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TCS 4610/63-KH
M/EB 453/63
22 October 1963
Copy 1

MEMORANDUM FOR: Chief, Military-Economics Division, ORR
Chief, Ballistic Missiles and Space Division, OSI

ATTENTION: [REDACTED] 25X1D

THROUGH: Chief, Requirements Branch, Reconnaissance Group, CGS

FROM: Chief, CIA/PID (NPIC)

SUBJECT: Soviet Suspect Solid Propellant Test Facilities, USSR

REFERENCE: (a) Requirement C-DDI-3-80,555
(b) CIA/PID Project C 1270-63

1. This memorandum is the second part in response to your requirement dated 9 September 1963, which requested descriptions of the plant and test area; chronology of the plant and test area, where possible; photo reproduction of the best quality photography of the facility; determination of the function of the probable bunker/deflector; and determination of the transportation and security capabilities of the plant and test area.

25X1D

25X1D a. The line drawings are unrectified projections of the photo images taken from good quality KEYHOLE photography on [REDACTED] for Sterlitamak, Mission [REDACTED] for Perm, and Mission [REDACTED] for Krasnoyarsk. 25X1D

b. Though the photo analysts believe the mensuration to be accurate, all measurements must be considered approximate due to the inherent limitations of KEYHOLE photography. Scale and height factors have been provided by TID/NPIC.

2. Significant Observations - Sterlitamak (53-44N 56-00E)

25X1D a. The Sterlitamak Suspect Solid Propellants Test Facility is located approximately 7 nm north of the city of Sterlitamak in the USSR. The test facility is adjacent to Explosives Plant 850. This test facility is one of five which are identical in part and are located at Biysk, Perm, Krasnoyarsk, and Kamensk-Shakhtinskiy in the USSR.

b. Though the plant and test facility can be negated on the basis of [REDACTED] dating of its initial construction is not photographically possible. The plant covers an area of approximately 5,500 by 4,000 feet while the test facility covers approximately 1,800 by 1,300 feet. The plant is road and rail served and the test facility is road served only. The plant is, at least, partially secured by a double fence. The test facility, which is separated from the plant by a single fence is also double secured. It is possible that the outer fence is of a solid nature.

Declassification review by NIMA/DOD

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25X1D

25X1D c. [REDACTED] reveals the absence of several salient features at the test facility. The plant appeared essentially complete. By [REDACTED] both plant and test area appear complete.

d. The most thorough analysis of the Sterlitamak complex has been made on the test facility.

25X1D (1) An "H" shaped building (which is possibly up to six different buildings separated by possible blast walls) is multi-leveled and appeared to be in the final stages of construction in [REDACTED]. Light return from the roof suggests that the building(s) may still have been under construction. Confirmation of the completion of this building(s) cannot be made until [REDACTED]. This does not imply that the building(s) was not complete before this time, but rather that the photography would not allow its verification. 25X1D

25X1D (2) The test cell is not revetted or mounded at the Sterlitamak facility and appeared essentially complete in [REDACTED]. The cell is road served at the end which faces a probable bunker/deflector approximately 260 feet away. The road is of a wide turn radius nature. 25X1D

25X1D (3) The probable bunker/deflector can be observed in [REDACTED]. However, a concrete facing (later its most revealing trait), cannot be observed in [REDACTED] and cannot be confirmed until [REDACTED]. Though the concrete facing suggests a deflector role, a road serving the rear of the probable bunker/deflector leads to the possibility of an instrumentation role, also. Measurements of the probable bunker/deflector should be considered relatively unreliable due to an extreme distortion of high images. 25X1D

25X1D (4) A group of staggered or offset buildings similar (if not identical) in function and appearance to analogous buildings at Perm, Biysk, and Kamensk-Shakhtinskiy can be found at Sterlitamak. The buildings are found in the plant immediately adjacent to the single fence dividing the plant from the test area. There are now eight of these buildings. These buildings do not appear in [REDACTED]. Three are present in [REDACTED]. All eight can be observed by [REDACTED]. 25X1D

25X1D [REDACTED]. These buildings are possibly rail served. 25X1D

e. Chief recognition features within the plant are four circularly revetted buildings which are connected by overhead piping or covered walkways; and an apparent flow line (represented by annotations 1-4 on the accompanying line drawing) of buildings which are connected by covered walkways or conveyors. Similar features can be identified at all five of the other suspect plants. These features indicate that at least two different explosives bases can be

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produced. The proximity of all of the features of the plant to one another limits the analysis of the plant at this time. Mixing, casting, batching, and resting functions cannot be specified due to a rather unique plant layout. Approximately 15 minor buildings have been added to the plant since [REDACTED] as indicated on the accompanying line drawing.

