NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

Top Secret

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basic imagery interpretation report

Petropavlovsk Vehicle Assembly Plant and Petropavlovsk Probable Missile Assembly Facility (S)

STRATEGIC WEAPONS INDUSTRIAL FACILITIES

[redacted] 25X1

USSR

Top Secret

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RCA-09/0019/79

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AUGUST 1979

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INSTALLATION OR ACTIVITY NAME					COUNTRY
Petropavlovsk Vehicle Assembly Plant Petropavlovsk Probable Missile Assembly Facility					UR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO	COMIREX NO	NIETR NO
NA	54-53-52N 069-09-55E 54-52-47N 069-16-43E				

25X1

MAP REFERENCE

ACIC, USATC, Series 200, Sheet 0163-7, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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ABSTRACT

1. (TSR) This is the initial report on Petropavlovsk Vehicle Assembly Plant (VAP), USSR, and the apparently associated Petropavlovsk Probable Missile Assembly Facility currently under construction. The reporting period for Petropavlovsk VAP (formerly known as plant Borki, Petropavlovsk) is from and the reporting period for Petropavlovsk Probable Missile Assembly Facility is from

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3. (TSR) Petropavlovsk Probable Missile Assembly Facility was first observed in December 1975 and is still under construction. The layout of the facility is similar to that of the Votkinsk Missile Final Assembly and Checkout Facility

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4. (S) This report includes a location map, a line drawing, three photographs, and three tables.

INTRODUCTION

5. (TSR) Petropavlovsk is in the Soviet Republic of Kazakhstan, approximately 280 kilometers (km) west of Omsk (Figure 1). The wall-secured Petropavlovsk Vehicle Assembly Plant

