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CHRONOLOGY OF THE IVANKOVO GUIDED MISSILE PLANT USSR

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CHRONOLOGY OF THE IVANKOVO GUIDED MISSILE PLANT, USSR

INTRODUCTION

This report is a study of the chronological development of the Ivankovo Guided Missile Plant [redacted] 56-45N 037-07E), USSR, and is one of a series of reports on Soviet missile production and test facilities (Figure 1).

The Ivankovo Guided Missile Plant is located on the western side of the town of Ivankovo (Podberezye) on the bank of the Ivankovskoye Vodokhranilishche (Reservoir). The plant is close to the confluence of the Volga River and the Moskva Canal. The city of Moskva is located approximately 60 nautical miles south-southeast of the plant.

The plant covers an area of approximately 3,300 by 2,700 feet (Figure 2). The majority of the buildings have been erected on the eastern two thirds of the plant area, and the western section of the plant has remained wooded. There are several clearings in the woods, and the location of small unidentified structures in these areas suggests that they may be used as test areas. Although the plant is served by road, and rail transportation is available nearby on the south side of the Volga River, the prime means of transportation for the plant are the waterways. A small dock is located on the west side of the plant, providing easy transportation of materials in and out of the plant. The primary source of electric power may be the Ivankovo hydropower plant located south of the Guided Missile Plant. Additional power and heating requirements are probably supplied by the powerplant at the installation.

The principal buildings in the plant include a large assembly-type building, a subassembly building, a powerplant, a forge/foundry, 2 administration buildings, numerous workshops, and several general support and storage buildings. A large administration/engineering building and a new assembly-type building are under construction at the present time on the east side of the plant. Roof cover in 1942 was computed at [redacted] Between 1942 and 1962 the roof cover had increased by [redacted] feet; between 1962 and 1963, by [redacted] between 1963 and 1964, by 56,390 square feet; and between 1964 and 1967, by [redacted] When the buildings now under construction are completed, the total roof cover for the plant will exceed 1 million square feet.

The Ivankovo Guided Missile Plant is primarily a research and development installation. It was involved in seaplane production prior to World War II. During the war, the production equipment from the plant was evacuated to the east. At the end of the conflict, German aeronautical design engineers from aircraft plants in Halle and Dessen, East Germany, were relocated to this plant. Using German designs implemented by Soviet engineers, the plant became involved in research and development of aircraft and missile systems during the postwar years. Basic designs were developed and testings made on the EF 126 (a piloted version of the V-1 rocket), the M 100 (a 2-stage missile), and many other jet and rocket airframes. 1/ Research and development work was also done on fuels, engines, and navigational equipment.

At the present time, the plant is believed to be producing air-to-surface missiles (ASM). During 1960-61, there were reports that the Ivankovo plant produced the AS-1 (KENNEL), and later information has indicated an association with the Tbilisi Airframe Plant 31 in the production of the AS-2 (KIPPER) missile system. 2/ It has not been possible to confirm or deny involvment of the plant in the ASM program by means of available [redacted] photography.

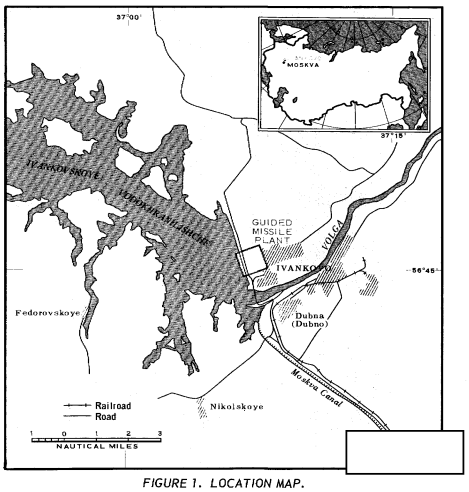


FIGURE 1. LOCATION MAP.

