

PHOTOGRAPHIC INTERPRETATION REPORT



**SUMMARY OF PROBABLE
LONG RANGE SAM
LAUNCH COMPLEXES
USSR**

[Redacted]

25X1

JUNE 1967

COPY 116

39 PAGES

[Redacted]

25X1

Declass Review by NIMA / DoD

GROUP 1 EXCLUDED FROM
AUTOMATIC DOWNGRADING
AND DECLASSIFICATION

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

~~TOP SECRET~~

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

PHOTOGRAPHIC INTERPRETATION REPORT

SUMMARY OF PROBABLE LONG RANGE SAM LAUNCH COMPLEXES USSR

JUNE 1967

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

~~TOP SECRET~~

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

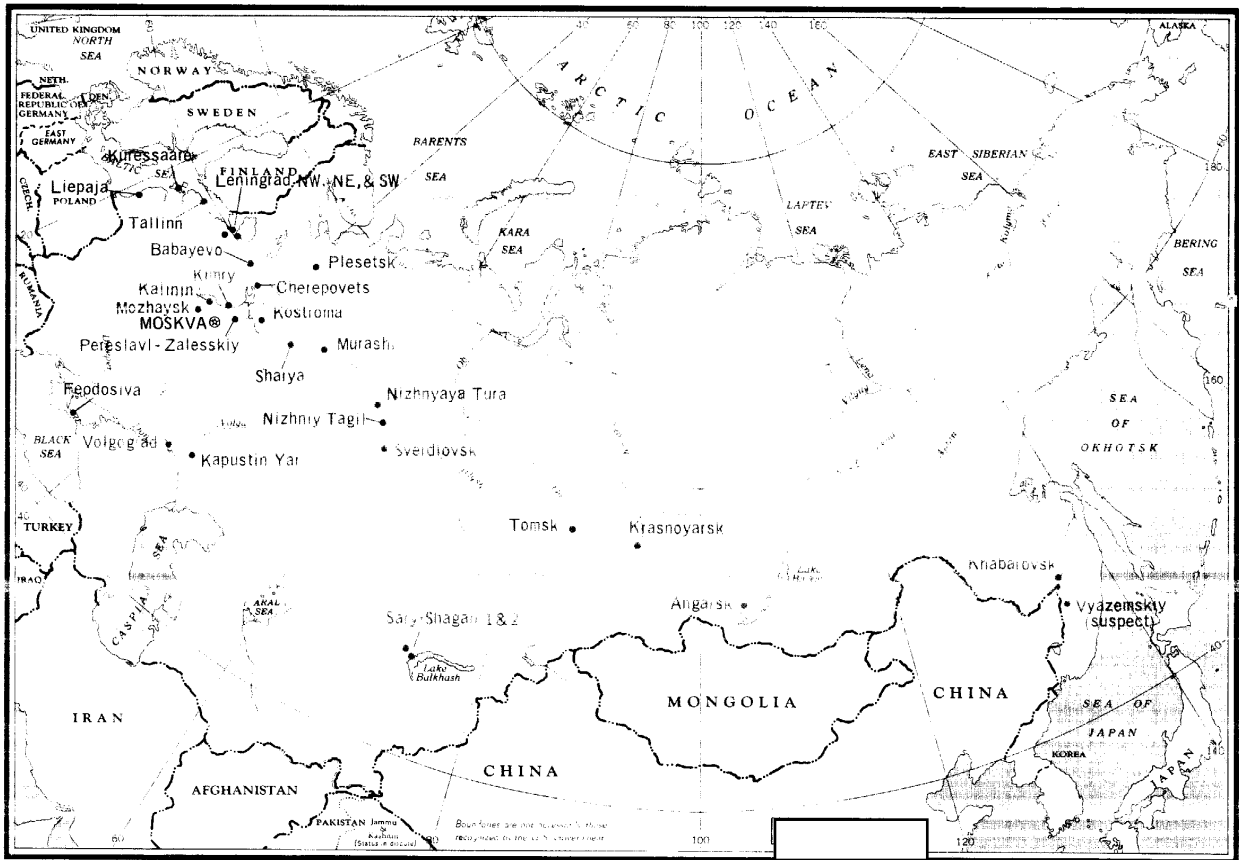


FIGURE 1. DEPLOYMENT OF PROBABLE LONG RANGE SAM LAUNCH COMPLEXES, USSR.

TOP SECRET

TOP SECRET

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8
25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

INTRODUCTION

This summary report presents a construction chronology and the status of 28 probable long range SAM (PLRS) complexes and 1 suspect complex at Vyazemskiy, USSR, as of [redacted] Figure 1). Figures 2 and 3 depict the construction starts and the categories of PLRS complexes. An annotated photograph of each complex is included in Figures 4-32, and 2 typical air warning radar facilities with associated, unidentified areas are shown in Figures 33 and 34.

Discussion in this report, excluding current information, is limited to that information extracted from Table 1 and the photos.

Users of the table are cautioned that the dates listed are first observation on photography and should not be construed as the initial construction or equipment installation dates. Anal-

ysis of the chronology indicates various components were constructed simultaneously, i.e., missile-handling area, support area, air warning radar facility. This conclusion should be tempered, as a complex may not have been observed in its initial stages but first identified in a mid-stage of construction.

Each complex is listed by year and month when construction was first observed on photography.

CURRENT INFORMATION

PLRS equipment has been identified in storage at 9 locations. Seven storage areas are at SAM support facilities (Kirov, Chelyabinsk, Vladivostok 2, Nizhniy Tagil, Nizhnyaya Tura, Tomsk, and Plesetsk); 1 at a SAM site (Kostroma B21-2); and 1 at a military barracks (Pidula Army Barracks). All storage areas except Chelyabinsk and Vladivostok are near known PLRS complexes.

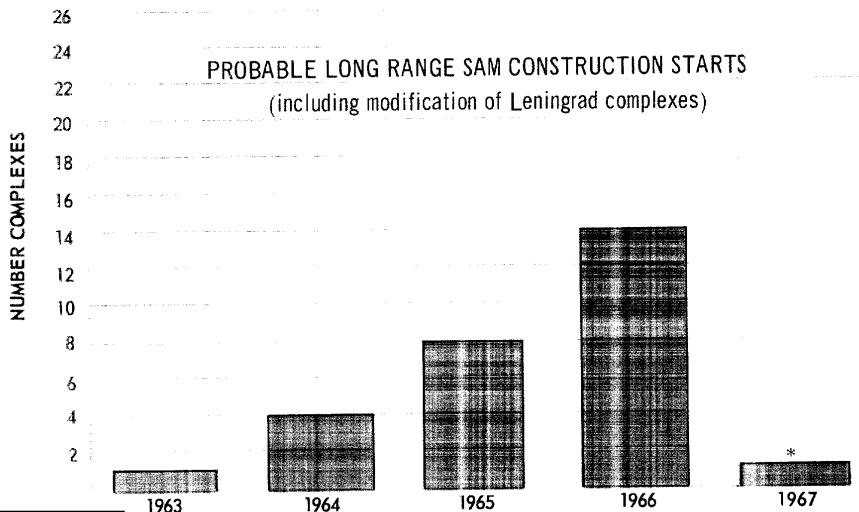


FIGURE 2. PLRS LAUNCH COMPLEX CONSTRUCTION STARTS, USSR.

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

25X1

DISCUSSION

Although construction chronologies vary at each complex, some generalizations can be made which are applicable for most complexes. Construction of the launch sites and the tracking/guidance facility is usually started first. The support area usually is constructed concurrently with the launch sites and the tracking/guidance facility, but extensive construction at the missile-handling area generally is not observed until other components at the complex are nearly complete. The air warning radar facility may be constructed at virtually any stage of complex construction. Where coverage permits, it has been observed that launch sites A and C at three-site complexes usually are completed and equipped before site B; 3 sites at a five-site complex usually are completed and equipped before the other 2.

Construction time varies from 3 months to over 2 years. Launch Complexes 1 and 2 at Sary-Shagan AIC were constructed and equipped within 3 months, while Liepaja has taken over 2 years to reach the same status. Eighteen to 30 months appears to be an average construction period.

25X1D

The number of construction starts of launch complexes [redacted] shown in Figure 2. Because of the lack of photo coverage, some complexes may have been started the preceding year, rather than the year listed.

No five-site complexes were begun after [redacted]

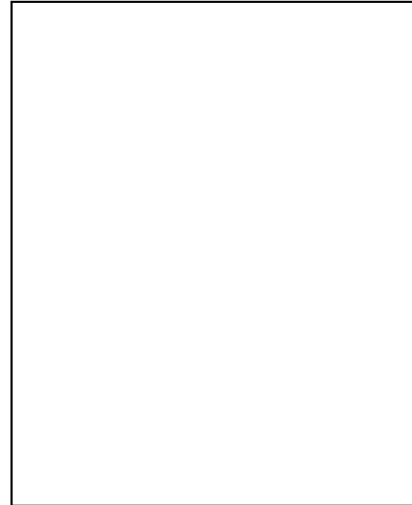
25X1D

The Ural complexes were started [redacted] and surveyed in anticipation of 5 sites, but only 3 sites appeared.

25X1D

PLRS Launch Complexes 1 and 2 at Sary-Shagan were constructed about the time of an apparent transition from five- to three-site-complexes. Launch Complex 1 was the first complex specifically designed as a three-site complex. Three sites were planned at PLRS Launch Complex 2, but only 2 sites were con-

structed.



25X1D

Evolving from the five-site complexes were 3 categories of three-site complexes with loop roads. The first category uses sites designated A, B, and C; the second category sites B, C, and D; and the third category sites C, D, and E. At the three-site complexes, the missile-handling area has not been relocated but remains in the same relative position as if 5 sites had been constructed. At three- and five-site complexes, the complex access road and support area are usually located behind site A.

Only 1 category of launch complex uses the circumferential-road pattern. The launch sites at these complexes are arranged in an arc, about equal distance from the tracking/guidance facility, and are not staggered as at complexes with loop-road patterns. The missile-handling area is located opposite Launch Site B. The complex access road and support area are usually in the vicinity of Launch Site A.

25X1

25X1

Approved For Release 2008/06/20

TOP SECRET

CIA-RDP78T04759A006700010006-8

Although Babayevo is designed for the circumferential-road pattern, 1 site has a loop-road pattern. Though unusual, this complex will not be considered as a separate category.

