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12 Pages

NPIC/R-317/64

May 1964

PHOTOGRAPHIC INTERPRETATION REPORT

MALOYAROSLAVETS RESEARCH INSTITUTE OBNINSK, USSR

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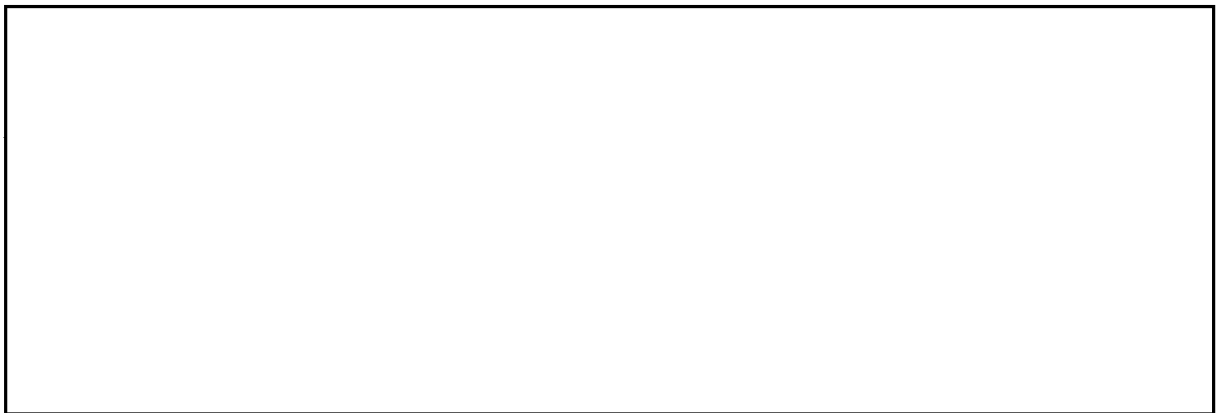
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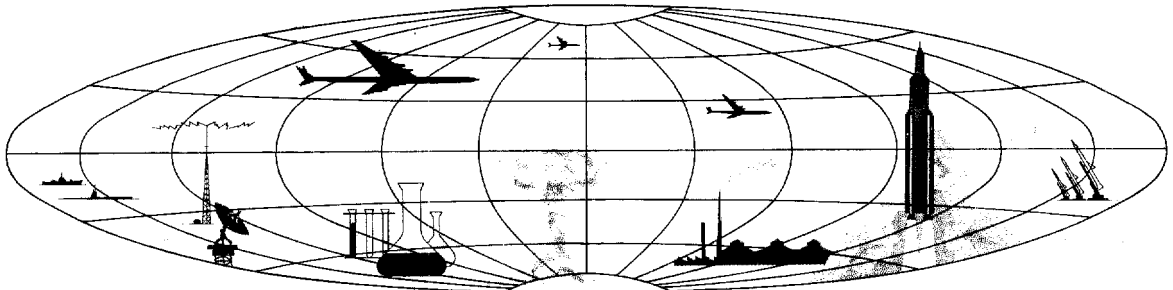


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INTRODUCTION

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This report updates September 1963 information 1/ on the Maloyaroslavets Research Institute, Obninsk, USSR, (55-05N 36-35E; BE [redacted] and is based on [redacted] photography of the institute from [redacted] up to and including that of [redacted] (Figures 1 and 2). The institute is located west of the village of Obninsk, 6.5 nautical miles (nm) northeast of Maloyaroslavets, and approx-

imately 54 nm southwest of Moscow. A probable nuclear research facility 2 nm southeast of the institute is probably associated with it. Two unidentified areas are situated north of the institute. The small scale and obliquity of the photography, shadows, and snow cover made precise measurements from the [redacted] photography difficult.

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RESEARCH INSTITUTE

Founded for the purpose of physical research and for the design of atomic power installations, the institute is the site of the first Soviet nuclear power station, Atom Mir-1 (AM-1), which began operating in 1954 and which is the first atomic powerplant in the world. 2/ The institute has also developed and built four fast reactors (designated BR-1, BR-2, BR-3, and BR-5). A mobile pressurized water reactor, suitable for use as a source of electric power at remote locations, was seen at the institute by a US Atomic Energy Commission delegation in 1963. 2/

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The institute, which is road and rail served, includes a reactor area, a support area, and a large housing area (Figure 2). [redacted] a new apartment-type building was under construction on the northern edge of the housing area.