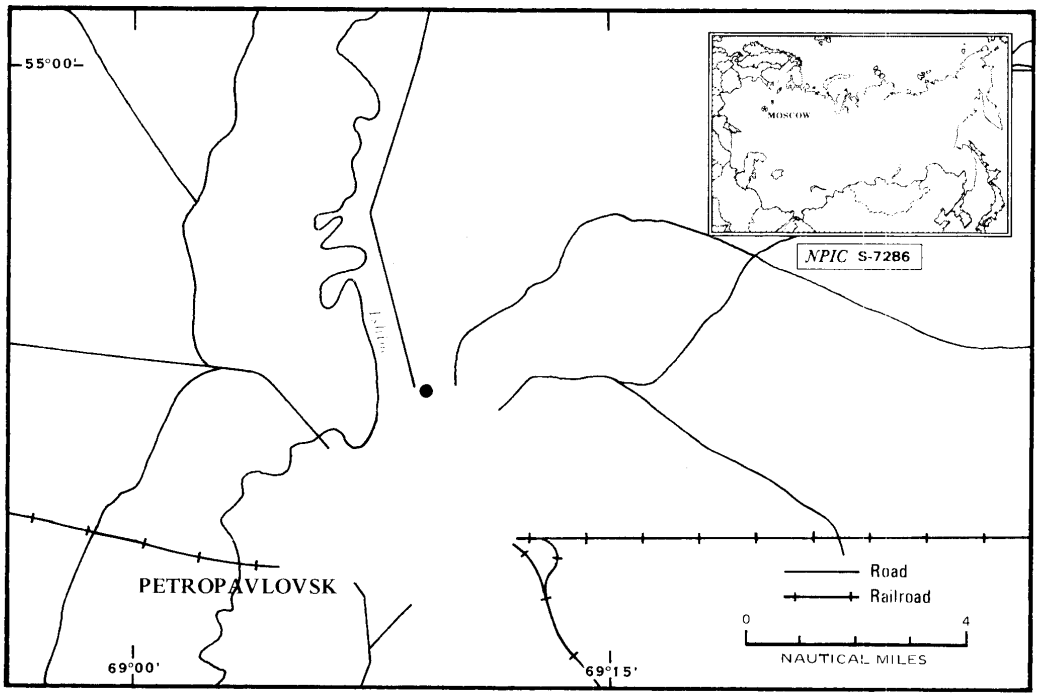

FIGURE 1. LOCATIONS OF PETROPAVLOVSK VEHICLE ASSEMBLY PLANT AND PROBABLE MISSILE ASSEMBLY FACILITY, USSR

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(VAP) is in the northern section of Petropavlovsk and is connected by rail to the Trans-Siberian rail line. The isolated Petropavlovsk Probable Missile Assembly Facility is approximately 9 km east of Petropavlovsk and is secured by a wall and served by rail.

[redacted] 25X1

BASIC DESCRIPTION

Petropavlovsk Vehicle Assembly Plant

7. (TSR) Petropavlovsk VAP comprises approximately 115 structures, totaling 171,279 square meters of floorspace (Figures 2 and 3, and Table 1). The plant has five assembly/fabrication buildings, a forge, and a variety of support buildings. Electricity and steam are supplied by the Petropavlovsk power and heating plant which is nearby.

8. (TSR) In 1967 the total floorspace at Petropavlovsk VAP was 112,668 square meters which included 56,669 square meters of assembly/fabrication floorspace. Over the next seven years (1968 to 1974), a total of 46,112 square meters was added, including 20,736 square meters of assembly/fabrication floorspace. From 1975 through March 1979, an additional 12,499 square meters of floorspace were added; approximately 25 percent was assembly/fabrication floorspace. The only significant construction underway at present is a probable assembly/fabrication building with approximately 12,600 square meters of floorspace. This building is in an early stage of construction (item 116, Figure 3).

[redacted] 25X1

[redacted] Only three products have been identified from overhead imagery—an agricultural fertilizer trailer, the SCUD B transporter-erector-launcher (TEL), and a BTR-60 vehicle probably modified for the SS-16/-20 systems (Table 2). 25X1

[redacted] 25X1

[redacted] By 1964 the plant contained 70 percent (56,669 square meters) of its current assembly/fabrication floorspace. The low number of fertilizer trailers observed from 1967 through 1972 and the identification of only two MAZ-543 chassis (probably for SCUD B TELs) in August 1967 appear inconsistent with the amount of assembly/fabrication floorspace available at Petropavlovsk VAP prior to 1972. The low product count indicates that either the total floorspace was not being used or the plant was involved in the manufacture of additional products. 25X1

11. (TSR) On imagery of [redacted] ten canvas-covered BTR-60s were observed at Petropavlovsk VAP; however, a BTR-60 was not seen again until [redacted] From July to mid-November 1978, between five and eight canvas-covered BTR-60s were identified at the plant. The small number observed suggests that the vehicles were probably modified, rather than produced, at this plant. 25X1 25X1

[redacted] 25X1

13. (TSR) Two MAZ-543 chassis were observed next to a grease rack in a fence-enclosed area on [redacted] however, a MAZ-543 chassis was not seen again until [redacted] During the following year and a half, MAZ-543 chassis were observed in the shipping and receiving area in quantities ranging from two to 11. 25X1