Ten complexes have a loop-road pattern, 11 complexes use the circumferential-road pattern, and Babayevo has a combination of both patterns. Eleven of 14 complexes started including Babayevo, use the circumferential-road pattern, indicating that this design will probably be used extensively in the future.

Six different revetment designs have been identified. They vary in protection of the launch position from the nearly totally enclosed revetments at Tallinn to complete absence of revetments at launch positions 3 and 4 at loop-road pattern launch sites.

Each launch position is revetted to some degree at launch sites with a circumferential-road pattern. At launch sites with a loop-road pattern, all launch positions are revetted except positions 3 and 4. No revetments have appeared at Murashi or the Ural complexes (Nizhniy Tagil, Nizhnyaya Tura, and Sverdlovsk), although they have been under construction for about 2 years.

Control center revetments are U-shaped at launch sites with a loop-road pattern and are drive through at sites with a circumferential-

road pattern. The exception appears to be at Babayevo, where the loop-road site has a drive-through control center revetment.

One probable and 10 confirmed air warning radar facilities have been identified between 2.5 and 5.0 nm from each of 11 launch complexes. A typical facility consists of 4 mounded radar positions upon which 2 BACK NET and 2 SIDE NET radars have been seen. A central revetment, a probable control building, and 2 nearby, associated, unidentified areas are also present at a typical air warning radar facility.

Each of 6 air warning radar facilities has 2 associated unidentified areas. The 2 unidentified areas are located about 3,000 to 5,000 feet from the air warning radar facility. Each of the 2 areas contains 1 to 3 probable bunkers/mounded structures with a small apron or road in front of each. The most advanced unidentified areas seen to date are located at Tallinn and at Sary-Shagan PLRS Launch Complex 1. These 2 areas are considered more advanced because of the definite road pattern at each area. The bunkers/mounded structures at other areas appear similar to those at Tallinn and Sary-Shagan Launch Complex 1. Figures 33 and 34 are photographs of typical PLRS air warning radar facilities with the associated unidentified areas. See Figures 12, 13, and 15 of

25X1D

Approved For Release 2008/06/20

TOP SECRET

CIA-RDP78T04759A006700010006-8

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Next 1 Page(s) In Document Exempt

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

25X1

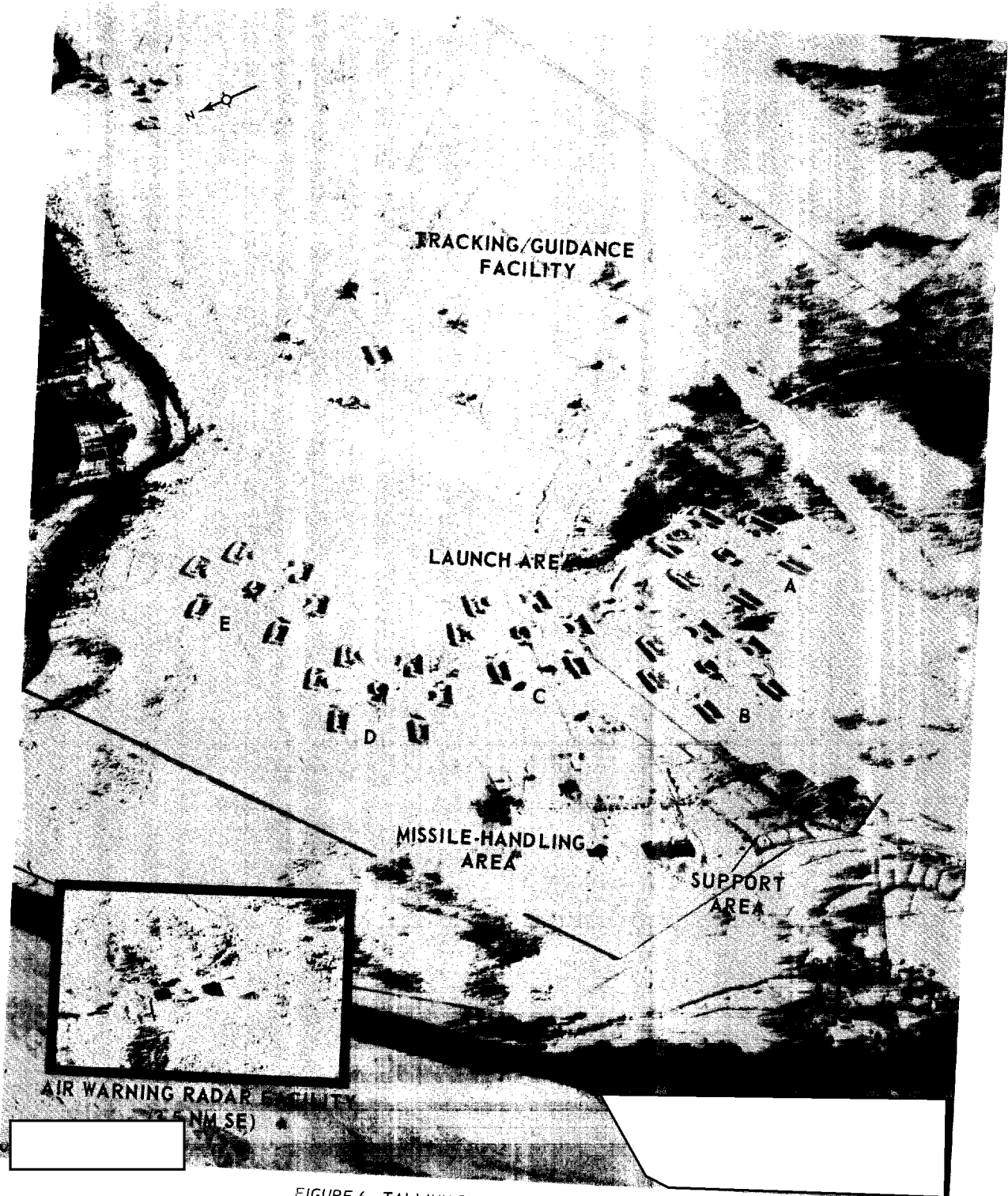


FIGURE 6. TALLINN PLRS LAUNCH COMPLEX.

25X1

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

25X1

Approved For Release 2005/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

CIA-RDP78T04759A006700010006-8

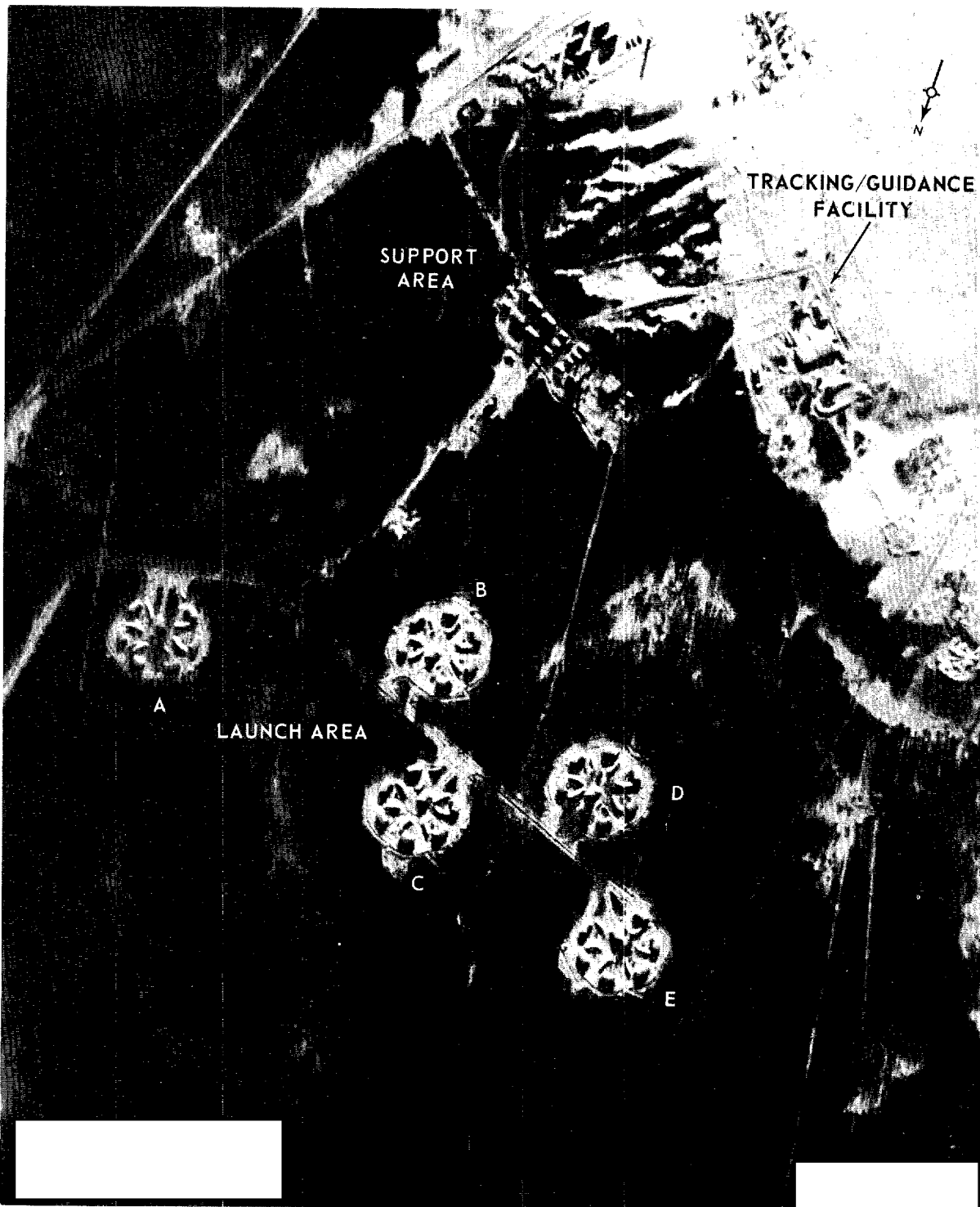


FIGURE 7. LENINGRAD NORTHEAST PLRS LAUNCH COMPLEX.