Reactor Area. The southern portion of the Reactor Area has been expanded and now contains a possible reactor building measuring approximately 160 by 130 feet, a probable air-exhaust and filter building measuring about 90 by 50 feet, a stack 155 feet high, two unidentified buildings, and two towers, all of which were newly identified in [redacted] (Figures 3

and 4). This portion of the Reactor Area is completely fenced. The towers, which are approximately 150 feet high, were probably under construction in [redacted] but were not discernible until [redacted]. At the present time there is no photographic evidence indicating that these towers are used for power transmission.

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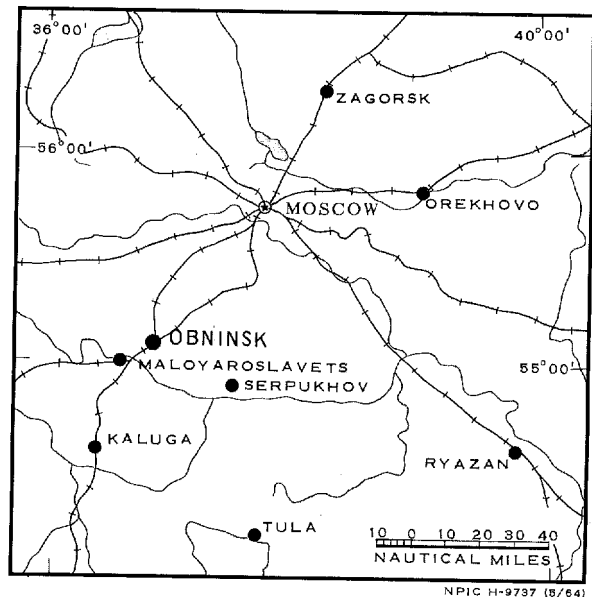


FIGURE 1. LOCATION OF MALOYAROSLAVETS RESEARCH INSTITUTE, OBNINSK, USSR.

