

Force Projection on the Periphery

The Soviet armed forces have exercised their “external function” mainly on the periphery of the Soviet Union. They occupied eastern Poland in 1939 and annexed Estonia, Latvia, and Lithuania in 1940 (see Prelude to War, ch. 2). Subsequently, during World War II they “liberated” Eastern Europe from German rule and then incorporated it into a bloc of socialist states (see Appendix C).

The Soviet Union managed to turn these territories into an outpost of socialism, as well as into a defensive buffer against an invasion from the West. This buffer became increasingly valuable to the Soviet Union both as an extension of Soviet air defenses to the end of the Soviet defense perimeter and as a potential springboard for an offensive against NATO.

In 1956 the Soviet Union set a precedent for military intervention “in defense of socialism” when it suppressed the uprising that threatened communist rule in Hungary. In August 1968, the Soviet Union again intervened militarily in Eastern Europe when it invaded Czechoslovakia in response to the Czechoslovak reform movement begun in the spring. The invasion later was justified on the basis of the doctrine of “limited sovereignty” of socialist states. Also known as the Brezhnev Doctrine, the doctrine was first enunciated on September 21, 1968, in a *Pravda* editorial, to justify the invasion. Because Czechoslovakia and Hungary lie on the Soviet defense perimeter, national security considerations, in addition to ideological and political concerns, undoubtedly played a part in the Soviet decision to intervene.

The December 1979 invasion of Afghanistan was another case in which doctrinal concerns and interests of state security coalesced (see Asia, ch. 10). Although nominally nonaligned, Afghanistan was, according to Soviet arguments, well on its way to socialism in 1979, and a reversal was unacceptable to the Soviet Union. In addition, because Afghanistan borders the Soviet Union, Soviet leaders sought to prevent it from aligning itself with the West or from becoming an Islamic republic allied to Ayatollah Sayyid Ruhollah Musavi Khomeini’s Iran. The invasion, although “correct” according to Soviet ideological criteria, plunged the Soviet Union into one of the longest local wars (see Glossary) it had ever fought, second only to the 1939–40 Soviet-Finnish War, in which over 100,000 Soviet troops died. In 1988 the Soviet leadership declared that it would negotiate a troop withdrawal from Afghanistan and seek a political settlement. On April 14, 1988, Soviet foreign minister Eduard A. Shevardnadze signed an agreement in Geneva providing for the withdrawal of Soviet troops from Afghanistan by February 15, 1989.



*Missile cruiser Slava
Courtesy United States Navy*

The invasion of Afghanistan tarnished the Soviet image abroad, where the invasion was perceived and condemned as an act of aggression. Some Western analysts regarded it as an unprecedented extension of the Brezhnev Doctrine of “socialist internationalism” to a country that was nonaligned and thus not part of the world socialist system (see Glossary). A majority vote in the United Nations (UN) censured the invasion as a flagrant intervention in the internal affairs of a sovereign state. Soviet leaders hoped that the 1988 Geneva agreement, which stipulated a unilateral withdrawal of Soviet forces, would placate world opinion and repair the political damage done by the war.

The only benefit that the Soviet Union appeared to have derived from the war in Afghanistan was the use of Afghan territory to train Soviet troops to fight in mountainous terrain and to test Soviet weapons. However, Soviet concepts of offense and combined arms, and Soviet troops and weapons, fared poorly in the difficult mountain terrain. Tanks were of little use in ground combat in narrow mountain passes. The Soviet military learned that helicopters were of greater importance in the mountains because helicopters could carry out air attacks and could land troops on enemy territory. The Soviet military also found that the enemy’s surface-to-air missiles posed a grave threat to attacking Soviet aircraft. Thus, the Soviet

Union probably decided to withdraw from Afghanistan not only for political but also for military reasons.

Military Presence in the Third World

The Soviet Union has sought to restructure international relations and to achieve a world socialist system largely through political influence; however, it has not reneged on the promise of military aid for revolutionary movements in the Third World under the principle of "proletarian internationalism" (see Glossary). Soviet leaders reaffirmed this principle in the 1986 party program (see Glossary) of the CPSU. Yet the Soviet Union has also sought to advance Soviet state interests by gaining a military foothold in strategically important areas of the Third World.

Because of the dual and often contradictory nature of Soviet objectives in the Third World, the Soviet military has had successes and failures in its dealings with it. Two large-scale, successful Soviet-supported interventions took place, in Angola in 1975 and in Ethiopia in 1977. In both places the Soviet Union provided arms and military advisers and used Cuban troops to help pro-Soviet elements consolidate power. By contrast, in 1976 the Soviet Union suffered a reversal in Egypt where, after years of massive military assistance, the Egyptian government asked Soviet advisers to leave, canceled access for the Soviet Naval Forces, and abrogated the Treaty of Friendship and Cooperation with the Soviet Union. Similarly, Somalia, once the most important Soviet client in sub-Saharan Africa, abrogated its friendship treaty in 1977 because of the Soviet tilt toward Ethiopia and denied use of naval facilities at Berbera to the Soviet Naval Forces. In the 1980s, combating "counterrevolution" in the Third World was not an unqualified success for the Soviet military, which, for political reasons, had shunned direct intervention in countries far from Soviet borders. In the 1980s, Soviet military aid to allied regimes in Nicaragua, Angola, Mozambique, and Cambodia was unable to rid these beleaguered Marxist regimes of "counterrevolutionary" resistance forces.

The Soviet Union has long been the world's major supplier of military advisory assistance. According to the United States government, in 1986 about 21,000 Soviet and East European military advisers (most of whom were Soviet advisers) were stationed in Third World countries, including about 8,000 in Africa, almost 6,000 in the Middle East, and about 3,000 in Afghanistan. The Soviet Union has also used military "proxies," or allied forces, to substitute for or buttress Soviet military advisers serving in Third World countries. Advisers and combatants from Cuba, Vietnam, the Democratic People's Republic of Korea (North Korea), the People's

Democratic Republic of Yemen (South Yemen), and Eastern Europe—particularly the German Democratic Republic (East Germany) and Bulgaria—have been used in various Third World countries, such as Ethiopia, Angola, and Mozambique.

Despite ideological setbacks, the Soviet Union has derived considerable military-strategic advantage by establishing bases and naval access in the Third World. In the 1980s, facilities were available to the Soviet Union at Cam Ranh Bay in Vietnam, Aden and the island of Socotra in South Yemen, Massawa and the island of Dahlak in Ethiopia, Luanda in Angola, and Maputo in Mozambique. Part of a worldwide Soviet military support structure, such installations increased Soviet influence in the Third World. American analyst Alex Alexiev has argued that Soviet arms deliveries to certain countries have actually been attempts to pre-position war matériel in case of global war. Alexiev believed such pre-positioning to have taken place in Libya, where Soviet deliveries increased the number of tanks and armored personnel carriers from 175 in 1971 to 4,400 in 1983. Similarly, South Yemen had 50 tanks and no armored personnel carriers in 1975, while in 1982, after Soviet shipments, it had 450 modern tanks and 300 armored personnel carriers.

In 1989 Soviet global military initiative appeared to be on hold. On the one hand, Gorbachev declared his “solidarity with the forces of national liberation and social emancipation” throughout the globe. On the other hand, his “new thinking” in foreign and military policy deemphasized “military-technical solutions” to the world’s problems and seemed to promise fewer Soviet military forays into the Third World and less interference in the internal affairs of socialist allies. Many Western observers believed that Gorbachev wanted to replace emphasis on Soviet military power with an approach that combined economic, political, and military instruments of power.

Arms Control and Military Objectives

Since the late 1960s, the Soviet Union has made arms control an important component of its foreign and military policy. Soviet public diplomacy liberally used arms control and disarmament slogans. Arms control proposals and signed agreements, however, have been carefully coordinated with doctrinal requirements and weapons programs.

Soviet objectives in all areas of arms control—strategic, space, intermediate-range nuclear, and conventional weapons—have been, first, to help avert a world war, and, second, to prevent the erosion of Soviet capability for fighting such a war. If efforts to avert war were to fail, Soviet leaders required that their armed forces

be able to fulfill military missions and win all military conflicts. War was to be avoided by entering into agreements that would limit an adversary's weapons and forestall the adversary's development of a war-winning military posture. Capability for fighting and winning a war was to be continued by acquiring the necessary arsenal within the constraints of an agreement and by maintaining it against all odds.

Strategic Arms Control

Strategic arms control imposes limitations or stipulates reductions in the numbers of Soviet and United States intercontinental nuclear weapons that are capable of reaching each other's homelands. Weapons limited have included ICBMs, SLBMs, bombers armed with nuclear bombs and cruise missiles, and antiballistic missile systems. Motivated by its desire to avert a nuclear war and to be prepared to fight one, the Soviet Union has sought strategic arms control agreements that would limit United States nuclear capabilities for intercontinental attack but would permit the Soviet Union to amass a strategic arsenal for fighting and winning a nuclear war.

Averting a World War

According to the worst-case scenario, still accepted by Soviet planners in 1989, a world nuclear war could start with a disarming first strike on the Soviet Union's strategic nuclear weapons and on its strategic command and control centers (see Military Art, this ch.). An arms control agreement that is advantageous to the Soviet Union would help deter such a calamity by constraining the strategic forces of the United States and denying it the weapons needed to execute a strategic attack with impunity.

Before agreeing to limit its strategic forces, the Soviet Union wanted at least numerical equality with the United States. When arms control was first discussed in the early 1960s, under no circumstances were Soviet leaders willing to settle for a "minimum deterrent." For example, when President Lyndon B. Johnson proposed in January 1964 to freeze both Soviet and United States strategic missiles at existing levels, the Soviet Union refused because the "freeze" would have codified their strategic inferiority. Yet in 1969, after the Soviet Union began to deploy the third generation of ICBMs (the SS-9, SS-11, and SS-13) and was developing the fourth generation (the SS-17, SS-18, and SS-19), it agreed to hold the Strategic Arms Limitation Talks (SALT—see Glossary) with the United States. In 1972 the negotiations resulted in the signing of the Anti-Ballistic Missile Treaty (ABM Treaty) and of

the Interim Agreement on the Limitation of Strategic Offensive Arms. Essentially, both agreements froze the deployment of strategic defensive and offensive armaments.

Because the Soviet Union wanted to continue the buildup of its strategic offensive forces, it accepted the offensive arms limitation grudgingly. Its main motive in signing the agreements resulting from the first series of SALT negotiations, known as SALT I, was to prevent the United States from deploying an effective defense against ballistic missiles. The Soviet Union clearly preferred a vulnerable adversary that would be deterred from striking by the prospect of massive Soviet retaliation on the adversary's unprotected weapons, economy, and population.

Retaining a Capability to Fight and to Win

In addition to deterring a nuclear world war, Soviet strategic forces were expected to fight it and to win it. SALT I was acceptable to the Soviet military not only because it made war less likely but also because the Soviet military would have the capability to carry out its intercontinental strike mission even in a worst-case scenario. By limiting defensive systems to one installation in each country, the ABM Treaty guaranteed that Soviet missiles could successfully penetrate United States airspace.

Because SALT I limited the number of ballistic missile launchers but not the number of warheads, the Soviet Union was able to increase its intercontinental missile arsenal. It used new technologies to equip its land- and sea-based strategic missiles with several warheads, known as multiple independently targetable reentry vehicles (MIRVs). The Soviet military also greatly improved the accuracies of its missiles, especially the SS-18 and SS-19 ICBMs.

In 1979, when President Jimmy Carter and General Secretary Leonid Brezhnev signed the second SALT agreement in Vienna, the Soviet Union had 5,000 warheads on its strategic missiles, an increase of 2,500 since 1972. By 1986 the number of Soviet strategic warheads exceeded 10,000. Thus neither of the SALT agreements significantly constrained Soviet nuclear modernization and the growth of the Soviet arsenal, whose ultimate aim was to hold at risk the vulnerable United States force of land-based Minuteman III missiles.

Soviet leaders objected to United States proposals in the Strategic Arms Reduction Talks (START), a new round of talks to reduce nuclear arsenals, that began in June 1982, because, if accepted, such proposals would have cut in half the number of Soviet ICBMs, their principal war-fighting component. In the mid-1980s, when it began deploying the fifth generation of ICBMs (the mobile

SS-24 and SS-25 missiles, to assume part of the SS-18 mission), the Soviet Union began to show interest in reducing the number of its heavy SS-18 missiles. Since their deployment in 1974, the United States had viewed the SS-18s as the most threatening and destabilizing component of the Soviet arsenal. In 1989 the Soviet leaders continued to link reduction of the SS-18s to severe restrictions on the testing of SDI. First unveiled by President Ronald W. Reagan in March 1983, SDI promised to yield advanced technologies for a North American antimissile shield. Should SDI prove feasible, it could render Soviet nuclear weapons impotent and obsolete, according to some Western specialists.

This prospect alarmed the Soviet military because such a shield could prevent it from attaining its two most important military objectives: avoiding wars and being prepared to fight them. In 1989 the Soviet Union appeared willing to agree to deep cuts in its offensive weapons in order to derail SDI or at least to force the United States to ban SDI-related tests in space for a minimum of ten years.

Objectives in Space

Soviet interest in space, both for peaceful and for military use, has been intense since the 1950s. During talks on limiting the military use of space, Soviet negotiators have tried to block development of defensive and offensive United States space systems. At the same time, the Soviet Union has conducted extensive research in military space-based technologies.

Negotiations

Attempts to limit the military use of space began soon after the Soviet Union rejected President Dwight D. Eisenhower's 1958 proposal to prohibit all military activity in space. The rejection was understandable because the Soviet Union had just launched the first artificial earth satellite, Sputnik, and was interested in deploying military reconnaissance satellites. In 1963, however, the Soviet Union signed the Limited Test Ban Treaty with the United States and Britain, prohibiting the explosion of nuclear weapons in the atmosphere, and in 1967 it became party to the Outer Space Treaty, which banned the deployment of nuclear weapons in earth orbit and on celestial bodies.

In March 1977, President Carter, concerned about Soviet resumption of antisatellite tests, called for talks about banning anti-satellite (ASAT) weapons. Although the United States pressed for a comprehensive ban on such systems, the Soviet Union was unwilling to dismantle its operational ASAT in view of the heavy and still growing United States dependence on reconnaissance satellites.

After three rounds of negotiations, the talks were suspended in December 1979 after the Soviet Union invaded Afghanistan.

In international and bilateral forums, the Soviet Union tried to derail advanced space defense plans. In 1981, 1983, and 1984, the Soviet Union, anxious to prevent deployment of a United States ballistic missile defense system in space, submitted three separate draft treaties to the United Nations. Each treaty proposed to ban weapons stationed in orbit and intended to strike targets on earth, in the air, and in space. The treaties would have blocked the development of a space-based ABM system and precluded military use of vehicles like the space shuttle. In March 1985, bilateral talks on space and space weapons limitations between the United States and the Soviet Union opened in Geneva. In early 1989, the Soviet Union had not achieved its principal objective in the talks—to derail SDI.

Soviet Space Weapons Development

Since the Sputnik launch in 1957, the military potential of space has fascinated Soviet leaders. The 1962 and 1963 editions of Sokolovskii's *Military Strategy* advocated development of a military capability in space. In the late 1960s, the Soviet Union developed the fractional orbital bombardment system (FOBS)—a nuclear-armed space weapon with a depressed trajectory. The 1967 Outer Space Treaty neutralized the FOBS threat, but the Soviet Union retained an interest in undertaking offensive missions in space as part of its combined arms concept. In 1971 it acquired a ground-based orbital ASAT interceptor, the stated purpose of which was defensive but which could also attack satellites in near-earth orbit. The Soviet Union developed a variety of satellites that in 1989 were capable of reconnaissance, missile-launch detection, attack warning, command and control, and antisatellite functions. The Soviet Union also had impressive manned space programs with military implications, mostly aboard the Saliut and Mir space stations. In addition, by 1989 the Soviet Union had explored advanced space weapons, both defensive and offensive, using lasers, particle beams, radio frequencies, and kinetic energy. Although Soviet negotiators at the Geneva space talks portrayed Soviet space efforts as peaceful, in the late 1980s Soviet scientists and military strategists continued to study space in their search for new weapons and military options.

Intermediate-Range Nuclear Forces Arms Control

Intermediate-range nuclear forces (INF) are nuclear weapons systems with ranges between 500 and 5,500 kilometers. They could

be used in a theater operation either at the outset of hostilities or after nuclear escalation on the battlefield. INF arms control became a Soviet concern in the 1980s, when United States nuclear missiles were deployed in Western Europe to offset new Soviet INF deployments on Soviet territory. Although the 1987 Intermediate-Range Nuclear Forces Treaty (INF Treaty) led to the dismantling of the most threatening, longer-range INF missiles, capable of hitting Soviet territory, Soviet strategists viewed complete denuclearization of Europe as the most desirable end of INF arms control.

Threat Reduction

Since the 1950s, the Soviet Union has viewed United States nuclear weapons deployed in Europe and capable of striking the Soviet Union as being particularly threatening. The Soviet military first formulated its preemptive nuclear strategy in the 1950s to neutralize the threat of United States strategic bombers armed with nuclear weapons and stationed in Europe. In 1979 NATO decided to offset Soviet deployments of the new intermediate-range SS-20 missiles by deploying new United States nuclear systems in Western Europe. These systems—108 Pershing II missiles and 464 ground-launched cruise missiles (GLCMs)—could reach Soviet territory. The Soviet military regarded both systems as a grave threat because of their high accuracy and because of the Pershing II's short flying time (under ten minutes). The Soviet Union asserted that both the Pershing IIs and the hard-to-detect GLCMs could make a surprise strike against the Soviet Union.