Approved For Release 2005/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

CIA-RDP78T04759A006700010006-8

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8
25X1D

Next 1 Page(s) In Document Exempt

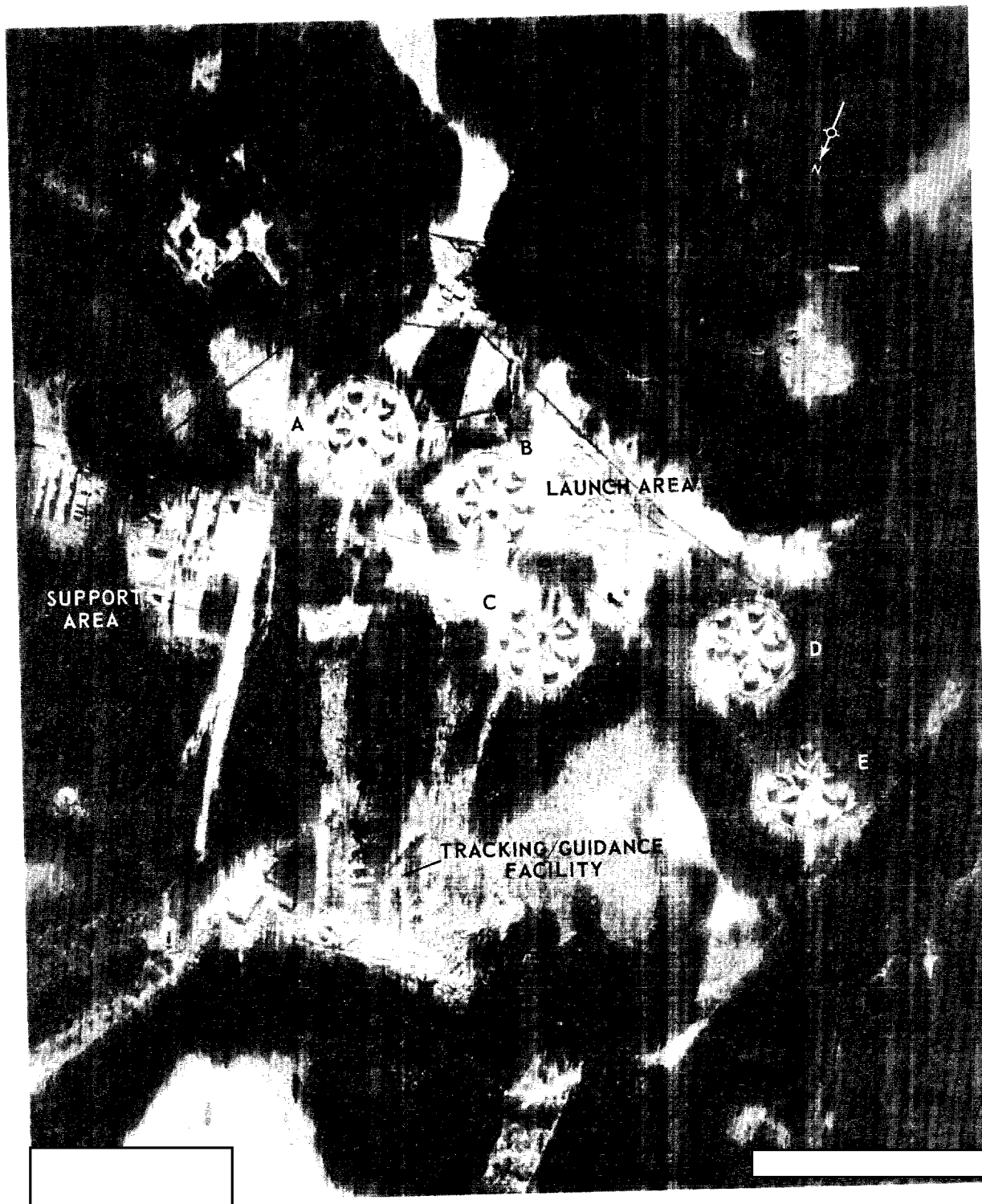
Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

25X1



25X1

FIGURE 10. LENINGRAD SOUTHWEST PLRS LAUNCH COMPLEX.

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET



25X1D

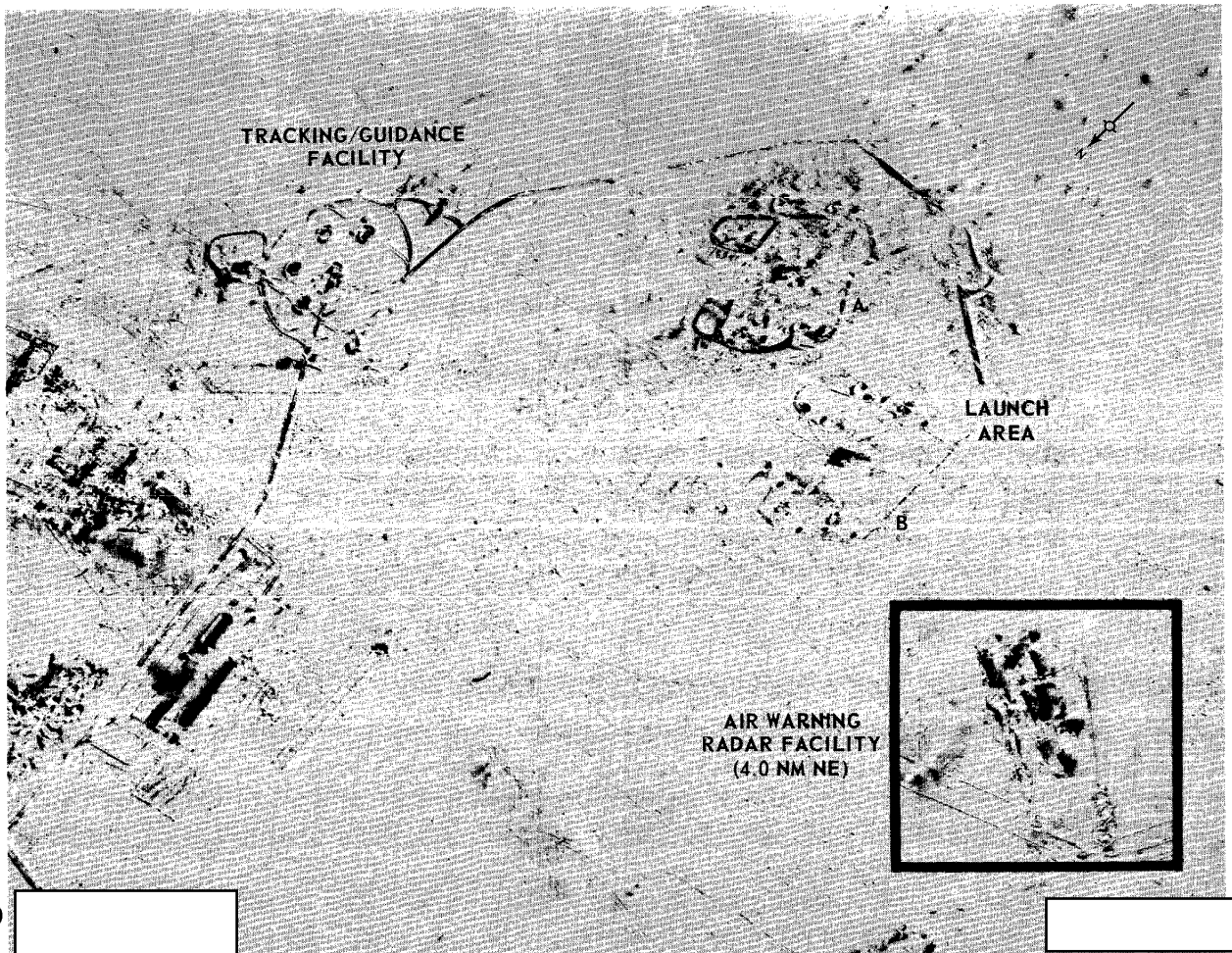
FIGURE 12. SARY-SHAGAN PLRS LAUNCH COMPLEX 1.

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

25X1



TOP SECRET

TOP SECRET

25X1D

FIGURE 13. SARY-SHAGAN PLRS LAUNCH COMPLEX 2.

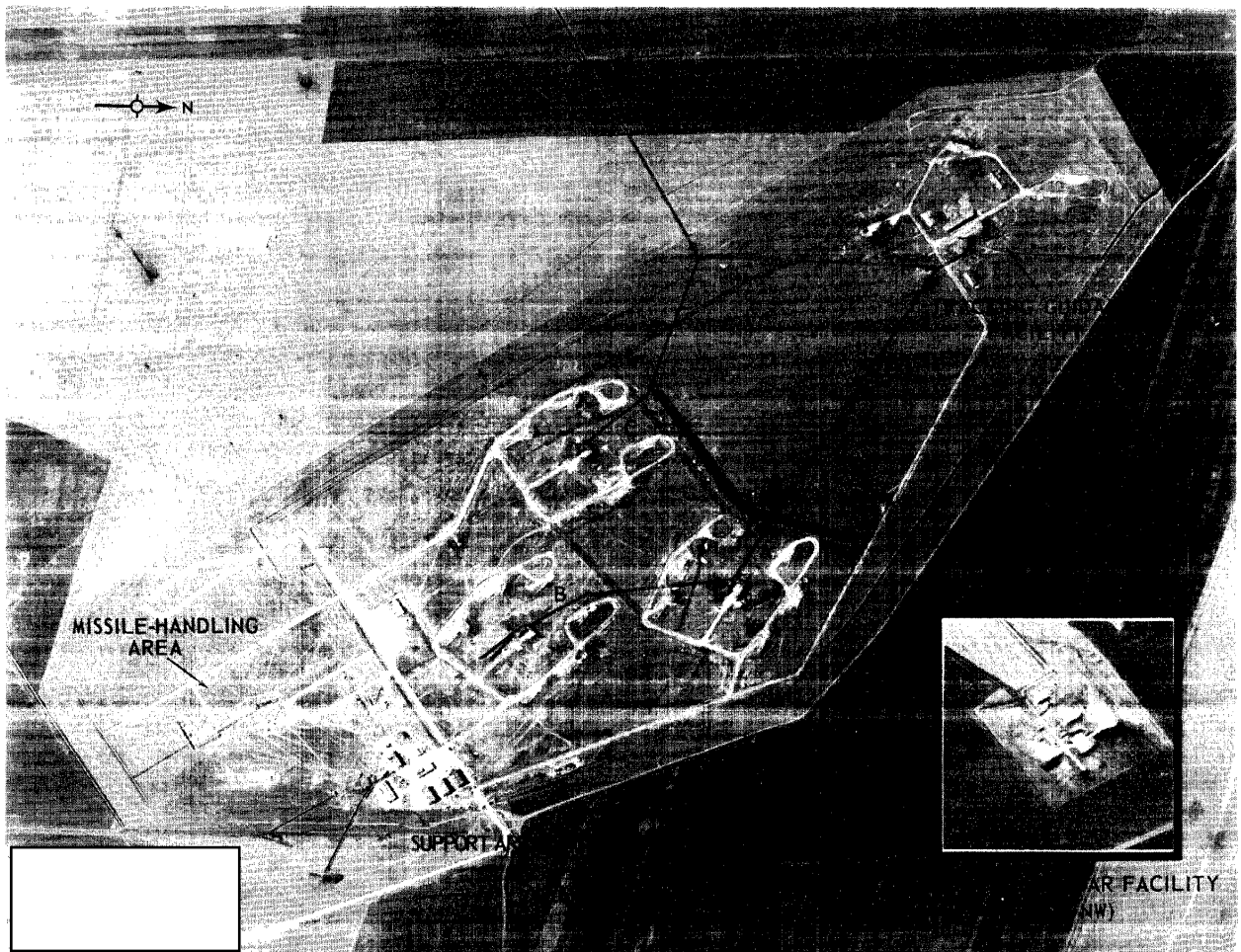


FIGURE 14. FEODOSIYA PLRS LAUNCH COMPLEX.