[redacted] 25X1

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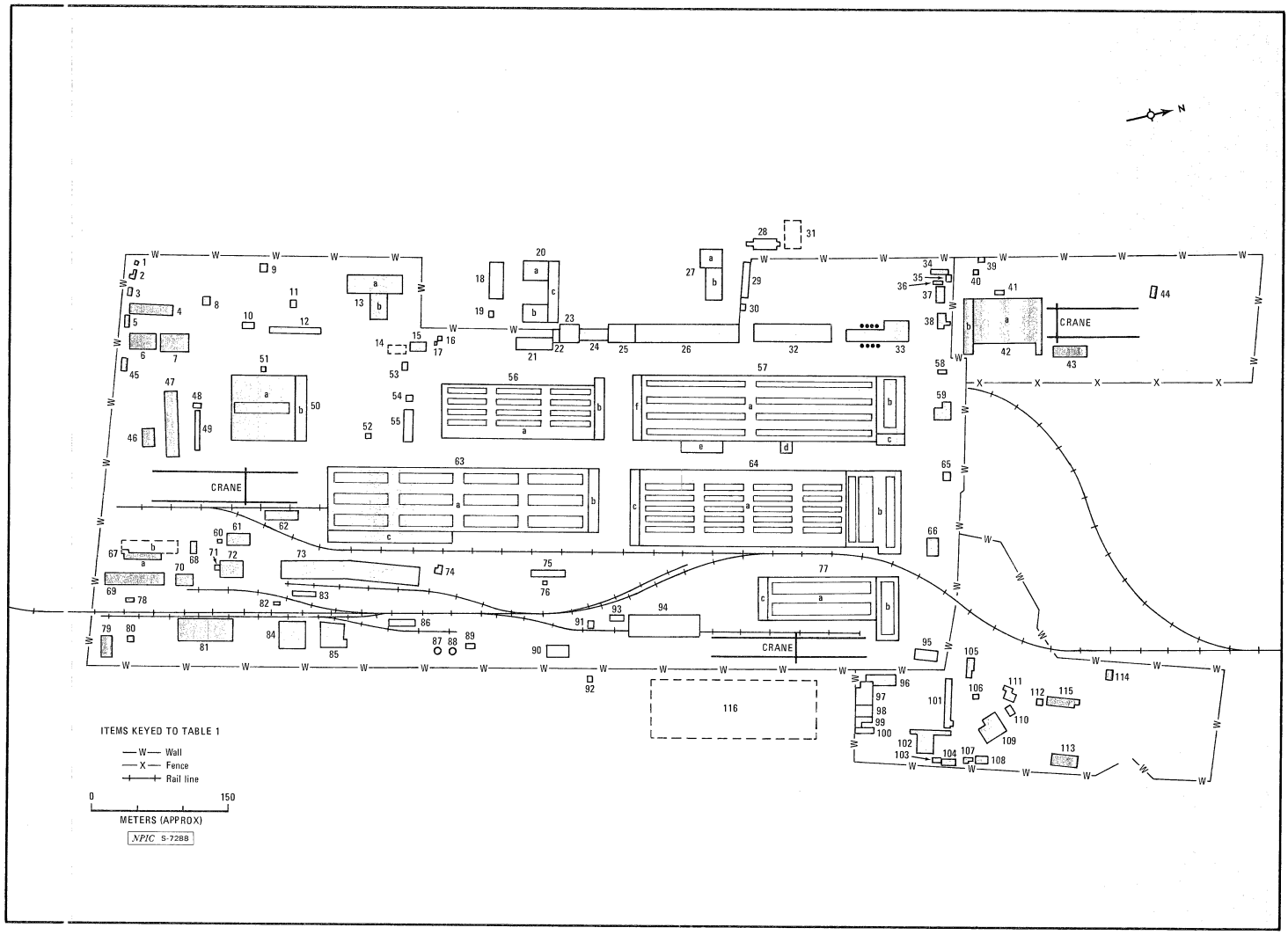

FIGURE 3. PETROPAVLOVSK VEHICLE ASSEMBLY PLANT

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Table 1.
Buildings and Structures at Petropavlovsk VAP
(Items keyed to Figure 3)