The Soviet Union tried both antinuclear propaganda and negotiations to forestall the NATO deployments. Formal negotiations began in November 1981, at which time the United States proposed the "global zero option," banning or eliminating all United States and Soviet longer-range intermediate nuclear forces (LRINF), including Soviet SS-4s, SS-5s, and SS-20s, and the United States Pershing IIs and GLCMs. The Soviet Union rejected the "global zero option" and insisted on including the British and French nuclear components in INF reductions.

In October 1986, at the Reykjavik Summit, the Soviet Union ceased insisting on including British and French weapons in an INF agreement. Nevertheless, it attempted to link an INF agreement to strategic arms reductions and to the renunciation of SDI. Only after Soviet negotiators abandoned all linkages and agreed to destroy all Soviet longer-range and shorter-range INF in Europe and Asia and to permit on-site inspection were they able to achieve their goal: the eventual removal of the Pershing IIs and GLCMs that are capable of reaching Soviet territory.

The INF Treaty, signed on December 8, 1987, in Washington by President Reagan and General Secretary Gorbachev, stipulated that each party would eliminate all of its intermediate-range missiles and their launchers. These missiles included Soviet SS-4, SS-5, SS-20 longer-range INF (with ranges between 1,000 and 5,500 kilometers), and SS-12 and SS-23 shorter-range missiles (with ranges between 500 and 1,000 kilometers). The treaty called for the destruction of about 2,700 United States and Soviet missiles.

Denuclearization of Europe

Since the 1950s, Soviet leaders have sought complete removal of nuclear weapons from Western Europe. Stripping Europe of nuclear weapons not only would reduce the nuclear threat on the Soviet periphery but also would make easier a Soviet conventional offensive in Europe. In 1988, even before the INF agreement had been ratified by the United States Senate, Soviet spokesmen were advocating removal of all nuclear weapons from Europe. They especially focused on NATO's tactical nuclear weapons arsenal, deployed mainly in the Federal Republic of Germany (West Germany).

In late 1987, Foreign Minister Shevardnadze asserted that on INF agreement was a step toward denuclearization and that its signing proved that "the Soviet Union and the United States have finally spoken together the first word in a nuclear-free vocabulary." Soviet and Soviet-sponsored denuclearization initiatives in Europe have included several proposals for a nuclear-weapon-free corridor in Central Europe (submitted between 1956 and 1987 by the Soviet Union, Poland, East Germany, and Czechoslovakia), as well as for nuclear-weapon-free zones in Northern Europe, the Balkans, and the Mediterranean. If such zones were established, the United States and NATO would have to withdraw nuclear weapons not only from Europe but also from the surrounding seas.

Conventional Arms Control

For many years, the Soviet Union could not reconcile conventional arms control with its military objectives of avoiding wars and being prepared to fight them. Soviet operational concepts have called for numerical superiority in conventional forces both to deter the adversary from starting a war and to destroy the adversary's forces and armaments and occupy its territory should a war break out. Yet deep reductions in Soviet armed forces have a precedent: Khrushchev reduced conventional forces by more than 2.1 million personnel between 1955 and 1958, and he announced further reductions of 1.2 million troops in 1960.

Since Khrushchev's ouster in 1964, the Soviet military has frowned on personnel reductions. In the 1960s, when United States secretary of state William Rogers suggested negotiations to reduce armed forces in Europe, the Soviet leaders resisted bitterly. They finally agreed to negotiate in exchange for United States participation in a European security conference. The Mutual Balanced Forces Reduction (MBFR) talks began in 1973 but remained stalemated for years. In the late 1960s and early 1970s, the Soviet conventional buildup in Europe progressed. Soviet leaders showed interest in the talks only in December 1975, when the Western proposal included a reduction in United States tactical nuclear weapons in Europe.

In 1987 the Soviet Union called for a new forum to discuss the balance of conventional forces in Europe "from the Atlantic to the Urals." Soviet leaders appeared to espouse the new Soviet strategic concepts of "reasonable sufficiency" and nonprovocative defense, and they maintained that reductions in conventional forces should make it impossible for either side to undertake offensive actions and launch surprise strikes. However, the Soviet military resisted a defensive concept because deep cuts in personnel and armaments such as tanks could prevent Soviet forces from pursuing their military objectives under the doctrine calling for victory.

In December 1988, Gorbachev announced unilateral reductions in Soviet armed forces. Soviet forces were to be reduced by 500,000 men by 1991. Soviet forces in the Atlantic-to-the-Urals area were to be reduced by 10,000 tanks, 8,500 artillery pieces, and 800 combat aircraft. Several Soviet tank divisions were to be withdrawn from Eastern Europe, together with assault-landing and assault-river-crossing units. Soviet and East European divisions were to be reorganized, with a major cutback in the number of tanks. During 1988 and 1989, the Non-Soviet Warsaw Pact (NSWP) countries also announced unilateral reductions in manpower and conventional armaments.

In 1989 the Soviet leadership appeared to be interested in negotiating seriously on conventional arms control in order to reduce the threat of new Western weapons and operational concepts, to create a "breathing space" for internal economic and social restructuring, and to divert manpower and resources to the country's economy. New negotiations on Conventional Forces in Europe (CFE) opened in March 1989. Both Warsaw Pact and NATO negotiators expressed interest in stabilizing the strategic situation in Europe by eliminating capabilities for initiating surprise attacks and large-scale offensive actions.

Although Gorbachev proclaimed his commitment to a doctrine that emphasized war avoidance, diplomacy, and the achievement of political goals with political means, the Soviet military continued to press for high-quality military capabilities, commensurate with perceived present and future threats to Soviet national security. Soviet military authorities endorsed Gorbachev's arms control efforts as well as the concepts of parity and "reasonable sufficiency." Nevertheless, they supported Gorbachev's pragmatic policies largely in the hope that a renewed economy would help create a modern industrial base. Such a base, they believed, would make it possible not merely to counter Western emerging technologies but also to produce fundamentally new weapons for the twenty-first century.

A transformation of NATO and of the Warsaw Pact, as proposed by Soviet leaders in 1989, would necessitate that both sides adopt a defensive, no-victory doctrine, stressing negotiations and restoration of the status quo. On the Soviet side, this would call for rejecting or circumventing Marxist-Leninist dogma and for revising political goals. Only then could the rewriting of Soviet military art yield a strategy, operational art, and tactics based on genuinely defensive principles, excluding deep offensive operations, massive counteroffensives, and the requisite capabilities. In 1989, however, Soviet military doctrine still bore the burden of Marxist-Leninist revolutionary ideology predicting the eventual worldwide ascendancy of socialism.

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Most original sources on Soviet military doctrine, policy, and strategy are available only in Russian. However, a good introduction to Soviet military thought, *The Soviet Art of War*, edited by Harriet F. Scott and William F. Scott, is a judicious combination of the editors' commentaries and of excerpts from translated writings of Soviet military authorities. Paul D. Kelley's *Soviet General Doctrine for War*, a 1987 publication of the United States Army Intelligence and Threat Analysis Center (USAITAC), contains a detailed treatment of Soviet military doctrine and military science. Students of Soviet tactics should also consider William P. Baxter's *The Soviet Way of Warfare*, in which the author discusses the offensive and defensive options of Soviet tactical combat. Michael McCgwire's *Military Objectives in Soviet Foreign Policy* offers a comprehensive overview of Soviet strategic and military objectives and of Soviet operational planning. Finally, the annual Department of

Defense publication *Soviet Military Power* presents the official United States Department of Defense view of Soviet military developments.

For the reader who would like to study Soviet military thought, the United States Air Force series of translations of Soviet military monographs is invaluable. Among the most illuminating and thought-provoking in the series are the 1972 translation of the 1968 classic, *Marxism-Leninism on War and the Army*, and the controversial *Basic Principles of Operational Art and Tactics* by V.E. Savkin. Although the heavy emphasis on nuclear weapons in both works appeared outdated in the 1980s, the doctrinal tenets and many of the strategic and operational concepts remained valid. *Scientific-Technical Progress and the Revolution in Military Affairs*, edited by N.A. Lomov and published in 1973, is an important reminder that nuclear weapons were only a stage in the technological revolution and that other revolutionary developments may follow. (For further information and complete citations, see Bibliography.)

Chapter 18. Armed Forces and Defense Organization



Facets of the armed forces

IN 1988 THE ARMED FORCES of the Soviet Union celebrated their seventieth anniversary. As old as the Soviet state, they have been highly integrated into its political, economic, and social systems. The missions of the Soviet armed forces were to defend the Soviet Union and its socialist (see Glossary) allies, to ensure favorable conditions for the development of the world socialist system (see Glossary), and to assist the national liberation movements around the world. The armed forces have defended communist parties that dominated Soviet-allied socialist countries as well as the Soviet Union. They also have projected military power abroad to help pro-Soviet forces gain or maintain political power. Thus, the armed forces have provided the military might that is the basis of the Soviet Union's claim to be a superpower with global interests. To ensure that the military pursues these largely political objectives, the Communist Party of the Soviet Union (CPSU) controlled the armed forces through a combination of political indoctrination, co-optation, and party supervision at every level.

The Soviet armed forces, the world's largest military establishment, in 1989 had nearly 6 million troops in uniform. The armed forces had five armed services rather than the standard army, navy, and air force organizations found in most of the world's armed forces. In their official order of importance, the Soviet armed services were the Strategic Rocket Forces, Ground Forces, Air Forces, Air Defense Forces, and Naval Forces. The Soviet armed forces also included two paramilitary forces, the Internal Troops and the Border Troops.

The Soviet Union has always been a militarized state. One-fourth of the entire Soviet population in 1989 was engaged in military activities, whether active duty, military production, or civilian military training. Yet the sheer size of the armed forces has not translated directly into combat power. Manpower, training, logistics, equipment, and economic problems combined to limit the operational effectiveness of Soviet forces. Many servicemen were assigned nonmilitary duties that in many other countries were performed by civilians.

Organizational Development and Combat Experience

Immediately after the Bolshevik Revolution of 1917, the Bolsheviks (see Glossary) merged their 20,000-man army, the Red Guards, with 200,000 Baltic Fleet sailors and Petrograd garrison soldiers

who supported the Bolsheviks. Bolshevik leader Vladimir I. Lenin decreed the establishment of the Workers' and Peasants' Red Army on January 28, 1918, and Leon Trotsky was the first commissar of war. The Bolsheviks recognized the importance of building an army under their control; without a loyal army, the Bolshevik organization itself would have been unable to hold the power it had seized.

The early Red Army was egalitarian but poorly disciplined. The Bolsheviks considered military ranks and saluting to be bourgeois customs and abolished them. Soldiers elected their own leaders and voted on which orders to follow. This arrangement was abolished, however, under pressure of the Civil War (1918-21), and ranks were reinstated (see Civil War and War Communism, ch. 2).

Because most professional officers had joined the anti-Bolshevik, or White, forces, the Red Army initially faced a shortage of experienced military leaders. To remedy this situation, the Bolsheviks recruited 50,000 former Imperial Army officers to command the Red Army. At the same time, they attached political commissars to Red Army units to monitor the actions of professional commanders and their allegiance to the Russian Communist Party (Bolshevik), the name of the Bolshevik organization as of March 1918. By 1921 the Red Army had defeated four White armies and held off five armed, foreign contingents that had intervened in the Civil War.

After the Civil War, the Red Army became an increasingly professional military organization. With most of its 5 million soldiers demobilized, the Red Army was transformed into a small regular force, and territorial militias were created for wartime mobilization. Soviet military schools, established during the Civil War, began to graduate large numbers of trained officers loyal to the party. In an effort to increase the prestige of the military profession, the party downgraded political commissars, established the principle of one-man command, and reestablished formal military ranks.

During the 1930s, Soviet leader Joseph V. Stalin's five-year plans and industrialization drive built the productive base necessary to modernize the Red Army. As the likelihood of war in Europe increased later in the decade, the Soviet Union tripled its military expenditures and doubled the size of its regular forces to match the power of its potential enemies. In 1937, however, Stalin purged the Red Army and deprived it of its best military leaders (see The Period of the Purges, ch. 2). Fearing or imagining that the military posed a challenge to his rule, Stalin jailed or executed an estimated 30,000 Red Army officers, including three of five marshals

and 90 percent of all field grade officers. Stalin also restored the former dual command authority of political commissars in Red Army units. These actions were to severely impair the Red Army's capabilities in the Soviet-Finnish War of 1939-40 and in World War II.

After occupying the Baltic states and eastern Poland under the terms of the Nazi-Soviet Nonaggression Pact of 1939, the Soviet Union demanded territorial concessions from Finland in late 1939 (see Foreign Policy, 1928-39, ch. 2). When the Finnish government refused, the Red Army invaded Finland. The resulting war was a disaster for the Soviet Union. Although the Soviet Union has not published casualty statistics, about 100,000 Red Army troops are believed to have died in the process of overcoming the small, poorly equipped Finnish army.

The Red Army had little time to correct its numerous deficiencies before Adolf Hitler launched Operation Barbarossa, which began his war against the Soviet Union, on June 22, 1941. At the beginning of the Great Patriotic War (see Glossary), the Red Army was forced to retreat, trading territory for time. But it managed to halt the Wehrmacht's blitzkrieg in December 1941 at the gates of Moscow. In 1942 the Wehrmacht launched a new offensive through the Volga region aimed at seizing Soviet oil resources in the Caucasus. At this critical moment, Stalin reinstated one-man command and gave his field commanders more operational independence. The Red Army encircled and destroyed German forces in the city of Stalingrad in a battle that ended in February 1943. In the summer of 1943, the Red Army seized the strategic initiative, and it liberated all Soviet territory from German occupation during 1944. After having driven the German army out of Eastern Europe, in May 1945 the Red Army launched the final assault on Berlin that ended the Great Patriotic War. The Red Army emerged from the war as the most powerful land army in history. (After the war, the army was known as the Soviet army.) The defeat of the Wehrmacht had come, however, at the cost of 7 million military and 13 million civilian deaths among the Soviet population.

From the late 1940s to the late 1960s, the Soviet armed forces focused on adapting to the changed nature of warfare in the era of nuclear arms and achieving parity with the United States in strategic nuclear weapons. Conventional military power showed its continued importance, however, when the Soviet Union used its troops to invade Hungary in 1956 and Czechoslovakia in 1968 to keep these countries within the Soviet alliance system (see Appendix C). In the 1970s, the Soviet Union began to modernize its conventional warfare and power projection capabilities. At the same time, it

became more involved in regional conflicts or local wars (see Glossary) than ever before. The Soviet Union supplied arms and sent military advisers to a variety of Third World allies in Africa, Asia, and the Middle East. Soviet generals planned military operations against rebels in Angola and Ethiopia. Soviet troops, however, saw little combat action until the invasion of Afghanistan in December 1979. They fought a counterinsurgency against the Afghan rebels, or *mujahidin*, for nearly eight and one-half years. An estimated 15,000 Soviet soldiers had been killed and 35,000 wounded in the conflict by the time Soviet forces began to withdraw from Afghanistan in May 1988. All 110,000 Soviet troops deployed in Afghanistan had been withdrawn by February 1989, according to Soviet authorities.

Strategic Leadership of the Armed Forces

Four main organizations controlled the Soviet armed forces. The Defense Council, which included the highest party and military officials in the Soviet Union, was the supreme decision-making body on national security issues. The Main Military Council, the Ministry of Defense, and the General Staff were strictly military organizations.

Defense Council

The Soviet Constitution states that the Presidium of the Supreme Soviet forms the Defense Council. First mentioned by the Soviet press in 1976, the Defense Council has been the organ through which the CPSU Central Committee, the Supreme Soviet, and the Council of Ministers supposedly exercised supreme leadership of the armed forces and national defense. In reality, these bodies carried out the Defense Council's decisions on issues concerning the armed forces and national defense.

The general secretary of the CPSU has normally been the chairman of the Defense Council and the only member of the Defense Council identified in the Soviet media. As chairman of the Defense Council, the general secretary has also been the supreme commander in chief of the Soviet armed forces. The chairman of the Council of Ministers, the chairman of the Committee for State Security (Komitet gosudarstvennoi bezopasnosti—KGB), the minister of internal affairs, the minister of foreign affairs, and the minister of defense have also probably served as members of the Defense Council. Their official duties have enabled them to implement decisions reached in the Defense Council. The Defense Council has been described as a working group of the Politburo, and its decisions

have probably been subject to ratification by a vote in a full meeting of the Politburo.

The Defense Council has made decisions on political-military and military-economic issues, using analyses and recommendations it received from the Main Military Council, the Ministry of Defense, and the General Staff. The Defense Council, according to some Western authorities, would approve changes in military doctrine and strategy, large operations, the commitment of troops abroad, and the use of nuclear weapons. It has decided on major changes in the organizational structure of the armed services and the appointment or dismissal of high-ranking officers. In addition, the Defense Council has been the highest link between the economy and the military, which were also intertwined at lower levels. The Defense Council has determined the size of the military budget. It has approved new weapons systems and coordinated the activities of the Ministry of Defense with those of ministries and state committees engaged in military research, development, and production.

Main Military Council

The Main Military Council was made up of the top leadership of the Ministry of Defense. The minister of defense was its chairman. The three first deputy ministers of defense, the eleven deputy ministers of defense, and the chief of the Main Political Directorate of the Soviet Army and Navy were members of the Main Military Council.