HIGHLIGHTS OF CONSTRUCTION DEVELOPMENT

Photographic coverage of the Ivankovo Guided Missile Plant has included 35 [redacted] missions. The early photography was characterized by poor interpretability that in many cases precluded the determination of building construction status. Smoke emitted from the stacks of the steamplant generally obliterated the area north of the large assembly building. The first coverage of good interpretability was not obtained until [redacted]

1942

The first available photographic coverage of the Ivankovo Plant was obtained in [redacted] The plant at this time was identified by 2 names: the Ivankovo Aircraft Plant and Experimental Plant No 1, Podberezye. The plant then consisted of the main final assembly/subassembly building (item 21, Figure 3), the powerplant (item 40), a forge/foundry, (item 24), an administration building, 2 workshops, and several small support buildings.

1962

Two decades elapsed before the plant was again observed on overhead photography. Photography of [redacted] although of poor interpretability, revealed significant changes, including the construction of a large new subassembly building (item 14) and the addition to the final assembly/subassembly building. Several new workshops and support buildings had been constructed during this period. Additions had also been erected on the forge/foundry and a workshop (item 1). Several small support buildings,

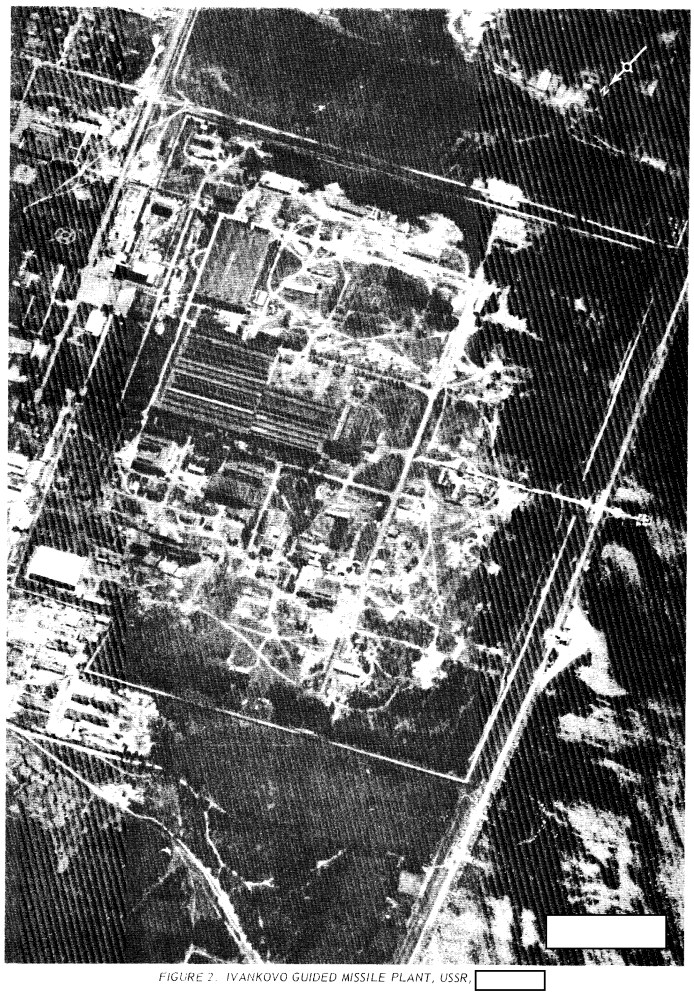


FIGURE 2. IVANKOVO GUIDED MISSILE PLANT, USSR,

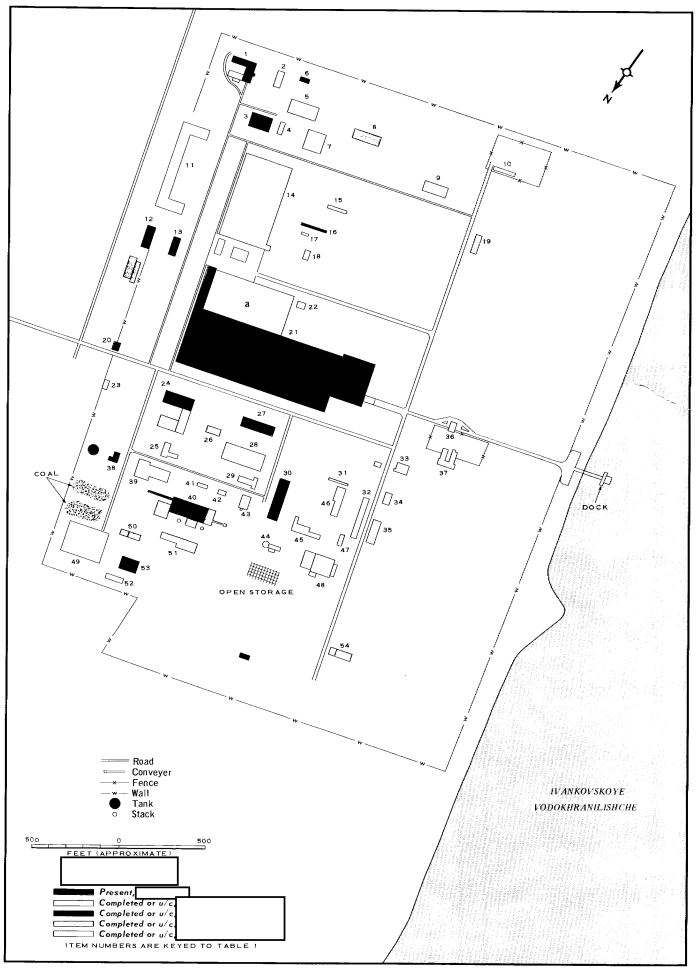


FIGURE 3. LAYOUT OF IVANKOVO GUIDED MISSILE PLANT.

Table 1. Description and Dimensions of Structures in the Guided Missile Plant, Ivankovo, USSR

Item	Function/ Description	Dimensions (ft)* L	W	H	Roof Cover (sq ft)	Date First Observed**	Comments
1	Workshop						A third wing was added to this bldg between 1942 & 1962
2	Workshop						Dimensions aprx
3	Workshop						
4	Support bldg						Dimensions aprx
5	Workshop						
6	Support bldg						Dimensions aprx
7	Workshop						
8	Workshop						
9	Workshop						
10	Electric substation						Roof complete, [redacted]
11	Admin/engineering						Wings are 40 ft high; bldg still u/c [redacted]