This table in its entirety is classified TOP SECRET RUFF

Item	Prob Function/ Description	Dimensions (m) L	W	H	Floorspace* (sq m)	Year Com-pleted**	Comments
1	Stor bldg	5	5	2	10	1974	
2	Stor bldg	12	Irreg	2	34	1974	
3	Stor bldg	8	4	3	32	1974	
4	Vehicle maint bldg	47	11	2	517	1973	
5	Stor bldg	15	6	3	90	1969	
6	Vehicle maint bldg	30	18	7	540	1976	
7	Vehicle maint bldg	30	19	5	570	1967	
8	Vehicle maint bldg	8	7	3	56	1972	
9	Vehicle maint bldg	8	7	3	56	1972	
10	Vehicle maint bldg	13	7	3	91	1969	
11	Vehicle maint bldg	8	7	3	56	1969	
12	Vehicle maint bldg	58	6	3	348	1969	
13	Vehicle maint bldg				1,729		
a	Vehicle maint sect	61	19	5	(1,159)	1964	
b	Vehicle maint sect	30	19	6	(570)	1968	
14	Underground stor bldg	—	—	—	—	—	
15	Support bldg	18	10	5	180	1964	
16	Support bldg	4	4	2	16	1974	
17	Support bldg	4	2	5	8	1977	
18	Admin bldg	40	14	4	560	1964	
19	Support bldg	6	5	5	30	1967	
20	Admin bldg				2,576		
a	Admin sect	29	19	5	(551)	1964	
b	Admin sect	29	19	5	(551)	1964	
c	Admin sect	67	11	8	(1,474)	1964	2 stories
21	Support bldg	40	13	4	520	1972	
22	Support bldg	14	7	4	98	1972	
23	Support bldg	21	19	5	399	1977	
24	Admin bldg	33	13	12	12,887	1964	3 stories
25	Support bldg	28	18	6	504	1977	
26	Engineering/shop bldg	115	20	18	9,200	1964	4 stories
27	Admin bldg				2,446		
a	Admin sect	26	20	9	(1,040)	1973	2 stories
b	Shop sect	37	19	9	(1,406)	1964	2 stories
28	Shop bldg	36	Irreg	4	340	1969	
29	Stor bldg	40	8	4	320	1964	
30	Support bldg	6	5	7	30	1967	
31	Civil defense bunker	—	—	—	—	—	
32	Engineering/shop bldg	85	19	20	6,460	1964	4 stories
33	Support bldg	40	Irreg	7	1,100	1964	8 tanks adjacent to this bldg, volume of each tank is 0 25 cu m
34	Stor bldg	23	4	2	92	1969	
35	Stor bldg	8	6	3	48	1972	
36	Stor bldg	13	3	2	39	1972	
37	Cooling tower	16	9	10	—	1964	
38	Support bldg	18	Irreg	5	172	1967	
39	Security bldg	7	6	4	42	1976	
40	Stor bldg	6	5	2	30	1978	
41	Stor bldg	12	5	3	60	1978	
42	Assem/fab bldg				4,650		
a	Assem/fab sect	73	Irreg	10	(3,570)	1976	
b	Assem/fab sect	60	9	11	(1,080)	1977	2 stories
43	Shop bldg	57	12	6	684	1978	
44	Stor bldg	12	5	3	60	1977	
45	Stor bldg	16	5	2	90	1974	
46	Stor bldg	20	12	2	240	1977	
47	Stor bldg	73	13	4	949	1973	
48	Stor bldg	9	8	5	72	1972	
49	Stor bldg	44	6	3	264	1972	
50	Carpentry shop bldg				7,920		
a	Carpentry shop sect	72	71	9	(5,112)	1967	
b	Admin sect	72	13	12	(2,808)	1967	3 stories
51	Support bldg	5	5	10	25	1976	
52	Stor bldg	6	5	4	30	1967	
53	Support bldg	9	5	6	45	1967	
54	Stor bldg	7	6	5	42	1967	
55	Stor bldg	37	9	3	333	1967	
56	Assem/fab bldg				12,456		
a	Assem/fab sect	168	62	8	(10,416)	1964	
b	Admin/engineering sect	68	10	12	(2,040)	1964	3 stories
57	Assem/fab bldg				24,088		
a	Assem/fab sect	259	73	11	(18,907)	1964	
b	Final assem sect	66	31	26	(2,046)	1964	
c	Admin/engineering sect	31	9	11	(837)	1964	3 stories