In peacetime the Main Military Council has been responsible for the training, readiness status, and mobilization of the armed forces. It coordinated the activities of the five armed services and resolved interservice disputes over the allocation of roles and missions, material resources, and manpower. The Main Military Council also presented the Defense Council with the economic and budgetary requirements of the armed forces, based on the force structure proposed by the General Staff and the armed services.

In wartime the Main Military Council would become the headquarters (*stavka*) of the Supreme High Command (Verkhovnoe glavnokomandovanie—VGK) of the armed forces. The Main Military Council would then report through the minister of defense to the supreme commander in chief and the Defense Council. The Supreme High Command would control military operations through the General Staff and subordinate commands.

Ministry of Defense

The Ministry of Defense, an all-union ministry (see Glossary), was technically subordinate to the Council of Ministers, as well

as to the Supreme Soviet and the CPSU Central Committee. In 1989 it was, however, larger than most other ministries and had special arrangements for party supervision of, and state participation in, its activities. The Ministry of Defense was made up of the General Staff, the Main Political Directorate of the Soviet Army and Navy, the Warsaw Pact, the five armed services, and the main and central directorates (see fig. 28). The minister of defense has always been either a leading CPSU civilian official or a Ground Forces general; the position has presumably been filled on the recommendation of the Defense Council with the approval of the Politburo, although the Presidium of the Supreme Soviet has made the formal announcement. The three first deputy ministers of defense were the chief of the General Staff, the commander in chief of the Warsaw Pact, and another senior officer with unspecified duties. First deputy ministers of defense have also been selected from the Ground Forces. In 1989 the eleven deputy ministers of defense included the commanders in chief of the five armed services as well as the chiefs of Civil Defense, Rear Services, Construction and Troop Billeting, Armaments, the Main Personnel Directorate, and the Main Inspectorate.

The Ministry of Defense directed the five armed services and all military activities on a daily basis. It was responsible for fielding, arming, and supplying the armed services, and in peacetime all territorial commands of the armed forces reported to it. The Ministry of Defense has been staffed almost entirely by professional military personnel, and it has had a monopoly on military information because the Soviet Union has lacked independent defense research organizations frequently found in other countries. This monopoly has given high-ranking Soviet officers undisputed influence with party and government leaders on issues, ranging from arms control to weapons development to arms sales abroad, that affect the position and prestige of the armed forces.

General Staff

The General Staff has been the center of professional military thought in the Soviet Union. Like the Ministry of Defense, the General Staff has been dominated by the Ground Forces. In 1989 the chief, two first deputy chiefs, and three deputy chiefs of the General Staff were all Ground Forces officers. The General Staff had five main directorates and four directorates. They performed strategic and operational research and planning, provided strategic military intelligence and analysis to the Defense Council, dealt with foreign military attachés, and gave occasional press briefings on political-military issues.

In wartime the General Staff would become the executive agent of the Supreme High Command, supervising the execution of military strategy and operations by subordinate commands. The General Staff would exercise direct control over the three combat arms of the armed forces that operate strategic nuclear weapons and would coordinate the activities and missions of the five armed services.

The Armed Services

The general organization of the Strategic Rocket Forces, Ground Forces, Air Forces, Air Defense Forces, and Naval Forces at the command level paralleled the organization of the Ministry of Defense. The commander in chief of an armed service was an administrative rather than an operational commander. He equipped, trained, and supplied the forces of the service, but operational control rested with the Defense Council and was exercised through the General Staff.

Each armed service had two first deputy commanders in chief, one of whom was chief of the main staff for the service (see fig. 29). The other had unspecified duties. The deputy commanders in chief were numerous. They commanded the combat arms and other branches of the service. Some deputy commanders in chief were responsible for preilitary and combat training, military education institutions, rear services, or armaments for the service as a whole. The armed services also had deputy commanders in chief with specialized duties. For example, the Strategic Rocket Forces had a deputy commander in chief for rocket engineering. Other deputy commanders in chief had responsibilities that were unknown to Western observers. The commander in chief, first deputy commanders in chief, and deputy commanders in chief, together with the chief of the service's political directorate, represented the military council or top leadership of the service.

The main staff of each service planned the operational employment of its service in coordination with the General Staff in the Ministry of Defense. In peacetime the main staff controlled the territorial commands or components of a service.

Strategic Rocket Forces

The Strategic Rocket Forces, the newest Soviet armed service, in 1989 were the preeminent armed service, based on the continued importance of their mission. Their prestige had diminished somewhat, however, because of an increasing emphasis on conventional forces.

The Strategic Rocket Forces were the main Soviet force used for attacking an enemy's offensive nuclear weapons, its military

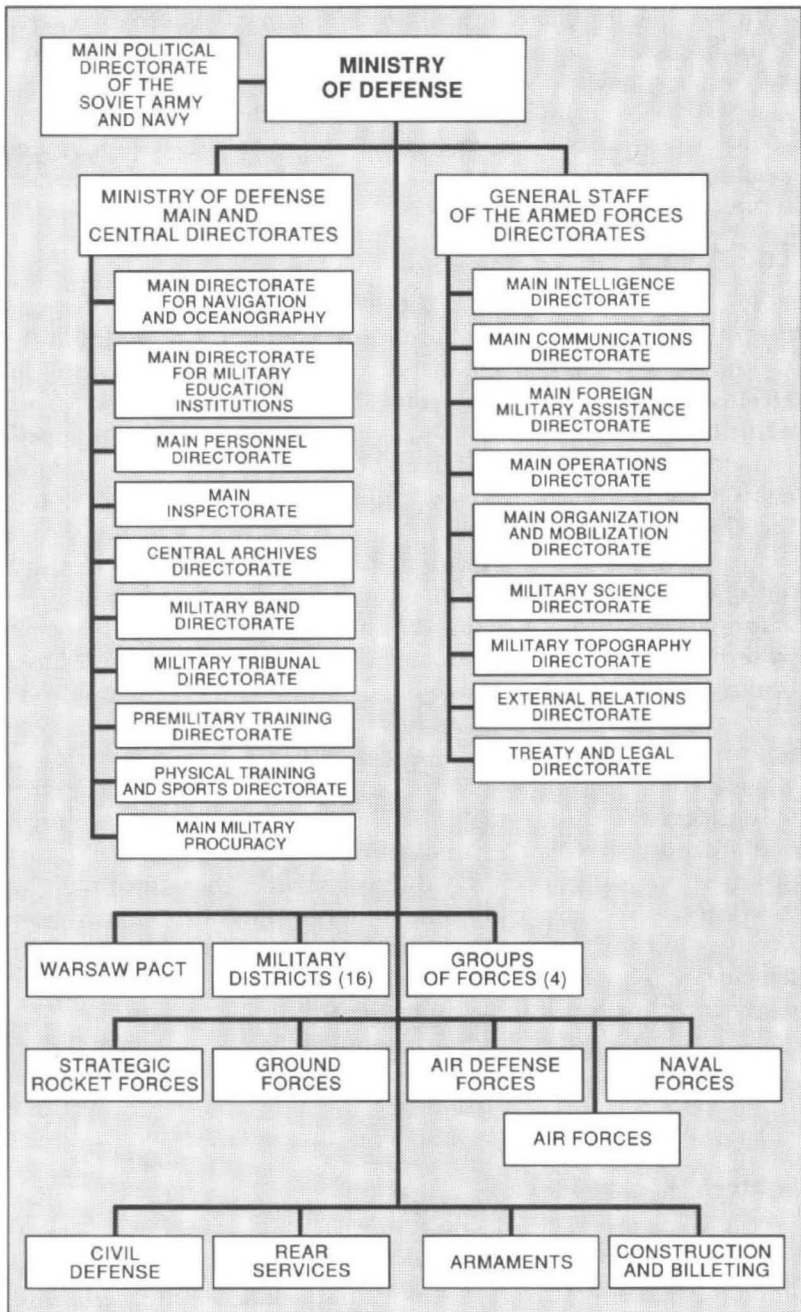


Figure 28. Organization of the Ministry of Defense, 1988

facilities, and its industrial infrastructure. They operated all Soviet ground-based intercontinental, intermediate-range, and medium-range nuclear missiles with ranges over 1,000 kilometers. The Strategic Rocket Forces also conducted all Soviet space vehicle and missile launches.

In 1989 the 300,000 Soviet soldiers in the Strategic Rocket Forces were organized into six rocket armies comprised of three to five divisions, which contained regiments of ten missile launchers each. Each missile regiment had 400 soldiers in security, transportation, and maintenance units above ground. Officers manned launch stations and command posts underground.

In 1989 the Strategic Rocket Forces had over 1,400 intercontinental ballistic missiles (ICBMs), 300 launch control centers, and twenty-eight missile bases. The Soviet Union had six types of operational ICBMs; about 50 percent were heavy SS-18 and SS-19 ICBMs, which carried 80 percent of the country's land-based ICBM warheads. In 1989 the Soviet Union was also producing new mobile, and hence survivable, ICBMs. A reported 100 road-mobile SS-25 missiles were operational, and the rail-mobile SS-24 was being deployed.

The Strategic Rocket Forces also operated SS-20 intermediate-range ballistic missiles (IRBMs) and SS-4 medium-range ballistic missiles (MRBMs). Two-thirds of the road-mobile Soviet SS-20 force was based in the western Soviet Union and was aimed at Western Europe. One-third was located east of the Ural Mountains and was targeted primarily against China. Older SS-4 missiles were deployed at fixed sites in the western Soviet Union. The Intermediate-Range Nuclear Forces Treaty (INF Treaty), signed in December 1987, called for the elimination of all 553 Soviet SS-20 and SS-4 missiles within three years (see Intermediate-Range Nuclear Forces Arms Control, ch. 17). As of mid-1989, over 50 percent of the SS-20 and SS-4 missiles had been eliminated.

Ground Forces

Despite its position as the second service in the armed forces hierarchy, the Ground Forces were the most politically influential Soviet service. Senior Ground Forces officers held all important posts within the Ministry of Defense as well as the General Staff. In 1989 the Ground Forces had 2 million men, organized into four combat arms and three supporting services.

Motorized Rifle Troops and Tank Troops

Combat elements of the Ground Forces were organized into combined arms and tank armies. A combined arms army included

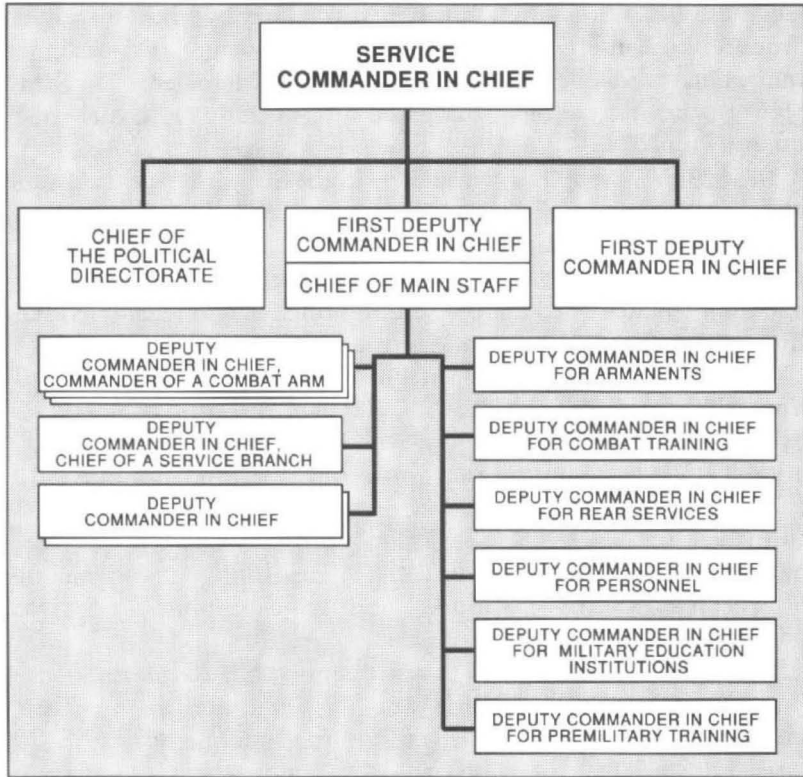


Figure 29. Typical Organization of an Armed Service, 1988

three motorized rifle divisions and a tank division. A tank army had three tank divisions and one motorized rifle division. In the late 1980s, the Ground Forces began to field corps that were more than twice the size of a single division. In 1989 the Soviet Union had 150 motorized rifle and 52 tank divisions in three states of readiness (see Glossary). A motorized rifle division had 12,000 soldiers organized into three motorized rifle regiments, a tank regiment, an artillery regiment, an air defense regiment, surface-to-surface missile and antitank battalions, and supporting chemical, engineer, signal, reconnaissance, and rear services companies. A typical tank division had 10,000 soldiers organized into three tank regiments and one motorized rifle regiment. In 1989 the Ground Forces also included eight brigades of air assault, or air-mobile, units that conducted helicopter landing operations.

The Motorized Rifle Troops have been mechanized infantry since 1957. The Soviet Union has fielded a new model of armored

personnel carrier (APC) every decade since the late 1950s, and in 1967 it deployed the world's first infantry fighting vehicle (IFV). Similar to an APC, the tactically innovative IFV had much greater firepower, in the form of a 73mm main gun, an antitank missile launcher, a heavy machine gun, and firing ports that allowed troops to fire their individual weapons from inside the vehicle. In 1989 the Soviet Union had an inventory of over 65,000 APCs and IFVs, with the latter accounting for almost half of this inventory.

The Soviet Ground Forces viewed the tank as their primary weapon. In 1989 the Tank Troops had five types of main battle tanks, including the T-54/55, T-62, T-64, T-72, and T-80. The greater part of the total tank inventory of 53,000 consisted of older, although still highly potent, T-54/55 and T-62 tanks.

Rocket Troops and Artillery

The Rocket Troops and Artillery have been an important combat arm of the Ground Forces because of the Soviet belief that firepower has tremendous destructive and psychological effect on the enemy. In 1989 the Ground Forces had eighteen artillery divisions, in addition to the artillery and missile units organic to armies and divisions. Artillery and surface-to-surface missile brigades were attached to each combined arms or tank army. An artillery regiment and a surface-to-surface missile battalion were parts of each Soviet motorized rifle and tank division. In 1989 the Rocket Troops and Artillery manned 1,400 "operational-tactical" surface-to-surface missile launchers.

The December 1987 INF Treaty between the United States and the Soviet Union called for the elimination of all short-range ballistic missiles with ranges between 500 and 1,000 kilometers. The treaty required the elimination of more than 900 Soviet SS-12 and SS-23 missiles. As of mid-1989, all SS-12 missiles had been eliminated. All SS-23 missiles had to be eliminated before the end of 1989, according to the terms of the treaty. After the reductions mandated in the treaty, the Soviet battlefield missile inventory will still contain over 1,000 modern SS-21 missiles with a range of about 100 kilometers that were not covered in the treaty as well as older SS-1 missiles, a large number of unguided free rocket over ground (FROG) missiles, and Scud missiles. These tactical missiles can deliver nuclear or chemical weapons as well as conventional munitions.

In 1989 the Rocket Troops and Artillery had approximately 30,000 artillery pieces; of these, 10,000 were capable of firing conventional high-explosive, nuclear, or chemical rounds. Since the 1970s, this powerful combat arm has fielded more than 5,000

self-propelled 122mm and 152mm howitzers, 152mm and 203mm guns, and 240mm mortars. These artillery pieces, which are mounted on tank chassis, have replaced some towed artillery pieces. The Rocket Troops and Artillery also had truck-mounted multiple rocket launchers, each with forty tubes, to provide massive fire support for the Ground Forces.

Air Defense of Ground Forces

The Ground Forces relinquished control of air defense for their field formations in 1948 when the National Air Defense Forces—later renamed the Air Defense Forces—became an independent armed service. In 1958, however, Soviet air defense was decentralized again, and the Ground Forces acquired anti-aircraft guns and formed tactical air defense units. In the 1960s, air defense became an integral combat arm of the Ground Forces. Since then, Air Defense of Ground Forces has been independent from the Air Defense Forces, although coordination of their respective operations remained necessary.

Air Defense of Ground Forces was equipped with a potent mix of anti-aircraft artillery as well as surface-to-air missiles to defend Ground Forces units against attacking enemy aircraft. During the 1970s, the Soviet military introduced five new self-propelled air defense and radar systems into its force structure. In 1989 Air Defense of Ground Forces operated 5,000 surface-to-air missiles and 12,000 anti-aircraft guns organized into brigades, regiments, and batteries. As of 1989, combined arms and tank armies had air defense brigades equipped with high-altitude SA-4 surface-to-air missiles. Motorized rifle and tank divisions had air defense regiments with the mobile SA-6 or SA-8 for medium- to low-level protection. Ground Forces regiments had SA-9, SA-13, and ZSU-23-4 anti-aircraft gun batteries. Motorized rifle and tank battalions had surface-to-air missile platoons equipped with new low-altitude, shoulder-fired SA-16 and older SA-7 missiles.

Chemical Troops, Engineer Troops, and Signal Troops

The Chemical Troops, Engineer Troops, and Signal Troops were independent branches that provided support to all the military services, but principally to the Ground Forces. The chiefs of these services reported directly to the minister of defense. Units of the Chemical Troops, Engineer Troops, and Signal Troops responded to the in-branch chief regarding administrative and technical matters but were operationally subordinate to the commander of the formation to which they were attached. Chemical Troops, Engineer



*T-72 tank
Courtesy United States Defense Intelligence Agency*

Troops, and Signal Troops were organized into battalions and companies within armies and divisions.

