

1991

# MILITARY FORCES IN



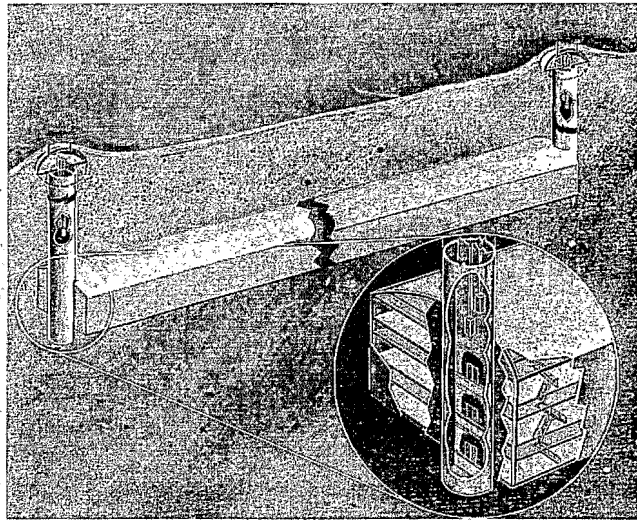
# TRANSITION

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MILITARY FORCES IN TRANSITION

### Moscow's Deep-Underground Facilities

The Soviets have constructed deep-underground command posts both in urban Moscow and outside the city. These facilities are interconnected by a network of special deep subway lines that provide a quick and secure means of evacuation for the leadership. The leadership can move from their peacetime offices through concealed entryways to protective quarters beneath the city.

There are important deep-underground command posts in the Moscow area, one located at the Kremlin. Soviet press has noted the presence of an enormous underground leadership bunker adjacent to Moscow State University. These facilities are intended for the national command authority in wartime. They are estimated to be 200-300 meters deep and can accommodate an estimated 10,000 people. A special subway line runs from some points in Moscow and possibly to the VIP terminal at



Facilities for the highest level leadership elements in and around Moscow are often built hundreds of meters underground and at enormous cost.

Vnukovo Airfield 27 kilometers southwest of the Kremlin.

The leadership can remain beneath Moscow or travel along special subway lines that connect these facilities to their preferred deep-underground command posts outside the city. Two

of the most important complexes for the Soviet national command authority and the General Staff are located some 60 kilometers south of the city. There is also a complex located about 25 kilometers east of the Kremlin for the national air defense headquarters. The support infrastructure for these complexes is substantial. A highly redundant communications system supports these complexes and permits the leadership to send orders and receive reports through the wartime management structure. These installations also have highly effective life support systems that may permit independent operations for many months following a nuclear attack.

The extensive preparations the Soviets have made for leadership protection and wartime management are designed to give their leaders the capability to operate effectively in a nuclear war environment.

production of the Mainstay airborne warning and control system (AWACS). Nevertheless, the Soviets will continue using Mainstay with APVO fighters to project homeland air defenses beyond the borders of the USSR.

#### Command, Control, and Communications, Radars, and Surface-to-Air Missiles

The Soviets have dedicated a great amount of time and effort to streamline and update air defenses, C<sup>3</sup>, and their air defense radar. Newer, more integrated air defense C<sup>3</sup> systems enhance early warning and target handling capability. Passive detection systems located on the country's periphery help provide the air surveillance network early warning. The Soviets also make extensive use of computer-aided decisionmaking equipment including air defense battle management systems and more efficient, redundant communications systems. New phased-array radars can more effectively detect and track multiple targets and some new early warning

radars are three-dimensional, eliminating the need for separate height finder radars. Finally, the Soviets are working to close low-altitude radar gaps along their periphery, making undetected penetration of their airspace by low-flying aircraft and cruise missiles more difficult.

The Soviets continue to deploy modern surface-to-air missiles such as the SA-10, whose mobility and effectiveness they continue to improve. Integration of the SA-12 systems withdrawn from Eastern Europe into homeland air defenses will further enhance Soviet capabilities to defend against strategic bombers and cruise missiles.

#### Passive Defenses

The Soviet passive defense program is part of an integrated system of strategic defenses designed to moderate the effects of a nuclear attack. The

principal objectives of passive defense include: wartime leadership continuity; stable operation of the economy; post-attack rescue, recovery, and reconstitution; and protection of the general population. The most important part of the Soviet passive defense program is an extensive, redundant set of hardened command posts and communications facilities for all key echelons of the military, party, and government apparatus. This defense program is continuing without apparent change despite budget cuts in other areas.

**Leadership Protection Plan**

For over 40 years the Soviets have had a comprehensive program designed to ensure leadership survival in wartime. This multifaceted program has involved the construction of hardened bunkers, tunnels, and special subway lines beneath Moscow, other major Soviet cities, and the sites of major military commands. Although the majority of these hardened facilities are near-surface bunkers, many critical sites are built deep underground. As nuclear arsenals on both sides have become larger and more potent, these facilities have been expanded and deepened. For example, the Soviets continue to upgrade, improve, and deepen the most important facilities in and around Moscow for the highest level leadership elements, although they are already hundreds of meters deep and can hold thousands of people.

**Civil Defense and Reconstitution**

The USSR civil defense organization is responsible for wartime protection of the economy and population and post-attack recovery and reconstitution. Soviet efforts to protect the economy focus on key

elements of the economic infrastructure essential to war support and recovery, including measures to protect the work force and certain major industries. In addition to its wartime mission, Soviet civil defense has a secondary role responding to peacetime disasters.

Critical shortcomings in the protection of the general population and rescue and recovery capabilities were visibly demonstrated in the aftermath of the Chernobyl nuclear accident and the Armenian earthquake. As a result, major changes are under consideration in civil defense to improve preparedness activities common to peacetime emergencies: planning, warning, communications, command and control, population movement, and the provision of food, shelter, medical care, and other critical resources. These measures, if implemented, may substantially improve the Soviets' capabilities to respond to isolated peacetime disasters. In light of the aborted coup, the role, mission, and funding of Soviet civil defense are likely to be reviewed.

**SPACE FORCES**

**Introduction**

The Soviet space program is overwhelmingly military in character, although there is an increasing tendency to support civilian missions. Almost all satellites are dedicated either exclusively to military missions (such as ocean reconnaissance and targeting) or to dual-use, military and civil, applications (such as communications and meteorology). While space-launch attempts increased slightly, from 75 in 1989 to 79 in 1990, the overall Soviet launch rate remains about 15 percent

