocate General. With the exception of the last two, these staff officers have a number of subordinate directorates. Under the Chief of the General Staff are the Vice Chief of the General Staff (VCGS), the Deputy Chief of the General Staff (DCGS), and the Director General, Military Training, Research, and Development (DGMTR and D). Directly under the VCGS are the Director of Staff Duties, Budget, Military Operations, Military Intelligence, Weapons and Equipment, Organization and Methods, Statistics, Public Relations, and Joint Land/Air Warfare. Subordinate to the DCGS are the directors of the branches of the army (Armor, Artillery, Signal, Engineer, Infantry) and the Army Aviation Section. The directors of military training, research and development, army education, and the Historical Section report to the DGMTR and D. Subordinate to the Adjutant General are the directors of personnel administration, personnel services, welfare and rehabilitation, medical services, and finance. The Directorates of Movement and Quartering, Supply and Transport, Remount, Veterinary and Farms, Military Lands and Cantonment, and Works are subordinate to the Quartermaster General. Under the Master General of Ordnance are the directors of

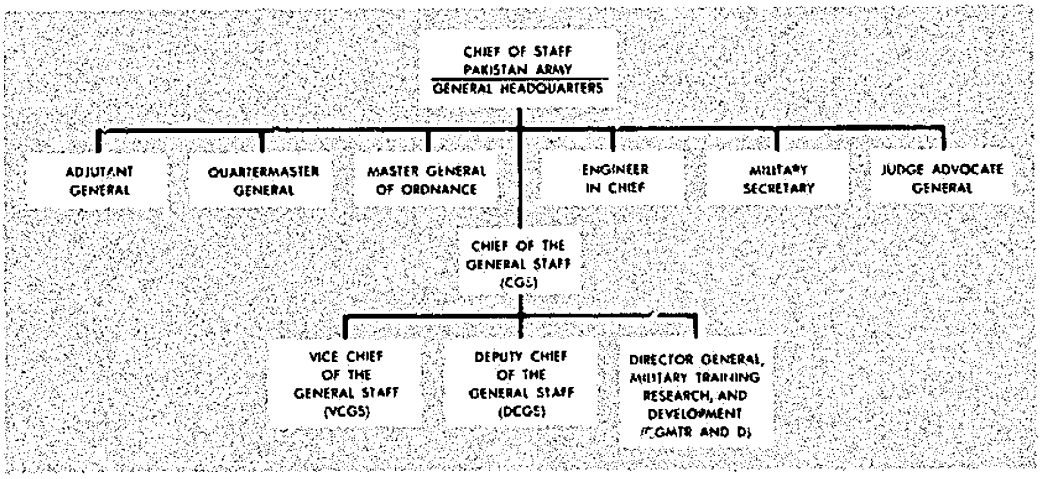

FIGURE 7. Organization of the Pakistan Army (C)

ordnance services, electrical and mechanical engineering, and inspection and technical development. The Engineer in Chief heads the Directorate of Engineers, Works and Personnel, and Directors of Works and Chief Engineers (air force) and (navy).

For purposes of tactical control and administration, the army is organized into five corps, controlling 2 armored divisions, 13 infantry divisions, numerous independent brigades, and the accompanying combat support and service units.

2. Strength, composition, and disposition (S)

The army has a strength of approximately 390,000 men of which about 30,000 are members of the Azad Kashmir state forces serving in seven brigades under two Pakistan regular infantry divisions. The major combat formations consist of 5 corps headquarters, 13 infantry divisions, 2 armored divisions, 1 independent armored brigade, 3 independent infantry brigades, and 2 antiaircraft artillery brigades. Other army units of significance are five corps artillery brigades, five corps armored reconnaissance regiments, and one special services group (brigade equivalent, special forces-type unit). An infantry division is generally organized into three infantry brigades, one artillery brigade, an armored regiment, plus support units. An armored division is composed of three armored brigades—consisting of a total of one armored reconnaissance regiment, four armored regiments, and three infantry battalions, an artillery brigade, and accompanying support units. The armored division also has its artillery brigade and accompanying support units. The Special Services Group is known as the 19th Battalion (Para), The Baluch Regiment (SSG) and has a strength of approximately 1,560 men. The army has no organic ground aviation. Aircraft provided by the Pakistan Air Force and flown by army personnel are assigned to major army tactical echelons to support ground units as required. Except for a division at Peshawar, a division at Quetta, and one at Karachi, Pakistan Army units are concentrated in the Punjab and along the Kashmir Cease-Fire Line. Since the December 1972 agreement on the delineation of the Line of Control, army units have withdrawn from their field locations adjacent to the Indian border and have returned to their cantonments in the Punjab.

The army is equipped with a varied assortment of arms. During the early 1960's, the preponderance of weapons in the inventory had been supplied by the United States through its Military Assistance Program (MAP). With the suspension of U.S. assistance in late 1965, a spare parts shortage soon led to a decline in the army's overall combat effectiveness. Pakistan therefore turned to the PRC for military assistance. Today Peking is Pakistan's principal arms supplier, having furnished over $250 million in arms aid to Islamabad, or roughly 70% of China's total military assistance to non-Communist countries. In March 1973, the United States modified its arms embargo to allow purchase of nonlethal end items and selected spare parts for lethal items on a case-by-case basis. In addition, 300 armored personnel carriers, previously purchased as a one-time exception to the embargo, were released for shipment. Pakistan's small arms and ammunition requirements are currently satisfied through internal production and acquisition from Middle East and European nations. Major weapons and combat vehicles of the ground forces include the following:

Field Artillery:	
100-mm and over (8-in, 5.5-in, 155-mm, 130-mm, 122-mm, 105-mm)	700
up to 100-mm (85-mm, 3.7-in, 25-pdr, 75-mm)	450
Tanks:	
Medium (M4 Sherman, M46/48 Patton, T-34, T-54, T-59)	1,400
Light (M24 Chaffee)	45
Armored personnel carriers (Bren Gun, T15, Mk1, M-59, M-113)	*325
Antiaircraft artillery (3.7-in, 40-mm, 37-mm, 14.5-mm)	615

*Does not include the 300 M113's on order.