The general mission of the supporting troops was to facilitate the advance of the Ground Forces and to eliminate obstacles blocking their path. The Signal Troops operated tactical radio and wire communications networks and intercepted enemy signals for combat intelligence purposes. They also operated strategic underground cable, microwave, and satellite communications systems. The Engineer Troops were principally combat engineers. They operated the self-propelled bridging vehicles and amphibious ferries that tanks and armored vehicles depend on to cross deep rivers. In wartime the Engineer Troops would also clear mines, antivehicle obstacles, and battlefield debris for the Ground Forces.

The mission of the Chemical Troops was to defend the armed forces against the effects of “weapons of mass destruction”—nuclear, biological, and chemical (NBC) weapons. With 50,000 soldiers in 1989, the Chemical Troops constituted the world’s largest NBC defense force. The Chemical Troops would perform NBC reconnaissance; mark contaminated areas; and decontaminate personnel, weapons, and terrain during wartime. They operated 30,000 armored combat vehicles equipped for NBC reconnaissance and truck-mounted systems equipped to spray decontaminating

solutions on the surface areas of tanks, combat vehicles, and aircraft. The Chemical Troops demonstrated the use of helicopters for NBC defense during the large-scale radiation cleanup operation after the Chernobyl' (see Glossary) nuclear reactor accident in April 1986. In 1989 the Chemical Troops did not operate offensive delivery systems. Yet the strength of Soviet chemical defense provided an offensive potential by enhancing the ability of Soviet forces to fight on contaminated battlefields. Thus, supported by the Chemical Troops, Soviet forces were better prepared than any other in the world for NBC operations.

Air Forces

In 1989 the Air Forces had 450,000 personnel in three combat arms and one supporting branch, the Aviation Engineering Service. The Air Forces also provided and trained prospective cosmonauts for the Soviet space program. Air Forces personnel operated all military aircraft except aircraft belonging to the Air Defense Forces and the Naval Forces. In 1989 the Air Forces were organized into air armies consisting of several air divisions. Each air division had three air regiments with three squadrons of about twelve aircraft each.

Strategic Air Armies

The Strategic Air Armies were organized in the late 1970s from elements of Long-Range Aviation. Their mission was to attack the enemy's strategic delivery systems and infrastructure, including missile and bomber bases. The Strategic Air Armies were organized into five air armies of bomber aircraft of several types. In 1989 these included Tu-95 long-range strategic bombers, a type first deployed in the late 1950s and continuously upgraded since then. Since the early 1980s, more than seventy of these bombers have been modified to carry air-launched cruise missiles (ALCMs). A new intercontinental-range bomber, the Tu-160, which also bears the North Atlantic Treaty Organization (NATO) designation Blackjack, became operational in 1989. In the late 1980s, long-range bombers carried a small, but increasing, percentage of all Soviet strategic nuclear weapons.

Although its name implies an intercontinental mission, most Strategic Air Armies aircraft were medium- and short-range bombers. In 1989 the Soviet Union had Tu-16, Tu-22, and Tu-26 medium-range bombers. The Tu-16 and Tu-22 aircraft entered service in large numbers in the early 1960s. The Tu-26, sometimes called the Tu-22M and designated the Backfire bomber, was first fielded in 1974. In 1989 the Strategic Air Armies also included Su-24

fighter-bombers, which had a combat radius of over 1,000 kilometers. Medium-range bombers and fighter-bombers would support military operations by striking the enemy's nuclear delivery systems, airfields, air defense systems, and command, control, and communications facilities in a theater of war.

Frontal Aviation

Frontal Aviation was the Soviet Union's tactical air force assigned to the military districts and the groups of forces. Its mission was to provide air support to Ground Forces units. Frontal Aviation cooperated closely with the Air Defense Aviation arm of the Air Defense Forces. Protected by the latter's fighter-interceptors, Frontal Aviation in wartime would deliver conventional, nuclear, or chemical ordnance on the enemy's supply lines and troop concentrations to interdict its combat operations. It would be under the operational control of Ground Forces field commanders. In 1989 Frontal Aviation was divided into sixteen air armies composed of fighter, fighter-bomber, tactical reconnaissance, and electronic warfare aircraft.

In 1989 Frontal Aviation operated about 5,000 fixed- and rotary-wing combat and reconnaissance aircraft, which included 270 Su-25, 650 Su-17, and 1,050 MiG-27 ground attack aircraft. It also operated 450 MiG-29 and 350 Su-24 deep interdiction fighter-bombers, in addition to the 450 that belonged to the Strategic Air Armies. The Air Forces used the heavily armed Su-25, first deployed in 1979, effectively during the early years of the war in Afghanistan when *mujahidin* forces lacked modern air defense systems.

During the 1980s, the Soviet Union doubled the size of its force of helicopters. Helicopter regiments and squadrons were attached to Frontal Aviation's air armies to provide tactical mobility for, and additional fire support to, the Ground Forces. The Mi-6, Mi-8, and Mi-26 helicopters would transport motorized rifle units and equipment into battle or land assault units behind enemy lines. The Mi-24, often referred to as the Hind, was the most heavily armed helicopter in the world. It was used extensively in both fire support and air assault roles in Afghanistan. In 1989 the Soviet Union was testing a new helicopter, the Mi-28, designed to be an antitank helicopter.

Military Transport Aviation

Military Transport Aviation provided rapid strategic mobility for the armed forces. Its missions were to transport the Airborne Troops for rapid intervention by parachute and to supply and

resupply Soviet forces abroad, and deliver arms and military equipment to Soviet allies around the world. In 1989 Military Transport Aviation had five air divisions, including 200 An-12, 55 An-22, 340 Il-76, and 5 An-124 transport aircraft. Having entered service only in 1987, the An-124 was the first Soviet transport that could lift oversized equipment such as main battle tanks.

In addition to these military transports, in wartime the 1,600 aircraft of Aeroflot, the national airline, would be used to augment the capabilities of Military Transport Aviation (see table 46, Appendix A). For this reason, the Ministry of Civil Aviation closely coordinated its activities with the General Staff and the Air Forces. Aeroflot flight crews, for example, were reserve officers of the Air Forces. Moreover, in 1989 the minister of civil aviation was an active-duty general officer.

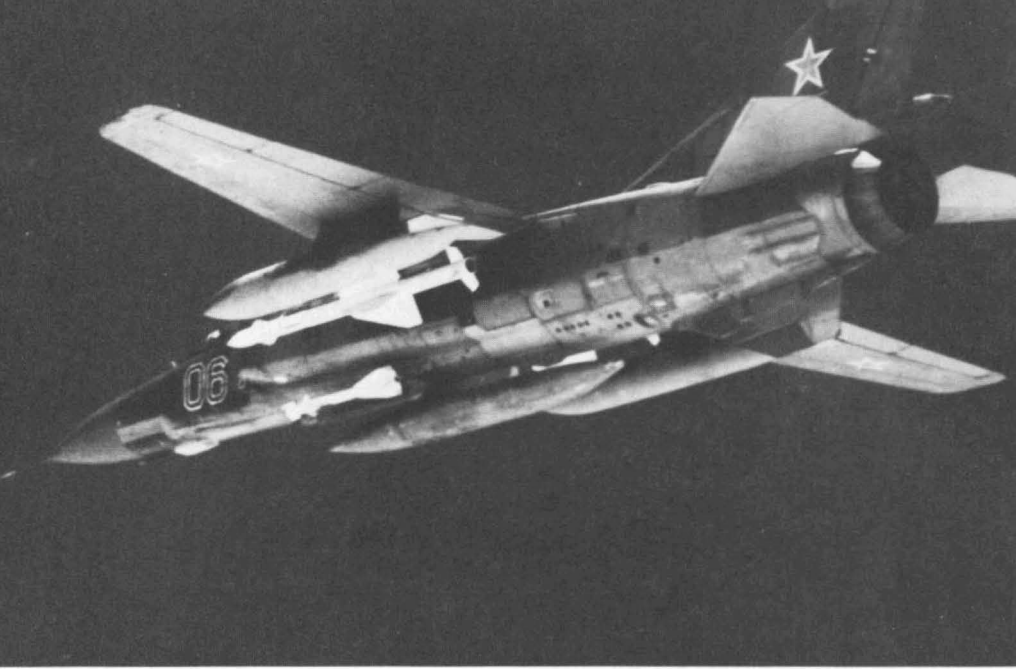
Military Transport Aviation assumed a high-profile role in foreign policy in the 1970s when it airlifted weapons to such allies as Egypt, Syria, Ethiopia, and Angola. In December 1979, its transport aircraft flew 150 sorties to drop and land an Airborne Troops division and its equipment into Afghanistan. Western analysts estimated that Military Transport Aviation can lift one Airborne Troops division a distance of 4,000 kilometers. With Aeroflot transports and passenger aircraft, three divisions can be lifted at once.

Air Defense Forces

The National Air Defense Forces became a separate armed service in 1948 and were given the mission of defending the Soviet industrial, military, and administrative centers and the armed forces against strategic bombing. After Air Defense of Ground Forces was formed in 1958, the National Air Defense Forces focused on strategic aerospace and theater air defense. Around 1980 the National Air Defense Forces yielded responsibility for theater anti-aircraft systems to Air Defense of Ground Forces and was renamed the Air Defense Forces. In 1989 the Air Defense Forces had more than 500,000 personnel and operated the world's most extensive strategic air defense network.

Antiaircraft Rocket Troops and Air Defense Aviation

In 1989 the Antiaircraft Rocket Troops manned 12,000 strategic surface-to-air missile launchers at 1,400 sites inside the Soviet Union. These forces were organized into brigades of launch battalions. Soviet SA-3 and SA-5 anti-aircraft missiles, first produced in the 1960s, together with older SA-1 and SA-2 missiles, constituted over 90 percent of the Soviet surface-to-air missile inventory. In the late 1980s, the new SA-10 was entering service to replace



MiG-23 fighter aircraft armed with anti-aircraft missiles

Courtesy United States Navy

Scud-B ballistic missile on a transporter-erector-launcher

Courtesy United States Defense Intelligence Agency

SA-1 and SA-2 missiles. The Soviet Union also had another anti-aircraft missile, the SA-12, under development. Western authorities believed the SA-10 and SA-12 had improved capabilities to destroy aircraft and missiles at low altitudes. In support of the Air Defense Forces, the Radiotechnical Troops operated 10,000 ground-based air surveillance radars for surface-to-air missile operations. In addition, the air defense systems of the Warsaw Pact countries were highly integrated into the Soviet network, effectively extending the range of Soviet early warning capabilities.

The other combat arm of the Air Defense Forces, Air Defense Aviation, had the mission of preventing aircraft and cruise missiles from entering Soviet airspace. In wartime it would strive to establish air superiority and provide air cover for Frontal Aviation's deep strike and ground attack aircraft. In 1989 Air Defense Aviation had 2,000 fighter-interceptor aircraft organized into air regiments. The Su-15, MiG-23, and MiG-25, first produced in the late 1960s and early 1970s, constituted 80 percent of Air Defense Aviation's inventory. The Soviet Union's newest interceptors, the MiG-31 and Su-27, deployed in the early 1980s, represented 10 percent of the force in 1989. The MiG-29, which first appeared in 1984, may also eventually be deployed with Air Defense Aviation. These new fighter-interceptors had "look-down, shoot-down" radars for engaging aircraft and cruise missiles penetrating Soviet airspace at low altitudes. Since the mid-1980s, the Soviet Union has built four new airborne warning and control system (AWACS) aircraft on an Il-76 airframe. These AWACS aircraft have improved Air Defense Aviation's ability to direct interceptors against enemy bombers, fighters, and cruise missiles in aerial combat.

Although equipped with numerous modern weapons systems, the Air Defense Forces have made operational errors that have raised serious questions about their command, control, and communications systems and training. In September 1983, Soviet interceptors shot down a South Korean passenger jet that strayed into Soviet airspace over Sakhalin. In May 1987, Mathias Rust, a citizen of the Federal Republic of Germany (West Germany), flew his private airplane into Soviet airspace and landed in Red Square in Moscow. As a result, the commander in chief of the Air Defense Forces, a former fighter pilot, was fired and replaced with a high-ranking Ground Forces officer who had extensive combined arms experience.

Missile and Space Defenses

Missile and space defenses have been effective arms of the Air Defense Forces since the mid-1960s. In 1989 the Soviet Union had

the world's only operational antiballistic missile (ABM) and anti-satellite (ASAT) systems.

The Soviet Union deployed its first ABM defense system around Moscow in 1964. It consisted of surface-to-air missiles that could be launched to destroy incoming ballistic missiles. The Soviet leaders have continually upgraded and developed the capabilities of this initial system. A major modernization of interceptor missiles began in the late 1970s, and by 1989 the Soviet Union had up to thirty-two improved SH-04 launchers in operation and a fundamentally new SH-08 interceptor missile under development. The newest SA-10 and SA-12 surface-to-air missiles reportedly also had a limited capability to destroy cruise, tactical, and possibly even strategic ballistic missiles. Such a capability would tend to blur the distinction between missile defense and strategic air defense systems.

In 1989 the Radiotechnical Troops operated eleven ground-based radars and numerous satellites to provide strategic early warning of enemy missile launches. They also manned six large phased-array radars for ballistic missile detection. These radars could also serve as target acquisition and tracking radars to guide ABM launchers as part of a nationwide defense against ballistic missiles. In 1989 the Soviet Union was building three additional sites for phased-array radars.

The Soviet Union has had an operational ASAT interceptor system since 1966. In wartime it would launch a satellite into the same orbit as an opponent's satellite. The ASAT satellite would then maneuver nearby and detonate a conventional fragmentation or a nuclear warhead to destroy its target. Thus, the interceptor system has posed a threat to an adversary's command, control, and communications, navigation, reconnaissance, and intelligence-gathering satellites in low-earth orbits, a capability that would be critical in wartime.

By 1989 the Soviet Union was spending an estimated US\$1 billion annually on scientific research into advanced technologies with potentially great ASAT and ABM applications, including ground-based laser, particle beam, radio frequency, and kinetic energy weapons. Soviet space programs also served Soviet missile and space defenses. In 1989 the Soviet effort in space was a broad-based one that included approximately 100 launches yearly, development of a reusable space shuttle and a spacecraft, and deployment of a third generation manned space station. These capabilities could also be used, for example, to conduct military operations in space, to repair and defend satellites, or to build and operate weapons platforms.

Many Western analysts have concluded that the military directs the Soviet civilian space program.

Naval Forces

Before 1962 the Soviet Naval Forces were primarily a coastal defense force. The Cuban missile crisis and United States quarantine of Cuba in 1962, however, made the importance of ocean-going naval forces clear to the Soviet Union. In 1989 the Soviet Naval Forces had nearly 500,000 servicemen organized into five combat arms and gave the Soviet Union a capability of projecting power beyond Europe and Asia.

Submarine Forces

Submarines were the most important component of the Soviet Naval Forces. In 1989 the Soviet Union had the largest number of ballistic missile submarines in the world. Most of the sixty-two ballistic missile submarines could launch their nuclear-armed missiles against intercontinental targets from Soviet home waters. The deployment of mobile land-based ICBMs in the late 1980s, however, could reduce the importance of ballistic missile submarines as the Soviet Union's most survivable strategic force.

Soviet attack submarines have had an antisubmarine warfare (ASW) mission. In wartime the attack submarine force—203 boats in 1989—would attempt to destroy the enemy's ballistic missile and attack submarines. Since 1973 the Soviet Union has deployed ten different attack submarine classes, including five new types since 1980. In 1989 the Soviet Union also had sixty-six guided missile submarines for striking the enemy's land targets, surface combatant groups, and supply convoys.

Surface Forces

Between 1962 and the early 1970s, the Soviet Union's World War II-era Naval Forces became a modern guided missile cruiser and destroyer force. In addition, in the late 1970s the Soviet Union launched its first nuclear-powered Kirov-class battle cruiser, its third class of guided missile cruisers, and two new classes of guided missile destroyers. These surface forces have had the peacetime task of supporting Soviet allies in the Third World through port visits and arms shipments as well as visibly asserting Soviet power and interests on the high seas. In wartime, they would conduct both anti-ship and antisubmarine operations.

A variety of auxiliary ships supported the Naval Forces and the armed forces in general. In 1989 the Soviet Union operated sixty-three intelligence-gathering vessels, manned by naval reservists and equipped with surface-to-air missiles. It also had the world's largest



*Kiev-class helicopter carrier Baku in the Mediterranean Sea.
Three helicopters are parked on the flight deck.
Oscar-class nuclear cruise missile submarine
Courtesy United States Navy*

fleet of oceanographic survey and marine research vessels. Over 500 ships gathered and processed data on the world's oceans that would be crucial to the Soviet Union in wartime. In 1989 eleven specially equipped vessels, including the new Marshal Nedelin class, monitored and tracked Soviet and foreign space launches. Yet Western experts have noted that the Soviet Naval Forces still lacked enough specialized underway replenishment vessels to provide adequate logistical support to naval combatants at sea.

Naval Aviation

Naval Aviation was primarily land based; its main mission was to conduct air strikes on enemy ships and fleet support infrastructure. The importance attached to its antiship mission was shown by the fact that Naval Aviation has received almost as many Tu-26 bombers as have the Strategic Air Armies. Naval Aviation also provided ASW and general reconnaissance support for naval operations.

In 1989 Naval Aviation consisted of nearly 1,000 fixed-wing aircraft and over 300 helicopters. The Naval Aviation fleet included 130 Tu-26 and 230 Tu-16 medium-range bombers armed with air-to-surface cruise missiles for carrying out antiship strikes. Naval Aviation also had 100 Su-17 and Su-24 fighter-bombers that provided close air support to Naval Infantry. Older aircraft in Naval Aviation's inventory have been converted into ASW and maritime reconnaissance platforms.