25X1D

3. General Observations - Sterlitamak

a. To identify each building photographically in the test area and the plant by function would be speculation and therefore presumptuous if unqualified. For this reason the buildings are described by measurement only.

b. Accompanying this memorandum are line drawings which are numbered and color coded to indicate the chronology and dimensions of each building.

25X1D

25X1D c. One 20x enlargement of the facility as seen on Mission [REDACTED] is included herein.

4. Significant Observations - Perm (57-58N 55-52E)

a. The Perm Suspect Solid Propellants Test Facility is located within the confines of Kirov 98, Chemical and Munitions Combine. The Combine is located approximately 13 nm west of the center of Perm, USSR. The suspect test facility is rail served and is secured by a single fence approximately 4,500 by 1,700 feet.

b. The suspect test facility cannot be negated on any available photo cover. First KEYHOLE coverage in [REDACTED] reveals the Perm Test Facility in an undetermined state of construction. Several salient recognition features are not present at the test facility in [REDACTED] these features are present. The test facility is rail served (the only one of five similar test facilities to be so served) and is identical in part to facilities found at Biysk, Sterlitamak, Krasnoyarsk, and Kamensk-Shakhtinskiy in the USSR.

25X1D

25X1D

c. The test cell at the Perm facility is rail served at the end which is closest to the probable bunker/deflector. The probable bunker/deflector is approximately 250 feet from the end of the test cell.

d. The plant area, which has not been read out for the purposes of this memo, has the capability of producing several explosives bases.

e. The staggered or offset buildings, which are also found at the Biysk, Sterlitamak, and Kamensk-Shakhtinskiy facilities, were first visible at the plant in [REDACTED]. They are separately secured and each appears to be probably rail served.

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f. A separately secured area which is approximately 1,800 feet south of the test facility, is approximately 1,300 by 1,150 feet and has several large, unexplainable revetments. No determination can be made as to what is being revetted.

g. Included in this memo are (1) a line drawing of the test area indicating chronology and measurements, and a line drawing of the test cell and its relationship to the probable bunker/deflector, and (2) a 20x print from Mission

██████████
25X1D

5. Significant Observations - Krasnoyarsk (56-02N 93-02E)

a. The Krasnoyarsk Suspect Solid Propellants Test Facility is located adjacent to old Explosives Plant 580 (not to be confused with the new plant which serves the test facility) approximately 5 nm east of the center of Krasnoyarsk, USSR just south of the Yenisey River. It is one of five similar (identical in part) facilities also found at Biysk, Kamensk-Shakhtinskiy, Perm, and Sterlitamak in the USSR.

25X1D

b. This facility cannot be negated on any available photo cover. First KEYHOLE coverage in ██████████ finds the test facility in a mid-late stage of construction. Several of its now salient features were missing however. The new plant, which is directly associated with the test facility, was being added to at this time, also. By ██████████, construction at the test facility appears to have been completed. Construction has continued at the plant through ██████████. No confirmation of the plant's completion can be made at this date.

25X1D

25X1D

c. Though the plant is road and rail served, the test facility is road served only. The plant, which covers an area of approximately 5,000 by 4,000 feet is secured by at least a single fence. The test facility (covering approximately 2,500 by 1,000 feet) is double secured with one of the fences appearing solid in nature.

d. The most significant feature within the Krasnoyarsk Complex is the test facility, which will be discussed in detail.

(1) An "H" shaped building (which is possibly up to six different buildings adjacent to one another and separated by possible blast walls) is a multi-leveled, irregular shaped structure which is probably identical in function to analogous buildings found at Biysk and Sterlitamak. It appeared to be in an early stage of construction in ██████████. The building(s) completion can be confirmed in ██████████

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(2) The facility has two test cells which are annotated A and B. Test Cell A was first discernible in [REDACTED]. It appeared to be essentially complete at that time. Overhead piping or covered walkways connect Test Cell A to a revetted building approximately 300 feet away. The front edge of the test cell faces a probable bunker/deflector approximately 240 feet away.

