

~~TOP SECRET~~

25X1

Copy 91

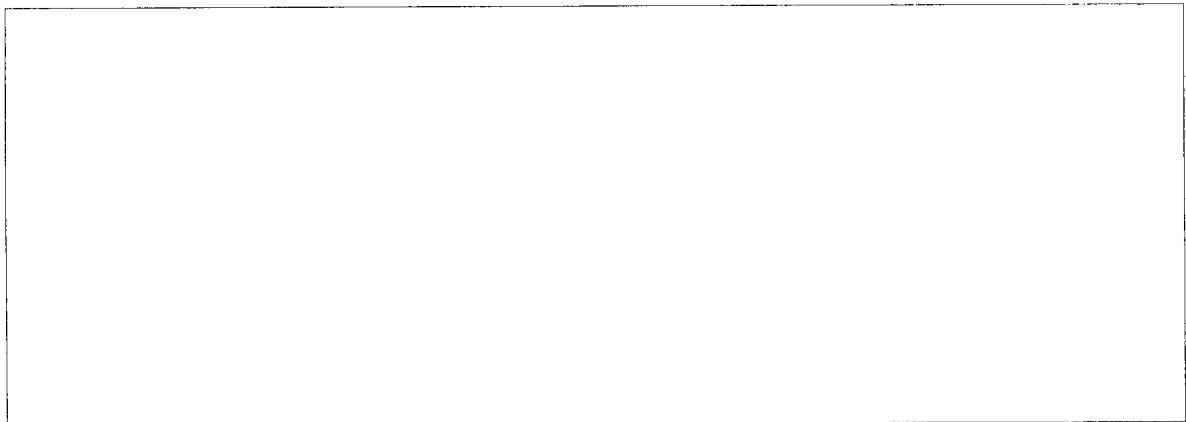
(Revised)  
1 October 1962

APPROVED FOR  
RELEASE DATE:  
16-Jul-2011

# SOVIET SURFACE - TO - SURFACE MISSILE DEPLOYMENT

A Report of the Deployment Working Group  
of the  
Guided Missiles and Astronautics Intelligence Committee

25X1



DECLASS REVIEW by NIMA/DOD



Published by

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

**A 0000417**

HR70-14

~~TOP SECRET~~

GROUP 1  
Excluded from automatic  
downgrading and declassification

~~TOP SECRET DINAR CHESS RUFF~~

SOVIET  
SURFACE - TO - SURFACE MISSILE  
DEPLOYMENT

(Revised)  
1 October 1962

25X1

Published by  
NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1



The contents of this report do not necessarily reflect the views of the National Photographic Interpretation Center, since the photographic interpretation included represents only a portion of the total informational input; however, the National Photographic Interpretation Center provided photographic interpretation, publication, and reproduction support.

- ii -

~~TOP SECRET DINAR CHESS RUFF~~

TOP SECRET DINAR CHESS RUFF

TH 0747-62KH (Rev)

GUIDED MISSILES AND ASTRONAUTICS INTELLIGENCE COMMITTEE  
DEPLOYMENT WORKING GROUP

MEMBERSHIP

Lieutenant Colonel Robert M. Wills	Air Force, Chairman
Lieutenant Commander Robert C. Williamson	Navy
Major Almon R. Roth	Army
Major Cornelius McMillan	Air Force
Mr. Franklyn E. Walter	CIA
Mr. Francis J. Irons	NSA

NOTE: All correspondence relative to this report should be directed to the Chairman, Guided Missiles and Astronautics Intelligence Committee (GMAIC).

TOP SECRET DINAR CHESS RUFF



~~TOP SECRET DINAR CHESS RUFF~~

25X1

## TABLE OF CONTENTS

	No. Pages
INTRODUCTION . . . . .	7

## PART I Review of Data on ICBM Deployment Locations

Location	Tab No.	No. Pages
Drovyanaya ICBM Site . . . . .	I-D-1 . . . . .	6
Gladkaya ICBM Complex . . . . .	I-G-1 . . . . .	5
Itatka ICBM Complex . . . . .	I-I-1 . . . . .	6
Kostroma ICBM Complex . . . . .	I-K-1 . . . . .	10
Kozel'sk ICBM Complex . . . . .	I-K-2 . . . . .	6
Novosibirsk ICBM Complex . . . . .	I-N-1 . . . . .	6
Omsk ICBM Complex . . . . .	I-O-1 . . . . .	4
Perm' ICBM Complex . . . . .	I-P-1 . . . . .	6
Plesetsk ICBM Complex . . . . .	I-P-2 . . . . .	18
Shadrinsk ICBM Complex . . . . .	I-S-1 . . . . .	8
Svobodnyy ICBM Complex . . . . .	I-S-2 . . . . .	8
Teykovo ICBM Complex . . . . .	I-T-1 . . . . .	8
Tyumen' ICBM Complex . . . . .	I-T-2 . . . . .	7
Verkhnyaya Salda ICBM Complex . . . . .	I-V-1 . . . . .	11
Yedrovo ICBM Complex . . . . .	I-Y-1 . . . . .	7
Yoshkar-Ola ICBM Complex . . . . .	I-Y-2 . . . . .	7
Yur'ya ICBM Complex . . . . .	I-Y-3 . . . . .	13

- v -

~~TOP SECRET DINAR CHESS RUFF~~

INTRODUCTION

C02679002

~~TOP SECRET DINAR CHESS RUFF~~

[redacted]  
7 Pages  
1 October 1962

25X1

INTRODUCTION

The specific objective of the GMAIC Deployment Working Group (DWG) has been to provide a detailed review and analysis of all data pertinent to the location of the medium-, intermediate-, and long-range surface-to-surface missile (SSM) sites in the USSR.

To assist GMAIC in the fulfillment of its responsibilities to the USIB on SSM deployment, the DWG prepared a report, Soviet Surface-to-Surface Missile Deployment, dated 1 January 1962 [redacted]

25X1

25X1

The above report is superseded by this publication, which will contain a detailed review of all surface-to-surface ballistic missile sites observed on KEYHOLE photography in the confirmed, probable and possible categories. Evaluation of locations not covered by usable photography but which are evaluated on the basis of other evidence are to be included in supplements to this report. [redacted] and collateral evidence, when used in conjunction with the photographic evidence, present a summary of all pertinent evidence from all sources on each site or complex. As additional information becomes available, this document will be updated accordingly.

25X1

Part I contains a review of data on ICBM deployment locations.

Identifying names of missile complexes used in this document have been carefully selected in an effort to avoid the introduction of a significant number of new names. Wherever possible, the names reflected in [redacted] and/or collateral evidence are used. In most cases these names coincide with those introduced by photographic interpretation reports or the Target Data Index (TDI). To assist in the identification of locations which may currently carry a different name, Bombing Encyclopedia (BE) numbers have been included with the coordinates of each site. In addition, a cross reference listing has been disseminated in a supplementary report to this report.

25X1

- 1 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

To date, four basic types of ICBM sites have been observed in KEY-HOLE photography. Pending changes resulting from additional evidence, ICBM site configuration will be categorized in DWG reports as follows:

TYPE I - A first-generation site with a single rail-served pad similar to those at Launch Complex A, Tyura Tam (Figure 1). Operational sites of this type have been observed only at Plesetsk.

TYPE II - A second-generation site with two road-served soft pads similar to those at Launch Complex C, Tyura Tam, prior to the recent addition of a third launch pad. This type was first observed at Yur'ya and subsequently at several other locations. Two modifications of the basic configuration have also been observed (Figure 1).

TYPE III - A recently identified ICBM launch site configuration observed at a number of confirmed complexes probably represents the initial attempt by the Soviets at site hardening. The evidence indicates that there are probably two silo-type launchers and a control bunker at each site (Figure 1). The degree of hardening has not been resolved, although it is believed on the order of 300 psi. It is further believed that the missile system for the new hardened configuration is the SS-7.

TYPE IV - A soft configuration consisting of two road-served launch pads (Figure 1). This configuration was first observed at Tyumen' and subsequently at other confirmed ICBM complexes. Although it is a soft, road-served installation, it differs from Type II as follows: (1) the pad separation is on the order of 870 feet instead of 980 feet; (2) there is a "plus" sign pattern to the rear of the pad area at most of the sites which may possibly be related to guidance; (3) the ready buildings are about 820 feet from the pad, and are somewhat smaller (115 by 140 feet) than ready buildings noted at the Type II sites. NOTE: two members believe that this type of launch site is but another modification of the Type II site and should be designated as Type II (Mod c).

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

ICBM complexes identified to date consist of support and launching facilities. Launch sites within a complex are lettered sequentially, e.g., Kostroma ICBM Launch Complex, Launch Sites A, B, C, D, and E. An analysis of photographic evidence on ICBM sites indicates the launch sites are road served, with the exception of the first-generation sites at Plesetsk, and are subject to such security measures as fencing, road check-points, and location in isolated areas.

Part II contains a review of data on MRBM/IRBM deployment locations. Both soft and hardened sites have been identified to-date. All soft sites have four launch pads arranged in two basic configuration which have been referred to as "inline" and "rectangular." Variations exist in the shape and size of the launch pads, distance between pads, and the location of launch support areas.

The basic characteristic of the "inline" site configuration is the four parallel roads serving the launch pads (Figure 2). The four launch pads at each site have been observed in two groups of two. The pairs of pads are placed either along a straight line or are slightly offset. Generally, there is a drive-through ready building located on each of the four parallel roads leading to the launch pads. In some cases, two pads are served by one ready building. At most launch sites having this configuration there is a launch support area with three or four buildings located near the ready buildings.

The "rectangular" site configuration has four pads arranged in the form of a rectangle that measures approximately 900 by 535 feet (Figure 2). Typically, each pair of pads making up one of the long sides of the rectangle is connected by a straight road. A large ready building, located at the midpoint on the road, serves two pads. A housing or support area with about ten buildings usually is located adjacent to the launch site. Some sites also have an additional support area with a loop road, a drive-through building and several service buildings. Modified sites of this type contain the same basic components but vary slightly in arrangement. The pads of these modified launch sites are often arranged in the form of a parallelogram or trapezoid.

- 3 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1



Two basic launch pad configurations also are apparent from KEYHOLE photography. One type is circular with the cleared area for the pad measuring about 200 feet in diameter; the other is rectangular or elongated and measures about 200 by 100 feet. The large majority of the sites observed to date have the circular type of pads and are in the areas where deployment has been confirmed for some time. On the other hand, the relatively smaller number of sites with the rectangular pads appear to be at locations where construction is still in progress or recently completed. Photographic evidence of IRBM sites in Cuba and a comparison with Launch Area C2 at Kapustin Yar and other deployed sites in the USSR lead to the conclusion that those sites with rectangular launch pads, wide pad separation, and drive-in ready buildings are for the IRBM.

The majority of soft MRBM/IRBM launch sites observed to date are deployed in pairs. These pairs, together with any associated support facilities, are considered to comprise a launch complex and the sites are numbered sequentially, e.g., Paplaka MRBM Launch Complex, Launch Sites 1 and 2. Single launch sites have been observed on KEYHOLE photography in both isolated areas and in the immediate vicinity of other confirmed complexes. It is probable, however, that these single sites will eventually be paired as has been the case with other single sites. In the interim these are referred to as sites rather than complexes.

Recent photography has shown that hardened MRBM/IRBM sites also are being deployed in the near vicinity of soft sites; therefore, these sites are considered to be a part of the complex and are so reflected in our assessments.

Each of the hardened MRBM/IRBM launch sites appears to have two missile silos, together with a control bunker and other protected structures (Figure 2). In size and configuration, these sites closely resemble the prototype facility at Area C4 at Kapustin Yar.

Part III contains a review of the data on R & D, training, and major missile-related support facilities. The facilities at Tyura Tam, Kapustin

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

Yar, Chelkar, and Makat are included as R & D and training facilities. As more evidence becomes available, data on other missile-related installations will be added.

The best indicator for site configuration has been provided by photography of the Soviet missile test ranges. Although the deployed sites may not be identical in every feature with the range prototypes, many of the basic elements seen at the ranges also are present at confirmed sites.

The resolution of KEYHOLE photography precludes an accurate analysis of either operational or construction status. However, judgments on construction status based on latest photography have been made in this report. Changes in construction status, will be reflected in supplements to this report.

~~TOP SECRET DINAR CHESS RUFF~~

TOP SECRET DINAR CHESS RUFF

TH 0747-62KH (Rev)

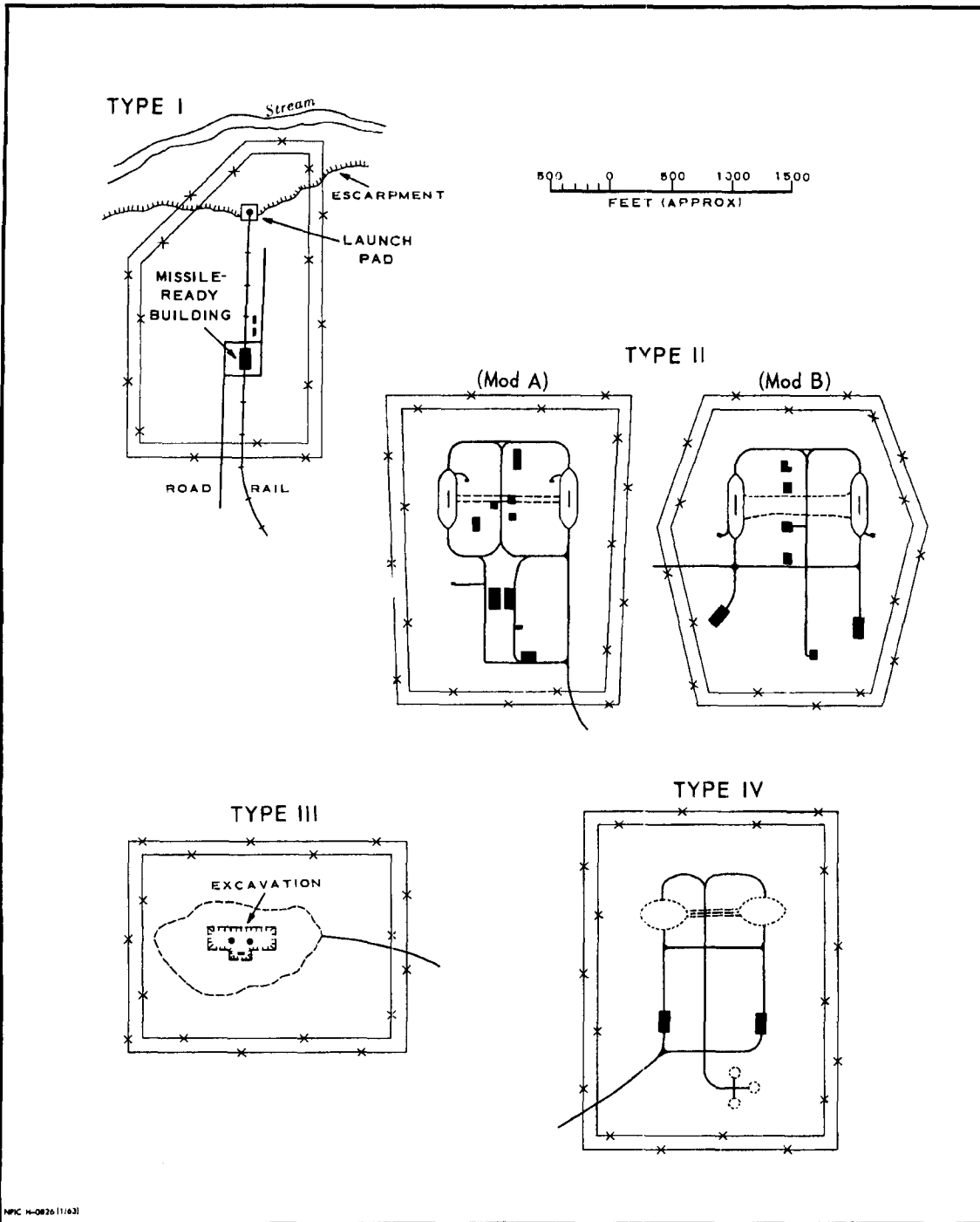


FIGURE 1. TYPICAL CONFIGURATIONS OF ICBM LAUNCH SITES.



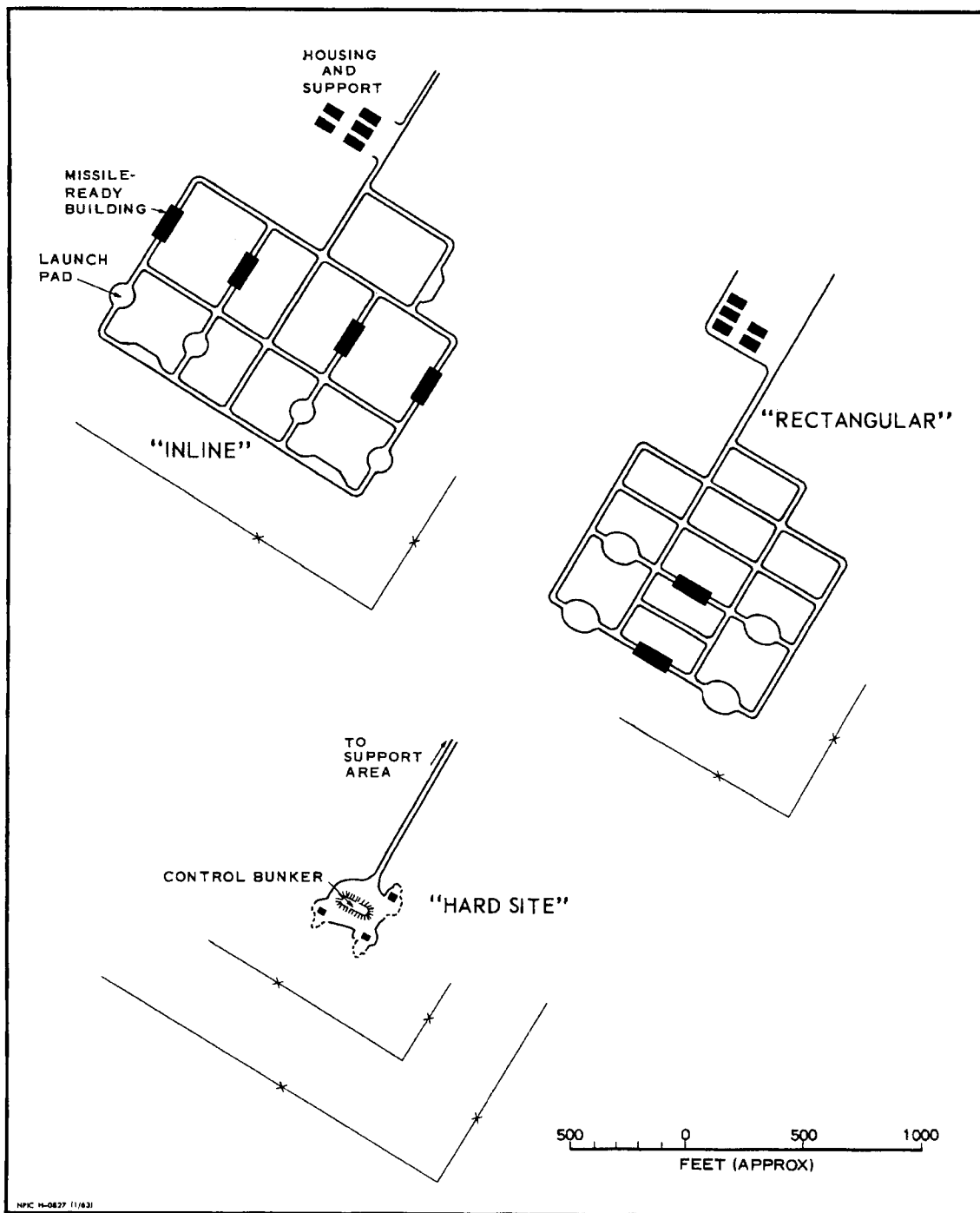


FIGURE 2. TYPICAL CONFIGURATIONS OF MRBM/IRBM LAUNCH SITES

C02679002

I - ICBM

C02679002

D

~~TOP SECRET DINAR CHESS RUFF~~

0 Pages  
1 October 1962

25X1

NAME: Drovyanaya (Chita)

NO: I-D-1

LOCATION: Launch Site (51-24N 113-00E)

25X1

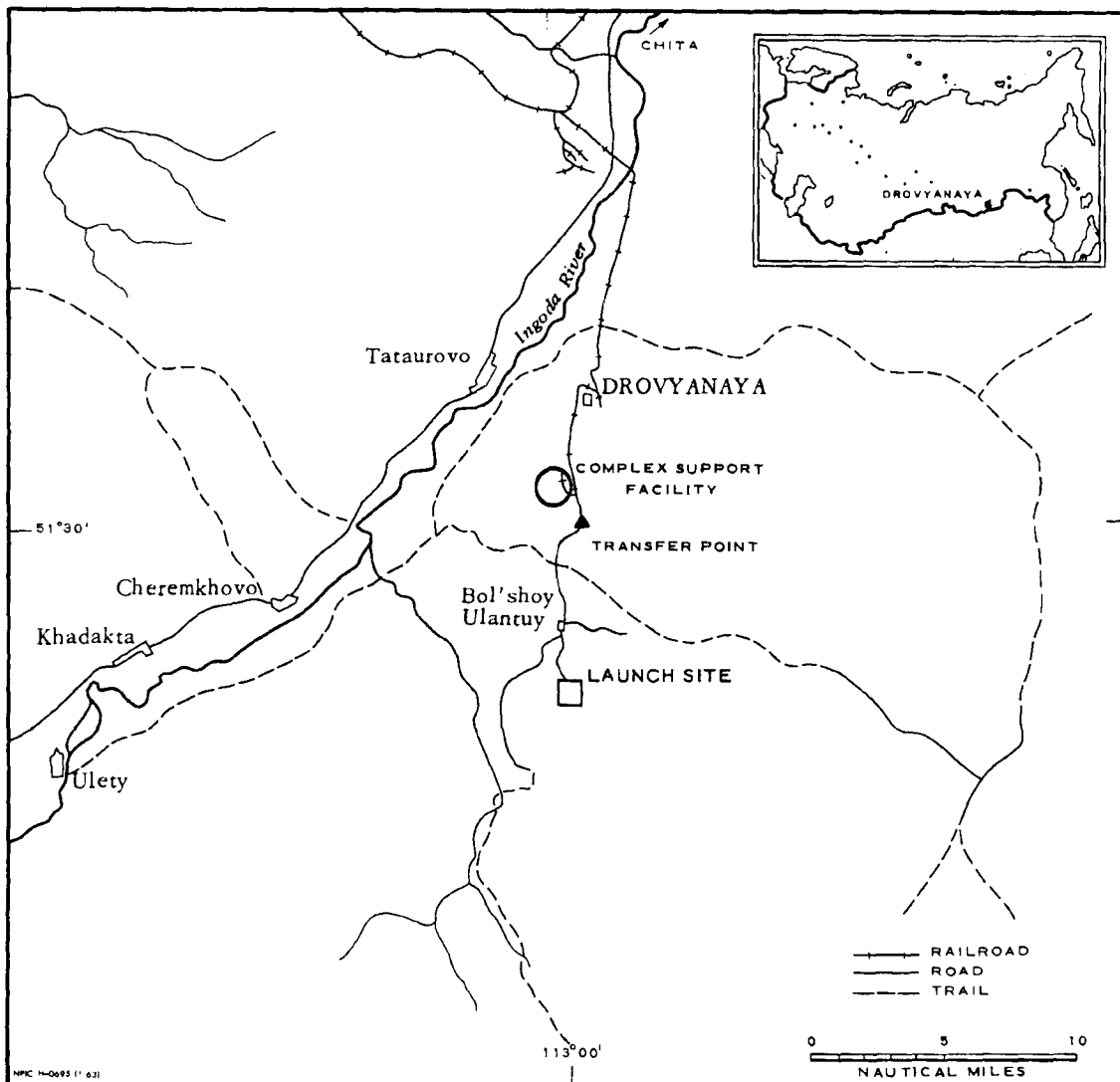


FIGURE 1. LOCATION OF DROVYANAYA ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-D-1I. Conclusion

Drovyanaya is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

The Drovyanaya ICBM launch complex, initially identified on photography of April 1962 [REDACTED] was observed again on several subsequent missions. It is located south of the town of Drovyanaya and 36 nm south-southwest of Chita (Figure 1). The principal components of the complex identified to date are a rail-served complex support facility and a road-served launch site, both under construction, and a rail-to-road transfer point. The complex is located in an isolated, sparsely populated region with few roads. The terrain is relatively rough and generally wooded.

The complex is 17 nm south of the Trans-Siberian Railroad and adjacent to a previously existing rail spur 30 nm long. That part of this spur south of Drovyanaya probably is abandoned and now is used as a roadbed.

25X1 The general area was covered by photography of September 1961 [REDACTED] but there was no indication of construction activity. However, a small secured facility, new in appearance, was observed on this photography on the west side of Drovyanaya. This facility, cloud covered on later missions, probably was used for initial construction support. The Chita area was covered again on [REDACTED] March 1962 [REDACTED] at which time construction was in progress but had not progressed enough to allow identification. The only SAM defenses in the area identified to date consist of two SA-2 launch sites, one north and one south of Chita. All roads and trails in the area other than those associated with the launch complex existed in September 1961 [REDACTED]

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

I-D-I

25X1

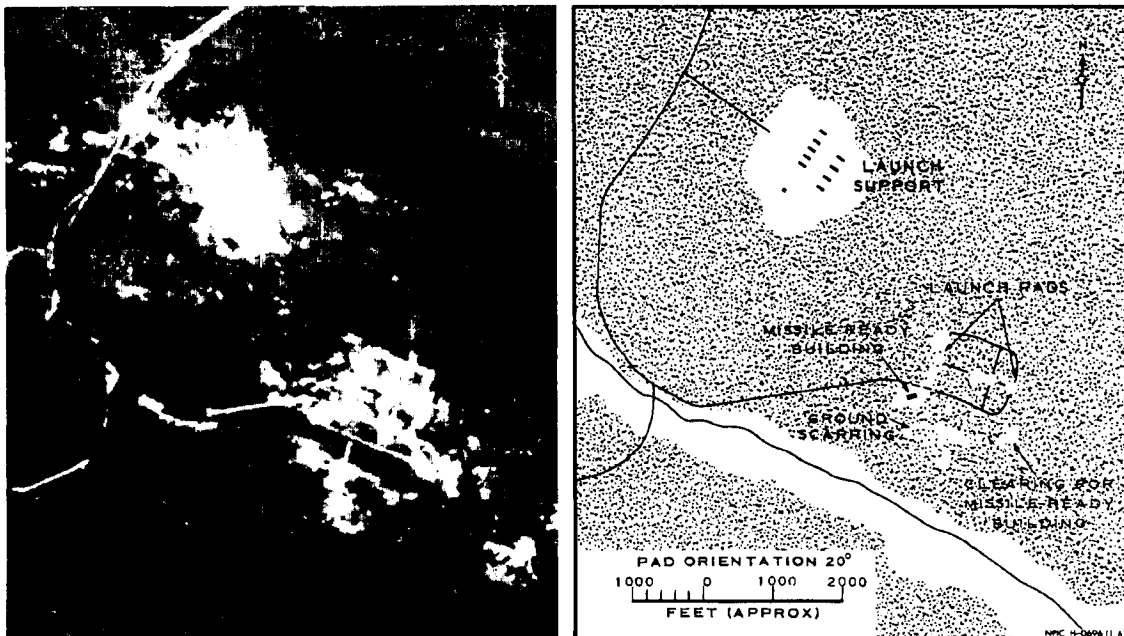


FIGURE 2. LAUNCH SITE (June 1962)

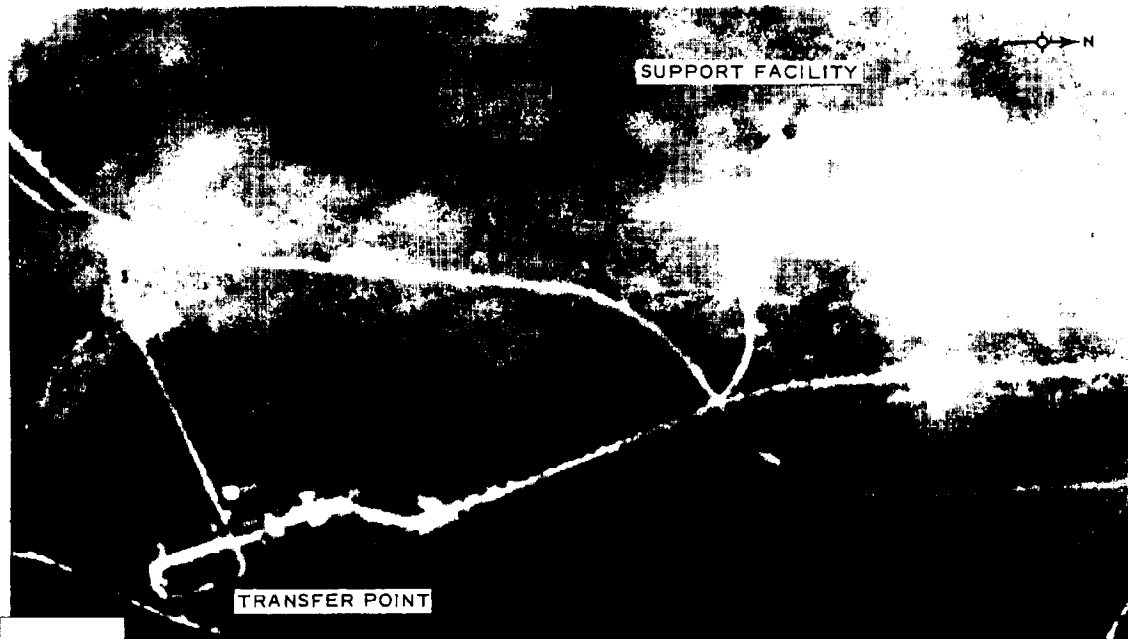


FIGURE 3. COMPLEX SUPPORT FACILITY (July 1962)

25X1

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-D-I

The launch site, which is of a Type II (Mod b) configuration, is located about 9 nm south of the complex support facility. It is served by a new road from the north that appears to utilize the bed of the old rail spur for the last 4.5 nm. Scarring indicates that the launch site, in a mid stage of construction, will have two road-served pads 980 feet apart (Figure 2). The pads are oriented on an azimuth of approximately 20 degrees,  $\pm$  5 degrees. The center road is offset to the right. A missile-ready building is located 700 feet behind the west pad, and clearings for a missile-ready building are evident behind the east pad. Both the building and the clearings are on an angle to the roads serving the pads. Some indication of security fencing is also evident. To the rear of the pad area is an area of unidentified ground scarring.

The launch support area is under construction 3,100 feet northwest of the launch site and north of a ridge between it and the pads. Construction is in progress on at least 10 buildings, 9 of which are nearly 200 feet long.

An eastward extension of the complex main road 2 nm north of the launch site leads to an area of ground scarring that was first noted on photography of May/June 1962. Continued activity at this location has been noted on subsequent missions.

The complex support facility (Figure 3) is located at 51-32-OON 113-01-00E, 3.1 nm south of Drovyanaya. It is served by a rail spur that leaves the old rail spur 1.6 nm north of Drovyanaya and extends south for 5.8 nm, generally paralleling the old spur.

The shortest rail turning radius in the area appears to be about 600 feet. The only road access to the facility is provided by a road that connects with the old rail spur. The rail-to-road transfer point appeared complete on July 1962 photography (Figure 3).

As of April 1962, the complex support facility covered 425 acres and contained about 25 to 30 buildings. Paralleling the rail spurs are about seven buildings, the largest of which appears to be more than

~~TOP SECRET DINAR CHESS RUFF~~

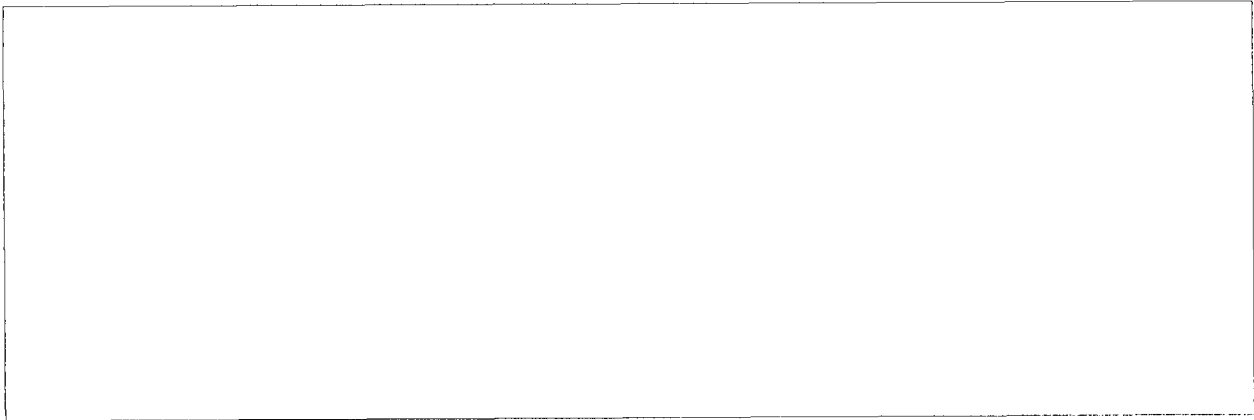
~~TOP SECRET DINAR CHESS RUFF~~

I-D-I

25X1

300 feet long. Some of the other buildings will be more than 200 feet long when completed. There is no evidence of rail-through buildings. In the north portion of the facility, 15 to 20 barracks-type buildings are under construction in a housing area, and at least 3 buildings are visible in an administration area, which also is under construction. A road-served probable housing and support area 1.1 nm northeast of the support facility is under construction. It consists of a grid pattern of clearings for roads and about 17 buildings.

25X1



— • —

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-D-I

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
	Aug <input type="checkbox"/> Sep 61	TOP SECRET RUFF
	Feb <input type="checkbox"/> Mar 62	TOP SECRET RUFF
	Apr 62	TOP SECRET RUFF
	May <input type="checkbox"/> Jun 62	TOP SECRET RUFF
	Jun 62	TOP SECRET RUFF
	Jul <input type="checkbox"/> Aug 62	TOP SECRET RUFF
	Aug 62	TOP SECRET RUFF

MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0201-4A, 1st ed, Oct 59, scale 1:200,000 (SECRET)

DOCUMENTS

1. NSA. 3/0/RUA-AW/R17-62, 30 Mar 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

C02679002

G

~~TOP SECRET DINAR CHESS RUFF~~

5 Pages  
1 October 1962

25X1

NAME: Gladkaya

NO: I-G-1

LOCATION: Launch Site A (56-20N 92-19E)

Launch Site B (56-25N 92-25E)

25X1

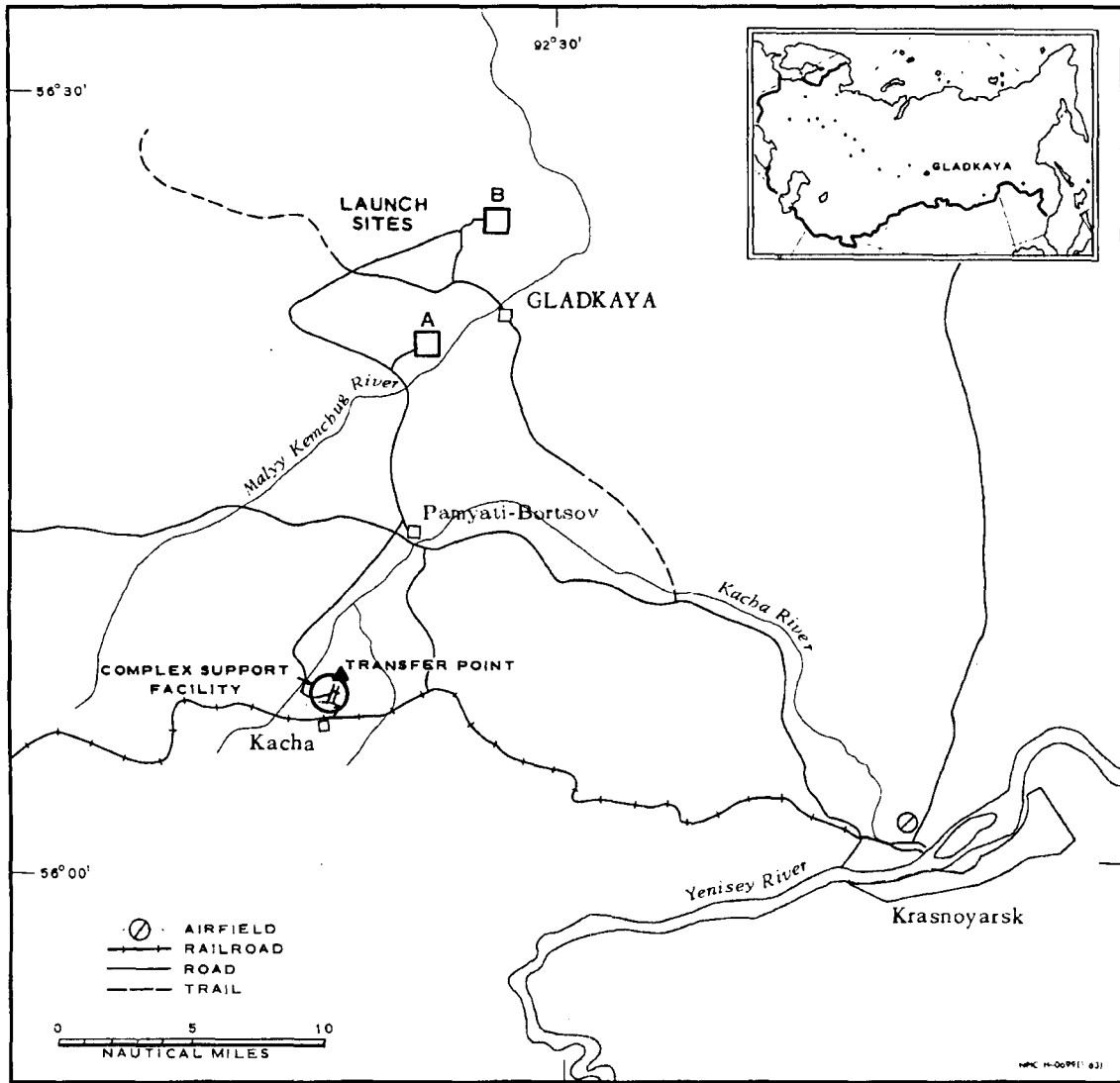


FIGURE 1. LOCATION OF GLADKAYA ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-G-1

I. Conclusion

Gladkaya is a confirmed ICBM complex.

II. BackgroundA. Photographic Evidence

The Gladkaya ICBM Complex (Figure 1) was covered by KEYHOLE photography of June 1962, [ ] and July-August 1962 [ ]

25X1

[ ] There was no usable photography of this area prior to June 1962. The complex is located in a forested area northwest of Krasnoyarsk and contains two road-served launch sites in the mid stage of construction, a support facility, and a rail-to-road transfer point--all under construction. The pad orientation is 60 degrees,  $\pm$  5 degrees. Rail service is provided by the Trans-Siberian Railroad at the village of Kacha. The SA-2 SAM sites in the area were identified previously as the air defense for Krasnoyarsk.

Launch Site A, of a Type IV configuration, is located approximately 15 nm from the complex support facility and contains two ready buildings under construction 800 feet to the rear of pads (Figure 2). A plus-shaped clearing is located 1,200 feet to the rear of the right pad and may be a guidance installation. The two legs of the plus each measure 400 feet. A rectangular secured area is located to the southwest of the left ready building. It contains three small buildings; however, no function has been associated with it at present.

The launch support facility is located approximately 1 nm from the launch site. It contains 10 barracks-type buildings approximately 100 by 30 feet, one T-shaped building approximately 135 by 90 feet, and several smaller buildings.

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

I-G-I

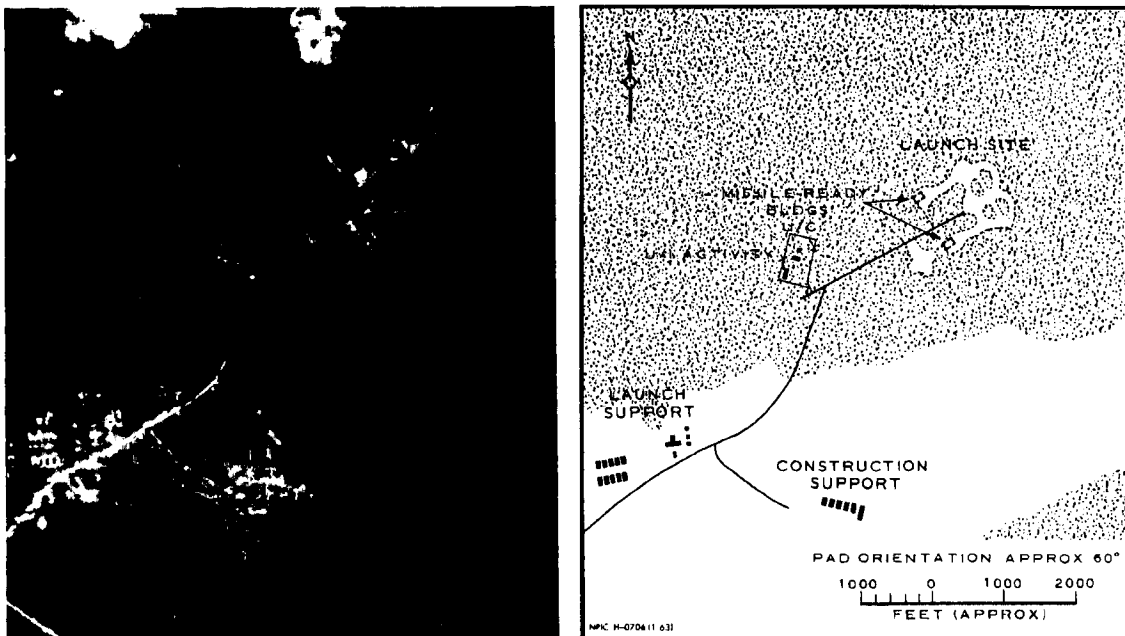


FIGURE 2. LAUNCH SITE A (June 1962)

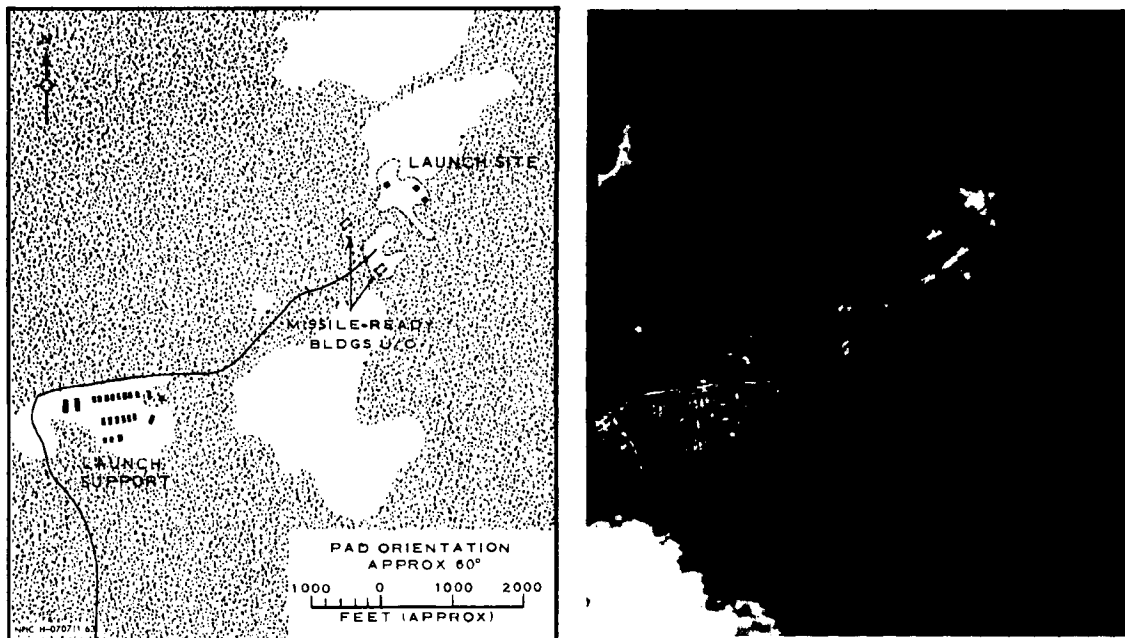


FIGURE 3. LAUNCH SITE B (June 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-G-I

A construction support area is located 0.5 nm southeast of the operational support facility. It contains five storage-type buildings approximately 90 by 25 feet and one building 115 by 25 feet. Numerous vehicle tracks are evident between this area and the operational support area.

