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Poland

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NATIONAL INTELLIGENCE SURVEY

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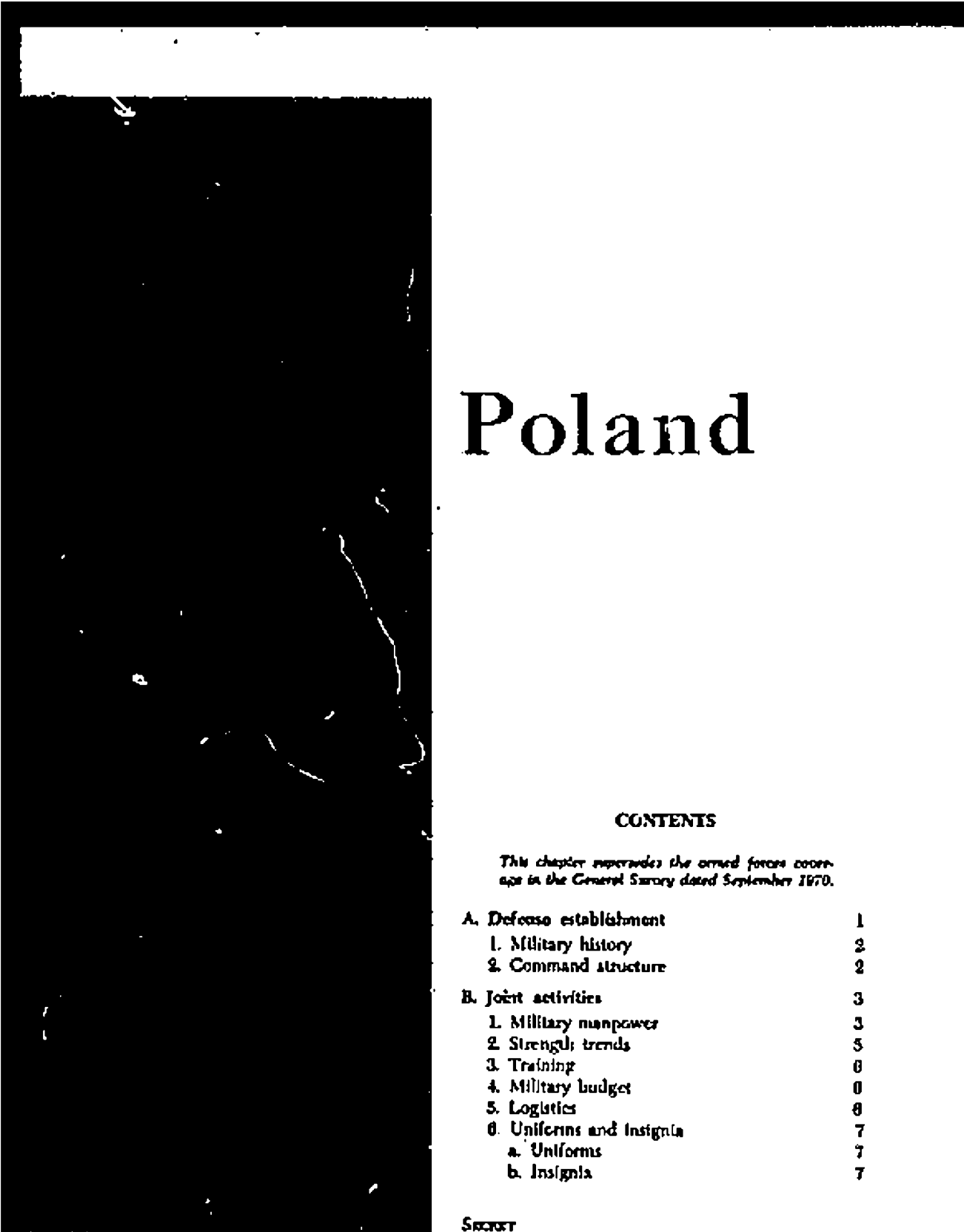
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Poland

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Armed Forces

A. Defense establishment

Largest of the Warsaw Pact forces of Eastern Europe after those of the Soviet Union, the closely integrated armed forces of Poland consist of ground, naval, and air and air defense forces. These forces are subordinate to the Ministry of National Defense, as are the militarized security forces (less the Frontier Guard during peacetime) which operate under a territorial defense system that assigns them primary responsibility for the internal defense of the country. The strength of the ground, naval, and air forces is 291,000 men. About 210,000 are in the ground forces, 26,000 in the naval forces,¹ and 55,000 in the air forces. Personnel for the Air Defense Command are drawn from the ground and air forces. Much the largest element in terms of personnel, the ground forces also dominate the high command and staff. (S)

Major combat elements include 15 ground forces divisions; four destroyer types, four submarines, 101 coastal patrol and 62 river/roadstead patrol types, 49 minesweepers, 38 amphibious ships and craft, 32 auxiliaries, 114 service craft, 66 naval combat aircraft, and more than 875 air forces aircraft. The Territorial Defense Forces have a strength of 73,500 men—25,000 are in the Internal Defense Forces, 20,000 in the Frontier Guard, and 28,500 in Territorial Defense Forces. (S)

The missions of the armed forces include territorial defense against foreign attack by land, sea, and air; internal defense against subversive or guerrilla forces; maintenance of border security and control; protection of Warsaw Pact lines of communication and augmentation of Pact forces in central Europe. (C)

Since 1965, Poland's armed forces and Ministry of National Defense have been reorganized, probably on Soviet initiative to facilitate the implementation of an operational and territorial defense force concept. Operational forces, consisting of ground, naval, and air elements, are earmarked to augment Warsaw Pact forces. The Territorial Defense Forces (*Obrony*

¹Includes 2,600 Maritime Frontier Guard personnel.

Terytorium Kraju—OT), which are exclusively responsible for the internal defense and security of Poland, consist of interior, frontier, and air defense elements. In the 1965 reorganization, the Frontier Guard (*Wojsko Ochrony Pogranicza—WOP*) and Internal Defense Forces (*Wojsko Obrony Wewnętrzne—WOW*) were transferred from the Ministry of Internal Affairs to the Ministry of National Defense, where they were assigned to the Main Inspectorate of the National Territorial Defense Forces. In 1971, however, the Frontier Guard was transferred from the Ministry of National Defense and resubordinated to the Ministry of Internal Affairs. The Frontier Guard would probably revert to Ministry of Defense control in time of war. Air forces consist of two operational components. One has the primary mission of air defense and is operationally subordinate to the Air Defense Command. The other, consisting of tactical air units, is assigned an offensive role in support of ground troops but augments the air defense component, as required. Naval forces, including a small air component, are mainly a defensive force. However, the navy has an increasing amphibious capability and submarines sometimes operate outside the Baltic Sea. (S)

The armed forces are trained along Soviet lines and are primarily equipped with weapons of Soviet design or manufacture. They have acquired Soviet tactical nuclear delivery systems, though not nuclear warheads, and have adopted Soviet tactical concepts. The armed forces are capable of conducting both offensive and defensive operations either independently or as part of a combined force. In the latter role they could assume a major part in operations in the North German plain and Jutland. Large-scale, sustained operations, however, could not be maintained with Polish resources alone but would require Soviet logistical support. (S)

Poland is astride the main natural route interconnecting the U.S.S.R. and Western Europe. With respect to the line of contact between forces of the NATO nations and of the Warsaw Pact nations,

the country is a Soviet communications zone supporting the Groups of Soviet Forces in East Germany (GSFG) and Poland (NGF).² (S)

The primary strategic military problem of Poland is the defense of a national territory that has no significant natural obstacles to impede an attack from the west. Shielded to the west only by the buffer of East Germany, Poland almost surely would seek to defend itself by participating in the combined defense of East Germany, to which it is committed by the Warsaw Pact, or in a combined counteroffensive or preemptive attack to destroy the NATO threat in the west. (C)

1. Military history (C)

The emergence of the Polish state in the 10th century introduced an 800-year succession of wars with its neighbors. This history was interrupted in the 18th century when Poland was partitioned and ceased to exist as a political entity. Polish patriotism persisted through the years of national eclipse, however, and when World War I raised the opportunity, a Polish legion was organized under Marshal Pilsudski to fight against the Russians for liberation. In 1918 Poland regained its national identity and formed a republic from territories redeemed from the Austro-Hungarian Empire, Germany, and Russia. The Treaty of Versailles recognized the independence of the new Polish state.

At the outset of World War II, Poland had an armed force of 300,000 well-trained and well-disciplined troops. Despite courageous resistance, the country was quickly overwhelmed by opposing forces. Three Polish destroyers and two submarines escaped from the Baltic Sea to join forces with the British Royal Navy; these ships were supplemented later by other craft provided by the British and manned by Poles. A considerable number of Polish Air Force personnel escaped to the United Kingdom, where they were formed into units in the Royal Air Force. Other Poles who had escaped were organized in France into several Polish infantry divisions and a mountain brigade. After Germany attacked the U.S.S.R. in 1941, a Polish army of 70,000 men was organized in the Soviet Union; it was later moved to the Mediterranean area to serve with the British. In 1943 the U.S.S.R. organized an infantry division of Poles which soon was

²The GSFG, totaling 386,000 (360,000 ground, 26,000 air), consists of 10 tank divisions, 10 motorized rifle divisions, and one tactical air army. The NGF, totaling 40,000 (30,000 ground, 10,000 air), consists of two tank divisions and one tactical air army. A Soviet Navy force operates out of Swinoujscie, Poland.

expanded into an army that fought as part of the Soviet Army through the remainder of the war.