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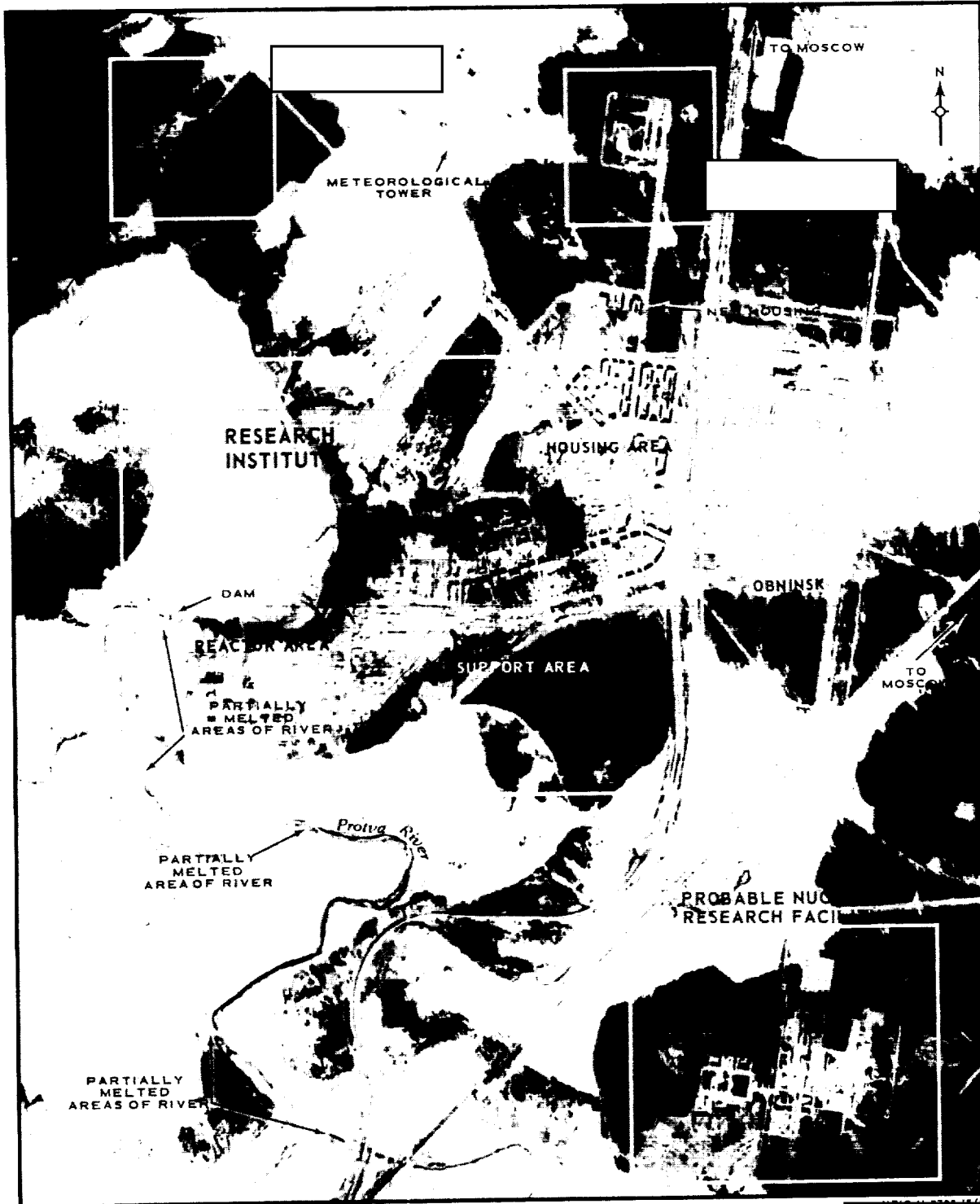
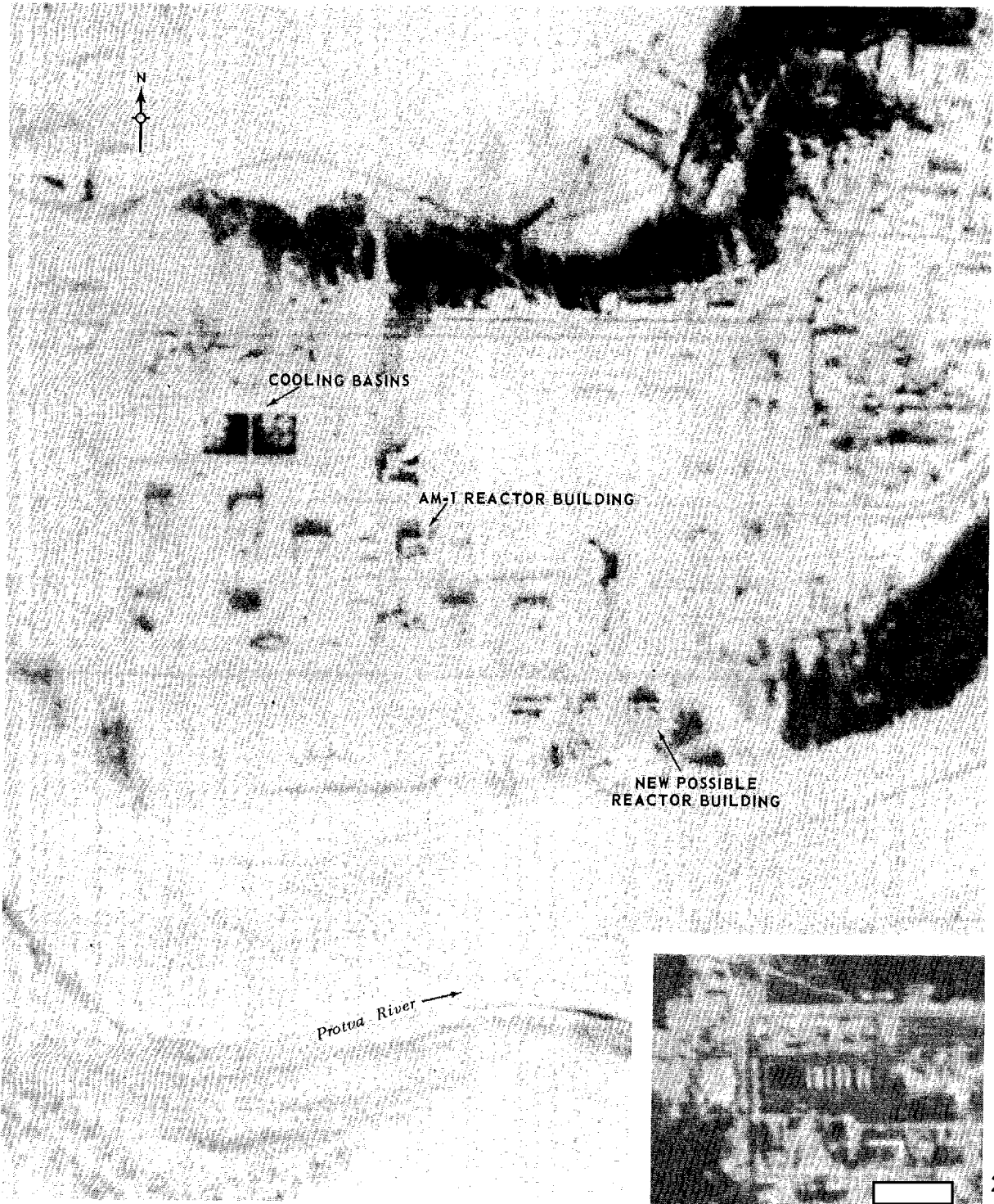