12	Admin bldg						
13	Admin bldg						
14	Subassembly bldg						
15	Storage bldg						Dimensions aprx
16	Storage bldg						
17	Storage bldg						Small-scale photography precluded identification until [redacted]
18	Storage bldg						Dimensions aprx
19	Workshop						
20	Gatehouse						
21	Main final assembly/subassembly bldg						
a	New addition						
b	Subassembly section						
c	Final assembly section						
22	Support bldg						
23	Support bldg						Dimensions aprx
24	Forge/foundry						Only 1 section present in 1942; second added by [redacted] third observed in [redacted]
25	Poss laboratory/ test bldg						
26	Support bldg						Status of bldg undetermined until 1964; width aprx
27	Workshop						
28	Workshop						Includes low bay section, [redacted] on W end
29	Poss laboratory/ test bldg						
30	Poss laboratory/ test bldg						
31	Workshop						Small scale of photography precluded identification until [redacted]
32	Workshop						
33	Workshop						
34	Workshop						
35	Workshop						
36	Workshop						
37	Workshop						Bldg attached to fenced area containing open storage
38	Prob pumphouse						
39	Workshop						Dimensions overall
40	Powerplant						Plant appeared operational in 1942; subsequent additions and modifications not fully apparent until [redacted]
41	Support bldg						
42	Support bldg						Dimensions overall
43	Poss laboratory/ test bldg						
44	U/I bldg						Circular structure on E end of bldg has a [redacted]
45	Poss laboratory/ test bldg						
46	Workshop						
47	Support bldg						
48	Prob test bldg						Exact configuration of bldg not confirmed until [redacted] small vertical stacks on N side
49	Assembly bldg						Bldg still u/c, [redacted]
50	Storage bldg						
51	Storage bldg						
52	Storage bldg						Prob used for coverage storage of bldg materials for item 49
53	Workshop						
54	Workshop						Length of bldg doubled during 1964

*Horizontal measurements are accurate to within ±5 ft or 5%, whichever is greater, and vertical measurements are accurate to within ±10 ft.
**Construction complete when first observed unless noted in Comments.

present in 1942, had been removed.