Since the 1970s, the Soviet Naval Forces have attempted to overcome their major weakness—fleet air defense beyond the range of land-based aircraft—by deploying four Kiev-class aircraft carriers. These carriers each had a squadron of Yak-38 fighters. In the late 1980s, the Soviet Union was also constructing and fitting out its first two Tbilisi-class carriers. Western observers expected that a variant of the new Su-27 or MiG-29 fighter would become the main Soviet carrier-based aircraft. Soviet carriers also operated Ka-25 and Ka-27 naval helicopters for ASW reconnaissance, targeting, and search-and-rescue missions.

Naval Infantry

In the early 1960s, Naval Infantry became a combat arm of the Soviet Naval Forces. In 1989 Naval Infantry consisted of 18,000 marine troops organized into one division and three brigades. Naval Infantry had its own amphibious versions of standard armored vehicles and tanks used by the Ground Forces. Its primary wartime missions would be to seize and hold strategic straits or islands and to make seaborne tactical landings behind enemy lines. The Soviet Naval Forces had over eighty landing ships as well as two

Ivan Rogov-class amphibious assault docks. The latter were assault ships that could transport one infantry battalion with forty armored vehicles and their amphibious landing craft. At seventy-five units, the Soviet Union had the world's largest inventory of air-cushion assault craft. In addition, many of the Soviet merchant fleet's (Morflot) 2,500 oceangoing ships could off-load weapons and supplies in an amphibious landing.

Coastal Defense Forces

Protecting the coasts of the Soviet Union from attack or invasion from the sea has remained one of the most important missions of the Naval Forces. To defend an extensive coastline along the Arctic and Pacific oceans and the Baltic, Black, and Caspian seas, the Soviet Union has deployed a sizable and diverse force. Defending naval bases from attack has been the primary focus of the Coastal Defense Forces. In 1989 the Coastal Rocket and Artillery Troops, consisting of a single division, operated coastal artillery and naval surface-to-surface missile launchers along the approaches to naval bases. A large number of surface combatants, including light frigates, missile attack boats, submarine chasers, guided missile combatants, amphibious craft, and patrol boats of many types, also participated in coastal defense.

Airborne Troops and Special Purpose Forces

The Soviet Union had substantial specialized forces having missions and subordinations distinct from those of the regular military services. The Airborne Troops, subordinated to the Supreme High Command in wartime, were closely linked to the Ground Forces and to Military Transport Aviation. The Special Purpose Forces (Voiska spetsial'nogo nazacheniiia—Spetsnaz), designed to operate deep behind enemy lines, were controlled by the General Staff's Main Intelligence Directorate (see Glossary).

In 1989 the Airborne Troops were more numerous than all the other airborne forces of the world combined. The Airborne Troops consisted of seven divisions. Each division had 7,000 troops organized into three paratroop regiments and an artillery regiment. The Airborne Troops had specially designed air-transportable and, in some cases, air-droppable equipment. Their inventory included light infantry fighting vehicles for transporting and protecting airborne forces on the ground and self-propelled 85mm assault guns to provide them with firepower.

The Airborne Troops were the primary rapid intervention force of the armed forces. They spearheaded the Soviet invasions of Czechoslovakia in 1968 and Afghanistan in 1979 by seizing the

airports in Prague and Kabul, respectively. The performance of the Airborne Troops in Afghanistan raised their status as an elite combat arm.

The Spetsnaz has been the subject of intense speculation among Western experts because little is known about it. In 1989 the Soviet Ground Forces had about 30,000 Spetsnaz troops organized into sixteen brigades. In 1989 the Soviet Naval Forces also had four elite naval Spetsnaz brigades trained to reconnoiter, disrupt, or sabotage enemy naval installations and coastal defenses. One Western view held that, in wartime, small Spetsnaz teams would be assigned reconnaissance missions up to several hundred kilometers behind enemy lines. Spetsnaz units would then provide Soviet forces with targeting data on important enemy rear area facilities. Another view was that Spetsnaz troops would be emplaced weeks before a war to assassinate the enemy's political and military leaders; to sabotage its airfields; to destroy its nuclear weapons facilities; and to disrupt its command, control, and communications systems. Proponents of this view asserted that Spetsnaz teams assassinated the unpopular Afghan communist leader Hafizullah Amin before the Soviet invasion of Afghanistan in December 1979.

Rear Services

In 1989 a deputy minister of defense served as chief of Rear Services for the Soviet armed forces. The Rear Services supplied the armed forces with ammunition, fuel, spare parts, food, clothing, and other matériel. In 1989 the chief of the Rear Services had nine main and central directorates and four supporting services under his command. The deputy commanders in chief for rear services of the armed services, the deputy commanders for rear services of territorial commands, and nearly 1.5 million soldiers reported to him.

The Central Military Transportation Administration was the primary traffic management organization for the armed forces, coordinating and planning supply movements by all means of transport. The Central Food Supply Administration both procured food from civilian agricultural enterprises (see Glossary) and operated a military state farm (see Glossary) system to supply troops, particularly those serving in remote areas. Similarly, the Central Clothing Supply Administration had its own clothing factories to manufacture uniforms and specialized gear. The main and central directorates operated post exchange, health care, and recreational facilities for military personnel. The Rear Services also provided financial reports on armed forces activities to party and government organs.

The chief of the Rear Services commanded the Railroad Troops, Road Troops, Pipeline Troops, and Automotive Troops. The mission of these supporting services was to construct and maintain the Soviet Union's military transport infrastructure. The Automotive Troops, for example, provided the drivers and mechanics needed to maintain and drive cargo trucks loaded with supplies from railheads to operational units in the field. After the initial airlift of Soviet forces and equipment into Afghanistan in December 1979, these troops built permanent rail lines, roads, and pipelines between the Soviet Union and Afghanistan to resupply the Soviet forces in that country.

Formerly divided among independent maintenance, medical, and motor transport companies, the provision of rear services in Soviet regiments has become the responsibility of unified matériel support units. As in most armies, these matériel support units were subordinate to operational commanders, although they worked with the next highest chief of rear services on technical matters.

Construction and Troop Billeting was an independent supporting service, similar to the Rear Services, headed by another deputy minister of defense. Construction and Troop Billeting served as a large, mobile force of cheap labor to erect military bases and troop quarters as well as civilian and government buildings. The service has been used to complete high-priority projects and to work in harsh environments. Construction and Troop Billeting has built military installations in the Soviet Far East since 1969, major airports, and the Moscow Olympics complex. The service has also worked on Siberian natural gas pipelines and the Baykal-Amur Main Line (BAM—see Glossary).

Civil Defense

Civil defense was another part of Soviet strategic defense. It originated with the large-scale relocation of defense industries from the western Soviet Union to east of the Ural Mountains in 1941. Civil defense reappeared in the late 1940s as anti-aircraft units were attached to Soviet factories to defend them against strategic bombing. By the early 1970s, the emphasis on civil defense increased, and the chief of Civil Defense became a deputy minister of defense. Each union republic had a general officer as the chief of civil defense in the republic.

In 1989 the purpose of civil defense was to provide protection for leadership and population in wartime and to ensure the Soviet Union's ability to continue production of military matériel during a nuclear or a protracted conventional war. Officers from Civil Defense were attached to union republic, oblast (see Glossary), *raion*

(see Glossary), and municipal governments, as well as to large industrial and agricultural enterprises, and assigned to supervise civil defense work, organization, and training. These staff officers developed and implemented detailed plans for the wartime relocation of important defense industrial facilities and the evacuation of labor forces to alternative sites. They supervised the construction of blast shelters and other installations to ensure that these structures could withstand nuclear strikes. Civil Defense operated a network of 1,500 underground shelters that could protect 175,000 top party and government officials. In 1989 Civil Defense had 150,000 personnel.

After a nuclear exchange, the civil defense effort would be directed at reestablishing essential military production through decontamination, first aid, and civil engineering work to clear collapsed structures and to restore power supplies, transportation, and communications. Civil Defense trained in peacetime by conducting simulations of the aftermath of a nuclear attack and small-scale evacuation exercises. It was also called on to fight fires, conduct rescue operations, decontaminate areas affected by nuclear and chemical accidents, and provide natural disaster relief.

Specialized and Paramilitary Forces

Under Soviet law, two armed services were outside the control of the Ministry of Defense but were nonetheless part of the Soviet armed forces. These services, the Internal Troops and the Border Troops, were subordinate to the Ministry of Internal Affairs and the KGB, respectively. Although often termed "militarized police," the Internal Troops and the Border Troops were military organizations, equipped, like motorized rifle regiments, with tanks and armored personnel carriers.

Internal Troops

In 1989 the Internal Troops had a personnel strength of about 340,000 soldiers. These troops had the mission of suppressing demonstrations, revolts, riots, strikes, or other challenges to the regime that the militia (police) could not contain (see Internal Troops of the Ministry of Internal Affairs, ch. 19). The use of Internal Troops instead of the Ground Forces in these situations helped to preserve the favorable image of the latter with the population. In extreme circumstances, the Internal Troops also served as the party's counterweight to the military services.

In addition to these peacetime roles, the Internal Troops also have been assigned wartime missions. In time of war, they would support frontline operations by providing rear security against enemy

sabotage, defending supply and communications lines, and operating prisoner-of-war and penal battalions. In the early days of World War II, the Internal Troops manned machine gun detachments located behind Soviet frontline units. The detachments were charged with firing on Red Army soldiers who tried to retreat or desert.

Border Troops

The mission of the Border Troops, which included 230,000 personnel in 1989, was to prevent unauthorized entry by foreigners into the Soviet Union and to keep Soviet citizens from leaving the country illegally (see *Border Troops of the Committee for State Security*, ch. 19). The troops patrolled clearly demarcated strips along Soviet state frontiers that contained antivehicle obstacles, fences, and barbed wire. The Border Troops used guard dogs, sophisticated electronic surveillance equipment and sensors, and helicopters to perform their duties over vast, sparsely populated frontier regions.

The Border Troops also guarded the Soviet Union's oceanic frontiers. Its Maritime Border Troops operated within the twelve-mile limit of Soviet territorial waters and were equipped with frigates, fast patrol boats, hydrofoils, helicopters, and light aircraft.

In wartime the Border Troops would become a frontline combat service. Stationed on the frontiers, Border Troops units absorbed the brunt of Nazi Germany's surprise invasion of the Soviet Union in June 1941 and fought defensive actions against the German army. The Border Troops also saw combat action in 1969 in border clashes with Chinese soldiers on islands in the Ussuri River.

In addition to the Border Troops, the KGB had other troops engaged in military-related activities that were not mentioned in legislation governing the armed forces (see *Internal Security Troops*, ch. 19). The KGB controlled elite units that guarded the highest party officials and stood a continuous ceremonial guard at the Lenin Mausoleum. The special KGB signal troops also operated communications linking the party with the Ministry of Defense and the major territorial commands. Another KGB armed force guarded sensitive military, scientific, and industrial installations in the Soviet Union and, until the late 1960s, controlled Soviet nuclear warhead stockpiles.

Territorial Organization of the Armed Forces

The armed forces had a peacetime territorial organization that would facilitate a rapid shift to a wartime footing. In 1989 the Soviet Union was divided into sixteen military districts and four fleets (see fig. 30). In addition, one flotilla, two naval squadrons, and six major groups of forces were stationed outside the Soviet Union.

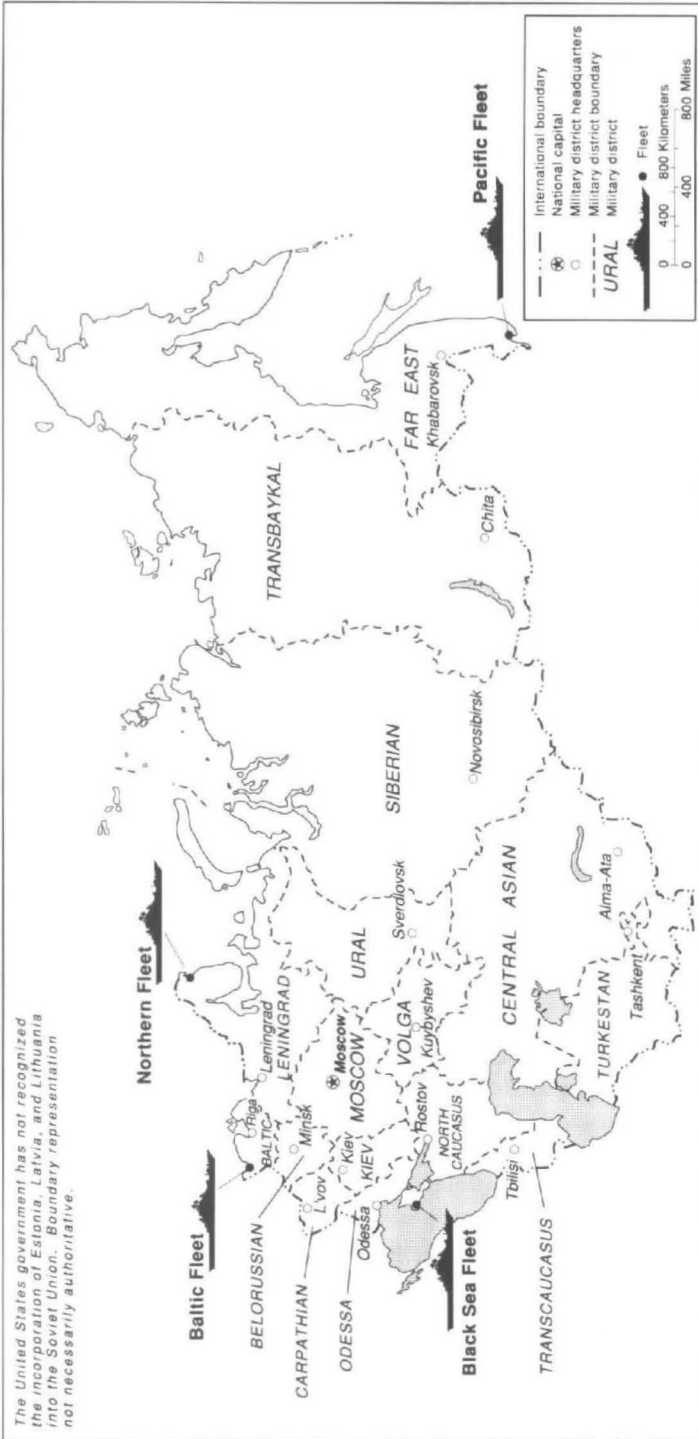


Figure 30. Military Districts and Fleets, 1988

Military Districts

Military districts were the basic units of Soviet military administration. The system of sixteen military districts had evolved in response to the Soviet Union's perception of threats to its security. For example, in 1969 the Turkestan Military District was divided to create the Central Asian Military District and enable the Soviet Union to double its military forces and infrastructure along the border with China. In wartime most military districts would become fronts (see Glossary).

Senior Ground Forces officers have always commanded military districts, and experience in commanding a military district was apparently a prerequisite for promotion to most of the important Ministry of Defense positions. Commanders of military districts have deputy commanders responsible for specific military activities. Each military district had a military council, which included the commander of the district, his first deputies—one of whom was also chief of staff—the chief of the political directorate for the district, and the first secretary of the party bureau of the union republic in which the district was located.

Military districts were combined arms formations. A military district commander controlled not only the Ground Forces in the district but also the Air Forces and the Air Defense Forces (see fig. 31). The commanders of the Air Forces and the Air Defense Forces reported to the district commander on operational matters as well as to the main staffs of their services. The military district's officers worked closely with party and government officials to plan wartime mobilization and rear services, civil defense, and military training for civilians. They supervised military training in both civilian and military education establishments located in the district. Military districts coordinated activities with the Border Troops, which had a system of ten districts organized separately from the military districts.