FIGURE 2. MALOYAROSLAVETS RESEARCH INSTITUTE AND PROBABLE NUCLEAR RESEARCH FACILITY [REDACTED]

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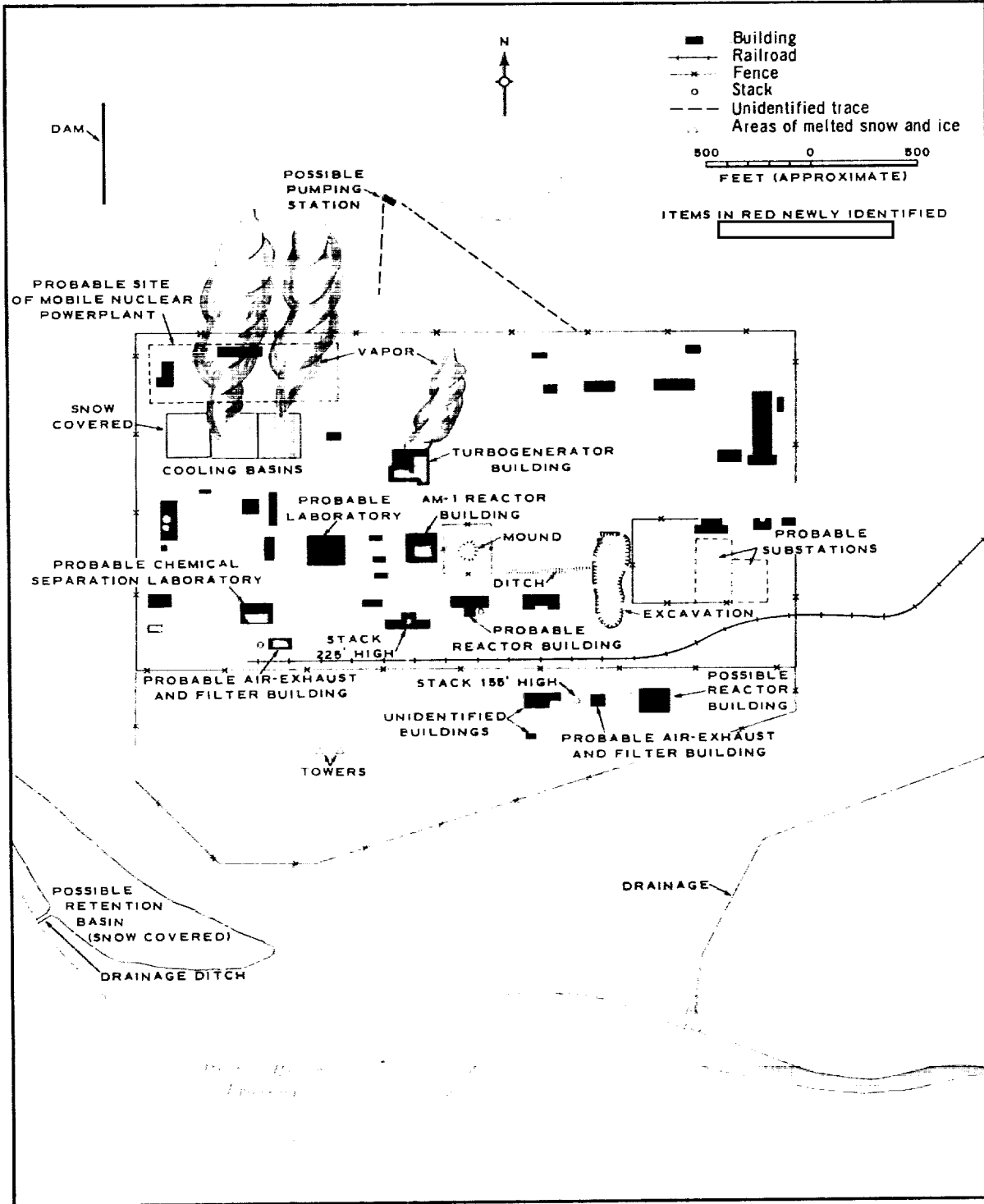
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FIGURE 3. REACTOR AREA, MALOYAROSLAVETS RESEARCH INSTITUTE, [redacted] The cooling basins are shown in the inset.

