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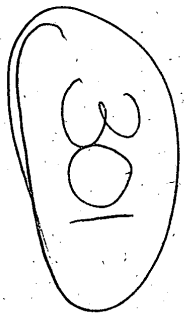

Krasnaya Pakhra Research Complex (S)

STRATEGIC WEAPONS INDUSTRIAL FACILITIES

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INSTALLATION OR ACTIVITY NAME					COUNTRY
Krasnaya Pakhra Research Complex					UR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
—	55-27-35N 037-17-35E				

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MAP REFERENCE

SAC. USATC, Series 200, Sheet 0167-5, scale 1:200,000 (SECRET)

LATEST IMAGERY USED	NEGATION DATE (If required)
See ABSTRACT	NA

ABSTRACT

1. (S/WN) Krasnaya Pakhra Research Complex in the USSR is involved in radiowave propagation studies, magnetohydrodynamics, laser experimental research, high-pressure physics, and accelerator studies. This report updates previous basic reports, the last of which was dated May 1976, and satisfies the current basic reporting requirement for this target. Major complex changes and new construction are outlined in red on the graphics. The report includes a location map and 11 annotated photographs. Item numbers used in this report are the same as those previously used except for the numbers depicting changes and additions. This report covers the period February 1976 through September 1982.

INTRODUCTION

2. (S/WN) Krasnaya Pakhra Research Complex, also known as Troitsk Science City, (Figure 1) is 21 nautical miles (nm) southwest of Moscow, USSR, and immediately south of the town of Troitsk. The complex is served by the Moscow-Kalgua Highway and is involved in radiowave propagation studies, magnetohydrodynamics, laser experimental research, high-pressure physics, and accelerator studies.

3. (S/WN) The research complex (Figure 2) comprises several research institutes: the Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation (IZMIRAN); the Krasnaya Pakhra Branch of the Institute of Atomic Energy Imeni Kurchatov (FIAEh) and Associated Tunnel Facility; the Institute of High-Pressure Physics (IFVD); the Institute of Spectroscopy (ISAN); the Institute of Physics Imeni Lebedev (FIAN); the Institute for Nuclear Research (INR); and a new probable design bureau under construction.

4. (S/WN) Since February 1976,[1] numerous construction starts/completions have occurred at the complex. Construction of several structures/buildings, started prior to 1976, was completed; but a few structures/buildings were still under construction during this reporting period. Also, construction of several structures/buildings was started during the reporting period; many of these were completed, but several were still in various stages of construction. With this new construction, expansion of the utility conduit was necessary and in some areas, conduit construction was continuing.

BASIC DESCRIPTION

Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation (IZMIRAN), Academy of Sciences

5. (S/WN) IZMIRAN (Figure 3) was operational and active throughout the reporting period. Since February 1976, construction at the Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation (IZMIRAN) has been limited to an excavation for an unidentified structure near the northwest limits of the facility. Preparation for this excavation, which is estimated to be 37 by 33 by 3 meters, was started prior to late April 1982.

Krasnaya Pakhra Branch of the Institute of Atomic Energy Imeni Kurchatov (FIAEh)

6. (S/WN) FIAEh (Figure 4) was operational and active throughout the reporting period. Construction on three buildings within the secured institute was completed during the reporting period. One of these buildings is a two-story administration/laboratory annex (item 27c) which was started in February 1975 and completed and in use by February 1978. The other two, a large storage building (item 31) and an administration/laboratory building (item 32), were constructed during the reporting period. The storage building, approximately [redacted] has two large entrances and was constructed between October 1976 and July 1977. The administration/laboratory building is a two-story, [redacted] meter structure built between February 1978 and June 1979.

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7. (S/WN) Eight vertical tanks are adjacent to the experimental laboratory building (item 23). Two of the tanks were present in 1975, two were installed during 1976, and four were installed during 1979. The tanks, which are all the same size, are small in diameter and extend above the roof of the building. They probably store gases/liquids necessary for conducting experimental laser research.