d	Assem/fab sect	13	12	9	(156)	1964	
e	Assem/fab sect	30	13	7	(390)	1964	
f	Admin/engineering sect	73	8	11	(1,752)	1964	3 stories
58	Stor bldg	7	4	3	28	1974	
59	Support bldg	19	Irreg	8	300	1974	
60	Support bldg	6	3	3	18	1976	
61	Shop bldg	27	13	4	351	1964	
62	Stor bldg	36	12	7	432	1977	
63	Assem/fab bldg				28,965		No roof ventilators or stacks, prob assem only
a	Assem sect	288	72	18	(20,736)	1974	
b	Admin/engineering sect	72	13	14	(2,808)	1974	3 stories
c	Admin/engineering sect	139	13	14	(5,421)	1974	3 stories
64	Assem/fab bldg				27,304		
a	Assem sect	227	85	10	(19,295)	1964	
b	Final assem sect	94	Irreg	14	(5,459)	1964	
c	Admin/engineering sect	85	10	10	(2,550)	1964	3 stories
65	Support bldg	10	6	4	60	1967	
66	Support bldg	18	11	5	198	1974	
67	Control bldg for underground tanks						
a	Control bldg	66	Irreg	3	444	1974	
b	Underground tanks	8	Diam	2.5			Approx 15 tanks
68	Support bldg	12	6	7	72	1964	
69	Shop bldg	66	13	5	858	1964	
70	Support bldg	18	12	3	216	1976	
71	Support bldg	6	5	5	30	1964	
72	Support bldg	25	19	8	475	1972	
73	Receiving/stor bldg	152	Irreg	11	9,084	1964	3 stories
74	Stor bldg	7	Irreg	4	57	1964	
75	Substation	38	6	5	228	1964	
76	Support bldg	3	3	3	12	1974	
77	Forge bldg				8,562		
a	Forge sect	120	49	16	(5,880)	1972	
b	Forge sect	72	25	21	(1,800)	1972	
c	Admin sect	49	9	10	(882)	1972	2 stories
78	Stor bldg	10	4	3	40	1974	
79	Stor bldg	24	13	2	312	1976	
80	Stor bldg	7	6	2	42	1976	
81	Shop/stor bldg	61	24	27	1,464	1976	4 stories
82	Stor bldg	6	3	4	18	1967	
83	Stor bldg	24	4	3	96	1967	
84	Support bldg	30	30	8	900	1976	
85	Stor bldg	31	Irreg	4	717	1964	
86	Stor bldg	30	7	3	210	1967	
87	POL stor tank	Diam	9	7	—	1967	445 cu m
88	POL stor tank	Diam	9	7	—	1967	445 cu m
89	Pumphouse	9	7	3	56	1972	
90	Steam distribution bldg	24	13	5	312	1976	
91	Steam distribution bldg	8	6	3	48	1967	
92	Steam distribution bldg	7	6	4	42	1967	
93	Support bldg	13	6	4	78	1967	
94	Receiving/shipping bldg	79	25	13	1,975	1967	
95	Stor bldg	24	11	3	264	1976	
96	Shop bldg	34	Irreg	4	395	1973	
97	Shop bldg	20	Irreg	Irreg	431	1964	
98	Carpentry shop bldg	19	13	8	247	1973	
99	Shop bldg	19	Irreg	5	158	1973	
100	Shop bldg	22	7	4	154	1973	
101	Stor bldg	55	Irreg	5	361	1977	
102	Support bldg	61	Irreg	3	623	1964	
103	Stor bldg	13	3	2	39	1973	
104	Stor bldg	14	6	2	84	1967	
105	Sawmill	23	Irreg	4	226	1967	
106	Stor bldg	5	4	3	20	1973	
107	Stor bldg	12	Irreg	3	24	1973	
108	Stor bldg	14	8	3	112	1967	
109	Support bldg	19	Irreg	7	567	1973	
110	Support bldg	9	6	20	54	1976	Covered tanks
111	Support bldg	12	Irreg	Irreg	145	1975	
112	Support bldg	7	4	3	28	1976	
113	Support bldg	30	13	11	360	1976	
114	Support bldg	10	6	5	60	1977	
115	Support bldg	31	Irreg	4	289	1976	
116	Prob assem/fab bldg	197	64	12	(12,608)		Ucon, approx dimensions