25X1D

(3) Test Cell B, the older of the two cells, appeared essentially complete in [REDACTED]. Cell B is also connected to the same revetted building the Cell A is. Again the connection is made by overhead piping or covered walkways. The front end of Cell B is approximately 75 feet from the 45 feet high probable bunker/deflector which serves it.

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25X1D

25X1D

(4) The probable bunker/deflector serving Test Cell A is at least 60 feet high. It was first discernible as being under construction in [REDACTED]. However, confirmation of its completion cannot be made until [REDACTED] when its concrete facing (the most easily identifiable feature at all five suspect facilities) is apparent. The probable bunker/deflector serving Test Cell B was complete (with concrete facing) in [REDACTED]. Though a deflector role is suggested in each case by the concrete facing, no final judgement of this function can be made. There is little or no suggestion that the probable bunker/deflector is served to the rear by any road or trail.

e. Chief recognition features within the Krasnoyarsk plant are six circularly revetted buildings which are interconnected by overhead piping or covered walkways; and two flow lines represented by Buildings 31-42 and 23-25 on the accompanying line drawing. The two flow lines are connected by covered walkways or conveyors. These same recognition features are found at the plants adjacent to the other suspect solid test facilities. It can be stated that this plant is capable of producing at least two explosives bases. An analysis of mixing, batching, casting, and resting functions has not been accomplished in this case since the proximity of the features of the plant to one another limit the analysis to the above. The major features at the Krasnoyarsk plant have remained unchanged since [REDACTED]. However, several large buildings of unidentified function have been constructed at periods which are indicated on an accompanying sketch.

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f. A final observation at the Krasnoyarsk facility is some scarring which is noted to the front of Test Cell A in [REDACTED]. Though the funnel shape of this scar suggests the possibility of a blast mark, it is the opinion of the photo analysts that no conclusive statement can be made on the basis of the photography available.

6. General Observations - Krasnoyarsk

a. To identify each building photographically, in the test area and the plant, by function would be speculation and therefore presumptuous if unqualified. For this reason the buildings are described by measurement only.

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b. Accompanying this memorandum are line drawings which are numbered and color coded to indicate the chronology and dimensions of each building.

25X1D

25X1D c. One 20x enlargement of the facility as seen on Mission [REDACTED] is included herein.

25X1A

7. The photo analysts on this project are [REDACTED] and they may be contacted on extension 2079 should you have any further questions concerning this project.

8. This project is not considered to be complete until dissemination of published report.

25X1A
[REDACTED]

Enclosures:

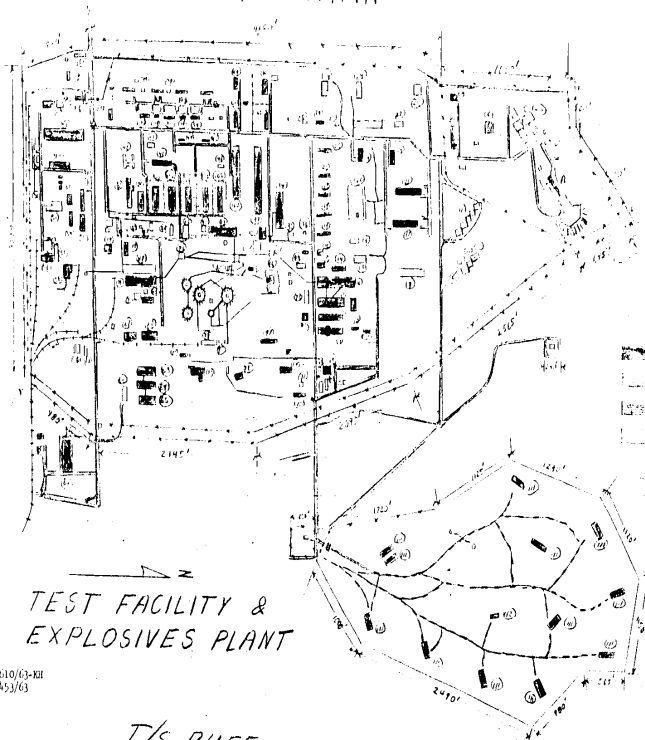
- 1 - Seven (7) line drawings
(CIA/PID/MEB-P-223/63 thru P-229/63)
- 2 - Two (2) tables of mensuration
- 3 - Three (3) enlargements
(CIA/PID/MEB-P-230/63 thru P-232/63)