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FIGURE 4. REACTOR AREA, MALOYAROSLAVETS RESEARCH INSTITUTE.

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Several changes were also noted in the older or northern portion of the area. A third probable air-exhaust and filter building was newly identified in the western section of the area near a previously observed stack. 1/ The previously reported probable reactor building 1/ northwest of the air-exhaust and filter building has now been identified as a probable chemical separation laboratory. A new earth mound was visible about 150 to 200 feet east of the AM-1 reactor building. The mound is fenced, and a ditch extends from the vicinity of the mound to a large excavation about 1,000 feet east of the building. Snow in a portion of the excavation has either melted or been removed, indicating that some kind of activity had taken place there. Snow on the roofs of several buildings, particularly on the roofs of the AM-1 reactor building, the turbogenerator building, and the probable chemical separation laboratory, had melted, an indication that heat was being dissipated by these buildings.

The water facility in the northwest corner of the Reactor Area 1/ contains three cooling basins, two of which were noted for the first

time in [] (Figures 3 and 4). In [] the two easternmost basins may have been equipped with aerators (see inset, Figure 3) which were not discernible in [] 25X1D
[] the westernmost basin 25X1D
was covered with snow, and vapor was rising from the other two basins.

A probable substation has been newly identified west of the previously reported probable substation 1/ in the southeastern corner of the area. The existence of the suspect substation just outside the southwest corner of the area has been negated. 1/

A newly observed possible retention basin is located outside the southwest corner of the Reactor Area. [] it was snow covered, and a small drainage ditch connected the basin to the Protva River. The river was partially melted downstream from the dam in three areas: a small area immediately after the water passes through the dam, a small area in the vicinity of the possible retention basin, and a third area south of the Reactor Area which extends for approximately 2 nm downstream (Figures 2 and 4). 25X1D

PROBABLE NUCLEAR RESEARCH FACILITY

This facility situated in a wooded area about 2 nm southeast of the research institute contains a probable reactor area, an administration area, and a barracks area (Figures 5 and 6). An improved road bisects the facility, but no rail spurs were discernible. No pumping stations were observed on the bank of the Protva River near the facility, and no ice-free or melted areas were visible on the river near the facility itself. A possible pipeline trace and an unidentified trace were noted south of the Barracks Area. A small road-served clearing south of the Probable Reactor Area is the terminus of a new possible pipeline trace, and

a new clearing approximately 800 by 300 feet is situated near the southeast corner of the area.