3. Training (S)

Training in the Pakistan Army is fairly good. It is especially effective for infantry units of company size and below in which the officers and NCO's are able to maintain strong personal control over the troops. Training in general is based on a regimental system inherited from the British. Each combat arm and technical service has a school and a training center which gives the recruit both basic and technical training. The low educational level of recruits requires that primary emphasis be placed on basic educational skills and individual training. Unit training is performed at all levels through division, and, although training in the past several years has included combined arms exercises, it has been inadequate, unimaginative, and stereotyped. This inadequacy may explain in part the poor tactical performance of the army during the 1965 and 1971 conflicts with India.

Principal Pakistan Army training facilities and their locations are indicated below.

The army's training program is handicapped by limited funds, inadequate facilities, and particularly, a shortage of trained technicians, instructors, and maintenance personnel. The diversity of foreign equipment in the army's inventory complicates and compounds the country's training difficulties and inefficiencies. In the past the use of U.S. mobile training teams and a program of assigning Pakistani personnel to U.S. units in Europe for on-the-job training partially alleviated these deficiencies. However, since the suspension of U.S. MAP to Pakistan, inefficient training in the operation of U.S. equipment has reappeared. The degree of PRC training aid to Pakistan is unknown but is believed to be inadequate for the army requirements.

The combat arms training system is adequate for lower echelons through company level and for junior officers studying small unit tactics. The Pakistan Military Academy in Kakul is an excellent school with modern training facilities. Army cadets attend the 2-year course at the academy while cadets from the navy and air force attend the 6-month short course of basic military education before going on to their respective academies. The Pakistan Army Command and Staff College at Quetta offers training up to division level. Instruction at Quetta is strongly influenced by both U.S. and British tactical doctrine which has been altered to accommodate Pakistan's particular requirements. However, very little attention is given to comparative studies of foreign army organization and doctrine. Instruction appears to be extremely rigid, and student initiative is discouraged. Instruction at Quetta may show some influence of Chinese tactical thought resulting from the increased introduction of PRC hardware in the Pakistan Army. In addition to the Pakistan National Defense College, the army relies heavily on advanced training in the United States and the United Kingdom. Officers from the following countries attend the Pakistan Army Command and Staff College: Australia, Canada, Indonesia, Iran, Jordan, Malaysia, Nigeria, Saudi Arabia, Thailand, Turkey, the United Kingdom, the United States, and West Germany. It is probable that Pakistan sends officers on a reciprocal basis to those countries which have comparable schools. Many Pakistani officers have been trained in U.S. service and staff schools, including the U.S. Army Command and General Staff College at Fort Leavenworth. In addition, Pakistan has had various officer exchange programs with Commonwealth nations and with Turkey. Some Pakistani personnel are receiving instruction in the PRC.

4. Logistics (S)

The army's logistic system, although influenced by the United States, is basically organized and functions along British lines. Responsibilities for logistics are divided chiefly between the Quartermaster General and the Master General of Ordnance, both located at the General Headquarters. The Quartermaster General has staff responsibility for the supply of food and POL; for the movement of military stores and personnel by surface means; for the provision, maintenance, and operation of animal transport; and

School	Location	Function
Command and Staff	Quetta	Advanced staff training for senior officers
Military Academy	Kakul	Pakistan West Point
Armored Corps School	Nowshera	Basic officer and enlisted armor training
School of Artillery	Nowshera	Basic officer and NCO artillery training
Artillery Center	Campbellpore	Basic and advanced individual artillery training
School of Infantry and Tactics	Quetta	Basic and specialized officer infantry training
Baluch Regimental Training Center	Abbottabad	Basic infantry training
Frontier Force Regimental Center	Abbottabad	Basic infantry training
School of Signals	Rawalpindi	Basic signal officers course
Military College of Engineering	Risalapur	Basic engineer officer course
Army Ordnance Corps School	Malir	Basic and specialized ordnance officers courses
College of Electrical and Mechanical Engineering	Quetta	Electrical and mechanical engineering courses for officers possessing engineering degrees
Corps of Military Police (MP) School	Dera Ismail Khan	Basic MP/officers course

for the operation of other ground transportation services. The Master General of Ordnance is responsible for the supply of ordnance, signal equipment, engineer items, ammunition, clothing, motor transport, and general stores. Supplies are carried by the railroads, general truck companies, and animal transport companies. Maintenance of vehicles and other mechanical, electrical, and optical equipment is performed by personnel of the Electrical and Mechanical Engineer Corps, operating under the staff supervision of the Master General of Ordnance. Maintenance is performed at the lowest level possible, the echelons of maintenance being similar to those of the U.S. Army.