STERLITAMAK

(1)	525 by 80	(37)	150 by 50	(74)	190 by 40
(2)	385 by 70	(38)	165 by 40	(75)	155 by 50
(3)	285 by 70	(39)	60 by 40	(76)	380 by 105
(4)	320 by 50	(40)	165 by 70	(77)	Two sections
(5)	175 by 45 (4)	(41)	280 by 50		115 by 70, 115 by 90
(6)	110 by 110	(42)	"H" shaped	(78)	130 by 80
(7)	110 by 70		Two wings -	(79)	175 by 65
(8)	340 by 80		140 by 20	(80)	390 by 85
(9)	265 by 90		Center section -	(81)	250 by 70
(10)	115 by 50		145 by 25	(82)	95 by 50
(11)	90 by 60 (7)	(43)	105 by 40	(83)	30 by 30
(12)	120 by 60	(44)	160 by 25	(84)	95 by 45
(13)	165 by 90	(45)	170 by 30	(85)	110 by 45
(14)	175 by 75	(46)	45 by 30		Wing - 90 by 60
(15)	110 by 50	(47)	60 by 60	(86)	80 by 75
(16)	105 by 50	(48)	525 by 100	(87)	380 by 60
(17)	395 by 60	(49)	265 by 60	(88)	70 by 60
(18)	125 by 40	(50)	250 by 90	(89)	110 by 100
(19)	205 by 40 (2)	(51)	245 by 110	(90)	125 by 60
(20)	"H" shaped building	(52)	250 by 100	(91)	105 by 40
	a. 280 by 85	(53)	255 by 60	(92)	85 by 60
	b. 95 by 85	(54)	230 by 50	(93)	170 by 45
	c. 150 by 80	(55)	200 by 75	(94)	130 by 50
	d. 165 by 80	(56)	145 by 60	(95)	65 by 35
	e. 125 by 80	(57)	180 by 50	(96)	70 by 50
(21)	400 by 50	(58)	170 by 110	(97)	200 by 50
(22)	135 by 65	(59)	110 by 40	(98)	60 by 60
(23)	Two sections	(60)	95 by 25	(99)	825 by 160
	90 by 80, 90 by 60 (2)	(61)	140 by 50	(100)	580 by 110
(24)	170 by 70 (4)	(62)	375 by 150	(101)	310 by 75
(25)	220 by 50	(63)	300 by 140	(102)	310 by 105
(26)	100 by 70	(64)	265 by 105	(103)	310 by 90
(27)	140 by 70	(65)	225 by 100	(104)	310 by 90
(28)	30 by 30	(66)	185 by 105	(105)	310 by 105
(29)	105 by 30	(67)	180 by 90	(106)	180 by 70
(30)	160 by 90	(68)	180 by 90	(107)	105 by 60
(31)	75 by 60	(69)	190 by 90	(108)	95 by 50
(32)	115 by 85	(70)	175 by 65	(109)	40 by 40
(33)	365 by 85	(71)	60 by 60	(110)	95 by 70
(34)	460 by 110	(72)	115 by 90	(111)	210 by 80
(35)	105 by 80	(73)	165 by 80	(112)	100 by 60
(36)	40 by 40		Wing - 45 by 45	(113)	100 by 30