Probable Reactor Area. This area may be completely fenced, and a new wall which parallels the western fence line now extends to the road in the southwest corner of the area. The T-shaped probable reactor building is located in the center of the area. A probable air-exhaust and filter building with a stack is situated approximately 700 feet northeast of the probable reactor building. In [] 25X1D
steam or smoke was visible about 500 feet north of the probable reactor building, but the source of the steam or smoke could not be



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FIGURE 5. PROBABLE NUCLEAR RESEARCH FACILITY NEAR OBNINSK, [REDACTED]

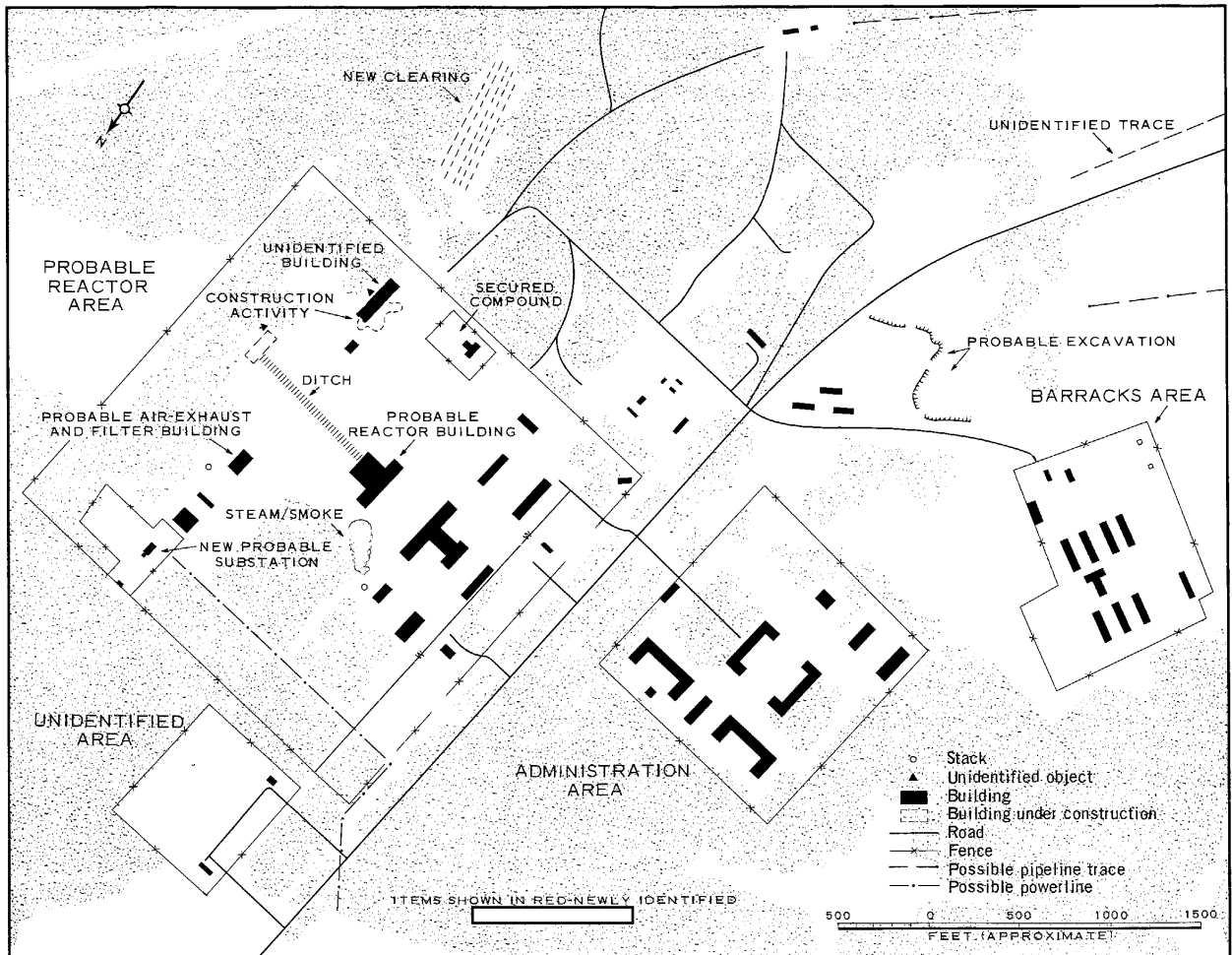
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FIGURE 6. PROBABLE NUCLEAR RESEARCH FACILITY NEAR OBNINSK.