With the creation of the Polish Committee of National Liberation under Soviet sponsorship in Lublin in July 1944, the basis for the present armed forces was laid. The First Independent Naval Battalion, which participated in the liberation of the coastal areas, was the forerunner of the postwar Polish naval forces. After the war the Polish air forces were reconstituted by redesignating as Polish some Soviet air units that included Polish personnel. The nucleus of the postwar Polish Army was the Soviet-sponsored infantry division that had been formed in 1943.

Following the appointment of Marshal of the Soviet Union Konstantin K. Rokossovskiy (a Pole by birth) as Minister of National Defense in late 1949, the armed forces began an intensive program of re-equipping, re-training, and re-organizing, all under Soviet direction. Soviet officers of Polish extraction occupied virtually all key positions, and the armed forces came to be a small-scale copy of the postwar armed forces of the U.S.S.R. However, after Wladyslaw Gomulka came again to political power in Poland (October 1956), the more obvious aspects of direct Soviet influence on the Polish forces were removed. Marshal Rokossovskiy and many other transplanted former Soviet military officers were replaced by Poles. Marian Spychalski, Minister of National Defense until 1968 and a trusted friend of Gomulka, replaced Rokossovskiy. These measures resulted in the removal of many experienced command and staff officers, but that deficiency was overcome by improving qualifications and skills of personnel, improving the military school system, and raising the morale and efficiency of the armed forces. Soviet control still remains but is exercised only indirectly. The armed forces are still dependent for support upon the U.S.S.R. and would be unable independently to pursue a sustained course of action.

2. Command structure (S)

Soviet control of the armed forces of Poland is achieved principally through close liaison and cooperation between the Soviet and Polish governments and Communist parties on all matters that affect the military establishment. The unified command established under the Warsaw Pact provides the Soviet Union with a formal and effective instrument of military direction.

The Polish constitution of July 1952 designates the Sejm (parliament) as the ultimate government authority and names the Council of Ministers as the executive arm of the government. The Council

Chairman (who is the Premier), with the advice and consent of the council members, is charged with "general direction in the sphere of defense capability of the country and organization of the armed forces."

The Minister of National Defense is aided by four Vice Ministers (Figure 1), who also serve, respectively, as Chief of the General Staff, Chief of the Main Political Directorate, Main Inspector of Training, and Main Inspector of Polish Territorial Defense. The entire military establishment is centrally controlled and constitutes, in effect, a single, closely integrated military force. Although each service and each ground branch is given appropriate consideration in all matters relating to its particular role, the high command and the staff structure are dominated by ground officers.

For purposes of territorial administration, Poland is divided into three military districts—the Warsaw, the Pomeranian, and the Silesian. The area of responsibility of the Warsaw Military District is the eastern half of the country; of the Pomeranian Military District, the northwestern quarter; and of the Silesian Military District, the southwestern quarter. Headquarters of the districts are Warsaw, Bydgoszcz, and Wroclaw (Breslau),³ respectively, and in their areas they perform administrative and logistic functions including supply, communications, housekeeping, military construction, reserve training, and mobilization.

A separate naval headquarters is located at Gdynia. Continuing naval representation at Warsaw is provided chiefly by small naval liaison groups in the General Staff and in those central inspectorates which support and supervise all branches of the armed forces. There is also a naval liaison group attached to the staff of the Pomeranian Military District, the district that embraces the entire coastal area of the country.

B. Joint activities

1. Military manpower (S)

Poland has an ample pool of manpower from which to fill its armed forces. Approximately 8,893,000 males are between the ages of 15 and 49, and of these about 7,030,000 (79%) are by Polish standards fit for military service. The number of males reaching military age (19) will average 356,000 annually during the 5-year period 1974-78. The following tabulation presents the estimated distribution of Polish manpower between

³For diacritics on place names see the list of names at the end of this chapter.

the ages of 15 and 49 by 5-year age groups as of 1 January 1974:

AGE	TOTAL NUMBER OF MALES	MAXIMUM NUMBER FIT FOR MILITARY SERVICE
15-19	1,783,000	1,520,000
20-24	1,674,000	1,390,000
25-29	1,225,000	1,060,000
30-34	980,000	810,000
35-39	1,090,000	845,000
40-44	1,140,000	800,000
45-49	1,071,000	605,000
Total, 15-49	8,893,000	7,030,000

The armed forces are supported by a form of compulsory service generally comparable to that employed in all Warsaw Pact countries. Conscription is accomplished under the provisions of the 30 January 1959 Law on Universal Military Service. All males register for military service in the year of their 18th birthday. A March 1963 amendment to the law lowered the eligible age for induction from the year of the 20th to that of the 19th birthday. Because more men have been available than were needed to maintain the desired troop levels, not all fit young men reaching conscription age each year have been inducted. Compulsory military service is deferred for students studying in higher schools and for workers possessing critical skills. Those bypassed, however, retain their service obligation until about the age of 50, and most of them receive some form of military training in schools or paramilitary organizations.

Approximately 100,000 men are inducted annually. Of these, about 62,000 are taken into the ground forces, and the remainder enter the naval, air, and militarized security forces. Most of the conscripts are inducted in late October each year. The rest of the conscripts are inducted in April and are primarily those selected to attend service schools and those selected for the Territorial Defense Forces. The basic term of service is 2 years except for certain specialists in all services and seagoing sailors whose terms are 3 years. In addition, specialized training is given to volunteers; these men are obligated to serve at least 5 years. The navy also has a special 5-year program for volunteers.

Young men conscripted for military service during the past 10 to 15 years have generally been better educated and more technically proficient than their predecessors. The men chosen for the naval and air forces are better educated and of greater dependability than those selected for the ground forces. Recruits are physically sturdy and are able to withstand hardship and privation.

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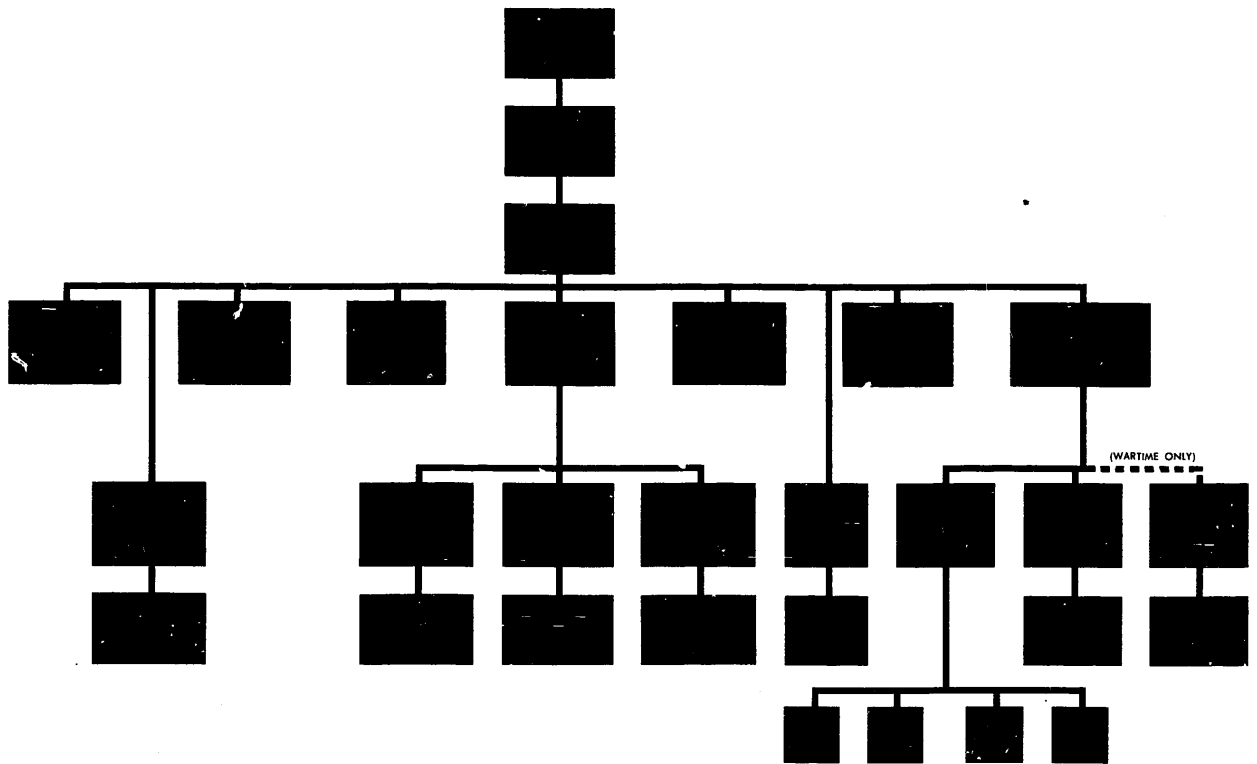


FIGURE 1. Organization of the Polish Armed Forces (S)

Since 1956 the political officials of the country have endeavored to improve the loyalty and quality of leadership in the armed forces and have attempted to make service life more attractive. Polish officers were put into all billets formerly held by Soviet officers serving in the Polish forces, educational qualifications for officers and noncommissioned officers were raised, the military school system was improved, uniforms along traditional Polish lines were readopted, and the general welfare of military personnel became a greater concern to the high command. Poland currently has the most progressive military personnel policies in the Communist world. Generally, morale within the armed forces is good, though the general populace has, on occasion, viewed the services with apathy. The refusal of the armed forces to take repressive measures during the 1970-71 workers' riots helped to enhance its image in the eyes of the public. The present leadership cadres are both proficient and loyal, and military

organization, discipline, and training are at least equal to those in comparable Soviet forces. It is anticipated that Gierk, Gomulka's successor, will continue the successful policies of his predecessor.