T/S RUFF

STERKLITIMAK



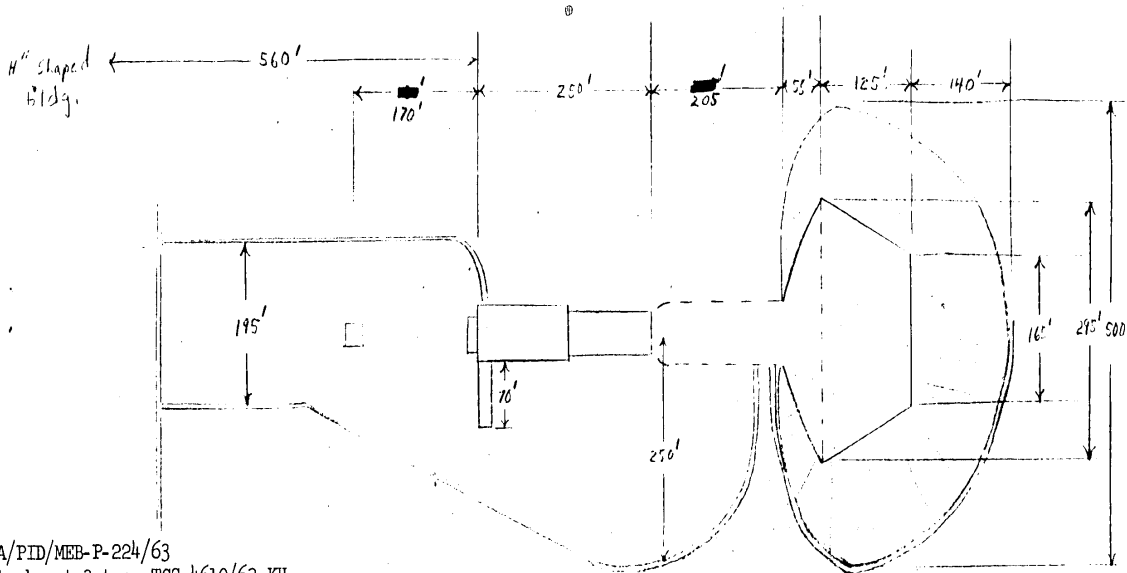
TEST FACILITY &
EXPLOSIVES PLANT

CIA/RID/MDI-P-223/63
Attachment 2 to: UCN 4610/63-KH
M/ED 453/63

T/S RUFF

T/S RUFF

A - Probable Test Cell



CIA/PID/MEB-P-224/63
Attachment 3 to: TCS 4610/63-KH
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KRASNOYARSK TEST AREA

- | | |
|-------------------------|----------------|
| (1) "H" Shaped Building | (3) 200 by 210 |
| a. 300 by 75 | (4) 80 by 80 |
| b. 100 by 95 | (5) 115 by 55 |
| c. 145 by 80 | (6) 125 by 75 |
| d. 160 by 80 | (7) 35 by 70 |
| e. 125 by 70 | (8) 95 by 80 |
| (2) [REDACTED] | |
- 25X1D

KRASNOYARSK PLANT

- | | | |
|-----------------------------------|-----------------------|--------------------------|
| (1) 355 by 75 | (21) 225 by 85 | (41) 300 by 65 |
| (2) 330 by 50 | (22) 135 by 85 | (42) 390 by 80 |
| (3) 300 by 75 | (23) 350 by 110 by 55 | (43) 405 by 85 |
| (4) 190 by 80 | (24) 130 by 65 | (44) 215 by 60 |
| (5) 205 by 80 | (25) 125 by 70 | (45) 220 by 60 |
| (6) 195 by 80 | (26) 125 by 65 | (46) 120 by 50 |
| (7) 330 by 65 by 20 | With Leg - 115 by 80 | (47) 315 by 45 |
| (8) 330 by 65 by 20 | (27) 120 by 80 | (48) 250 by 45 |
| (9) 165 by 105 by 45 | With Leg - 160 by 70 | (49) 410 by 50 |
| (10) 45 by 35 | (28) 215 by 65 | (50) 200 by 35 |
| (11) 775 by 30 by 15 | (29) 185 by 65 | (51) 55 by 35 |
| (12) 690 by 75 by 25 (at highest) | (30) 300 by 115 | (52) 100 by 55 |
| (13) 695 by 45 | (31) 340 by 100 | (53) 105 by 40 |
| Structures at ends - | (32) 220 by 65 | (54) 90 by 40 |
| 130 by 60 by 35 | (33) 395 by 60 | (55) 155 by 60 |
| (14) 790 by 50 by 40 | (34) 310 by 60 | (56) 120 by 50 |
| (15) 825 by 75 | (35) 480 by 50 | (57) 230 by 35 |
| (16) 205 by 75 | (36) 365 by 75 | (58) 85 by 40 |
| (17) 185 by 75 | (37) 645 by 80 | (59) 120 by 50 (2 bldgs) |
| (18) 100 by 75 | (38) 525 by 80 | (60) Storage buildings |
| (19) 150 by 60 | (39) 380 by 75 | 170 by 55 (8 bldgs) |
| (20) 220 by 85 | (40) 460 by 65 | |