Launch Site B (Figure 3) is approximately 5 nm northeast of Launch Site A and is also a Type IV. Because the launch site is in an early stage of construction it is not possible to determine the size of the pads. The orientation of the pads will be the same as that for Site A. Two missile-ready buildings under construction are located 800 feet to the rear of the pads and are 800 feet apart. At present a ditch appears to connect the two pads. No plus-shaped clearing has been identified at this launch site to date. Measurements, road pattern, and other identifiable features are commensurate with those of Launch Site A.

The support for Launch Site B is approximately 1 nm to the rear and on the south side of the access road. It contains approximately 20 barracks-type buildings measuring 140 by 30 feet. Several unidentified structures are also present within the area.

The complex support facility (56-05N 92-13E), located near the village of Kacha, is served by the Trans-Siberian Railroad (Figure 4). A spur from the main line curves into the facility and also to a rail-to-road transfer point approximately 1.8 nm north of the facility. There are approximately 20 single-family-type dwellings and numerous large buildings under construction. Most of the area is obscured by vehicle tracks and construction activity.

B.  and Collateral Evidence

25X1

- 4 -

~~TOP SECRET DINAR CHESS RUFF~~

I-G-1

25X1



25X1

FIGURE 4. COMPLEX SUPPORT FACILITY (September 1962)

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
	Jun 62	TOP SECRET RUFF
	Aug 62	TOP SECRET RUFF
	Aug 62	TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0159-22HL, 2d ed, Nov 61, scale 1:200,000 (SECRET)

DOCUMENTS

NSA. 3/0/RUJ/R25-61, 25 Aug 61 (TOP SECRET DINAR)

C02679002





~~TOP SECRET DINAR CHESS RUFF~~

25X1  
6 Pages  
1 October 1962

NAME: Itatka

NO: I-I-1

LOCATION: Launch Site A (56-58N 85-33E)

Launch Site B (57-01N 85-39E)

25X1

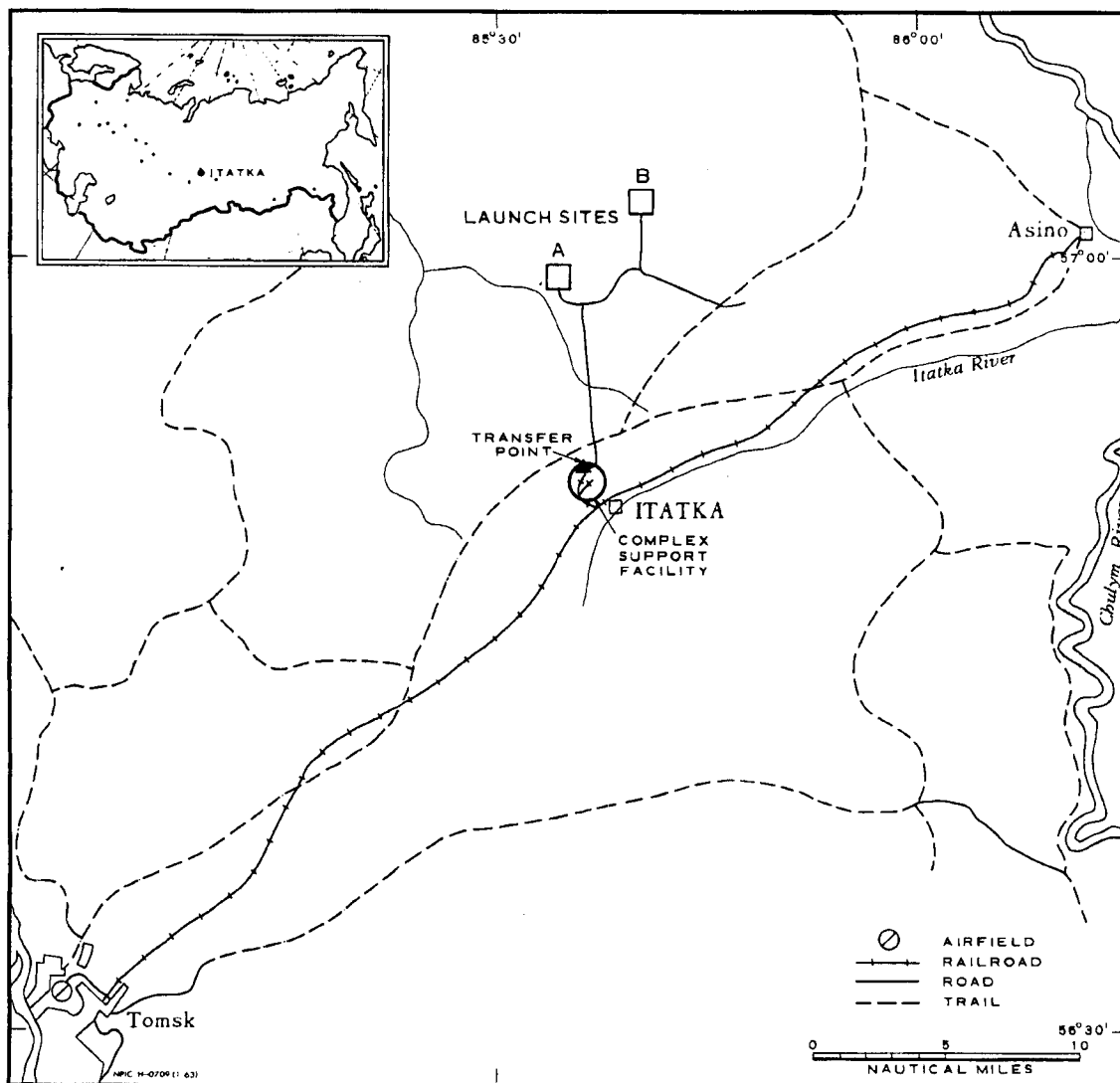


FIGURE 1. LOCATION OF ITATKA ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-I-I

## I. Conclusion

Itatka is a confirmed ICBM launch complex.

## II. Background

### A. Photographic Evidence

An ICBM launch complex has been observed in a generally wooded area to the north of Itatka (Figure 1). It was first identified on KEYHOLE photography of September 1961 [redacted]. A search of previous photographic coverage revealed that in August 1960 [redacted] there was no evidence of the complex. Thirteen months later, in September 1961, the support facility, a transfer point, and Launch Site A were observed under construction. In April 1962 [redacted] the area was covered again and showed Launch Site B in an early stage of construction. The complex was also covered in May/June 1962 [redacted] June 1962 [redacted] and June/July 1962 [redacted] none of which added significantly to the existing photographic information. The launch complex lies about 10 nm north of Itatka and approximately 37 nm north-east of Tomsk. The complex support facility and transfer point are served by rail spurs from the Tomsk-Asino rail line.

A complex main road serves the support facility, transfer point, and Launch Sites A and B.

Pad orientation is 10 degrees,  $\pm$  5 degrees.

No SAM sites have been noted defending the complex. The stage of construction when observed could mean that a SAM defense had not yet been deployed.

Launch Site A (Figure 2) is located about 7.2 nm north-northwest of the transfer point. It is a Type II (Mod b) launch site, probably complete, and is enclosed within a double security fence. The normal pad separation for this type of site is approximately 980 feet. The launch support area

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

I-I-I

25X1

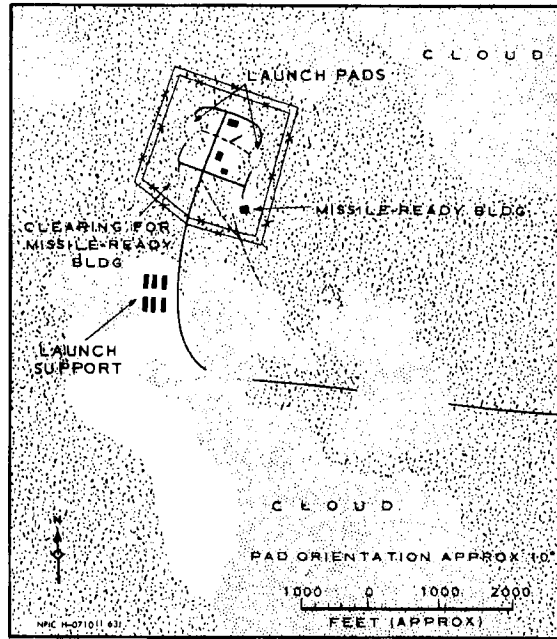


FIGURE 2. LAUNCH SITE A (June 1962).

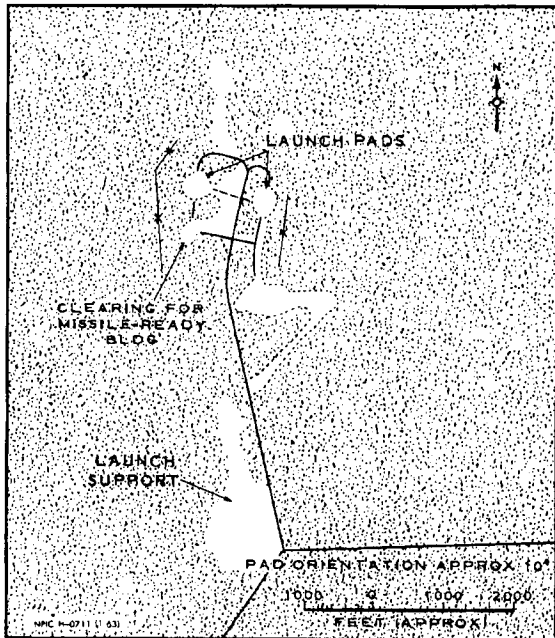


FIGURE 3. LAUNCH SITE B (July 1962).

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-I-I

is located about 1,700 feet south of the launch site. Poor image quality in one instance and very small scale in another preclude a detailed interpretation.

Launch Site B (Figure 3) is located about 9.8 nm north-northeast of the transfer point. It is generally similar to Launch Site A and appears to be in a mid stage of construction. The site appears to be enclosed within a security fence. The launch support is located about 3,900 feet south of the launch site. Again, poor image quality and very small scale preclude a detailed interpretation.

The complex support facility is located on the northern side of Itatka at 56-50N 85-36E (Figure 4). The area between the rail sidings in the support facility appears to be occupied by miscellaneous structures, including possible concrete batching plants and open storage. The housing and administration area, which lies east of the rail sidings, contains at least 60 buildings. Poor image quality precludes further interpretation.

The rail-to-road transfer point (Figure 4) is located in a wooded area at 56-51N 85-36E. It is approximately 2 nm north of Itatka and is served by a rail spur running west and then northeast from the Tomsk-Asino rail line. The transfer point consists of a concrete loop road, possibly several concrete aprons, and two rail sidings. The number of buildings is not determinable.

The complex main road has been extended eastward approximately 4 nm beyond Launch Site B indicating the direction of probable future expansion. This extension was identified on August 1962 photography

25X1

B. [ ] and Collateral Evidence

25X1

25X1

No relevant [ ] has been noted concerning Itatka itself. However, appearance of FPN 54093-G at Tomsk, Bosk 38, [ ] may be significant because some units of the Strategic Rocket Forces are believed

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-I-I

25X1

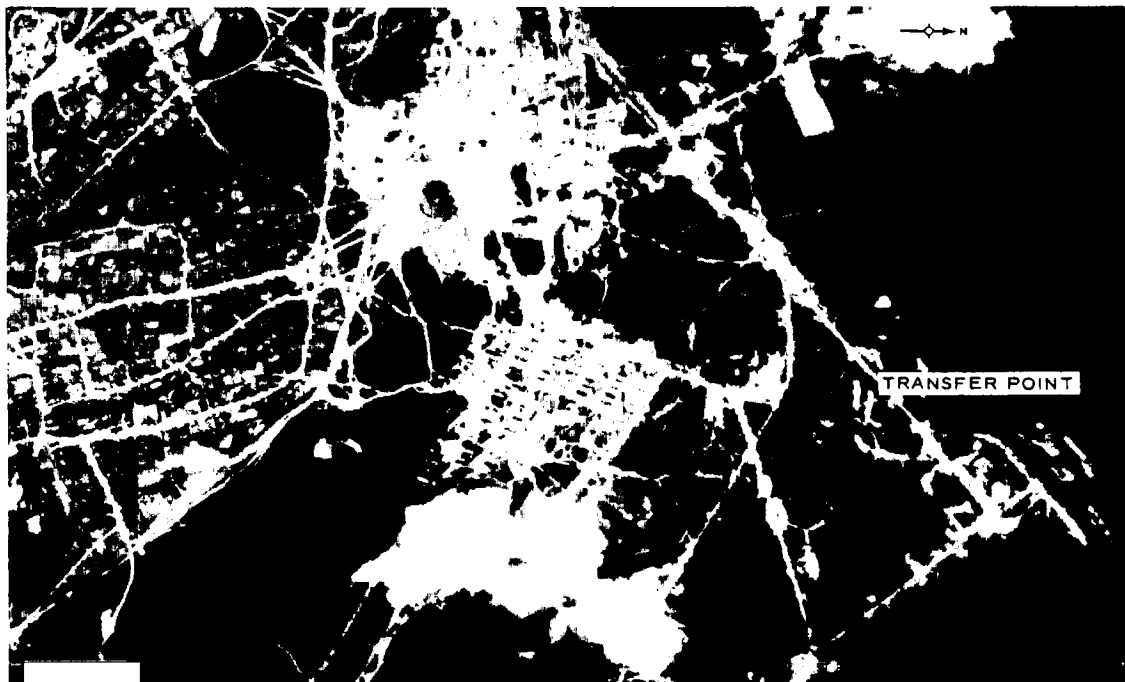


FIGURE 4. COMPLEX SUPPORT FACILITY (Jun 62)

to have been assigned field post numbers from the 540XX series. Bosk 38 probably represents a wooded area in the general vicinity of Tomsk.

The flight of a GKAT transport based at Moscow/Vnukovo to Tomsk [redacted] may have been related to strategic missile deployment.

Certain of the [redacted] evidence concerning the Novosibirsk ICBM complex may also be applicable for the Itatka complex.

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[Redacted]

I-I-I

REFERENCES

PHOTOGRAPHY

Mission	Date	Classification
[Redacted]	[Redacted] Sep 61	TOP SECRET RUFF
	[Redacted] Apr 62	TOP SECRET RUFF
	[Redacted] May [Redacted] Jun 62	TOP SECRET RUFF
	[Redacted] Jun 62	TOP SECRET RUFF
	[Redacted] Jun [Redacted] Jul 62	TOP SECRET RUFF
	[Redacted] Aug 62	TOP SECRET RUFF

MAPS OR CHARTS

MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0158-19A, 1st ed, May 59, scale 1:200,000  
(SECRET)

DOCUMENTS

NSA. 3/0/RUGM/R279-62, 15 May 62 (TOP SECRET DINAR)

C026790.02

K

~~TOP SECRET DINAR CHESS RUFF~~

25X1

10 Pages  
1 October 1962

NAME: Kostroma

NO: I-K-1

LOCATION: Launch Site A (58-02N 41-21E) BE No 0154-00832

Launch Site B (58-01N 41-07E) BE No 0154-00847

Launch Site C (57-59N 41-09E) BE No 0154-00850

Launch Site D (58-05N 41-40E) BE No 0154-00891

Launch Site E (57-57N 41-13E) BE No 0154-00912

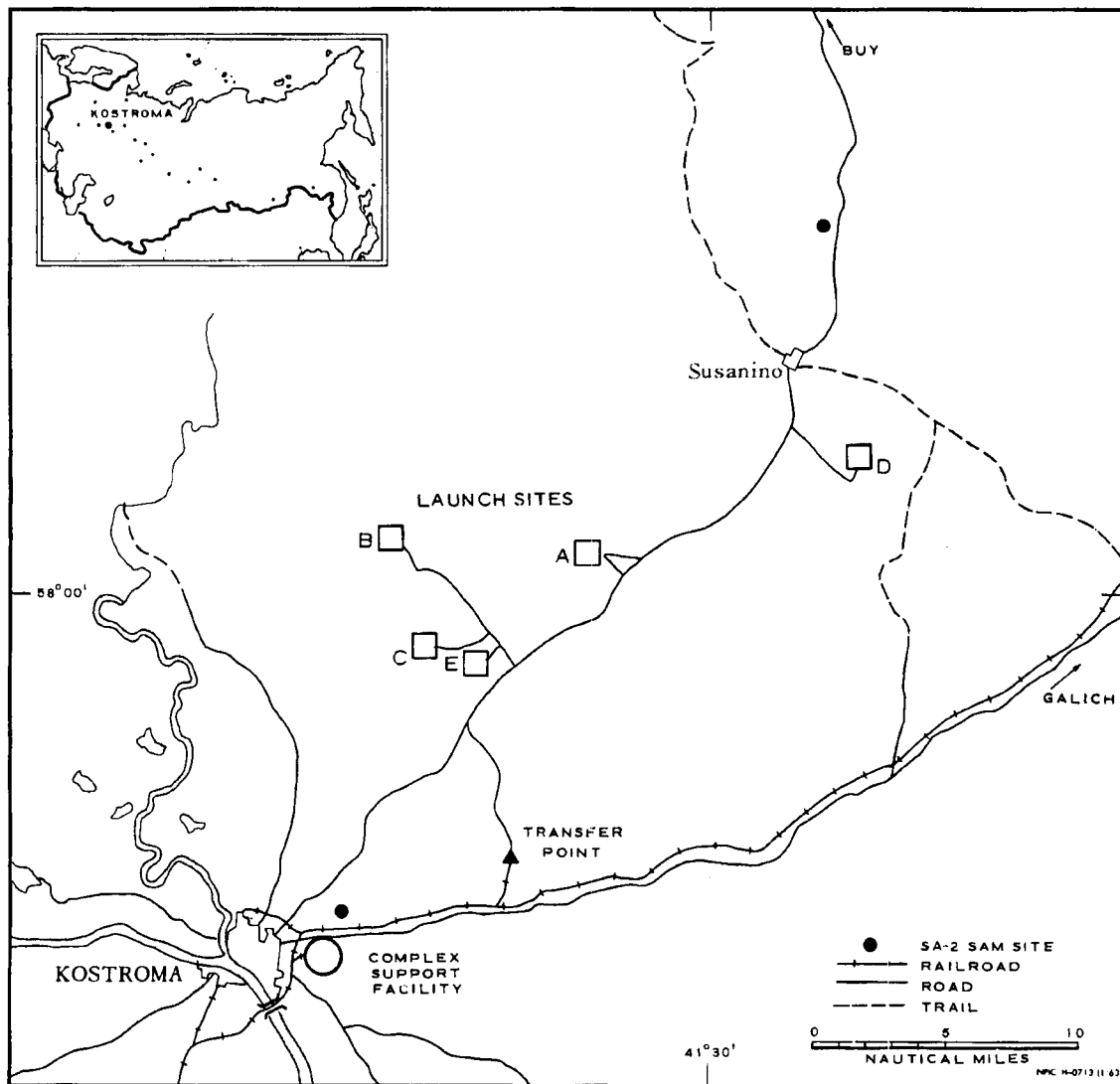


FIGURE 1. LOCATION OF KOSTROMA ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-K-II. Conclusion

Kostroma is a confirmed ICBM complex.

II. Background

## A. Photographic Evidence

The Kostroma ICBM complex (Figure 1) was identified by KEY-HOLE photography of July 1961 [REDACTED] and was covered by subsequent missions. There was no evidence of a complex in August 1960

25X1

[REDACTED] It is located in a forested area northeast of Kostroma and is composed of five road-served launch sites, a complex support facility, and a rail-to-road transfer point. Launch Sites A, B, C, and D have Type II (Mod b) configurations and Site E has a Type III configuration. All Type II launch pads are oriented 295 degrees,  $\pm$  5 degrees. The launch sites are served by access roads leading from the Kostroma-Buy highway and dispersed over an area of about 18 nm in an east-west direction. Rail service is provided by the Kostroma-Galich rail line. Two SA-2 sites are the only SAM defenses at this complex to date.

Launch Site A (Figure 2), which is located approximately 15 nm (by road) from the transfer point, was first seen in July 1961 and is now complete. It contains two elongated launch pads, two missile-ready buildings, and three buildings or structures to the left of the center road, which is offset to the right. The ready building to the right measures 170 by 125 feet and is canted to the long axis of the launch pad. The other ready building measures 170 by 105 feet and is in alignment with the long axis of the launch pad. The structure located along the center road at the forward end of the launch site appears to be L-shaped. An unidentified object is located atop this structure. An unidentified elongated object or structure is centered on each of the pads. A short, faint shadow

~~TOP SECRET DINAR CHESS RUFF~~

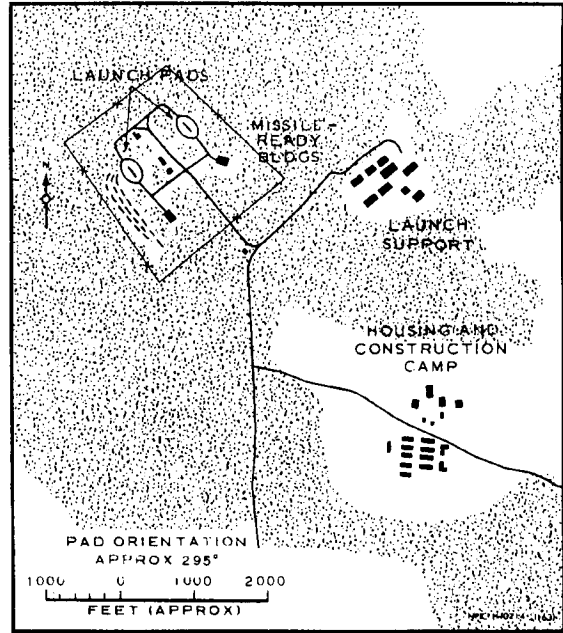


FIGURE 2. LAUNCH SITE A (April 1962)

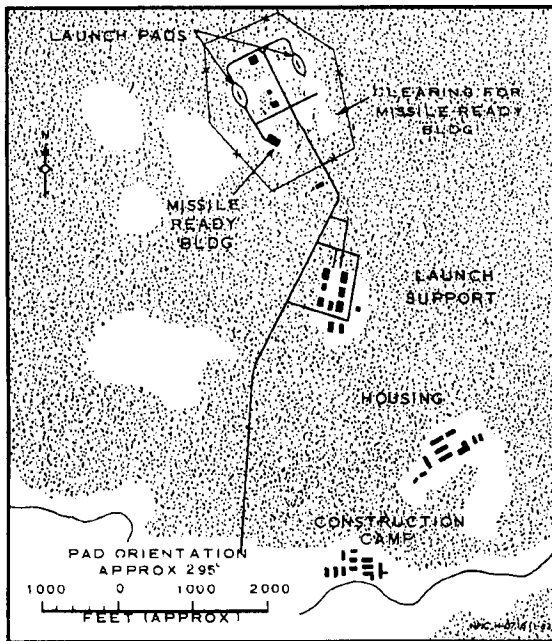


FIGURE 3. LAUNCH SITE B (April 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

  
I-K-1

is cast by a vertical member at the forward end of the object or structure on the left pad. The shadow is not so long nor so heavy as that cast by the vertical object at Launch Site B. Probable vehicle revetments are located along the outside of the launch pads.

To the rear and east of Launch Site A is the support area, which contains at least nine complete buildings and four more under construction. A housing and construction camp is located about 5,000 feet to the south-east of the launch site.

Launch Site B (Figure 3) is about 14 nm (by road) from the rail-to-road transfer point and consists of two elongated launch pads, a ready building, and three buildings or structures down the center of the site. The launch support area, housing area, and the construction camp and probable equipment parking area are located to the rear along the access road. A missile-ready building measuring 170 by 125 feet is located behind the left pad. It is canted in the same direction as the one at Launch Site A. A cleared and scarred area to the rear of and in line with the other pad indicates the future construction of another ready building. Because of the stage of construction of the pads, the site appears complete. As at Launch Site A, an object or structure is located in the center of each launch pad. A vertical object is located at the forward end of the structure on the more southerly pad. Preliminary mensuration indicates that this object is 95 feet high, plus or minus 10 feet. Probable vehicle revetments are located to the outside of the launch pads. Three buildings are aligned through the center of the launch site.

The support area to the rear of the launch site contains at least 10 buildings. Seven of these are laid out in a pattern similar to the layout of launch support areas at other sites. A housing area of at about 10 buildings and a construction camp of 10 to 12 buildings with a probable vehicle and equipment parking area are located further to the rear.

Launch Site C (Figure 4) is about 11 nm (by road) from the transfer point and was in the mid-stage of construction as of April 1962. The launch pads and a portion of the loop road system are not complete. The

- 4 -

~~TOP SECRET DINAR CHESS RUFF~~

I-K-1

25X1

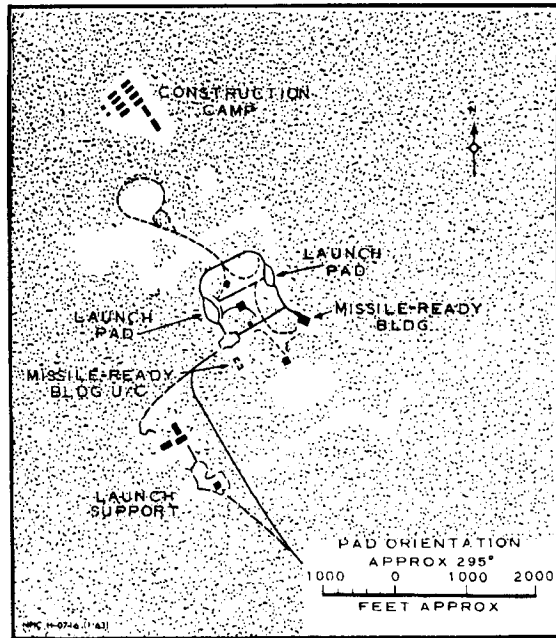
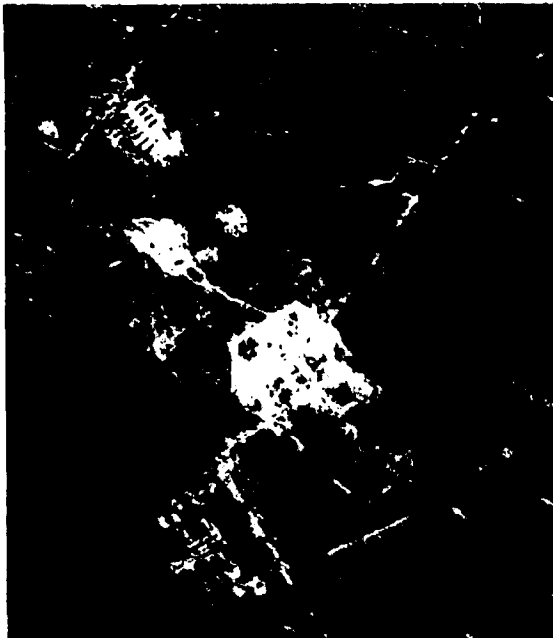


FIGURE 4. LAUNCH SITE C (April 1962)

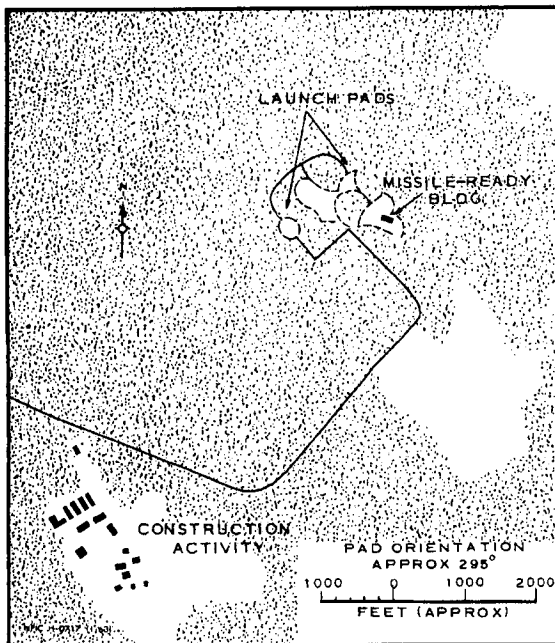


FIGURE 5. LAUNCH SITE D (April 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-K-I

missile-ready building to the right, which measures 170 by 125 feet, appears complete and is canted to the long axis of the launch pad. The other ready building is in the early stage of construction and will be in line with the pad. A building, approximately 50 feet square, is positioned between the two ready buildings. A similar building is located in the same position at Launch Site A of the Teykovo complex. At least two structures are located along the offset center road.

At present there are four barrack-type buildings in the support area and clearings for additional buildings. The initial construction camp, located northwest of the launch site, contains about 12 buildings.

Launch Site D (Figure 5) is approximately 23 nm (by road) from the transfer point and is in a mid stage of construction. The launch-site signature is evident from the clearing of vegetation for the loop-road system. The missile-ready building to the rear of the right pad has been constructed and is canted.

A large clearing, located just south of the point where the access road turns toward the launch site, will probably be the location of the launch support area. Seventeen structures are located in an area of construction activity further to the south.

Launch Site E (Figure 6), under construction, is a Type III configuration and is similar to those appearing at Verkhnyaya Salda, Shadrinsk, and Plesetsk and apparently is patterned after Launch Area D at Tyura Tam. The notch is not yet apparent, but the excavation, containing two objects, has been squared off at the eastern end.

There was no evidence of the site in December 1961 [REDACTED]. It first appeared in March 1962 [REDACTED] but only as a road to a clearing in woods, and had no recognizable pattern. In April 1962 [REDACTED] [REDACTED] the similarity to the other Type III sites was recognized and the area was identified as a launch site.

25X1

The complex support facility (Figure 7), located on the outskirts of Kostroma (at 57-46N 41-01E), has undergone little or no change

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-K-I

25X1

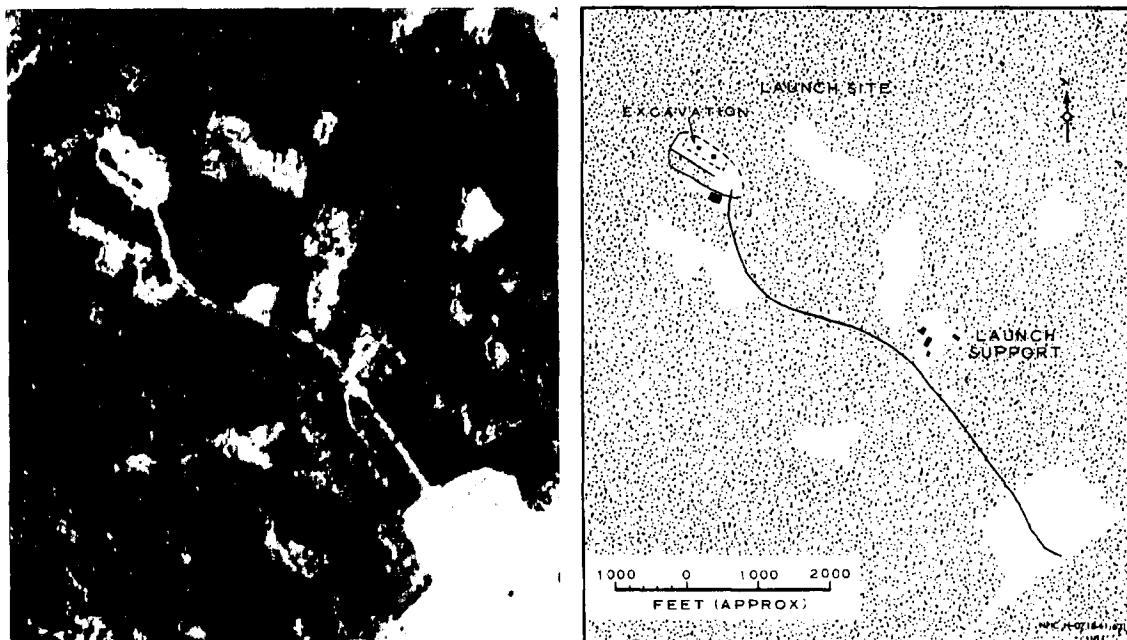


FIGURE 6. LAUNCH SITE E (April 1962)

since December 1961. It is both rail and road served. A rail spur serving a nearby industry has been extended to serve this facility. This spur divides into five additional spurs after entering the security fence. The length of these spurs varies from 4,100 to 4,500 feet. They are separated by distances of 160 to 600 feet. No rail-through buildings are apparent within this facility.

The rail-to-road transfer point is located in a wooded area approximately 9.5 nm northeast of the complex support facility and is served by a rail spur leading from the Kostroma-Galich rail line. Three rail spurs that veer to the west are the terminus of the rail. The two longest of these spurs fall in a cloud shadow which obscures some of the details but it appears that the missile transfer point and the looped road similar to those at other ICBM complexes such as Teykovo will be at these two spurs.

- 7 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-K-I



FIGURE 7. COMPLEX SUPPORT FACILITY (April 1962)

25X1

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

[Redacted]  
I-K-I

25X1

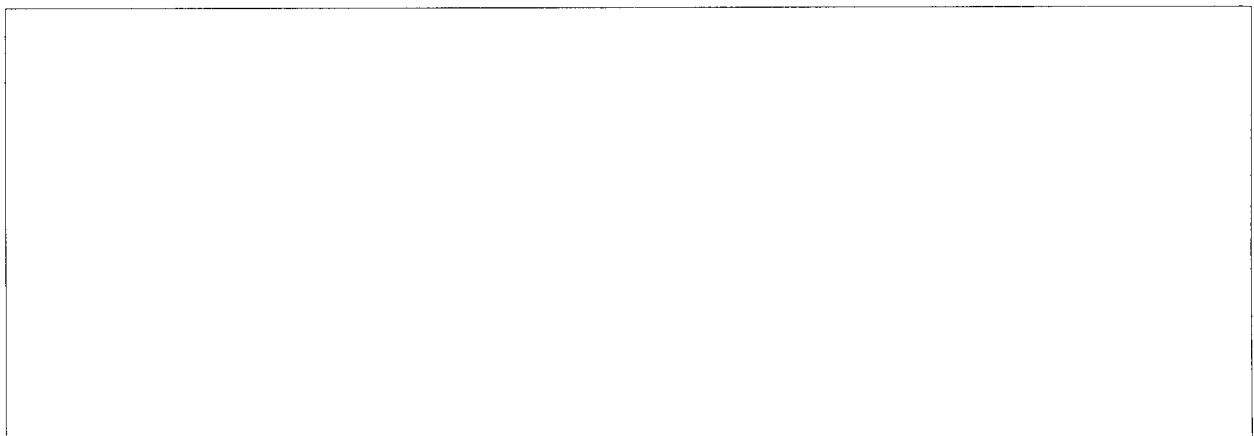
Slightly south of the rail terminus are two other rail spurs that veer to the east. There were previously reported [Redacted] as the transfer point. However, these appear to be for construction support because a concrete batching plant is located alongside one of the rail spurs.

25X1

Between 25 and 35 buildings on the west of the main rail spur apparently constitute a housing area for construction workers. The two construction spurs and the housing area are unique to this transfer point and may be due to the 9.5-nm separation between the transfer point and the complex support facility.

A well-engineered road leads north from the transfer point to the Kostroma-Buy highway, which provides access to the launch sites.

25X1



— • —

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

25X1

[Redacted]  
I-K-1

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
[Redacted]	[Redacted] Jul 61	TOP SECRET RUFF
	[Redacted] Dec 61	TOP SECRET RUFF
	[Redacted] Feb [Redacted] Mar 62	TOP SECRET RUFF
	[Redacted] Apr 62	TOP SECRET RUFF
	[Redacted] May [Redacted] Jun 62	TOP SECRET RUFF
	[Redacted] Aug 62	TOP SECRET RUFF
	[Redacted] Aug 62	TOP SECRET RUFF

MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0154-14A, 1st ed, Nov 58, Scale 1:200,000  
(SECRET)

DOCUMENTS

NSA. 3/0/RUA-AW/R59-62, 6 Aug 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

6 Pages  
1 October 1962

25X1

NAME: Kozel'sk

NO: I-K-2

LOCATION: Launch Site A (53-54N 35-44E)

Launch Site B (53-48N 35-47E)

Launch Site C (53-46N 35-41E)

25X1

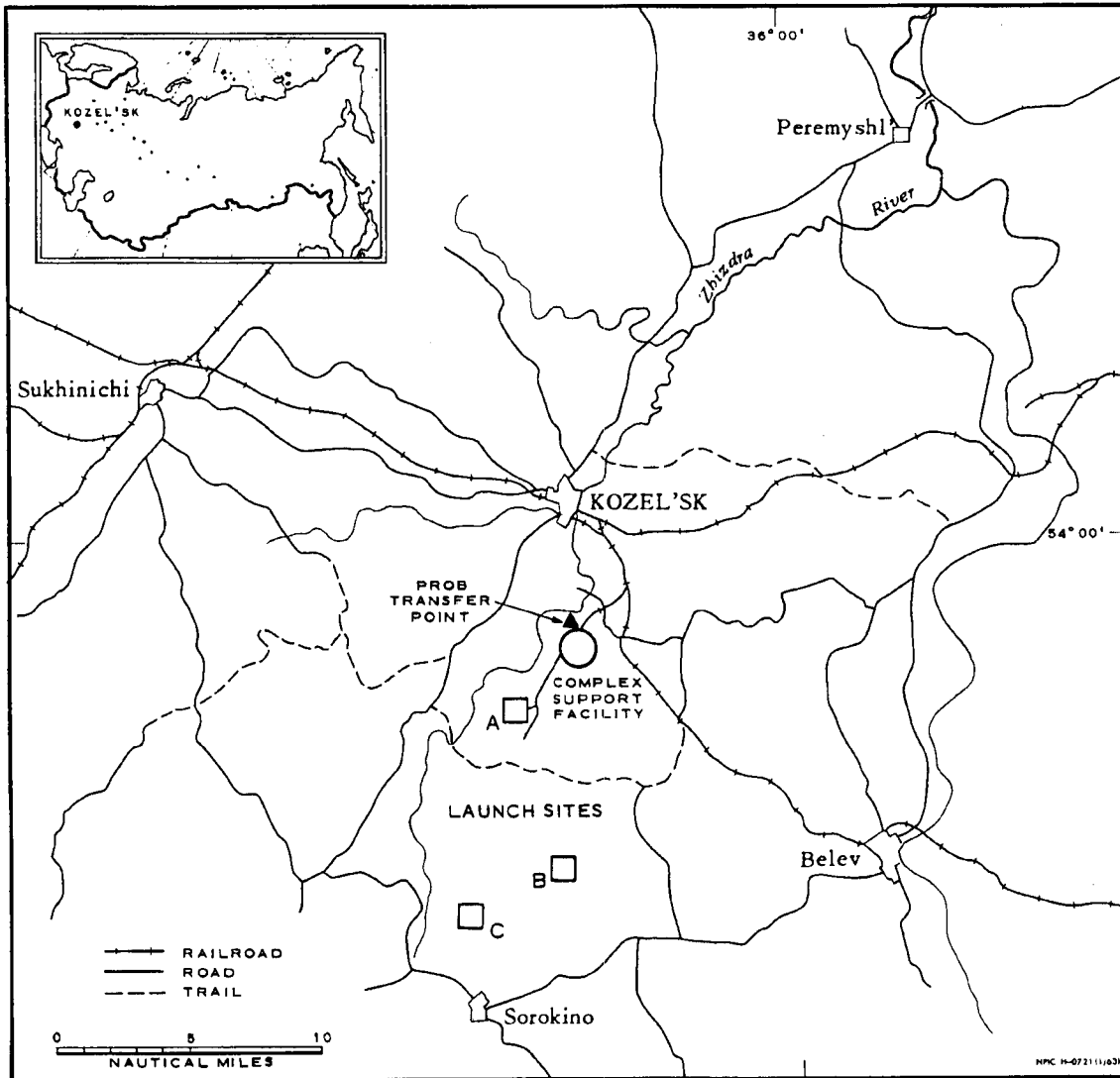


FIGURE 1. LOCATION OF KOZEL'SK ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-K-2I. Conclusion

Kozel'sk is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

An ICBM launch complex (Figure 1) under construction has been identified in a generally forested area south-southeast of the town of Kozel'sk.

The complex consists of a rail-served complex support facility and three launch sites. No SAM defenses were noted; however, the entire area has not been seen.

Launch Sites B and C were identified on photography of June-July 1962

25X1 [REDACTED] At that time heavy clouds prevented observation of the remainder of the complex. However, re-examination of photography of April 1962 [REDACTED] revealed the presence of the complex support facility and Launch Site A near the extreme edge of the photography. The area was previously covered by photography of July 1961 [REDACTED] but small scale and poor photo quality precluded a readout of the photography.

Rail service into the complex appears to come from the Kozel'sk-Belev rail line but the tie-in cannot be identified due to photography limitations. A complex main road connects the complex support facility with Launch Site A but apparently is not yet completed to Sites B and C. These sites are served by the local road network.

Launch Site A is situated 3.5 nm south-southwest of the complex support facility in a partly wooded area (Figure 2). This site was in an early to mid stage of construction when observed in April 1962. The road pattern within the launch site is not clearly defined but suggests that this will be a Type IV launch site with two pads having a separation of approximately 870 feet. Ground scarring at the northwest end of the

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-R-Z

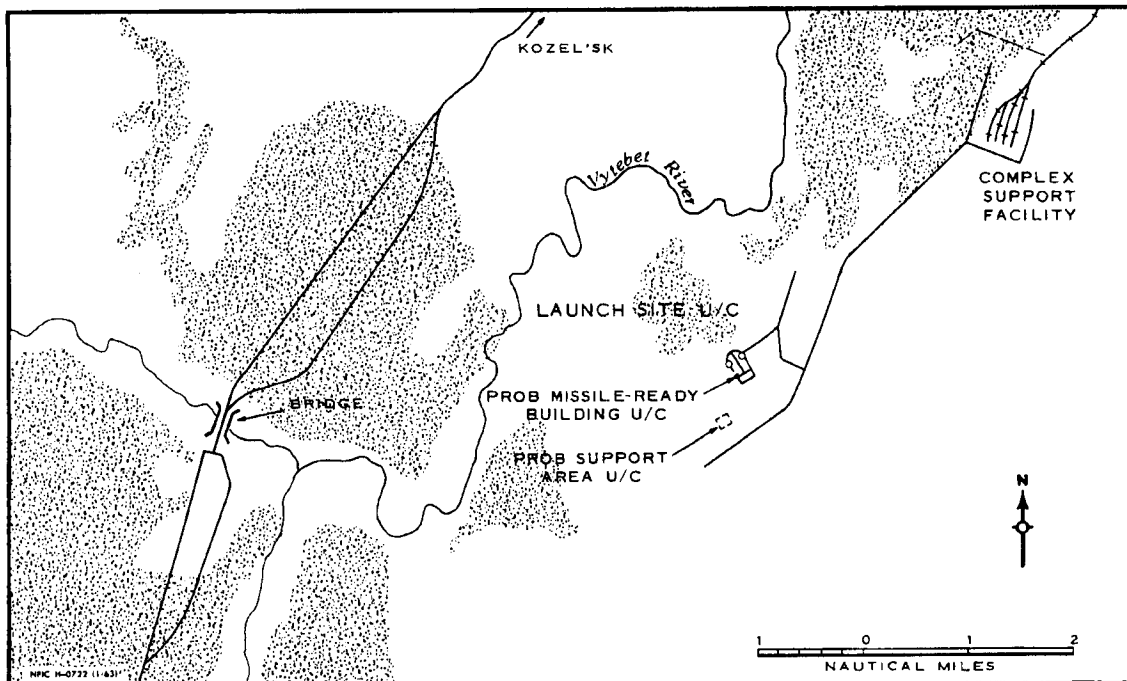


FIGURE 2. LAUNCH SITE A AND COMPLEX SUPPORT FACILITY

road patterns indicate the positions of the pads under construction, and a probable ready building is under construction approximately 900 feet southeast of the western pad. A probable support area of at least four buildings lies 4,000 feet southwest of the launch site. It was identified on photography of April 1962 [ ] when Launch Site B was under construction, although not identifiable. Service roads to the site are probably not complete. Pad orientation is approximately 295 degrees,  $\pm 5$  degrees. No security measures are apparent. The quality of photography of this site precludes reproduction.