None of the reserves of the armed forces are organized into units. In a general mobilization, new units would be formed around cadres taken from existing units, and the reserve manpower would fill out both old and new units. Each member of the reserves has a booklet on mobilization that tells him where to report in the event of mobilization. The military administrative organization maintains close contact with the population, and a covert, partial mobilization or an overt, general mobilization could be carried out rapidly.

2. Strength trends (S)

In 1946 the total strength of the armed forces stood at about 400,000 (Figure 2), but thereafter there was a

FIGURE 2. Armed forces and militarized security forces personnel strengths (S)

YEAR	GROUND	NAVAL	AIR	TOTAL	TERRITORIAL DEFENSE*
1946.....	225,000	1,000	5,000	231,000	169,000
1947.....	200,000	6,000	7,000	213,000	169,000
1948.....	180,000	8,000	7,000	195,000	150,000
1949.....	165,000	8,000	7,000	180,000	150,000
1950.....	165,000	**7,000	7,000	179,000	75,000
1951.....	300,000	8,000	10,000	318,000	75,000
1952.....	350,000	8,000	8,000	366,000	65,000
1953.....	280,000	9,000	10,000	279,000	65,000
1954.....	250,000	9,000	20,000	279,000	65,000
1955.....	250,000	9,000	24,000	283,000	65,000
1956.....	250,000	11,000	32,000	293,000	65,000
1957.....	250,000	12,000	36,000	298,000	65,000
1958.....	250,000	14,000	38,000	302,000	45,000
1959.....	200,000	15,000	42,000	257,000	45,000
1960.....	200,000	17,000	44,000	261,000	45,000
1961.....	200,000	18,000	46,000	264,000	45,000
1962.....	***250,000	20,000	47,000	317,000	45,000
1963.....	250,000	20,000	47,000	292,000	45,000
1964.....	225,000	†18,000	48,000	291,000	45,000
1965.....	225,000	18,000	48,000	291,000	45,000
1966.....	225,000	18,000	49,000	292,000	45,000
1967.....	225,000	19,000	50,000	294,000	45,000
1968.....	200,000	20,000	51,000	271,000	73,000
1969.....	200,000	22,000	51,000	273,000	74,000
1970.....	200,000	22,000	52,000	274,000	74,500
1971.....	200,000	23,000	53,000	276,000	74,500
1972.....	200,000	††26,000	54,000	280,000	73,500
1973.....	210,000	††26,000	55,000	291,000	73,500

*Includes only the Internal Defense Forces and the Frontier Guard prior to 1968. Territorial Defense Forces are included in the totals after 1968

**Naval Air Arm included from 1950 onward.

***Increase owing to Berlin crisis.

†Naval infantry transferred to ground forces in 1964.

††Includes 2,600 Maritime Frontier Guard personnel.

gradual reduction in the size of the ground forces. At the same time, however, large, military-type security forces were maintained for use in eradicating armed underground organizations. By 1949 the underground had been eliminated, and a swift 50% reduction in the strength of the militarized security forces followed; by 1958 their strength had diminished to 45,000, the level that still prevails. In 1950, in reaction to the eruption of hostilities in Korea, the ground forces were expanded again and nearly doubled in that year. They reached the post-World War II peak in the winter of 1951-52. Restoration of a more normal peacetime strength was effected in 1952. Since 1953, the ground forces strength has stabilized at between 200,000 and 250,000; in 1973 it was 210,000. The naval and air forces have been built up since 1946. In 1950 the strengths of these two services were about 7,000 men each. The naval forces have increased to about 26,000 since then. The air force strength is now about 55,000.

3. Training (S)

Training in the armed forces is rigorous, effective, and realistic, and is modeled after that of the Soviet forces. The Main Inspector of Training is responsible for the development of tactics, provides a program of training for all units down to regimental level, conducts maneuvers and field tests, and inspects the combat and specialized training in the ground, naval, and air forces. In addition, this inspectorate maintains liaison with the Warsaw Pact combined command, through which it also receives general policies pertaining to troop training and exercises.

The combat training program is implemented by the three military districts and the naval and air forces. The program includes large-scale exercises in the autumn season involving ground, naval, and air forces.

Branch schools for officers, officer candidates, and specialists are established and supervised by the services and arms under the director of the Main Inspector of Training. The major Ministry of National Defense schools are the General Staff Academy (at Rembertow, near Warsaw) and the Military Technical

Academy (at Warsaw), both under the supervision of the Chief of General Staff, and the Military Political Academy (at Warsaw), under the supervision of the Main Political Directorate. Selected Polish officers and enlisted men are sent to technical and higher military schools in the Soviet Union. For training, the Poles have also used Soviet missile and aircraft ranges.

4. Military budget (C)

The military budget is prepared by the Ministry of National Defense in conformity with expenditure guidelines provided by the State Planning Commission. A draft is submitted to the Ministry of Finance for analysis and inclusion in the state budget. The state budget is then presented to the Council of Ministers and Sejm (parliament) for approval.

The announced defense budget, which reflects the general level of defense spending, is probably not all-inclusive because some military-related expenditures are likely to be listed under other categories of the national budget. Military outlays increased at an average rate of about 7% between 1968 and 1972, but planned expenditures declined in 1973 (Figure 3). As a share of GNP, defense spending increased from about 3.9% to about 4.3% between 1968 and 1972. The increased expenditures are probably a reflection of the costs incurred by replacing outmoded equipment and by introducing new and more sophisticated weapons systems. Another factor contributory to the increase is that domestically manufactured materiel is now priced at levels which more closely correspond to the actual costs of production.

5. Logistics (S)

Poland has the industrial capability to provide substantial support for its armed forces. Producing a relatively large quantity and wide range of products, the industrial sector has expanded considerably in recent years. Industry, however, is dependent upon imports for many strategic raw materials. Facilities for producing military equipment are modern and well equipped, but current output is substantially below peak levels because Poland has found it more practical and economical to acquire materiel from the U.S.S.R.

FIGURE 3. Annual defense budgets (C)
(Millions of zlotys)

	1968	1969	1970	1971	1972	1973
Defense budget.	30,332	33,519	35,724	37,684	39,490	39,206
Defense as percent of national budget.	9.8	9.5	9.4	9.6	9.1	8.4
Defense as percent of GNP.	3.9	4.1	4.2	4.2	4.3	na

na Data not available.

Poland relies primarily on the Soviet Union for military equipment not domestically manufactured or not produced in quantities sufficient to meet its military requirements. Since 1955 the U.S.S.R. has supplied equipment valued at US\$2.2 billion, including a wide variety of aircraft, light and heavy tanks, armored personnel carriers, artillery, electronic equipment, missiles, and combat ships. Transport vehicles and armored personnel carriers have also been purchased from Czechoslovakia and Hungary.

Although Polish shipyards are capable of producing major combatants, naval production has been limited to small submarine chasers, motor torpedo boats, minesweepers, medium landing ships, auxiliaries, and service craft. The country has relied on the Soviet Union for large combatants and missile attack boats. Ship repair facilities are adequate for the overhaul and repair of all ships in the fleet.

Poland's aircraft industry is capable of designing and producing a variety of light aircraft, but there is little capability to develop and produce heavier aircraft. Current production consists of COLT (An-2) small transports, HOPLITE (Mi-2) turboshaft helicopters, TS-11 Iskra (SPARK) jet trainers, and PZL-101 light communications/utility aircraft. Soviet-designed jet fighters and native-designed jet trainers have also been produced. Engines have been domestically produced for many of these aircraft.

Poland, like other Communist Bloc countries, relies mainly on the Soviet Union for the development and supply of missiles. On their own, the Poles are producing the Soviet-designed AA-2 (ATOLL) air-to-air missile and the AT-3 (SACGER) antitank missile.

