

**RUPs  
for R-7**

positioned symmetrically from the launching site, 150–250 km (90–150 miles) left and right from the flight trajectory. The third RUP at the distance of 300–500 km (180–300 miles) opposite to the flight direction performed Doppler measurements of the rocket velocity in order to generate the engine cutoff command, which determined the distance to the warhead impact site. The launch site infrastructure thus “grew the [two lateral symmetric RUP] ‘radio-whiskers’ and the [RUP] ‘radio-tail’” (Chertok 1994, 406) when drawn on the map.

All RUPs needed unobstructed lines of sight to the ascending rocket immediately after the liftoff, precluding RUP locations in mountainous areas. The requirements imposed by this radio control system had consequently excluded the area on the Caspian Sea shore from consideration for a new rocket test range. Ironically, the advent of autonomous inertial guidance made radio control obsolete in only a few years.

On 12 February 1955, the USSR Council of Ministers authorized establishing a new rocket test range at the third considered location near the train stop *Tyuratam* on the Turkestan railroad line east of the Aral Sea. The new range was called the *Scientific-Research Test Range N.5* (NIIP-5). The Army's *130th Direc*

**Selection  
of  
Tyuratam**

**130TH DIRECTORATE**

The Soviet Army activated a new *130th Directorate of Engineering Works* (initially called the *130th Directorate of Special Works*) in 1950 for the construction of one of the sites at the Kap-Yar missile range. The directorate was transferred in 1951 to Tashkent, the center of the *Turkestan Military District*. (Tashkent, an empire outpost, was the center of the Russian penetration to the Central Asia since the 19th century. Today, this city with a four-million population is the capital of a new state, Uzbekistan.)

The 130th Directorate supervised construction of numerous military installations dispersed throughout enormous territory of the military district in the Soviet Central Asia. In 1954, the directorate was assigned to and built the Tyuratam (Baikonur) cosmodrome.

**DECREE OF THE COUNCIL OF MINISTERS OF THE USSR**

On 12 February 1955, the Chairman of the Council of Ministers of the USSR Nikolai A. Bulganin signed the decree (N.292-181) “On the new testing range for the Ministry of Defense.” The Decree approved a proposal

... to establish in 1955-1958 the scientific-research and testing range of the USSR Ministry of Defense for flight tests of [the first Soviet ICBM] R-7, [long-range winged missiles] “Burya” and “Buran” with the location of the main part of the range in the Kzyl-Orda and Karaganda administrative regions of the Kazakh SSR [Soviet Socialist Republic] between [the towns] Novo-Kazalinsk and Dzhusaly;

the region of the warhead impact in the Kamchatka region of the RSFSR [Russian Soviet Federal Socialist Republic] near Cape Ozernoi;

... and the region of the impact of the first stages of the R-7 [rocket] on the territory of the Akmolinsk administrative region of the Kazakh SSR near Lake Tengiz ... .