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Strategic Rocket Forces (Soviet)

Established in 1959 as an extension of the Red Army's long-range artillery, the Strategic Rocket Forces (SRF) would become the pre-eminent branch of the Soviet nuclear triad, with the land-based component being more important than the naval and air branches in terms of resource allocation and prestige. Early Soviet missile force development was heavily influenced by World War II German rocket technology and captured German scientists. A significant part of this early development was directed by Sergei Korolev at Scientific Research Institute 88 near Moscow.

The size of these forces grew significantly following the Cuban Missile Crisis, which the Soviet leadership saw as a stinging defeat due to their numerical inferiority in strategic nuclear weapons. SRF infrastructural component construction, research, and development were influenced by Soviet style earmarking, with SS-9 missiles being produced by the Dnepropetrovsk Missile Design and Production Center in Soviet president Leonid Brezhnev's regional political power base. This enormous governmental financial and political commitment to bolstering SRF quality and quantity paid dividends and by the late 1970s Moscow had probably achieved strategic superiority over U.S. strategic nuclear forces.

SRF operational facilities were located in various military districts around the Soviet Union including Moscow, the Urals, Siberia, Kiev, Belorussia, and Trans-Baikal. These weapons were used to threaten tactical, intermediate range targets such as NATO forces and populations in Western Europe, and strategic long-range targets such as China and the United States. Specific SRF launch facilities such as Kapustin Yar, Plesetsk, and Tyuratam became the targets for U.S. aerial and space surveillance and reconnaissance as they sought to determine the quantity and quality of Soviet nuclear forces and verify Soviet compliance and particularly non-compliance with U.S.-Soviet arms control agreements.

Making accurate estimate intelligence estimates about SRF intentions and capabilities was particularly challenging due to the virtual impossibility of U.S. and allied intelligence agencies being able to get human agents to successfully penetrate and extract reliable information from these highly secret facilities. Consequently, the U.S. and its allies were forced to rely on satellite, signals, and measurement intelligence to attempt to determine the intentions, quality, and quantity of the SRF. These efforts achieved both success and failure, and their accuracy would be the subject of often contentious debate between various branches of the U.S. intelligence community and U.S. national security policymakers.

Weapons produced for SRF by the Soviet defense industry and deployed against a global array of targets included the SS-9, deployed in 1967 with a two-stage liquid propellant engine with a range of at least 10,200 kilometers capable of carrying three warheads; the SS-18, with similar capabilities and range whose numbers were estimated to be 308 at the Soviet Union's 1991 collapse; and the intermediate range SS-20, deployed between 1976-1988, which was a two-stage solid-fuel-propellant carrying three warheads with an operational range of 5,500 kilometers targeted toward NATO forces and populations in Europe.

Soviet strategic planners had to adjust to changes in U.S. nuclear weapons development and strategy just as U.S. planners had to adjust to Soviet weapons developments and strategy. The U.S. adoption of counterforce doctrine in 1974 stressing targeting Soviet military assets with nuclear weapons instead of civilian targets was criticized by Brezhnev as threatening Soviet nuclear forces--whose parity with U.S. nuclear forces, he believed, was a key foundational basis for ongoing Strategic Arms Limitation Talks (SALT) arms control negotiations.

SRF experienced significant successes in becoming the world's preeminent strategic nuclear power. The program also experienced failure in the form of the bureaucratic stagnation and the lack of quality control incentives inherent in centrally planned economies. The enormous financial investment in SRF and

overall military spending helped contribute to stagnant and declining economic development in civilian Soviet economic sectors. Arms control treaties with the U.S. reduced some of the Soviet Union's nuclear arsenal in the 1970s and 1980s. Soviet legacy nuclear weapons remain a significant part of the Russian Federation's nuclear deterrent and the presence and possible use of nuclear weapons remain significant components in Russian military doctrine two decades after the Soviet Union's collapse.

Bert Chapman

See also: Brezhnev, Leonid Ilyich (1906-1982); Kapustin Yar; Korolev, Sergei Pavlovich (1906-1966); SALT I (November 1969-May 1972); SALT II (1972-1979)

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