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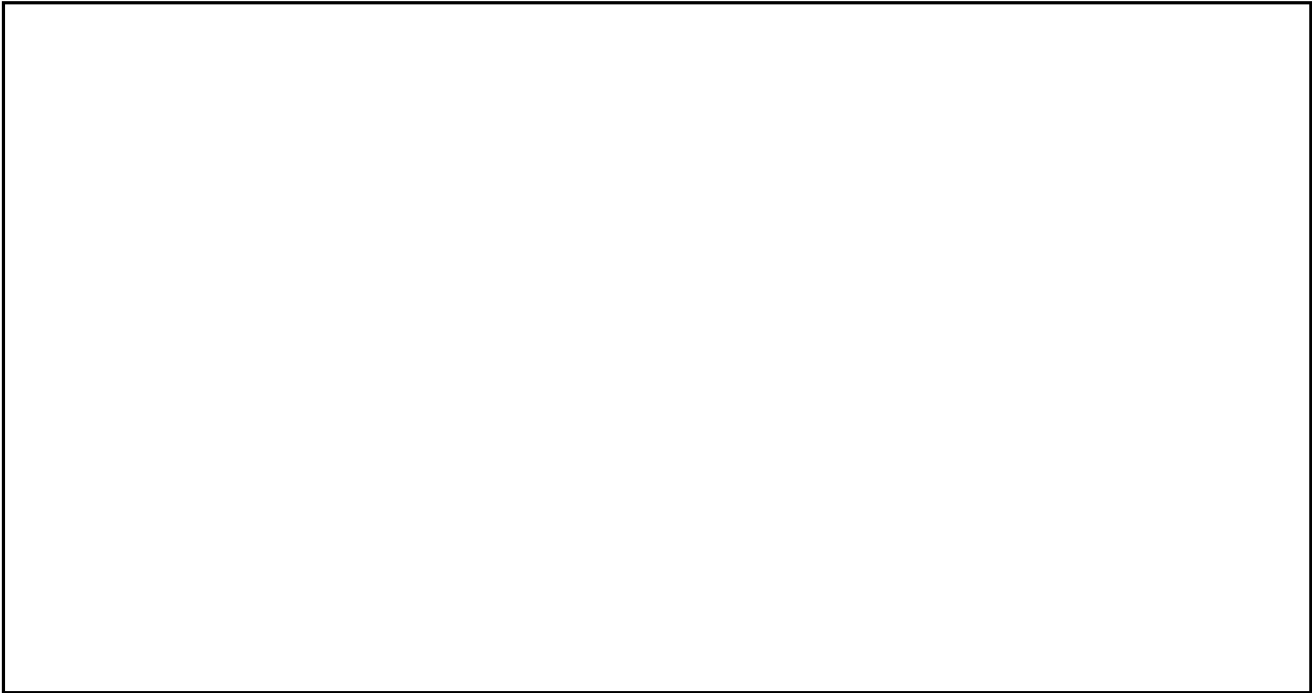
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determined from the photography. A ditch east of the probable reactor building extends to an unidentified building 1/ which is still under construction. A new unidentified object situated at the southeast corner of this building casts a shadow across the building. A newly observed unidentified building is located in the southeast portion of the area. Construction activity on the west side of this building and a new unidentified object on the east side of the building were also observed.

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Two separately secured compounds were identified for the first time in [redacted]. A secured probable substation is situated in the northeast corner of the area, and a possible powerline extends from the west side of this substation to the perimeter fence. The existence of the suspect substation 1/ immediately northwest of the area has been negated and is now an unidentified area. A fenced compound con-

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taining a possible T-shaped building is located about 600 feet south of the probable reactor building.

Administration Area. This area is road served and contains four U-shaped buildings and six small buildings, two of which were observed for the first time in [redacted]. No significant changes have been observed in this area since [redacted].

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Barracks Area. This area is road served and contains eight one-story barracks, a T-shaped administration building, and several small buildings. No changes have been noted in this area. A probable excavation east of the area may be associated with road construction or with construction activities in the Probable Reactor Area. Three single-story barracks-type buildings are located near the road serving the Barracks Area and immediately north of this excavation.

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1. NPIC. R-29. 64, *Maloyaroslavets Research Institute, Obninsk, USSR*, Jan 64 (TOP SECRET [redacted])
2. AEC. *Atomic Energy in the Soviet Union*, Trip Report of the US Atomic Energy Delegation, May 63 (UNCLASSIFIED)

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REQUIREMENT

CIA. C-SI4-61,132

NPIC PROJECT

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