In 1989 twelve of Frontal Aviation's sixteen air armies were stationed in the most important military districts. Western experts disagreed over the organization of the system of air defense districts. Some argued that as many as ten air defense districts, separate from military districts, still existed. It seemed more likely, however, that when the National Air Defense Forces became the Air Defense Forces after 1980, all remaining air defense districts were integrated into the military districts. At that time, commanders of the Air Defense Forces became deputy commanders of the military districts. Only the Moscow Air Defense District continued to be mentioned in the press, possibly because it operated the ABM

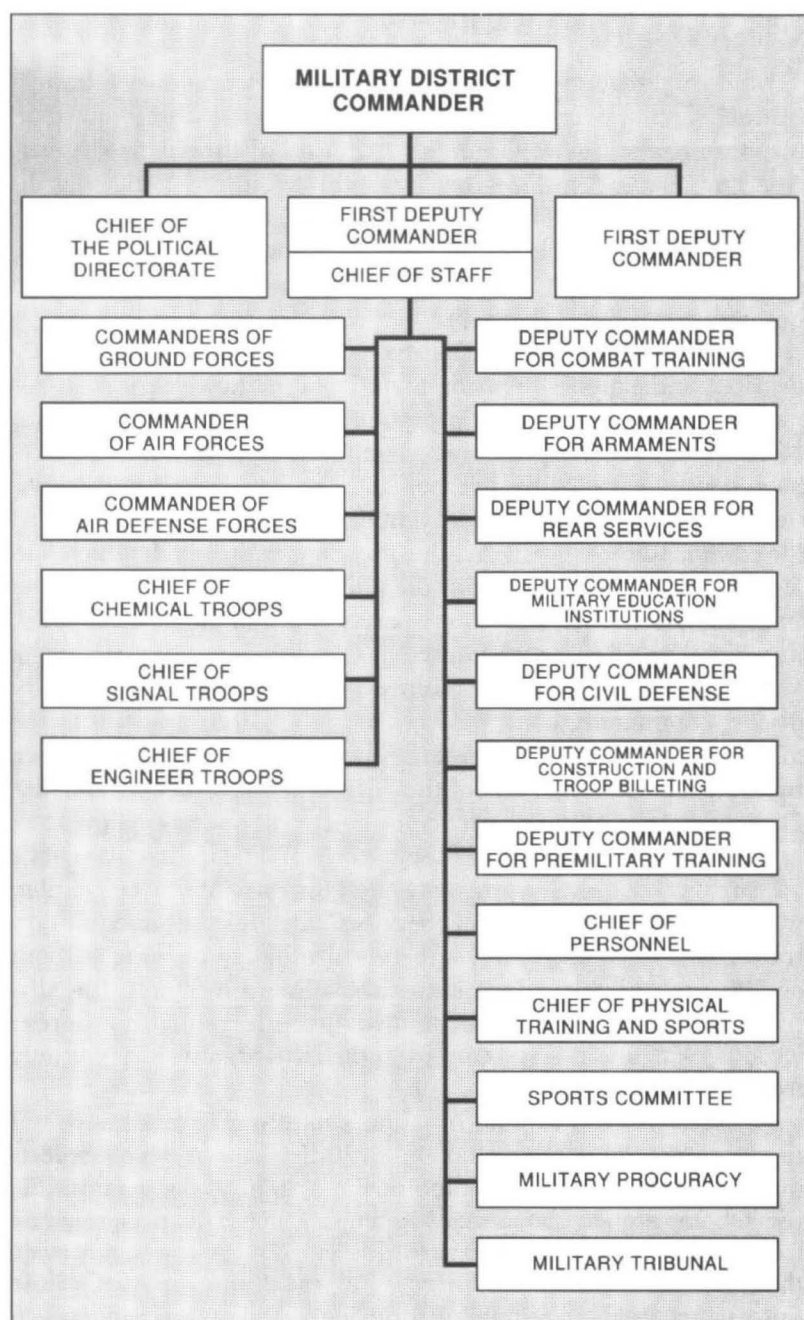


Figure 31. Organization of a Typical Military District, 1988

system that protected the capital city and the National Command Authority.

In 1989 the Ground Forces had sixty-five divisions, kept at between 50 and 75 percent of their projected wartime strengths, in the westernmost military districts of the Soviet Union. The Ground Forces also had fifty-two divisions at less than half their wartime levels in the Siberian, Transbaykal, Central Asian, and Far East military districts along the border with China and twenty-six low-readiness divisions in the Transcaucasus, North Caucasus, and Turkestan military districts.

Fleets, Flotillas, and Squadrons

The command organization of the four fleets was similar to that of the military districts. The fleet commander had a deputy for each of the combat arms of the Naval Forces, and he supervised the naval bases and ports in the fleet's area. Each fleet had a Naval Aviation air army, a naval Spetsnaz brigade, and several battalions of the Coastal Rocket and Artillery Troops. The fleets reported to the Main Staff of the Naval Forces; in wartime they would come under the operational control of the Supreme High Command and the General Staff. Although the Naval Forces operated numerous flotillas on inland seas and large lakes, only the Caspian Flotilla was operational in 1989.

The Northern Fleet, based at Murmansk-Severomorsk, was the most important Soviet fleet, having a force of over 170 submarines in 1989. The Pacific Fleet, based at Vladivostok, had the best amphibious and power projection capabilities of the Naval Forces. In 1989 it had the only Naval Infantry division, two aircraft carriers, and 120 submarines. In wartime the Northern and Pacific fleets would become components of oceanic theaters of military operations (*teatry voennykh deistvii*—TVDs; see *Offensive and Defensive Strategic Missions*, ch. 17). The Baltic and Black Sea fleets, as well as the Caspian Flotilla, would become maritime components of continental TVDs in wartime.

Since the mid-1960s, the Naval Forces have increasingly been deployed abroad. In 1964 the Mediterranean squadron became the first permanently forward-deployed Soviet naval force. Since its inception, it has usually had thirty-five to forty-five ships. In 1968 the Soviet Union established an Indian Ocean squadron of fifteen to twenty-five ships. Access to ports and airfields in Vietnam, Syria, Libya, Ethiopia, the People's Democratic Republic of Yemen (South Yemen), and Seychelles in the 1980s has enabled the Soviet Naval Forces to repair their ships, fly ocean reconnaissance flights, and maintain these forward deployments. In 1989 Cam Ranh Bay

in Vietnam had the largest concentration of Soviet vessels outside the countries of the Warsaw Pact.

Groups of Forces Stationed Abroad

In 1989 the Soviet Union had six major groups of forces stationed abroad. The groups of Soviet forces in Eastern Europe included thirty Ground Forces divisions and four air armies in the German Democratic Republic (East Germany), Poland, Czechoslovakia, and Hungary (see Appendix C). These groups of forces have been in Eastern Europe since 1945 and have been used on several occasions to suppress anticommunist uprisings in those countries and keep them within the Soviet alliance system. They have also been the main concentration of Soviet forces against NATO. They were continuously manned and equipped at wartime levels. The Group of Soviet Forces in Germany was the most important Soviet territorial command. In 1989 it had 400,000 troops organized into nineteen divisions and five armies. Its importance was underscored by the fact that it was commanded by a commander in chief, like the five armed services.

When the cuts announced by Gorbachev in December 1988 are completed in 1991, 50,000 Soviet troops and six Soviet tank divisions will have been withdrawn from East Germany, Czechoslovakia, and Hungary (see Conventional Arms Control, ch. 17).

In addition to its forces stationed in Eastern Europe, the Soviet Union continued to maintain a large troop presence in Afghanistan throughout most of 1988. The Soviet 40th Army's four divisions and other forces—116,000 troops in all—had been fighting in Afghanistan for nearly nine years by late 1988. In mid-1988 the Soviet Union began a full-scale withdrawal from Afghanistan. The withdrawal was completed by early 1989. The Soviet Union has also had forces stationed in Mongolia since that country became an ally in 1921. Under a plan articulated in a 1986 Vladivostok speech, Gorbachev withdrew one Soviet division, leaving four in Mongolia.

The Party and the Armed Forces

The CPSU had three mechanisms of control over the country's armed forces. First, the top military leaders have been systematically integrated into the highest echelons of the CPSU and subjected to party discipline. Second, the CPSU has placed a network of political officers throughout the armed forces to influence the activities of the military. Third, the KGB, under the direction of the CPSU, has maintained a network of officers and informers in the armed forces.

Political-Military Relations

Fearing the immense popularity of the armed forces after World War II, Stalin demoted war hero Marshal Georgii K. Zhukov and took personal credit for having saved the country. After Stalin's death in 1953, Zhukov reemerged as a strong supporter of Nikita S. Khrushchev. Khrushchev rewarded Zhukov by making him minister of defense and a full Politburo member. Concern that the armed forces might become too powerful in politics, however, led to Zhukov's abrupt dismissal in the fall of 1957. But Khrushchev later alienated the armed forces by cutting defense expenditures on conventional forces in order to carry out his plans for economic reform. Leonid I. Brezhnev's years in power marked the height of party-military cooperation because he provided ample resources to the armed forces. In 1973 the minister of defense again became a full Politburo member for the first time since 1957. Yet Brezhnev evidently felt threatened by the professional military, and he sought to create an aura of military leadership around himself in an effort to establish his authority over the military.

In the early 1980s, party-military relations became strained over the issue of resource allocations to the armed forces. Despite a downturn in economic growth, the chief of the General Staff, Nikolai V. Ogarkov, argued for more resources to develop advanced conventional weapons. His outspoken stance led to his removal in September 1984. Ogarkov became commander in chief of the Western TVD, a crucial wartime command position that exists primarily on paper in peacetime. He was retired under Gorbachev and assumed a largely ceremonial post in the Main Inspectorate. His influence was considerably diminished, although he continued to publish in the military press.

Gorbachev, who became general secretary in March 1985, was a teenager during the Great Patriotic War and apparently never served in the armed forces. He has downgraded the role of the military in state ceremonies, including moving military representatives to the end of the leadership line-up atop the Lenin Mausoleum during the annual Red Square military parade on November 7. Gorbachev used the Rust incident in May 1987 as a convenient pretext for replacing Sergei Sokolov with Dmitrii T. Iazov as minister of defense (see Air Defense Forces, this ch.). Gorbachev has also emphasized civilian economic priorities and "reasonable sufficiency" in defense over the professional military's perceived requirements.

Military Representation in the Party

As of 1989, only two career military ministers of defense had become full Politburo members. Since 1984 the minister of defense

has been only a candidate member. The top leaders in the Ministry of Defense, however, have been regularly elected as members or candidate members of the Central Committee. Central Committee membership apparently has come with certain important posts and major field commands. The military presence in the Central Committee has varied little over time, normally constituting between 7 and 12 percent of this influential body.

Military officers with full membership on the Central Committee have generally included the minister of defense, the first deputy ministers of defense, the deputy ministers of defense, the chief of the Main Political Directorate of the Soviet Army and Navy, the chief and one or two members of the Main Inspectorate, the commander of the Moscow Military District, and the commander in chief of the Group of Soviet Forces in Germany. At the Twenty-Seventh Party Congress in February–March 1986, full Central Committee membership was granted to the commanders of the Western and Far Eastern TVDs.

Candidate members of the Central Committee from the armed forces have included the commanders of all the military districts and fleets, the first deputy chief of the Main Political Directorate of the Soviet Army and Navy, the chiefs of the political directorates of the armed services, and the chairman of the Voluntary Society for Assistance to the Army, Air Force, and Navy (*Dobrovol'noe obshchestvo sodeistviia armii, aviatsii i flotu*—DOSAAF; see Glossary). All military representatives on the Central Committee were also deputies of the Supreme Soviet. Other military officials were elected to the party's Central Auditing Commission (see Central Auditing Commission, ch. 7).

Party-military interaction also occurred at lower levels, and it enabled the armed forces to coordinate their activities with local party officials and draw on them for assistance. The commanders of military districts and fleets were usually members of the party bureau and deputies of the supreme soviet of the republic in which the district or fleet was located (see Intermediate-Level Party Organizations, ch. 7). Other senior military officers sat on oblast, *raion*, or city party committees.

Party Control in the Armed Forces

The Main Political Directorate of the Soviet Army and Navy was responsible for party control over the armed forces. It organized, conducted, and reported on political and ideological indoctrination in the armed forces, supervised the military press, and monitored the ideological content of military publications.

The Main Political Directorate of the Soviet Army and Navy was subordinate to the Ministry of Defense, as well as to the CPSU Central Committee. It had the official status of a Central Committee department and reported to the Central Committee outside the military chain of command (see Secretariat, ch. 7). These reports included information on the political attitudes and reliability of armed forces personnel and high-ranking officers in particular. The Central Committee's Party Building and Cadre Work Department used the information on political reliability supplied by the Main Political Directorate of the Soviet Army and Navy to approve or deny appointments, assignments, and promotions of professionally qualified officers at the rank of colonel and above (see *Nomenklatura*, ch. 7).

The Main Political Directorate of the Soviet Army and Navy supervised a network of political organizations and officers within the armed forces. Every armed service, territorial command, and supporting service had a political directorate. Service branches, divisions, and military education institutions had political sections, which were smaller than directorates. Each political section had a small staff that included a chief, a deputy chief, several senior political instructors, and officers responsible for ideology and propaganda, party organizational work, and the Komsomol (see Glossary). A party commission of high-ranking personnel was attached to each political directorate and section. A deputy commander for political affairs was assigned to each unit of company, battery, and squadron size or larger (see fig. 32). Smaller military units had primary party organizations (PPOs—see Glossary). Each PPO had a secretary, and secretaries met in their regiment's or ship's party committee to elect a party bureau. About 80 percent of all companies in the Ground Forces had party organizations. They were present in half the company-sized units of the armed forces as a whole.

A deputy commander for political affairs (*zamestitel' komandira po politicheskoi chasti—zampolit*) served as a political commissar of the armed forces. A *zampolit* supervised party organizations and conducted "party political work" within a military unit. He lectured troops on Marxism-Leninism (see Glossary), the Soviet view of international issues, recent CPSU decisions and documents, and the party's tasks for the armed forces. For Soviet military personnel, political training averaged between two and four hours every week. It was usually squeezed into what might otherwise be off-duty hours and was therefore widely resented. The *zampolit* was also responsible for resolving morale, disciplinary, and interpersonal

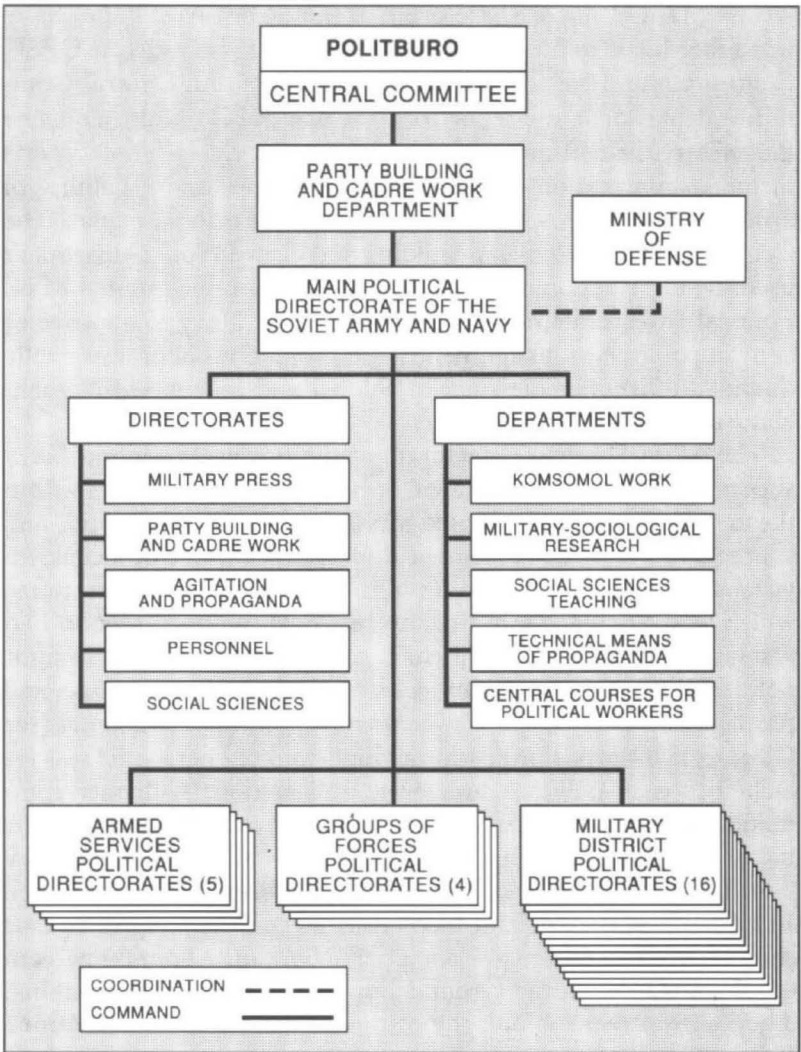


Figure 32. Apparatus of the Communist Party of the Soviet Union in the Armed Services, 1988

problems, which were chronic in military units. These problems often involved poor living conditions, conflicts among different nationalities, and poor attitudes toward training. Like the old political commissars, the modern *zampolit* remained responsible for keeping soldiers, and even entire frontline combat units, from deserting or defecting.

Since World War II, the *zampolit* has lost all command authority, although retaining the power to report to the next highest political officer or organization on the political attitudes and performance of the unit's commander. Negative reports from the *zampolit* could exert considerable influence on the course of a commander's career. Yet under the principle of one-man command, tension between professional and political officers has decreased. Commanders were fully responsible for the political state of the troops under them, and this responsibility forced them to allow adequate time for political training.

In 1989 over 20 percent of all armed forces personnel were CPSU or Komsomol members. Over 90 percent of all officers in the armed forces were CPSU or Komsomol members. The figures for party membership were even higher in such armed services as the Strategic Rocket Forces or the Border Troops, in which political reliability has been especially crucial. The Komsomol was important in the armed forces because most soldiers and young officers were in the normal age-group for Komsomol membership.

The KGB has been another instrument of party control over the armed forces. Its Third Chief Directorate had special counter-intelligence sections that operated within regiments. The "special sections" used networks of informers inside units to monitor foreign contacts of armed forces personnel and to protect military secrets. Unknown to a commander or *zampolit*, a KGB officer could be reporting on their political attitudes, outside of military or Main Political Directorate of the Soviet Army and Navy channels.

Military Economics

With the notable exceptions of Khrushchev and possibly Gorbachev, Soviet leaders since the late 1920s have emphasized military production over investment in the civilian economy. As a result, the Soviet Union has produced some of the world's most advanced armaments, although it has been unable to produce basic consumer goods of satisfactory quality or in sufficient quantities (see Industrial Organization; The Consumer Industry, ch. 12).