TOP SECRET

TOP SECRET

5X1D

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8
25X1D

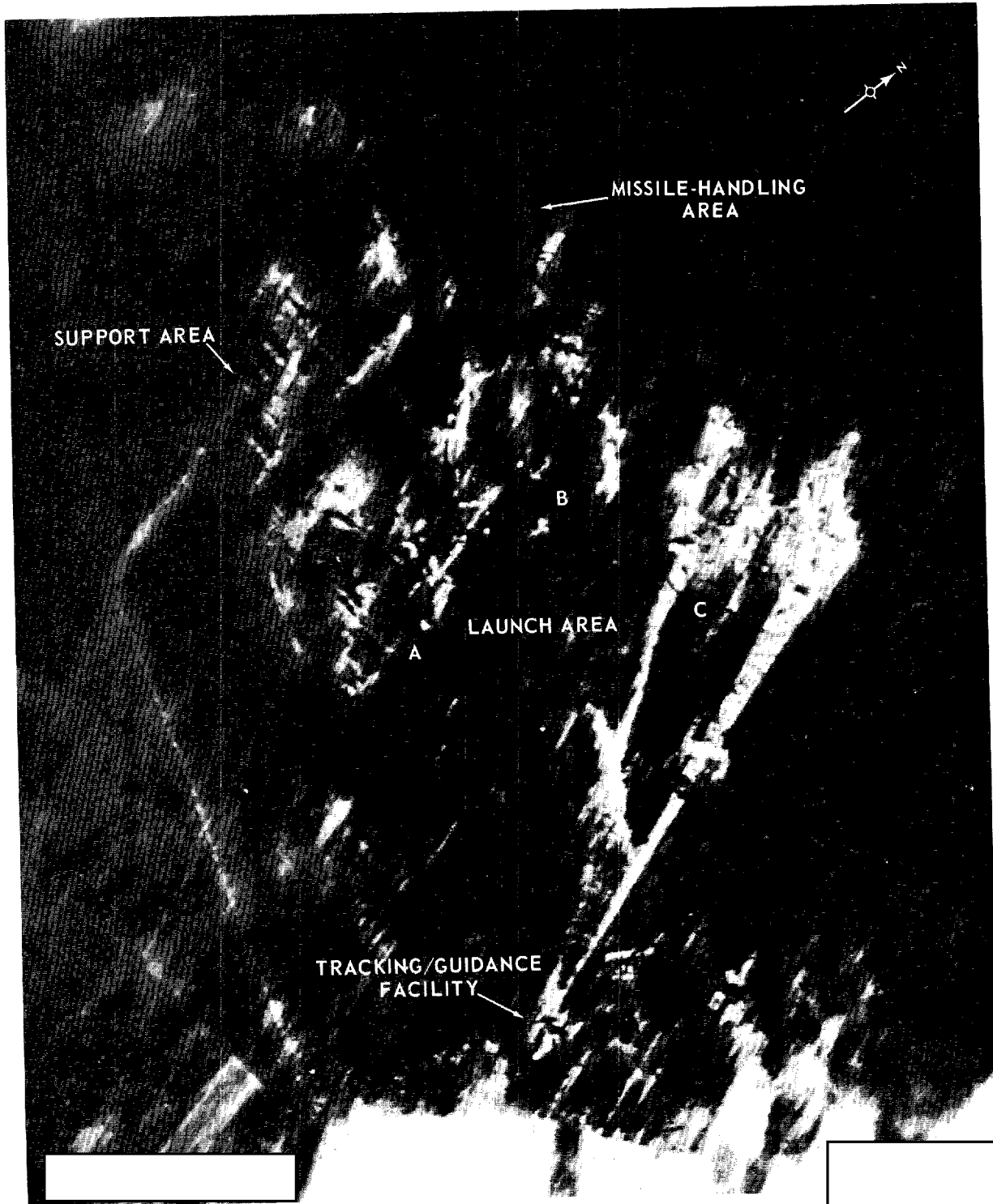
Next 1 Page(s) In Document Exempt

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8



25X1D

25X1

FIGURE 17. KALININ PLRS LAUNCH COMPLEX.

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Next 1 Page(s) In Document Exempt

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

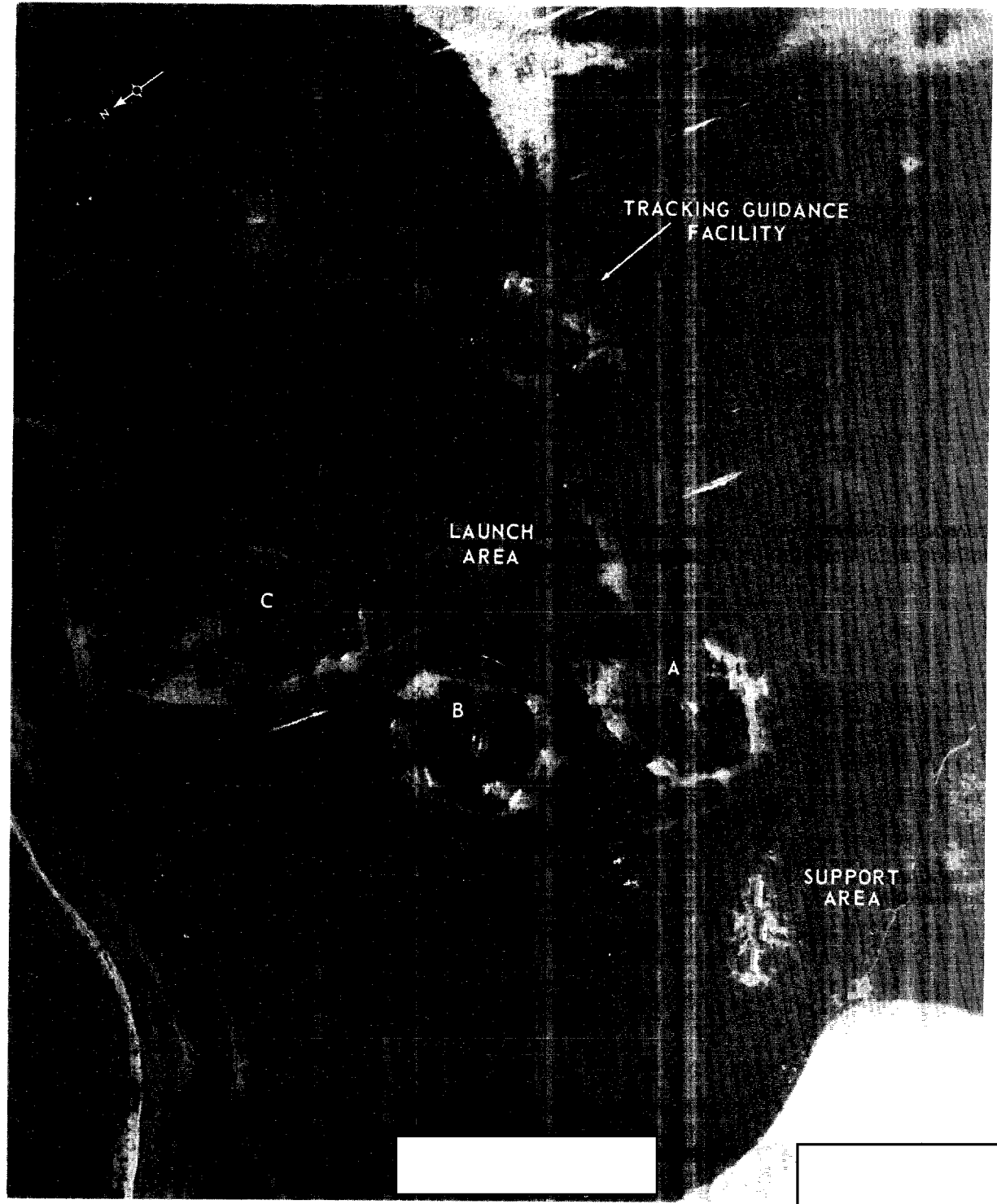
25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1



25X1D

25X1

FIGURE 20. BABAYEVO PLRS LAUNCH COMPLEX.