6. Uniforms and insignia (U/OU)

a. Uniforms

Uniforms made principally of cotton and synthetic fibers have replaced the heavy woolen fabrics previously used. Materials, styling, and components have been standardized.

Uniforms of the ground forces are divided into four basic categories: dress, service (Figures 4 and 5), field, and special purpose. The dress and service uniforms are brownish olive-drab in color, and the field uniforms are light green patterned with dark brown vertical lines. Airborne personnel wear a distinctive red beret. Summer and winter uniforms are of the same color, but differ in the type of material used.

Uniforms of the naval forces include the categories of full dress, semidress, service, and special purpose. Navy blue is the standard color for winter uniforms. White or mixed (navy blue and white) uniforms are worn during the summer season.

Air force personnel wear uniforms which, except for the color (steel blue), are similar in style and materials as those of the ground forces.

Summer uniforms are worn from 1 May to 30 September; winter uniforms from 1 October to 30 April.

b. Insignia

Insignia of rank (Figures 4 and 5) for officers, warrant officers, and enlisted personnel of the ground and air forces are displayed on the shoulder loops of the uniform and on headgear. Ranks are indicated by various silver-colored stars, bars, and chevrons which are attached or sewn directly on the shoulder loops and headgear without special backgrounds. General officers have a scrolled-silver hatband on the service cap, and scrolled-silver piping on shoulder loops and on the lower part of the coat sleeves. Service cap visor ornamentation includes two silver-braid stripes for general's and senior officers, and one silver-braid stripe for junior officers.

The ranks of naval officers and warrant officers are indicated by gold stripes, of varying width and number, displayed on shoulder boards or on the lower part of the coat sleeves, and by gold stars affixed to the chin strap of the service cap. Flag officers display scrolled gold ornamentation on the visor of the service cap, on shoulder boards, and on the lower part of the coat sleeves, depending upon the type of uniform worn. The ranks of enlisted personnel in the lower grades are indicated by gold diagonal stripes or chevrons worn on the upper left sleeve of the uniform.

Branches of service in the ground forces are indicated by silver-colored metallic devices worn on the collars of the coat and overcoat. Distinctive colors are displayed on the cap bands of personnel in the following organizations: 1st Mechanized Division (Warsaw)—yellow; Military Police (WSW)—white; Frontier Guard (WOP)—green; Internal Defense Forces (WOW)—blue. Marshals display silver eagle devices with crossed batons on coat and overcoat collars; generals, the silver eagle devices without batons. Airborne and assault landing (amphibious) troops wear shoulder patches on the upper left sleeve of the uniform.

Naval officer corps and specialty markings are indicated by various color inserts between the sleeve rank stripes. Specialty markings for enlisted personnel consist of cloth emblems sewn on the upper left sleeve of the jumper or coat, above the insignia of rank.

Air Force personnel display silver-colored winged propeller devices on the collars of the coat and overcoat.

The national emblem (silver eagle and shield) is incorporated in all cap insignia and imprinted on the uniform buttons.

C. Ground forces (S)

The ground forces are the second largest in the Warsaw Pact—exceeded only by those of the U.S.S.R. They are as well organized as the Czechoslovak and East German ground forces and virtually as well trained and equipped. They constitute the basic and by far the largest component of the armed forces.

A ground forces reorganization and modernization program has been underway since 1957. Organizational changes in the line divisions and other tactical units, based on new Soviet concepts, have substantially improved combat effectiveness. Concurrently, new equipment including tactical nuclear delivery systems have been placed in the hands of the troops, and advances have been made in training procedures and tactical doctrine. These improvements have resulted in a better balanced, more flexible mobile force with greatly increased firepower. As a result, the ground forces are a significant asset of the Warsaw Pact.

1. Organization

The ground forces are controlled directly by the Ministry of National Defense through the Chief of the General Staff. Under the Chief of the General Staff are the commanders of the three military districts (Warsaw, Pomeranian, and Silesian). In addition to their administrative and logistical functions, these three commanders are also responsible for the combat readiness of the tactical units within their areas and supervise their training programs to assure readiness. Military district headquarters, at Warsaw, Bydgoszcz, and Wroclaw, are not currently set up as headquarters for operational field armies, but in the event of war would probably form army headquarters within a Polish front. About two-thirds of the ground combat strength, including all armored divisions, is disposed in the western half of Poland.

Polish tactical unit organization is patterned after that of the Soviet Ground Forces. The organization of the two basic types of line divisions, armored and mechanized, is generally similar to that of Soviet tank and motorized rifle divisions. Variations from the Soviet tables of organization and equipment are chiefly found in the organization of tank regiments and in the use of small caliber weapons and older models of weapons and armor. It is estimated that the

actual personnel strength of the units ranges from about 50% to 90% of full wartime authorized strength.

2. Strength, composition, and disposition⁴

The personnel strength of the ground forces is about 210,000 men. The regular cadre of officers and noncommissioned officers is about 70,000. Two conscript classes, numbering about 62,000 each, make up the largest part of the force. Specialists, serving a 3-year service obligation, complete the force. In addition to the active force, there are about 1.8 million trained reservists who have served a full tour of duty since about 1951 and have since had refresher training.

The ground forces consist of 15 line divisions (eight mechanized, five armored, one assault landing (amphibious), and one airborne) and various support units. The naval infantry component was transferred from the navy to the army in 1964 and is part of the assault landing division. The airborne division is dependent upon the Soviet Air Force for large-scale airlift. Most of the divisions are stationed in northern and western Poland in what was German territory until the end of World War II.

3. Training

Ground forces training, which follows Soviet methods and procedures, has been improving steadily during the last several years, and the present standard is among the highest in the Eastern European Communist armies. The present system includes training for combat under conditions of chemical, biological, and nuclear warfare. River crossing exercises, using amphibious equipment and stressing rapid movement, are frequently practiced.

Based on an annual training cycle, the training program is thorough and realistic (Figure 6). The winter period emphasizes individual, squad, platoon, and initial company-level training and sometimes includes some large-unit activity and command post exercises. The summer period is concerned with field training under simulated combat conditions starting at company and battalion levels and advancing to regimental level. In September and October, divisional, multidivisional, and Warsaw Pact maneuvers are held. Tactical units are rotated between their garrison stations and large field-training areas from time to time during the year. Emphasis is placed on communications and command post exercises, these being held at any season throughout the year.

⁴For current information see *Military Intelligence Summary and Order of Battle Summary, Foreign Ground Forces*, both published by the Defense Intelligence Agency.

GROUND FORCES



SERVICE UNIFORM



MARSHAL OF POLAND



GENERAL OF ARMS



GENERAL OF DIVISION



GENERAL OF BRIGADE



CAP INSIGNIA WORN BY ALL PERSONNEL



COLONEL



LT. COLONEL



MAJOR



CAPTAIN



LIEUTENANT



SUB-LIEUTENANT

NAVAL FORCES



SERVICE UNIFORM



ADMIRAL



VICE ADMIRAL



REAR ADMIRAL



COMMANDER



COMMANDER LT.



COMMANDER SUB-LIEUTENANT



CAPTAIN



LIEUTENANT



SUB-LIEUTENANT



CAP INSIGNIA

AIR FORCES



SERVICE UNIFORM



GENERAL OF ARMS



GENERAL OF DIVISION



GENERAL OF BRIGADE



COLLAR INSIGNIA WORN BY ALL PERSONNEL



CAP INSIGNIA WORN BY ALL PERSONNEL



COLONEL



LT. COLONEL



MAJOR



CAPTAIN



LIEUTENANT



SUB-LIEUTENANT

FIGURE 4. Officers' uniforms and insignia (U/OU)