Launch Site B (Figure 3) is in an early stage of construction and is situated in a wooded area 9 nm south of the complex support facility. Service roads connecting this installation with other elements of the launch complex have not been seen, except for short segments, so that alignment and pattern have not been determined. However, access to the complex support facility will probably be from the west, in the vicinity of Launch

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-K-2

Site C. The road pattern in the launch site is not complete, but existing alignment indicates a Type IV configuration with two launch pads under construction having a separation of approximately 870 feet. Two ready buildings under construction approximately 105 feet by 70 feet, are 1,000 feet southeast of the pads. Two support areas lie 2,000 feet and 4,000 feet south of the launch site. The northern one contains eight large buildings 140 by 45 feet and three smaller buildings; the southern contains 11 buildings 140 by 45 feet. A plus configuration similar to those at Tyumen' is located 1,700 feet north-northeast of the pads. Each leg of the cross measures 320 feet. Pad orientation is approximately 295 degrees  $\pm$  5 degrees. Possible security measures are apparent.

Launch Site C is situated in a forested area 11 nm south-southwest of the complex support facility (Figure 4). An unimproved road runs generally eastward and westward from the launch site but its alignment and activities to which it runs have not been determined due to clouds and cloud shadow. The site is in an early stage of construction and apparently has a Type IV configuration. Only one pad was under construction on the June-July 1962 photography. The center access road with its characteristic loop terminates at a ground scar which is a launch pad under construction. Approximately 600 feet southeast of the launch pad is an unidentified structure 130 feet by 100 feet. This structure is not in direct alignment with the pad, but is offset toward the center road. An unidentified ground scar possibly for a security fence, 1,000 feet long lies just west of the launch site. Support areas have not been observed. Pad orientation is 295 degrees,  $\pm$  5 degrees.

The complex support facility is situated 5.5 nm south-southeast of Kozel'sk at 53-57N 35-48E (Figure 2). It consists of three or four parallel rail spurs 3,000 feet to 4,000 feet in length, and an undetermined number of buildings. An unidentified ground scar running westward from the north end of the facility may be the early construction stage of a rail-to-road transfer point. Extremely small scale, haze, and poor image quality preclude interpretation of further details of this installation, although

~~TOP SECRET DINAR CHESS RUFF~~

I-K-2

25X1

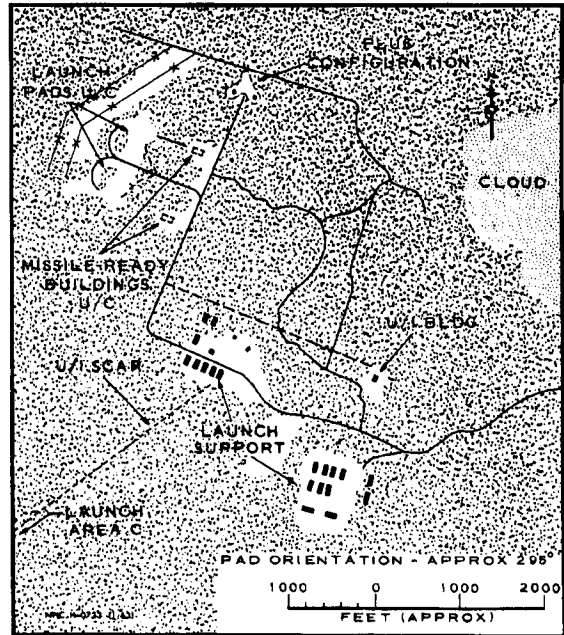


FIGURE 3. LAUNCH SITE B (July 1962).

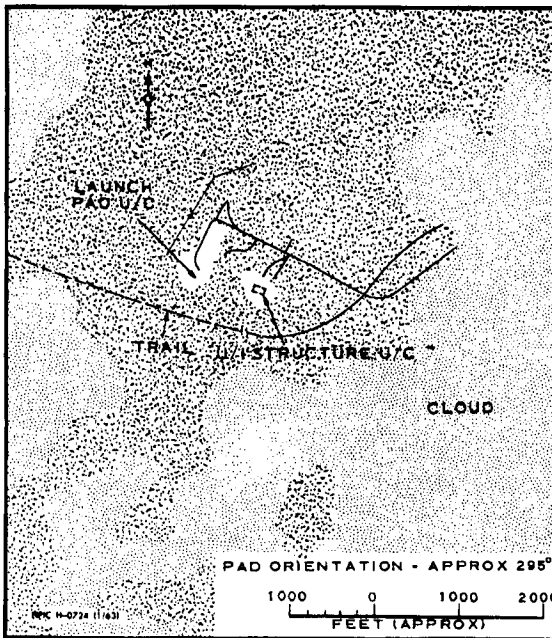


FIGURE 4. LAUNCH SITE C (July 1962).

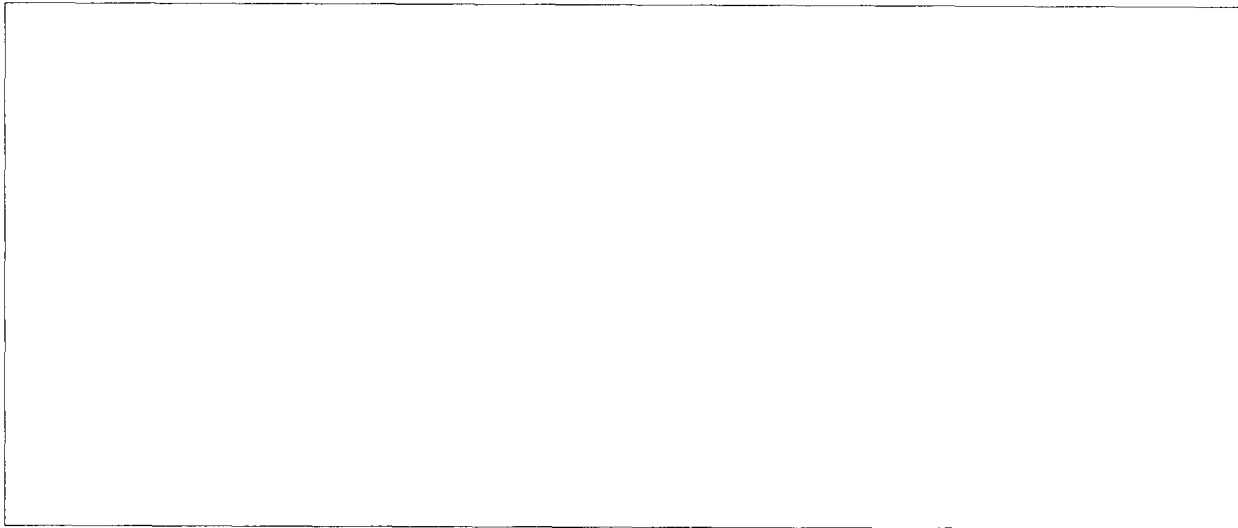
~~TOP SECRET DINAR CHESS RUFF~~

25X1

[Redacted]  
I-K-2

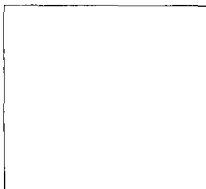
sufficient constructional characteristics are evident to render identification positive. Connection of the northend of the rail spurs with the main line has not been seen, as this area is beyond the limits of photographic coverage, but may logically be concluded. There is no discernible evidence of security fencing.

25X1



REFERENCES

PHOTOGRAPHY



	<u>Date</u>
[Redacted]	Jul 61
[Redacted]	Apr 62
[Redacted]	Jun - [Redacted] Jul 62
[Redacted]	Aug 62

<u>Classification</u>
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200 Sheet 0167-14A, 1st ed, Nov 59, scale 1:200,000 (SECRET)

DOCUMENTS

NSA. 3/0/RUA-AW/R59-62, 6 Aug 62 (TOP SECRET DINAR)

GCHQ. 2/ARU-F/C2256, 20 Sep 61 (SECRET KIMBO)

~~TOP SECRET DINAR CHESS RUFF~~

C02679002

Z



~~TOP SECRET DINAR CHESS RUFF~~

25X1  
6 Pages  
1 October 1962

NAME: Novosibirsk

NO: I-N-1

LOCATION: Launch Site A (55-19N 83-10E)  
Launch Site B (55-19N 83-01E)  
Launch Site C (55-23N 82-56E)

25X1

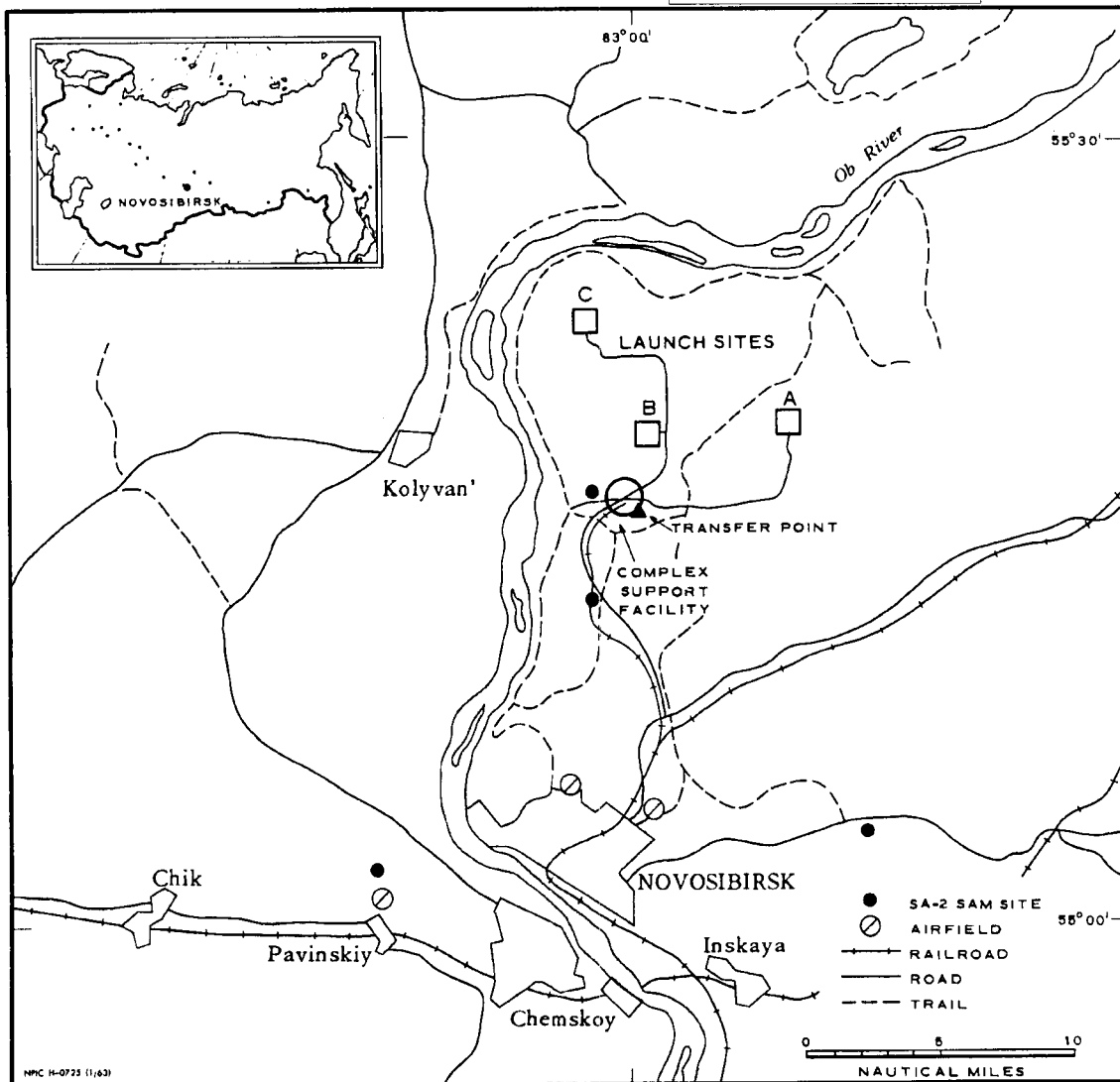


FIGURE 1. LOCATION OF NOVOSIBIRSK ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-N-II. Conclusion

Novosibirsk is a confirmed ICBM complex.

II. BackgroundA. Photographic Evidence

An ICBM complex is located north-northeast of Novosibirsk in a generally wooded area (Figure 1). The complex support facility, Launch Site B, and the road to Launch Site A were visible on photography of December 1961 [REDACTED] however, they were not identified until June-July 1962 [REDACTED]. The complex is served by a rail spur from the Novosibirsk/Tayga rail line, approximately 10 nm to the south. A road from Novosibirsk also serves the complex.

Launch Site A (Figure 2), of a Type II (Mod b) configuration, is in a mid stage of construction. The site is completely enclosed by a security fence. Although the general pattern of the site is developing, available photography precludes a detailed description of pads or missile-ready buildings. The pad orientation is 5 degrees,  $\pm$  5 degrees. The launch support area lies about 2,500 feet south-southwest of the site and contains four buildings, approximately 150 by 35 feet, and at least 10 miscellaneous buildings.

Launch Site B (Figure 3), of a Type III configuration, is under construction. A security fence is evident, and at least three buildings are present at the site. The launch support area lies approximately 5,000 feet south-southeast of the site and consists of at least 17 buildings. Cloud shadow precludes a detailed interpretation of the area.

Launch Site C (Figure 4), also of a Type III configuration, is under construction. There is no evidence of a security fence. The launch support area will be 2,500 feet east of the site where a clearing is being made. The area now contains about 5 buildings.

~~TOP SECRET DINAR CHESS RUFF~~

I-N-1

25X1

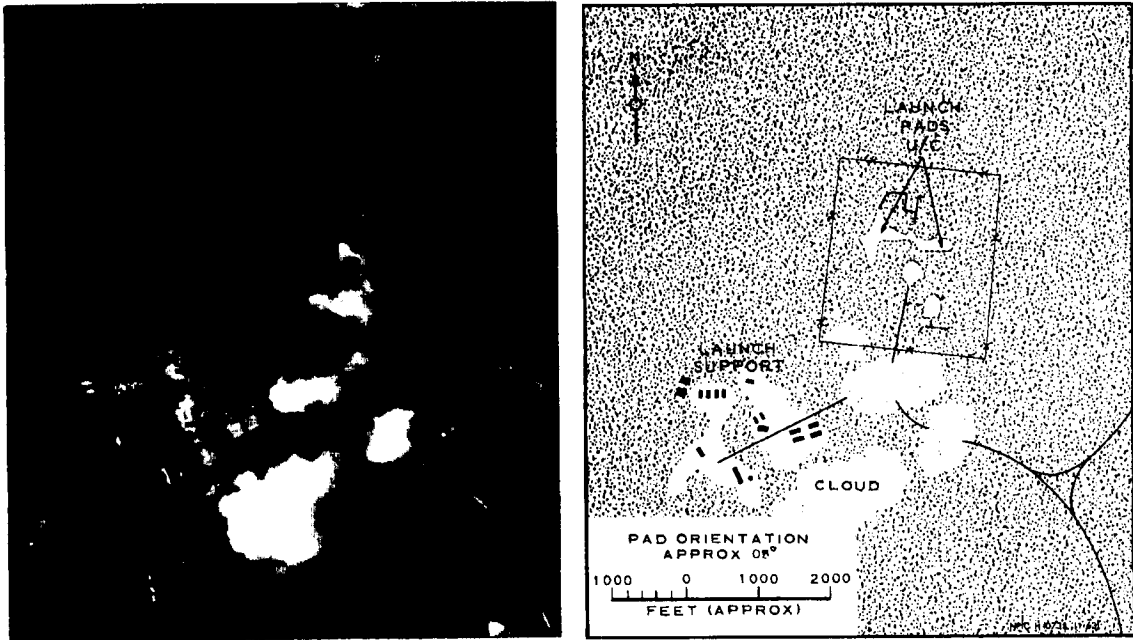


FIGURE 2. LAUNCH SITE A (September 1962)

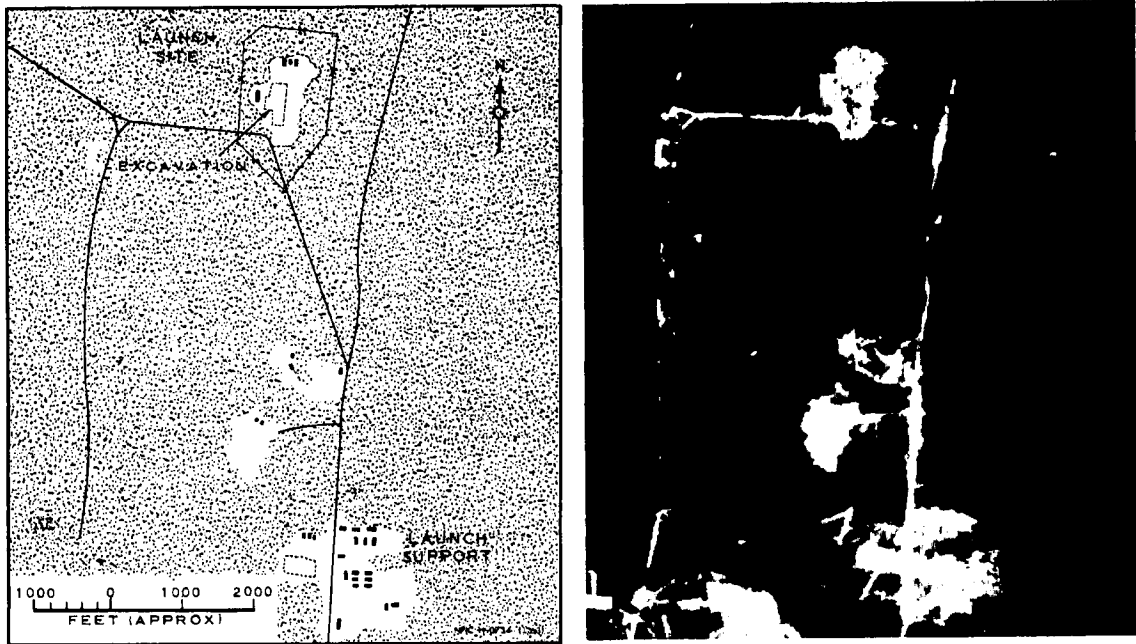


FIGURE 3. LAUNCH SITE B (September 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-N-I

The complex support facility is located at 55-16N 82-57E, approximately 14 nm north of Novosibirsk (Figure 5). Cloud cover on the photography of June - July 1962 [ ] and haze on that of July - August 1962 [ ] preclude a detailed interpretation of the complex support facility. A transfer point is identified under construction on the photography of July - August 1962 [ ] at 55-16N 82-59E.

25X1

The best photographic coverage on the Novosibirsk area was obtained from [ ]. Although there was scattered cloud cover in the area, the quality of the photography was good in open areas. On other missions, varying degrees of weather preclude a detailed interpretation.

No SA-2 SAM sites have been established specifically in defense of the Novosibirsk ICBM complex, although five sites have been deployed in defense of the city.

25X1

B. [ ] and Collateral Evidence

The appearances in February 1962 of FPNs 34007, 34062, 34148, 44176, and 54097 and elements of them on a military subscriber communications link from Moscow to Novosibirsk are significant because some units of the Strategic Rocket Forces are believed to have been assigned field post numbers in 340XX, 341XX, and 540XX series. In July 1961, FPN 34148 was the addressee for several valid five-letter cipher messages passed on the mainline link of the Ground Forces from Moscow to Headquarters, Siberian Military District, Novosibirsk. This type of cipher traffic also was noted in May 1961 on the mainline link of the Ground Forces to Headquarters, Volga Military District, and was addressed to FPN 34096, which is located at Yoshkar-Ola. Other significant FPN occurrences at Novosibirsk include a feasible special military construction unit (FPN 58133) in November 1960 and two possible units of Strategic Rocket Forces (FPN 34160 and FPN 34225-B) in May 1961 and November 1961, respectively.

~~TOP SECRET DINAR CHESS RUFF~~

I-N-I

25X1

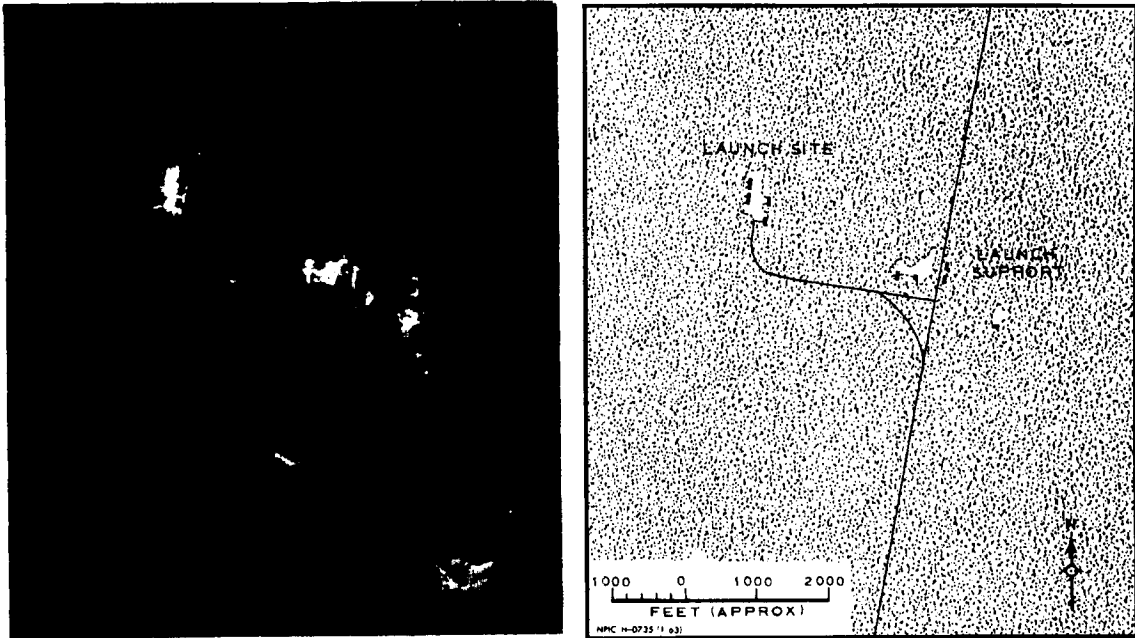


FIGURE 4. LAUNCH SITE C (September 1962)

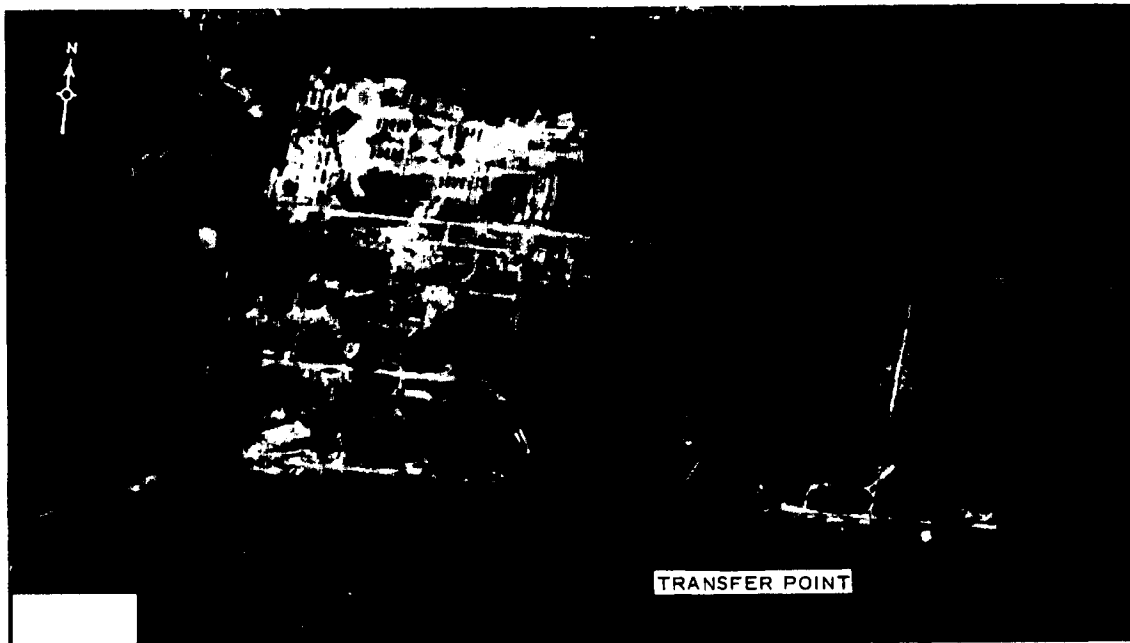


FIGURE 5. COMPLEX SUPPORT FACILITY (September 1962)

25X1

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[redacted]  
I-N-1

[redacted], general-purpose transports based at Moscow/Shchelkovo flew from Moscow to Novosibirsk and return.

25X1

Certain of this [redacted] information may also be applicable to the Itatka ICBM complex.

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
[redacted]	[redacted] Dec 61	TOP SECRET RUFF
[redacted]	[redacted] Jun [redacted] Jul 62	TOP SECRET RUFF
[redacted]	[redacted] Jul [redacted] Aug 62	TOP SECRET RUFF
[redacted]	[redacted] Aug - [redacted] Sep 62	TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0162-5A, 1st ed, Apr 59, scale 1:200,000 (SECRET)

DOCUMENTS

25X1

[redacted]

NSA. 3/0/RUGM/R401-62, 15 Aug 62 (TOP SECRET DINAR)

25X1

[redacted]

NSA. 3/0/RUM/T17-62, 9 May 61 (TOP SECRET DINAR)

25X1

[redacted]

~~TOP SECRET DINAR CHESS RUFF~~

C02679002



4 Pages  
1 October 1962

25X1

NAME: Omsk

NO: I-O-1

LOCATION: Launch Site A (55-09N 73-38E)  
Launch Site B (55-11N 73-33E)

25X1

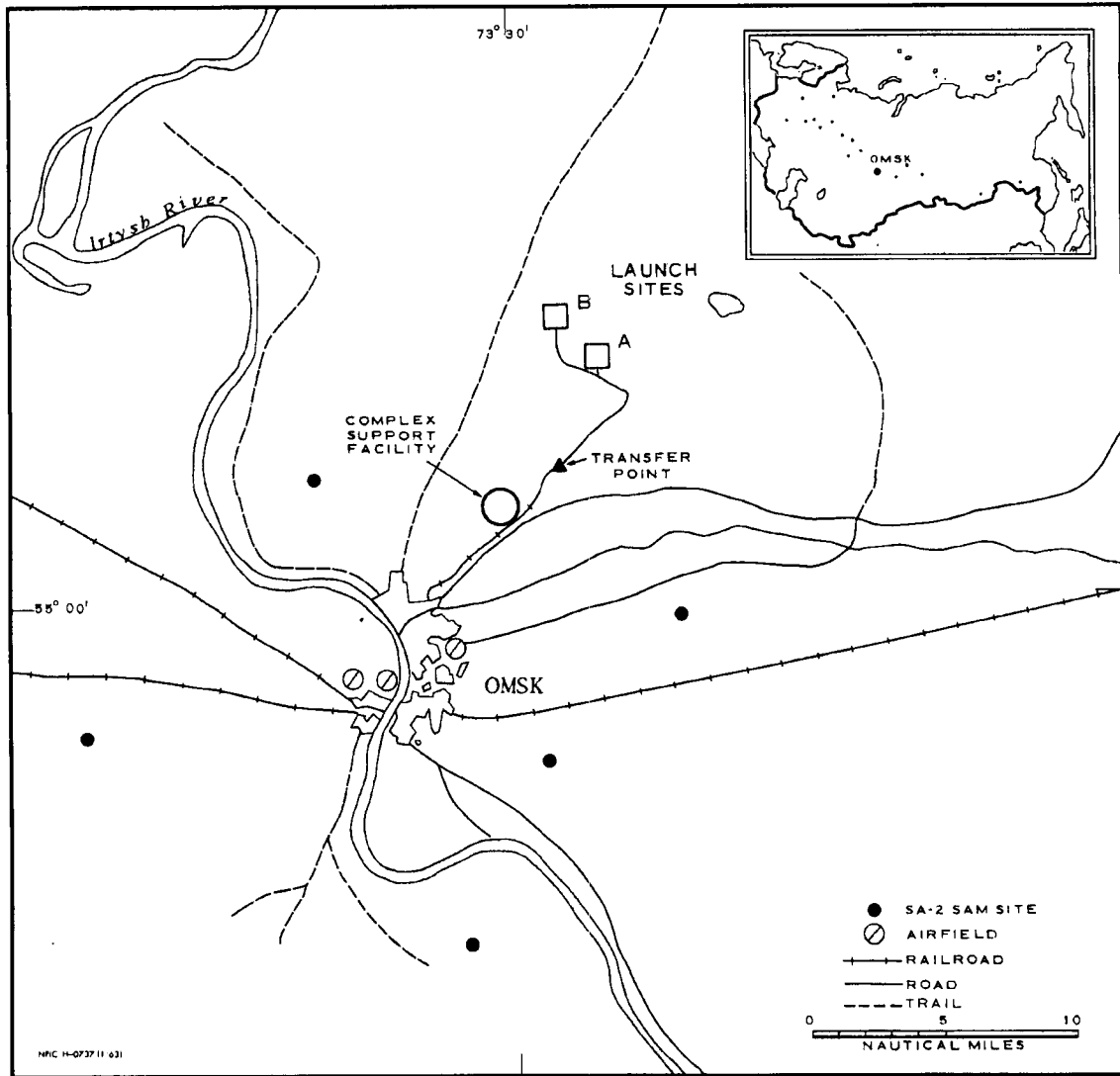


FIGURE 1. LOCATION OF OMSK ICBM COMPLEX



~~TOP SECRET DINAR CHESS RUFF~~

25X1

T-O-I

I. Conclusion

Omsk is a confirmed ICBM complex.

II. BackgroundA. Photographic Evidence

An ICBM complex is located north-northeast of Omsk on a sparsely wooded plain (Figure 1). It was first noted on KEYHOLE photography of February-March 1962 [ ] but not confirmed as an ICBM complex until August 1962 [ ] Launch Site A, the complex support facility, and the transfer point were reported as suspect in March 1962, and Launch Site B was identified in August 1962.

Launch Site A (Figure 2), of a Type III configuration, is under construction and has not been observed since it was first covered in March 1962. The quality of the photography precludes making a drawing of the site. No security fence has been identified. A building area, possibly for launch support, consisting of at least 17 buildings, lies about 4,700 feet west of the site.

Launch Site B (Figure 3) also of a Type III configuration, is in a very early stage of construction. The quality of the photography precludes making a drawing of the site. Activity was first noted on photography of June-July 1962 [ ] No evidence of a security fence is visible. There are two buildings approximately 1,500 feet south of the site.

The complex support facility (Figure 4), first seen in December 1961 [ ], is located approximately 6 nm north-northeast of Omsk at 55-03N 73-30E. The support facility consists of two areas. To the north there are three, possibly four, rail sidings serving at least four large buildings and open storage. To the southwest there is an administration and personnel area consisting of at least 38 buildings. Scattered clouds preclude a detailed interpretation.

25X1

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET~~ DINAR CHESS RUFF

I-O-I

25X1



FIGURE 2. LAUNCH SITE A (August 1962)



FIGURE 3. LAUNCH SITE B (August 1962)

25X1

25X1

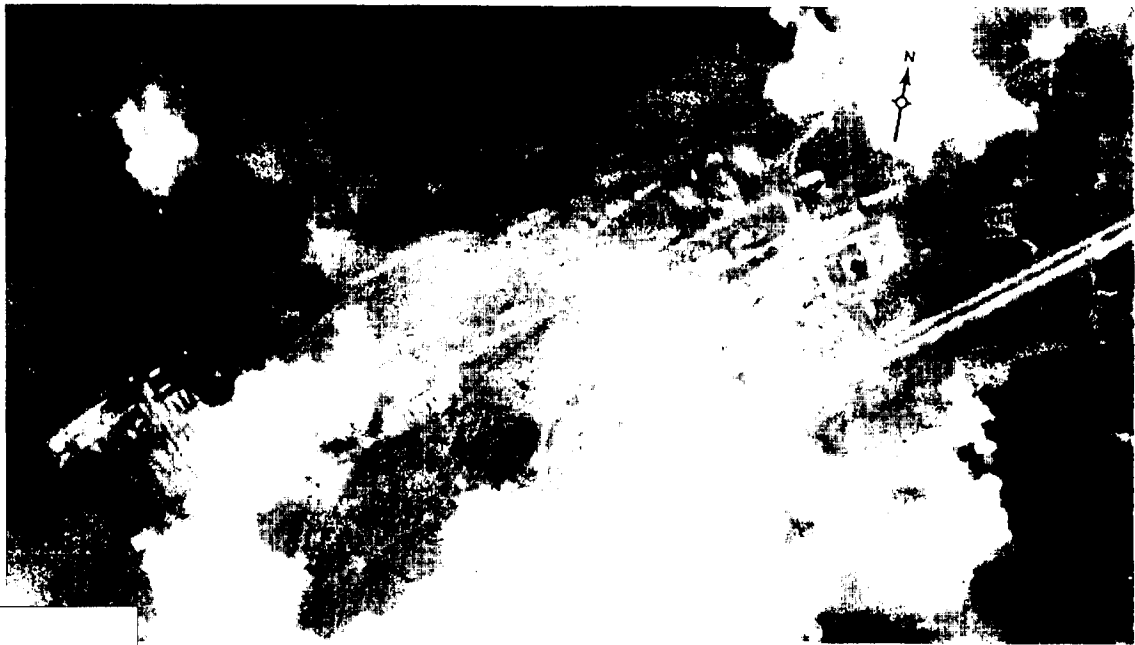


FIGURE 4. COMPLEX SUPPORT FACILITY (August 1962)

25X1

~~TOP SECRET~~ DINAR CHESS RUFF

~~TOP SECRET DINAR CHESS RUFF~~

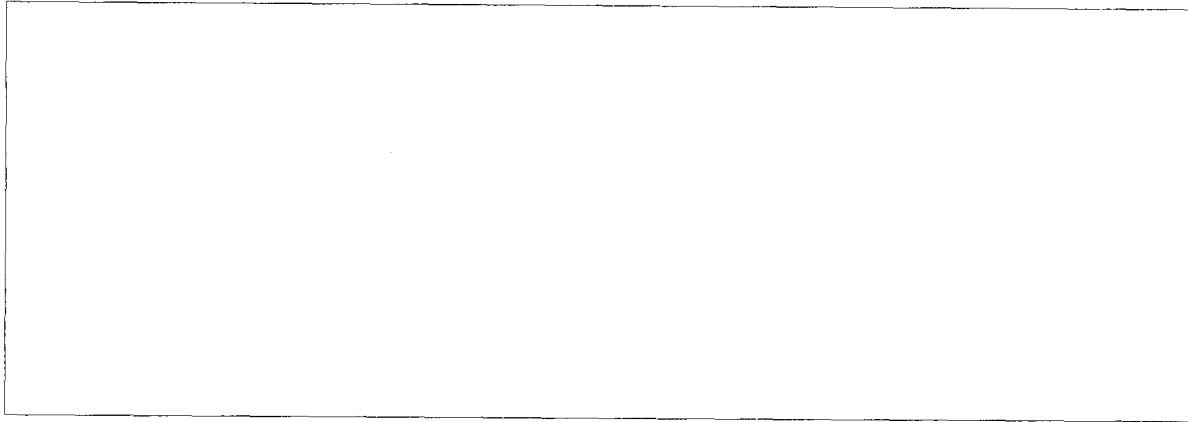
25X1

[Redacted]  
I- O-I

The transfer point, under construction, lies 9.5 nm northeast of Omsk at 55-05N 73-34E.

No SAM defenses have been established specifically for the Omsk ICBM complex, although five SA-2 SAM sites have been deployed in defense of the city.

25X1



REFERENCES

PHOTOGRAPHY

<u>Mission</u>
[Redacted]

<u>Date</u>
[Redacted] Dec 61
[Redacted] Feb [Redacted] Mar 62
[Redacted] Jun [Redacted] Jul 62
[Redacted] Aug 62

<u>Classification</u>
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0163-10A, 1st ed, May 59, scale 1:200,000 (SECRET)

DOCUMENTS

- NSA. 3/0/RUA/R17-62, 30 May 62 (TOP SECRET DINAR)
- AIR. IR-125476, 26 Jan 59 (UNCLASSIFIED)
- AIR. IR-125504, 3 Feb 59 (UNCLASSIFIED)
- AFIC. T-111-62, Feb 62 (TOP SECRET RUFF)

25X1

[Redacted]

C02679002

P

~~TOP SECRET DINAR CHESS RUFF~~

25X1  
6 Pages  
1 October 1962

NAME: Perm'

NO: I-P-1

LOCATION: Launch Site A (57-41N 56-13E)

Launch Site B (57-42N 55-57E)

Launch Site C (57-37N 56-07E)

25X1

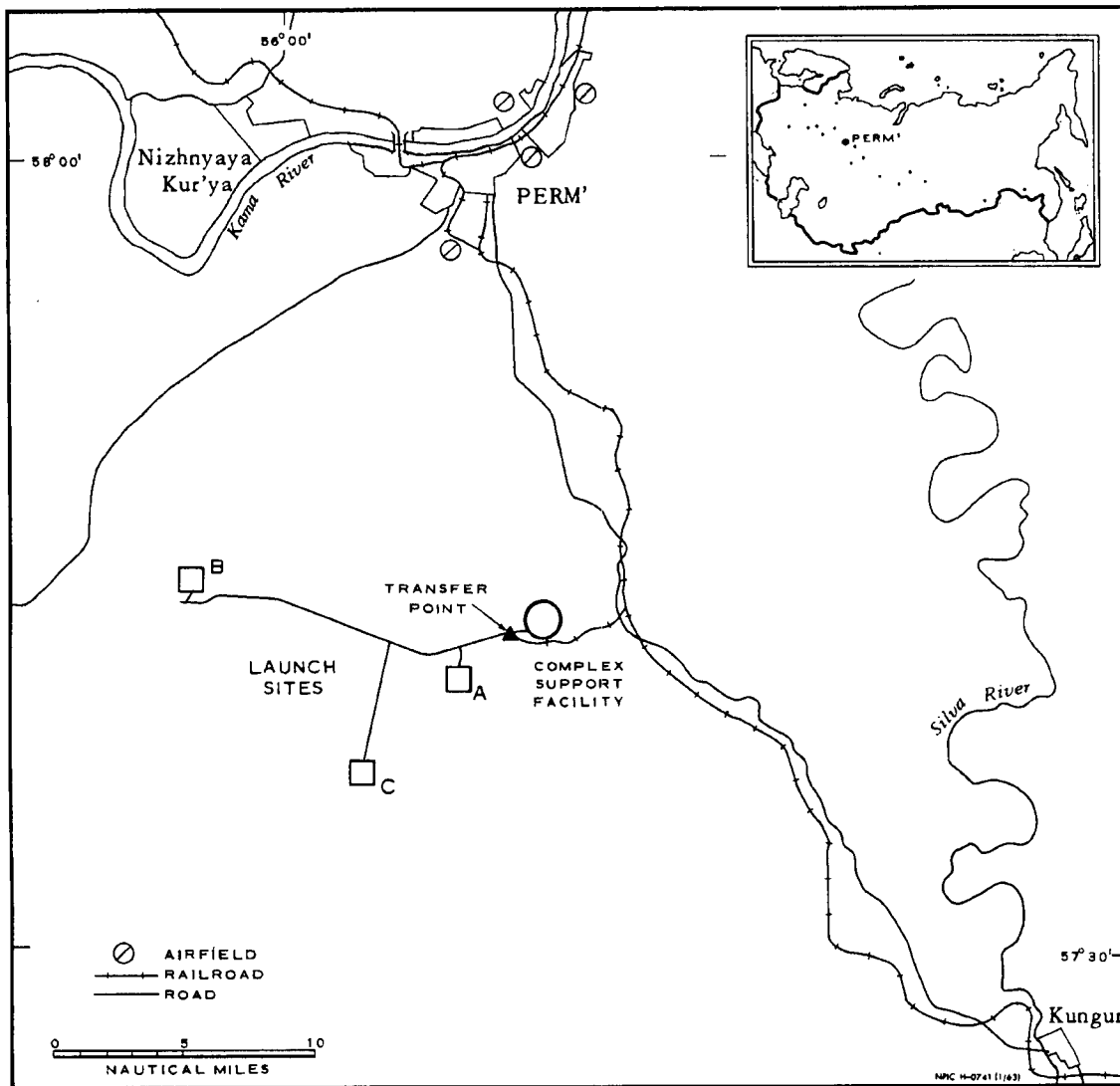


FIGURE 1. LOCATION OF PERM' ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-P-II. Conclusion

Perm' is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

An ICBM launch complex was first identified on photography of April 1962 [REDACTED] in a generally wooded area approximately south of Perm' and has also been observed on subsequent missions. The complex consists of three road-served launch sites, a complex support facility, and a rail-to-road transfer point (Figure 1). The complex is served by a rail spur branching from the Perm'-Kungur rail line. Scarring for construction of the complex support facility was observed as early as December 1960. Launch Site A and the rail spur branching into the support facility were visible on [REDACTED] (July 1961). From features alone, however, it was not possible to recognize it as an ICBM launch complex on the earlier photography.

Launch Site A of a Type II (Mod b) configuration, appears to be complete (Figure 2). Both pads are elongated, and a black object is located on each pad. Pad separation is approximately 980 feet, and pad orientation is on an azimuth of 315 degrees,  $\pm 5$  degrees. Three buildings are located in the launch site, and a missile-ready building (approximately 170 by 125 feet) is located behind the west pad. A clearing behind the other pad indicates the probable location of another missile-ready building. No fencing is evident around the launch site. The launch support area, located southeast of the launch site, consists of 32 buildings.