TOP SECRET

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

Approved For Release 2009/09/26

TOP SECRET

CIA-RDP78T04759A006700010006-8

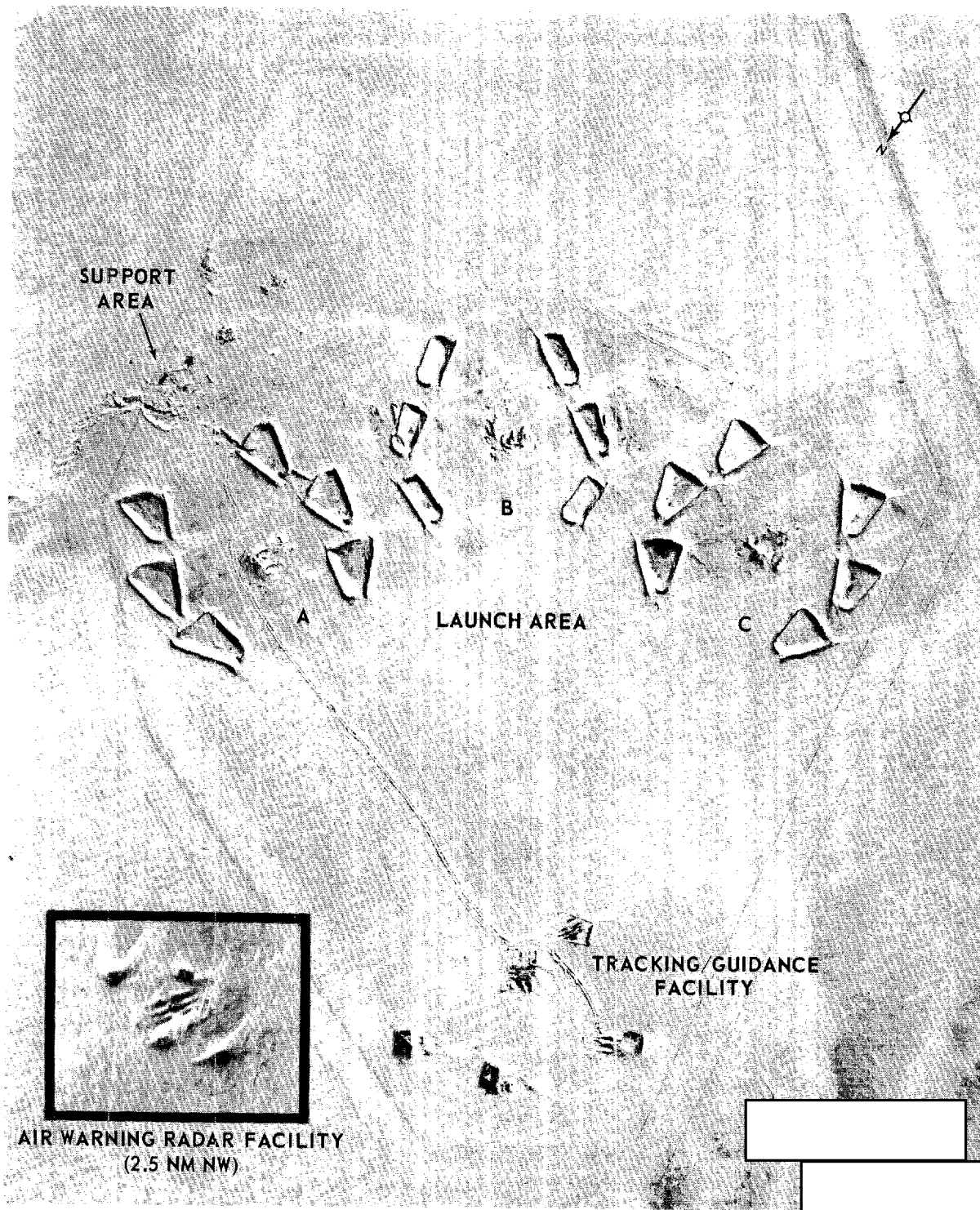


FIGURE 21. VOLGOGRAD PLRS LAUNCH COMPLEX.

Approved For Release 2009/09/26

TOP SECRET

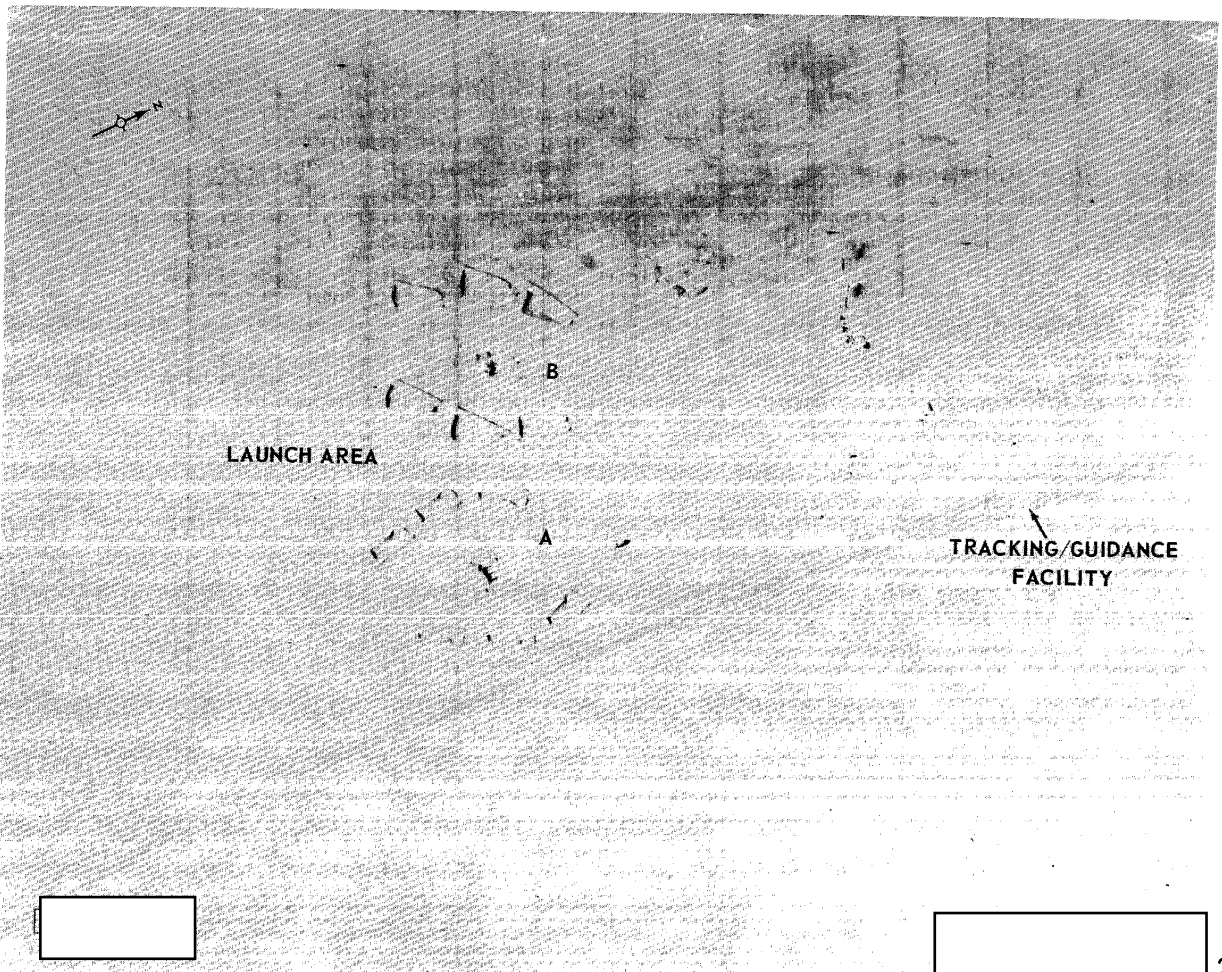
CIA-RDP78T04759A006700010006-8

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1

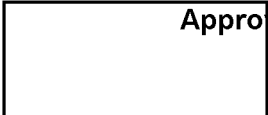


TOP SECRET

TOP SECRET

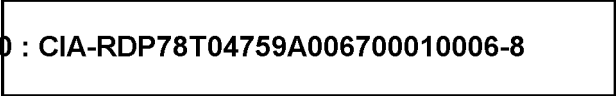
FIGURE 23. KAPUSTIN YAR PLRS LAUNCH COMPLEX.