Depots for the storage and issue of all materiel are located near areas of major troop concentrations. The depots are operated by the Army Ordnance Corps and the Army Service Corps, with the exception of depots for medical supplies, which are the responsibility of the Medical Services. The major depots, by type and location, are as follows:

Central Ordnance Depots ..	Rawalpindi and Karachi
Central Mechanical Stores Depot	Chak Lala
Central Vehicle Dept.	Golra
Ordnance Depots	Lahore, Kala, Karachi, Quetta
Central Ammunition Depot	Havelian
Ammunition Depots	Lahore, Kala, Karachi, Quetta, Nowshera, Multan, Malir, Sarghoda, Mansar
POL Storage Depots	Karachi, Sargodha, Tarki, Lahore, Quetta, Rawalpindi
Medical Stores Depots	Karachi
Ordnance Maintenance and Repair Facilities	Rawalpindi, Quetta, Karachi

5. Army aviation (S)

The army has no organic aviation. Aircraft provided by the Pakistan Air Force (PAF) and operated by army personnel are assigned to major army tactical echelons to support ground units as required. Ninety-four helicopters and aircraft attached to the army include the following: 9 Soviet Mil Mi-8/Hip (Figure 8), 10 French Sud-Aviation Alouette III, 18 U.S. Bell OH-13S Sioux, and 6 U.S. Sikorsky S-55 Chickasaw helicopters and 50 U.S. Cessna O-1A Bird Dog and 1 Canadian de Havilland U-6A Beaver utility aircraft. Aircraft normally operate from Dhamial airfield near Rawalpindi. The missions of these aircraft include support of corps and division in artillery spotting, photography, air evacuation, and personnel transport. There are an estimated 100 officers and 400 enlisted men to support and operate these aircraft. The aircraft are serviced by the PAF.

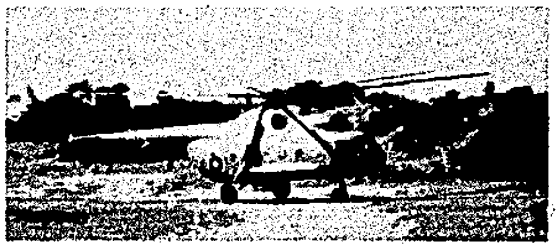

FIGURE 8. The Soviet-built Mi-8/Hip helicopter is employed by the Pakistan Army for air evacuation and personnel transport. (C)

D. Navy

The size and composition of the Pakistan Navy (PN) preclude accomplishment of its primary missions—defending the harbors and coasts and escorting coastal shipping. The small force is, however, capable of carrying out light escort, patrol, and coastal minesweeping operations. The navy's remaining three submarines, acquired from France in December 1970, afford a limited underwater offensive capability. Eight patrol boats, acquired from the People's Republic of China in early-1972, afford a modest surface warfare capability. Amphibious capabilities are negligible. The navy could not conduct sustained wartime operations without external assistance. (S)

A noteworthy lack of any real offensive capability was emphasized during the Indo-Pakistan conflict of December 1971. The PN was unable to counter the Indian Navy's offensive thrusts in the Bay of Bengal and the Arabian Sea. The submarine *PNS Ghazi* was sunk while operating near Vishakapatnam on 3/4 December 1971. On the night of 4/5 December 1971, the destroyer *PNS Khaiber* and the minesweeper *PNS Muhafiz* were both lost following a surface engagement with Indian Navy vessels in the Karachi harbor area. (C)

In an effort to strengthen its navy against India's modernizing and expanding fleet, Pakistan has acquired three DAPHNE-Class submarines from France (Figure 9). With these three submarines in operation, Pakistan nevertheless falls one short of the number the Indian Navy has received through Soviet contracts. In addition, six midget submarines of Italian origin have been added to the PN inventory. Further offensive potential rests in the six SHANGHAI II-Class motor gunboats (Figure 10) which have been acquired from the People's Republic of China. When these highly mobile craft are fitted with missiles,

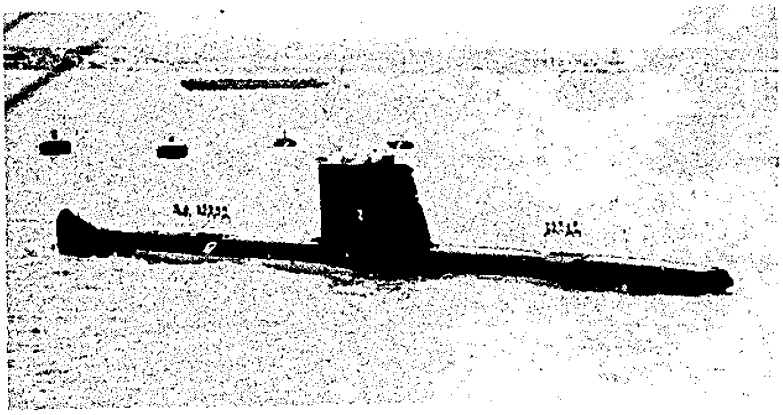

FIGURE 9. The PNS *HANGOR*, homeported at Karachi, is one of the PN's three DAPHNE-Class submarines acquired from France. (S)

probably the French surface-to-surface EXOCET, they will provide a needed addition to the offensive firepower of the Pakistan Navy. (S)

The navy has a low overall effectiveness in comparison with that of advanced navies but compares favorably with navies of most developing nations on a ship-for-ship and man-for-man basis. Strengths include good individual training, natural military inclination of personnel, a small but relatively modern minesweeping force, and a slowly increasing offensive potential. Major drawbacks include destroyer and cruiser age, lack of an air defense capability against high-speed aircraft, absence of a naval air component (as opposed to the Indian Navy Air Arm), and dependence on foreign sources for materiel and logistic support. In addition, the Pakistan Air Force is capable of rendering no more than token support in wartime. A naval infantry does not exist. (C)

The PN communications system is based in Karachi and apparently is adequate for navy needs. Its ship-to-ship and ship-to-shore communications capabilities are tied into naval headquarters in Islamabad. (C)

1. Organization (S)

Command of the operating forces rests in the Chief of Staff, Pakistan Navy, who is responsible to the Minister of Defense and in turn the Prime Minister (Figure 11). The Chief of Naval Staff administers four staff branches—Operations, Personnel, Supply, and Technical—each headed by a Deputy Chief of Staff. Additional members of the headquarters staff subordinate to the CNS are the Flag Lieutenant, the Secretary to the Chief of Staff, the Naval Secretary, and the Judge Advocate General.