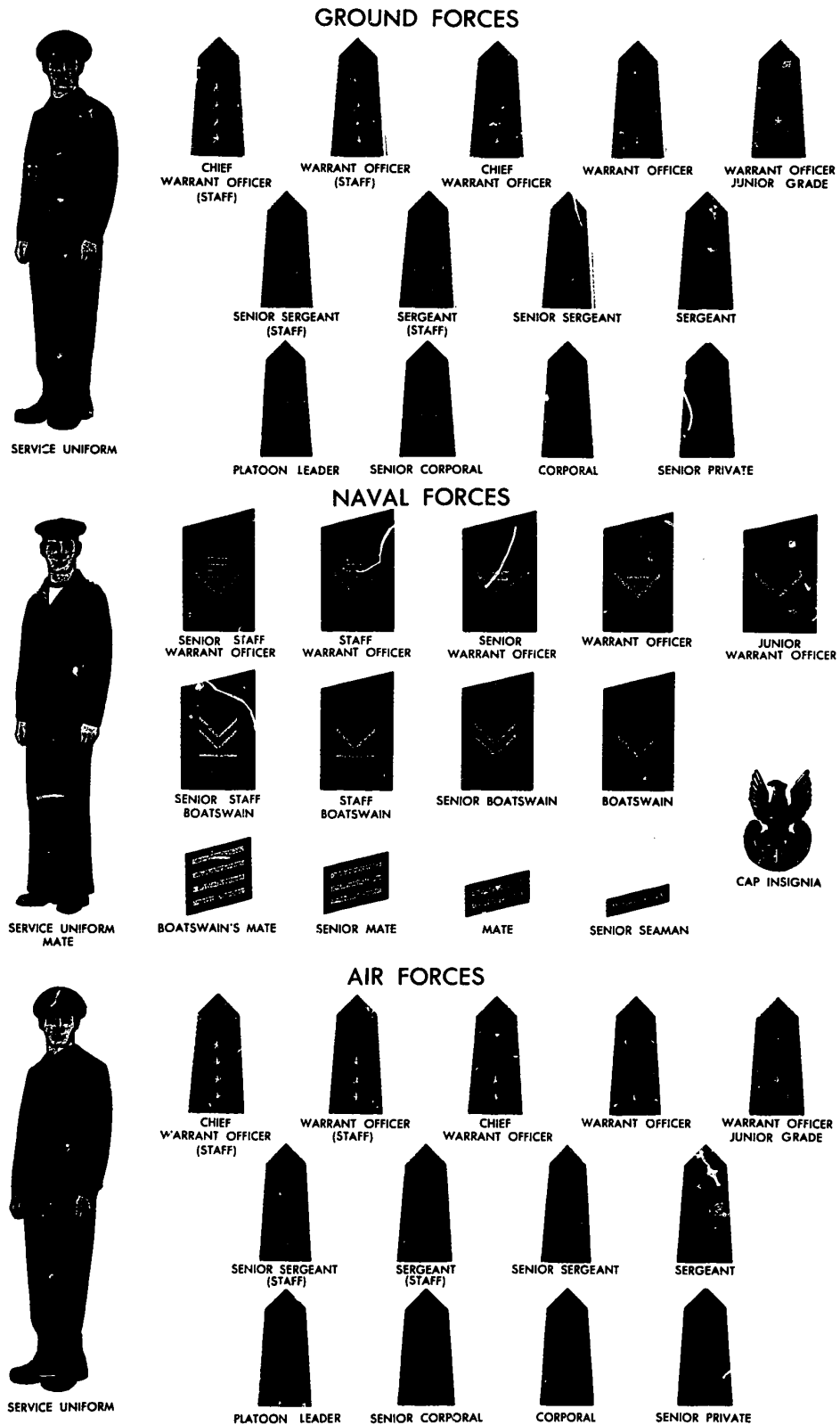


FIGURE 5. Warrant officers' and enlisted men's uniforms and insignia (U/OU)



FIGURE 6. Polish troops in a practice amphibious assault (U/OU)

The major training areas are located near the following towns:

Biedrusko	Kolobrzeg
Borne	Orzysz
Czarne	Sulecin
Drawsko Pomorskie	Torum
Goldap	Ustka

All but Goldap and Orzysz are in the northwestern quarter of the country. The ground forces school system includes training facilities for all arms and services and offers instruction at every level. The major components of line units maintain their own schools, in which politically reliable and promising candidates from the conscript ranks are trained as NCO's, technicians, and specialists. Outstanding men from the unit schools, as well as specially qualified civilians who volunteer, are sent to technical service schools and officer candidate schools. There are branch specialist and advanced courses for officers and Ministry of National Defense schools for senior officers who are to serve at higher combined-arms levels.

Reserve military service, obligatory to the age of 50, involves periodic refresher training, particularly for the younger men. There are no known Polish reserve units, but reservists are liable to be called to active duty periodically for 5-day mobilization exercises or for up to 3 months for training. Reservists are usually trained

in separate groups; those assigned to line units are usually placed in subunits specifically organized to train reservists.

4. Logistics

The ground forces materiel classification system generally parallels that of the Soviet Ground Forces, and thus the principle of command (as opposed to staff) control over logistic support is followed. The major categories of supply are General Supplies (ration, clothing and equipment, fuels and lubricants, medical and veterinary supplies, and transport vehicles); Ordnance (weapons and ammunition); Engineer; Signal and Communications; Chemical; and Armored (including tank and assault-gun armament, which are not counted under Ordnance).

In peacetime the Military District Chief of Quartermaster Service is responsible for logistic support of units within the military district. Supplies are issued from military district and Ministry of National Defense depots to the requisitioning units. Unit stocks are held at all tactical echelons down to battalion.

There is little direct evidence concerning planning for wartime supply and movement. The methods employed probably would be based on the Soviet principle of moving supplies forward from higher to lower units, from rear to front.

The ground forces employ basically the same maintenance system as the Soviet Ground Forces. Maintenance standards are adequate for peacetime requirements and are improving. Maintenance courses for all types of equipment are conducted for both officer and enlisted personnel. Command inspection and the increased emphasis placed on the individual care of equipment help to insure proper maintenance. In addition, the number of mobile ordnance repair facilities is being increased to meet the demand for rapid movement in modern warfare.

Current production of ground forces materiel includes a variety of arms and artillery, explosives, medium tanks, armored personnel carriers, general purpose medium trucks, artillery, signal and support equipment. Toxic chemical warfare agents are manufactured in quantities adequate to support research activity and some troop training. The U.S.S.R. has provided missiles, some types of artillery, light amphibious and heavy tanks, and various types of electronic equipment. Armored personnel carriers have been obtained from the U.S.S.R., Czechoslovakia, and Hungary. Small quantities of transport vehicles are received from East Germany. In a wartime situation, Poland could expand its industry to meet most army materiel requirements, with the exception of light amphibious tanks and heavy tanks, missiles, and various types of electronic equipment.

D. Naval forces (S)

The navy is the largest and best balanced in Eastern Europe. Current strength is adequate for the defense of eastern waters, but western patrol forces still fall short of requirements. Hence, reliance on the Soviet naval force at Swinoujscie probably will continue for another year or two. (The Soviet force is composed of destroyer escorts, large guided missile boats, submarine chasers, and fast patrol boats.) Inshore defense of the maritime frontier between Swinoujscie and the Gulf of Danzig is largely the function of Polish naval coast artillery batteries and a coast guard element of the Frontier Guard.

The greatest weakness of the navy is in antisubmarine warfare (ASW). However, improvements are being made. Also, the East German Navy is emphasizing ASW and, under the Warsaw Pact, is responsible for that function in the southwestern Baltic. The Polish Navy has a corresponding responsibility for amphibious assault. Both navies have minesweeping and missile/torpedo boat strike forces.

I. Organization

Overall responsibility for supervision of the naval forces is vested in the Commander of the Navy. His Deputy Commander for Political Matters oversees the political training and welfare elements of the navy. The Deputy Commander for Technical Matters oversees a wide range of technical and support functions within the navy. Administrative, supply, and service organizations that support the navy come under the Deputy Commander for Support Matters. The Deputy Commander for General Military Matters supervises the naval shore establishment and territorial defense elements. Operational planning, personnel administration, and combat training are controlled by the Chief of Main Navy Staff. Coordination of operations by naval afloat forces is the responsibility of the Deputy Commander for Operational Matters.

Naval afloat forces consist of the 8th and 9th Coast Defense Flotillas, the 3d Flotilla, and the 2d Landing Ship Brigade. The 8th and 9th Flotillas are each responsible for the protection of half of Poland's coastal waters. Both operate two minesweeper divisions and one destroyer type each, and the 9th Flotilla has a submarine chaser division. The 3d Flotilla operates ships with offensive capabilities, including a destroyer division, submarine division, and patrol boat brigade. The latter comprises all the navy's large guided missile and motor torpedo boats. The 2d Landing Ship Brigade, like the flotillas, is directly subordinate operationally to the Commander of the Navy. However, it is administratively controlled by the Commander of the Swinoujscie Garrison.

The navy coastal forces comprise those naval shore elements responsible for defense and security operations in coastal areas. These elements, all of which are under the supervision of the Deputy Commander for General Military Matters, would be subordinated to the Territorial Defense Forces in wartime. The largest single segment of these forces is the Coast Artillery Division, which controls 22 artillery batteries and six to eight coast defense missile batteries. The Navy Air and Air Defense Commands are responsible for the Naval Air Force and the 60th Navy Antiaircraft Artillery Regiment. The network of coastal warning stations of the Communications Service support both the Coast Artillery Division and the Navy Air and Air Defense Commands. The Navy Sapper Service, 6th Independent Navy Communications Regiment, and Internal Military Service, a military police organization, are also in the category of navy coastal forces.

The Maritime Frontier Guard is a small, quasi-naval organization roughly comparable to the U.S. Coast Guard. It cooperates closely with the regular navy and would be integrated with the navy in wartime. Administratively, the Maritime Frontier Guard is organized as elements of three Frontier Guard brigades. Operational control is largely handled by the navy, which also provides logistic support.

