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PHOTOGRAPHIC INTERPRETATION REPORT

KALININ
SAM COMPLEX B19-5
USSR

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APRIL 1968
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PHOTOGRAPHIC INTERPRETATION REPORT

KALININ
SAM COMPLEX B19-5
USSR

APRIL 1968

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

25X1

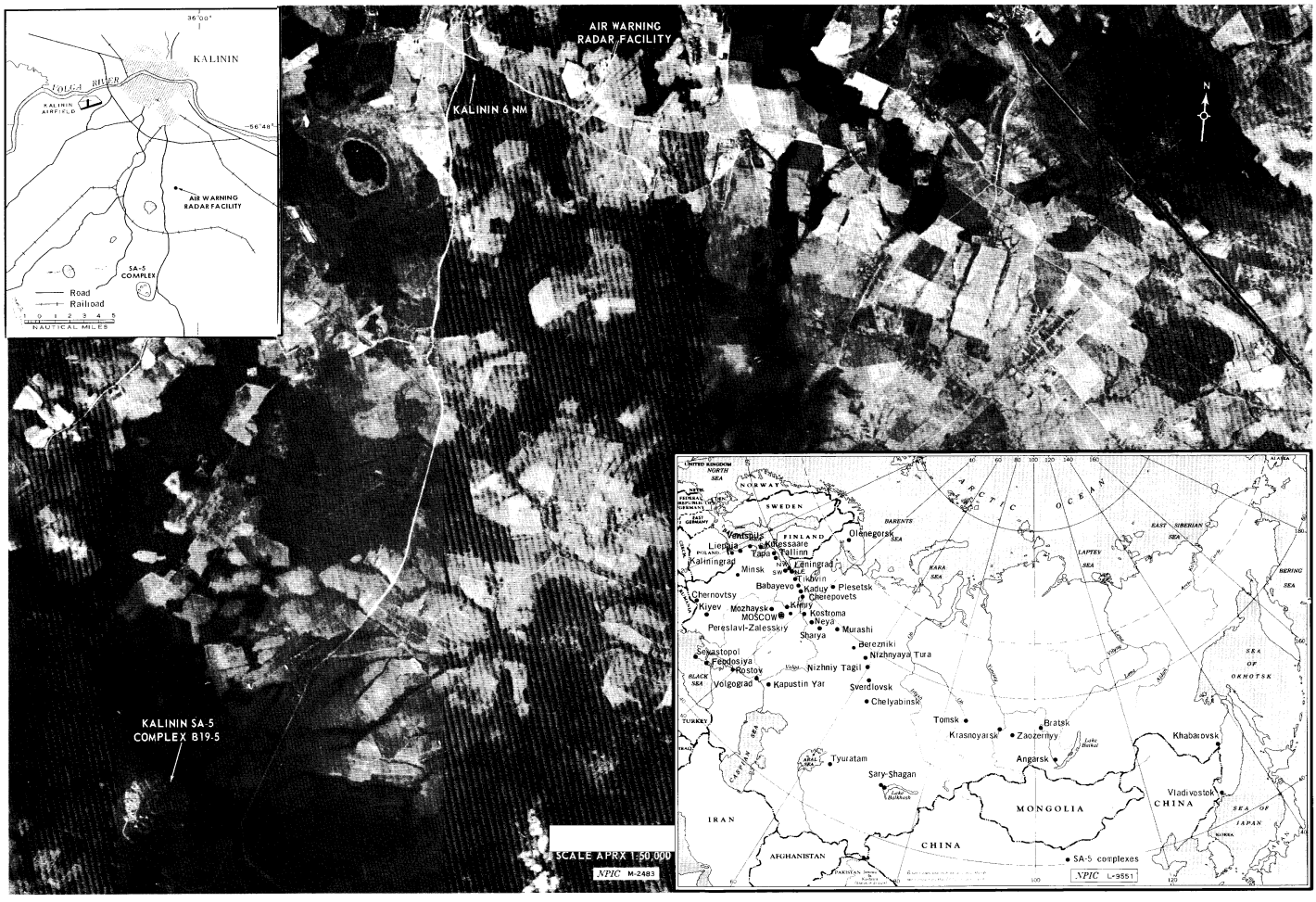

FIGURE 1. KALININ SAM COMPLEX B19-5, USSR.