Launch Site B, located approximately 10 nm west-northwest of Launch Site A, is in a late stage of construction and appears to have a Type II (Mod b) configuration (Figure 3). Only the road pattern and three small buildings were visible in the launch site as of April 1962. Pad separation

~~TOP SECRET DINAR CHESS RUFF~~

I-P-1

25X1

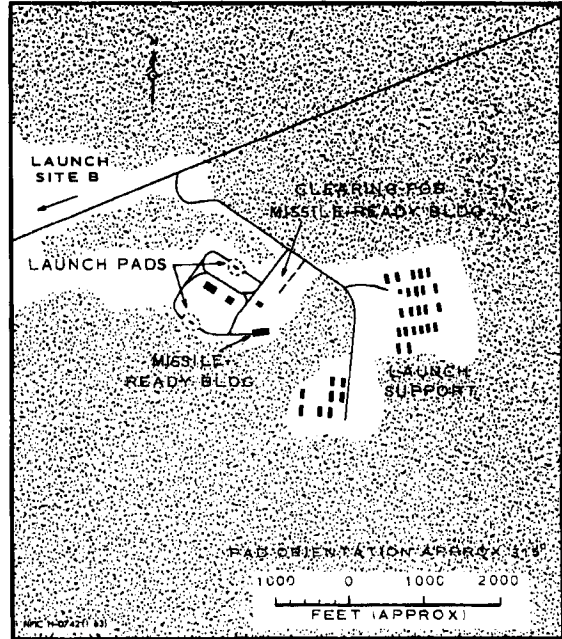


FIGURE 2. LAUNCH SITE A (July 1962)

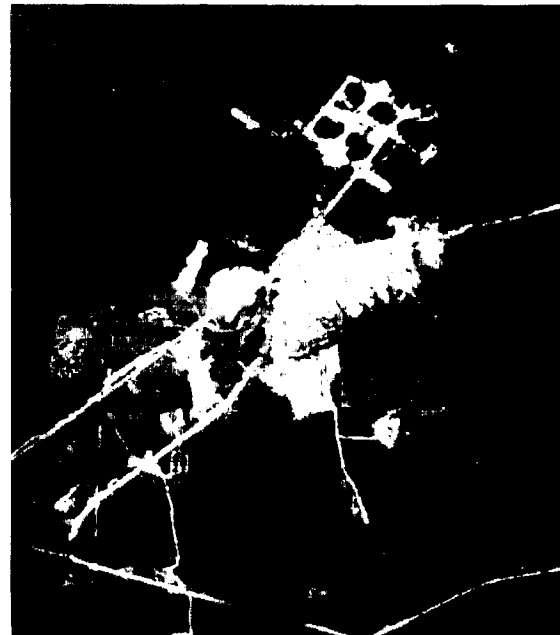
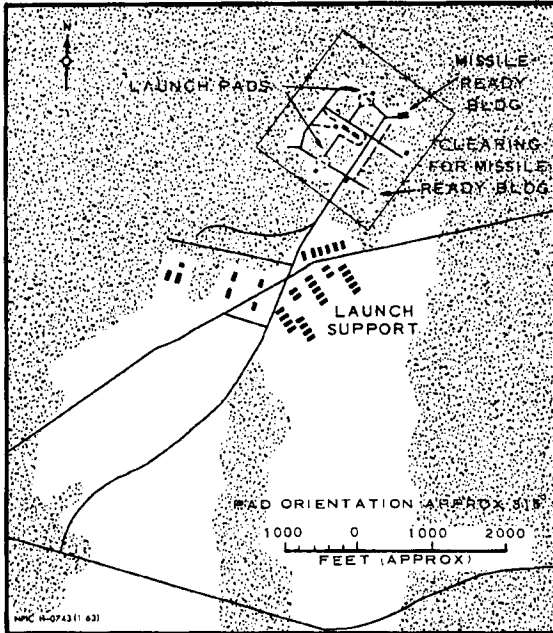


FIGURE 3. LAUNCH SITE B (July 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-P-1

is approximately 980 feet, and pad orientation is on an azimuth of about 315 degrees,  $\pm 5$  degrees. On photography of June 1962, the missile-ready building for the right pad is in place and is at an angle to the road serving the pad. Only the clearing for the other ready building is visible, but indications are that it will be in line with the pad. The launch support area is located southwest of the launch sites and consists of 33 buildings.

Launch Site C is located approximately 5 nm southwest of Launch Site A and, although a complete pattern is not evident, appears to have a Type II (Mod b) configuration. A launch support area consisting of 10 to 12 buildings is located approximately 3,000 feet northeast of the site. The quality of the photography precludes making a line drawing of the site.

The complex support facility, located at 57-42N 56-19E, is served by three rail sidings off the spur from the Perm'-Kungur rail line (Figure 4). These sidings, which are 3,700, 3,100, and 2,500 feet long, are approximately 480 feet apart and are served at their terminal points by a road that is perpendicular to the complex main road. The rail spur extends past the complex support facility to the rail-to-road transfer point, which is 4,500 feet west of the road connecting the terminal points of the three sidings. The area between the sidings is heavily scarred, but only a few small buildings are apparent. A housing and support area consisting of 43 buildings is located north of the rail sidings. Ten of these buildings measure 200 by 70 feet. A road extends approximately one nm due north from the support facility to the administrative and housing area, which contains at least 30 buildings -- most of which apparently are barracks type.

The rail-to-road transfer point, located at 57-42N 56-17E, consists of a loop road off the complex main road (Figure 4). The loop road is 950 by 350 feet and is connected to the complex main road by wide-radius turns. Some parts of the complex main road appeared to be under construction on the photography of April 1962.

- 4 -

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-P-I



25X1

FIGURE 4. COMPLEX SUPPORT FACILITY (August 1962)

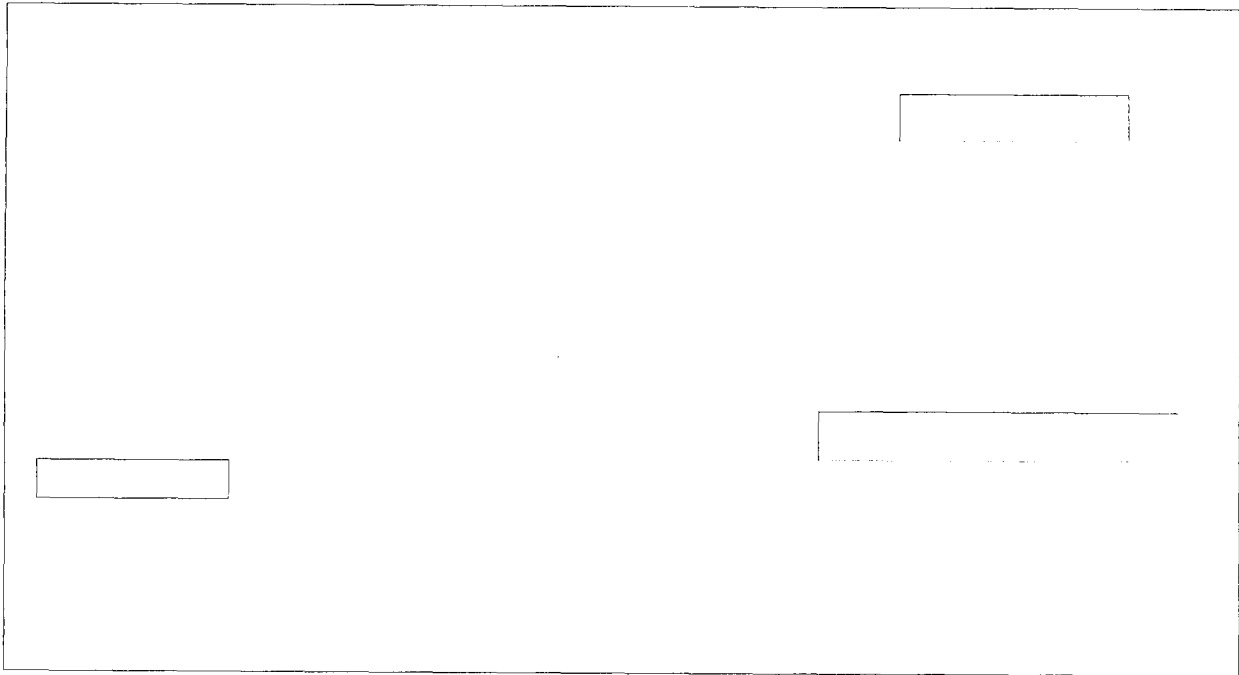
~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[Redacted]  
I-P-I

25X1



25X1

25X1

25X1

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
[Redacted]	[Redacted] Dec 60	TOP SECRET RUFF
[Redacted]	[Redacted] Jul 61	TOP SECRET RUFF
[Redacted]	[Redacted] Apr 62	TOP SECRET RUFF
[Redacted]	[Redacted] May Jun 62	TOP SECRET RUFF
[Redacted]	[Redacted] Jun Jul 62	TOP SECRET RUFF
[Redacted]	[Redacted] Aug 62	TOP SECRET RUFF

MAPS OR CHARTS .

ACIC. US Air Target Chart, Series 200, Sheet 0156-11AL, 1st ed, Nov 59, scale 1:200,000 (SECRET)

DOCUMENTS

25X1

NSA. 3/0/RUA-AW/R61-62, 10 May 62 (TOP SECRET DINAR)  
NSA. 3/0/RUGM/R403-62, 4 May 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

18 Pages  
1 October 1962

25X1

NAME: Plesetsk

NO: I-P-2

LOCATION: Launch Points I and II (62-55N 40-27E)

25X1

Launch Point III (62-56N 40-28E)

25X1

Launch Point IV (62-57N 40-41E)

Launch Site A (62-58N 40-47E)

Launch Site B (63-03N 40-58E)

25X1

Launch Site C (63-01N 40-52E)

Launch Site D (62-53N 40-50E)

Launch Site E (62-50N 40-35E)

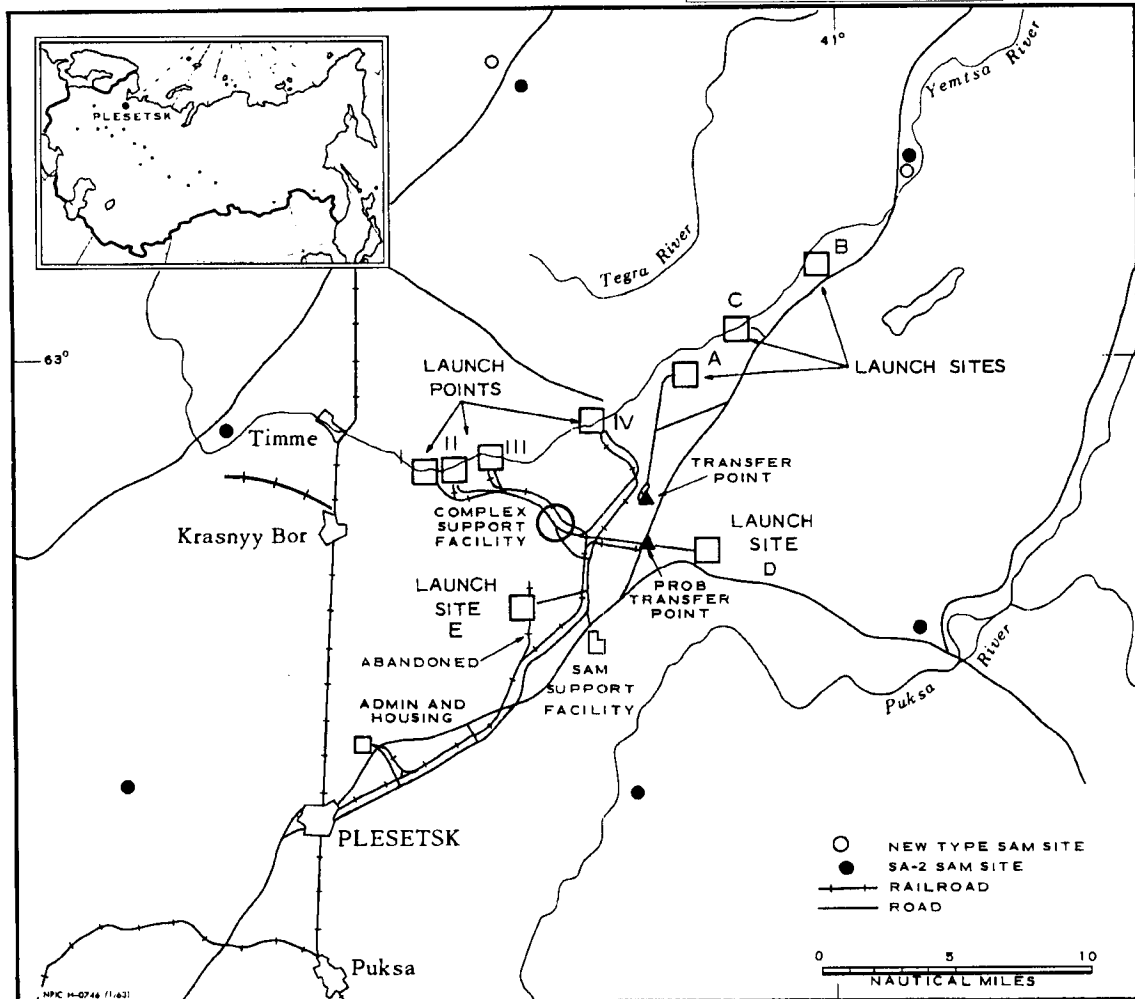


FIGURE 1. LOCATION OF PLESETSK ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-P-2I. Conclusion

Plesetsk is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

An ICBM complex with four rail-served Type I launch sites; two Type II sites, one Mod a and one Mod b; one Type III site; and two Type IV sites is located northeast of Plesetsk. The complex covers about 18 nm along the south bank of the Yemtsa River and also contains a complex support facility, rail-to-road transfer point, and an administration/housing area (Figure 1).

The complex was covered by [REDACTED] but cloud cover and poor-quality photography precluded identification.

Launch facilities were first identified in the area on KEYHOLE photography of February-March 1962 [REDACTED], but the entire complex was not recognized until April 1962 [REDACTED] when cloud-free, stereoscopic coverage became available. After full identification in April 1962, it was possible to review previous cover and determine that as early as December 1960, Launch Points I and IV were present and that construction was either complete or nearly so. At that time, Launch Site A appeared to be in an early stage of construction, but there was no evidence of Launch Sites B, C, and D.

Topography of the general area of the complex ranges from level to rolling forested plains with numerous marshes, lakes, and streams. Surrounding forests have been extensively logged. The complex is not in the permafrost zone.

The complex is served by a rail spur from the double-tracked Vologda-Arkhangel'sk rail line, and by an adequate local road network which

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1

~~TOP SECRET DINAR CHESS RUFF~~[REDACTED] 25X1  
I-P-2

links the launch complex to adjacent towns or villages. Obozerskiy Southeast Airfield, probably supporting the ICBM complex, is located approximately 25 nm to the north.

The launch complex is defended by 8 SAM sites. A SAM support facility was identified on photography of December 1960 [REDACTED]. The pad orientation of all Type I and Type II sites is on an azimuth of 330 degrees,  $\pm$  5 degrees.

Launch Points I and II (Figure 2) both of a Type I configuration, are at the west end of the complex. The launch pads and missile-ready building are enclosed by an L-shaped double security fence. The length on the east side is 5,000 feet and the width across the north side is 2,750 feet.

The launch pads, which are 1,200 feet apart, are concrete platforms built out from the escarpment along the Yemtsa River. Pad dimensions are 105 by 100 feet. An object on each pad is probably missile-erection equipment. An unidentified building, 140 by 70 feet, lies slightly behind and about midway between the pads. A missile-ready building, 410 by 140 feet, lies about 3,500 feet south of the launch pads. Two associated buildings, each 70 by 30 feet, are 425 and 850 feet north of the ready building. Several other small, unidentified structures are within the secured area. A rail spur enters the launch site at the south end and runs north through the ready building to a point 1,050 feet south of the pads where it forks. From this point a spur continues to each pad. A road providing access to other elements of the launch complex enters the launch site on the east side, parallels the rail spur, and connects the ready building and the launch pads.

Outside the secured area is a launch support area and a probable guidance site. The probable guidance site, located 5,150 feet southeast of the pads, apparently consists of two like elements each containing at least three buildings. The largest is approximately 145 by 45 feet, another is 85 by 50 feet, and the smallest is about 50 feet square.

- 3 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-P-2

A perpendicular to the axis of the probable guidance site structures through the launch pads indicates the probable pad orientation of 330 degrees,  $\pm 5$  degrees.

The launch support area appears to be primarily for housing, except for one rail spur parallel to and outside the east security fence. This spur serves what appears to be a small heating plant and/or powerplant. The housing area contains about 50 buildings, 30 of which are arranged in three quadrangles of 10 buildings each. Except for a few small structures, most of the buildings in the housing area are about 130 by 35 feet.

A two-track rail siding is located on the south side of the rail line that leads to Launch Points I and II. This siding branches off about 0.5 nm before the line curves north into the secured area around the launch points. The siding is about 3,500 feet long.

Launch Point III is also a Type I launch site (Figure 3). It is located on the south bank of the Yemtsa River about 2.2 nm east-northeast of Launch Points I and II. The site is enclosed by an irregular double security fence 3,100 by 1,550 feet with the long axis generally north-south.

The single pad of concrete construction is 105 by 100 feet and is built over the escarpment along the Yemtsa River. An object on the pad is probably missile-erection equipment. A missile-ready building, 180 by 130 feet is located 1,300 feet south of the pad. Two associated buildings each 70 by 30 feet are located 200 and 400 feet north of the ready building. Several other small, unidentified structures are within the secured area.

A rail spur enters the launch site at the south end, runs north through the ready building, and continues on to the launch pad. A road providing access to all other elements of the launch complex enters the site on the east side.

A probable guidance site is situated 3,950 feet southeast of the launch pad and consists of four buildings: one is 145 by 45 feet, the second is 85 by 50 feet, and the other two are 50 feet square. A perpendicular

~~TOP SECRET DINAR CHESS RUFF~~

I-P-2

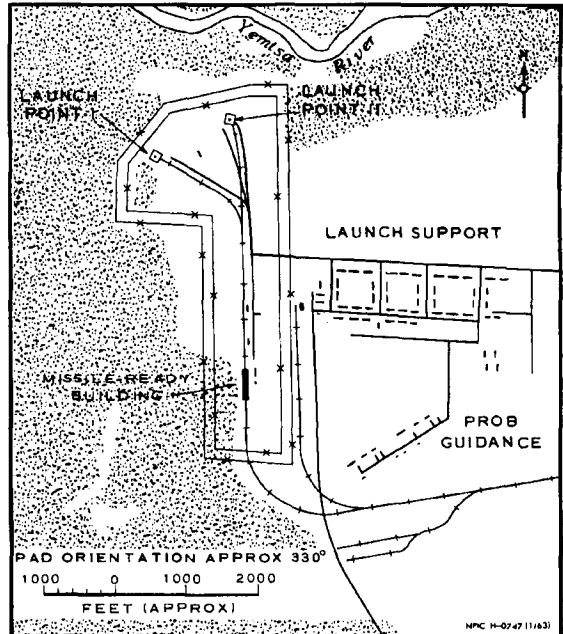
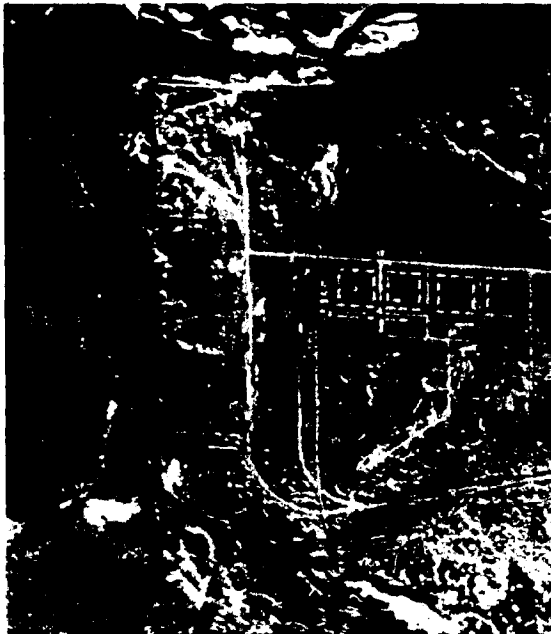


FIGURE 2. LAUNCH POINTS I AND II (April 1962)

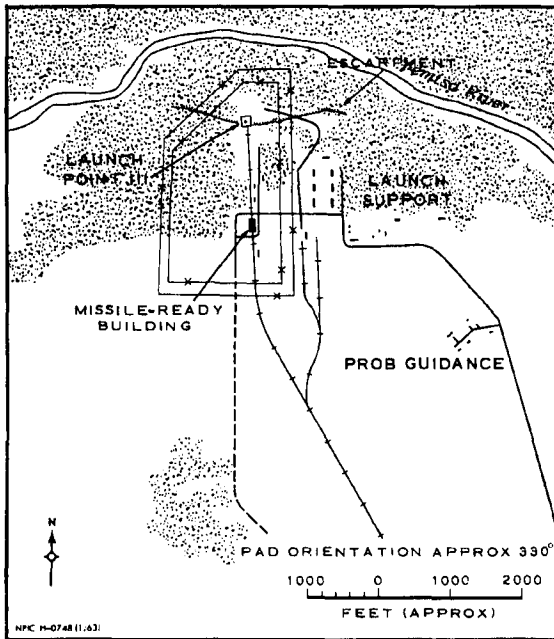


FIGURE 3. LAUNCH POINT III (April 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-P-2

to the axis of the guidance structure through the launch pad indicates a probable pad orientation of 330 degrees,  $\pm 5$  degrees.

A support area of at least 12 buildings averaging 115 by 65 feet, and a double-track utility rail spur with about 3,000 feet of track is adjacent to the launch site on its east side. The spur serves what may be a heating and/or powerplant. A second support area 3,000 by 950 feet enclosed by a fence is situated 8,000 feet southeast of the launch site. It contains 30 small miscellaneous buildings that may be either quarters or storage units. This area is connected with the launch site by rail and road.

Launch Point IV, a Type I site with one rail-served launch pad, is located 4.1 nm east-northeast of Launch Point III on the south bank of the Yemtsa River (Figure 4). The launch site is an irregular rectangle 2,600 by 1,300 feet and is enclosed by a double security fence.

The single launch pad, of concrete construction, is 150 feet square and overhangs the ravine of a tributary of the Yemtsa River. An object 50 feet wide on the pad is probably missile-erection equipment. Five small unidentified structures are within the secured area.

At a point 4,000 feet southeast of the pad, a rail spur branches out in a northward direction and proceeds to a missile-ready building 215 by 130 feet, which is situated at the shallow end of a gully. This ready building has the usual two associated buildings measuring 70 by 30 feet that are located 250 feet and 500 feet to the south, but is unique in that it is the only ready building in the launch complex which has been found outside of the secured area of a launch site. This singular pattern may be related to a contiguous underground storage facility that is situated in a ravine. A rail spur continues eastward from the missile-ready building through the gully and on into the ravine where it apparently enters underground caves or excavations. The vicinity of the underground entrances is enclosed by a double security fence.

Immediately south of the secured underground area is a support/housing area of at least 25 buildings averaging 200 by 75 feet. This group of buildings is on the east bank of the ravines. Adjacent to the south

~~TOP SECRET DINAR CHESS RUFF~~



I-P-2

25X1

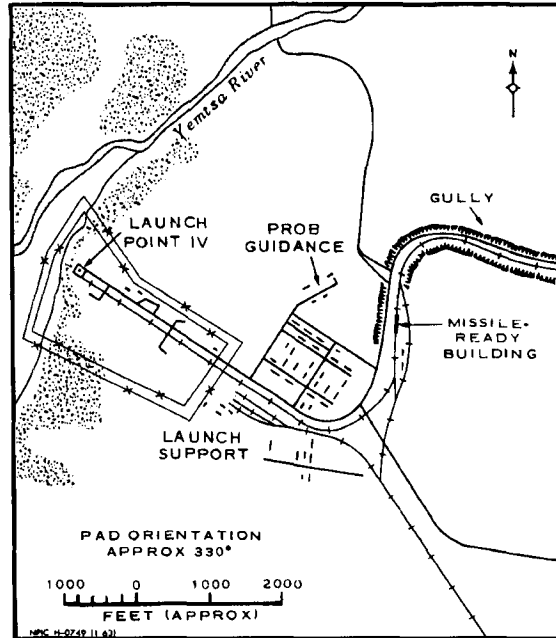


FIGURE 4. LAUNCH POINT IV (April 1962)

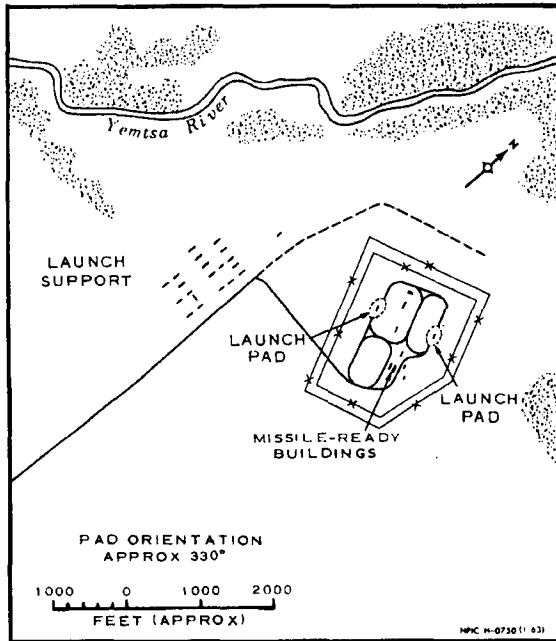
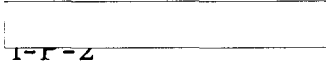


FIGURE 5. LAUNCH SITE A (April 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1



I-I-2

side of the support area and in the ravine is a second double-fenced underground storage facility which is rail served.

The launch support area of 35 buildings averaging 200 by 75 feet is adjacent to the southeast end of the secured area of the launch site and has a 3-track utility rail spur with 3,000 feet of track.

A probable guidance site is situated 3,250 feet east-southeast of the launch pad. It contains four buildings whose dimensions have not been ascertained but appears to be similar to that at Launch Point III. A perpendicular to the axis of the guidance site structures indicates a probable pad orientation of 330 degrees,  $\pm 5$  degrees. It is noteworthy that this site is offset slightly to the east of the launch pad instead of being behind, as it is at Launch Points I, II and III.

Launch Site A is a road-served Type II (Mod a) site located on the south bank of the Yemtsa River 3.2 nm northeast of Launch Point IV (Figure 5). Construction appears complete. The launch site is a generally rectangular area 2,300 by 1,600 feet enclosed by a double security fence. The secured area contains two elliptically shaped concrete launch pads 375 by 125 feet with an object on each pad, probably missile-erection equipment; two missile-ready buildings, each 170 by 105 feet; a bunker-like structure 135 by 65 feet; one unidentified building 125 by 40 feet, and other unidentified structures. A support area of 20 buildings 125 by 40 feet lies 1,800 feet west of the secured area. This site is connected with the rail-to-road transfer point by a good road. No water-intake facilities are discernible; however, a probable drainage ditch runs from the northwest corner of the secured area and apparently discharges into the Yemtsa River. Pad orientation of this site is on an azimuth of 330 degrees,  $\pm 5$  degrees.

Launch Site B is a road-served Type II (Mod b) site located on the south bank of the Yemtsa River 6.6 nm northeast of Launch Site A (Figure

~~TOP SECRET DINAR CHESS RUFF~~

I-P-Z

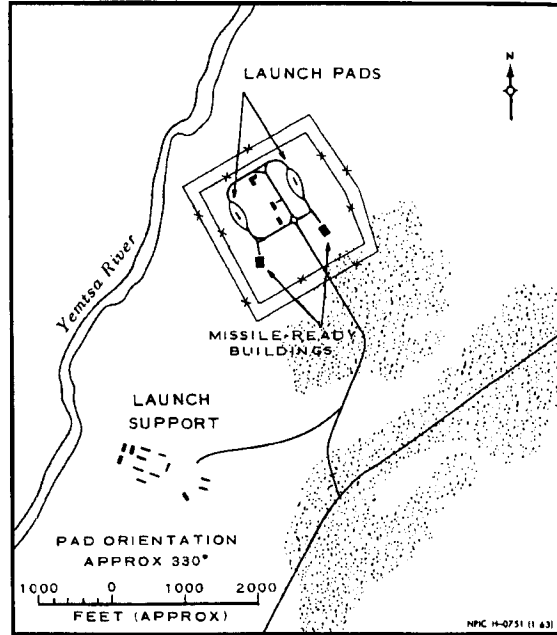


FIGURE 6. LAUNCH SITE B (April 1962)

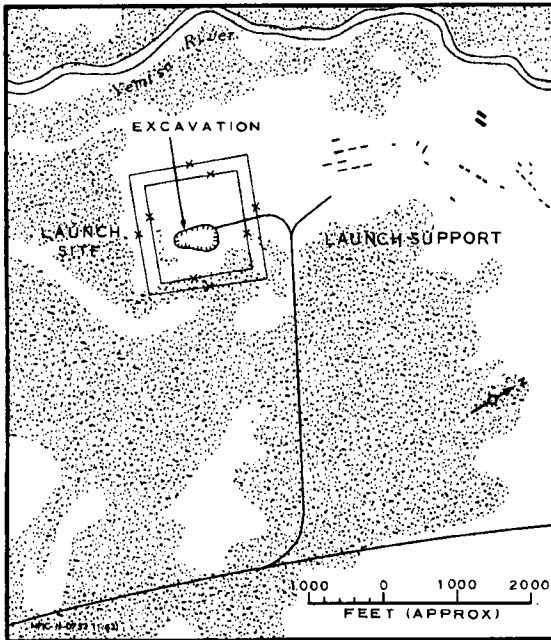


FIGURE 7. LAUNCH SITE C (April 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-P-2

6). Construction appears complete. The launch site is in an area 1,900 feet square that is enclosed by a double security fence. The secured area contains two elliptically shaped concrete launch pads 375 by 125 feet with an object on each pad, probable missile-erection equipment; two missile-ready buildings, one 170 by 125 feet and the other 170 by 105 feet; and three unidentified structures. A support area of 14 buildings 125 by 40 feet lies 4,000 feet southwest of the launch area. The launch site is connected with the rail-to-road transfer point by a good road. Pad orientation is 330 degrees,  $\pm$  5 degrees.

Launch Site C is a road-served Type III site located 3.2 nm northeast of Launch Site A (Figure 7). It is situated on the south bank of the Yemtsa River in a secured area approximately 1,500 feet square. Construction apparently is still in progress, and details of configuration and capability will depend on future evidence. The excavation, first seen on KEYHOLE

25X1

[REDACTED] is similar to excavations at Launch Complex D at Tyura Tam and at seven other deployed ICBM complexes. A support area of at least eight buildings is adjacent on the north side of the secured area. The site is connected to the rail-to-road transfer point by a good road.

Launch Site D, a Type IV launch site in a mid stage of construction, is located 5 nm east of the complex support facility and northeast of the southernmost transfer point (Figure 8). It is oriented on an azimuth of 265 degrees,  $\pm$  5 degrees and is enclosed by a single security fence.

The site was identified during a reexamination of photography from [REDACTED] (August 1962). Its presence could be confirmed in February 1962, although the area was partially obscured by clouds. At that time the site was in an early stage of construction. There was no indication of the site on photography of June 1961.

The first clear coverage of the site was in April 1962. Most of the roads were in and the site was secured, but no pads, prominent buildings, or plus configuration were apparent. KEYHOLE photography of [REDACTED] August

~~TOP SECRET DINAR CHESS RUFF~~

I-P-2 25X1

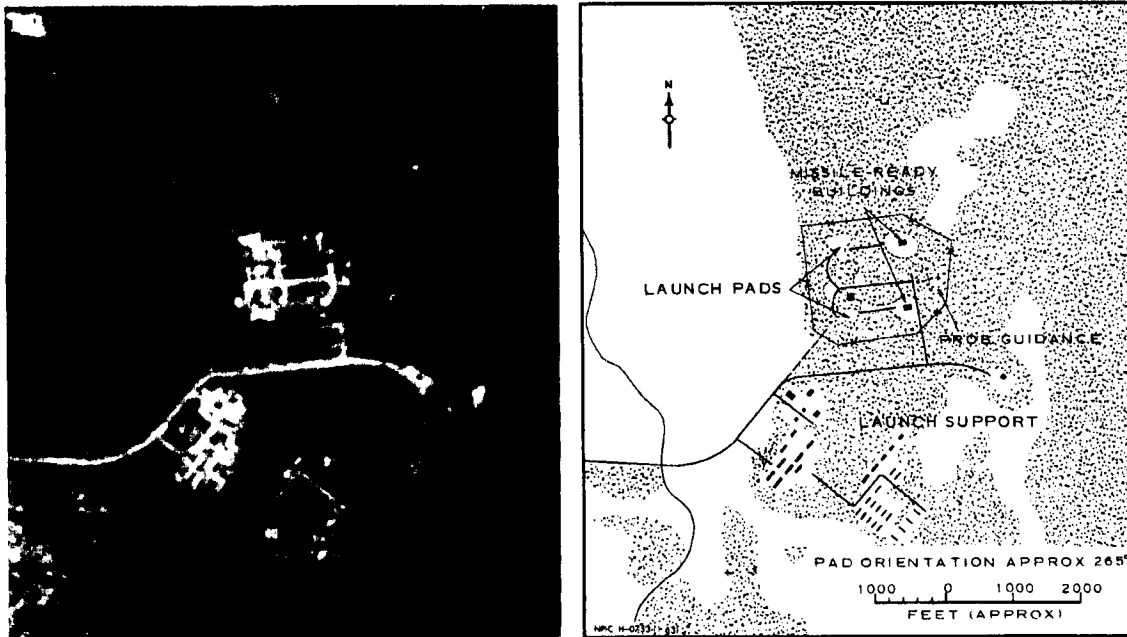


FIGURE 8. LAUNCH SITE D (May 1962)

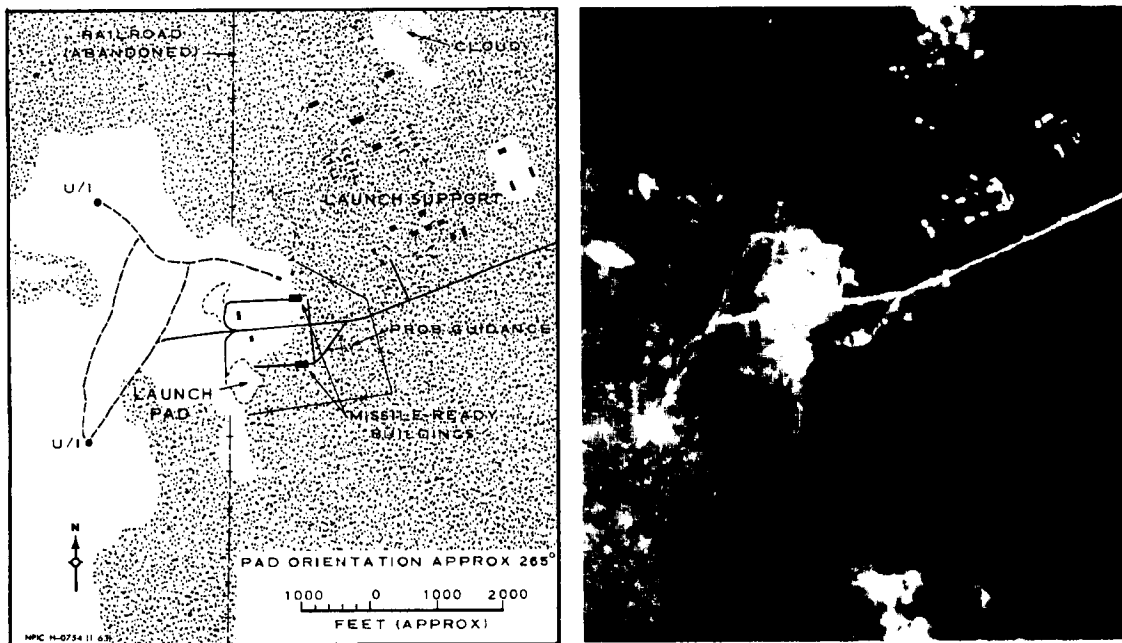


FIGURE 9. LAUNCH SITE E (May 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-P-Z

1962 showed little change in the road pattern and no definite pad outline. At that time, two missile-ready buildings (130 by 115 feet) were present, and the plus configuration was identifiable behind the launch site. A small unidentified building is located southeast of the left missile-ready building. It is served by a new access road which is a continuation of the road that serves the launch site.

The launch support area, located about 2,000 feet south-southwest of the launch site, is divided into two sections. One of these is for housing, but the purpose of the other is undetermined. The housing section contains 22 barracks-type buildings. The other section contains about 14 buildings, two of which may have drive-through capabilities.

Launch Site E, also a Type IV launch site in a mid stage of construction, is located 4 nm south-southeast of the complex support facility and 6 nm southwest of the southernmost transfer point (Figure 9). It is partly enclosed by a single security fence.

The site was identified at the same time as Launch Site D and apparently is being constructed concurrently with Site D. It first appeared on KEYHOLE photography of February 1962 and was not evident in July 1961.

In February 1962 the area was partially obscured by scattered clouds, but it was evident that the launch site was secured and some of the roads were present.

KEYHOLE photography of August 1962 shows both missile-ready buildings (130 by 115 feet) and the plus configuration behind the site. The road on the north side of the site is not complete, and there is no definite pad outline. There is some unidentified activity to the northwest and southwest of the site.

The launch support area, located on the north side of the access road approximately 1,200 feet behind the launch site, is divided into two sections similar to the area at Launch Site D.

- 12 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-P-2

25X1

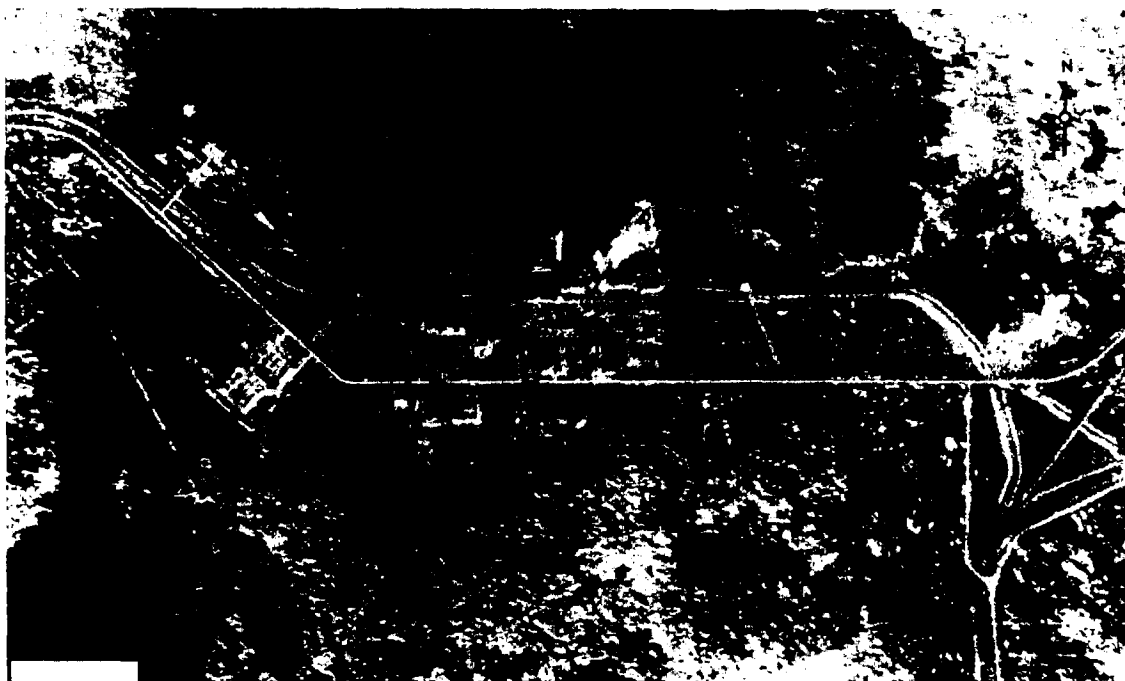


FIGURE 10. COMPLEX SUPPORT FACILITY (April 1962)

The housing area contains at least 24 buildings. The other section contains at least 12 buildings, none of which appear to have drive-through capabilities.

The complex support facility (Figure 10) is generally in a central location at 62-54N 40-38E. The area is served by rail and road and consists of a rail siding 6,000 feet long and three shorter spurs. At least 25 buildings, of various sizes and shapes and arranged in no definite pattern, are within the installation. Open storage, construction equipment, and vehicle parking exist between and around the buildings. A probable concrete batching plant is situated at the northwest extremity and is served by a rail spur 2,700 feet long. A tank storage facility of approximately 11 tanks is situated at the west end and is served by a rail spur 1,000 feet long. The third short spur 1,000 feet long enters an open storage area. All elements of the launch complex are connected with this installation by road. Further, all elements of the launch complex,

- 13 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-P-2

except Launch Sites A, B, and C, are connected with this installation by rail.

The rail-to-road transfer point lies adjacent to the rail line to Plesetsk at 62-55N 40-45E. The transfer point is oriented with its long axis in a north-northeast/south-southwest direction and is 1,700 feet long. Three crossover links 340 feet long, one at each end and one in the center, complete the transfer point. Two unidentified structures are in the north-eastern half of the facility. A single security fence encloses the area.

A probable second rail-to-road transfer point serving Launch Sites D and E is located 2 nm south of the first transfer point at 62-53N 40-46E. It is oriented in a general east/west direction and is about 3,400 feet long by 680 feet wide, with two crossover links. No security fence is apparent.

The administrative and housing area is situated near the southwest end of the launch complex at 62-46N 40-21E (Figure 11). It consists of approx-



FIGURE 11. COMPLEX ADMINISTRATIVE AND HOUSING AREA (April 1962)

~~TOP SECRET DINAR CHESS RUFF~~



I-P-2

25X1

imately 270 buildings, of which approximately 35 are 2-story barracks-type buildings measuring 240 by 80 feet, 5 are large administrative-type buildings, 120 are single-story dwelling units, 15 are various-sized warehouses, and the remaining 95 are generally small, miscellaneous support buildings.

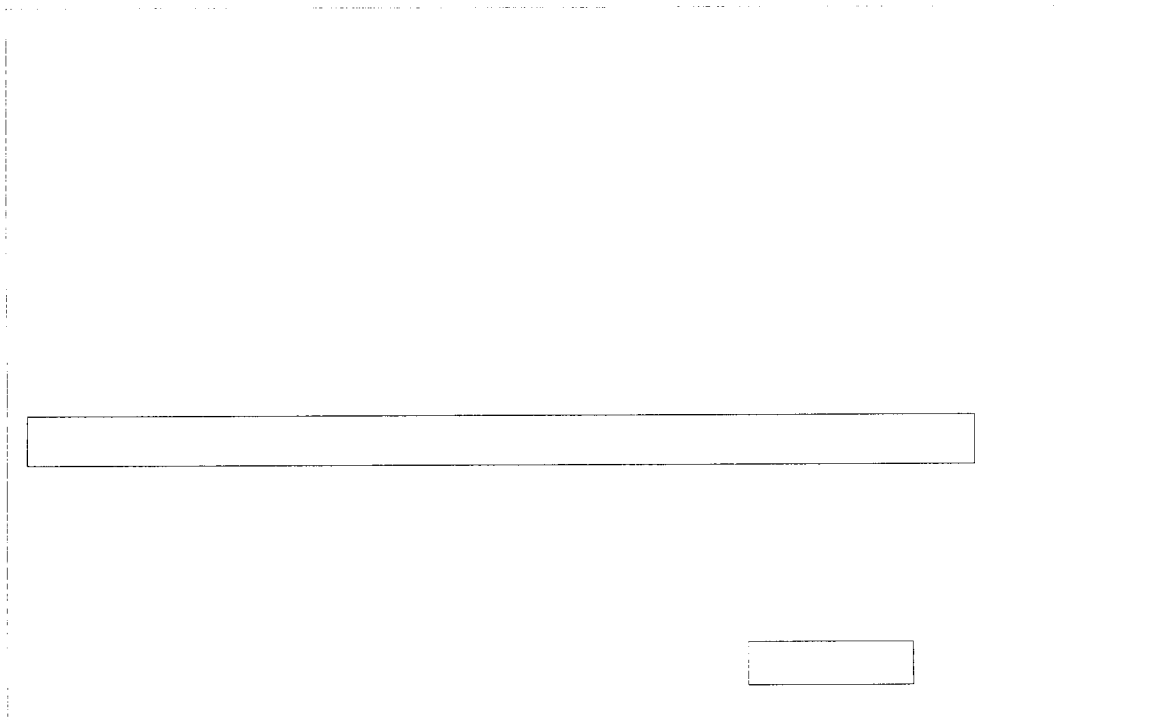
At the southeast end of the administrative and housing area, a rail spur 3,700 feet long serves a probable concrete batching plant. At the southeast edge of the housing area, a rail yard with three tracks 6,000 feet long serves the warehouse area. The three largest warehouses are 600 by 200 feet. A probable powerplant with a conveyor is located at the northwest end of the rail yard. A rail spur 1,800 feet long serves the powerplant. At the northwest end of the area is a probable water-treatment plant. East of the rail yard is an unidentified group of four dispersed, road-served buildings. The area is connected by road with all elements of the launch complex and by rail except to Launch Sites A, B, and C.