* Numbers in parenthesis are not included in total floorspace

** Buildings complete before 1964 are indicated as complete in 1964

25X1

On the only occasion when 25X1
MAZ-543 chassis were observed without canvas covering, on imagery of [redacted] two of the six 25X1
chassis appeared to have a minor frame modification (Figure 4). This modification could indicate that the chassis will eventually be used in different vehicles. While there is no evidence which supports the contention that the specialized SS-22 and SS-X-23 MSE will be assembled on the MAZ-543 chassis, there is evidence provided by imagery [redacted] which supports the 25X1
SCUD B TEL association.

Table 2.
Products Observed
at Petropavlovsk VAP
This table in its entirety is classified TOP SECRET RUFF

Date	MAZ-543 Chassis	BTR	Agricultural Fertilizer Trailer	Remarks
[redacted]	2	—	40	The chassis was adjacent to a grease rack & fence secured
	—	—	4	
	—	—	60	
	—	—	12	
	—	—	35	
	—	—	300	Large increase in trailers coincides with const of forge; number of trailers observed during the remainder of the reporting period fluctuated between 200 & 300
	—	—	200-300	
	—	—	200-300	
	—	—	200-300	
	—	—	200-300	
	—	10	200-300	
	—	—	200-300	
	2	—	200-300	
	4 (prob)	—	200-300	Shipping-receiving area partially cloud covered
	11	—	200-300	
	11	—	200-300	
	11	—	200-300	
	—	—	200-300	
	4	—	200-300	
	6	—	200-300	2 chassis may have a minor mod
	—	—	200-300	
	—	6	200-300	
	2	8	200-300	
	5 prob	4 prob 4 poss	200-300	
	3	8	200-300	
	4 (2 prob)	7	200-300	
	4	7	200-300	
	4	7	200-300	
	—	5	200-300	
	—	5	200-300	
	—	—	200-300	
	—	—	200-300	
	—	—	200-300	
	—	—	200-300	
	—	—	200-300	
	—	—	200-300	
	—	—	200-300	