25X1

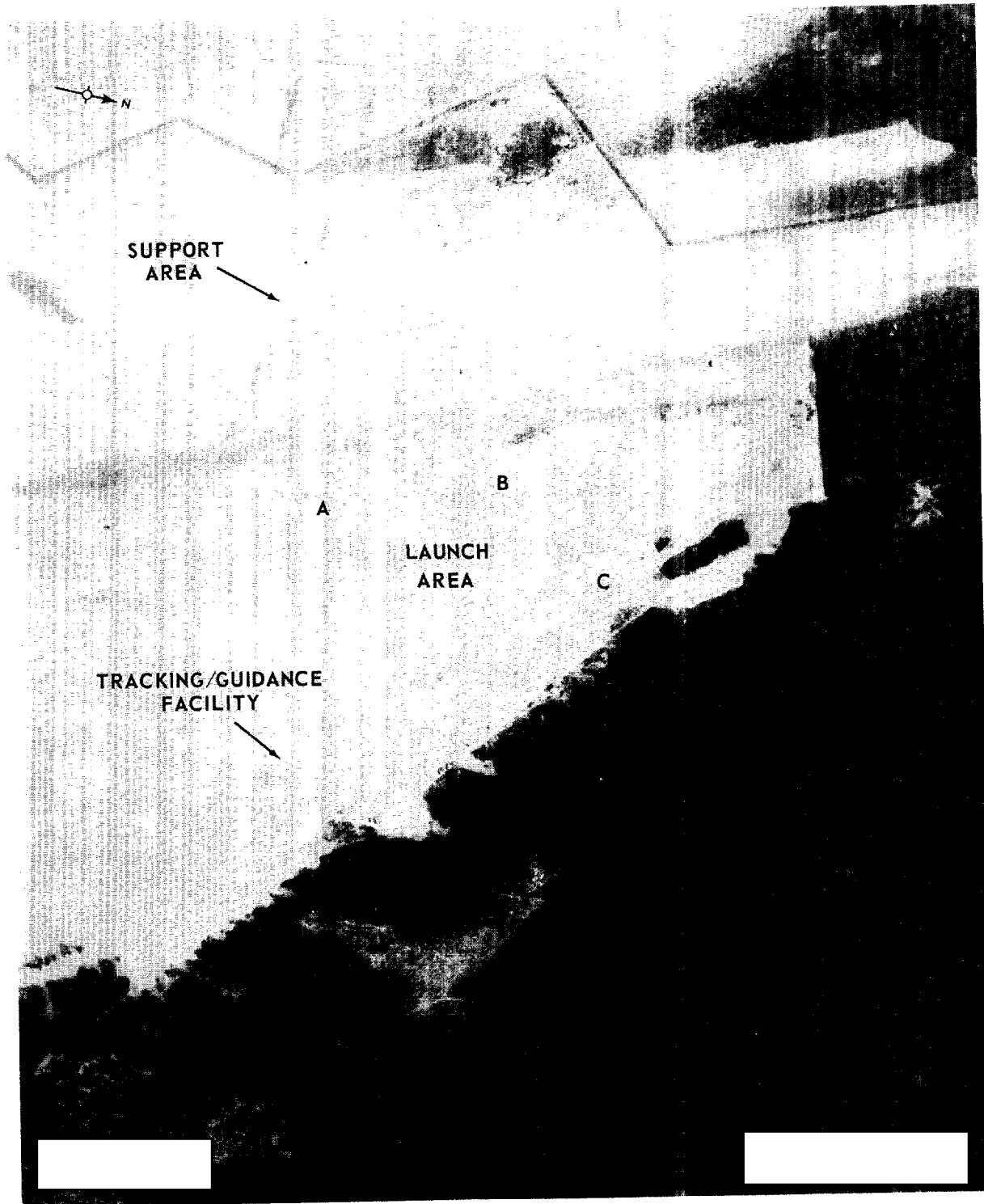


Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET



25X1



25X1

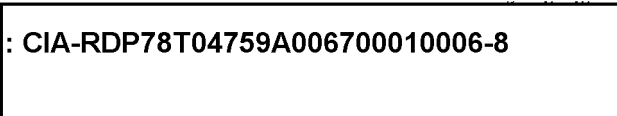


25X1D

FIGURE 24. MOZHAYSK PLRS LAUNCH COMPLEX.

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET



25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

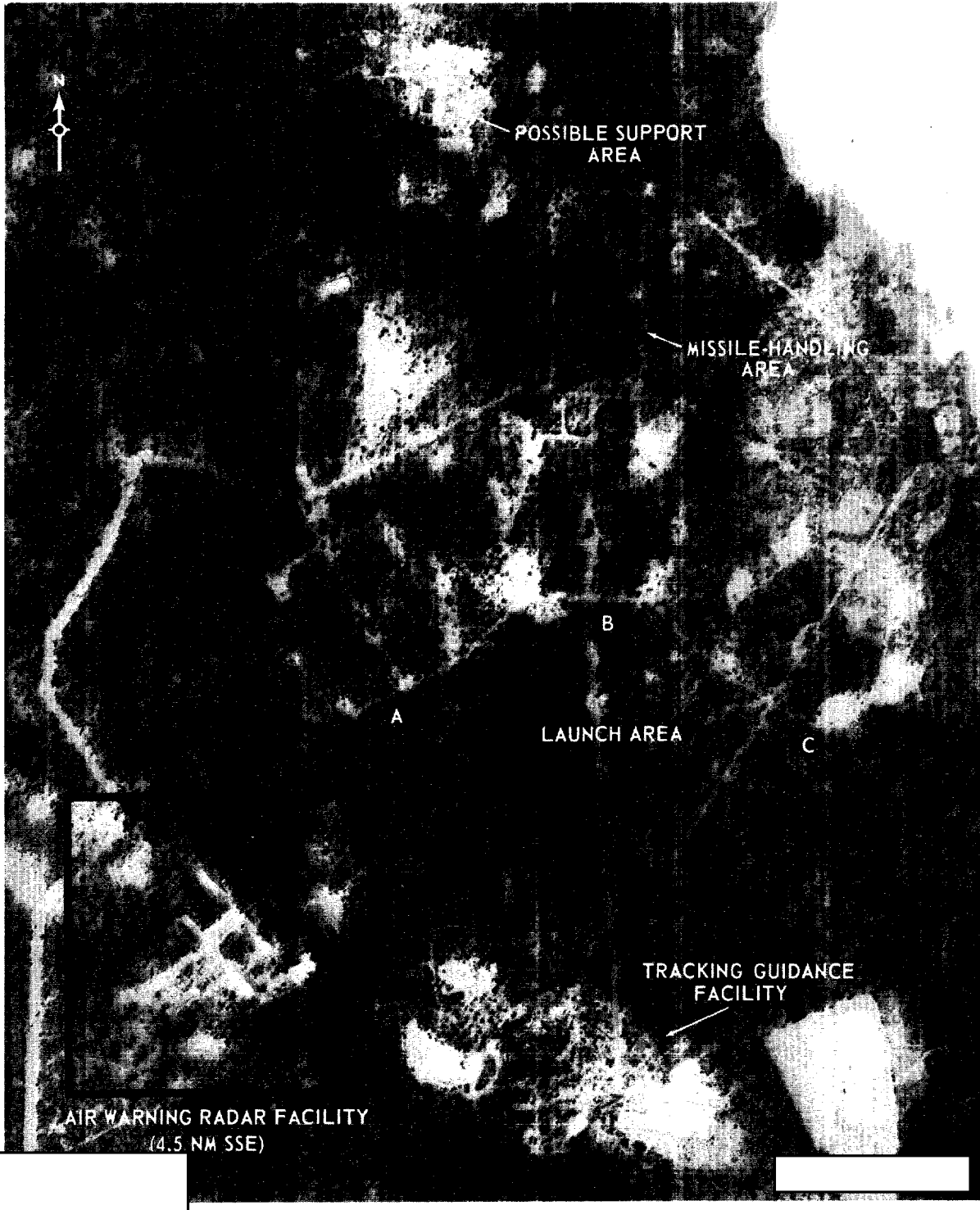
25X1

[Redacted]

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

25X1



25X1

[Redacted]

[Redacted]

25X1D

FIGURE 26. ANGARSK PLRS LAUNCH COMPLEX.

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

[Redacted]

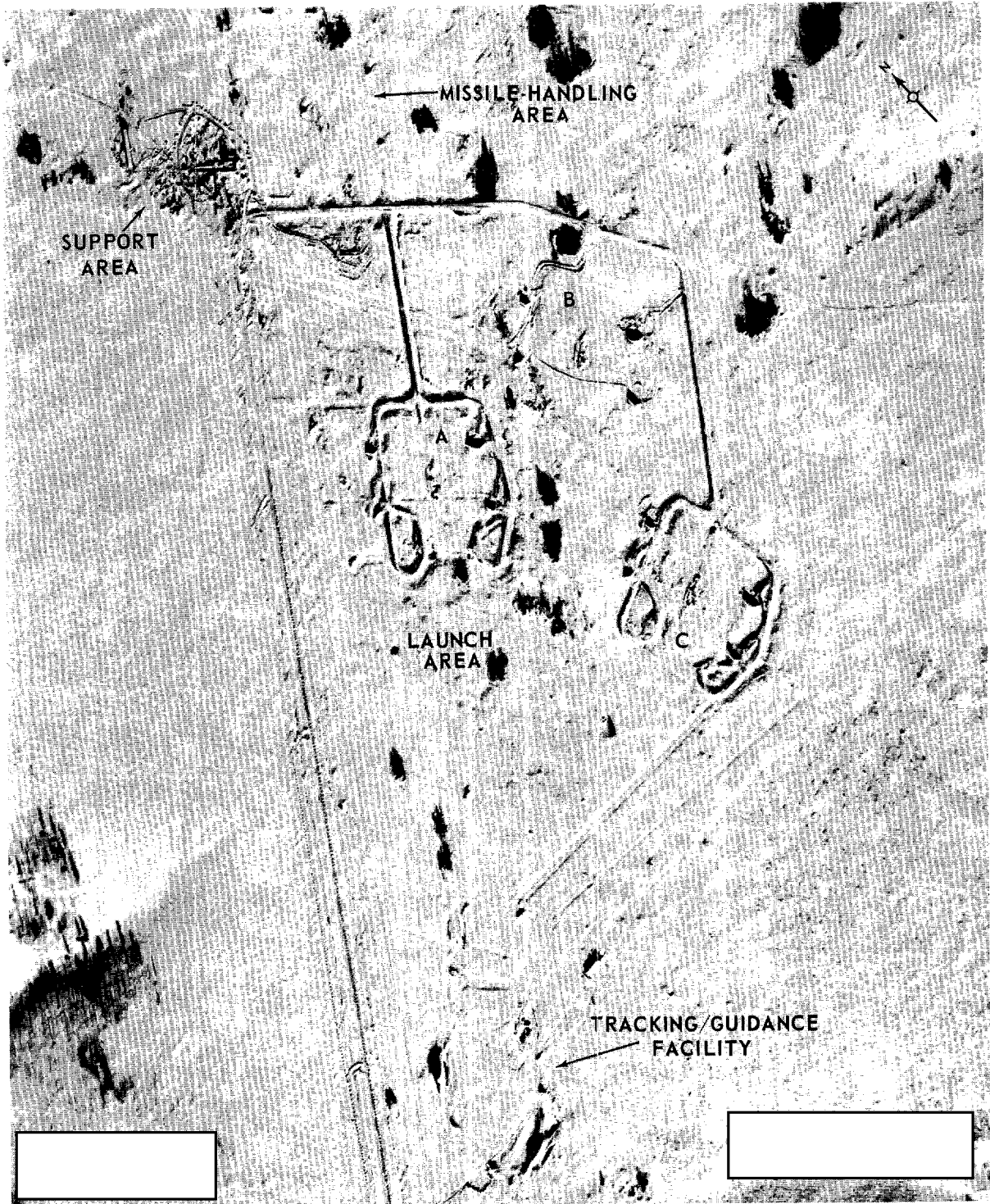
25X1

25X1

25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET



25X1

25X1D

FIGURE 27. KRASNOYARSK PLRS LAUNCH COMPLEX.