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INTRODUCTION

The Kalinin SAM Complex B19-5 is located 15 nautical miles (nm) south of Kalinin, USSR, at 56-36-50N 35-53-00E (see insets, Figure 1). The complex has an [redacted] and an elevation of approximately 800 feet above mean sea level.

This complex (Figures 1, 2, and 3) is part of a system employed for the point defense of Moskva, USSR. To date, only 3 other SA-5 complexes have been identified in the vicinity of Moskva, these being the complexes at Mozhaysk (B32-5), Kimry (A19-5), and Pereslavl-Zalesskiy (A29-5), USSR. Arranged in a semicircle west and north of Moskva, these complexes are located 62-79 nm from the center of the city. The Kalinin Complex is sandwiched between Mozhaysk, located 58 nm southwest, and Kimry, 50 nm east. The remaining complex, Pereslavl-Zalesskiy, is 43 nm east of Kimry. Kalinin is in the most advanced stage of construction of the 4 complexes in this vicinity.

Presently the secured complex consists of 3 launch sites, designated A-C, a tracking/guidance facility, and support and missile-handling facilities. An air warning radar facility is located 7.3 nm north of the complex. All activity in this area can be negated in July 1965 [redacted], while the first activity was detected in February 1966 [redacted]. To date the complex has been covered only once by large-scale KEYHOLE photography, that obtained in June 1967 [redacted] Most of the information contained in this report, including that contained in line drawings and annotated photographs, was derived from this mission. Linear mensural data contained in this report is accurate to within ± 5 feet except where indicated as approximate. Heights are accurate to within ± 5 feet.

LAUNCH AREA

Generally speaking, the 3 launch sites (Figures 4-6) are similar, with each site consisting of 6 revetted launch positions (designated 1-6) and a revetted launch site control center. The revetments in the launch area follow the same general pattern at all 3 launch sites. Although simplified, the basic function of the revetments is to protect the launch points from each other.

Positions 1 and 6 are covered on 2 sides by a broken L-shaped revetment. The base, or short side of the L, [redacted] and located behind the launch point. The stem of the L is 140 to 175 feet long, and located just inside of and parallel to the launch site service road.

Positions 2 and 5 are revetted by linear-shaped revetments 75 to 100 feet long, located just inside of, and parallel to, the launch site service road. In addition to the linear revetments at Positions 2 and 5, an arc-shaped revetment is located around the launch point at Positions A2, B2, B5, and C5, shielding adjacent launch sites from these positions.

Positions 3 and 4 have arc-shaped revetments around the launch point, shielding the launch site control centers from these positions. A short linear revetment, 75 to 103 feet long, is positioned perpendicular to the V-rails at the opposite end of the launch point. These will jointly protect Positions 2 from 3, and 4 from 5.

An anomaly with this complex is a trenching system seen in the launch area. Basically this trench connects all 3 launch sites with an underground bunker near a borrow pit midway between the launch area and the tracking/guidance facility. Part of the trench extending between Positions A2 and C5 has been filled in, giving evidence that the entire trench may be filled.

The bunker located at the terminal end of the trench also has, adjacent to it, a structure [redacted] A sloping driveway leads from the road connecting the launch area with the tracking/guidance facility, down into the bunker. A cable/conduit extends from the bunker, and leads into the cable/conduit connecting Launch Site C with the tracking/guidance facility. This bunker, normally not seen at any other SA-5 complexes, may be the complex control center.

Launch Site A

Launch Site A (Figure 4) has V-rails installed at all 6 launch positions, and the site is fully complemented with a launcher and 2 dollies at each launch position. Missile-ready shelters are under construction over the dolly hold position at Launch Points A2 and A6. A circular excavation 25 feet in diameter is located near the launch control revetments, probably for an underground tank.

The launch site control center has 2 parallel linear revetments 145 feet long. Two pieces of canvas have been stretched over them, obscuring from view the electronic vans and equipment normally seen in the launch site control center. Cables/conduits can be seen extending from the launch site control center to each of the 6 launch positions.