25X1

25X1

25X1

25X1



25X1

25X1

25X1

TOP SECRET DINAR CHESS RUFF

25X1

25X1 TH 0747-62KH (Rev)  
I-P-2

25X1 between Plesetsk and Polyarnyy Ural before mid-1958 suggests that ICBM deployment may have been originally scheduled at both locations. However, since mid-1958 there has been no evidence from any source to indicate ICBM deployment at Polyarnyy Ural.

The masking address Leningrad 300 probable has been utilized in the routing of messages to and from Plesetsk, although other locations may also be included in the Leningrad 300 system. Included among the field post numbers addressed at Leningrad 300 are FPNs 14003-A and 14056-G. Other suffixed elements of these units have been noted at Tashkent 90, masking address for the rangehead at the Tyura Tam Missile Test Center (TTMTC), suggesting that these units may have been involved in ICBM training firings at Tyura Tam.

25X1 Flight activity involving Oborzskaya Airfield since 1960 probably has been associated with ICBM deployment in the Plesetsk area. Oborzskaya Airfield is located approximately 60 nm north of Plesetsk. Flights of general-purpose transports based at Moscow/Shchelkovo in June 1960, March 1962, and June 1962 probably are related to the Plesetsk ICBM complex.

25X1 During the period 4-18 June 1960 three transports made unusual flights to a number of airfields located near deployed MRBM sites; two of the aircraft included Oborzskaya on their itineraries. Other airfields visited included Shanbyay, Stryy, Mukachevo, and Stanislav.

25X1 The importance of the March 1962 flight is evident from the itinerary, which included locations of command elements of Strategic Rocket Forces, Long Range Aviation and Navy: Moscow/Shchelkovo, Sevastopol', Vinnitsa, Kalinovka, Smolensk, Kalinigrad (Baltic Area), Oborzskaya, Pechenga, and Moscow.

25X1 The June 1962 flight was from Moscow/Shchelkovo to Oborzskaya and return.

25X1 On 15 September 1961, a GKAT transport based at Moscow/Orlovo flew from Oborzskaya to Moscow. Aircraft of this unit probably serve

TOP SECRET DINAR CHESS RUFF

25X1

TOP SECRET DINAR CHESS RUFF 25X1

TH 0747-62KH (Rev)  
I-P-2

25X1

the flight test organization at Orlovo and probably are engaged in flight testing of airborne electronic equipment. These aircraft have also flown to the missile test ranges, suggesting that some of the components tested are related to missiles. In this connection it is noteworthy that the aircraft which visited Oborzerskaya made a "special flight" from Khar'kov to Voronezh of 19 September and on 20 September 1961 went from Voronezh to Tyura Tam. It departed Tyura Tam for Moscow/Vnukovo on 21 September, a day on which a probable Category A2 ICBM firing occurred at the TTMTC.

25X1

25X1

A mainline communications network possibly serving the Strategic Rocket Forces includes a line to Plesetsk area. In communications chatter in 1962 the outstation operator referred to Samoded, a village located approximately 12 nm north of Oborzerskaya Airfield. In addition, messages from unidentified FPN 14572 have been transmitted from this outstation to Moscow on this link.

25X1

— • —

TOP SECRET DINAR CHESS RUFF 25X1

25X1

[Redacted]

I-P-Z

REFERENCES

PHOTOGRAPHY

Mission
[Redacted]

Date
[Redacted] Dec 60
[Redacted] Jun 61
[Redacted] Jul 61
[Redacted] Feb Mar 62
[Redacted] Apr 62
[Redacted] Jun 62
[Redacted] Jun 62
[Redacted] Jun Jul 62
[Redacted] Jul Aug 62
[Redacted] Aug 62

Classification
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF
TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0102-9AL, 1st ed, Aug 59, scale 1:200,000 (CONFIDENTIAL)

DOCUMENTS

- 1- NSA. 3/0/RUM/R73-58, 20 Aug 58 (TOP SECRET [Redacted])
2. NSA. 3/0/RUM/T180-58, 23 Apr 58 (TOP SECRET [Redacted])
3. NSA. 3/0/RUGM/T02-61, 1 Jul 59 (TOP SECRET DINAR)
4. NSA. 3/0/RUGM/R427-61, 11 Oct 61 (TOP SECRET DINAR)
5. NSA. 3/0/RUGM/R497-61, 28 Nov 61 (TOP SECRET DINAR)
6. NSA. 3/0/RUGM/R122-62, 14 Mar 62 (TOP SECRET DINAR)
7. NSA. 3/0/RUA-AW/R47-62, 7 Jun 62 (TOP SECRET DINAR)
8. NSA. 3/0/RUGM/R401-62, 19 Jul 62 (TOP SECRET DINAR)

25X1



~~TOP SECRET DINAR CHESS RUFF~~

8 Pages  
1 October 1962

25X1

NAME: Shadrinsk

NO: I-S-1

LOCATION: Launch Site A (56-09N 63-52E)  
Launch Site B (56-10N 64-03E)



25X1

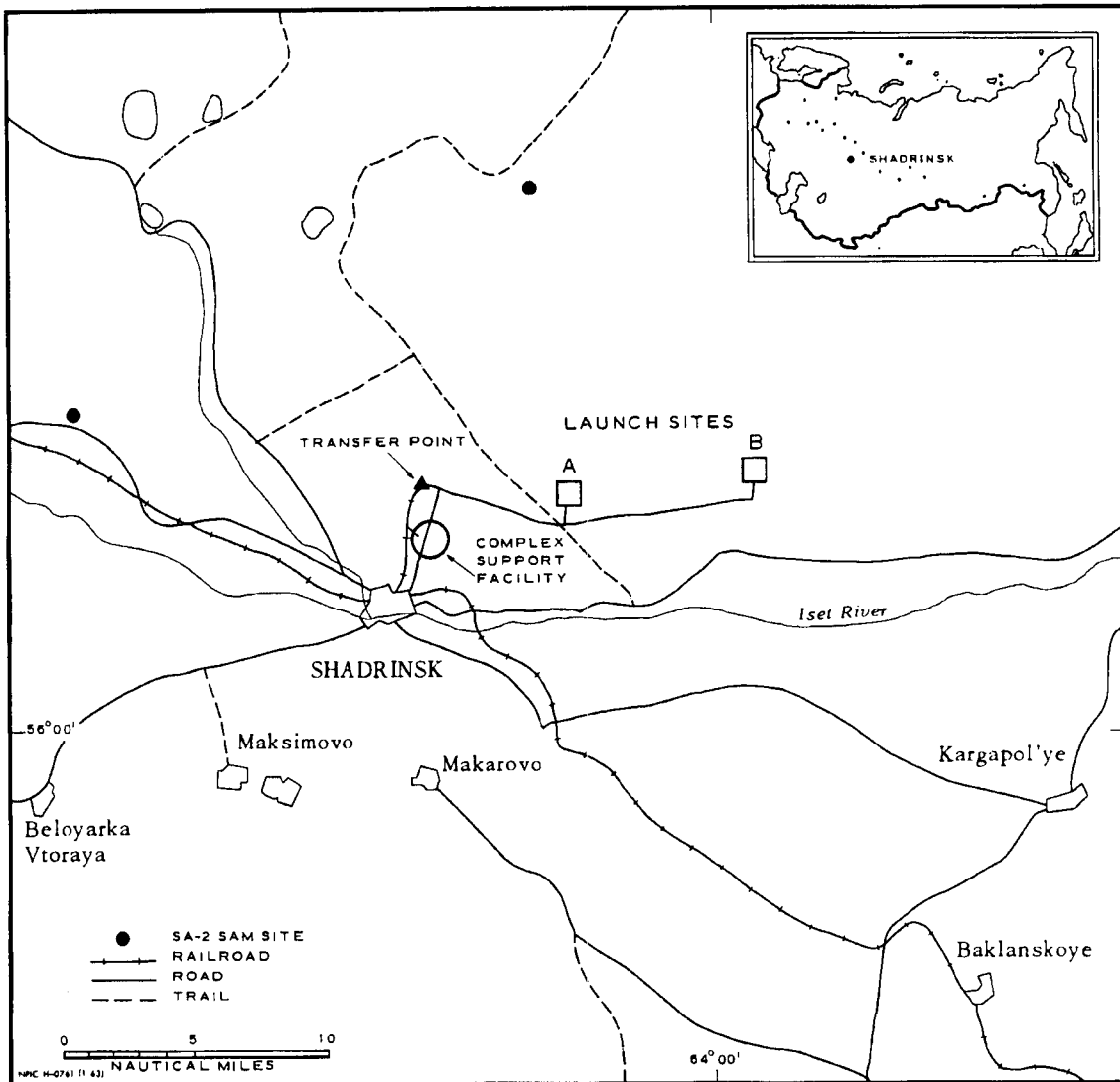


FIGURE 1. LOCATION OF SHADRINSK ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-S-I

I. Conclusion

Shadrinsk is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

25X1 An ICBM launch complex under construction (Figure 1) is situated in a generally wooded area northeast of Shadrinsk. This complex was first identified on KEYHOLE photography of December 1961 [ ] and has been observed on numerous subsequent missions. The complex is served by a rail spur from the Sverdlovsk-Kurgan rail line and by a road from the city of Shadrinsk.

At present the complex consists of two road-served Type III launch sites under construction; a road- and rail-served complex support facility, and a rail-to-road transfer point. Two SA-2 SAM sites have been identified, one north and one west of the complex. These sites were identified on photography of December 1961 [ ]

Launch Site A (Figure 2), located 6.5 nm (road distance) east-south-east of the rail-to-road transfer point, is served by an access road that extends 1.5 nm north from the complex main road. Stereoscopic analysis of the launch site reveals that it consists of a large excavation secured by a roughly rectangular fence (which was under construction in April and completed by May 1962) that measures approximately 1,875 by 1,320 feet overall. The excavation appears to be rectangular with a notch on one side of the long axis. The rectangular area measures approximately 480 by 260 feet and the notched portion 215 by 130 feet. The quality of the photography precludes an accurate measurement of the depth; however, the excavation appears to be in excess of 30 feet. Two construction roads lead from the excavation, one a continuation of the access road and the other leading northeast to the fence line.

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-S-1

25X1

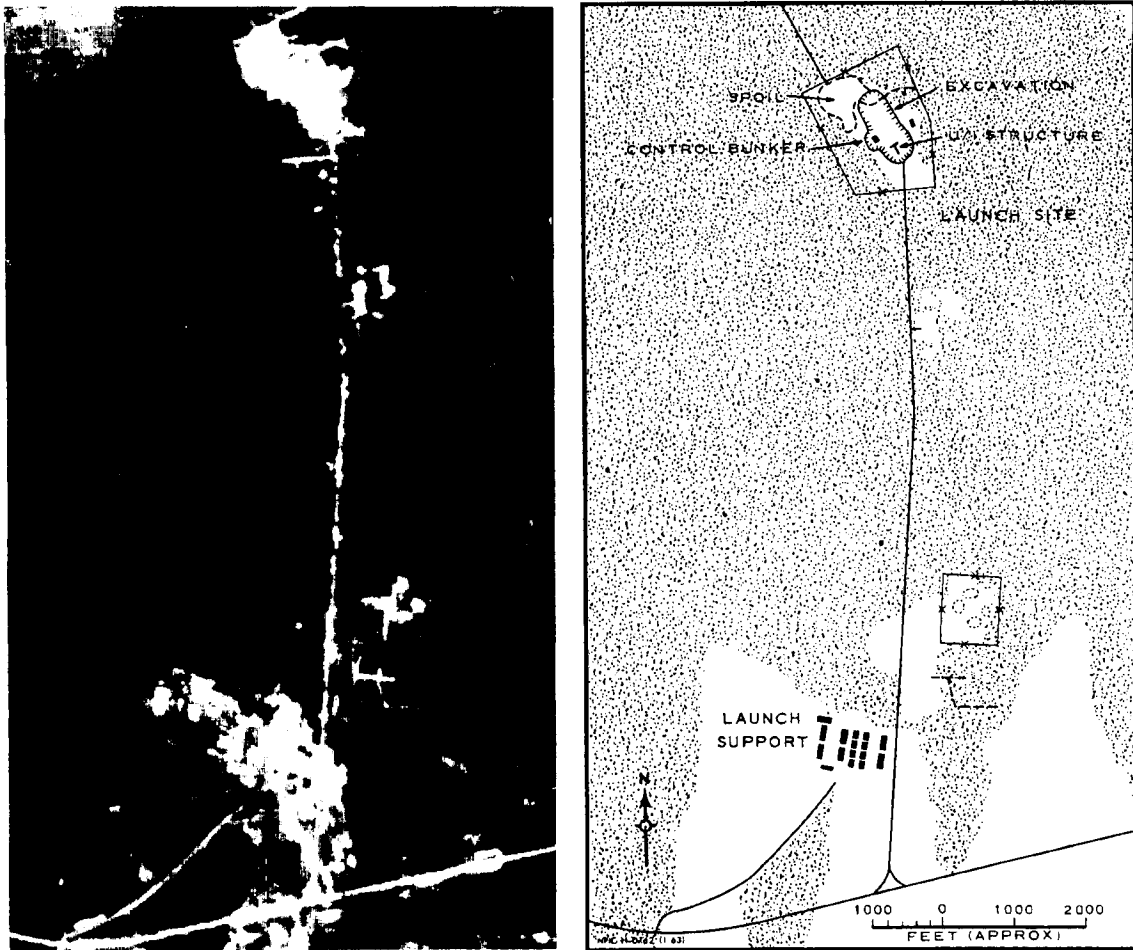


FIGURE 2. LAUNCH SITE A (July 1962)

25X1

On photography from  what appears to be a T-shaped structure is located in the southern end of the excavation. The bar of the T extends across the excavation and measures 150 by 45 feet and the stem extends down the long axis of the excavation and measures 90 by 45 feet. Also on the same photography, a bunker is visible in the notched portion of the excavation.

Located at the northwest end of the excavation is an unidentified elliptical domed object which measures 125 by 90 feet. This domed

- 3 -

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-S-1

object was identified on photography from [ ] and is still present. An L-shaped pattern of ground scarring extending northwest from the secured area has been identified as ditching for possible drainage.

25X1

In addition, approximately 6,000 feet south of the excavation is a secured pattern of four ground scars similar in arrangement to the ends of the plus-shaped probable guidance facility found at Type IV launch sites, but the interconnecting scars are not present. The distance across the scars is 300 feet.

Two buildings have been observed outside the pit. One is centered near the northeast side of the pit and measures 65 by 40 feet. The other is located east of the domed object and measures about 40 feet square. Launch Area A is still under construction and there was no evidence of backfilling as of September 1962.

25X1

Photography from [ ] revealed a clearing at this location, [ ] the beginning of an excavation, [ ] the excavation signature, and [ ] further evidence of construction.

25X1

25X1

25X1

After repeated coverage of Launch Site A, however, the following items have been noted that are inconsistent with what has been seen at other Type III sites. As of the latest coverage, the T-shaped structure, not found at other Type III sites, has been noted in the main part of the excavation. In addition, neither the plus-shaped, secured ground pattern south of the excavation nor an elliptical dome-shaped object such as that at Launch Site A has been identified at any other Type III site.

The launch support area for Site A is located about 8,000 feet south of the launch site near the junction of the access road and the complex main road and consists of 16 buildings.

Launch Site B (Figure 3), is 12.7 nm by road from the rail-to-road transfer point. The site is served by an access road that extends 1.1 nm north from the complex main road. This site is in an earlier stage of construction than Site A, and only part of the excavation signature is apparent. The excavation for the notch and a building measuring 160 by 150 feet in this notch is evident on photography from [ ]

25X1

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-S-1

25X1

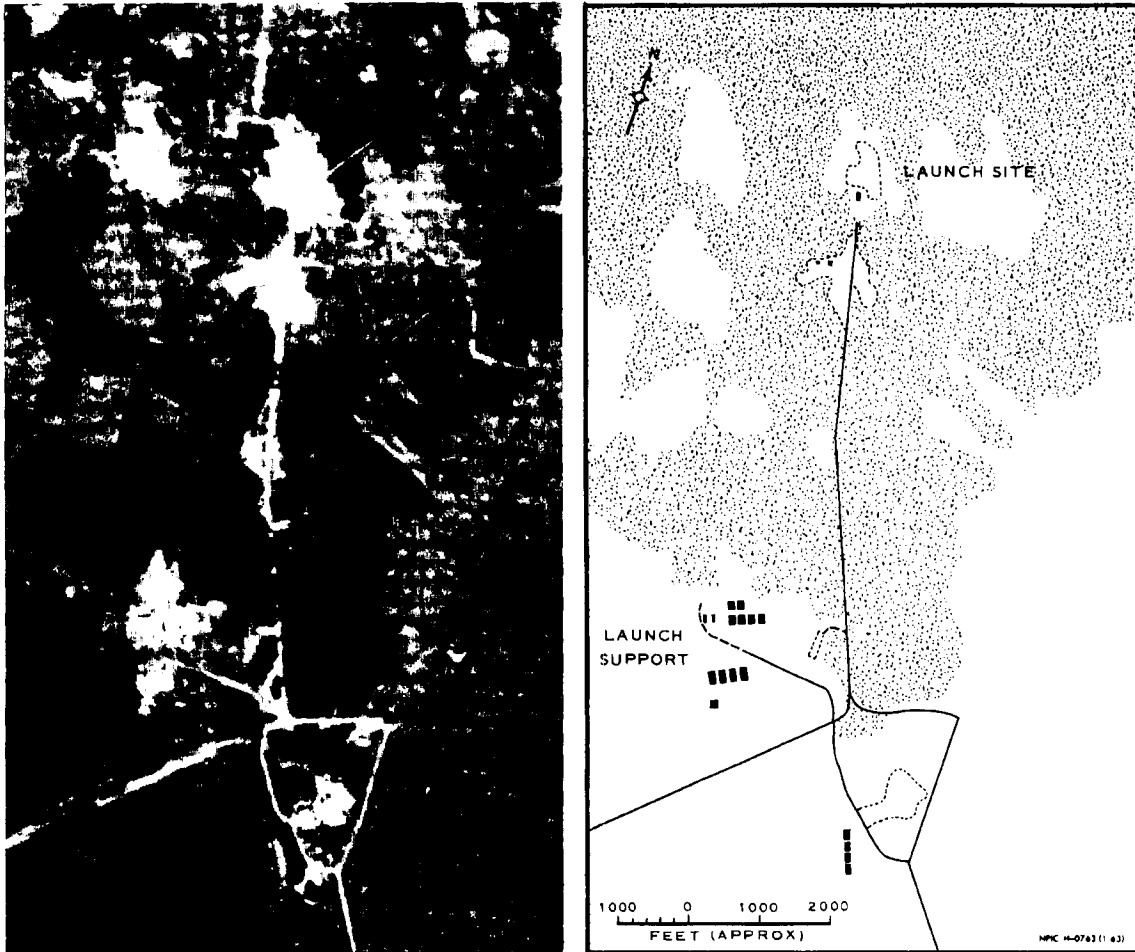


FIGURE 3. LAUNCH SITE B (July 1962)

The approximate measurements for the rectangular portion of the excavation are 450 by 140 feet. It does not appear that this excavation has reached its ultimate depth.

An L-shaped pattern of scarring extending northwest from the excavation which may be ditching for possible drainage is also evident at Launch Site B.

The launch support area is located 5,700 feet south of the launch area near the junction of the access road and the complex main road and consists of 18 buildings. Four of these measure 150 by 55 feet

- 5 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-S-I

and 14 measure 110 by 40 feet. Four buildings seen on [redacted] are located 2,200 feet south of the launch support area and measure 80 by 65 feet.

25X1

The complex support facility (56-08N 63-40E) is served by a rail spur that branches north-northeast from the Sverdlovsk-Kurgan rail line at a point just east of the Shadrinsk Railroad Yards and Shops and continues to the rail-to-road transfer point (Figure 4). Road service to the facility is provided by several roads that branch west from the main road leading from Shadrinsk to the village of Mogil'skoye.

A spur branches southeast from the main rail spur at a point 2.3 nm north of Shadrinsk and immediately separates into four sidings. The turning radii of these sidings are approximately 1,000 feet. The sidings are approximately 60 feet apart and, from north to south, are 2,630, 3,025, 3,755 and 3,050 feet in length. Located among the rail sidings are 17 buildings, the longest of which is a shedlike structure measuring 250 by 80 feet. A concrete batching plant is located between the northern two rail sidings, and open storage is prevalent throughout the area. This area appears to function as a construction and logistic support facility for the complex. North of the rail sidings is a barracks area consisting of 10 barracks buildings, 9 administration buildings, and 11 apartment-type buildings that are newly constructed. A similar barracks area south of the rail sidings contains 16 buildings. A storage area west of the barracks area contains seven buildings and open storage. A possible motor pool is located east of the complex support facility.

The rail-to-road transfer point (56-10N 63-41E) is located at the terminus of the main rail spur, approximately 1.7 nm north of the complex support facility. The rail portion of the transfer point is approximately 3,100 feet long, and the road portion is approximately 2,100 feet long. The road is approximately 340 feet south of the rail spur. Six small buildings are near the northeast corner of the transfer point.

The complex main road extends about 1,300 feet past the access road leading to Launch Site B. This extension indicates the possible direction

- 6 -

~~TOP SECRET DINAR CHESS RUFF~~

I-S-I

25X1

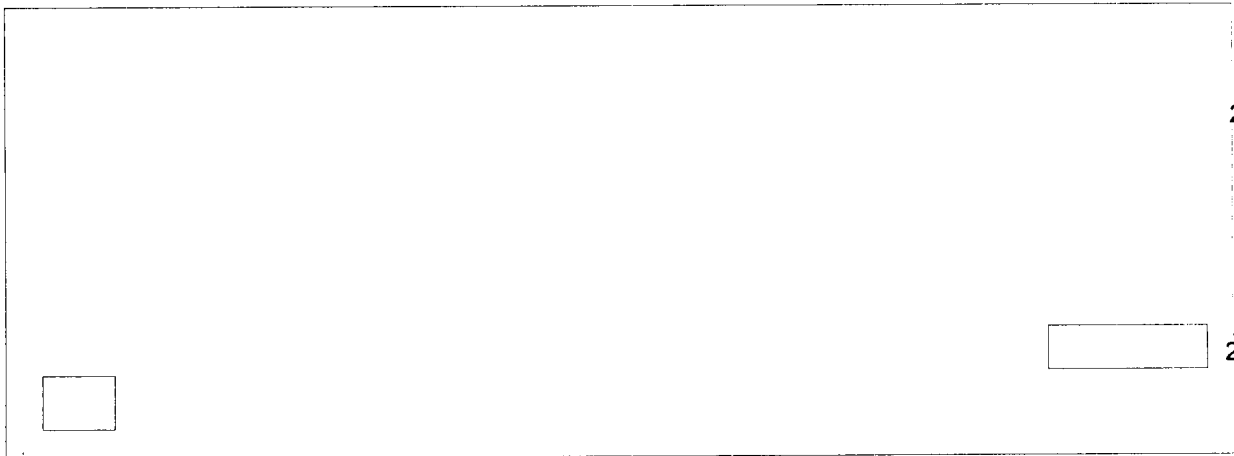


25X1

FIGURE 4. COMPLEX SUPPORT FACILITY (July 1962)

of future expansion of the complex. However, the terminal point of the road has not changed since December 1961. Another factor that could influence expansion in this direction is the wooded areas that lie generally to the east along the Iset River. The land to the north is cleared and contains numerous towns and villages.

25X1



25X1

25X1

25X1

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[Redacted]

I-S-I

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
[Redacted]	Dec 61	TOP SECRET RUFF
	Feb [Redacted] Mar 62	TOP SECRET RUFF
	Apr 62	TOP SECRET RUFF
	May [Redacted] Jun 62	TOP SECRET RUFF
	Jun [Redacted] Jul 62	TOP SECRET RUFF
	Jul [Redacted] Jul 62	TOP SECRET RUFF
	Jul [Redacted] Aug 62	TOP SECRET RUFF
	Aug [Redacted] Sep 62	TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0156-24A, 2d, ed, Oct 59, scale 1:200,000 (SECRET)

SAC. US Air Target Chart, Series 200, Sheet 0156-25, 1st ed, Jan 59, scale 1:200,000 (SECRET)

DOCUMENTS

NSA. 3/0/RUGM/R279-62, 15 May 62 (TOP SECRET [Redacted])

NSA. 3/0/RUGM/R40-62, 26 Jan 62 (TOP SECRET [Redacted])

25X1

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1  
8 Pages  
1 October 1962

NAME: Svobodnyy

NO: I-S-2

LOCATION: Launch Site A (51-55N 128-10E)  
Launch Site B (51-49N 128-19E)  
Launch Site C (51-53N 128-23E)



25X1

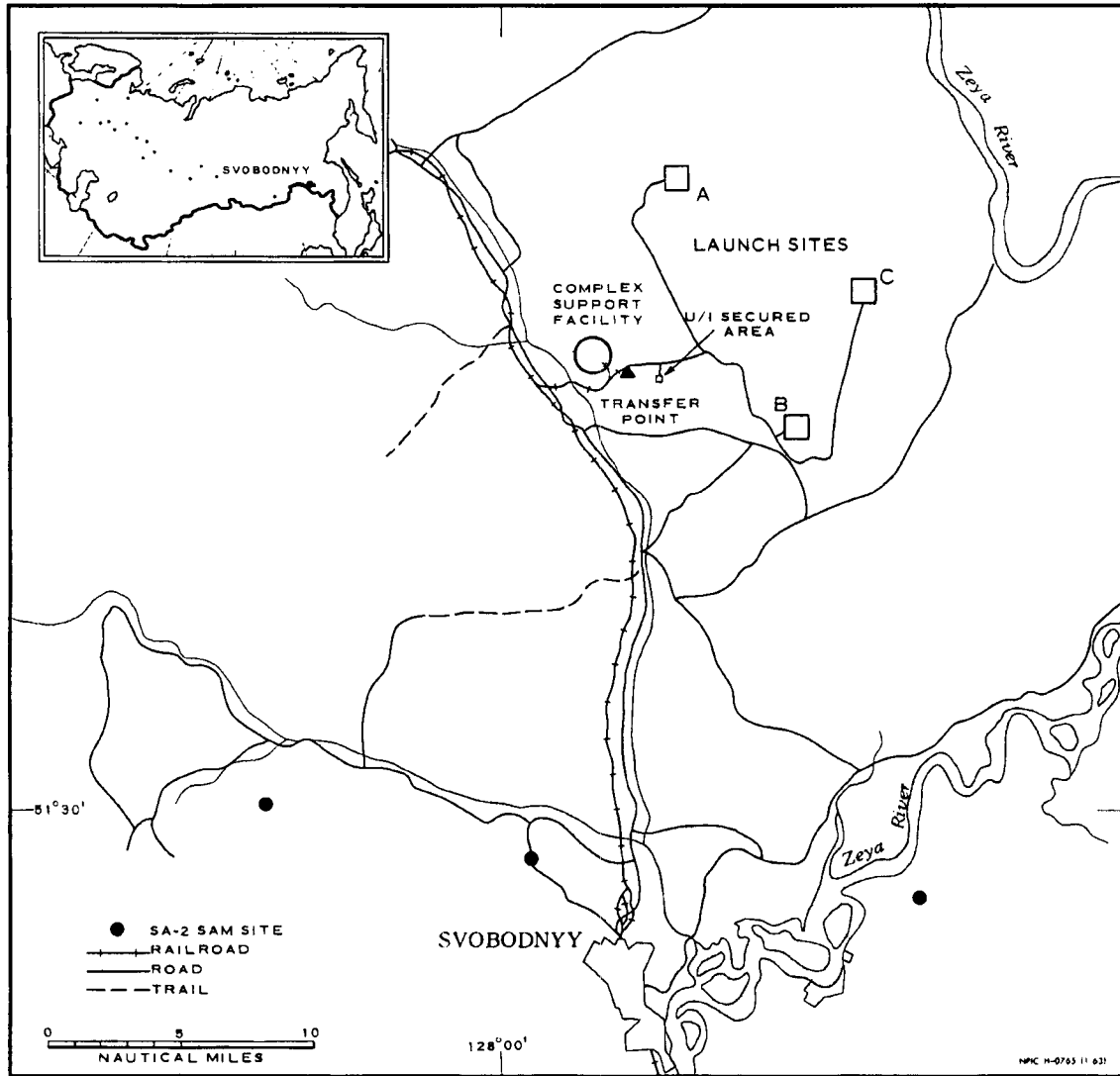


FIGURE 1. LOCATION OF SVOBODNY ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-S-ZI. Conclusion

Svobodnyy is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

The Svobodnyy ICBM launch complex, identified on April 1962 photography [REDACTED], is located north of Svobodnyy in an area of scattered trees and brush (Figure 1) and was again observed in August 1962. The complex is served by a rail spur running east from the Trans-Siberian Railroad and by an access road from the highway that parallels the railroad between Svobodnyy and Shimanovskaya. As of April 1962 the complex consisted of a rail-served complex support facility and three rail-served, Type II (Mod b) launch sites in various stages of construction (Figure 1).

25X1

A search of existing photography revealed that in March 1958 (TALENT [REDACTED] there was no unusual activity at or near the present locations of any of the facilities of the complex. The area in which Launch Site C is positioned was observed on KEYHOLE Mission [REDACTED] (December 1960), at which time there was no construction activity.

This complex is located farther east than any other identified to date. SAM defenses in the area consist of four SA-2 sites apparently defending Ukraina Airfield and the [REDACTED]

25X1

[REDACTED] both located south of Svobodnyy. No other SAM sites have been identified in the area.

Launch Site A (Figure 2), the farthest advanced in construction of any of the launch sites at the Svobodnyy complex, is located 8.9 nm north of the rail-to-road transfer point. It appeared to be complete when observed on August 1962 photography and has two elongated launch pads positioned 980 feet apart, each 135 feet wide with the long axis oriented

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1

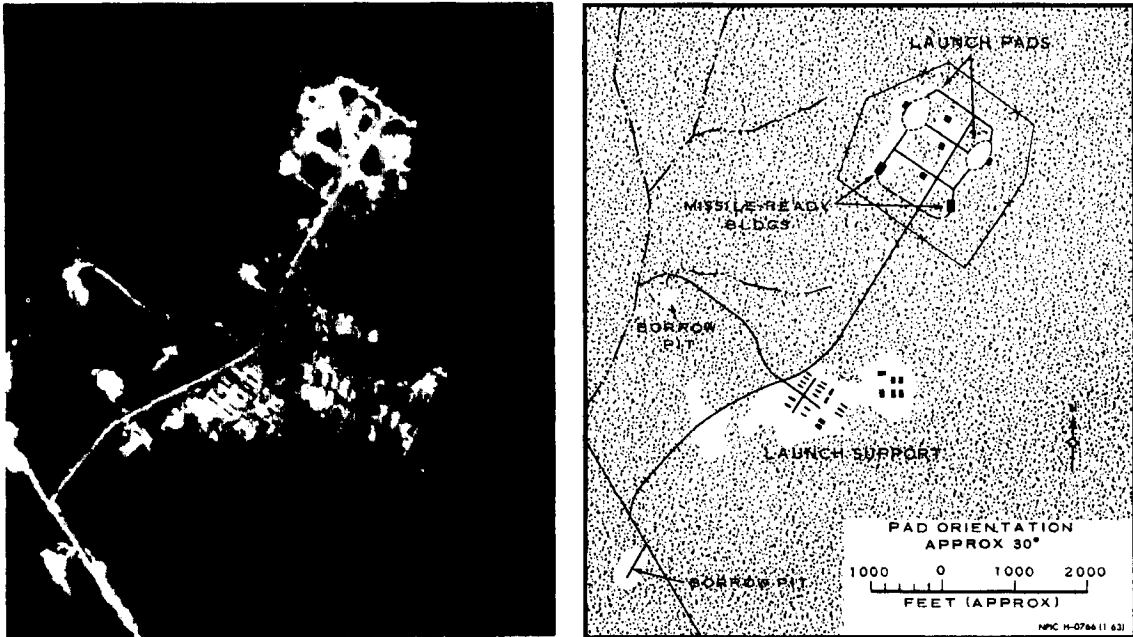


FIGURE 2. LAUNCH SITE A (August 1962)

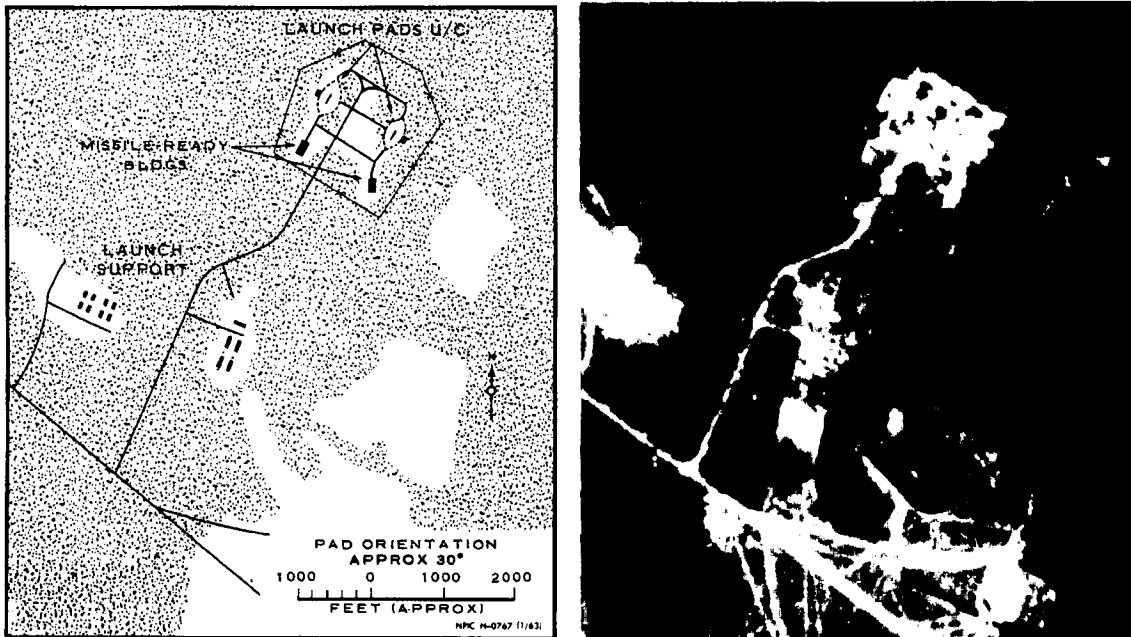


FIGURE 3. LAUNCH SITE B (August 1962)



~~TOP SECRET DINAR CHESS RUFF~~

25X1

  
I-S-2

on an azimuth of 30 degrees,  $\pm$  5 degrees. The launch site is enclosed by a fence measuring 2,300 by 2,000 feet overall. A center service road passes between the pads and is offset to the right of center. Two small structures, one of which is a probable bunker, are located between the pads. Two missile-ready buildings are evident, each 675 feet to the rear of the pad centers. The building serving the right pad is offset from the pad orientation and measures 170 by 125 feet, whereas the one serving the left pad is aligned directly with the pad and measures 170 by 105 feet. Located 3,000 feet to the south of the launch site proper is a launch support area consisting of two groups of buildings. One group has six buildings measuring 180 by 65 feet, and the other has 19 buildings, 12 of which measure 160 by 40 feet.

Launch Site B (Figure 3) is located 7.2 nm east-southeast of the transfer point. The launch site is enclosed by a fence measuring 2,300 by 2,000 feet. It is almost identical to Launch Site A, except that it is in a late stage of construction and the road between the pads is offset to the left of center rather than to the right. Each of the two elongated pads, which are 980 feet apart, is 135 feet in width. The long axis of the pads is oriented on an azimuth of 30 degrees,  $\pm$  5 degrees. Extensive scarring between the pads, noted in August 1962, indicates the construction of structures typical of this type of facility, although they were not visible on the April 1962 photography. Two missile-ready buildings are visible, one 675 feet behind the center of each pad. The building serving the right pad measures 170 by 125 feet and is offset to the right of the azimuth of the pads, whereas the one serving the left pad is aligned with the pad and measures 170 by 105 feet. A launch support area consisting of three groups of buildings is located generally to the south of the launch site proper. One group consists of 5 buildings measuring 180 by 60 feet, another of 8 buildings, 180 by 40 feet, and the remaining group of 4 buildings, 160 by 40 feet.

Launch Site C (Figure 4), in a mid-stage of construction when observed in August 1962, is located 12.5 nm east-northeast of the transfer

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-S-2

25X1

point. At the time of this coverage, the site consisted of two launch pads under construction 980 feet apart with a road offset to the right of center between them on an azimuth of 30 degrees,  $\pm$  5 degrees. A missile-ready building 675 feet to the rear of the left pad is offset. A launch support area located south-southwest of the pad excavations, consists of about 12 buildings each measuring 160 by 40 feet.

The area of the complex support facility (Figure 5) contains a number of separate components, including a rail-served support area, a rail-to-road transfer point, a large housing and administration area, and two areas of unidentified activity, one of which is secured.

The rail spur serving the complex leaves the Trans-Siberian Railroad at Stantsiya Ledyanaya, 21.5 nm north of Svobodnyy, and proceeds east for 3 nm to the rail-to-road transfer point, where it terminates. The rail spur branches to the north 4,000 feet west of the transfer point and enters the main construction support area, which is located 2.9 nm north of the village of Kurgan. This rail branch expands in the support area into a set of three spurs 3,100 feet long that are spaced 530 feet apart. The tightest rail curve in the area has a radius of approximately 1,000 feet.

More than 75 buildings are located in the support area, which covers about 550 acres. Measurements of the larger structures are as follows: 16 buildings are 160 by 40 feet, 2 buildings are 220 by 90 feet, 4 buildings are 180 by 60 feet, and 4 buildings are 180 by 90 feet.

A large road-served housing and administration area is located 2.3 nm southwest of the rail-to-road transfer point, adjacent to the village of Kurgan. The facility consists of more than 100 apartment- and administration-type buildings. A good road connects the area with the road serving other portions of the complex.

Immediately to the southeast of the rail line and across from the rail-served support area is an area of unidentified construction activity. It has a rectangular road pattern and two large probable buildings under construction, each measuring 310 by 130 feet. Another building measuring 200 by 60 feet is located in the area.

- 5 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET~~ DINAR CHESS RUFF

25X1

I-S-2

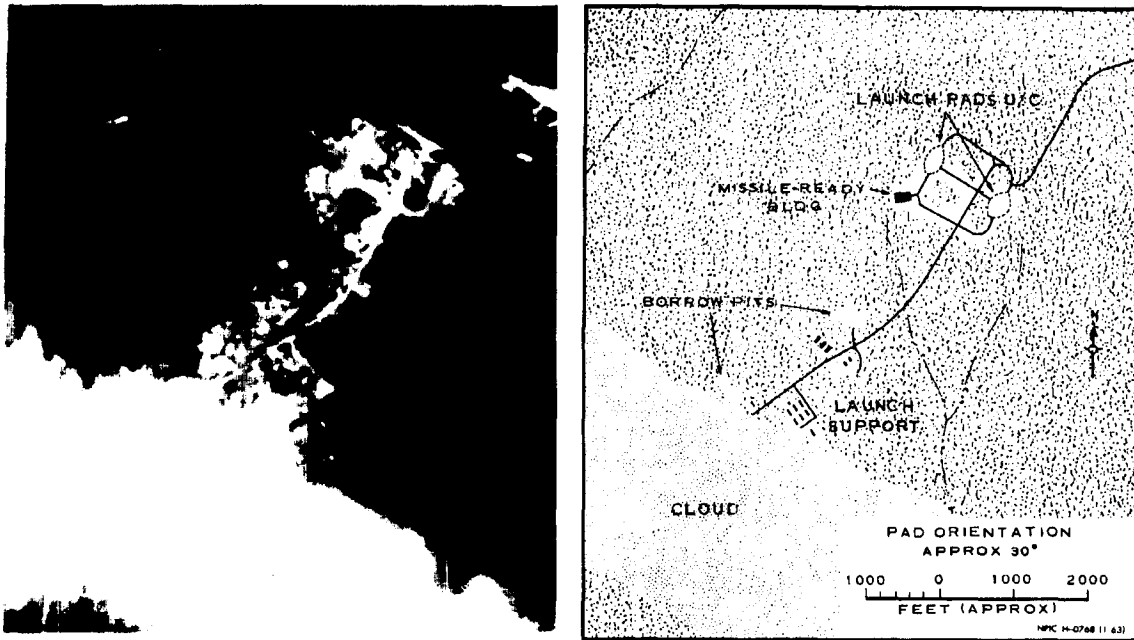


FIGURE 4. LAUNCH SITE C (August 1962)



FIGURE 5. COMPLEX SUPPORT FACILITY (April 1962)

25X1

~~TOP SECRET~~ DINAR CHESS RUFF

I-S-2

25X1

The rail-to-road transfer point is located at the terminus of the rail spur serving the complex. It consists of a wide loop road with a radius of 150 feet. The road parallels the rail line for a distance of 750 feet. At least four buildings, none of which has a rail-through capability, are located in the area. Two of these buildings measure 120 by 60 feet and two measure 120 by 40 feet. From the rail-to-road transfer point, a good road leads to the launch sites to the north and east. An area of unidentified activity is located 2.7 nm east-northeast of the rail-to-road transfer point on the south side of the road that serves the launch sites. This road-served installation is enclosed by a fence measuring 1,350 by 900 feet. Inside the fence is an area of unidentified scarring, possibly a shallow excavation. Along the short road serving the site and on the north side of the fence is a line of six buildings, each measuring 180 by 60 feet.