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET

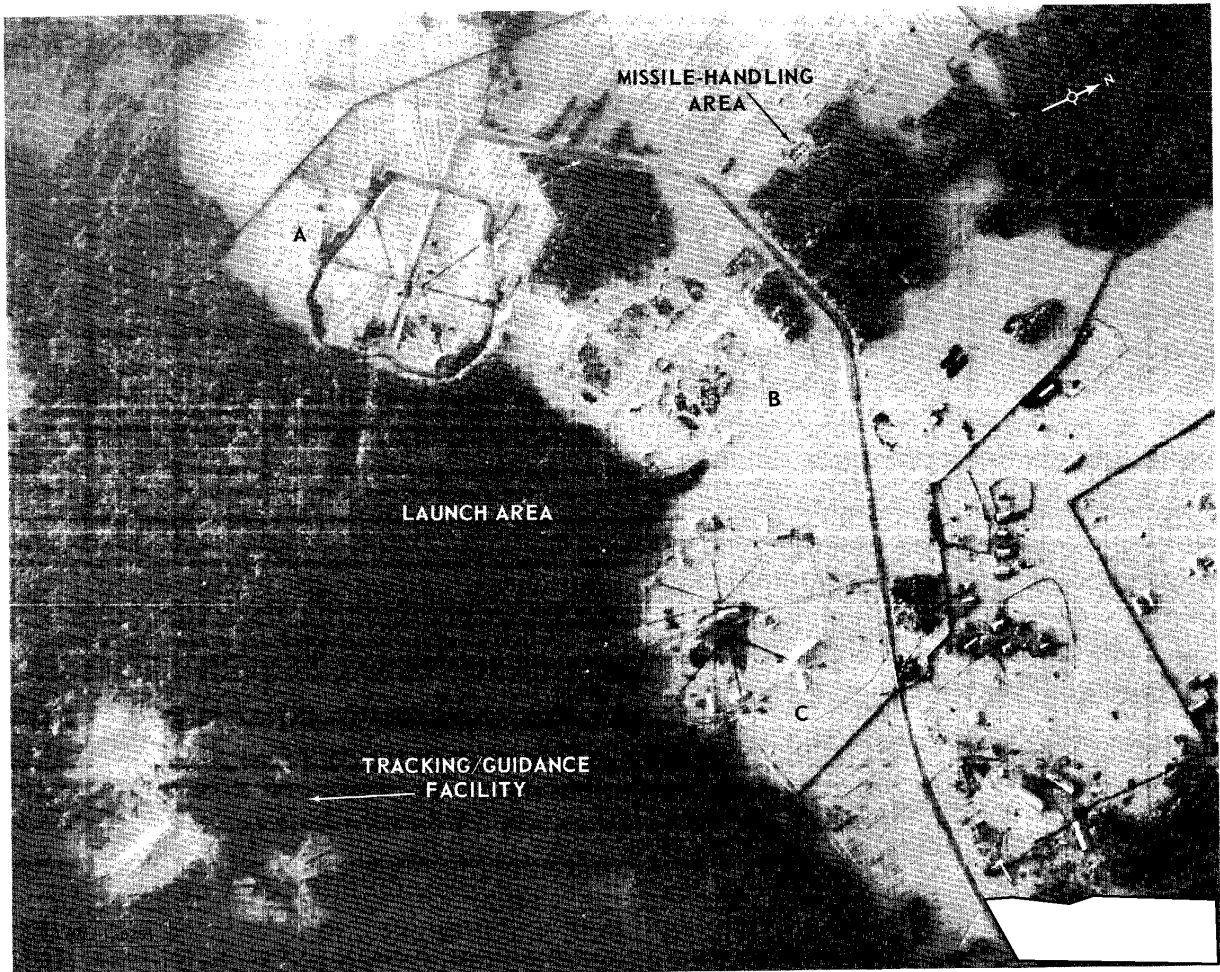
25X1

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1



TOP SECRET
25X1



25X1D

FIGURE 29. KOSTROMA PLRS LAUNCH COMPLEX.

TOP SECRET
25X1



Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

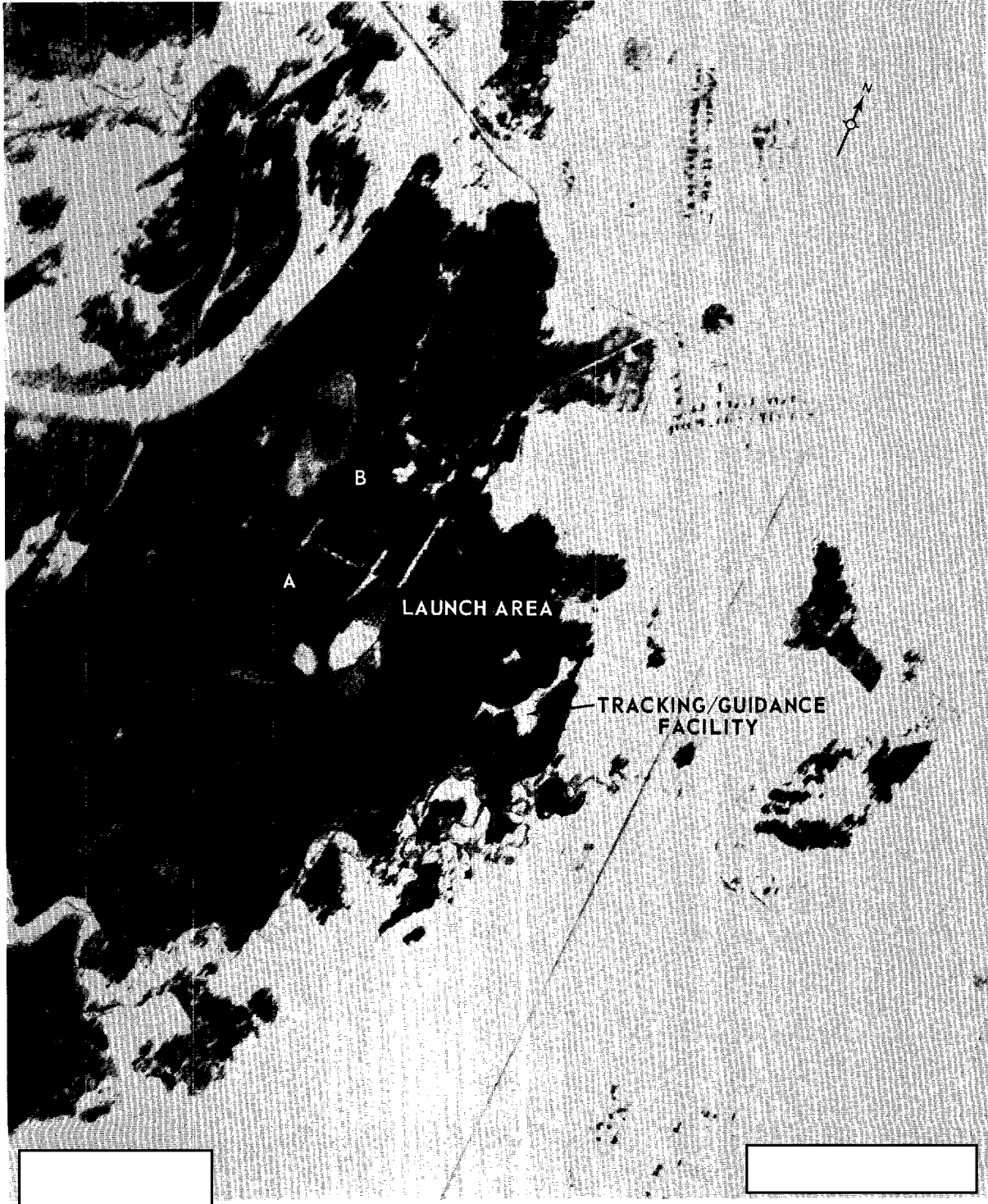
25X1

Approved For Release 2003/06/20

TOP SECRET

CIA-RDP78T04759A006700010006-8

25X1



25X1

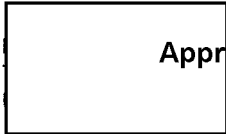
Approved For Release 2003/06/20

FIGURE 31. SHARYA PLRS LAUNCH COMPLEX.