2. Strength, composition, and disposition⁵

The overall personnel strength of the naval forces is about 26,000. Of these, about 23,400 are regular navy, apportioned as follows:

Afloat	5,900
Staff and support	4,800
Coast artillery	2,000
Coast defense missiles	1,500
Naval air	1,500
Antiaircraft artillery	700
Observation and communications	2,000
Naval sappers	1,000
Naval police	1,500
Trainees	2,500

Of the men afloat, about 1,700 are based at Hel, 2,200 in the Gdynia-Oksywie area and 2,000 at Swinoujscie. Of those in staff and support, Gdynia-Oksywie has about 3,000 (including 500 at naval headquarters), Hel 400, Kolobrzeg 300, Swinoujscie 700, and Ustka 400. The Coastal Artillery Division, whose batteries are scattered along the coast at about 10 strategic sites, mans conventional artillery; grouped

⁵For detailed current information see *Military Intelligence Summary* and Volume II, *Defense Intelligence Order of Battle System—Naval Order of Battle*, both published by the Defense Intelligence Agency.

by broad areas, there are about 920 men in the vicinity of Gdynia, 270 near Hel, 420 near Kolobrzeg, 270 near Swinoujscie, and 120 near Ustka. The 1,500 men of the coast defense missile arm are believed to be about equally divided among the Gdynia, Kolobrzeg, Swinoujscie, and Ustka areas. The Naval Air Division is largely concentrated at Cewice, about 30 miles west of the Gdynia-Gdansk area. The 28th Sea Rescue Flight operates from Darlowko. The 60th Antiaircraft Artillery Regiment has about 460 personnel around Gdynia and 120 each at Hel and Ustka. The Observation and Communications Service personnel are distributed by broad areas as follows: Gdynia-Oksywie, 870; Hel, 100; Kolobrzeg, 200; Swinoujscie, 630; and Ustka, 200. About 500 naval sappers are located in the Oksywie area, with 200 at Hel, and 100 each at Kolobrzeg, Swinoujscie, and Ustka. There are 500 military police at Gdynia-Oksywie and 250 each at Hel, Kolobrzeg, Swinoujscie, and Ustka. There are about 900 trainees in the Gdynia area, 200 at Kolobrzeg, and 1,400 at Ustka.

The other 2,600 personnel in the naval forces comprise the Maritime Frontier Guard. They include 1,100 men afloat, 1,000 ashore support, 200 in aviation, and 300 trainees.

Naval ship strength consists of four destroyer types (including one SAM-armed), four submarines, one large and nine small submarine chasers, 12 large guided missile boats, 25 motor torpedo boats, 24 fleet minesweepers, 25 minesweeping boats, 23 medium landing ships (Figure 7), 15 personnel landing craft, 32 auxiliaries, and 114 service craft. The submarines, two destroyer types, the large guided missile boats, and the motor torpedo boats are based at Gdynia. One destroyer type, the submarine chasers, and about half of the minesweepers are stationed at Hel. The other destroyer type, the remaining minesweepers, and the

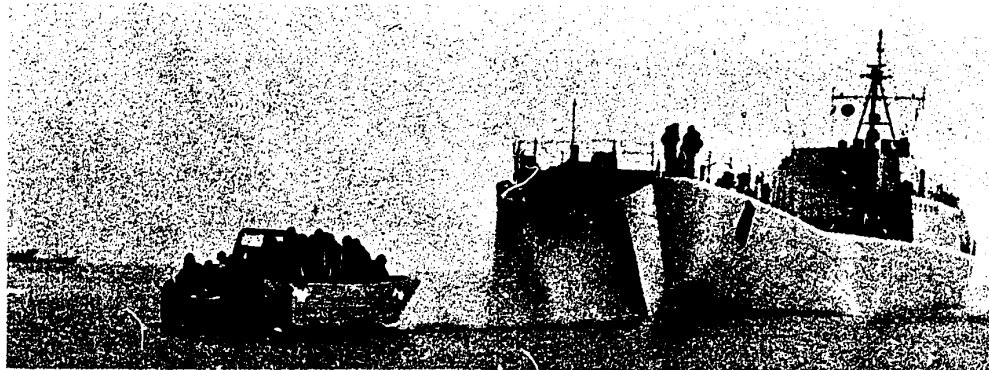


FIGURE 7. Polnocny class LSM. These ships are essential to Warsaw Pact amphibious capability in the Baltic. (U/OU)

amphibious ships and craft operate from Swinoujscie. Eighteen small submarine chasers, 36 patrol and 62 port security boats, and one service craft are operated by the Maritime Frontier Guard in close cooperation with the navy.

3. Training

Naval training is conducted under the general supervision of the Main Inspectorate of Training. Personnel receive essentially the same training as those in the Soviet Navy. Programs are well planned and well executed and are adequate for the needs of the service. Three months of basic training for all conscripts is carried out at Ustka. The most promising men remain at Ustka for further instruction at the Naval Specialist Training Center prior to assignments to ships. The remainder are assigned to shore billets, the specialty training for which is also carried out at the Ustka establishment. Enlisted men return periodically to the Ustka school or other petty officer schools for more advanced specialty training.

Two schools have been established at Ustka to qualify young men to enter the navy as noncommissioned officers without serving first as conscript recruits. One, the Navy Junior Commander School, is open to those who have completed 9 years of education. Those with 7 years of schooling are eligible for the Navy Professional Petty Officer School. Qualified conscripts and other naval enlisted personnel are also eligible for these schools. Graduation entitles one to status as a professional, rather than a temporary, petty officer. Another new school, the Navy Warrant Officer School, started operations in 1968 under the direction of the Higher Navy School at Okywie.

Officer cadet training is centralized at the Higher Navy School at Okywie, which provides a 50-month college-level course for line officers and a 56-month course for engineer officers. Short refresher courses for junior officers, both regular and reserve, are also given at this school. Advanced courses are given after hours by the Navy Center for Social and Military Science at Gdynia. Selected officers of all grades also attend advanced naval schools in the U.S.S.R., especially before receiving command at sea. Most important among these is the Order of Lenin Naval Academy in Leningrad, comparable to the U.S. Naval War College. Naval officers also attend appropriate joint armed forces academies in Poland when the level of need is insufficient to justify establishment of a separate naval facility.

4. Logistics

The Polish shipbuilding industry is capable of supplying small naval combatants, minesweepers, amphibious ships, auxiliaries, and service craft for the navy. Repair facilities are adequate for repairing all ships in the inventory. Naval construction in recent years has included the Polnocny class medium landing ship, the Obluze class small submarine chaser, the Moma class surveying ship, the Amur class submarine repair ship, and the Wisla class motor torpedo boat. Of these, the Polnocny, Moma, and Amur are built primarily for export to the U.S.S.R. Combatant construction has been accomplished at Gdansk North Shipyard and the Okywie naval base. Auxiliaries are built at Szczecin Shipyard and the Gdansk North Shipyard.

Naval repairs are carried out at all major ship repair yards and the Okywie naval base. All classes of ships are serviced, including submarines, minesweepers, and destroyers.

Polish shipyards are extremely versatile and, in the event of wartime mobilization, could adequately shift to naval construction and repair support. In addition, many of the commercial vessels built for domestic use are designed for conversion to troop and military supply transports and this could be effected at all major yards.

Most component parts for new vessels are domestically produced. The largest foreign supplier is the Soviet Union, which provides steel plate, armament, engines for landing craft, and some radar and navigational gear.

Most naval storage depots and repair facilities are located in the Gdynia area. Other stores are maintained at Hel and Swinoujscie.

5. Naval air arm

The naval air arm is a small, land-based force under the supervision of the Deputy Commander of the Navy for General Military Matters. It operates independently of the Polish Air Force but is dependent on the air force for the supply of aircraft, spare parts, equipment, and the training of personnel. Its overall function is to take part in naval operations; either independently of or in conjunction with the seaborne forces. Its wartime tasks may be reconnaissance, gunfire direction for ships and coastal artillery, minelaying, close support of amphibious operations, attack, and screening of ships. In the event of an air attack on Poland, it may also be used to supplement the national air defense forces, in which case control would pass to the national air defense commander.

However, its air defense and reconnaissance capabilities are small. Its peacetime mission is to secure coastal waters, prevent smuggling, and intercept unauthorized entries and exits.

The naval air arm has a personnel strength of 1,500 officers and enlisted men, of whom approximately 105 are pilots, and an inventory of 66 aircraft in operational units. These are organized into a fighter regiment equipped with FRESCO (MiG-17) and FACOT (MiG-15) aircraft and a reconnaissance unit equipped with BEAGLES (Il-28). Both units are stationed at Cewice. In addition, there is a helicopter squadron equipped with 10 HOUND (Mi-4) helicopters at Darlowko.

E. Air and air defense forces (S)

The air force is the largest of the East European Communist air forces. In air defense under the Warsaw Pact, the air force, together with the Czechoslovak and East German Air Forces, represents a formidable northern air barrier between the Soviet Union and Western Europe.

The air force has a dual mission—air defense of Poland's territorial boundaries and coastal waters and support of the ground forces. Aircraft have a good capability for intercepting and destroying intruders in clear weather. Training for all-weather intercept is good, and capability for this type of operation at medium to high altitudes is being steadily enhanced as more all-weather FISHBED (MiG-21) aircraft (Figure 8) are added to the inventory. Ground support capability is good. Jet fighter aircraft allocated to the ground support mission include FACOTS (MiG-15), FISHBEDS, and FITTERS (Su-7), and a large number of FRESCO (MiG-17) aircraft that have been modified to improve their capability for support of the ground forces. The preoperational training schedule has been reorganized to provide a higher caliber of pilot candidates for entrance into combat units. About half of the larger airfields are in the northwest quarter of the country.