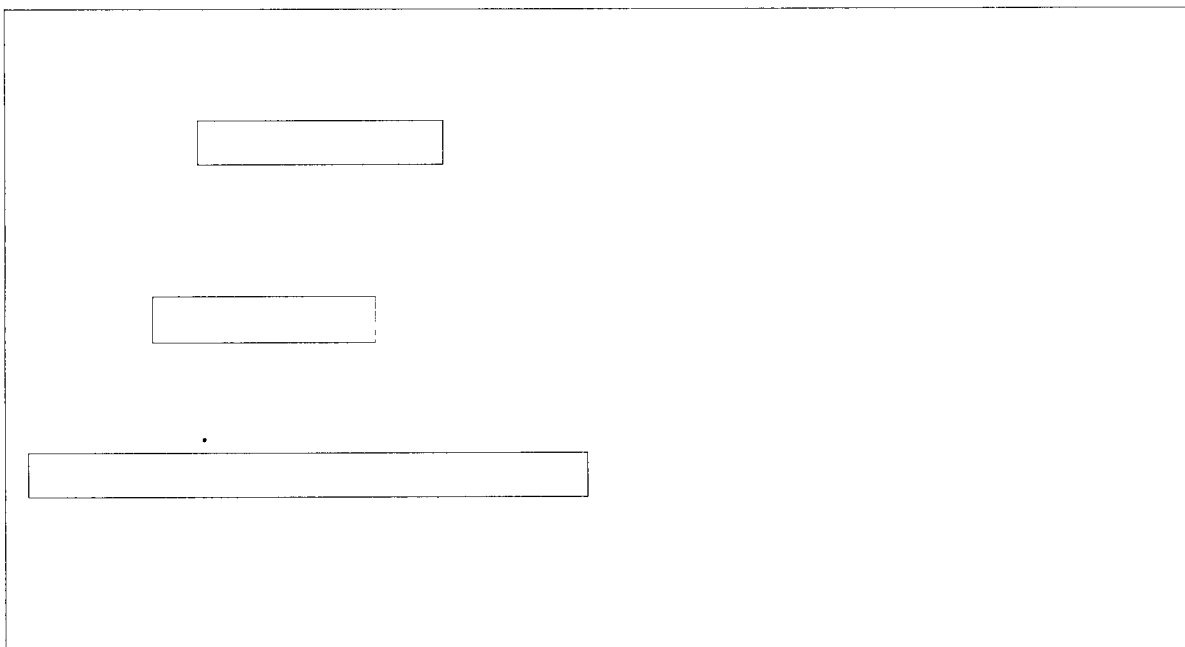
25X1

25X1

25X1

25X1

25X1



~~TOP SECRET DINAR CHESS RUFF~~

25X1



I-S-2

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
	Mar 58	TOP SECRET CHESS
	Dec 60	TOP SECRET RUFF
	Apr 62	TOP SECRET RUFF
	Aug 62	TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0203-3AL, 2d ed, Jan 60, scale 1:200,000 (SECRET)

DOCUMENTS

- NSA. 3/0/RUGM/T45-62, 14 Jan 62 (TOP SECRET DINAR)
- NSA. 3/0/RUGM/T36-62, 6 Mar 62 (TOP SECRET DINAR)
- NSA. 3/0/RUA-AW/R44-62, 25 May 62 (TOP SECRET DINAR)
- NSA. 3/0/RUA-AW/R63-62, 31 Jan 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

C02679002



T

~~TOP SECRET DINAR CHESS RUFF~~

8 Pages  
1 October 1962

25X1

NAME: Teykovo

NO: I-T-1

LOCATION: Launch Site A (56-55N 40-27E)

Launch Site B (56-56N 40-33E)

Launch Site C (56-55N 40-17E)

25X1

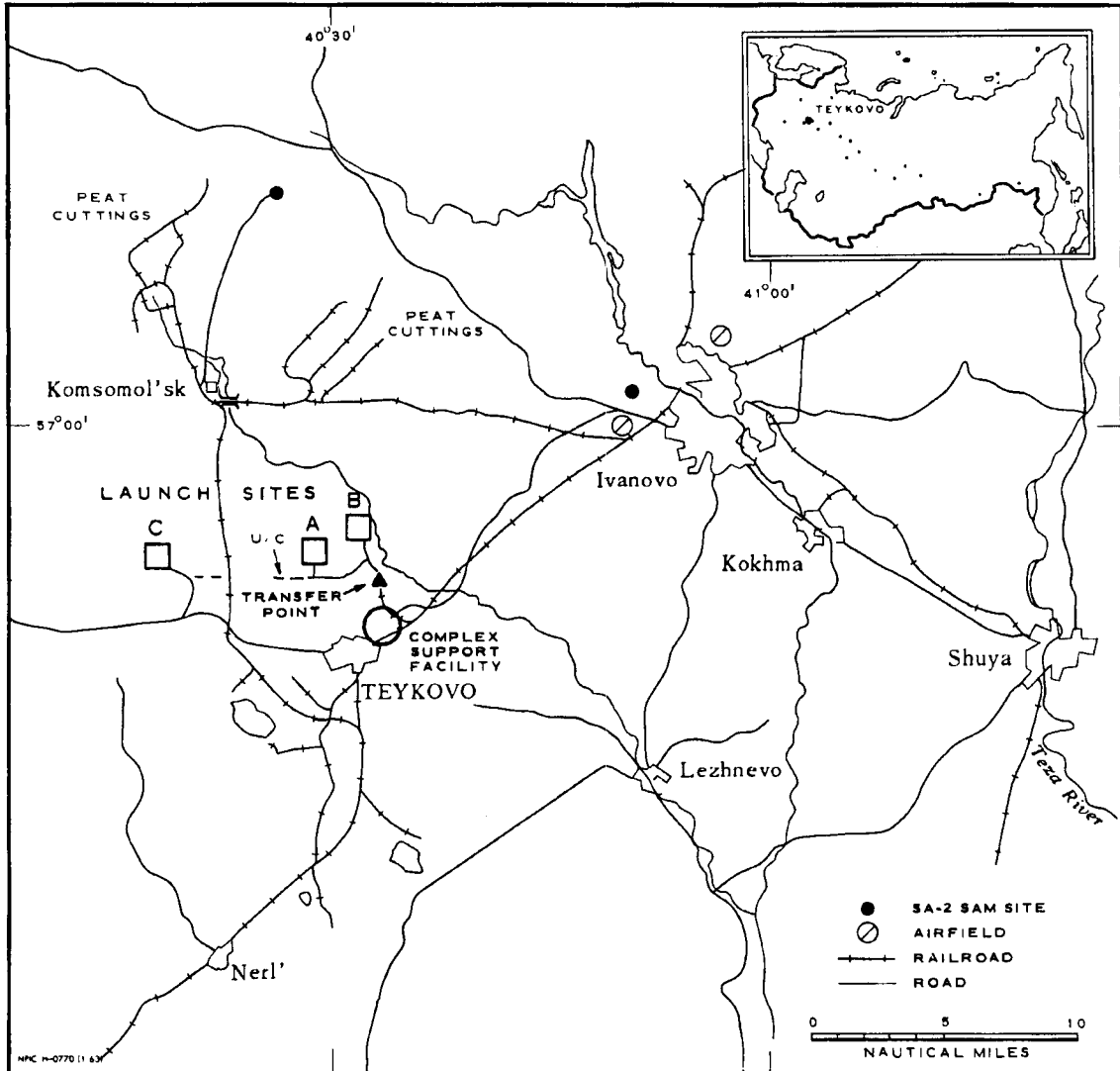


FIGURE 1. LOCATION OF TEYKOVO ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-T-II. Conclusion

Teykovo is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

25X1 An ICBM launch complex has been observed in a generally wooded area to the north and west of Teykovo (Figure 1). It was first identified on KEYHOLE photography of February/March 1962 [REDACTED] and covered by subsequent missions. A search of previous photographic coverage revealed that in August 1960 [REDACTED] there was no evidence of construction at the complex. One year later, in August 1961 [REDACTED] the support facility and a transfer point were under construction, but the launch-site locations were cloud covered. In December 1961 [REDACTED] the area was again covered and showed Launch Site A in an early stage of construction. Launch Site B was located but had no recognizable pattern. When the complex was identified on [REDACTED] it consisted of the complex support facility, transfer point, and Launch Sites A and B. Photography of April 1962 revealed Launch Site C in an early stage of construction, and on that of May-June 1962 [REDACTED] Launch Site A appeared complete. All launch sites have a Type II (Mod b) configuration. Pad orientation is approximately 295 degrees,  $\pm 5$  degrees.

The complex support facility and transfer point are served by rail spurs from the Teykovo-Ivanovo rail line.

Existing roads out of Teykovo go through the general area, but a complex main road serves the support facility, transfer point, and Launch Sites A and B and is under construction to Launch Site C. Present access to Launch Site C is by an improved road running west from Teykovo.

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

I-T-1

25X1

Two SA-2 SAM sites are in the area, one 17 nm north and the other 13 nm northeast of the complex.

Launch Site A is located about 4.25 nm west-northwest of the transfer point. It is complete and has a pad separation of 980 feet (Figure 2). The pads are elliptical and measure approximately 325 by 115 feet. On each of the pads is an elongated, dark object, possibly an erector or carriage, 75 to 80 feet in length. Along the inside edge of the pads are possible vehicle revetments.

Two buildings in the center of the Launch site, one 80 feet square and the other still under construction, probably house the launch-control facilities. The two missile-ready buildings are located 700 feet behind their respective pads. The one in the northeast corner of the site is 170 by 125 feet and is placed at an angle to the orientation of the pad. The other ready building measures about 170 by 105 feet and is placed in line with the pad. A probable security building 110 by 40 feet is located at an entrance to the area.

The launch support area is located about 3,500 feet south of the launch area and contains about ten buildings. Six of the buildings appear to be barracks type. The four largest measure about 140 by 40 feet and appear to be two-story structures. The other two are slightly smaller. The rest are unidentified small buildings.

What appears to be a construction camp, consisting of approximately 25 buildings, lies about 4,800 feet south-southeast of the launch site.

Launch Site B is about 2.8 nm north-northwest of the transfer point and about 3.5 nm east-northeast of Launch Site A (Figure 3). It appears to be complete and is generally similar to Launch Site A with the following exceptions: the missile-ready building for the more northerly pad is 600 feet behind the pad, and there are two additional L-shaped buildings, one at either end of the offset road. These buildings probably are a part of the launch control. The one at the forward end is 105 by 105 feet overall, and the other is 110 by 85 feet and has an unidentified object on the roof. Other building sizes correspond to those at Launch Site A.

- 3 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-T-I

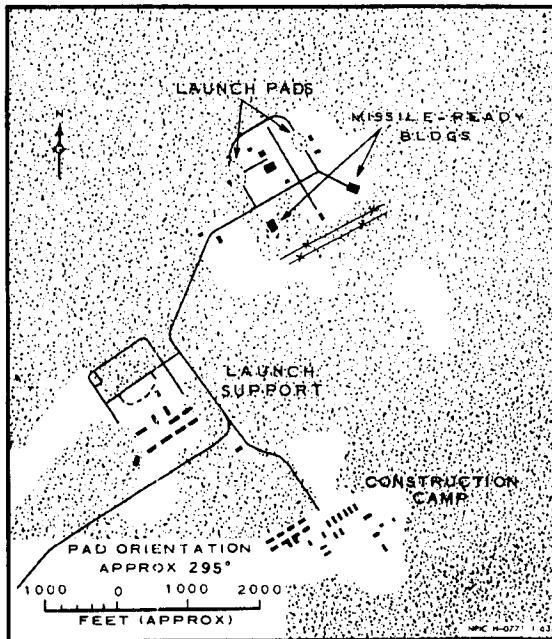


FIGURE 2. LAUNCH SITE A (April 1962)

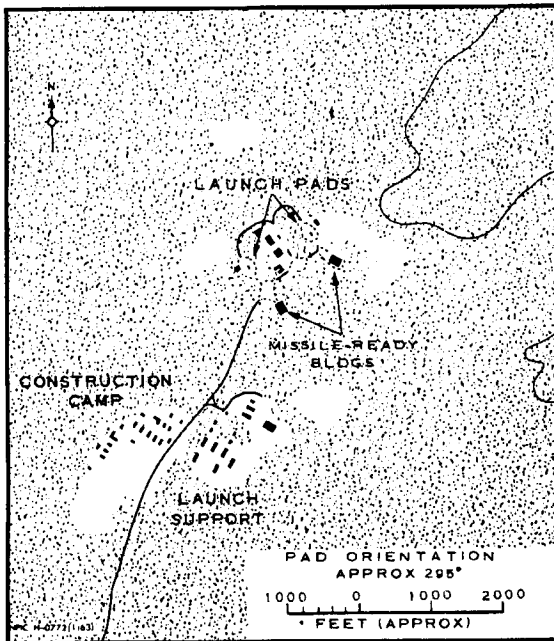


FIGURE 3. LAUNCH SITE B (April 1962)

~~TOP SECRET DINAR CHESS RUFF~~

I-T-1

25X1

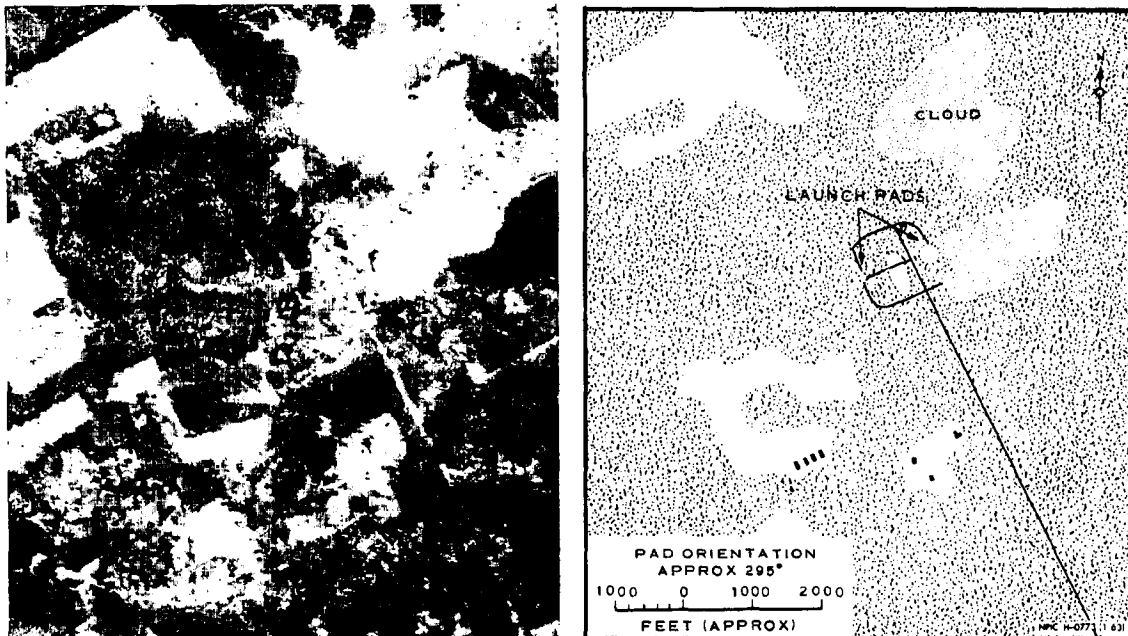


FIGURE 4. LAUNCH SITE C (April 1962)

The launch support area is located about 1,700 feet south of the launch control center and contains about 14 buildings, including two still under construction. The two largest buildings are 125 by 80 feet. Eight of the others may be two- to three-story buildings. Two of these area 135 by 40 feet; three are 125 by 50 feet; two are 140 by 50 feet and one is 90 by 60 feet. The two remaining buildings are single story and measure 125 by 50 feet.

A construction camp consisting of about 20 buildings is located 2,600 feet south-southeast of the launch site. All structures appear to be single story and the larger ones vary from 100 feet to 130 feet in length and are all about 30 feet wide. The area also contains a probable equipment pool.

Launch Site C is 9.8 nm west of the transfer point and 5.5 nm west of Launch Site A (Figure 4). There is no direct service road from the transfer point except by way of the existing highway through Teykovo. The site was in an early stage of construction as of April 1962. Only

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

  
I-I-I

the basic road pattern of the site was present, and no buildings or security measures were evident.

About 13 single-story structures are located in three separate clearings ranging from east to south-southeast of the launch site (not all shown on figure). Most of these buildings range from 100 to 130 feet in length and from 30 to 40 feet in width.

The access road to Launch Site C runs southeast and joins a quarry road which runs south-southwest to the main highway west of Teykovo. The quarry was in existence at least as early as July 1956.

The rail-to-road transfer point is located in a partly cleared wooded area 2.5 nm north-northeast of Teykovo and is served by a 1.7-nm rail spur running north from the Teykovo-Ivanovo rail line (Figure 5).

The transfer point consists of a concrete loop road, two concrete aprons, one and possibly two rail sidings, and about six buildings.

North of the main loop road is a probably bunkered storage area within a security fence and served by a road from the transfer point. The overall secured area is 1,000 by 650 feet.

The complex support facility is located on the northeast outskirts of Teykovo at 56-52N 40-35E (Figure 5). The Teykovo-Ivanovo main road goes through the facility, separating the rail spurs on the south from the housing and administration areas to the north.

Four rail spurs averaging a little over 3,000 feet in length are served by the Teykovo-Ivanovo rail line. The area between the spurs appears to be used for open or covered storage of construction materials. At least 25 buildings are in the area, including two concrete batching plants and about 7 or 8 warehouses, of which the largest is about 145 by 60 feet.

The area north of the Teykovo-Ivanovo road contains about 75 buildings, including a quadrangle of 10 two-story barracks, each 145 by 40 feet; a group of 38 structures, of which at least 20 appear to be barracks measuring 80 by 25 feet; and other smaller buildings throughout the area.

The complex support facility consists of a main construction base and the housing and administration for the complex.

~~TOP SECRET DINAR CHESS RUFF~~



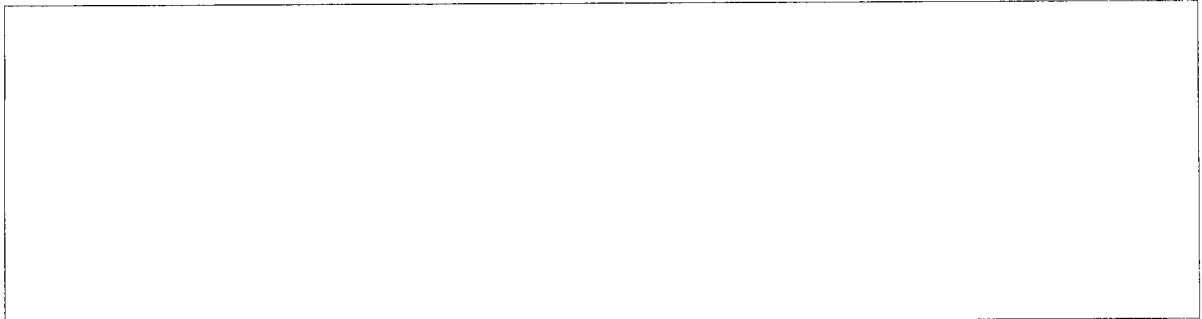
FIGURE 5. COMPLEX SUPPORT FACILITY AND RAIL-TO-ROAD TRANSFER POINT [redacted]

25X1

25X1

25X1

25X1



~~TOP SECRET DINAR CHESS RUFF~~

25X1

[Redacted]  
I-T-I

25X1

[Redacted]

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
[Redacted]	[Redacted] Aug 60	TOP SECRET RUFF
[Redacted]	[Redacted] Aug [Redacted] Sep 61	TOP SECRET RUFF
[Redacted]	[Redacted] Dec 61	TOP SECRET RUFF
[Redacted]	[Redacted] Feb [Redacted] Mar 62	TOP SECRET RUFF
[Redacted]	[Redacted] Apr 62	TOP SECRET RUFF
[Redacted]	[Redacted] May [Redacted] Jun 62	TOP SECRET RUFF
[Redacted]	[Redacted] Jul [Redacted] Aug 62	TOP SECRET RUFF

MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0154-19A, 1st ed, Dec 58, scale 1:200,000  
(SECRET)

DOCUMENTS

1. NSA. 3/0/RUA-AW/R42-62, 22 May 62 (TOP SECRET DINAR)
2. NSA. 3/0/RUA-AW/R47-62, 7 Jun 62 (TOP SECRET DINAR)
3. NSA. 3/0/RUA-AW/R59-62, 6 Aug 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

7 Pages  
1 October 1962

25X1

NAME: Tyumen'

NO: I-T-2

LOCATION: Launch Site A (56-52N 65-35E)  
Launch Site B (56-48N 65-38E)  
Launch Site C (56-51N 65-28E)



25X1

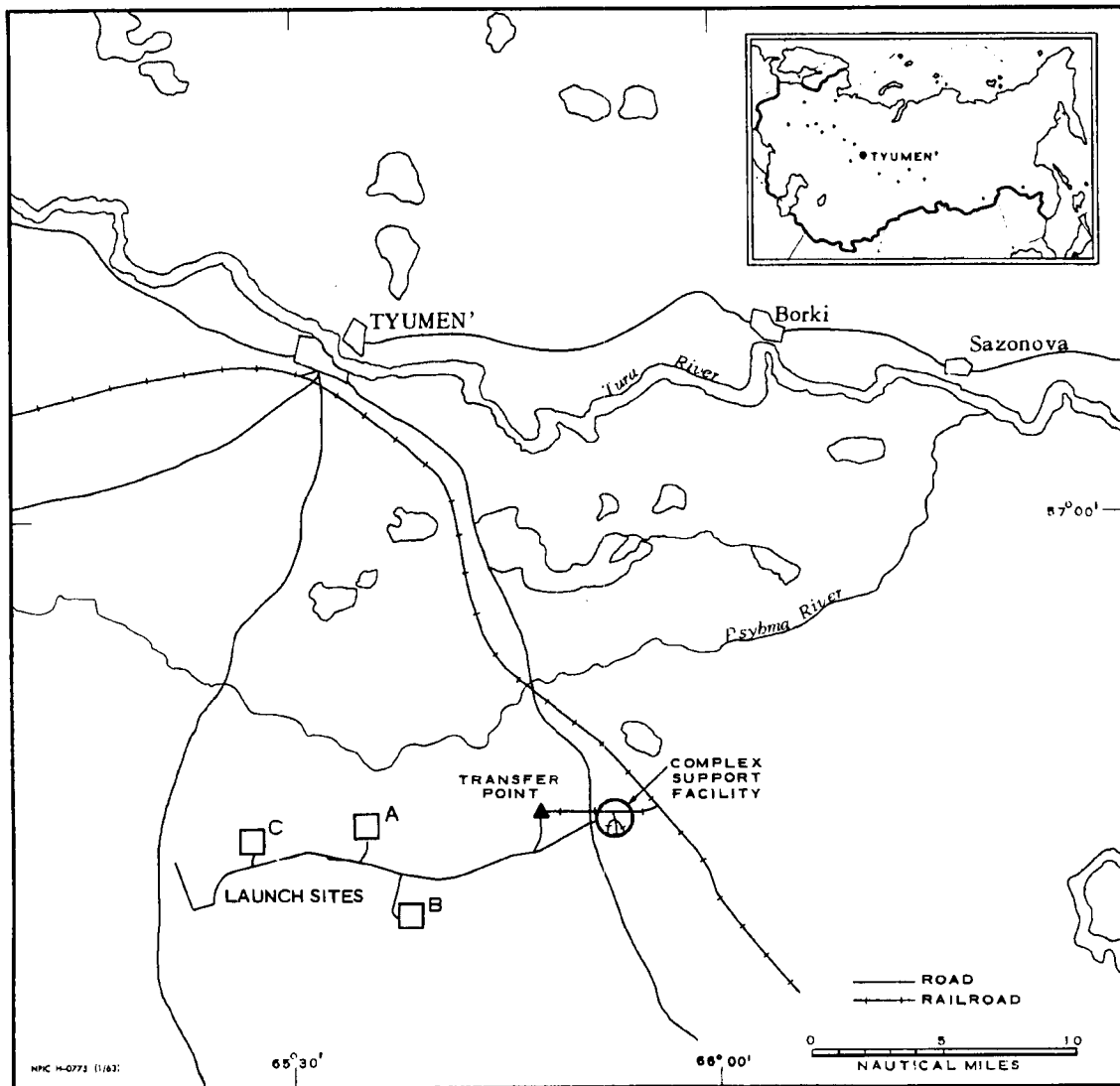


FIGURE 1. LOCATION OF TYUMEN' ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-T-2I. Conclusion

Tyumen' is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

An ICBM launch complex under construction was identified on photography of April 1962 [REDACTED] and was observed on several subsequent missions. It is in a forested area generally south-southeast of Tyumen' (Figure 1). The complex is served by a rail spur that branches west from the Tyumen'-Ishim rail line and by a road that generally parallels the main rail line. The complex consists of a complex support facility and three Type IV launch sites. This site configuration was first noted at Tyumen' and has subsequently been observed at other confirmed ICBM complexes.

A search of previous photographic coverage revealed no missile activity in this area as of June 1961 [REDACTED]. The first photographic evidence of any activity at this complex was in December 1961 [REDACTED], when a new rail line was observed branching from the Tyumen'-Ishim rail line south of the village of Bogandinskaya. The initial layout of the rail bed for the spur now serving the complex also was evident, as were several newly constructed buildings in the present administration and housing area of the complex support facility. There was no evidence of the road that connects the complex support facility with the launch sites.

Photography of March 1962 [REDACTED] again provided coverage of the area; however, there was still insufficient evidence of an ICBM launch complex signature. Some expansion was noted in construction within the complex support facility as well as a new road to a point near the present launch sites. No construction was evident at the launch sites at that time.

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

I-T-2

25X1

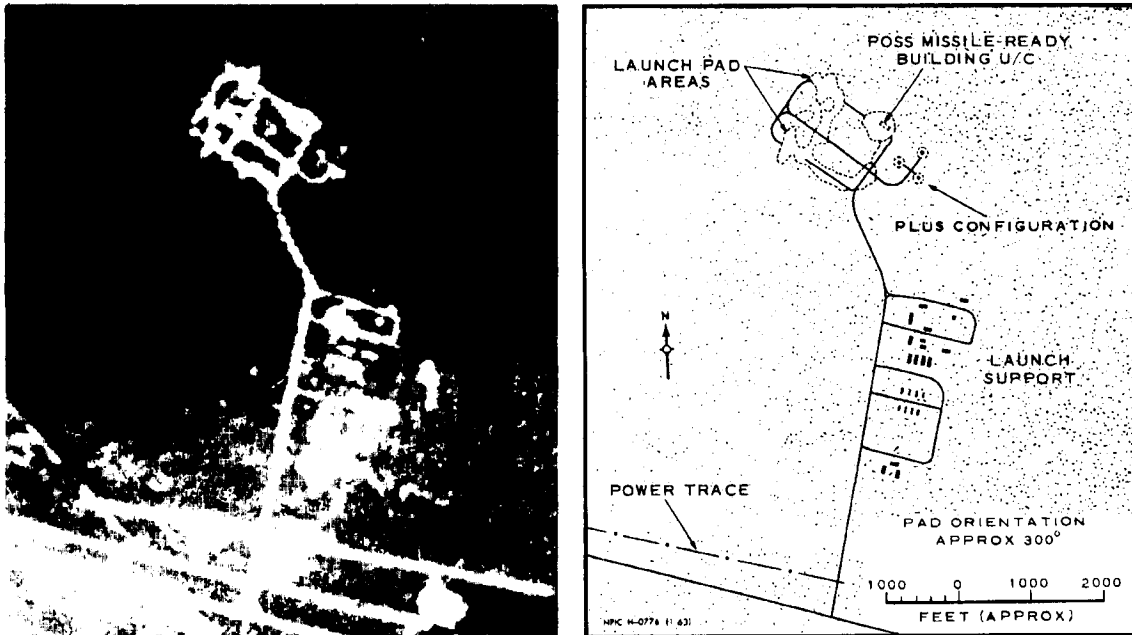


FIGURE 2. LAUNCH SITE A (May 1962)

Launch Site A (Figure 2) is located approximately 9.5 nm west of the complex support facility and is now in a mid stage of construction. A possible missile-ready building is under construction behind the pad to the right. No security measures are evident at this time. The pads are oriented on an azimuth of approximately 300 degrees,  $\pm 5$  degrees, and have a separation of 870 feet. There are earth scars on each pad perpendicular to the site orientation which extend equidistant to each side of the pad to form a cross. Three small clearings located to the rear of the site are connected to the site by road and form a cross or "plus sign" pattern. The pattern is distinctive of this type of site and may be related to the guidance system. The launch support area is located approximately 0.5 nm south of the launch area and immediately east of the access road that serves the site. The support area includes about 24 buildings.


- 3 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1




I-1-2

Launch Site B (Figure 3) is located 4.2 nm south-southeast of Launch Site A and was observed on photography from  It is nearly identical to Launch Site A.

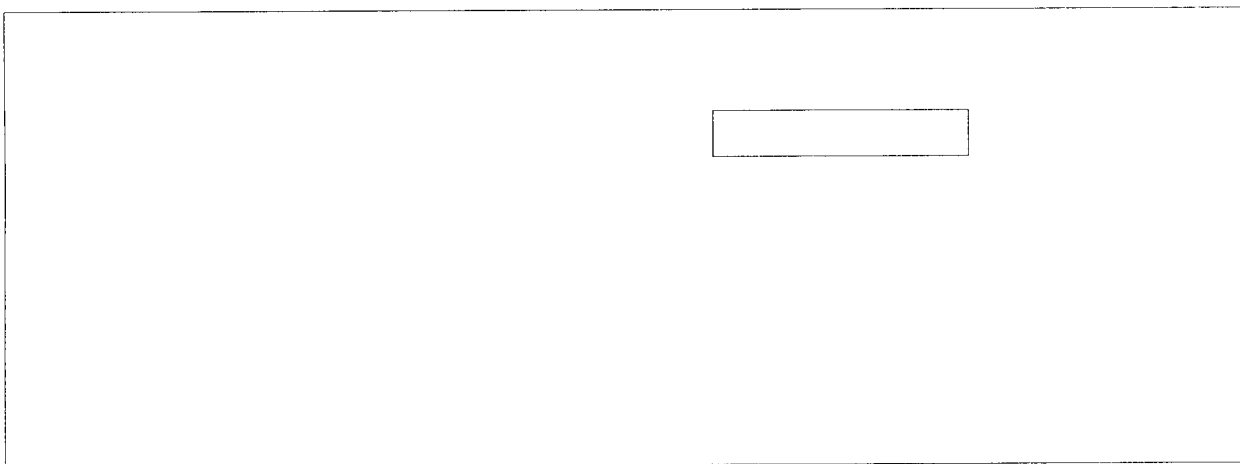
25X1

Launch Site C (Figure 4) is located 3.6 nm west-southwest of Launch Site A and is nearly identical to it in configuration, including the scars forming a cross behind the pads. It is in an early stage of construction.

The complex support facility (Figure 5) is located approximately 21 nm south-southeast of Tyumen' and just southwest of the village of Bogandinskaya. A spur extends south and then west from the Tyumen'-Ishim rail line for approximately 10 nm. Another spur turns south from this main rail spur into the complex support facility where it branches into three spurs. From west to east, these spurs are approximately 3,300, 2,800 and 2,700 feet long. The eastern spur has a 1,500-foot siding on its western side. The spurs, from west to east, are 310 and 360 feet apart. Two buildings measuring 190 by 50 feet are located in the spur area, but no rail-through buildings are present. The administration and housing area north of the spur area contains approximately 62 buildings, of which 22 are 190 by 40 feet and 25 are 45 feet square. The remainder is composed of several types of miscellaneous buildings.

A rail-to-road transfer point under construction was noted on photography of July/August 1962 

25X1



25X1

25X1

I-T-2

25X1

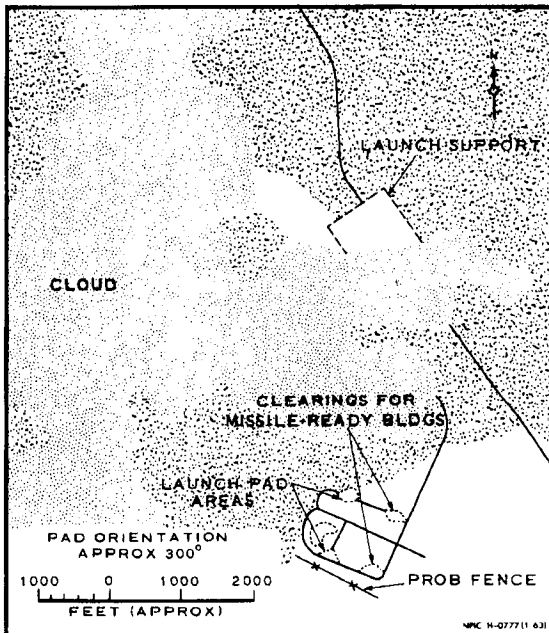
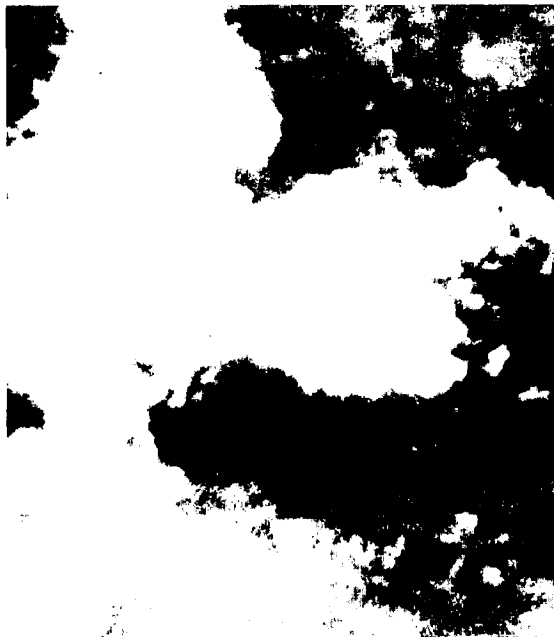


FIGURE 3. LAUNCH SITE B (May 1962)

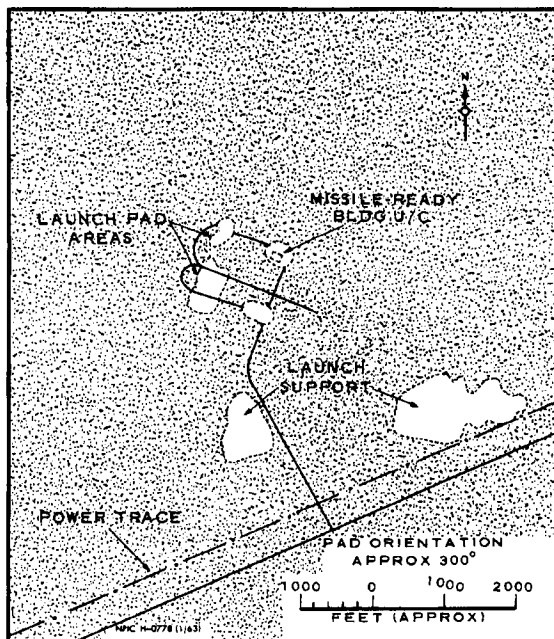


FIGURE 4. LAUNCH SITE C (May 1962)

25X1

I-T-2



FIGURE 5. COMPLEX SUPPORT FACILITY (May 62)

Air photographic surveys in the Tyumen' area have been noted since 1956, with the majority of the flights being carried out in 1958. Some of this activity may have been related to deployment of strategic missiles.

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
	Dec 61	TOP SECRET RUFF
	Feb - Mar 62	TOP SECRET RUFF
	Apr 62	TOP SECRET RUFF
	May - Jun 62	TOP SECRET RUFF
	Jun 62	TOP SECRET RUFF
	Jun - Jul 62	TOP SECRET RUFF
	Jul 62	TOP SECRET RUFF
	Jul - Aug 62	TOP SECRET RUFF

~~TOP SECRET DINAR CHESS RUFF~~

[Redacted]  
I-T-2

25X1

REFERENCES (Continued)

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0156-20A, 1st ed, Feb 59, scale 1:200,000  
(SECRET)

DOCUMENTS

25X1

[Redacted]

2. NSA. 3/0/RUA-AW/R74-62, 8 Aug 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

C02679002

V

~~TOP SECRET DINAR CHESS RUFF~~

11 Pages  
1 October 1962

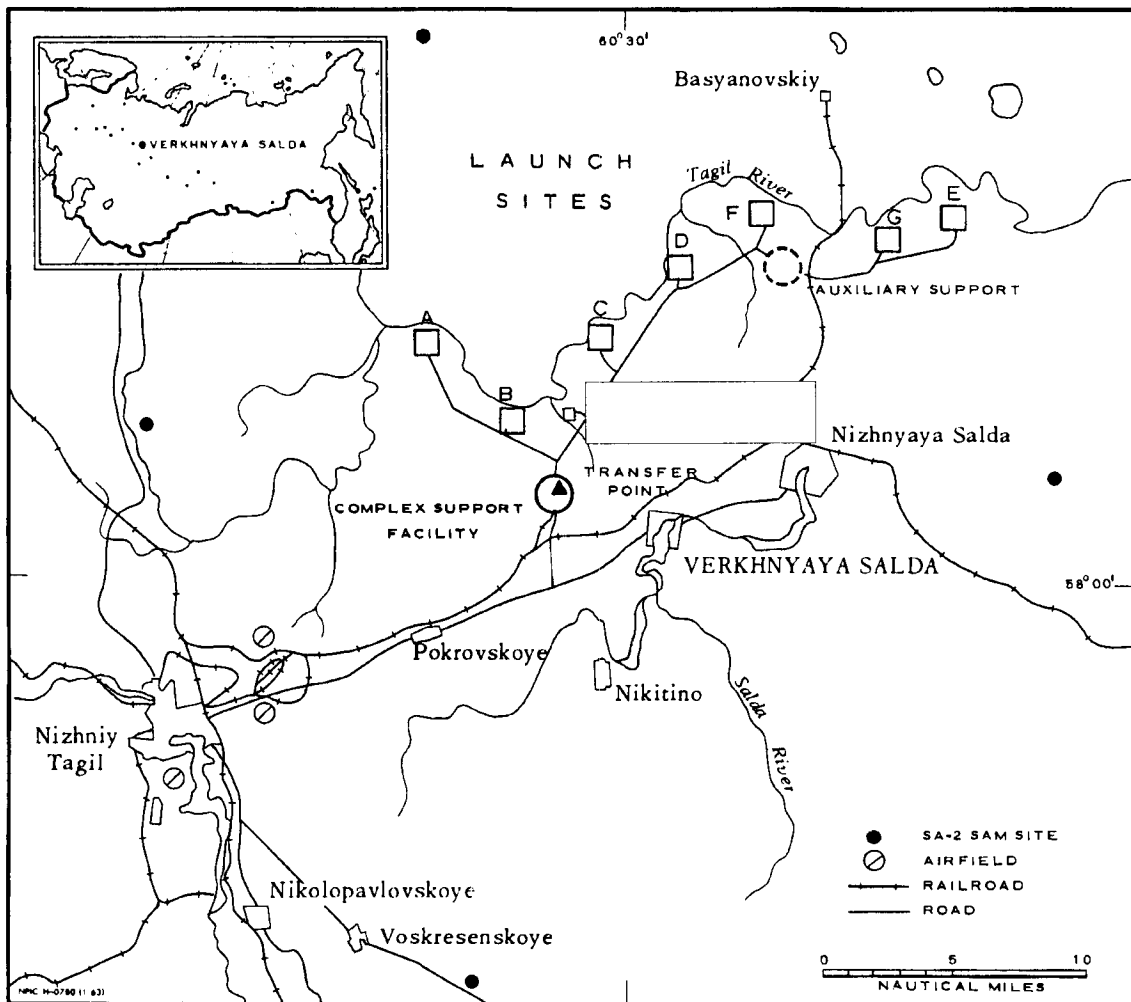
25X1

NAME: Verkhnyaya Salda

NO: I-V-1

LOCATION: Launch Site A (58-09N 60-16E)  
 Launch Site B (58-06N 60-22E)  
 Launch Site C (58-10N 60-28E)  
 Launch Site D (58-12N 60-34E)  
 Launch Site E (58-14N 60-54E)  
 Launch Site F (58-14N 60-41E)  
 Launch Site G (58-13N 60-49E)

25X1



25X1

FIGURE 1. LOCATION OF VERKHNYAYA SALDA ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-V-I

I. Conclusion

Verkhnyaya Salda is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

The ICBM launch complex is located in a forested area north of Verkhnyaya Salda. The complex consists of seven launch sites--two Type II (Mod a), three Type II (Mod b), and two Type III--a complex support facility with a rail-to-road transfer point, [REDACTED] (Figure 1).

25X1

The complex is situated in an area of heavy SAM defenses. However, only one SA-2 site, 19 nm east of the complex support facility, appears to be associated solely with the ICBM complex. There are four SA-2 sites around Nizhnyaya Tura and three around Nizniy Tagil which are used in defense of industrial complexes as well as the ICBM complex.

The first evidence of construction was seen on TALENT photography of July 1959 [REDACTED], which showed the start of the rail spur at a point 13 nm east-northeast of Nizhniy Tagil on the Nizhniy Tagil/Verkhnyaya Salda rail line. This spur now serves the complex support facility. KEYHOLE photography of July 1961 [REDACTED] shows the support facility and the main access road. The complex was identified in September 1961 [REDACTED] when Launch Sites A and B were observed.

The present status of construction as of the most recent coverage of the individual launch sites is as follows: Launch Sites A, B, C, and D, complete, July/August 1962 [REDACTED]; Launch Site E, mid stage, June/July 1962 [REDACTED]; and Launch Sites F and G, under construction, June/July 1962 [REDACTED]

Launch Site A (Figure 2) has a Type II (Mod b) configuration and is double fenced. The access road through the site is offset to the

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

I-V-1

25X1

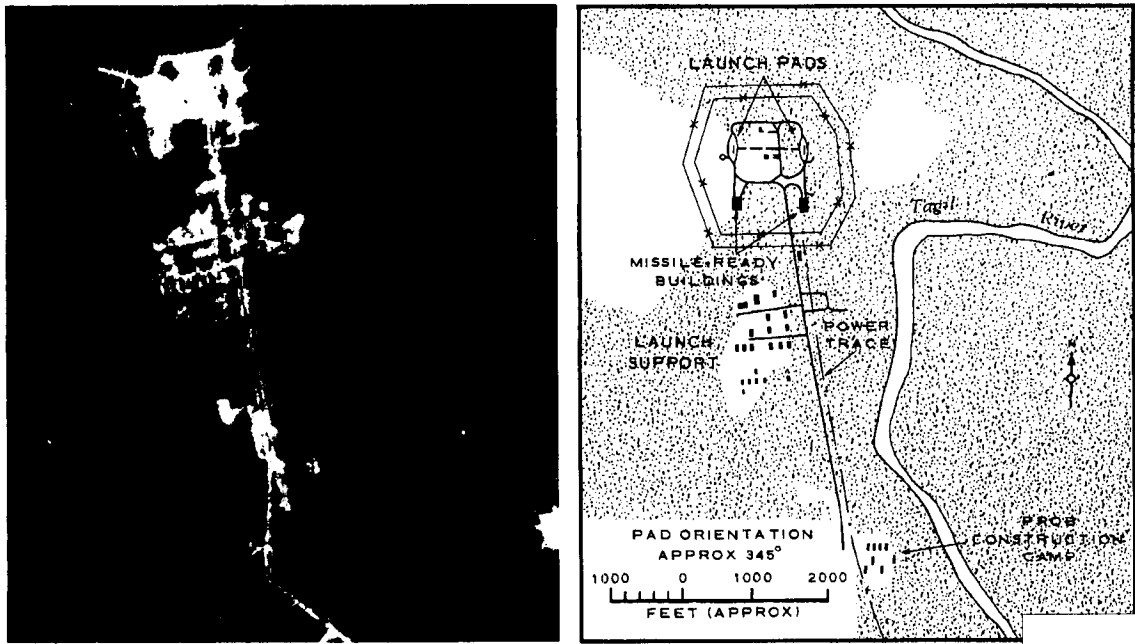


FIGURE 2. LAUNCH SITE A (July 1962)

25X1

right. A probable control bunker (95 by 90 feet) is located to the left of the access road and is equidistant from the launch pads. One other small structure is located at the forward end of the launch site. The long axis of the pad is oriented on an azimuth of 345 degrees,  $\pm$  5 degrees.

