

Vozrozhdeniye Island

The Vozrozhdeniye Island test site in the Aral Sea was part of the older, military BW system. The island was apparently chosen for open-air testing of biological weapons because of its geographical isolation. (26) Vozrozhdeniye is situated in the middle of the Aral Sea, surrounded by large, sparsely populated deserts and semi-deserts that hindered unauthorized access to the secret site. The island's sparse vegetation, hot, dry climate, and sandy soil that reaches temperatures of 60° C (140° F) in summer all reduced the chances that pathogenic microorganisms would survive and spread. (27) In addition, the insular location prevented the transmission of pathogens to neighboring mainland areas by animals or insects. The northern part of Vozrozhdeniye Island, which Kazakhs call Mergensay, is on Kazakhstani territory. The southern two-thirds of the island is in the Karakalpak autonomous region of Uzbekistan. (28)

In 1936, Vozrozhdeniye Island was transferred to the authority of the Soviet MOD for use by the Red Army's Scientific Medical Institute. (29) The first expedition of 100 people, headed by Professor Ivan Velikanov, arrived on the island that summer. The researchers were provided with special ships and two airplanes and reportedly conducted experiments involving the spread of tularemia and related microorganisms. In the fall of 1937, however, the expedition was evacuated from the island because of security problems, including the arrest of Velikanov and other specialists. (30)

In 1952, the Soviet government decided to resume BW testing on islands in the Aral Sea. A biological weapons test site, officially referred to as "Aralsk-7," was built in 1954 on Vozrozhdeniye and Komsomolskiy Islands. The MOD's Field Scientific Research Laboratory (PNIL) was stationed on Vozrozhdeniye Island to conduct the experiments. (31) Military unit 25484, comprising several hundred people, was also based on the island and reported to a larger unit based in Aralsk. (32) The PNIL developed methods of biological defense and decontamination for Soviet troops. Samples of military hardware, equipment, and protective clothing reportedly passed field tests at the island before being mass-produced. During the Soviet intervention in Afghanistan, military protective gear developed for Afghan conditions was tested at the PNIL. (33)

Infrastructure and BW Development

The BW test site on Vozrozhdeniye Island was divided into a testing complex in the southern part of the island and a military settlement in the northern part where officers, some with families, and soldiers lived. The settlement had barracks, residential houses, an elementary school, a nursery school, a

cafeteria, warehouses, and a power station. Personnel were subjected to regular immunizations and received hardship benefits.(34) PNIL laboratory buildings, located near the residential area, possessed up-to-date equipment and a Biosafety Level 3 containment unit.(35) Also located in the northern part of the island was Barkhan Airport, which provided regular plane and helicopter transportation to the mainland, and a seaport at Udobnaya Bay. Special fast patrol boats protected the island from intruders.

The open-air test site in the southern part of the island was used for studying the dissemination patterns of BW agent aerosols and methods to detect them, and the effective range of aerosol bombllets with biological agents of different types.(36) The testing grounds were equipped with an array of telephone poles with detectors mounted on them, spaced at one-kilometer intervals.(37) BW agents tested at the Vozrozhdeniye site had been developed at the MOD facilities in Kirov, Sverdlovsk, and Zagorsk, and the Biopreparat center in Stepnogorsk, and included anthrax, tularemia, brucellosis, plague, typhus, Q fever, smallpox, botulinum toxin, and Venezuelan equine encephalitis. The experiments were conducted on horses, monkeys, sheep, and donkeys, and on laboratory animals such as white mice, guinea pigs, and hamsters.(38) In addition to common pathogenic strains, special strains developed for military purposes were tested at the island.(39) Bacterial simulants were also used to study the dissemination of aerosol particles in the atmosphere. The fact that the island's prevailing winds always blow toward the south, away from the northern settlement, was probably an important factor in designing the site. The BW aerosol tests were also conducted in such a way as to avoid contaminating the northern military settlement, and a special service on the island was responsible for environmental control.(40) Nevertheless, the activities on the secret island caused serious concerns among local residents because of repeated epidemics and the mass deaths of animals and fish in the area.(41) Individual cases of infectious disease also occurred in people who spent time on the island.(42)