Surface-to-air missile (SAM) forces are a major operational component of the Polish Home Territory Air Defense Troops. Along with fighter interceptors, antiaircraft artillery, and radar units, SAM forces make up an air defense corps which constitutes an air defense zone. There are three air defense zones in Poland, that are the principal operational echelons of the Polish air defense. SAM weapons (Figure 9) are assuming increasing importance in Polish air defense and are deployed for defense of targets of national importance.

1. Organization

In November 1967 the Minister of National Defense announced the formation of the Air Force Command with headquarters at Poznan. The new command assumed the responsibilities previously performed by the Main Air Force Inspector and the Tactical Aviation Command. The Air Force Command probably has the responsibility to support all air force operational units in training, administrative, and personnel matters. In addition, logistical, transportation, meteorological, and other support services are under the supervision of this command. The Air Force Command does not have operational authority over the Commander of the Home Air Defense Forces.

The air force is organized with operational responsibility divided between the Commander of Air Defense and the Commander of the Air Force Command. The Commander of Air Defense is subordinate to the Main Inspectorate of the National Territorial Defense, while the Commander of the Air Force Command is directly responsible to the Minister of National Defense.

The Air Defense Command is an integrated force of fighter aviation, surface-to-air missiles, antiaircraft artillery, and early warning and ground-controlled interception radar units. It has eight fighter regiments, eight SA-2 regiments (36 sites), and at least two SA-3 regiments (nine sites).

2. Strength, composition, and disposition⁶

Total personnel strength of the air force is 55,000 officers (including 1,500 pilots) and enlisted men. Included are personnel assigned to the combat regiments as well as to the transport and helicopter units.

Organizationally the air force is composed of a total of 19 combat regiments—eight in the Air Defense Command and 11 in the Air Force Command. These regiments are distributed strategically among airfields concentrated in the Baltic and western peripheral areas. In addition, the Soviet tactical air regiments are based in the extreme south-central and northwestern parts of the country and form an outer ring of defense against attack from the west. The air force has about

⁶For detailed current information see *European Communist Aircraft Order of Battle* and the *Military Intelligence Summary*, both published by the Defense Intelligence Agency. For information on selected airfields see the Transportation and Telecommunications chapter of this General Survey, as well as Volume 14, *Airfields and Seaplane Stations of the World*, published by the Aeronautical Chart and Information Center for the Defense Intelligence Agency.

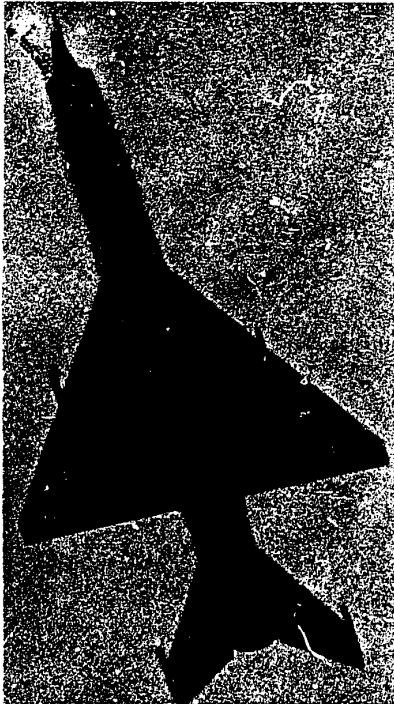


FIGURE 8. FISHBED fighter aircraft (C)

800 combat aircraft. Of these, approximately 270 are the obsolescent FRESKO aircraft, of which about 100 have probably been modified at Polish factories to increase their speed and range. The air force also has 40 BEAGLE (Il-28) aircraft which, though assigned as light bombers, also are used for reconnaissance. Modern equipment consists of nearly 370 FISHBED aircraft, all of which are all-weather versions. In recent years the air force has received 48 FISHBED H aircraft, which are being used in a reconnaissance role, and more than 50 FISHBED J aircraft used in both air defense and ground support roles.

Poland is divided into three air defense zones that in general coincide with the three military districts. Air defense zone headquarters are located near the military district headquarters at Bydgoszcz, Warsaw (Warsaw/Boernerowo Airfield), and Wroclaw. An air defense corps of two or three fighter regiments and two to three SAM regiments are assigned to each of the zones, each regiment being directly subordinated to its corps headquarters. The air defense early warning system has a sufficient number of new Soviet heavy radars to detect, track, and direct the interception of intruding aircraft.

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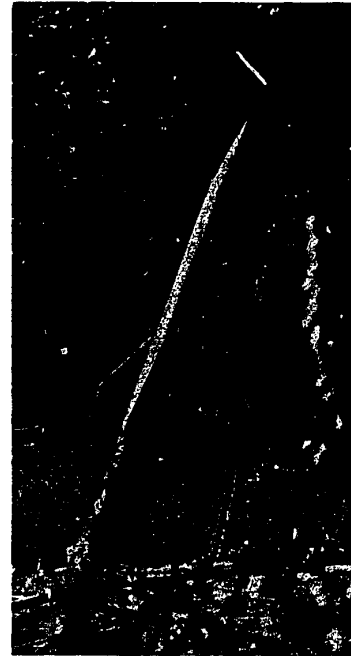


FIGURE 9. SA-2 surface-to-air missile (SAM) on launcher (S)

The tactical air units, which are now subordinated to the Air Force Command, have the function of providing air support to the ground forces. With headquarters at Poznan, this arm consists of three fighter interceptor regiments, five ground attack regiments, a light bomber regiment, two reconnaissance regiments, and three helicopter regiments.

The air transport inventory consists of 32 light and medium transport aircraft and HUP (Mi-8) helicopters, all directly under the Ministry of National Defense. These aircraft serve for general-purpose transport and liaison in support of the Polish military forces. Four CUB (An-12) turboprop transports and five COKE (AN-24) make possible realistic paratroop training operations and afford a small airlift capability for the Polish Sixth Airborne Division. However, the Polish forces remain dependent upon the Soviets for large-scale airlift of paratroops and equipment.

There are a minimum of eight SA-2 SAM regiments consisting of about 36 battalions, and at least two SA-3 regiments of about nine battalions. These units are deployed to defend important cities, industrial complexes, and form a barrier along the Baltic coast. Defenses are provided for the cities of Gdansk, Poznan, Szczecin, Warsaw, and the Chorzow-Katowice industrial complex. The SAM sites along the

Baltic coast form a defensive barrier from the East German border eastward to the Soviet border.

In addition to the Polish SAM defenses, there are three Soviet SA-2 battalions and nine Soviet SA-3 battalions located in Poland. The Soviet SAM units are elements of the Northern Group of Forces; the SA-2 is used for defense of Soviet field forces and the SA-3 used for defense of Soviet tactical airfields.

3. Training

a. Aviation

The air training system is based upon the policies and doctrines of the U.S.S.R., although tailored to Polish needs. The system consists of two training phases—informal premilitary training followed by formal military training at any of three Polish military aviation schools. Initial premilitary training for those aspiring to become pilot and navigator candidates is available to aviation clubs in many cities throughout the country and conforms to the Aviation Premilitary Training Program. This program has two stages, first gliders and then powered aircraft. Training is available for those 16 to 18 years old and is conducted during the summer vacation months. After premilitary aviation training, officer candidates enter one of the new 4-year officer aviation schools. (There are indications that not all schools are participating in the 4-year program at this time.) The 4-year officer aviation school is a new level of training that began with the 1967-68 academic year. Prior to this, the school program was 3 years. The purpose of this change is to raise the academic qualifications of future officers to the equivalent of a higher education. The length of the academic program of most officer schools was raised to 4 years, and the schools were granted the right to award the title of engineer in a definite specialty.

There are three career officers schools—at Deblin, Olesnica, and Jelenia Gora. To qualify for admission, one must be a Polish citizen, 17 to 23 years of age, unmarried, a graduate of a secondary school, have passed an examination in mathematics as well as physical and psychological examinations, and have been found to be politically and morally acceptable. The Jan Krasicki Officers Air Force School, at Deblin, trains officer pilots and navigators. The curriculum includes aircraft design, theory of flight, engine instruction, navigation, simulated flying in Link trainers, instrument instruction, and flight training in jets, as well as military and social theory.

The General Walery Wroblewski Technical Officers Air Force School, at Olesnica, trains cadets in four

technical specialties: aircraft maintenance (airframes and engines), aircraft weapons, equipment, and radiotechnical installations. Graduates are appointed to positions of technicians in operational units or are assigned as instructors in military schools.

The Captain Sylvester Bartoski Officers School of Radiotechnicians is located at Jelenia Gora. This joint-services school offers technical instruction in radar operations. Also, courses in radiotechnology and artillery are taught with emphasis on their operation.