Launch Site B

Construction activity at Launch Site B (Figure 5) is lagging behind that of Sites A and C. The only discernible equipment at Site B is a van in the launch site control center. No rails, launchers, or dollies have been installed, although the site appears to be complete in every other detail. The site is fully revetted, and all launch positions are levelled and graded. The launch site control center is revetted by 2 parallel linear revetments 150 and 70 feet long. Cable/conduit scars can be seen extending from the launch site control center to Launch Positions 1, 3, and 4. Approximately 16 vehicles/pieces of equipment are parked in an area near Launch Position C1, adjacent to the launch site service road. Also located in this parking area is a small centrally located structure 20 by 15 feet.

Launch Site C

Launch Site C (Figure 6) has V-rails installed at all 6 launch positions, and the site is fully complemented with a launcher and 2 dollies at each launch position. Missile-ready shelters are under construction over the dolly hold position at Launch Points C1 and C5.

The launch site control center is revetted by 2 parallel linear revetments 105 and 125 feet long. Two vans are visible between the revetments, although the view of one of them is obscured somewhat by a netting stretched over the tops of the revetments. Cables/conduit can be seen extending from the launch site control center to each of the 6 launch positions.

TRACKING/GUIDANCE FACILITY

The Tracking/Guidance Facility (Figure 7) is located approximately 2,700 feet southeast of the launch area. Presently it consists of 3 radar mounds and a revetted control center. These mounds are designated a-c to correspond to Launch Sites A-C. Basis for this association is the fact that a direct cable/conduit line can be seen connecting Launch Sites A and C with their respective radar mounds and partially so for Launch Site B. 25X1 25X1

Radar mound b is hidden in heavy shadows cast by nearby trees, and no equipment can be seen at this position. The other 2 mounds, in addition to the engagement radar, have 4 vans parked in close proximity to them. L-shaped revetted bays are seen attached to the base of mounds a and c, with netting and canvas stretched over them. More equipment is discernible in these bays, although the coverings preclude their exact identification. Cables/conduits connect all 3 mounds with the control revetments, which consist of 3 bays, faced by a linear revetment 135 feet long. Two of the bays appear to have equipment in them, although interpretation is limited by a possible canvas covering. A parking apron with approximately 5 pieces of equipment is located at one end of the revetments.

MISSILE-HANDLING FACILITY

25X1 25X1

The Missile-Handling Facility (Figure 8) is located northwest of Launch Site B and is used for the receiving, assembly, checkout, and storage of missiles used in the complex. 25X1

Basically it consists of a looped road with 2 drive-through missile checkout/assembly buildings along the south road. Located along the north road are 2 revetted possible propellant storage facilities, each containing 3 horizontal tanks. A feature, seen at Kalinin and several other complexes recently, is a road extending from the missile-handling facility to a large building located nearby. At Kalinin this road is still under construction, and the only progress on the building is the excavation of 2 possible footings located north of the missile-handling facility proper.

Near the eastern end of this facility is a graded parking area containing 3 missile transporters, approximately 15 vehicle/pieces of equipment, and 2 large probable tents.

SUPPORT FACILITY

The Support Facility (Figure 9) is located north of Launch Site A. Twenty structures/buildings are seen, with 6 additional buildings under construction, and an observation/guard tower. The only discernible equipment in the support facility consists of a crane adjacent to one of the buildings undergoing construction. 25X1

A large motor pool containing approximately 53 vehicles/pieces of equipment is located between the missile-handling and support facilities. Also located in this same general area are a batch plant and 2 other structures.

AIR WARNING RADAR FACILITY

An Air Warning Radar Facility (Figures 1 and 10) is located approximately 7.3 nm north of the launch complex. Presently this facility consists of a fenced area containing 4 radar mounds, and a bunkered arch-roofed building under construction. The facility appears to be fully equipped with probable BACK NET and SIDE NET radars, and their associated vans.