The Flag Officer Commanding, Pakistan Navy Flotilla has control of the cruiser, the destroyer/destroyer escort squadron, and the oiler; the Commander Mine Squadron, the minesweepers and fleet ocean tug; the Commodore-in-Charge, Karachi, the shore activities and service craft; and the Superintendent, Pakistan Navy Dockyard, the dockyard, the naval stores, and naval armament departments. Following British custom, shore activities are manned and commissioned as ships in the Pakistan Navy.

FIGURE 10. Shanghai II-Class motor gunboat. Pakistan has received eight Shanghais which, when fitted with missiles, will increase the offensive capabilities of the navy. (S)

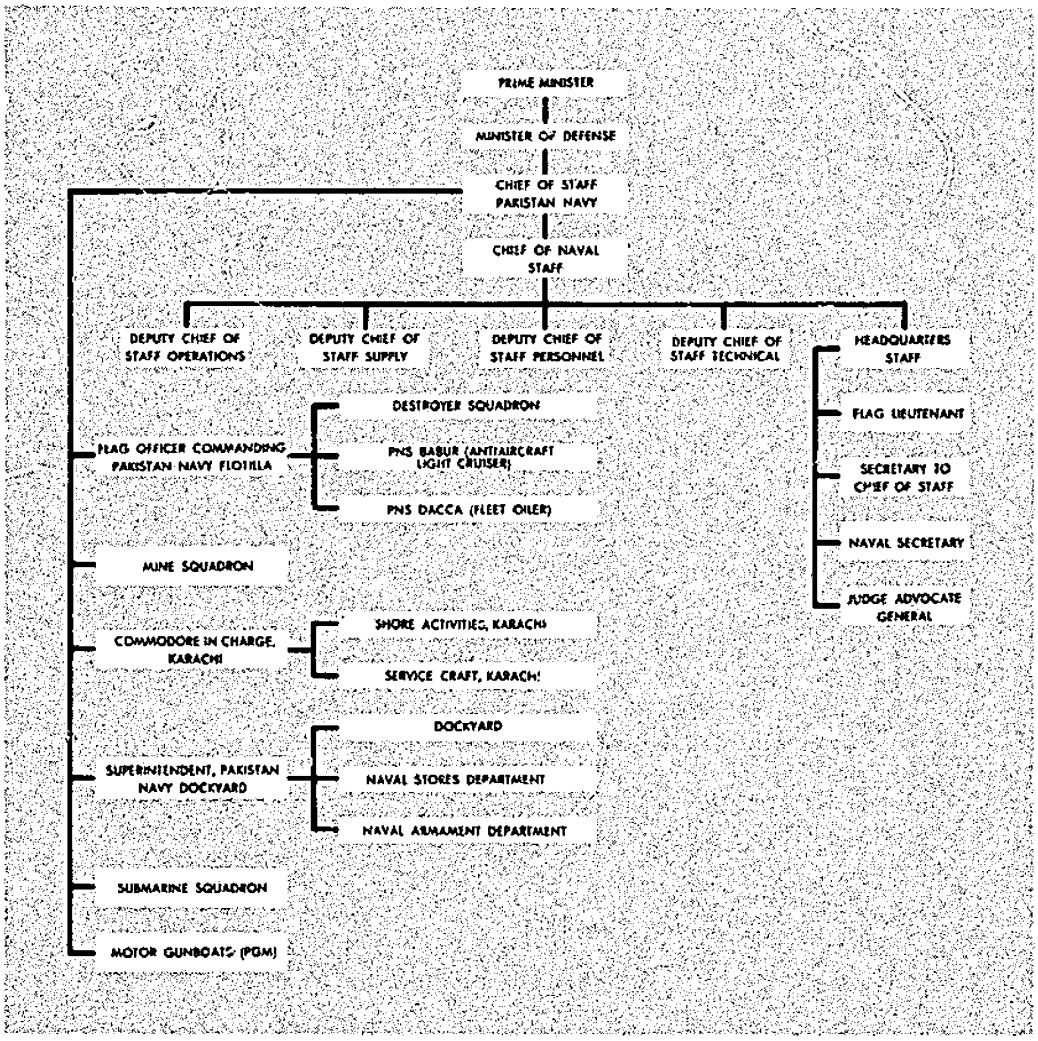

FIGURE 11. Organization of the Pakistan Navy (C)

Command of the newly acquired submarines, motor gunboats, and fast patrol boats is in the hands of the Chief of Staff.

2. Strength, composition and disposition (S)

The personnel strength of the Pakistan Navy is approximately 9,900. This should increase sharply in the near future, as plans are underway to increase the number of enlisted men on duty to 30,000. Although this goal was not reached by the end of 1972 as planned, it should not be difficult to obtain this many personnel as the number of applicants always exceeds the demand. An upward revision of the pay scale is underway to aid the recruitment drive.

Fleet composition is as follows: one antiaircraft light cruiser (CLAA), four destroyers (DD) (Figure 12), two destroyer escorts (DE), three submarines (SS), six midget submarines, two fast patrol boats (PTF), seven motor gunboats (PGM), seven coastal minesweepers (MSC), eight mechanized landing craft (LCM), one survey ship (AGS), one fleet ocean tug (ATF), one oiler (AO), and eight service craft. Except for the submarines, the motor gunboats, and the fast patrol boats, the majority of the vessels are of British and United States origin. Due to the loss of East Pakistan, Karachi is the home port for all ships and craft. There is no reserve fleet.