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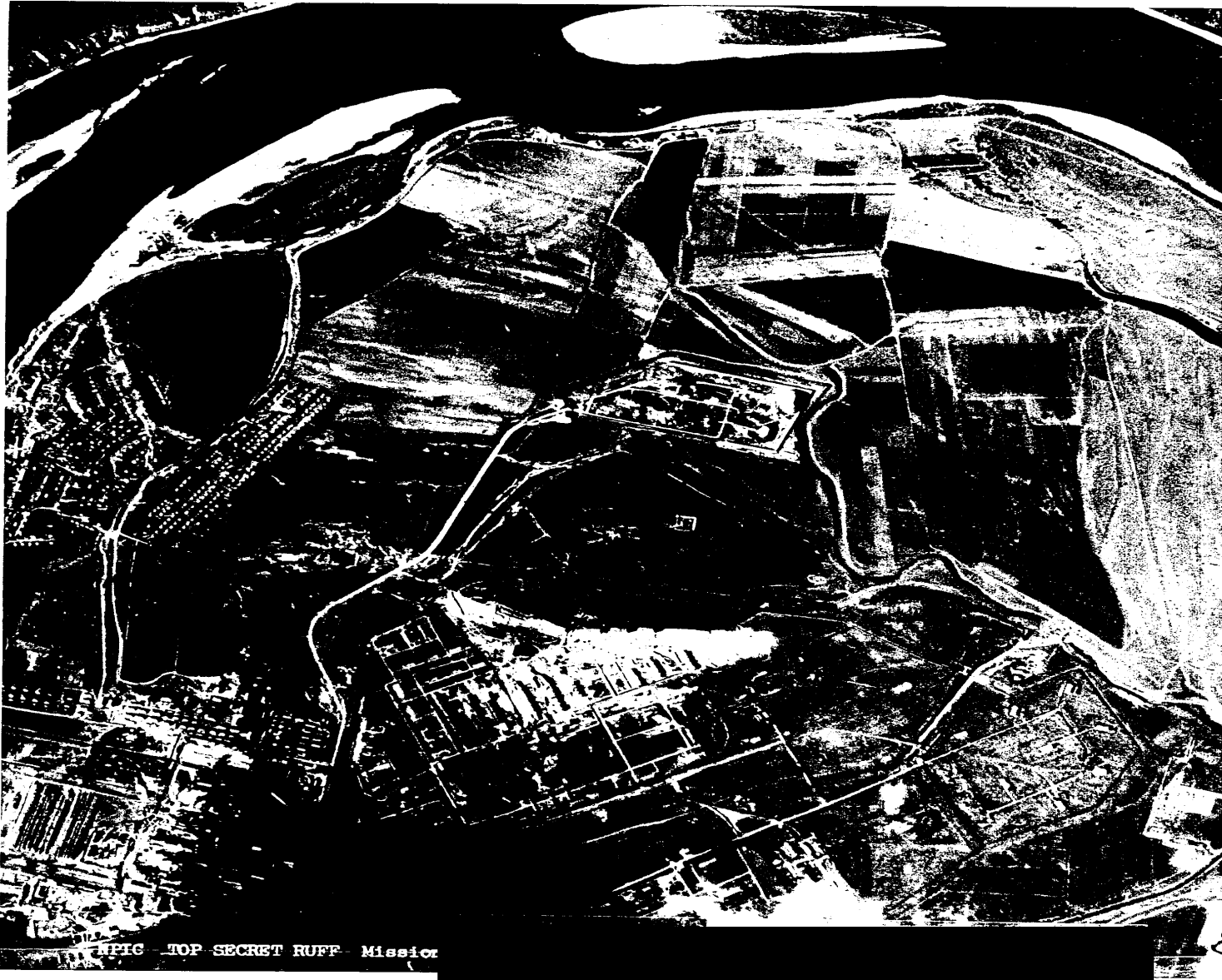
NPIC TOP SECRET RUFF Mission

Job No. 64-3880

25X1D

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TOP SECRET RUFF - Mission

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