The first year of flight training includes about 40 hours of actual flying time in a conventional trainer and covers basic flight patterns and formation flights plus some Link trainer experience. During the second year of training the cadet receives about 50 hours of flight training and during the third year about 60 hours, all aimed mainly at improving pilot techniques during daylight and good weather conditions. Final examinations are held several months after the end of the third year of training. Successful candidates are then commissioned as second lieutenants and assigned to operational units.

The final phase of pilot training is in a frontline regiment. Following the Soviet practice, the third squadron of all Polish regiments is a training squadron, and it is within this unit that the newly qualified pilot gains experience in his aircraft. The Polish aviation training center at Modlin gives advanced flying for prospective squadron and regimental commanders, navigation training, and transition training for FISHBED-type aircraft.

In addition to normal squadron training, mobility and local air defense exercises are held regularly. In these exercises units deploy to and operate from auxiliary airfields, some of which are temporary grass fields. Air defense units are given a limited amount of ground-support training, and tactical units conduct air defense training. The air force also takes part in Warsaw Pact exercises that involve deployment of units to Czechoslovakia and East Germany. Many exercises also require the air force units to operate from bases occupied by the Soviet 24th (Germany) and 37th (Poland) Tactical Air Armies.

Because of severe economy measures, fighter pilots average only 8 to 10 hours of flying per month, and bomber pilots receive only slightly more. Such limitations would normally have an adverse effect on the overall capability of the air force as a fighting force. However, the preflight briefing and postflight debriefing that is a prerequisite for all flights is intensive and may partially compensate for this limited flying experience. The operational units maintain a respectable fighting capability.

b. Surface-to-air missile

The surface-to-air missile training program is based on Soviet policies and doctrine with some tailoring to fit Polish needs. Soviet manuals and training equipment are used in the Polish training schools. In addition, selected officers probably receive advanced technical training in the Soviet Union.

In Poland, there are two SAM schools, one at Drygaly and one at Torun. The school at Drygaly provides basic and specialized training for both officers and enlisted personnel; the Torun school offers advanced training for officers only.

The SA-2 Systems and Electronic School, at Drygaly, provides basic courses covering all phases of missile handling, electronics, and maintenance. Students are admitted only on successful completion of an aptitude test embracing the fields of engineering, politics, and science. The length of the basic course is 6 months. Also, there are three advanced courses, each 1 year in length, designed for career military personnel. One is for long-term enlistees, the second for career noncommissioned officers, and the third for officers. The officers' course consists of a basic familiarization phase, followed by intensive training in officer specialties, such as launch officer. On completion of the basic or advanced courses, students are assigned to operational units.

The Jozef Bem Rocket Troops and Artillery Higher Officers School, in Torun, provides training in command and direction of fire for rocket troops and ground artillery subunits, plus the conduct of artillery reconnaissance. Graduates of this school receive the Rocket Troop and Ground Artillery Engineer's diploma. The length of the course is 3 years.

Basic and specialist training for the majority of conscripts is conducted in the operational units.

SAM training exercises and alerts are conducted to increase the readiness posture of the SAM battalion and serve as an indicator of the operational areas that need improvement.

Training exercises are conducted on the battalion (firing site) and regimental or national levels, and they are often conducted in coordination with other air defense elements. Mobility training is an important part of unit training. Polish SAM units regularly participate in Warsaw Pact exercises, and they are believed to participate in combined exercises with SAM units of the Soviet Northern Group of Forces. Live-fire training is probably conducted at Ashuluk in the U.S.S.R., with the unit spending from 3 to 4 weeks at the firing range.

4. Logistics

a. Aircraft

The logistic system which supports the Polish Air Force is patterned after that of the Soviet Air Forces. The Chief Quartermaster of the Army is the Polish equivalent of the Soviet Chief of the Rear. The Chief Quartermaster has the responsibility of coordinating the logistic functions of all the armed forces, supervising the technical agencies responsible for executing them, and procuring and distributing common-use supplies. Logistical elements of the Air Force Command and the Home Air Defense Command distribute aviation supplies and equipment, administer intermediate supply depots, and are responsible for providing the support required for flight training and maintaining a high state of combat readiness.

Logistic functions are performed for the air regiments by air base support battalions stationed at operational airfields. These units provide housekeeping services and supply support for the regiments. Common-use supplies peculiar to the air units are obtained from air force depots. The principal sources of aviation technical supplies are the depots at Warsaw and Swidnica. Numerous off-base POL and ammunition depots subordinate to the air force are located throughout the country.

As in the Soviet system, aircraft maintenance and repair functions are under the Chief Engineer of the Aviation Engineering Service. A counterpart of the Chief Engineer is found at all operating levels down through the air regiment. Aircraft maintenance is divided into two main categories—field maintenance and depot-level maintenance. Field maintenance consists of basic aircraft maintenance and servicing (preflight and 25-hour periodic inspections) performed by squadron personnel, and lengthy 50-hour and 100-hour periodic inspections performed by regimental maintenance personnel. Depot-level maintenance, consisting of complete overhauls and major repairs, is accomplished at aircraft repair bases.

The major Polish repair facility for jet aircraft is located at Bydgoszcz airfield, with other facilities at Warsaw/Boernerowo and, possibly, at Deblin/Irena and Polska Nowa Wies airfields. Helicopters are repaired and possibly overhauled at the Lodz/Lublinek airfield and Lublin airframe plant at Swidnik. Transport aircraft are reportedly overhauled at the Polskie Linie Lotnicze (LOT) repair facility at Warsaw/Okecie airfield. Available information does not reveal the capabilities of these facilities. Major overhauls, particularly for the newest and more

advanced fighter and transport aircraft, may have to be accomplished in the Soviet Union.

Poland has a moderate-size aircraft industry that is currently producing medium helicopters, small transports, and utility aircraft. In the past the industry has produced Soviet-designed FRESCO (MiG-17) fighters, and they have sought approval to manufacture the FISHBED (MiG-21) but were refused by the Soviets. The aircraft industry is still producing replacement engines and spare parts for the older aircraft. There are three airframe plants, two aircraft engine plants, and one aircraft research and development facility of significance. As the air force continues to re-equip with new Soviet-built aircraft, dependence upon the Soviets for replacement engines and spare parts will increase progressively.

b. Surface-to-air missiles

The organization for surface-to-air missile logistics is dependent upon Soviet concepts and assistance for effective operation. Replacement components for the Soviet-produced SA-2 system are obtained from the Soviet Union. However, some of the general-purpose vehicles and equipment are probably manufactured in Poland.

The basic logistic unit is the SAM support facility, a battalion-size unit that is generally located with each SAM regiment headquarters. A support facility receives and stores component parts; performs missile assembly, fueling, and checkout procedures; and delivers missiles for as many as six SA-2 sites. On-site logistic activities appear limited to routine supply, maintenance, and testing procedures.

There is no known SAM depot in Poland. SAM resupply items or complete components may be shipped directly from the U.S.S.R. through air and air defense command depots to the SAM support facilities.

F. Militarized security forces (S)

The Internal Defense Forces, the Frontier Guard, and the Territorial Defense Forces, constitute the militarized security forces. The Internal Defense Forces and the Frontier Guard were transferred from the Ministry of Internal Affairs to the Ministry of National Defense in 1965. In 1971, however, the Frontier Guard was resubordinated to the Ministry of Internal Affairs and probably would revert to the Ministry of National Defense control only in time of war.

Under the new National Territorial Defense system, the militarized security forces have become primarily responsible for providing ground forces for the internal defense of the country to include defense against enemy action on Polish territory and internal subversion, protection of borders and lines of communication, and assistance in the neutralization of enemy nuclear strikes in the country.

1. Internal Defense Forces

The Internal Defense Forces (WOW) have about 25,000 men. This force is organized into two brigades and 15 regiments and is deployed throughout the country. Generally there is one brigade or regiment in each province, with the headquarters usually at the provincial capital. The units are deployed near government installations and other sensitive points. Initially equipped mainly with infantry weapons, these units are receiving armored personnel carriers and medium tanks, and since their resubordination to the Ministry of National Defense have been notably active in military field training exercises related to their territorial defense mission.

2. Frontier Guard

The Frontier Guard (WOP) totals 20,000 troops, plus a 2,600-man coast guard element included under navy strength. The guard is organized into 12 brigades. Although units are stationed along the entire perimeter of the country, they are concentrated along the shores of the Baltic and in the western border regions. Headquarters elements of the brigades are usually located in cities several miles from the border and near the center of the unit's area of jurisdiction. The Frontier Guard is equipped mainly with infantry weapons but also operates a small number of aircraft and helicopters in its border surveillance.

3. Territorial Defense Forces

The Territorial Defense Forces (OT) total 28,500 men, organized into 19 regiments. One regiment is assigned in each provincial capital, with an additional regiment in both Lodz and Warsaw. These units are oriented toward civil construction projects during peacetime, and they would assume local and civil defense roles in wartime. They are more lightly armed than the Internal Defense Forces and the Frontier Guard, generally have only light infantry weapons, and receive less military training.

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Places and features referred to in this chapter (u/ou)

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