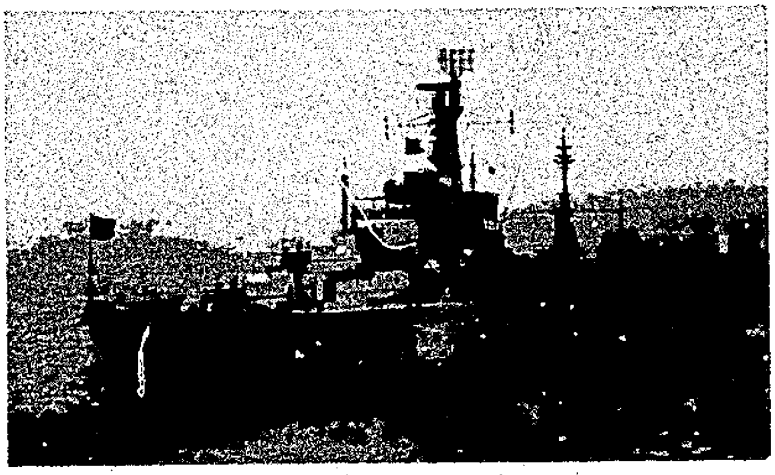

FIGURE 12. The PNS *BADR*, a U.K. Battle-Class destroyer (S)

3. Training (C)

The training system is basically sound and generally fulfills local training requirements. A lack of qualified instructors, modern equipment, and training aids has handicapped the system, however. An additional problem has been the nontechnical nature of the national language. More emphasis is placed upon training in schools than aboard ships because of the lack of basic education among personnel. Officers continue to receive specialized training in the United Kingdom in selected topics such as gunnery, communications, and staff procedures. France has conducted submarine training based on the DAPHNE-Class submarine for both officers and enlisted personnel. Pakistan Navy personnel have received training in submarine, diving, mine warfare, and underwater weapons fields in the United States; one officer is sent to the U.S. Naval War College each year.

All of the principal training schools and installations are within the Karachi area. They include the Basic and Operational Training Establishment (PNS *Himalaya*), the Technical Training Establishment (PNS *Karsaz*), and the Pakistan Naval Academy (PNS *Rahar*). The PNS *Himalaya* facilities consist of a group of schools that provide instruction in such areas as gunnery, communications, damage control, diving, torpedoes, antisubmarine warfare, supply and secretarial duties, and naval tactics. Mechanical, electrical, and electronic training are conducted at PNS *Karsaz*.

Enlisted personnel enter the navy through either the boy-entry (for recruits from 15 to 17 ½ years) or the direct-entry (from 18 to 21 years) program. Initial enlistments are for a period of 12 years, followed by another 10 years in a reserve status. Living conditions in the navy are so far above those of the average citizen that little difficulty is experienced in obtaining sufficient personnel.

Those who enter the navy via the boy-entry program undergo 2 ½ years of training at PNS *Himalaya*. Basic academic subjects, especially English, comprise the initial 6 months of practical training. Upon completion of this training, boys undergo 1 ½ years of instruction in their respective trades, followed by 6 months of practical training at sea. Those personnel who enlist via the direct-entry program are trained at the combined training schools in the Karachi area and then report directly to assignments ashore or afloat where they receive from 5 to 32 weeks of basic training in their particular specialties.

The Pakistan Naval Academy cadets receive training on board the cruiser (PNS *Babur*) and at the academy (PNS *Rahar*). The majority of officers are graduates of cadet-entry programs, although a few are directly appointed from civilian life, while others are commissioned from the enlisted ranks up to 23 years of age. Candidates for cadet officer training must be single, between 17 and 20 years of age, and have completed 2 years of college; final selection is determined by an entrance examination and action of a selection board. A direct short service commission is available in either the electrical or engineering branches; candidates must possess the appropriate university degrees and be between the ages of 21 and 28.

Academy training begins with 18 months of academic instruction, followed by a year at sea. The next phase of training lasts about a year at PAF Station Mesnoor where cadets learn about such

subjects as gunnery, navigation, communications, damage control, and receive familiarization with combined air-naval operations. Commissions as acting sublieutenants are awarded, and in some cases, Bachelor of Science Degrees from Karachi University. The last portion of training is a year at sea, after which the confirmation as a sublieutenant is made.

Training for engineering officers begins at the Pakistan Naval Engineering College that runs concurrent to the Bachelor of Engineering course at Karachi University. Further specialization in marine engineering or naval electrical/electronic equipment is then taken. Direct entry officer candidates are trained at PNS *Himalaya*. Further advanced officer training occurs at the Pakistan Navy Staff College; other service schools are abroad.

4. Logistics (C)

The logistics system is concentrated within the Karachi area. Overall control of the logistics system rests with the Deputy Chief of Staff (Supply), although the Superintendent, Pakistan Naval Dockyard, has charge of the dockyard as well as the Naval Stores and Naval Armament Departments. Primary facilities include the Naval Dockyard and the Naval Stores Department, a small bulk-storage annex, and the Naval Armament Depot at Mauripur, a short distance away. PNS *Iqbal*, the submarine support facility, is also located at the dockyard.

Although progress in the development of more adequate supply, repair, and maintenance facilities is being made, the logistic base of the navy remains weak. Most supplies and equipment continue to be imported. Incountry procurement is restricted to provisions, some hardware, clothing, office supplies, and POL. Facilities for the production of naval vessels do not exist, although major repairs and overhauls of ships up to destroyer size are performed at the Naval Dockyard in Karachi. Overhaul of the PN's cruiser is undertaken by the Karachi Shipyard and Engineering Corporation. The recent acquisition of Chinese motor gunboats has increased the types of ships and craft, thereby weakening the logistics system.