Defense Spending

In 1988 military spending was a single line item in the state budget, totaling 21 billion rubles (for value of the ruble—see Glossary), or about US\$33 billion. Given the size of the military establishment, however, the actual figure was at least ten times higher. Western experts have concluded that the 21 billion ruble figure reflected only operations and maintenance costs. Other military spending, including training, military construction, and arms production, was

possibly concealed within the budgets of all-union ministries and state committees. The amount spent on Soviet weapons research and development was an especially well-guarded state secret. Since the mid-1980s, the Soviet Union has devoted between 15 and 17 percent of its annual gross national product (GNP—see Glossary) to military spending, according to United States government sources. Until the early 1980s, Soviet defense expenditures rose between 4 and 7 percent per year. Since then, they have slowed as the yearly growth in Soviet GNP slipped to about 2 percent on average. In 1987 Gorbachev and other party officials discussed the extension of *glasnost* to military affairs through the publication of a detailed Soviet defense budget. In early 1989, Gorbachev announced a military budget of 77.3 billion rubles, but Western authorities estimated the budget to be about twice that.

Military Industries and Production

The integration of the party, government, and military in the Soviet Union has been most evident in the area of defense-related industrial production. The Defense Council made decisions on the development and production of major weapons systems. The Defense Industry Department of the Central Committee supervised all military industries as the executive agent of the Defense Council. Within the government, the deputy chairman of the Council of Ministers headed the Military Industrial Commission. The Military Industrial Commission coordinated the activities of many industrial ministries, state committees, research and development organizations, and factories and enterprises that designed and produced arms and equipment for the armed forces.

The State Planning Committee (Gosudarstvennyi planovyi komitet—Gosplan) had an important role in directing necessary supplies and resources to military industries. The main staff and deputy commander in chief for armaments of each armed service first determined their “tactical-technical” requirements for weapons and equipment and forwarded them to the General Staff, which evaluated and altered them to conform to overall strategic and operational plans. Then the deputy minister of defense for armaments transmitted the General Staff’s decisions to industrial ministries engaged in military production. He controlled several thousand senior military officers who represented the military within the industrial ministries. These military representatives supervised the entire process of military production from design through final assembly. They inspected, and had the authority to reject, all output not meeting the military’s specifications and quality control standards.

In 1989 the defense industry consisted of a number of industrial ministries subordinate to the Council of Ministers. The names of most of these ministries did not indicate the types of weapons or military equipment they produced. The Ministry of Medium Machine Building manufactured nuclear warheads. The Ministry of General Machine Building produced ballistic missiles (see fig. 33; Machine Building and Metal Working, ch. 12). Other ministries, such as the Ministry of Automotive and Agricultural Machine Building, also produced military equipment and components, but to a lesser extent of their total output.

These defense industrial ministries operated 150 major arms assembly plants in addition to the more than 1,000 factories that produced components for military equipment. Each ministry had a central design office and several design bureaus attached to it. The design bureaus, named for the chief designers who headed them in the past, built competing prototypes of weapons based on the military's specifications. The central design office then selected the best design and, if the military approved it, began serial production. The aircraft design bureaus were best known because Soviet aircraft carry their designations. The Mikoian-Gurevich (MiG) and Sukhoi (Su) bureaus designed fighters; the Antonov (An), Iliushin (Il), and Tupolev (Tu) bureaus developed transport and bomber aircraft. The Mil (Mi) and Kamov (Ka) bureaus designed helicopters.

The high priority given to military production has traditionally enabled military-industrial enterprises to commandeer the best managers, labor, and materials from civilian plants. In the late 1980s, however, Gorbachev transferred some leading defense industry officials to the civilian sector of the economy in an effort to make it as efficient as its military counterpart.

Military Technology

The Soviet Union has taken an incremental approach to military research and development. The military has deployed early versions of weapons and equipment with limited capabilities and has gradually improved them. The same basic weapons system has usually been fielded over a period of years in several different variants. Arms designers have relied heavily on integrating components from earlier models into new systems in order to provide stability and compatibility in the production process. The armed forces have tended to favor weapons that were produced in mass quantities, were reliable, and were easy to use in combat over expensive, complex, and technologically superior armaments. Following this rule of simplicity, the Soviet Union has produced many

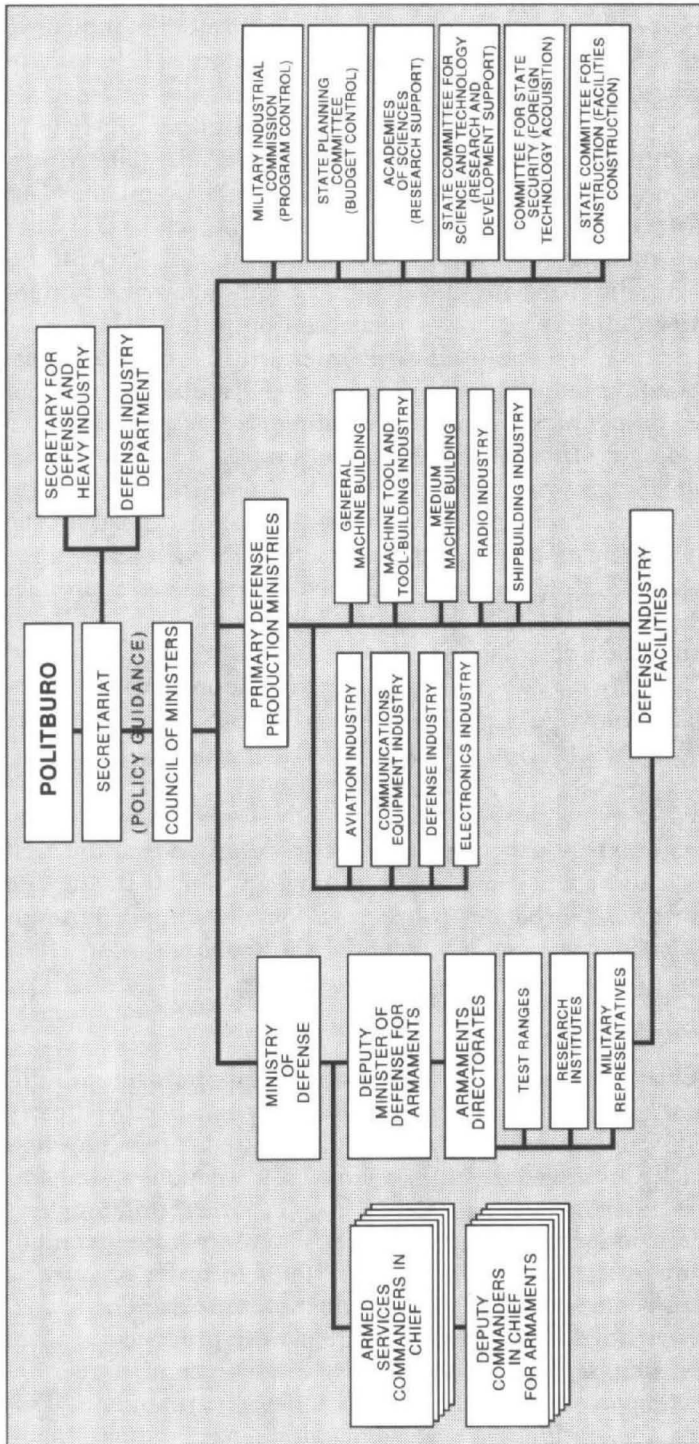


Figure 33. Management of Defense Production, 1988

outstanding and tactically innovative weapons. Nevertheless, it has had difficulties producing more sophisticated systems, such as large airframes, small nuclear reactors, and quiet submarine propellers. These problems have forced it to resort to technological espionage and to copying Western designs. The State Committee for Science and Technology has tasked KGB officers and other Soviet officials in Western countries to acquire the components or technologies needed to produce certain armaments.

Uniforms and Rank Insignia

In 1989 the uniforms and rank insignia of the Soviet armed forces were similar for all services, except the Naval Forces. Uniforms of officers and enlisted men differed only in the quality of the material used, not in their cut and style. The services could be distinguished from each other by the colors of the shoulder boards, the collar tabs, and the service hat bands. In each service, the uniforms for women generally were of the same color and fabric as those provided for men. Marshals, generals, and admirals wore double-breasted uniform coats. All services, except the Naval Forces, used full-length, medium gray, winter overcoats. Lower ranking enlisted personnel wore olive drab short overcoats. Naval personnel wore black overcoats in winter. In general, Soviet naval uniforms (in cut, color, and style) and rank insignia resembled those of foreign navies.

Each service generally had five categories of uniforms: full dress, dress, service, field, and work, with variants for winter and summer. Full dress uniforms were worn during such special military occasions as formal reviews, parades, annual service holidays, ceremonies conferring promotions or military decorations, and when taking the military oath or performing in honor guards. Dress uniforms were used for national anniversaries, such as the that of the Bolshevik Revolution; for official receptions; while attending the theater; and as otherwise ordered. Service uniforms were worn for routine duty and during off-duty hours. Field uniforms were worn during training, maneuvers, and firing exercises. Work uniforms were worn while performing equipment maintenance, fatigue detail, and construction tasks.

The colors of the uniforms varied according to the service and the category of uniform. Full dress uniforms were sea green for the Ground Forces and the Strategic Rocket Forces and nonaviation components of the Air Forces and the Air Defense Forces. Aviation components' uniforms were blue. Officers of all services wore gold belts, breeches, and boots with full dress uniforms. The dress uniforms resembled the full dress uniforms, except that long trousers

and low quarter shoes were worn. The service uniforms and field uniforms for all services were olive drab. Officer field uniforms had color-suppressed insignia instead of gold, and the garrison cap or steel helmet was substituted for the service hat. The work uniform for all services was a field uniform devoid of rank insignia. It was usually an old field uniform or overalls worn as a protective garment over a field uniform.

Each of the Naval Forces four categories of uniforms (full dress, dress, service, and work) had seasonal variants. The full dress uniforms—white for summer and navy blue for the remainder of the year—were worn with dirks and white gloves. Dress uniforms were less ornate than full dress uniforms, and ribbons replaced medals. Service uniforms were the same as dress uniforms, but without dirks and white gloves. A summer service uniform variation had a blue jacket and a garrison cap instead of a service hat. Junior enlisted personnel wore service uniforms, which were white, navy blue, white top and blue bottoms or the reverse, or other variants in winter and summer. Their jumpers had broad light blue collars with three white stripes. Shipboard work uniforms were either gray or khaki. Lower ranked seamen wore visorless hats with black bands and pigtail ribbons in the back.

All services exhibited rank insignia on shoulder boards, using a system of gold stripes with gold stars on colored backgrounds and colored piping on the edges (see fig. 34; fig. 35; fig. 36). Naval officers also wore sleeve stripes. Shoulder boards of marshals, general officers, and admirals possessed large stars on broad, ornate gold stripes with piping on the edges. Shoulder boards of field grade officers displayed three longitudinal gold stripes and smaller gold stars, and those of company grade officers had two longitudinal gold stripes and even smaller stars. Shoulder boards of warrant officers had two or three gold stars superimposed on a gold checkerboard pattern. Enlisted ranks were indicated by transverse or longitudinal gold stripes on shoulder boards.

The background colors of shoulder boards, collar tabs, and service hat bands varied with the service and the branch of service. The Strategic Rocket Forces had black shoulder boards, as did the Rocket Troops and Artillery, Engineer Troops, Tank Troops, and certain other components of the Ground Forces. The Motorized Rifle Troops had red shoulder boards. The Air Forces and aviation personnel of the Air Defense Forces had light blue shoulder boards, as did the Airborne Troops. The Naval Forces had navy blue shoulder boards (see table 54, Appendix A). Metallic insignia of gold or silver were also employed to identify selected branches of the services. Personnel belonging to one service or branch but serving

in another wore the background color prescribed for the latter service or branch. For example, members of an artillery battalion, which was a component of a motorized rifle division, wore the red shoulder boards and collar tabs of the Motorized Rifle Troops but displayed the crossed cannon insignia of the Rocket Troops and Artillery on their collar tabs. The Airborne Troops wore the light blue background color of the Air Forces, but with the insignia of the Airborne Troops on their collar tabs. An exception allowed the Administration Troops, Medical Troops, Military Procuracy, Quartermaster Troops, and Veterinary Troops to wear the color—magenta—prescribed for their branches regardless of assignment. The shoulder boards of enlisted personnel of the armed forces, except the Naval Forces, had large Cyrillic letters identifying the particular component. For instance, the Cyrillic “CA” signified Soviet army and was used for the five services except the Naval Forces; other letters identified the Internal Troops of the Ministry of Internal Affairs, the Border Troops of the KGB, and other elements.



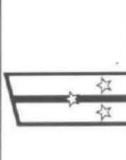
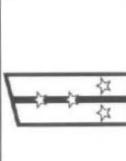






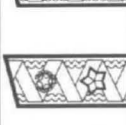



Military Manpower

According to the Soviet Constitution, all citizens had a “sacred” duty to defend the Soviet Union, to enhance its power and prestige, and to serve in its armed forces. The armed forces have been manned through conscription based on the provisions of the 1967 Law on Universal Military Service. In 1989 about 75 percent of Soviet armed forces personnel were conscripts, and 5 percent were career noncommissioned officers (NCOs). The professional officer corps constituted 20 percent of the armed forces. An extensive reserve and mobilization system would augment regular forces in wartime. The Soviet Union also had a compulsory premilitary training program for the country’s youth. In the late 1980s, the number of draft-age youths was stable, but fewer Russians and more non-Russians were being inducted into the armed forces.

Premilitary Training

Military and physical fitness training began at the age of ten in the Pioneers. Their activities emphasized military-patriotic indoctrination, marching, and discipline. The Pioneers also guarded Soviet war monuments and participated in military sports games held every summer since 1967. In the games, children were divided into commanders, staff, and troops for maneuvers that simulated partisan warfare behind enemy lines. Members of the Komsomol, age fourteen and older, participated in more sophisticated military games.

COMMISSIONED OFFICERS

SOVIET UNION	MLADSHIY LEYTENANT	LEYTENANT	STARSHIY LEYTENANT	KAPITAN	MAYOR	PODPOLKOVNIK	POLKOVNIK
STRATEGIC ROCKET FORCES AND GROUND FORCES							
U.S. RANK TITLES	2D LIEUTENANT	1ST LIEUTENANT	CAPTAIN	MAJOR	LIEUTENANT COLONEL	COLONEL	
SOVIET UNION	GENERAL-MAJOR	GENERAL-LEYTENANT	GENERAL-POLKOVNIK	GENERAL ARMIJ	MARSHAL	GLAVNYY MARSHAL	MARSHAL SOVET-SKOGO SOYUZA
STRATEGIC ROCKET FORCES AND GROUND FORCES							
U.S. RANK TITLES	BRIGADIER GENERAL	MAJOR GENERAL	LIEUTENANT GENERAL	GENERAL	GENERAL OF THE ARMY		

WARRANT OFFICERS AND ENLISTED PERSONNEL

SOVIET UNION	RYADOVOY	EFREYTOR	MLADSHIY SERZHANT	SERZHANT	STARSHIY SERZHANT	STARSHINA	PRAPOR-SHCHIK	STARSHIY PRAPORSCHCHIK
STRATEGIC ROCKET FORCES AND GROUND FORCES								
U.S. RANK TITLES	BASIC PRIVATE	PRIVATE 1ST CLASS	SERGEANT	MASTER SERGEANT	SERGEANT MAJOR	COMMAND SERGEANT MAJOR	WARRANT OFFICER W-1	CHIEF WARRANT OFFICER W-2

NOTE--Insignia of rank are gold in color; colors of shoulder boards vary (see table 54, Appendix A).

Figure 34. Ranks and Insignia of Strategic Rocket Forces and Ground Forces, 1989

COMMISSIONED OFFICERS

SOVIET UNION	MLADSHY LEYTENANT	LEYTENANT	STARSHY LEYTENANT	KAPITAN	MAYOR	PODPODKOVNIK	POLKOVNIK
AIR FORCES AND AIR DEFENSE FORCES							
U.S. RANK TITLES	2D LIEUTENANT	1ST LIEUTENANT	GENERAL-LEYTENANT AVIATSII	GENERAL-POLKOVNIK AVIATSII	MAJOR	LIEUTENANT COLONEL	COLONEL
SOVIET UNION	GENERAL-MAYOR AVIATSII				GLAVNYY MARSHAL AVIATSII		
AIR FORCES AND AIR DEFENSE FORCES							
U.S. RANK TITLES	BRIGADIER GENERAL	MAJOR GENERAL	LIEUTENANT GENERAL	GENERAL		GENERAL OF THE AIR FORCE	

WARRANT OFFICERS AND ENLISTED PERSONNEL

SOVIET UNION	RYADOVOY	EFREYTOR	MLADSHY SERZHANT	SERZHANT	STARSHY SERZHANT	STARSHINA	PRAPOR-SHCHIK	STARSHY PRAPORSHCHIK
AIR FORCES AND AIR DEFENSE FORCES								
U.S. RANK TITLES	AIRMAN BASIC	AIRMAN 1ST CLASS	STAFF SERGEANT	MASTER SERGEANT	SENIOR MASTER SERGEANT	CHIEF MASTER SERGEANT	NO RANK	NO RANK

NOTE--insignia of rank are gold in color; colors of shoulder boards vary (see table 54, Appendix A).

Figure 35. Ranks and Insignia of Air Forces and Air Defense Forces, 1989

When the terms of service for soldiers and sailors were reduced by one year in 1967, the government introduced general preconscription military training. The institution of preconscription training was designed to compensate for the reduced length of military service by providing basic military training prior to induction.

DOSA AF organized and conducted premilitary training for young men and women between the ages of sixteen and eighteen. In principle, every secondary or vocational-technical school, factory, and collective farm (see Glossary) in the Soviet Union had a DOSAAF organization. Millions of Soviet teenagers received 140 hours of instruction in military regulations, small arms, grenade throwing, vehicle operation and maintenance, first aid, civil defense, and chemical defense. This training enabled them to learn advanced military skills more quickly after conscription. The Soviet press has claimed that each year 75 million people were involved in over 300,000 DOSAAF programs nationwide. DOSAAF also had its own publishing house and monthly journal.