1963

An administration building (item 12), a possible laboratory/test building (item 30), a workshop (item 53), and 2 small support buildings were first observed on photography of [redacted] No other changes were discernible.

1964

Photography of [redacted] presented the first coverage of good interpretability of the Ivankovo plant. A second new section was observed on the forge/foundry. The powerplant, previously obscured by smoke, was observed on the photography for the first time since 1942, and it was evident that several new sections had been added to this building. In addition, 2 workshops and 6 other small support and storage buildings were newly identified.

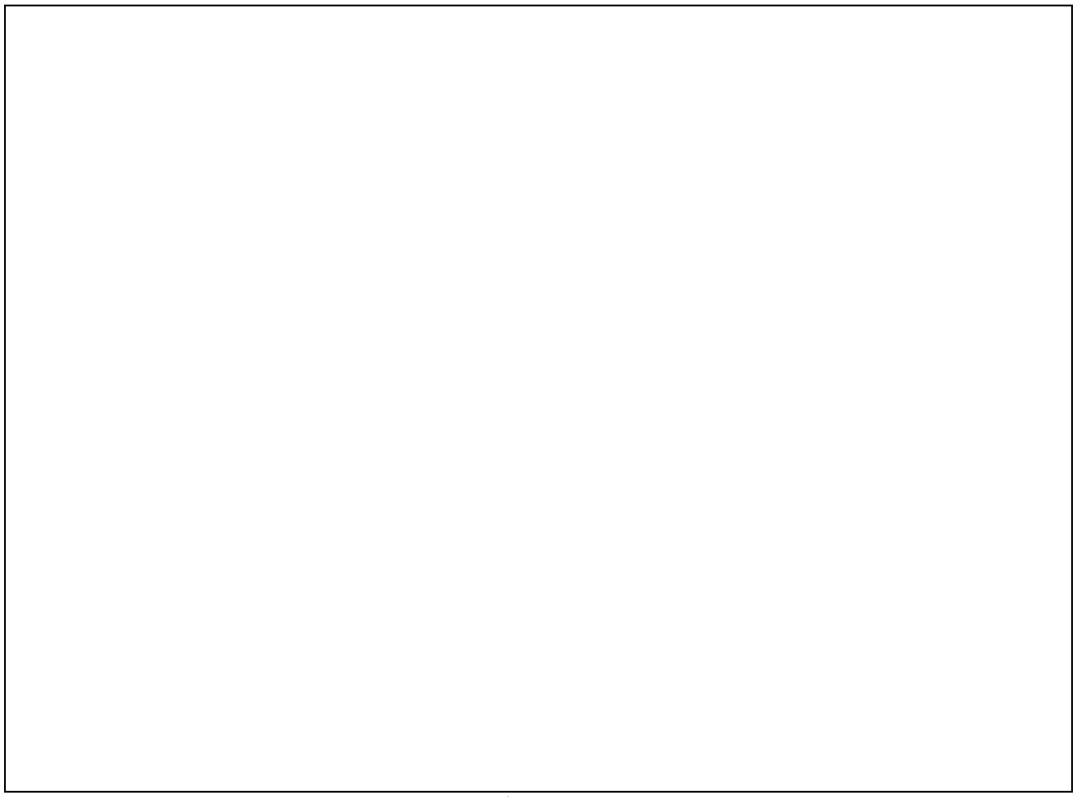
1965

In [redacted] construction was noted on a building (item 10) in the southwest section of the plant. No other changes were observed. By [redacted] this structure, identified as an electric substation, appeared to be complete. On photography of [redacted] initial construction was noted on a large C-shaped administration/engineering building (item 11).

1966-1967

In [redacted] construction for a new assembly building (item 49) on the northeast section of the plant was first noted. The building measured [redacted] No additional changes have been observed at this plant since [redacted] Construction is nearing completion on the administration/engineering building and the new assembly building as of [redacted] the date of the latest photography.

REFERENCES



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