E. Air force (S)

The Pakistan Air Force (PAF) is a small force of about 17,000 men and over 500 aircraft. Its primary tasks are to provide air defense of the country, conduct offensive and defensive operations as required in support of the ground and naval forces, assist in the maintenance of internal security, render support in civil emergencies, and support civic action programs. The PAF is capable of performing air defense, ground support, and other tactical support tasks. Not many of the PAF's assets were committed in operations against the Indian Air Force (IAF) during the December 1971 war. Thus the above capabilities were not fully tested. The PAF lost 43 aircraft, mostly F-86's and MiG-19's, compared with 71 lost by the IAF. Most aircraft losses on both sides were due to ground fire. For several months prior to the war the PAF had been constructing protective structures (revetments and underground maintenance and supply facilities) for facilities and aircraft. It is likely these efforts limited the damages suffered from IAF attacks. In general, the PAF's dependence on multiple foreign supply sources, lack of replacements for pilots and technicians, and shortage of spare parts tend to limit its effectiveness.

For air defense the PAF has four fighter squadrons (MiG-19 and Mirage IIIE) (Figure 13) and a radar system of over 10 sites equipped with radars such as the AMES 14 and 15 and ANFPS 20. There are no surface-to-air missiles, and all antiaircraft artillery is

FIGURE 13. The French-produced Dassault MIRAGE IIIE's are the first-line air defense aircraft of the PAF. (C)

maintained under army control. Several regiments of 40-mm guns are available. The PAF's fighter aircraft had a limited but successful combat record in air-to-air operations in the war. The French Matra air-to-air missile mounted on Mirage fighters was reported to be very effective. Against an aircraft of fighter size flying at 30,000 feet, the estimated radar range is 175 nautical miles. Contiguous coverage is provided along the Indian border, except for the Bakawalpur area. During the war the IAF was able to approach at low level from the sea without detection by the PAF early warning radar screen until within the target area.

Tactical air units comprise Canberra and Beagle bomber squadrons as well as the F-86F, MiG-19, and Sabre Mk-6 fighter-bomber units. Armed T-6 trainers were also used in a night intruder role during the 1971 conflict. The PAF's relatively few bombing passes against Indian airfields during the war were ineffective. Although the PAF was active in support of troops in Jammu and Kashmir, lack of effective forward air control (FAC) impeded their commitment to close air support.

The PAF's air transport is limited to four operational C-130 transports, two of which are on loan from civil airlines. These aircraft were used to resupply troops in the northern border region during the war, but the extent of the support was modest. Prior to and during hostilities, Pakistan International Airlines (PIA) Boeing 707's were used extensively to ferry troops from West to East Pakistan. Smaller PIA turboprops which had been based in the eastern sector were commandeered by the military and used for a variety of military-oriented missions. The PAF's entire fleet of eight C-130's, assuming an 80% serviceability, has a potential capability of lifting about a battalion (United States) of men on a single operation under optimum conditions.

Continuous replacement and modernization of aircraft will remain of paramount importance to Pakistan, but the PAF probably will not be able to improve its capabilities vis-a-vis India. The ground attack capability is being upgraded with the receipt of French Mirage 5 aircraft.

1. Organization

The Chief of Staff, Pakistan Air Force, controls the force through an air headquarters at Peshawar (Figure 14). He is assisted by a Deputy Chief of Air Staff and an air staff consisting of four Assistant Chiefs of Air Staff (ACAS)—Operations, Training, Administration, and Maintenance. The ACAS, Operations, is responsible for operations and plans, operations research, air intelligence, flying safety and signals, and all operational flying units. The ACAS, Training, is responsible for recruiting of personnel and all training except combat training which is the responsibility of combat wing commanders. The ACAS, Administration, is responsible for administrative coordination, budget and accounting, personnel, works and civil engineering, medical services, and provost marshal, as

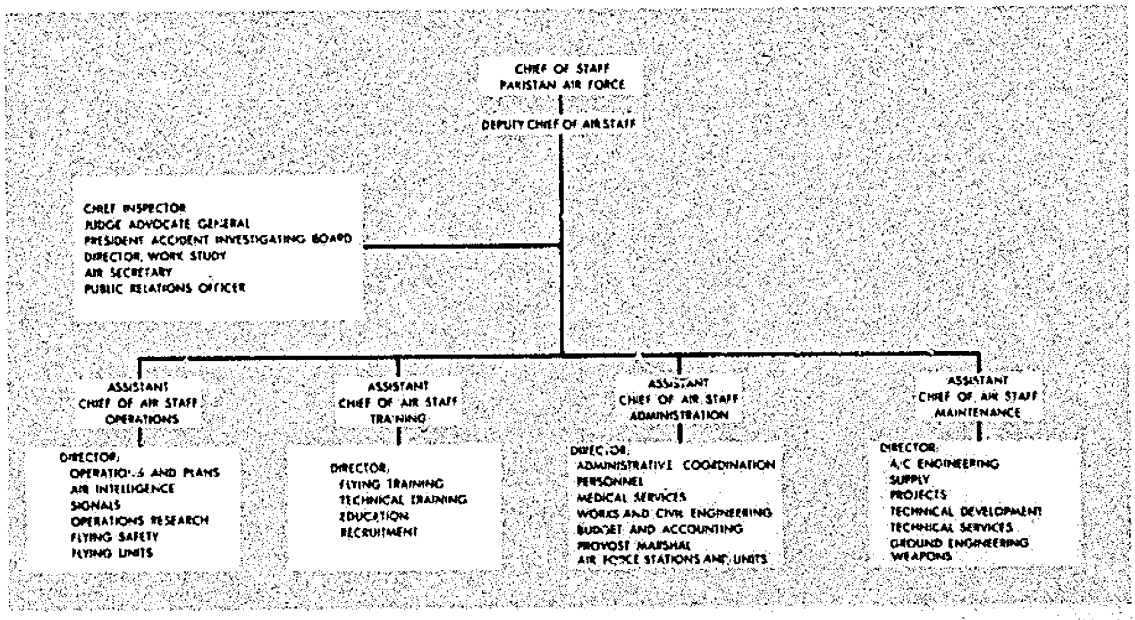

FIGURE 14. Organization of the Pakistan Air Force (C)