The launch support area, located about 2,500 feet south of the launch site, contains approximately 14 buildings varying in length from 140 to 115 feet. To the rear of the support area along the access road is an area containing several buildings, probably a construction camp for the launch site.

Launch Site B (Figure 3) has a Type II (Mod a) configuration and is double fenced. The access road between the launch pads is slightly offset to the left, and two small buildings are situated to the right of this road. Another building, 100 by 45 feet, is located at the forward end of the launch site to the right of the center road. Just forward of the left missile-ready building is a road which leads to the left and

- 3 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-V-I

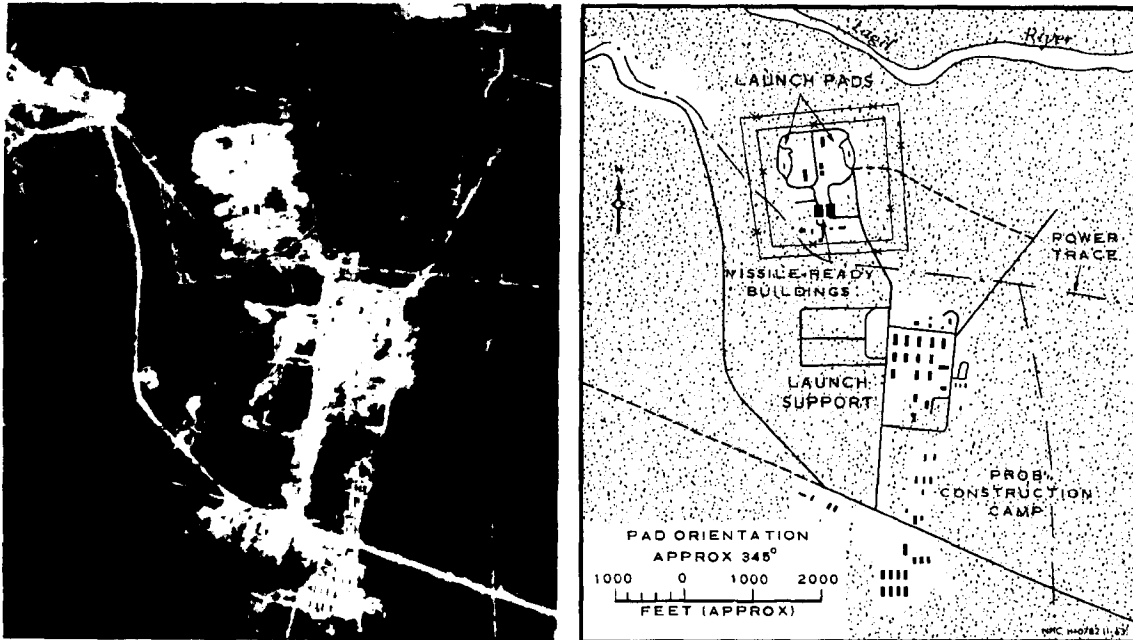


FIGURE 3. LAUNCH SITE B (June 1962)

terminates at a clearing directly to the rear of the left launch pad containing a small unidentified structure. The long axis of the launch pad is oriented on an azimuth of 345 degrees,  $\pm 5$  degrees.

The launch support area, located between the complex main road and the launch site, contains 15 buildings 140 feet in length and 10 smaller buildings. There is a possible earth-covered building on the eastern edge of the support area. A probable construction camp, located to the rear of the support area, contains approximately 25 buildings and some open storage.

Launch Site C (Figure 4) has a Type II (Mod a) configuration and is identical to Launch Site B.

The launch support area, located 3,000 feet south of the launch site, contains 14 buildings 140 by 40 feet and at least 14 smaller buildings. A probable construction camp with approximately 15 buildings is located near the intersection of the complex main road and the access road to the launch site.

- 4 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-V-I

25X1

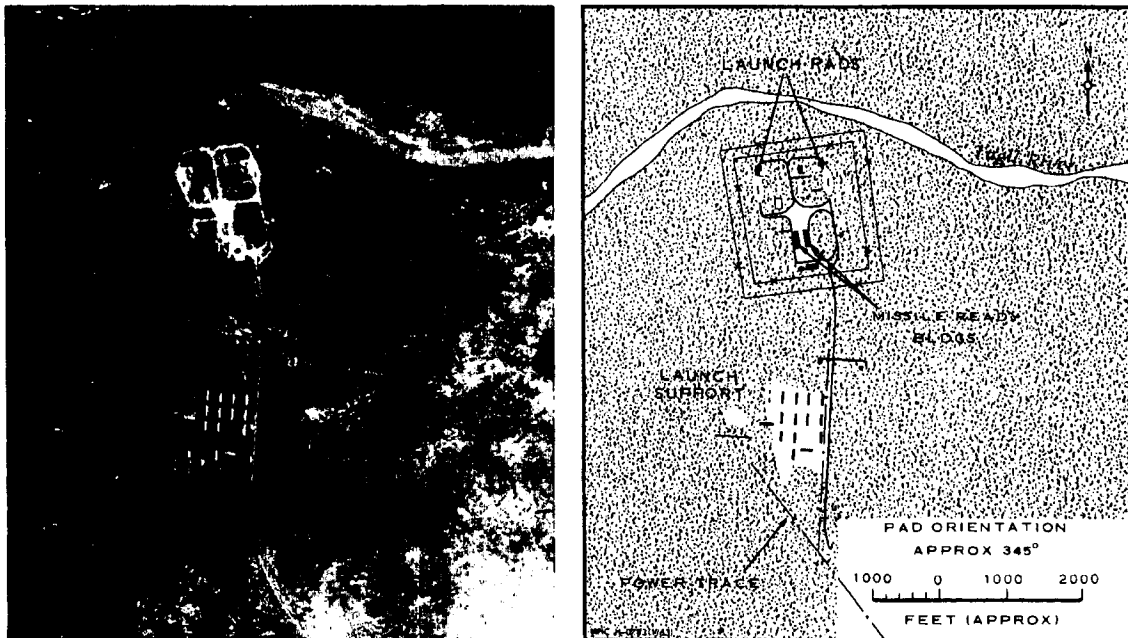


FIGURE 4. LAUNCH SITE C (April 1962)

25X1 Launch Sites D and E (Figures 5 and 6) have Type II (Mod b) configurations and are very similar to Launch Site A. Although only the missile-ready building behind the left launch pad at Site D was apparent on [redacted] the launch site otherwise appeared complete. At that time only a small structure was apparent behind the right pad. [redacted] 25X1

25X1 [redacted] the structure appeared larger and the second ready building may now be complete. Site E is in the mid stage of construction and has only one ready building.

The launch support area for Site D is adjacent to and east of the site and contains approximately 25 buildings. The support area for Site E is 4,000 feet west of the launch site and contains approximately 20 buildings. These buildings are comparable to those at other support areas.

Launch Sites F and G (Figures 7 and 8) have Type III configurations. They were first observed in February 1962 [redacted], but the quality of the photography precluded a detailed interpretation.

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-V-I

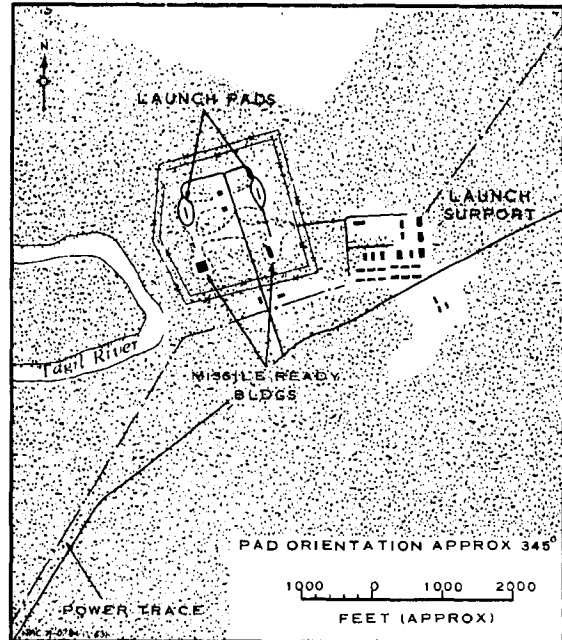
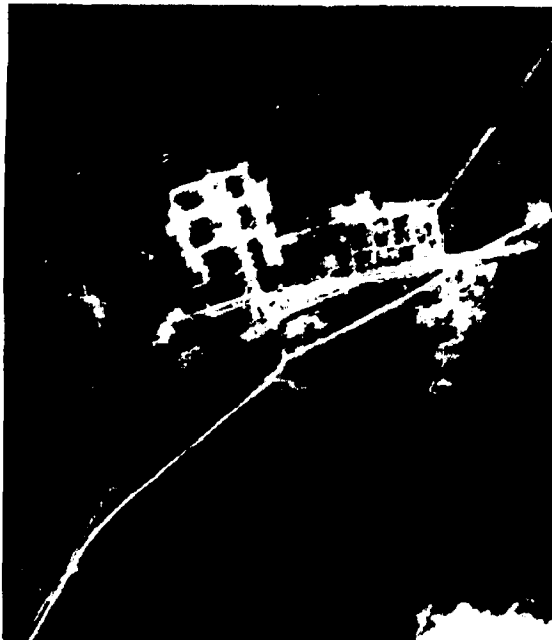


FIGURE 5. LAUNCH SITE D (June 1962)

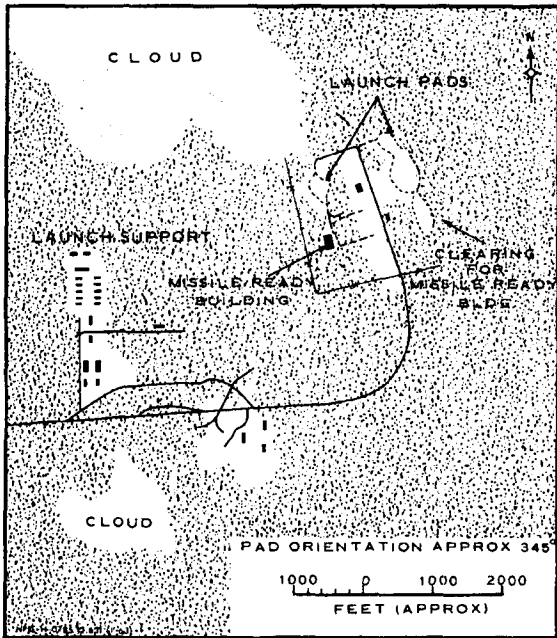


FIGURE 6. LAUNCH SITE E (May 1962)

~~TOP SECRET DINAR CHESS RUFF~~

I-V-1

25X1

In April 1962 [ ] some backfilling was evident at Site F. A probable control bunker about 210 by 85 feet was observed in the notch portion of the excavation. A wall near the center of the excavation and parallel to the long axis measures approximately 300 by 10 feet. Two structures located within the deepest portion of the excavation are 200 feet from center to center. Two indistinct circular objects, possibly foundations, appear at the outer ends of the two structures. A third possible foundation is located between the two structures. In May 1960 [ ]

25X1

[ ] the backfilling was complete, but the top of the wall and the structures were still evident.

25X1

Launch Site G is under construction, and photography from June 1962

[ ] revealed the notch portion of the excavation.

Both Sites F and G are served by road from the complex main road. A power trace from Site D enters Site F and appears to terminate at a small structure northwest of the control bunker.

A launch support area for Site F is located midway between the launch site and the complex main road and west of the access road. It consists of 6 multistory buildings 135 by 60 feet, 2 warehouse buildings 130 by 160 feet, 12 barracks buildings, and several smaller structures. No local support is apparent at Launch Site G.

The large complex support facility (58-02N 60-23E) is 5 nm west of Verkhnyaya Salda and serves as a housing area, construction camp, logistical support area, and rail-to-road transfer point (Figure 8). It encompasses an area approximately 1.5 by 7.7 nm and contains about 240 buildings and structures. A road leads from the Nizhny Tagil/Verkhnyaya Salda highway through the support facility to the launch sites. The support facility is served by a rail spur that branches from the Nizhny Tagil/Verkhnyaya Salda rail line at a point 13 nm east of Nizhny Tagil.

A multistory apartment-type housing unit of 17 buildings 220 by 40 feet is located at the southern end of the support facility. Five smaller structures neatly arranged in a U-shaped pattern are probably apart-

- 7 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-V-1

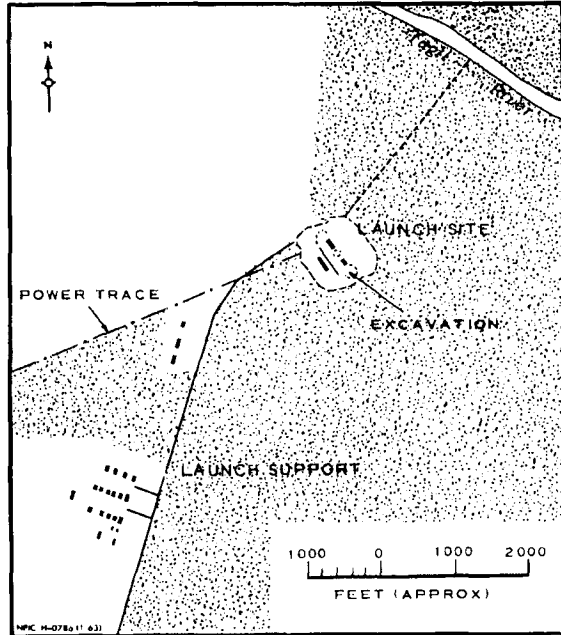


FIGURE 7. LAUNCH SITE F (June 1962)

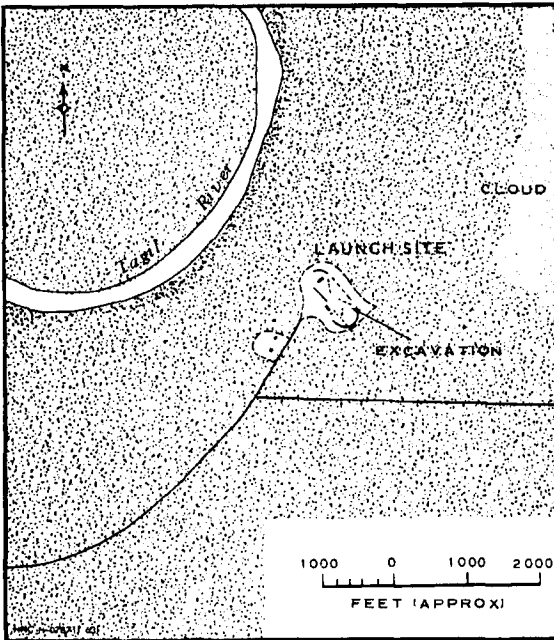


FIGURE 8. LAUNCH SITE G (June 1962)

~~TOP SECRET DINAR CHESS RUFF~~

I-V-I

25X1

ment-type buildings. A probable family-type housing unit of 24 small buildings is located on the west side of the area. A barracks area with about 90 small structures and 9 multistory barracks 130 by 140 feet occupies the west half of the support area. Several other miscellaneous buildings of various sizes are situated throughout this area. At least two and probably four rail spurs branch from the main spur into an area east of the barracks area. Thirteen large warehouses are located along the rail spur, with 12 to 15 smaller structures nearby. The westernmost rail spur continues to an area of a probable construction camp. Four long structures or piles of material are near the rail spur, along with a probable concrete batching plant. Open storage of material is evident throughout this area.

Along the eastern side of the complex main road is an area of activity with an irregular road net, 15 to 20 small structures, and 3 probable warehouses, one of which may be drive-through.

The rail-to-road transfer point is located at the northern end of the support facility. The main rail spur enters this area and then terminates on a fill. A siding off the main spur appears to curve around two small structures. Paralleling the rail spur is a road with a Y intersection that joins the complex main road at one end and has a loop at the other end. The total length of the road, including the loop, is 3,100 feet. The turning radius of the loop is approximately 145 feet. A light-toned area is evident on one side of the loop indicating an apron or loading facility, possibly to an underground or bunkered facility. From 12 to 15 structures are positioned near the road.

complex main road and consists of a support area and a secured storage area. The support area consists of 10 buildings 140 to 160 feet in length and about 6 small buildings. A double fence 1,400 by 900 feet encloses the storage area. Within this area is a checkout building 175 feet long with a drive-through capability. Two smaller buildings, probably con-

25X1

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-V-1



FIGURE 9. COMPLEX SUPPORT FACILITY (April 1962)

struction sheds, also are located within the site. Track activity and scarring indicate that additional construction activity is underway. Two foundations or excavations evident on [ ] indicate the construction of a possible cruciform building.

Between Launch Sites F and G, is an auxiliary support facility which probably serves as a forward construction camp for the launch complex, handling materials shipped by rail for transfer to construction sites. The complex main road passes through the area, which is also served by rail from the line serving the peat cuttings around the village of Basyanorskiy. The spur line branches into two spurs within the installation.

The primary activity here is concentrated in an area of about 600 by 3,500 feet that parallels the complex main road along its north side. Open storage of material is evident throughout the area. One of the two buildings located in this area is 325 by 65 feet and is adjacent

- 10 -

~~TOP SECRET DINAR CHESS RUFF~~



~~TOP SECRET DINAR CHESS RUFF~~

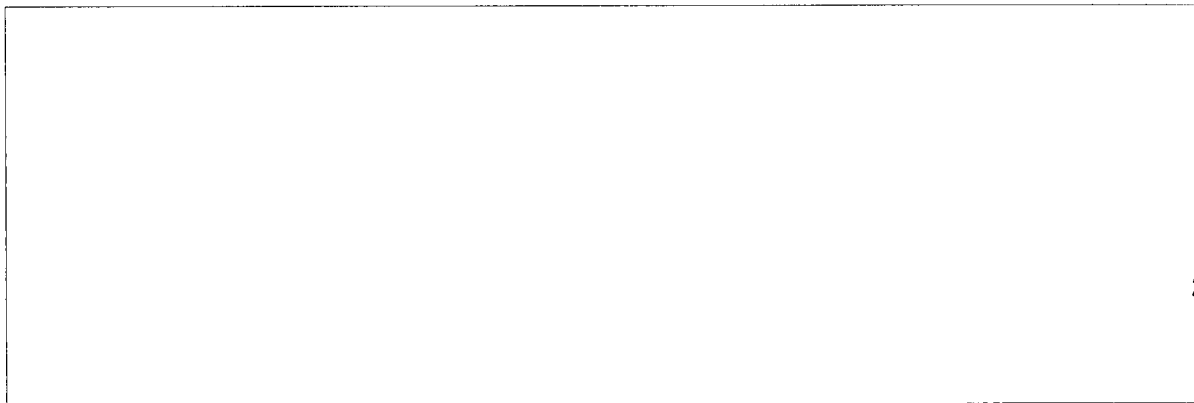
[Redacted] I-V-1

25X1

to a probable concrete batching plant. The other building is a warehouse building 155 by 70 feet near the terminus of the northern rail spur.

South of the complex main road is a housing area containing 8 multistory quarters 140 by 40 feet, 10 smaller barracks buildings, 9 probable multifamily dwellings, and several small miscellaneous structures.

25X1



25X1

25X1

REFERENCES

Mission	Date	Classification
[Redacted]	[Redacted] Jul 61	TOP SECRET RUFF
[Redacted]	[Redacted] Sep 61	TOP SECRET RUFF
[Redacted]	[Redacted] Feb [Redacted] Mar 62	TOP SECRET RUFF
[Redacted]	[Redacted] Apr 62	TOP SECRET RUFF
[Redacted]	[Redacted] May [Redacted] Jun 62	TOP SECRET RUFF
[Redacted]	[Redacted] Jun - [Redacted] Jul 62	TOP SECRET RUFF
[Redacted]	[Redacted] Jul [Redacted] Aug 62	TOP SECRET RUFF
[Redacted]	[Redacted] Aug 62	TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0156-13A, 2d ed, Oct 59, scale 1:200,000 (SECRET)

DOCUMENTS

- NSA. 3/0/RUA-AW/R16-62, 22 Mar 62 (TOP SECRET DINAR)
- NSA. 3/0/RUA-AW/R17-62, 30 Mar 62 (TOP SECRET DINAR)
- NSA. 3/0/RUA-AW/R56-62, 22 Jun 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

C02679002

Y

~~TOP SECRET DINAR CHESS RUFF~~

7 Pages  
1 October 1962

25X1

NAME: Yedrovo

NO: I-Y-1

LOCATION: Launch Site A (57-48N 33-36E)

25X1

Launch Site B (57-48N 33-14E)

Probable Launch Site C (57-49N 33-08E)

25X1

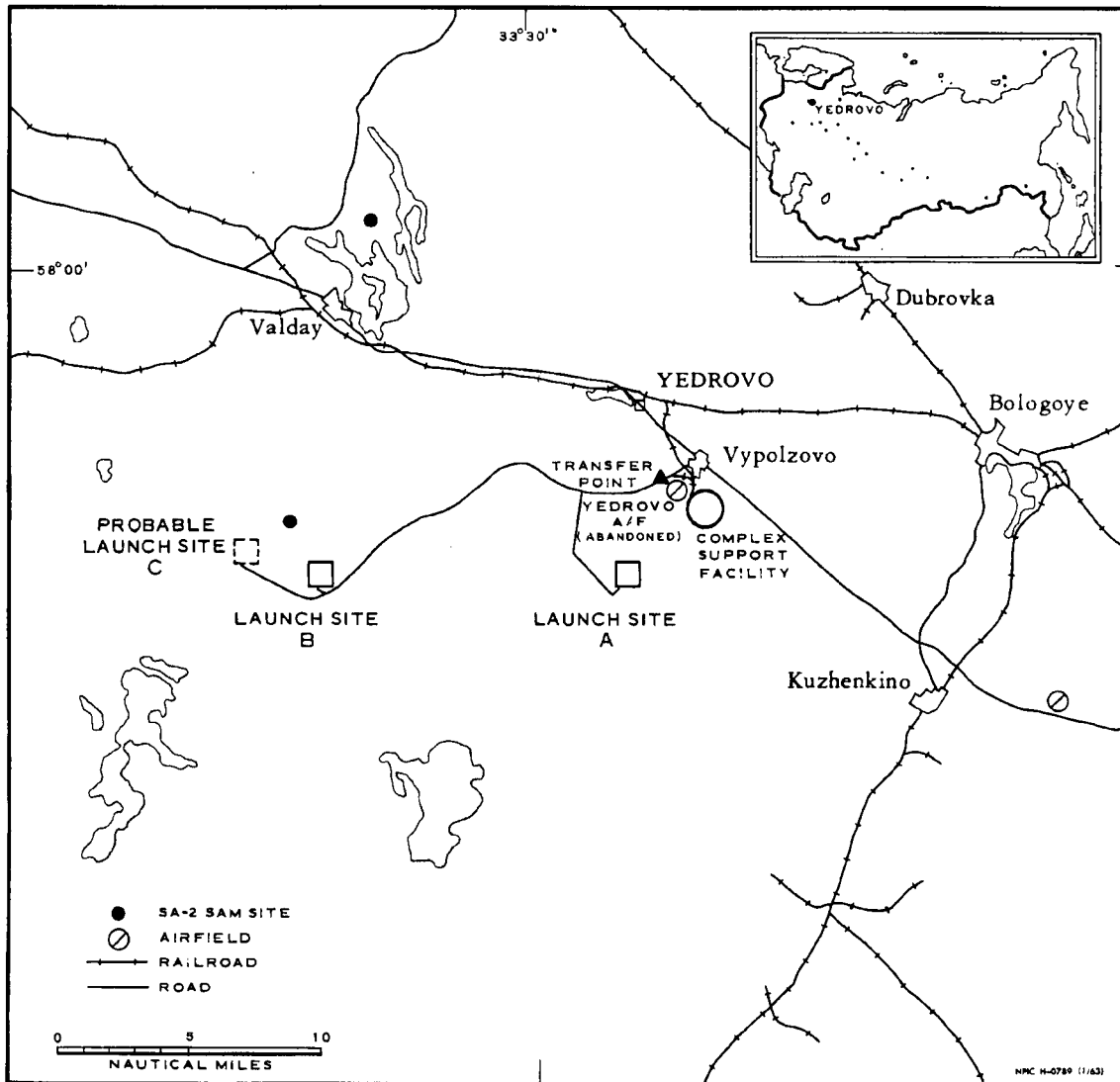


FIGURE 1. LOCATION OF YEDROVO ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-Y-I

I. Conclusion

Yedrovo is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

An ICBM launch complex, which apparently makes some use of existing facilities at the old Yedrovo Airfield, has been observed in a wooded area generally southwest of the town of Yedrovo (Figure 1). The complex, located about 95 nm northwest of Kalinin, consists of a support facility, a transfer point, Launch Sites A and B, and Probable Launch Site C. An unidentified fence area served by the complex main road may also be a part of the complex. Orientation of the long axis of the launch sites is 290 degrees,  $\pm 5$  degrees.

A spur from the Bologoye-Novgorod rail line serves the complex. Existing roads run through the complex area, but apparently a complex main road was constructed from the support facility to the launch sites.

The complex was first identified on photography of April 1962  which was from an ascending pass and very small scale. There is no previous usable KEYHOLE photography over the area. The Yedrovo Airfield appeared on German World War II photography. At that time, numerous buildings were present. In July 1956 a TALENT mission showed some of these same buildings in a state of disrepair. Since 1956, these buildings have been repaired and apparently are now a part of the support facility. The area was again covered by photography of May-June 1962  and the complex was covered at the beginning of an ascending pass which provided small-scale, nonstereoscopic cover.

The scale of available photography is too small to permit a detailed study of the launch sites. The exact number, dimensions, and details of buildings are not obtainable from this photography. SAM defense

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~[REDACTED]  
I-Y-1

25X1

in this area consists of a ring of four SA-2 sites around Valday, located 15 nm west-northwest of the complex support facility. One of the sites is 2.5 nm northwest of Launch Site B.

Launch Site A (Figure 2) is approximately 4.5 nm south-southeast of the transfer point. The launch-site signature, Type II (Mod b), is vague on photography of April 1962 [REDACTED] but is more apparent on photography of May-June 1962 [REDACTED]. No buildings can be positively identified at the launch site, which is in an undetermined stage of construction.

Southeast of the launch site is a group of at least five buildings. Southwest of the launch site is another group of about eight buildings, which probably constitute the launch support area.

Launch Site B (Figure 3) is about 14 nm west-southwest of the transfer point. The general pattern of a Type II (Mod b) launch site can be identified, but the construction status of the site cannot be determined. The launch support area south-southeast of the launch site along the access road, contains about 11 buildings.

Probable Launch Site C is located about 3.5 nm west-northwest of Launch Site B and is an undetermined state of construction. There is no launch site pattern visible. The complex main road terminates in a clearing that shows evidence of activity, but no buildings can be identified. Quality precludes reproduction of photography and the preparation of a usable line drawing. An unidentified fenced area is located 6.5 nm west of the transfer point and has direct access to the complex main road. Within the fence is an irregular-shaped clearing containing one building. What may be a support area lies 5 nm northwest of the fenced area along the access road.

The complex support facility is located at the abandoned Yedrovo Airfield at 57-51N33-41E (Figure 4). The same rail spur and support buildings that existed during World War II are still present and appear to be a part of the support facility. The most significant addition to the existing facilities is the two or three rail spurs that comprise the construction

- 3 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-Y-I

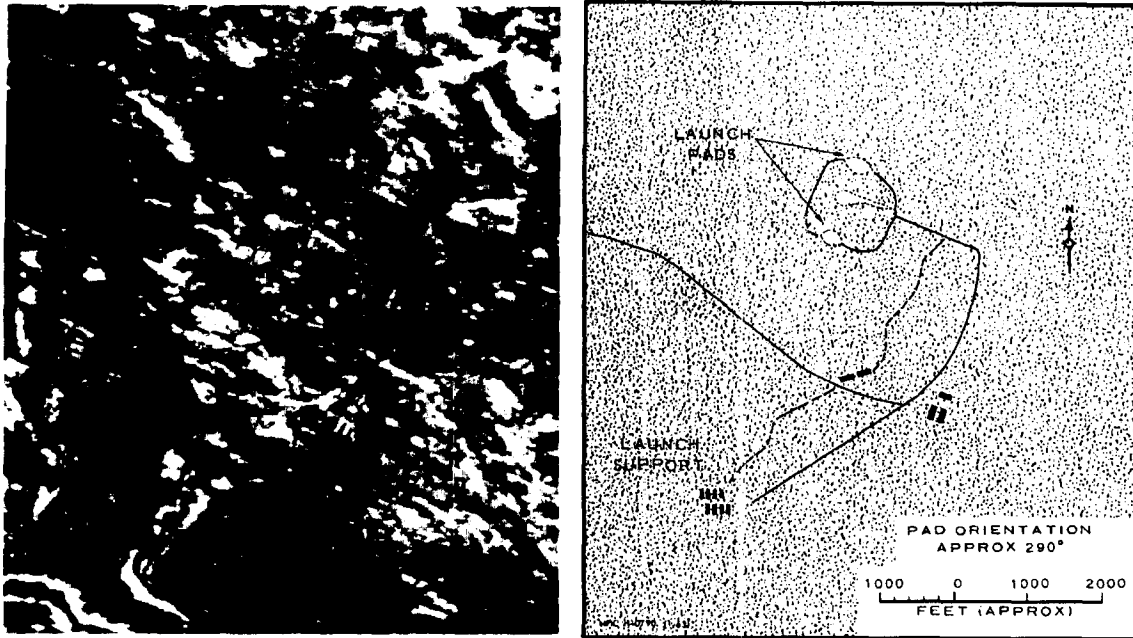


FIGURE 2. LAUNCH SITE A (April 1962)

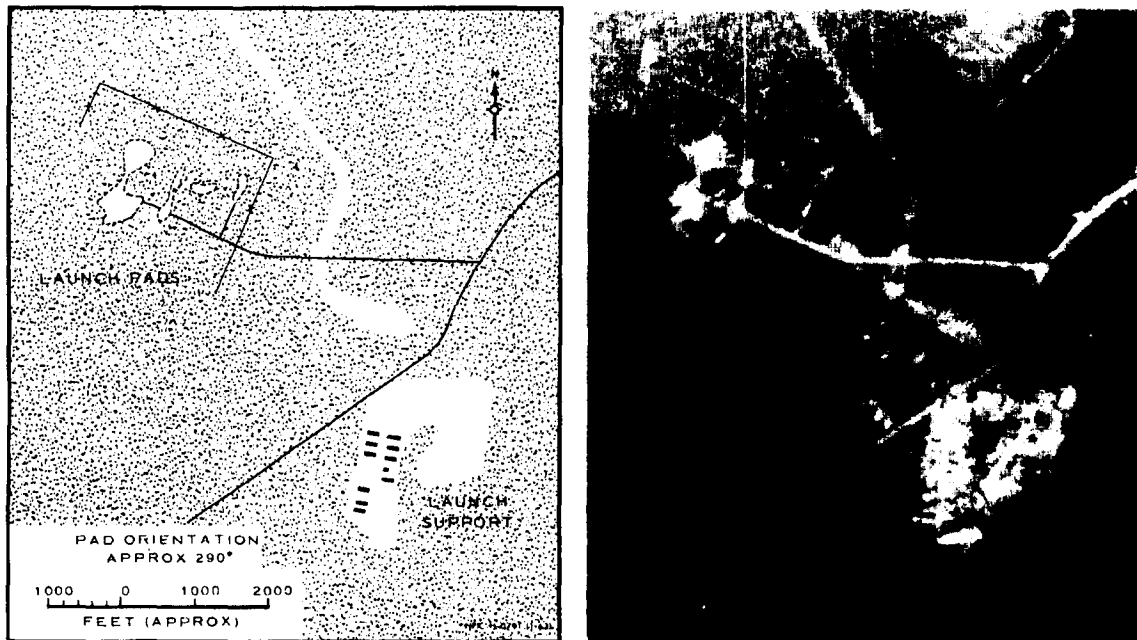


FIGURE 3. LAUNCH SITE B (July 1962)

~~TOP SECRET DINAR CHESS RUFF~~

I-Y-I

25X1



FIGURE 4. COMPLEX SUPPORT FACILITY (April 1962)

support section. This section contains about 12 to 15 buildings of various sizes, a possible concrete batching plant, and open storage of materials. On the southeast side of the construction support section is an additional rail spur serving an area partially enclosed by a fence and containing a large hangar-type building, four long, narrow buildings, and at least 12 smaller buildings. This is the first time such a feature has been observed at an ICBM complex support facility. However, these structures may have been an existing feature of the airfield because the hangar-type building, one of the long buildings, and three of the smaller buildings were present on the 1942-45 photography. TALENT photography of July 1956 was cloud covered over this part of the support area, making it impossible to determine the status of this particular area at that time. On the north of the construction support section is an unidentified, rail-served area containing six structures. This area does not appear to be fenced.

- 5 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1

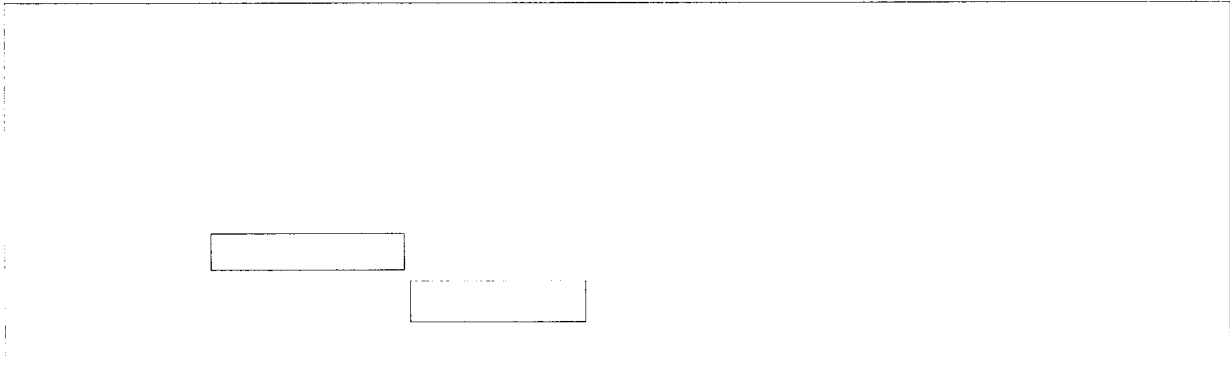


I-Y-1

The administrative and housing section of the complex support facility is located 0.8 nm northeast of the construction support section. It contains between 75 and 100 buildings. Many of the buildings in this area were in a state of disrepair in 1956 but have been reconstructed since that time. Cloud cover on the 1956 photography makes it impossible to determine the number of buildings present at that time.

A rail-to-road transfer point is located 57-52N 33-39E (Figure 4). This is across the airfield from the construction support section. The facility is situated at a higher elevation than the airfield. The only recognizable components of a transfer point are the rail spur and a road leading out to the launch areas. One large and about six small buildings are in the area.

25X1



25X1

25X1

— • —



~~TOP SECRET DINAR CHESS RUFF~~

I-Y-1

25X1

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
[ ]	Jul 56	TOP SECRET CHESS
	Apr 62	TOP SECRET RUFF
	May Jun 62	TOP SECRET RUFF
	Jun Jul 62	TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0154-11A, 1st ed, Nov 58, scale 1:200,000 (SECRET)

DOCUMENTS

NSA. 3/0/RUA-AW/R56-62, 22 Jun 62 (TOP SECRET DINAR)

NSA. 3/0/RUA-AW/R62-62, 19 Jul 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

7 Pages  
1 October 1962

25X1

NAME: Yoshkar-Ola

NO: I-Y-2

LOCATION: Launch Site A (56-35N 48-10E)  
Launch Site B (56-35N 48-18E)  
Launch Site C (56-32N 48-26E)  
Launch Site D (56-30N 48-29E)

25X1

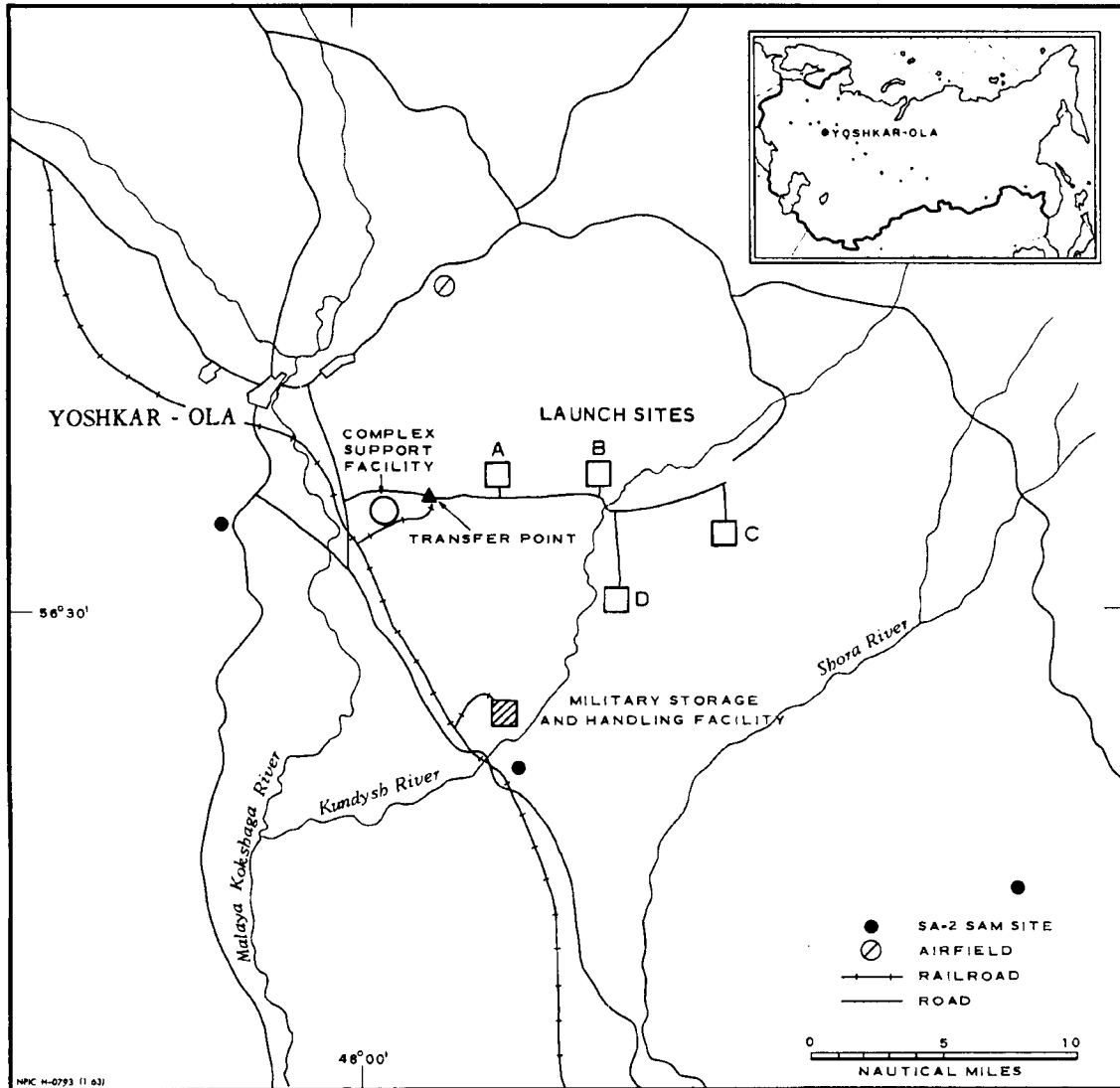


FIGURE 1. LOCATION OF YOSHKAR-OLA ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-Y-2

I. Conclusion

Yoshkar-Ola is a confirmed ICBM complex.

II. BackgroundA. Photographic Evidence

25X1

An ICBM complex, first identified on photography of June 1961 [ ] is located in a heavily wooded area east-southeast of Yoshkar-Ola (Figure 1). It consists of four Type II (Mod b) sites, a complex support facility and a rail-to-road transfer point. Rail service is provided by a spur line from the Yoshkar-Ola/Kazan rail line. All four sites are oriented on an azimuth of 335 degrees,  $\pm 5$  degrees. There is a clearing within the fenced area at Launch Site B and another outside the fence northwest of Launch Site C. These clearings are approximately 400 feet long and are parallel to the long azimuth of the launch pads. A similar clearing is present between the launch site and support area at Site A.

Launch Site A (Figure 2), first observed on photography of June 1961, is located about 4 nm east of the complex support facility. The site is complete and a missile-ready building is located behind each pad, the more westerly building being canted. There are at least eight buildings in the launch support area. An additional building area is located south of the complex main road opposite the launch support area.

Launch Site B (Figure 3), first observed on photography of October 1961, is located about 3.5 nm east of Launch Site A and about 10 nm by road from the transfer point. This site is in a late stage of construction. At least one structure can be identified along the center road at a point between the pads.

A missile-ready building is located to the rear of the more westerly pad. It is canted to the launch pad but no measurement can be made.

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

I-Y-2

25X1

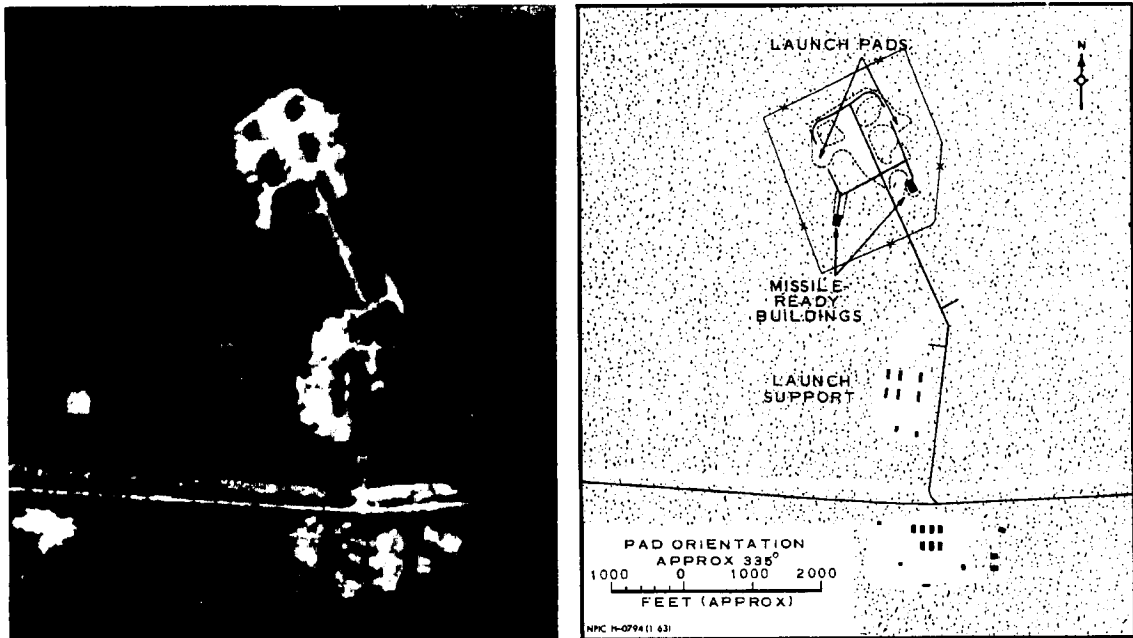


FIGURE 2. LAUNCH SITE A (June 1962)

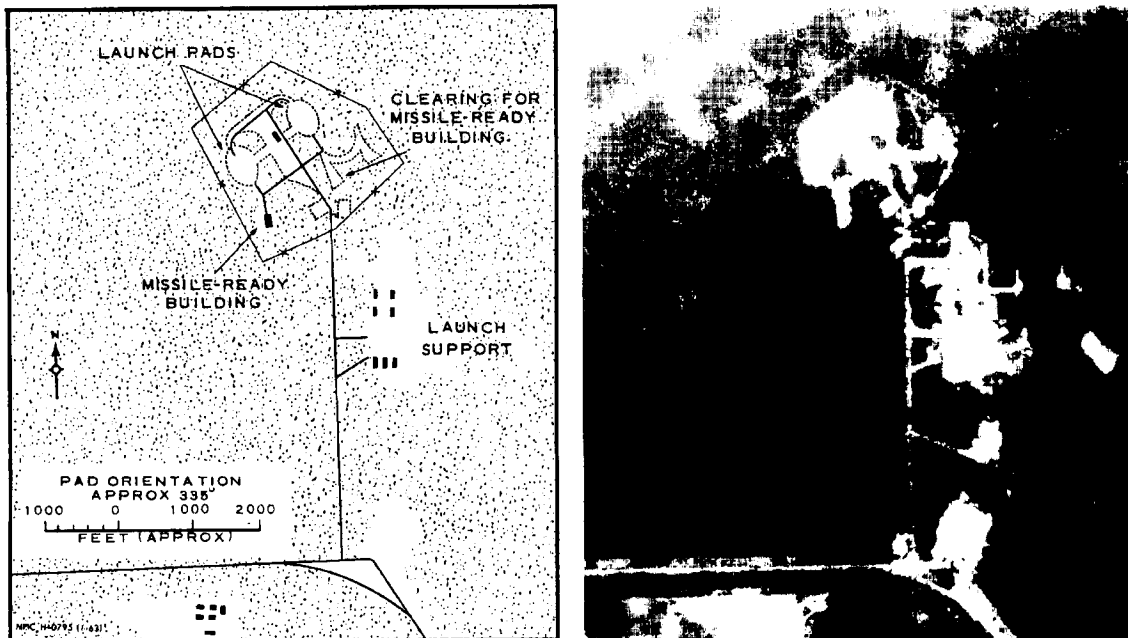


FIGURE 3. LAUNCH SITE B (June 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[REDACTED]  
I-Y-2

A clearing for a missile-ready building is located to the rear of and in alignment with the second pad. At least seven buildings are located in the area along the eastern side of the access road that was previously reported as a rectangular road pattern. These buildings, plus an undetermined number of buildings south of the complex main road, comprise the launch support area.