[redacted] 25X1

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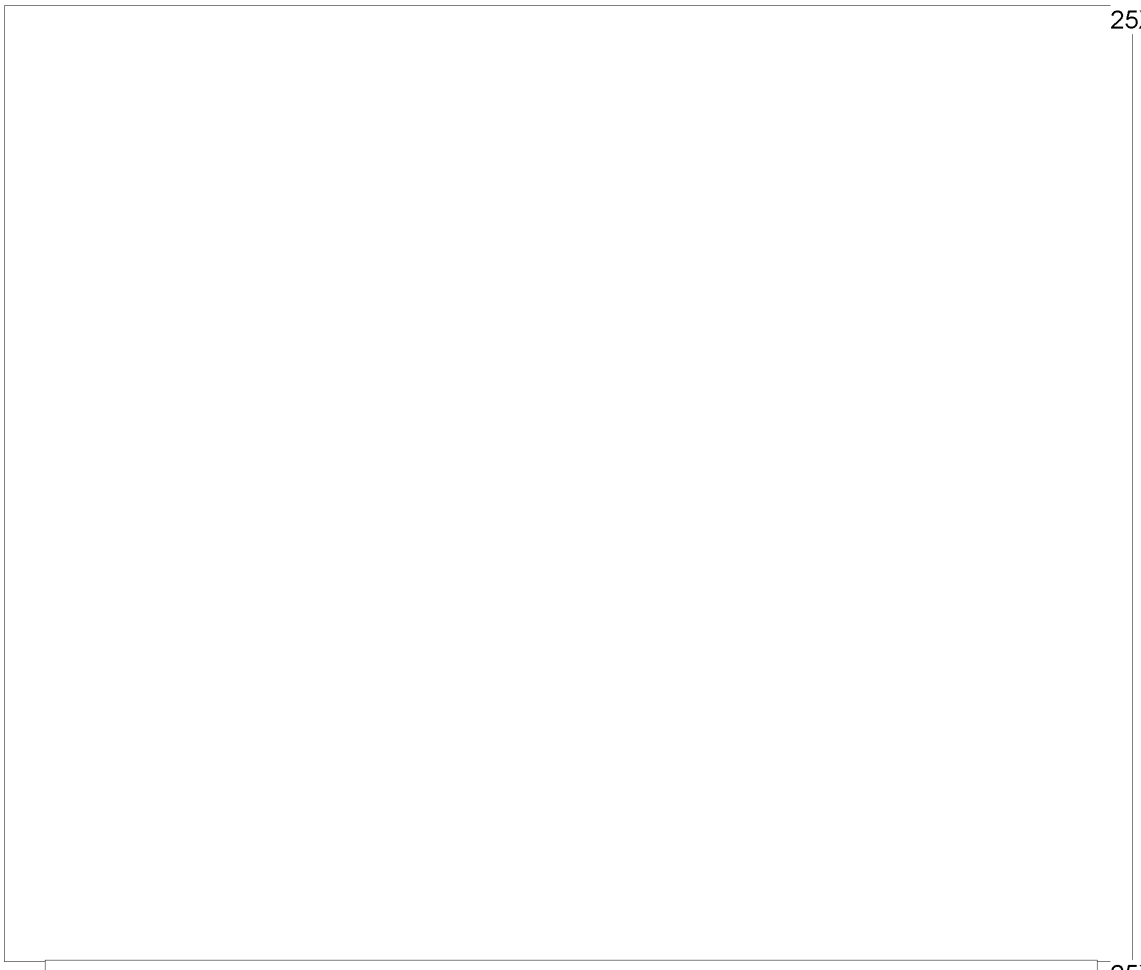

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Series production may be occurring in building 63 (Figure 3). The building completion date (1974) corresponds to the probable time of SS-21 prototype assembly,

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Table 3.
Buildings and Structures at Petropavlovsk Probable Missile Assembly Facility
(Items keyed to Figure 5)
This table in its entirety is classified TOP SECRET RUFF

Item	Prob Function/ Description	Dimensions (m) L	W	H	Floorspace* (sq m)	Comments
1	Support bldg	19	13	3	247	
2	Support bldg	7	3	4	28	
3	Support bldg				136	
a	Support sect	8	3	—	(24)	Height undet
b	Support sect	14	8	3	(112)	
4	Steamplant	36	20	11	720	Height of stack is 44 m
5	Prob missile assem bldg				2,134	In late stage of const
a	Final assem sect	66	19	19	(1,254)	
b	Assem sect	80	11	10	(880)	
6	Footings	—	—	—	—	Bldg in early stage of const
7	Prob missile assem bldg	59	18	12	1,062	In late stage of const
8	Support bldg	10	10	5	100	
9	Support bldg				364	
a	Support sect	28	7	5	(196)	
b	Support sect	24	7	4	(168)	
10	Support bldg	20	13	5	260	
11	Support bldg	8	5	3	40	
12	Admin/support bldg				250	
a	Support sect	21	10	4	(210)	
b	Admin sect	8	5	5	(40)	
13	Admin bldg	30	14	6	840	2 stories

*As some structures are currently under construction, some dimensions may differ when the buildings are complete. Numbers in parenthesis are not included in total floorspace.