Units	Aircraft	Principal bases
2 Light Bomber Squadrons	Il-28 Beagle, B-47B Canberra ...	Masroor
10 Fighter-Bomber Squadrons ..	F-86F, MiG-19 Farmer D, Mk-6 (F-86)	Masroor, Sargodha, Murid
5 Fighter-Interceptor Squadrons	MiG-19 Farmer D, Mirage III-D, Mirage III-E	Sargodha, Mianwali, Shorkot Road
1 Reconnaissance Squadron	Mirage III-R, RT-33A	Sargodha
1 Transport Squadron	C-130B, F-27	Islamabad International
1 Search and Rescue Squadron ..	UH-19D, HU-16A Albatross	Masroor
3 Rescue Flights	HH-43B	Islamabad International, Peshawar, Sargodha
3 Training Units/Schools	T-33A, T-37, T-6G	Masroor, Sargodha, Risalpur

well as all air-force stations and units. The ACAS, Maintenance, is responsible for aircraft engineering, technical development, technical services, ground engineering, supply, weapons, and projects. Also included in the headquarters is an executive staff with the following offices: Chief Inspector, President of the Accident Investigating Board, Judge Advocate General, Director Work Study, Air Secretary, and Public Relations Officer.

2. Strength, composition, and disposition

PAF personnel strength totals 17,100, including 500 pilots and 16,600 ground personnel. Aircraft inventory[2] as of 15 November 1972 is 526, including the following types:

- 17 Light Bombers (all jet):
  - 13 British English Electric B-57B Canberra
  - 4 Soviet Ilyushin Il-28 Beagle
- 292 Day Fighters (all jet):
  - 51 U.S. North American F-86F Sabre
  - 83 U.S. North American Sabre Mk-6 (F-86)
  - 5 U.S. Lockheed F-104A and B Starfighter
  - 145 Chinese MiG-19 Farmer D
  - 8 Soviet Mikoyan MiG-17 Fresco A, B, C
- 21 Figbter Bombers (all jet):
  - 21 French Dassault Mirage III-E
- 5 Reconnaissance (all jet):
  - 3 French Dassault Mirage III-R
  - 2 U.S. Lockheed RT-33A Shooting Star
- 8 Medium Transports (Turboprop)
  - 8 U.S. Lockheed C-130B Hercules
- 1 Light Transport (Turboprop):
  - 1 Netherlands Fokker F-27 Friendship
- 15 Transport Helicopters (all turbine):
  - 9 Soviet Mil Mi-8 Hip
  - 6 U.S. Kaman HH-43B Huskie
- 38 Utility Helicopters:
  - 12 Turbine
  - 26 Piston
- 74 Trainers:
  - 42 Jet
  - 32 Prop
- 55 Utility (all prop)

[2] For more detailed and current information, see the quarterly Military Intelligence Summary, and the semiannual Free World Air Order of Battle, both published by the Defense Intelligence Agency.

With the exception of aircraft based in the south at Masroor, nearly all units are based in the northern part of the country near the border with India. Unit disposition as of 15 November 1972 is as indicated above. The units at Mianwali, Murid, and Shorkot Road are believed to have moved, but their location is unknown.

Personnel completing active duty in the PAF serve 6 to 8 years in a reserve status. The total number of reservists is not available, but many former PAF pilots are employed with Pakistan International Airlines. These personnel could provide an effective augmentation to the PAF's transport fleet.

The air facilities system in Pakistan is adequate for their own civil and military peacetime requirements. Insufficient ground support facilities would render it inadequate for large-scale operations. (See the Transportation and Telecommunications chapter of this General Survey for detailed information on airfields.)

3. Training

Principal training institutions of the PAF and their locations as of 15 November 1972 are as indicated on page 20.

Initial training of all officer candidates is at the Pakistan Air Force College at Risalpur. This academy consists of four cadet classes and trains 100 pilot cadets annually. Duration of training for Pakistanis is 2 to 2½ years, while the program lasts 1½ years for foreign officers. Flying training is given in T-6G's and T-37's. From 300 to 320 hours are devoted to flying training for Pakistanis, while 250 to 270 hours are devoted to flying training for foreign officers. The student/instructor ratio is reportedly 3 to 1. Approximately 40 to 45 instructor pilots are assigned in the flying training portion of the course. Pilot elimination rate is high for both Pakistani and foreign students. Many of the rejected Pakistani pilots are assigned to other duties, many becoming navigators or maintenance officers. Upon commissioning, the majority of the new officers attend flight training school at Masroor. Depending upon requirements, a few go to the transport

School	Location	Function
Basic Training School	Kohat	Basic training for all recruits.
Ground Instruction School	Kohat	Courses in instructional methods and techniques.
Advanced Trade School	Kohat	Training for officers and airmen in supply, air police, mess, and administrative and other functions.
Pakistan Air Force College	Risalpur	Military training for officers of all fields and primary and basic training in T-37 and T-6G aircraft for pilots.
No. 2 Conversion School	Masroor	Advanced training in T-33 for pilots graduated from the Air Force College.
Flight Leader School	Masroor	Standardized operational and tactical procedures in the air force and training in basic weapons and tactics for fighter pilots.
School of Aeronautics	Korangi Creek	Technical training for all officers and airmen in maintenance and armament.
School of Electronics	Korangi Creek	Training for officers and airmen in radio communications, such as radio operation, air traffic control, general communications, and electronic equipment maintenance.
Pakistan Air Force Engineering College	Korangi Creek	A school for graduate officers with engineering degrees in electronics and maintenance.
Junior Command and Staff	Drigh Road Station, Karachi	Training in administration for staff officers.
Ski and Survival School	Kalabagh	Ski and survival training for all air force flying crews.
Pakistan Air Force Staff	Drigh Road Station, Karachi	Advanced staff training for senior officers.

conversion school at Islamabad International. Helicopter pilots are selected from those who have difficulty in completing fighter aircraft training. The PAF also has two preparatory schools, at Sargodha and Lower Topa, near Murree, where selected civilian personnel receive advanced educational training before actually becoming part of the PAF and attending the Risalpur college.