Launch Site C (Figure 4) was first identified in April 1962. The only indication of Launch Site C on photography of October 1961 was the extension of the complex main road beyond Launch Site B. The site is about 17 nm by road from the transfer point and is in a mid stage of construction. A missile-ready building is located to the rear of the west pad and canted to it. There is no counterpart behind the pad to the east. At least one building or structure is observed along the center road. The launch support area east of the site contains at least ten buildings.

Launch Site D (Figure 5) was first observed on photography of September 1962. It is located 4.5 nm south of Site B and 12 nm by road from the transfer point.

The site is in an early stage of construction. The entire site pattern is present except for the clearing for the right missile-ready building. Indications of this site were present on photography of June 1962 when the access road and launch support area appeared.

The launch support area is about 3,000 feet north of the launch site and is obscured by clouds on photography of August-September 1962. The June 1962 photography revealed the road pattern and about 8 buildings on the west of the access road and 3 on the east side.

The complex support facility (56-34N 48-03E) (Figure 6) and rail-to-road transfer point were identified on [REDACTED] although little change is noted since October 1961, [REDACTED].

25X1

The Yoshkar-Ola ICBM complex is defended by four SA-2 SAM sites at 56-23N 48-14E, 56-33N 47-50E, 56-44N 48-46E, and 56-19N 48-46E.

- 4 -

~~TOP SECRET DINAR CHESS RUFF~~

I-Y-2

25X1

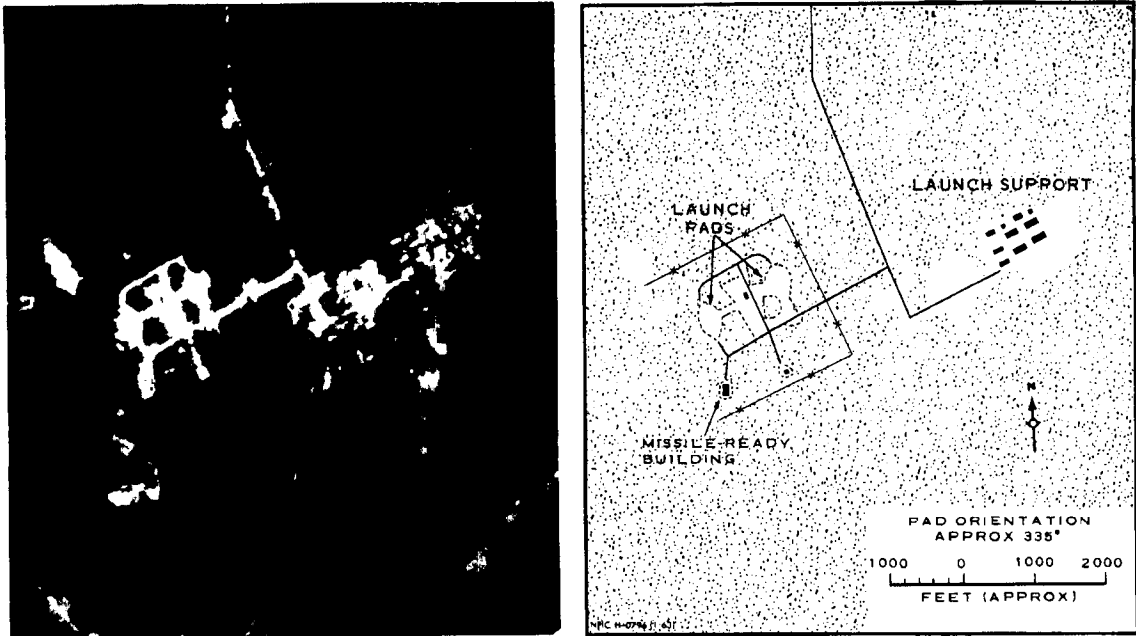


FIGURE 4. LAUNCH SITE C (June 1962)

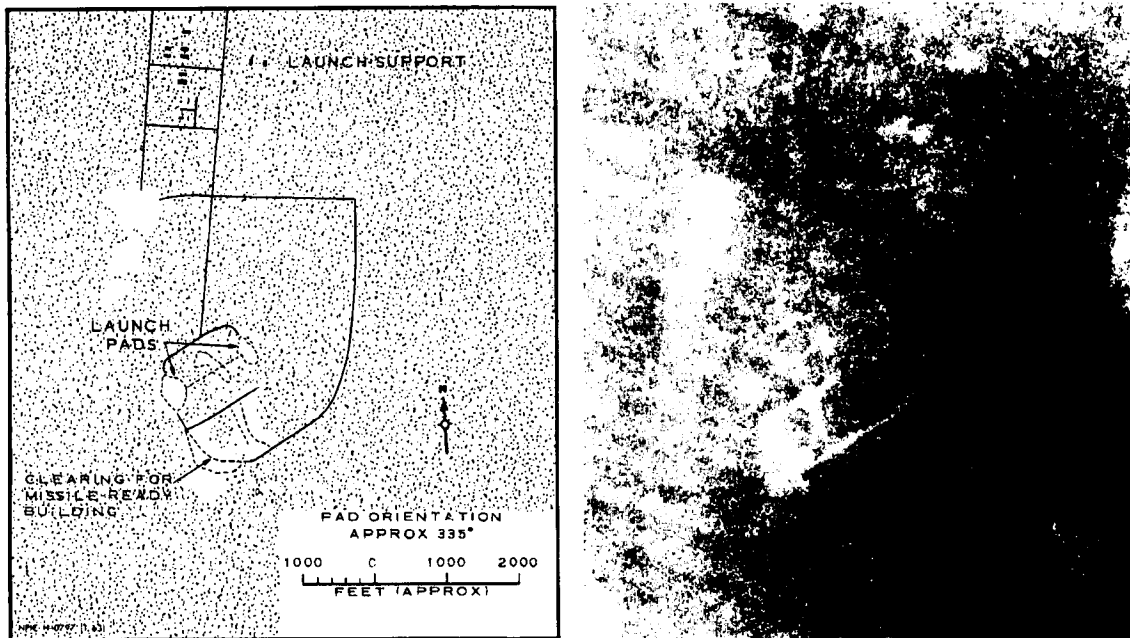


FIGURE 5. LAUNCH SITE D (September 1962)

~~TOP SECRET DINAR CHESS RUFF~~

25X1

[Redacted]

I-Y-2



FIGURE 6. COMPLEX SUPPORT FACILITY (June 1962).

25X1

Most of the photographic coverage of Yoshkar-Ola has been only fair quality due primarily to weather conditions.

25X1



25X1

25X1

[Redacted]

25X1

25X1

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

[Redacted] I-Y-Z

25X1

[Large Redacted Area]

25X1

25X1

25X1

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
[Redacted]	[Redacted] Jun 61	TOP SECRET RUFF
[Redacted]	[Redacted] Sep 61	TOP SECRET RUFF
[Redacted]	[Redacted] Oct 61	TOP SECRET RUFF
[Redacted]	[Redacted] Apr 62	TOP SECRET RUFF
[Redacted]	[Redacted] May - [Redacted] Jun 62	TOP SECRET RUFF
[Redacted]	[Redacted] Jun 62	TOP SECRET RUFF
[Redacted]	[Redacted] Jun - [Redacted] Jul 62	TOP SECRET RUFF
[Redacted]	[Redacted] Aug - [Redacted] Sep 62	TOP SECRET RUFF

MAPS OR CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0155-22A, 1st ed, Oct 59, scale 1:200,000 (SECRET)

DOCUMENTS

25X1

- [Redacted]
- NSA. 3/0/RUGM/R349-61, 25 Aug 61 (TOP SECRET DINAR)
- NSA. 3/0/RUJ/R15-62, 20 Jan 62 (TOP SECRET DINAR)
- [Redacted]
- NSA. 3/0/RUA-AW/R61-62, No Date (TOP SECRET DINAR)

25X1

~~TOP SECRET DINAR CHESS RUFF~~

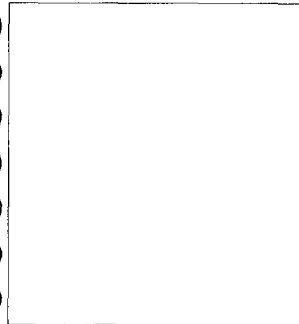


25X1  
13 Pages  
1 October 1962

NAME: Yur'ya

NO: I-Y-3

LOCATION: Launch Site A (59-09N 49-33E)  
Launch Site B (59-08N 49-41E)  
Launch Site C (59-12N 49-28E)  
Launch Site D (59-15N 49-24E)  
Launch Site E (59-22N 49-17E)  
Launch Site F (59-21N 49-13E)  
Launch Site G (59-04N 49-52E)



25X1

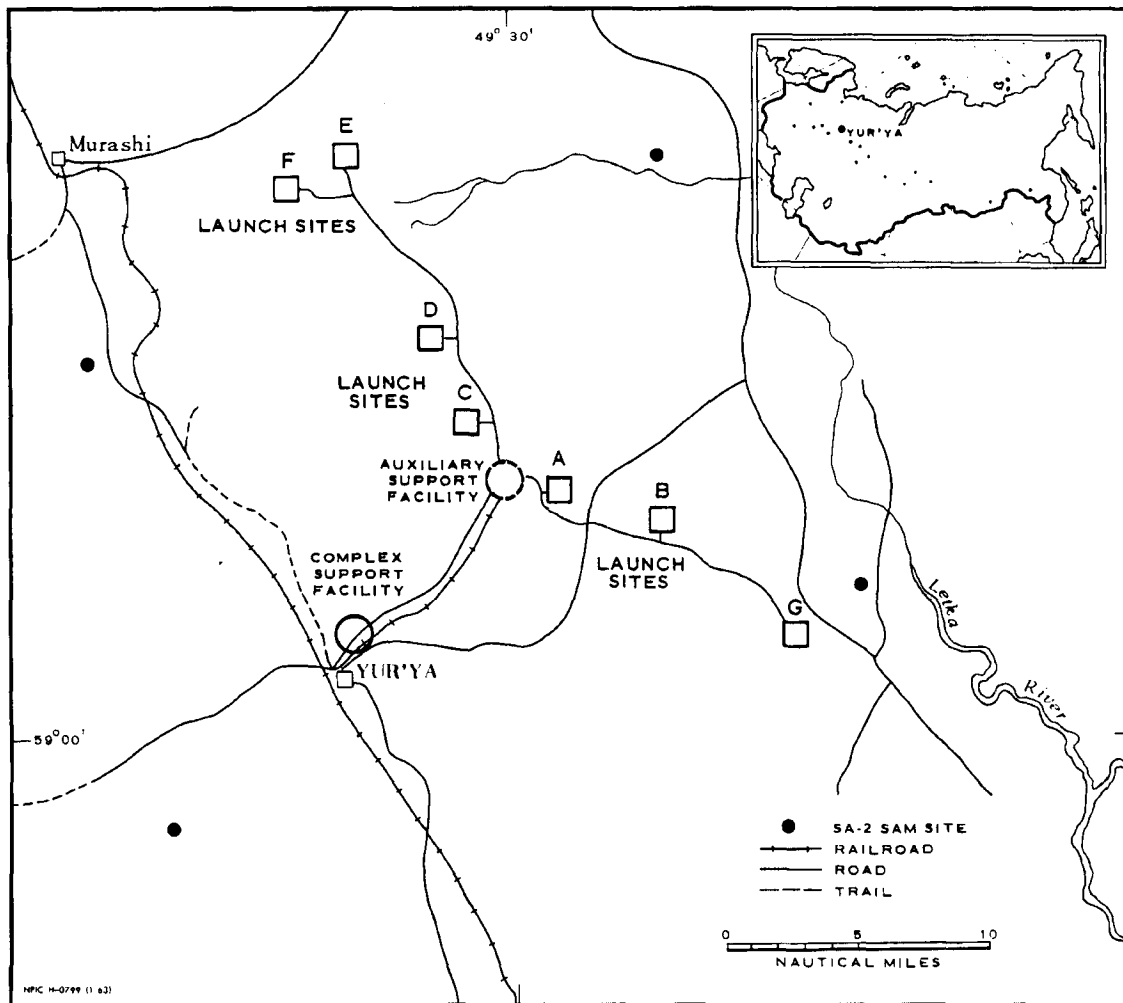


FIGURE 1. LOCATION OF YUR'YA ICBM COMPLEX

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-Y-3

I. Conclusion

Yur'ya is a confirmed ICBM launch complex.

II. BackgroundA. Photographic Evidence

The Yur'ya ICBM complex is located in a forested area generally northeast of Yur'ya, a town located on the Kirov-Kotlas rail line (Figure 1). This was the first deployed ICBM complex to be identified in the USSR. Photography of June 1961 [ ] revealed four launch sites and a support facility.

Subsequent missions over the complex were cloud covered and of a poor quality, and it was not until examination of [ ] (February/March 1962) that the previously unidentified activity in the north end of the complex was identified as a hardened launch site.

Photography of April 1962 [ ] revealed a large complex support facility on the outskirts of Yur'ya. Photography of June/July 1962 revealed two more launch sites and the complete complex support facility on the outskirts of the town of Yur'ya.

The complex now consists of a complex support facility, an auxiliary support facility, a transfer point, and seven launch sites as follows: two Type II (Mod a), three Type II (Mod b), and two Type III sites. Pad orientation for the Type II sites is 340 degrees,  $\pm 5$  degrees. A rail spur from the Kirov-Kotlas rail line serves the complex support facility and continues on to the auxiliary support facility, where it terminates at the transfer point.

The complex is defended by a ring of four SA-2 SAM sites about 15 nm from the center of the complex.

- 2 -

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~[REDACTED]  
I-Y-3

25X1

Launch Site A is a completed Type II (Mod a) site but its configuration is unique to this particular site (Figure 2). The pads have the usual 980-foot separation and are parallel to each other with the pad axis generally north. The east pad, however, is about 400 feet to the south of the west pad, and the two ready buildings, each 170 by 105 feet, are located side by side and are about 1,000 feet west and south of the west pad. A smaller building or bay about 120 by 60 feet adjoins the south missile-ready building. A loop road serves the north missile-ready building. Two small buildings are on the east side of the center road. Vehicle stalls appear on the inside edge of one of the pads, but cloud shadow precludes a more detailed readout.

The launch support area is located immediately to the west of the launch site and contains at least 20 barracks-type buildings, most of which measure 160 by 70 feet.

Launch Site B (Figure 3) is a completed Type II (Mod a) site located 4.1 nm east of Launch Site A.

The site is secured by a double fence 2,500 feet long by 2,000 feet wide. There are 11 buildings at the site, including two missile-ready buildings, each 170 by 105 feet. One structure is centered between the pads on the west side of the center road. The remaining buildings are much smaller. Several small objects in the vicinity of the ready buildings may be vehicles.

The launch support area is located to the south of the launch site and just across the complex main road. The area contains about 30 barracks-type buildings, most of which measure about 160 by 70 feet.

Launch Site C (Figure 4), located 4.1 nm northwest of Launch Site A, has not been adequately covered since [REDACTED]. Subsequent missions were of poor quality, and on [REDACTED] the launch site was obscured by a cloud which prevents a detailed readout. It is apparent from [REDACTED] that this site is a Type II (Mod b) site with the right ready building canted inward and the left one in line with the center road.

25X1

25X1

25X1

- 3 -

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-Y-3

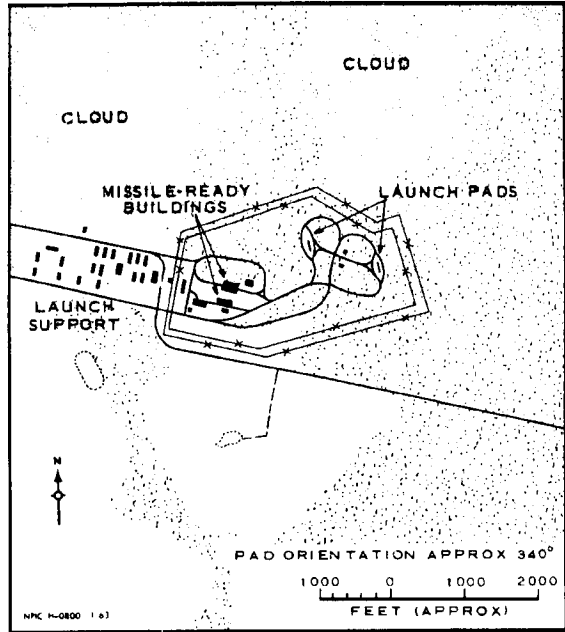


FIGURE 2. LAUNCH SITE A (June 1962)

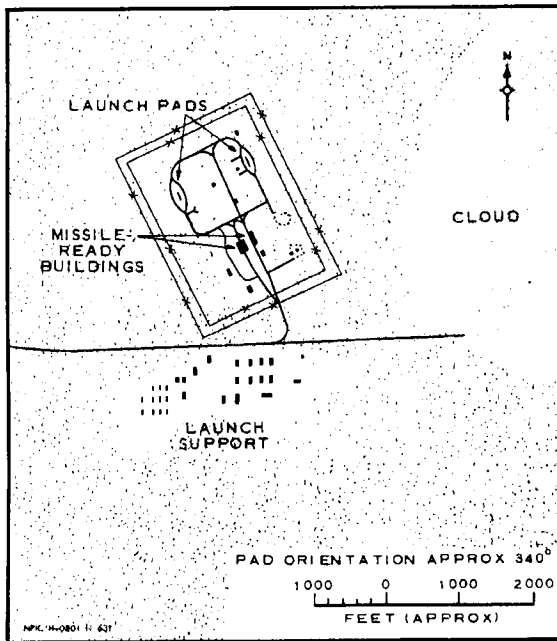


FIGURE 3. LAUNCH SITE B (June 1962)

~~TOP SECRET DINAR CHESS RUFF~~[REDACTED]  
I-Y-3

25X1

There is insufficient evidence to indicate that the site is secured. Construction status and the site details cannot be determined because of cloud cover, but the site is probably complete.

The launch support area, visible on [REDACTED], is located about 3,000 feet to the east of the launch site and straddles the complex main road. The area contains about 30 barracks-type buildings, most of which measure about 160 by 70 feet.

25X1

Launch Site D (Figure 5) is a Type II (Mod b) site in a late stage of construction and is located 3.6 nm north of Launch Site C. It is apparently secured by a double fence measuring about 2,000 by 1,000 feet.

The pads appear complete, but the smaller of the two ready buildings is not yet apparent. The access road leading into the site as well as the road network within the site are still under construction.

A large missile-ready building is behind the west pad and its axis is at a pronounced outward angle to the pad axis. A clearing for the smaller missile-ready building is in line with the east pad. About four other small buildings are at the site.

The launch support area is about 2,500 feet east of the launch site. Most of the area lies under a cloud or cloud shadow, and only about eight buildings can be seen. Four of these are barracks-type measuring 160 by 70 feet; the others are much smaller.

Launch Site E (Figure 6) is a Type III site and is located about 7.8 nm north-northwest of Launch Site D. The site is wedge-shaped and is enclosed by a security fence measuring about 1,550 feet from end to end, 1,600 feet across the north end, and 710 feet across the south end.

This site was first identified on [REDACTED] (February-March 1962), at which time the excavation was clearly apparent. The quality of the photography was fair and dimensions are only approximate, but the shape and size of the excavation are similar to those at Launch Complex D at Tyura Tam. The hole is about 430 feet long by 140 feet wide with an additional excavation on the south side 260 by 120 feet. Nothing is visible in the excavation.

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-Y-3

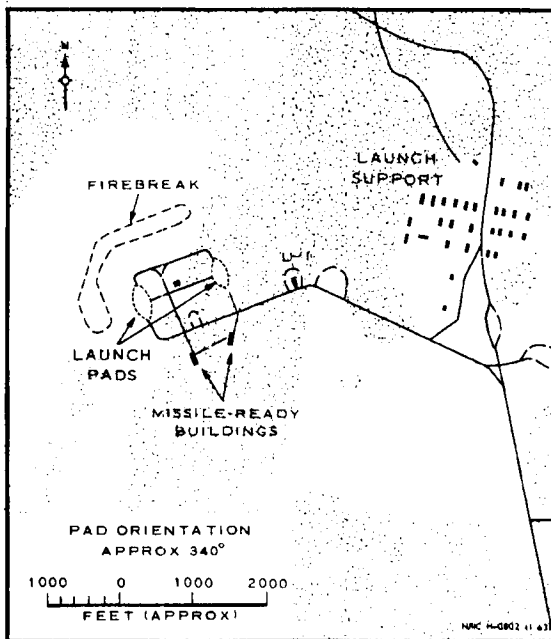


FIGURE 4. LAUNCH SITE C (June 1961)

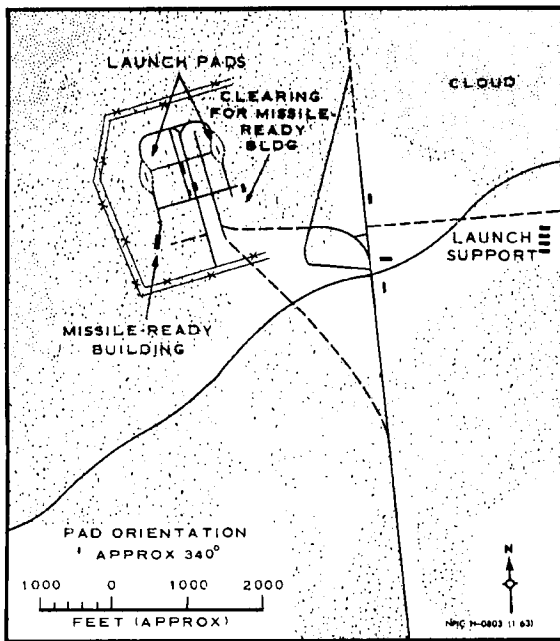


FIGURE 5. LAUNCH SITE D (June 1962)

~~TOP SECRET DINAR CHESS RUFF~~[REDACTED] 25X1  
I-Y-3

Construction activity was apparent at the launch site on [REDACTED] 25X1  
[REDACTED] (June 1961). The latest photography of the area ([REDACTED] 25X1  
June/July 1962) shows that the excavation has been backfilled and that  
three or four small buildings are within the fenced area. Cloud shadows  
preclude other details.

The launch support area is about 3,000 feet south of the launch site  
on the east side of the complex main road and contains about 15 barracks-  
type buildings.

Launch Site F (Figure 7) is a Type II (Mod b) site in a mid stage of  
construction and is located 8.2 nm northwest of Launch Site D. The site  
was identified on [REDACTED] (June/July 1962).

25X1

Access to the site is by a road branching west from the complex  
main road that runs between Launch Sites D and E. This road was first  
apparent on [REDACTED] but there was no  
indication of construction at the launch site.

A single security fence, approximately 2,560 feet square but angled  
across the corners, encloses the site. A large missile-ready building  
is about 650 feet behind the west pad and at a pronounced angle to the  
axis of the pad. There is no missile-ready building or clearing behind  
the east pad. On the east side of the center road and 1,100 feet back of  
the pads is a clearing large enough to accommodate the second missile-  
ready building. (Launch Site C is laid out in a similar manner.) At the  
south end of the center road is a small unidentified building. Two other  
small buildings near the center of the launch site probably serve a control  
function. The road network is complete but does not yet appear to be  
surfaced. Several small objects on the roadways are probably vehicles.  
Two buildings near the entrance gate may be for security purposes.

The launch support area straddles the complex main road about  
2,600 feet to the east of the launch site and contains about 10 barracks-  
type buildings on the south side of the road and about 4 larger buildings  
on the north side.

Launch Site G (Figure 8) is a Type III site under construction and is

~~TOP SECRET DINAR CHESS RUFF~~

25X1

I-Y-3

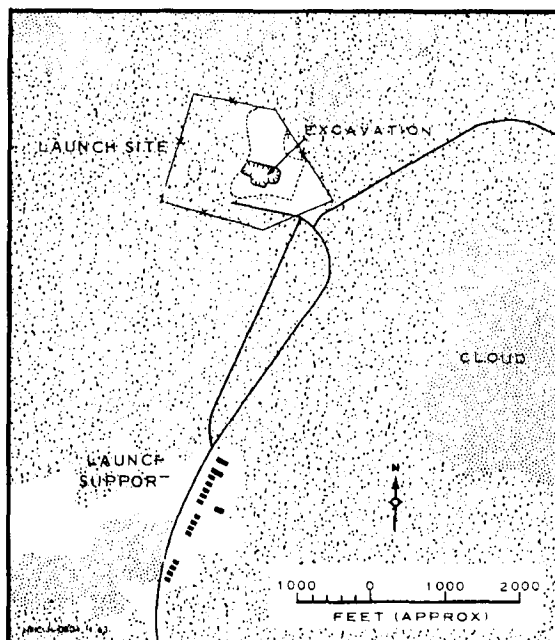


FIGURE 6. LAUNCH SITE E (March 1962)

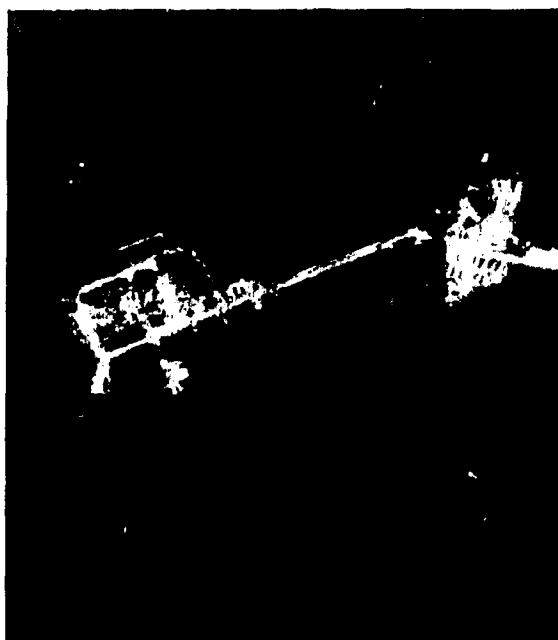
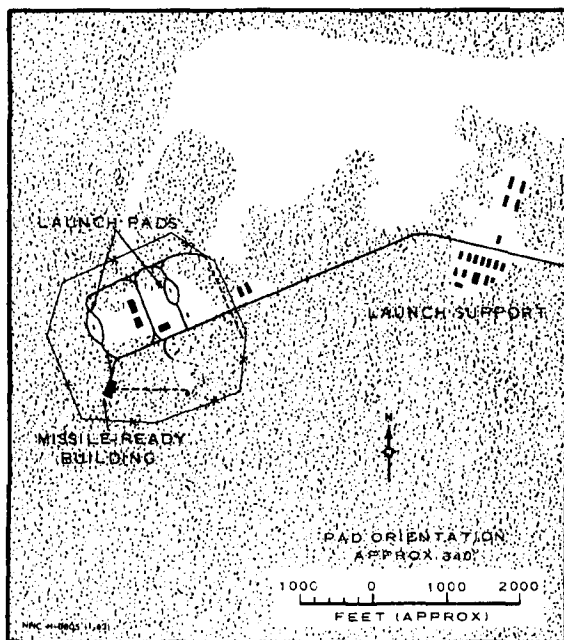


FIGURE 7. LAUNCH SITE F (June 1962)



~~TOP SECRET DINAR CHESS RUFF~~[REDACTED]  
I-Y-3

25X1

located about 7 nm east-southeast of Launch Site B. The site is enclosed by a single security fence measuring about 1,800 by 1,400 feet. There is evidence of activity at this site on [REDACTED] (June 1961). Photography of December 1961 [REDACTED] shows the site was fenced, trees had been cleared from the excavation site, and excavation had been started.

The best and most recent photography of the site was [REDACTED] (June/July 1962). The outline of the excavation with the bay for a control bunker is readily apparent. The overall dimensions are 600 feet long by 200 feet wide. The bay for the control bunker is on the south side of the excavation and measures 130 by 170 feet. This bay is 170 feet from the east end of the excavation and 260 feet from the west end. The sides of the excavation are clear cut with sharp corners except at the west end where the excavation appears to be rounded.

25X1

The bottom of the excavation appears irregular. A bucket conveyor runs from the bottom to the top of the north side, and spoil from the excavation has been dumped outside of the security fence to the northeast.

The launch support area is located about 3,300 feet northwest of the launch site on the east side of the complex main road. Numerous barracks-type buildings are present, but clouds and cloud shadow preclude a count.

The complex support facility (59-03N 49-19E) is located on the outskirts of the town of Yur'ya (Figure 9). A rail spur from the Kirov-Kotlas rail line serves the support facility and continues to the auxiliary support facility.

The facility covers over 500 acres and consists of the construction support and administration and housing areas. The construction support area contains four rail sidings, open and closed storage areas, and at least one concrete batching plant. The administration and housing area contains between 150 and 200 buildings ranging from large administrative-type buildings to single-unit family-type dwellings and numerous barracks-type buildings.

The auxiliary support facility and transfer point (59-10N 49-29E) are about 7 nm northeast of the complex support facility (Figure 10). The

~~TOP SECRET DINAR CHESS RUFF~~

TOP SECRET DINAR CHESS RUFF

25X1

I-Y-3

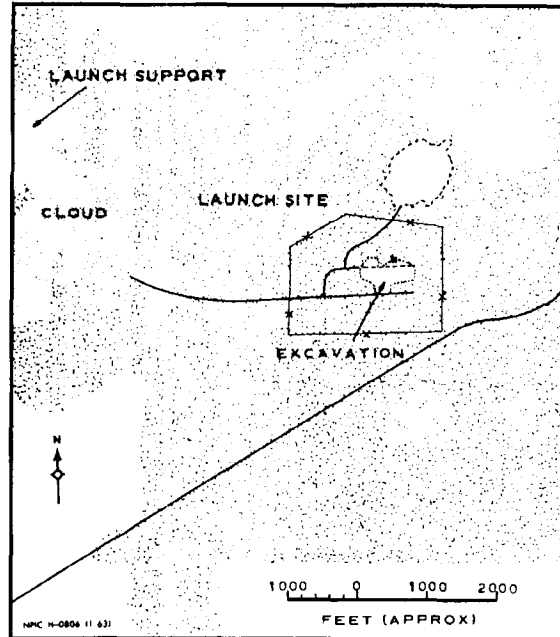


FIGURE 8. LAUNCH SITE G (June 1962)

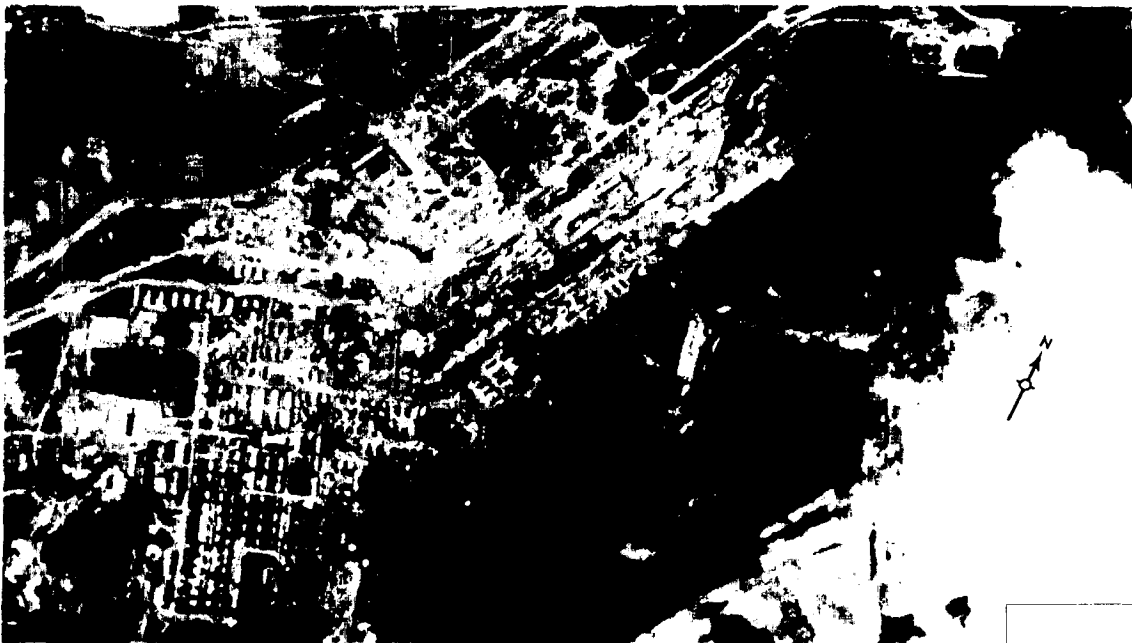


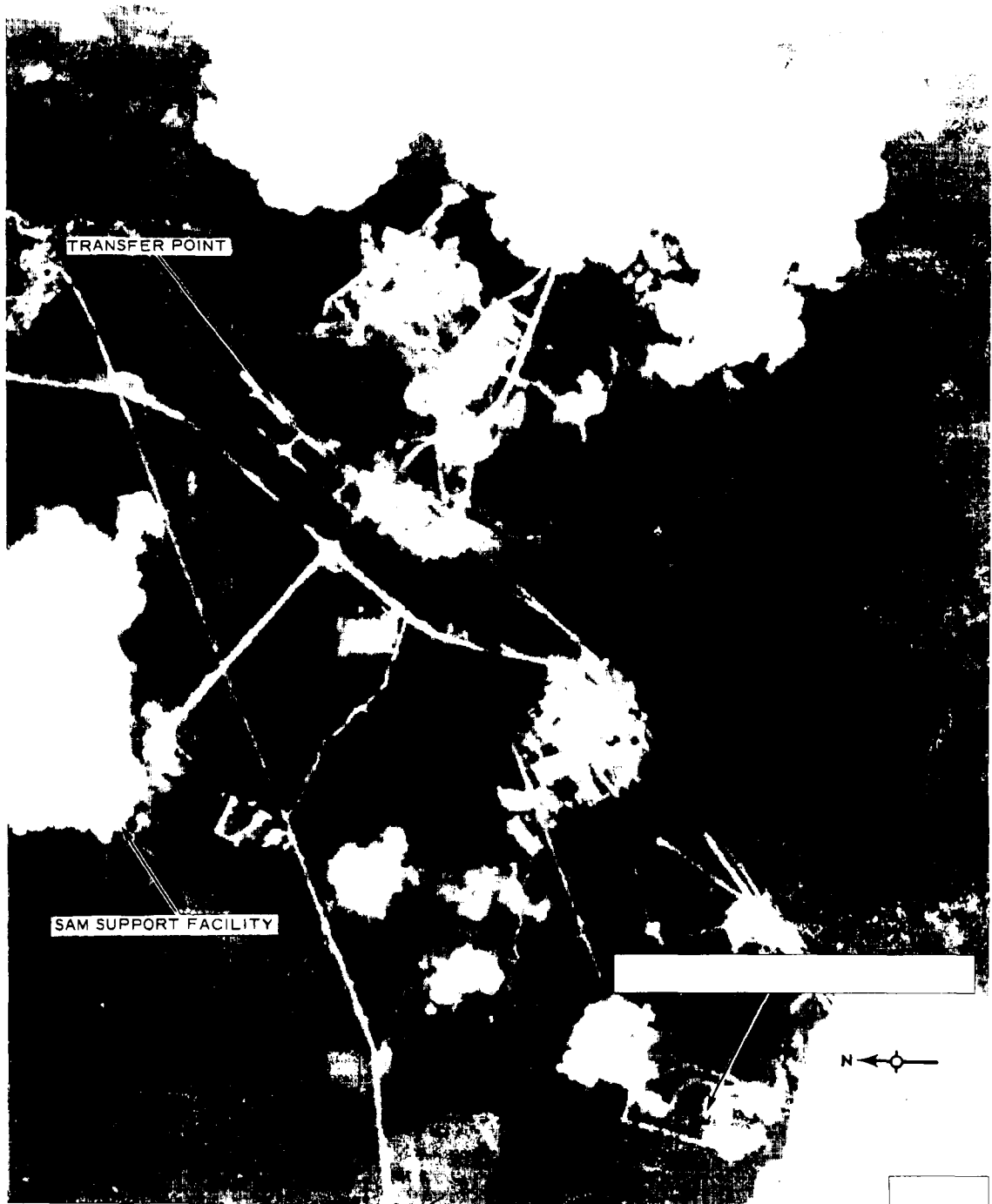
FIGURE 9. COMPLEX SUPPORT FACILITY (June 1962)

25X1

~~TOP SECRET DINAR CHESS RUFF~~

I-Y-3

25X1



25X1

25X1

FIGURE 10. AUXILIARY SUPPORT FACILITY (June 1961)

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

25X1

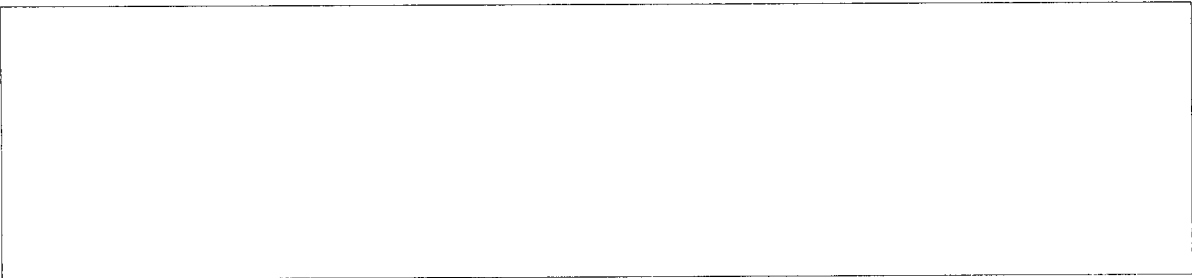


I- Y-3

rail spur terminates in sidings at the transfer point and at several long storage-type buildings.

This facility consists primarily of the following three areas about 2,000 feet apart: the transfer point, a maintenance and/or housing area, and administration and housing area. A SAM support facility is located about 4,000 feet west of the transfer point.

25X1



25X1

25X1

25X1

25X1

25X1

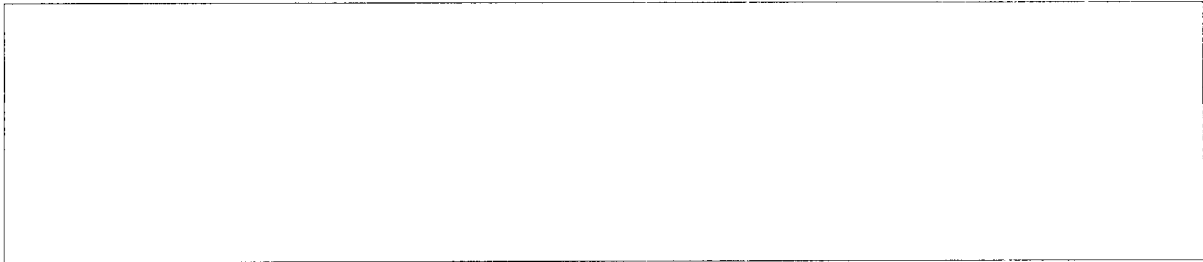
25X1

~~TOP SECRET DINAR CHESS RUFF~~

~~TOP SECRET DINAR CHESS RUFF~~

I-Y-3

25X1



25X1

25X1

REFERENCES

PHOTOGRAPHY

<u>Mission</u>	<u>Date</u>	<u>Classification</u>
	Jun 61	TOP SECRET RUFF
	Dec 61	TOP SECRET RUFF
	Feb Mar 62	TOP SECRET RUFF
	Apr 62	TOP SECRET RUFF
	May Jun 62	TOP SECRET RUFF
	Jun Jul 62	TOP SECRET RUFF
	Aug Sep 62	TOP SECRET RUFF
		TOP SECRET RUFF

MAPS OR CHARTS

- SAC. US Air Target Chart, Series 200, Sheet 0155-3HL, 1st ed, Dec 61, scale 1:200,000 (SECRET)
- SAC. US Air Target Chart, Series 200, Sheet 0155-8AL, 3d ed, Nov 61, scale 1:200,000 (SECRET)

DOCUMENTS

25X1

- 1. NSA. 3/0/RUGM/R380-60, 9 Dec 60 (TOP SECRET DINAR)
- 
- 3. NSA. 3/0/RUGM/R269-62, 4 May 62 (TOP SECRET DINAR)
- 4. NSA. 3/0/RUA-AW/R16-62, 22 Mar 62 (TOP SECRET DINAR)
- 5. NSA. 3/0/RUA-AW/R17-62, 30 Mar 62 (TOP SECRET DINAR)

~~TOP SECRET DINAR CHESS RUFF~~

C02679002

~~TOP SECRET~~

~~TOP SECRET~~

91  
~~SECRET~~

## GUIDED MISSILE AND ASTRONAUTICS INTELLIGENCE COMMITTEE

24 JAN 1963

MEMORANDUM FOR: Holders of GMAIC Report No. [redacted] dated 1 January 1962

SUBJECT: Updating of the 1 January 1962  
GMAIC Report on Soviet Surface-to-  
surface Missile Deployment

1. Forwarded herewith is a new section covering Soviet ICBM deployment which supercedes Part I of the GMAIC Deployment Working Group Report on Soviet Surface-to-surface Missile Deployment dated 1 January 1962. Parts II and III are being updated, and will be forwarded upon completion.

2. Part I of the 1 January 1962 report should be removed from the loose-leaf binder, and should be destroyed in accordance with existing directives.

[redacted]  
Chairman

1 0000  
~~SECRET~~

GROUP 1  
Excluded from automatic  
downgrading and declassification

25X1

25X1