[redacted] 25X1

Petropavlovsk Probable Missile Assembly Facility

20. (TSR) A probable missile assembly facility is under construction in a forested area approximately 9 km east of Petropavlovsk (Figure 5 and Table 3). Construction was first observed on imagery of [redacted] Footings for a probable missile assembly building (item 7, Figure 5) were observed on [redacted] Footings for another probable missile assembly building (item 5) and the framing for building 7 were observed on [redacted] Both of these buildings appeared to be in a late stage of construction on [redacted] New footings (item 6) between buildings 5 and 7 were identified on [redacted] The probable missile assembly buildings are served by rail. 25X1 25X1 25X1 25X1 25X1

21. (TSR) This facility is probably associated with Petropavlovsk VAP. Final assembly of Soviet SRBMs takes place at both Petropavlovsk VAP and Votkinsk Missile Machine and Steel Plant 235. Petropavlovsk Probable Missile Assembly Facility has an isolated location and plant layout similar to that of Votkinsk Missile Final Assembly and Checkout Facility. The distinctive, high-bay, rail-served building (item 5) at the Petropavlovsk facility is almost identical to assembly buildings at the Votkinsk facility. Significant similarities exist between the two Petropavlovsk plants and the two respective Votkinsk plants. These similarities indicate a probable association between the two Petropavlovsk plants which will be similar to the known relationship of the two Votkinsk plants.[9]

22. (TSR) Petropavlovsk Probable Missile Assembly Facility and Votkinsk Missile Final Assembly and Checkout Facility will probably have similar functions—the final assembly and checkout of solid-propellant missile systems. The Votkinsk facility is heavily involved in the assembly of ICBM/IRBM systems. The Petropavlovsk facility will have a similar capability; however, its activities may be restricted to the assembly and checkout of SRBM (and other tactical) systems associated with Petropavlovsk VAP.

REFERENCES

IMAGERY

(TSR) All available KEYHOLE imagery acquired between [redacted] and the information cutoff date of [redacted] was used in the preparation of this report. 25X1 25X1

MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0163-7, scale 1:200,000 (UNCLASSIFIED)

DOCUMENTS

1. NSA. [redacted] *S and T: Petropavlovsk Plant Producing Motors For Soviet Missile Called Tochka*, 111856Z, Sep 78 (TOP SECRET [redacted] 25X1
2. NSA [redacted] *Development Information on the Soviet 9M79/SS-22 SRBM, 1971 Through 1977*, 141319Z, Aug 78, (TOP SECRET [redacted] 25X1
3. NSA. [redacted], *Indoor Pavilion for Checking 9M714 SRBM Equipment to be Built at Petropavlovsk; Ground Support Equipment for 9M714 Identified*, 211708Z, Jan 78 (TOP SECRET [redacted] 25X1
4. NSA. [redacted] *9M123 Designates New Soviet Ground Forces Missile Under Development at Petropavlovsk Vehicle Assembly Plant*, 141641Z, Aug 78 (TOP SECRET [redacted] 25X1
5. CIA. *Daily Weapons Intelligence Summary No 669/77*, 8 Apr 77 (TOP SECRET [redacted] 25X1
6. NSA. [redacted] *Plant Borki, Petropavlovsk, Probably Producing SCUD-B SRBM TEL*, 171238Z, Nov 76 (TOP SECRET [redacted] (Section 1 of 2) 25X1
7. NSA [redacted] *Facilities Expansion Planned at Soviet Missile Production Plant at Petropavlovsk, 1978-1979*, 181342Z, Jan 77 (TOP SECRET [redacted] 25X1
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9. NPIC. [redacted] RCA-09/0005/79, *SSM Developments at Selected Soviet Strategic Research, Development, and Production Installations (S)*, Mar 79 (TOP SECRET [redacted] 25X1
10. NSA. [redacted] *S&T: Soviet 9M714 SRBM Probably Has Fiberglass Motor Casing*, 13 417Z, Mar 79 (TOP SECRET [redacted] 25X1

REQUIREMENT

COMIREX J02
Project 290064DJ

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Soviet Strategic Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1 25X1

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