Approved For Release 2003/06/20

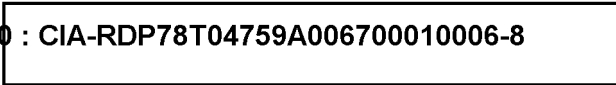
25X1D

25X1

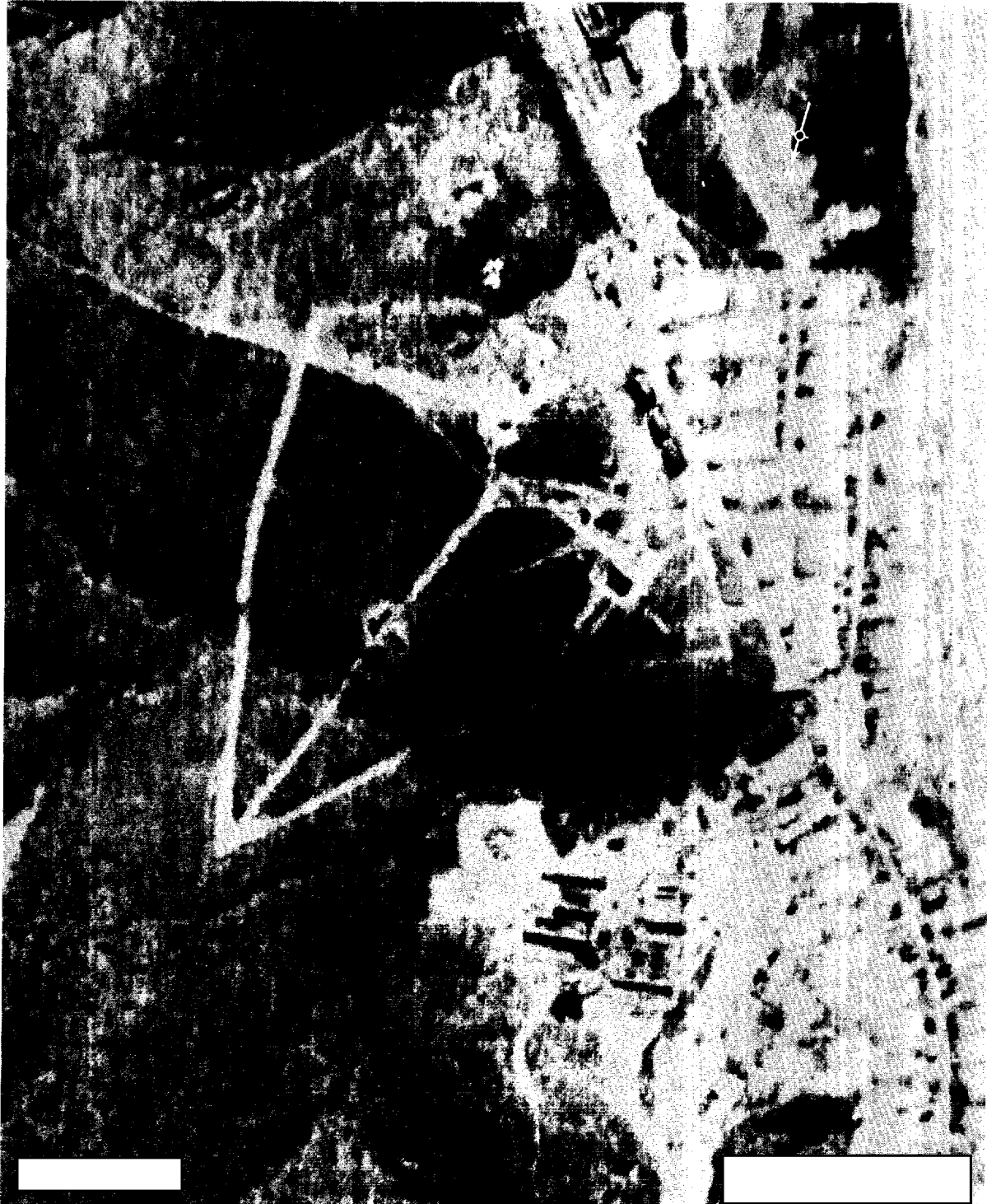


Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET



25X1



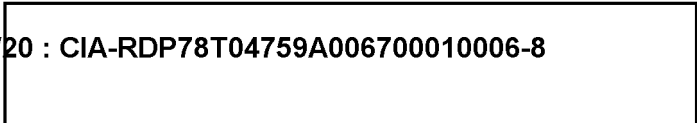
25X1

FIGURE 32. VYAZEMSKIY SUSPECT PLRS LAUNCH COMPLEX.

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

TOP SECRET



25X1

TOP SECRET

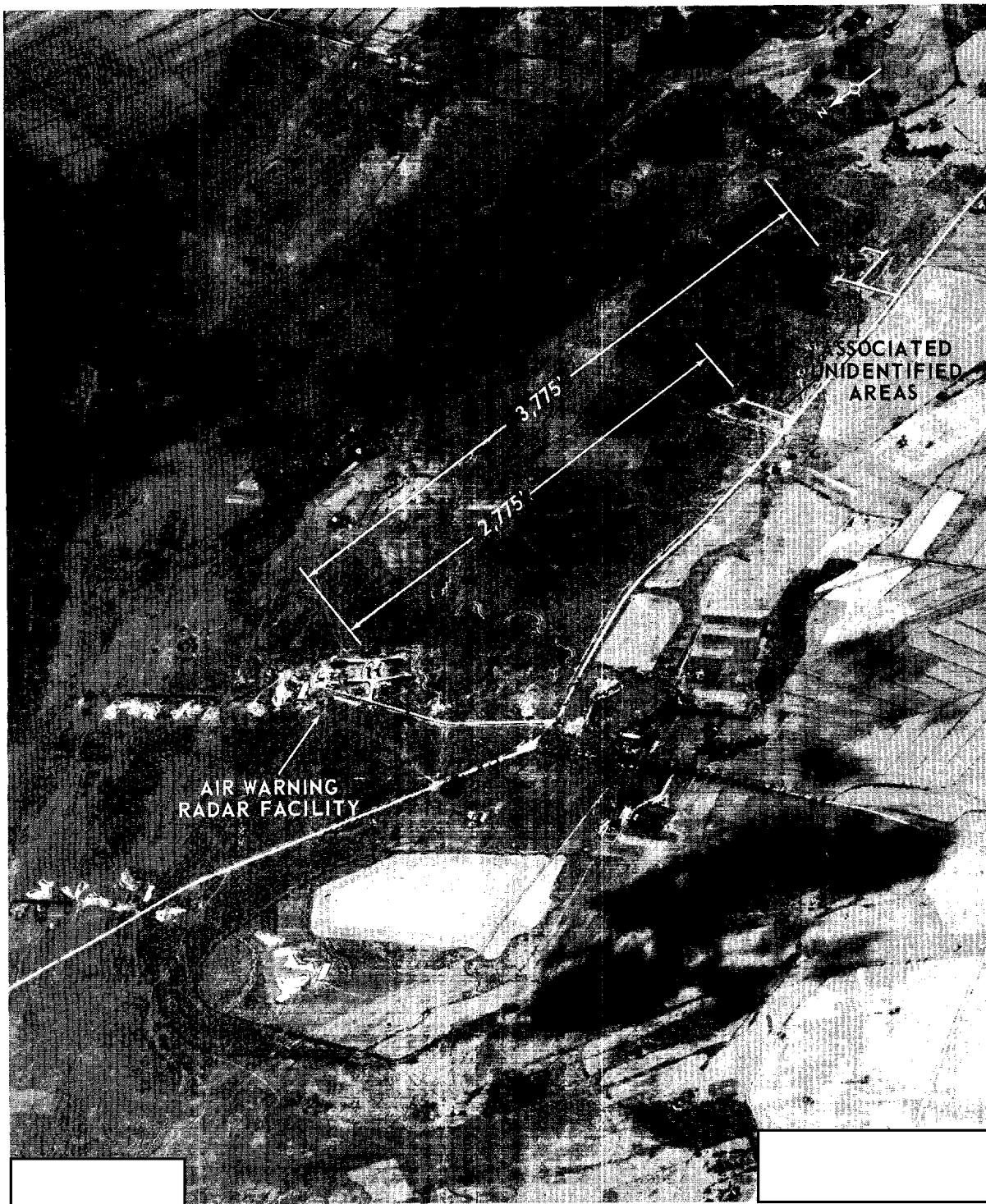


FIGURE 33. TALLINN AIR WARNING RADAR FACILITY WITH ASSOCIATED UNIDENTIFIED AREAS.

TOP SECRET

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

25X1D

Approved For Release 2003/06/20 : CIA-RDP78T04759A006700010006-8

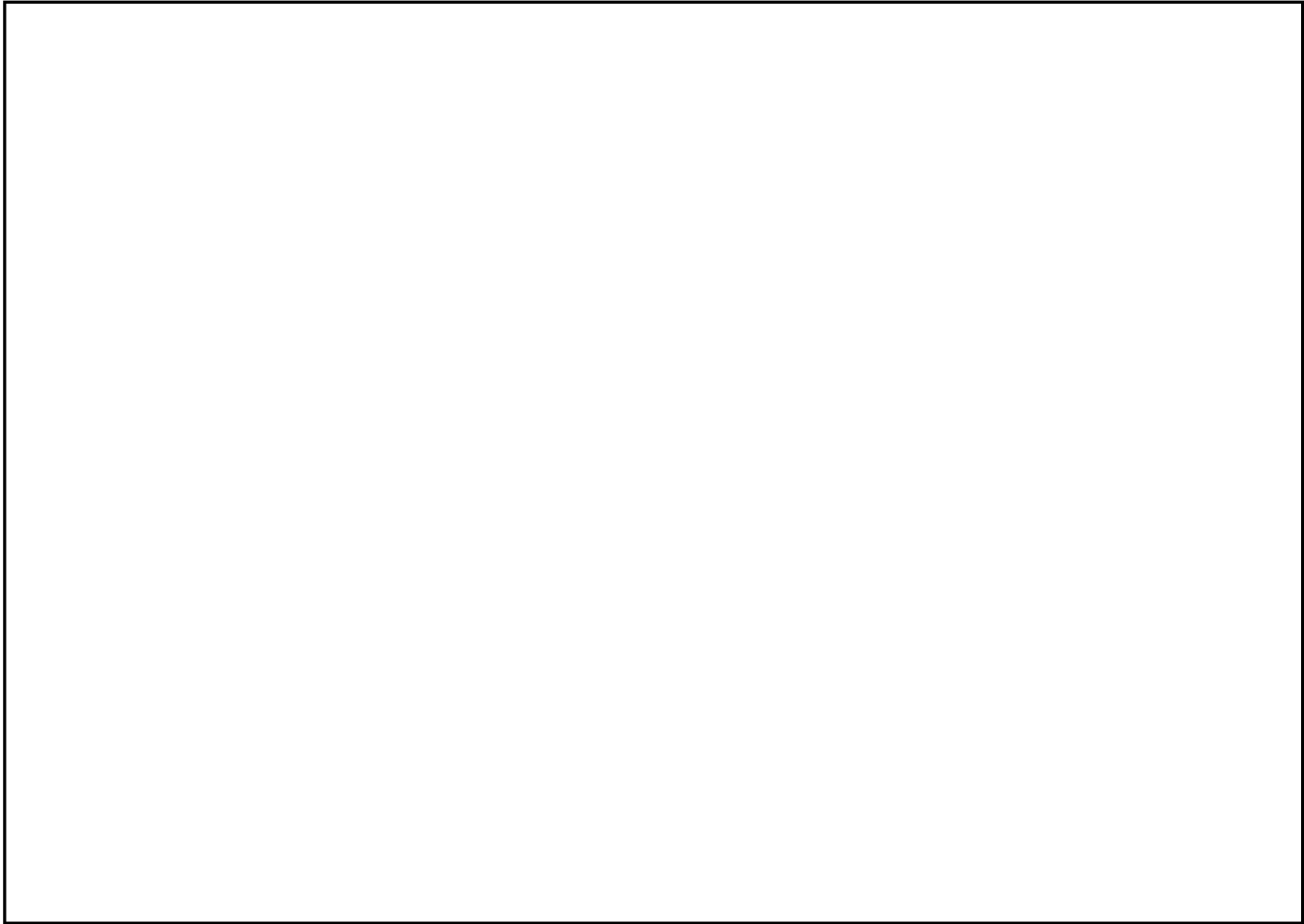
Approved For Release 2008/06/20

TOP SECRET

CIA-RDP78T04759A006700010006-8

REFERENCES

PHOTOGRAPHY



DOCUMENT

- 1. CIA. PIR 71010, [redacted] *Possibly Deployed Probable Long Range SAM Launch Sites At Sary-Shagan Missile Test Center, USSR*, Oct 66 (TOP SECRET [redacted])

RELATED DOCUMENT

- NPIC. [redacted] *Construction Chronology of Deployed Probable ABM and Long Range SAM Launch Complexes*, Dec 66 (TOP SECRET [redacted])

REQUIREMENT

CIA. C-DI7-84,225

NPIC PROJECT

11248/67 (partial answer)

TOP SECRET

TOP SECRET