Each union republic had a DOSAAF organization headed by a chairman and a central committee. DOSAAF worked closely with the ministries of education and the state committees for physical culture and sports in the union republics; it also maintained close relations with the deputy commanders for premilitary training in the military districts. The Premilitary Training Directorate within the Ministry of Defense supervised DOSAAF, yet the DOSAAF budget was separate from that of the Ministry of Defense.

The best DOSAAF clubs were found in the Russian Republic, which included 51 percent of the population in the late 1980s and 75 percent of the territory. The clubs offered specialist training, such as skiing, parachute jumping, scuba diving, motorcycle driving, seamanship, flying, and radio and electronics maintenance, which were not available in the other republics. Yet many DOSAAF organizations throughout the country lacked qualified or full-time military instructors. Providing time and facilities for DOSAAF training was an added burden on schools and factories. In 1989 the southern Soviet republics were often criticized in the military press for having poor premilitary training programs and sending unprepared recruits to the armed forces. One Western observer estimated that only half the Soviet troops actually received prescribed DOSAAF instruction prior to induction. Approximately one-third of all inductees, however, possessed a technical military specialty that they had learned in a DOSAAF club.

Conscripts

Under the 1967 Law on Universal Military Service, all male citizens must serve in the armed forces beginning at the age of

eighteen. The conscription period for servicemen was two years except for sailors, which was three years. The 1967 law reduced the conscription period from three and four years, respectively, to provide more labor for the economy. A nationwide system of over 4,000 military commissariats (*voennye komissariaty*—*voenkomy*; sing., *voenkomat*—see Glossary) at the republic, oblast, raion, and city levels was responsible for conscription and veterans affairs. A *voenkomat* was accountable to the commander of the military district in which it was located. All males had to report to a *voenkomat* when they turned seventeen. The induction commission of the *voenkomat* gave potential recruits a physical examination and reviewed their school and DOSAAF training records.

Each year over 2 million eighteen-year-olds have reported to *voenkomat* induction commissions. They have reported in the spring and the fall depending on whether their birthdays were in the first or second half of the year. Based on quotas assigned by the General Staff's Main Organization and Mobilization Directorate, the *voenkomat* either assigned recruits to one of the armed services or granted deferments. Assignments were based on the physical attributes, education, skills, and political background of individual conscripts. The services that required technical abilities or high reliability, therefore, received conscripts with the highest qualifications. For example, the Airborne Troops accepted only recruits that had been fully trained in parachute jumping by DOSAAF. By contrast, the Ground Forces and the Rear Services have had to take less qualified inductees. Overall, however, 90 percent of servicemen have had a secondary education.

The *voenkomy* granted about one-quarter of eighteen-year-old men deferments from service because of ill health or family hardship. Eighteen-year-olds were also exempted from service if they were enrolled in a higher education institution. They were required, however, to participate in the reserve officer training program of that institution. Those who had participated in such training programs could serve as little as a year of active duty after graduation. In 1982 education exemptions were restricted to those enrolled in a list of institutions approved by the Ministry of Defense. Young men not conscripted into the armed forces at eighteen remained liable to induction until age twenty-seven. The number of men deferred and later conscripted was probably small, however. Deferments were reportedly obtained from some induction commissions for a bribe of 1,000 rubles. The practice has been common enough that the Law on Universal Military Service mentioned punishment for granting illegal deferments. Soviet law did not provide for a conscientious objector status. In 1987, however, a pacifist group

COMMISSIONED OFFICERS

SOVIET UNION	MLADSHIY LEYTENANT	LEYTENANT	STARSHIY LEYTENANT	KAPITAN-LEYTENANT	KAPITAN TREYEGO RANGA	KAPITAN VTOROGO RANGA	KAPITAN Pervogo Ranga
NAVAL FORCES							
U.S. RANK TITLES	ENSIGN	LIEUTENANT JUNIOR GRADE	LIEUTENANT	LIEUTENANT COMMANDER	ADMIRAL	COMMANDER	CAPTAIN
SOVIET UNION	KONTR-ADMIRAL	VITSE-ADMIRAL	ADMIRAL	ADMIRAL FLOTA	ADMIRAL FLOTA SOVETSKOGO SOYUZA		
NAVAL FORCES							
U.S. RANK TITLES	COMMODORE ADMIRAL	REAR ADMIRAL	VICE ADMIRAL	ADMIRAL	FLEET ADMIRAL		

WARRANT OFFICERS AND ENLISTED PERSONNEL

SOVIET UNION	MATROS	STARSHIY MATROS	STARSHINA II STATI	STARSHINA I STATI	STARSHINA GLAVNYY STARSHINA	GLAVNYY KORABEL'NYY STARSHINA	MICHMAN	STARSHIY MICHMAN
NAVAL FORCES								
U.S. RANK TITLES	SEAMAN RECRUIT	SEAMAN	PETTY OFFICER 2D CLASS	CHIEF PETTY OFFICER	SENIOR CHIEF PETTY OFFICER	FLEET FORCE MASTER CHIEF PETTY OFFICER	NO RANK	CHIEF WARRANT OFFICER W-2

NOTE--Insignia of rank are gold. Shoulder boards are navy blue.

Figure 36. Ranks and Insignia of Naval Forces, 1989

called Trust took advantage of Gorbachev's policy of *glasnost*' to protest compulsory service in the armed forces.

Life in the Soviet Armed Forces

On the day before beginning to serve in the armed forces, Soviet conscripts have traditionally attended an induction ceremony in which local CPSU officials and veterans gave patriotic speeches. The next day, they were transported directly to the military unit in which they would serve their two- or three-year tours of duty. Neither the conscripts nor their families knew its location beforehand. After one month of basic training that reviewed their premilitary training, conscripts took the military oath in their regiments. In the oath, conscripts swore to guard state and military secrets, to master the craft of war, to protect state property, and to defend the homeland and government without sparing life or blood.

Soviet troops lived under harsh conditions and strict discipline. The practice of stationing troops in isolated areas outside their home republics or regions and the system of internal passports kept the desertion rate relatively low; the location of Soviet troops far from their home region also enabled them to be deployed more easily against a rebellious local population. Troops had about an hour per day of "free" time, much of which was used for additional political training and mandatory sports activities. Leave and temporary passes were not issued as a matter of course. New conscripts could also expect to be harassed by soldiers in their second year of service. Such hazing occasionally spilled over into physical abuse and theft by senior soldiers against first-year troops. Conscripts were paid between 3 and 5 rubles per month, about enough to buy cigarettes. Low pay for conscripts conserved the Ministry of Defense's resources, but soldiers often became burdens for their families, who sent them money.

The rate of alcoholism among military personnel was reported to be higher than in society as a whole, a fact that could be attributed to the boredom and isolation of life in the barracks. In addition, the expense and difficulty involved in obtaining alcohol often resulted in petty corruption and the sale of military supplies on the black market. Soldiers were confined to the stockade for minor infractions of this type. They were sent to penal battalions for more serious offenses, and time spent there did not count as time toward their discharge.

Units trained six days every week in winter and summer cycles. The majority of parade drill, tactics, weapons, chemical defense, political, and physical training took place in garrison. The armed forces have strictly limited live firings of weapons, field exercises,

days at sea, and flight time. The average serviceman might participate in several three-day regimental exercises and possibly one larger exercise in the military district in a two-year tour of duty. In addition to their military training, units have often been called on to help with harvesting. The semiannual turnover of conscripts, one-quarter of total conscript manpower, has meant that new inductees were constantly being assimilated into the armed services. This turnover and the two-year service term made it difficult to train and retain specialists to work on sophisticated weapons systems.

Semiannual discharge orders from the minister of defense released troops completing their active duty and automatically enlisted them in the reserves. These troops also had the option of reenlisting as extended service soldiers or applying to become noncommissioned officers. Few did so, however. On returning home, released conscripts had to register as reserves with the *voenkomat* and report to it changes in their residence, health, education, or family status until their reserve obligation ended at age fifty.

Noncommissioned Officers

The armed forces had a very low percentage of noncommissioned officers (NCOs) compared with other armies of the world and even fewer career NCOs. Soviet NCOs were essentially conscripts. At the time of induction, each *voenkomat* selected a few recruits to become NCOs. After training for from several weeks to six months, these new NCOs were assigned to units, but their authority over other conscripts was limited by their youth and inexperience. Moreover, because only 5 percent of Soviet military personnel were NCOs, junior commissioned officers had to perform many tasks assigned to sergeants in other countries' armies. The armed forces have made an effort to build a career NCO corps in order to retain needed skills, improve small unit leadership, and make a military career more attractive to conscripts. For example, in 1972 the Ministry of Defense instituted the NCO rank of warrant officer between the ranks of sergeant and junior officer. NCOs could also attend a six- to nine-month specialist course to become platoon commanders and company technicians.

National Minorities in the Armed Forces

The military tried to give the impression that soldiers of different nationalities served together harmoniously, but the number of articles in the military press devoted to relations between ethnic groups itself indicated the persistence of nationality conflict within the armed forces. Rather than contributing to nation building,

service in the armed forces reportedly was more likely to increase ethnic and linguistic consciousness. In the late 1980s, the Soviet Union's non-Slavic minority groups comprised one-quarter of the conscript pool. Western experts estimated that, as Slavic birthrates declined, by the year 2000 one-third of draft-age males would be non-Slavic.

The armed forces, however, appeared to have mechanisms in place for maintaining control over national minorities in their ranks. The armed forces have been dominated by Slavs in general and Russians in particular. Russian has been the only language of command, and Slavs constituted 80 percent of all combat personnel and 95 percent of the officer corps. Although more non-Slavs will have to be drafted in the future, a pervasive inability, or unwillingness, to read or speak Russian among non-Slavic, and particularly Central Asian, recruits has impeded their training and advancement in the military. Because the Russian language was not taught to conscripts in the armed forces, non-Slavs have been limited to assignments in nontechnical and noncombat positions. Most Central Asian conscripts were assigned to Construction and Troop Billeting and served their two years in construction battalions. They received little combat training.

The military leadership viewed non-Slavs as potentially unreliable frontline troops. For example, Central Asian Muslim soldiers were deployed in Afghanistan during the early days of the war but had to be withdrawn because they sympathized with their coreligionists in that country. Moreover, non-Slavs were rarely assigned to the elite armed services. They were, however, recruited to serve with the Internal Troops in the Russian Republic because they could be counted on to suppress any disturbance in areas inhabited by ethnic Slavs.

Women in the Armed Forces

Under the Soviet Constitution, women had the same legal obligation as men for the defense of the Soviet Union and have been called on to discharge it. A women's battalion existed at the time of the Bolshevik Revolution and during the Civil War. Approximately 800,000 women served in both combat and noncombat roles during World War II. According to the 1967 Law on Universal Military Service, women with medical or other special training must register for the draft, but they have not been inducted. Women between nineteen and forty may volunteer for active duty. In wartime women would be drafted for "auxiliary or special duty." The 1967 law did not specify whether they would be used in combat. In the late 1980s, an estimated 10,000 to 30,000 women were

serving in the armed forces in medical, communications, and administrative support positions. Women were not admitted to military education institutions, and few became officers. Many Western observers believe that the armed forces will have to rely more on women in the future as the number of available Slavic men declines.

Officers

The profession of officer in the armed forces has been prestigious and well respected in the Soviet Union. The number of officers was very large, in part because the armed forces have contained a large number of conscripts and relatively few NCOs. The presence of a political officer, or *zampolit*, in every company or battery also has significantly raised the total number of officers.

As of 1989, the Soviet Union had the world's largest officer training system. At the secondary level, it had eight Suvorov military schools and the Nakhimov Naval Secondary School to prepare fifteen- and sixteen-year-old cadets, who were often sons of officers, for direct admission into higher military education institutions.

In 1989 the Soviet Union had about 140 higher military schools, which trained officers for each armed service or combat arm. Young men between seventeen and twenty-one who had a secondary education could apply for admission into higher military schools. Servicemen under the age of twenty-three could also apply. Admission was based on a competitive examination in Russian language and literature, Soviet history, physics, and mathematics, as well as a thorough review of an applicant's political and educational background.

Each higher military school had over 1,000 cadets and trained either command, engineering, or political officers for a particular combat arm (see table 55, Appendix A). The four- or five-year curriculum of command schools included about 60 percent military science, weapons, and tactics instruction and 40 percent general sciences education and political training. Cadets in political or engineering schools received correspondingly more political or technical instruction. Upon graduation cadets received university diplomas and were commissioned as junior lieutenants. The higher military schools and reserve officer training programs in about 900 civilian higher education institutions produced about 60,000 new officers for the armed forces each year.

Junior officers remained in their assignments for long periods and were evaluated for promotion every four years based on their professional knowledge, performance, and moral-political capabilities (see Glossary). Some junior officer promotions were almost automatic because the time-in-grade requirement for advancement

in rank was only two years. Officers' monthly pay ranged between 150 rubles for lieutenants and 2,000 rubles for generals, which was considerably more than the salary of most managers in the civilian sector.

Officers had greater opportunities to commit infractions of military law than ordinary servicemen, and their most common criminal offense was bribery. Officers inspecting units accepted bribes in return for overlooking training deficiencies, accidents, or disciplinary breaches. The misuse of state property, and vehicles in particular, was also widespread. According to the Law on Universal Military Service, however, officers could be discharged for committing acts that disgraced their titles.

Upon reaching the rank of senior lieutenant or captain, many officers began to prepare for competitive examinations to enter one of seventeen military academies. Candidates for admission were required to have held a regimental command position and received excellent ratings and to have been endorsed by the political directorate of their command or service. The two- or three-year program of a Soviet military academy was similar to command and staff training or war colleges in Western countries. Each armed service and combat arm had its own academy. The Frunze Military Academy, the most prestigious at its level, specialized in combined arms training but was attended predominantly by Ground Forces officers. Advanced study in military academies involved major military science research projects that were frequently published in books or articles. Military academies awarded diplomas equivalent to master's or doctoral degrees in the West. They also conducted correspondence courses leading to similar degrees.

Graduation from a military academy was practically a requirement for advancement to higher rank. In particular, graduation from the Voroshilov General Staff Academy, the highest-level academy, was a prerequisite for appointment to important Ministry of Defense and General Staff positions. Among its graduates have been the ministers of defense of the Warsaw Pact countries. High rank has brought a salary of as much as 2,000 rubles monthly and other perquisites that come with being part of the elite. For example, many generals had summer homes reportedly built with government construction materials and military manpower.

Officers were not under pressure to advance in rank, and higher ranking officers were not forced to retire early from the armed services. In theory, an officer could serve as a junior lieutenant until age forty. Mandatory retirement began at age forty and went up to age sixty for major generals. Above this rank, general officers could get extensions and were effectively exempt from mandatory

retirement. In practice, many officers who resisted retirement were put to work in civil defense or DOSAAF organizations. High-ranking officers often moved into the Ministry of Defense's Main Inspectorate as senior inspectors or became the heads of higher military schools or academies.

Reserves and Wartime Mobilization

The Soviet Union had the world's most elaborate system of wartime mobilization, although it was not certain that the system would be as impressive in action as it was on paper. Soldiers retained a reserve obligation until age fifty. For officers, the reserve obligation extended to sixty-five. Thus, Western specialists estimated that over 50 million males were reservists. Local *voenkomaty* maintained records of residences and other data that would be important in mobilizing the reserves.

Reserves were divided into two categories of three classes based on age and the amount of refresher training they were supposed to receive after mobilization. Reserves were subject to periodic call-ups for active duty or training in the local garrison. The amount of reserve training actually conducted varied greatly.

In 1989 the Soviet Union had about 9 million servicemen who had been discharged from active duty in the preceding five years. Only 3 million of them would be needed to bring all active Ground Forces divisions to full strength in fewer than three days. Western analysts speculated that large numbers of additional divisions could be created within two to three months using civilian trucks and large stockpiles of older weapons and equipment. Such forces could be employed effectively against NATO's second echelons, as well as against less formidable opponents.

Reserves, together with additional manpower and equipment mobilized in wartime, would substantially augment the considerable strength of the peacetime Soviet military. Long favored by the political leadership, the military has received a large proportion of the human and material resources of the Soviet Union. Guided and controlled by the CPSU, the military's strategic leaders have organized, trained, and equipped the Soviet armed forces to capably fulfill their assigned missions.

* * *

The single most complete work on the Soviet armed forces is Harriet F. Scott and William F. Scott's *The Armed Forces of the USSR*. The Department of Defense's *Soviet Military Power*, the eighth edition of which was published in 1989, contains information about

Soviet forces that is not available to the public elsewhere. *The Military Balance*, issued annually by the International Institute for Strategic Studies, is a consistently accurate and independent source of information on the size of the Soviet defense effort. Coverage of current developments in Soviet weapons, tactics, strategy, and military leadership can be found in the regular columns and feature articles of many defense-oriented journals. The *Air University Library Index to Military Periodicals*, edited by Emily J. Adams, is an excellent resource for locating these articles. The *Soviet Armed Forces Review Annual*, edited by David R. Jones, provides coverage of changes in the Soviet military from year to year. Richard A. Gabriel and Ellen Jones have written extensively on the troops behind Soviet weapons and equipment. *Inside the Soviet Army*, by a Soviet officer who defected to the West and writes under the pseudonym Viktor Suvorov, also contains revealing insights into the operation of and life in the armed forces. (For further information and complete citations, see Bibliography.)