Airmen enter basic training at Kohat for a period of about 9 months. This is followed by a 7-month basic technical course and then assignment as a qualified technician. The entire training establishment is composed of about 2,000 personnel.

At present, the force is barely self-sufficient in basic flight and maintenance training. A major weakness continues to be the low number of cadets (about 80) graduated each year from the Air Force College at Risalpur. This number is just sufficient to maintain current strength levels. The Engineering College at Korangi Creek seeks to graduate 25 engineers a year from its 4-year course. In addition, Korangi Creek graduates some 25 students a year from a short (1-year) course to meet the need for engineers of all types. Other weaknesses in PAF training include the language difficulties of a multilingual country operating in a foreign tongue (English) and the problems of training personnel to handle equipment acquired from many different sources. The PAF lacks an effective personnel classification system, does not have an adequate career development program, and does not maintain adequate service training records.

Considerable numbers of PAF personnel formerly were trained in the United States under the U.S. Military Assistance Program as pilots, navigators, communications specialists, and maintenance technicians. This assistance was discontinued in 1965. The People's Republic of China has continued to provide training assistance to the PAF. Pakistan has also provided aviation training to personnel from Iran, Iraq, Jordan, Kuwait, Libya, Abu Dhabi, and Saudi Arabia.

4. Logistics

The ACAS, Maintenance, consists of seven directorates (Figure 14). Base commanders at airfields are allocated personnel to accomplish normal maintenance, supply, and housekeeping functions, and they in turn are supported by the supply and maintenance depot at Drigh Road Station.

Major weaknesses include almost complete dependence on foreign sources for aircraft, engines, spare parts, ordnance, and all petroleum supplies. Pakistan's financial situation and lack of any large-scale manufacturing capability prohibits any but the most minor incountry logistical support.

Drigh Road Station at Karachi is the only PAF depot. All extensive maintenance, inspection, and overhauls are performed there. Reports indicate that maintenance of MiG-19 engines has been a major problem and that these are shipped by air to China for overhaul. Previously, the force adopted most of the U.S. supply and maintenance procedures. These included the use of U.S. Air Force manuals, technical orders, and a unit authorization list system. Whether this system has been applied to the new aircraft that have been acquired is unknown. Information on continued availability of spare parts is also limited, but it is apparent that this matter constitutes a major problem.

Serviceability rates of PAR aircraft are not available. The Beagles, however, are nonflyable, and the F-104's are in storage due to lack of spare parts. POL stocks are believed to be geared to a 30-day level at each base.

F. Paramilitary forces (S)

The missions of the 35,500-man Civil Armed Forces are to patrol the country's border, prevent smuggling, and assist the regular police in maintaining internal security, especially in tribal areas. The Civil Armed Forces are capable of controlling borders during peacetime. They are also capable of coping with sporadic tribal dissidence but would require army support to deal with widespread organized insurgencies. They could operate as light infantry or as guerillas in wartime.

The Civil Armed Forces consist of three mobile security components—the Pakistan Rangers, the Frontier Corps, and the Frontier Constabulary.[3] Normally the Civil Armed Forces are subordinate to the Ministry of Interior and States, Frontier Regions and Kashmir Affairs, and controlled through provincial governments. In time of war or emergency they are controlled by the Ministry of Defense, with the exception of the Frontier Constabulary which remains subordinate to the Ministry of Interior and States, Frontier Regions and Kashmir Affairs.

The Pakistan Rangers are utilized mainly to maintain security in the settled districts (as distinct from tribal areas) of the country, and may be called upon to assist the civil police in quelling riots and other civil disturbances. The rangers are organized into three subregional detachments with units of varying size which are commanded by army officers.

The Frontier Corps is headed by a Director General, an army officer, with headquarters in Peshawar. The corps is organized into units up to battalion size (600 men), which are commanded by army officers. It is responsible for security in the northern and western frontier areas of the country.

Patrol and antismuggling operations in the immediate vicinity of the borders with Afghanistan and Iran are the main responsibilities of the Frontier Constabulary, a locally recruited force officered by the Pakistani police. The constabulary, when necessary, is supported by the Frontier Corps. Units use standard light infantry weapons, primarily British World War II models. In addition to camels and horses, some motor transport is available. The Frontier Corps also has some light artillery and armored cars.

Assisting in the defense of the portion of Jammu and Kashmir west of the Cease-Fire Line is the mission of the Azad (Free) Kashmir Forces, which are ostensibly the military arm of the state of Azad Kashmir. Their units are capable of acceptable performance of their present role under Pakistan Army supervision. The 30,000-strong Azad Kashmir Forces are organized into seven infantry brigades which are integrated in and under the control of two regular infantry divisions. Troops are equipped with World War II British equipment. Shortages exist in transportation and signal equipment and crew-served weapons.

[3] Strength breakdowns are not available because of the expansion of the forces and the loss or capture of personnel in East Pakistan.