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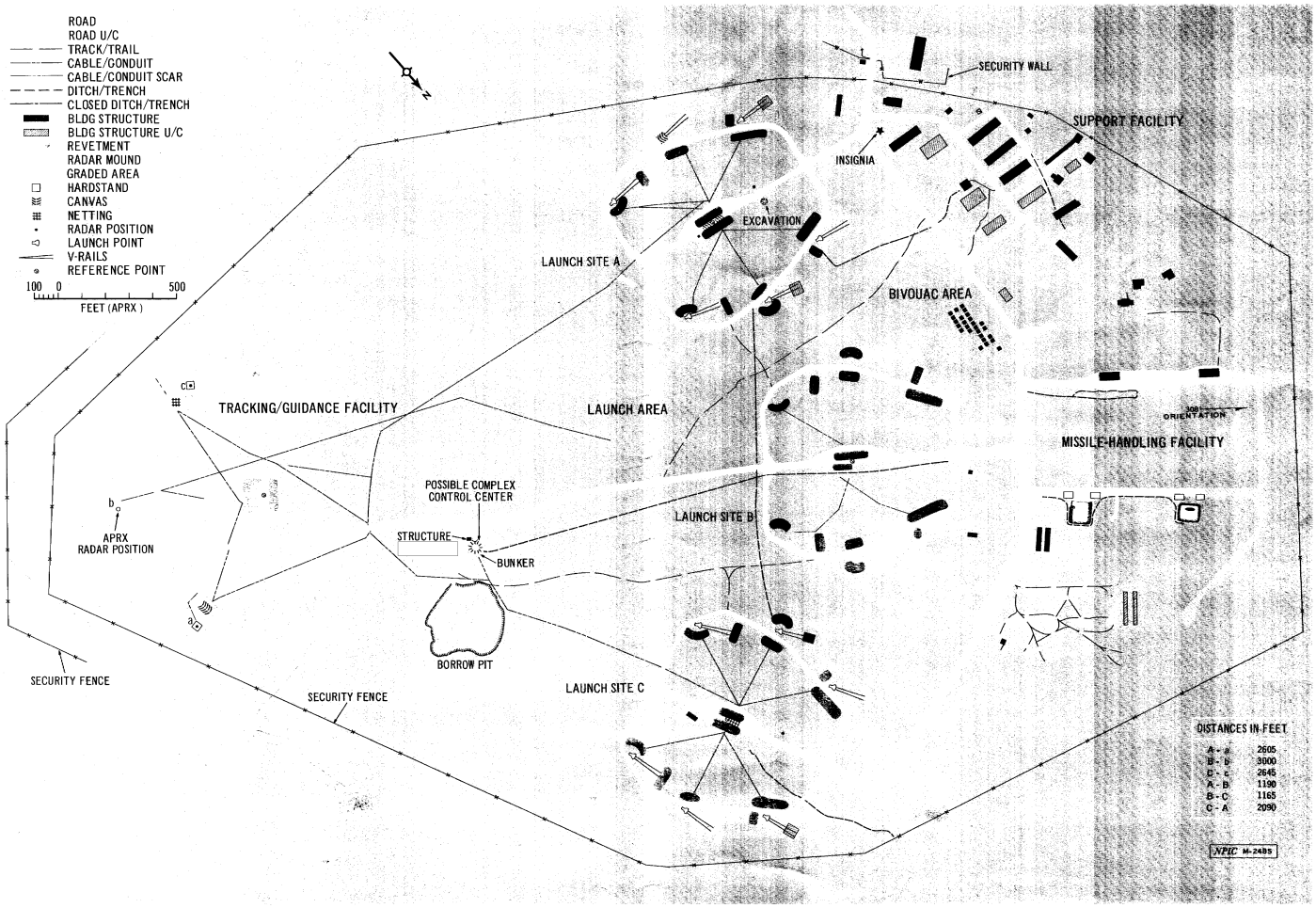
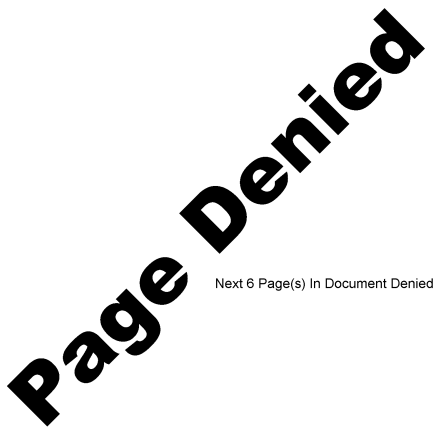


FIGURE 3. KALININ SAM COMPLEX B19-5.



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