8. (S/WN) Two multistory administration/laboratory-type buildings, north of and just outside the security fence, are probably associated with the institute. Neither of the buildings are secured. The largest is an irregular multistory administration/laboratory building (item 30) which was first observed under construction in October 1975. The building, which was externally complete by the summer of 1982, consists of a main, [redacted] four-story section (item 30a); a [redacted] 25X1
single-story section (item 30b); and a [redacted] five-story section, which probably 25X1
contains elevators and stairs. Four large, roof-mounted, circular vents are near the southern end of the four-story section. The building appeared to be vacant in early September 1982. Construction on the smaller of the two buildings was started prior to October 1979. This administration/laboratory building (item 33), just north of the larger building, is a three-story structure, [redacted] with a 25X1
centrally located monitor. The building was nearly externally complete by early September 1982.

Tunnel Facility

9. (S/WN) The Tunnel Facility (Figure 5) was probably operational and very active throughout the reporting period. Construction was mostly related to improving the testing capability of existing devices and/or testing new devices at the facility. During 1980, a large unidentified machine was installed in a large annex (item 13a) constructed adjacent to the northern experimental hall (item 2). Other construction at the facility consisted of a large laboratory building (item 14), a linear hall annex (item 15) to the northernmost small structure (item 6) over the buried conduit, two security buildings (item 16 and 17), and a linear annex (item 18) to the southern experimental hall (item 11). All of these structures are externally complete and probably operational.

10. (S/WN) Between 1979 and 1981, a three-section annex (items 13a, b, and c) was constructed adjacent to the west side of the northern experimental hall (item 2). This annex contains a very large unidentified machine.

11. (S/WN) During the spring of 1979, ground preparation for annex section A (item a), [redacted] 25X1
[redacted] was initiated. By late 1979, a concrete tray, approximately [redacted] consisting of 25X1
a slightly belowgrade concrete floor with an approximately [redacted]-high wall had been constructed. 25X1

(Continued p. 7)

FIGURE 1. LOCATION MAP OF KRASNAYA PAKHRA RESEARCH COMPLEX, USSR

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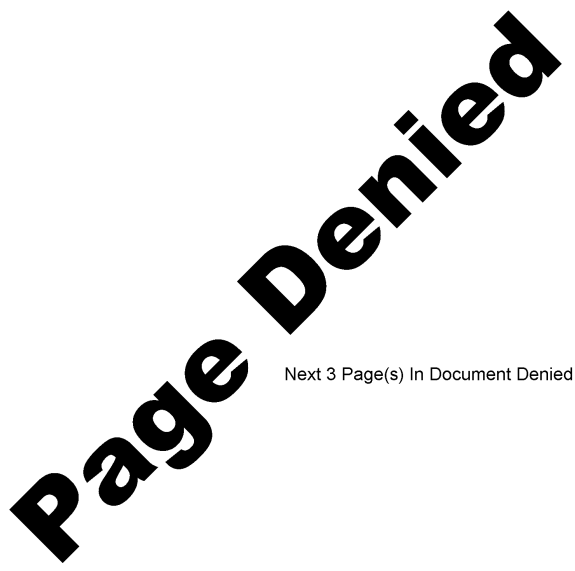

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The tray was isolated from the northern experimental hall by an approximate separation. By February 1980, the east, west, and south walls were partially constructed; the north wall had been left open to accommodate the installation of a very large unidentified machine. Between March and May, the machine was delivered and installed. Although construction of the north wall was not complete, 14 evenly spaced steel beams extended between the north and south walls (Figure 6). The machine, beneath the steel beams, appeared to be a large, dark-toned, rectangular, box-shaped object with rounded corners on its top linear edges. The machine is very large; allowing for an approximately separation between the machine and the interior walls. The machine is an estimated meters wide, and high. Between July and October, this section of the annex, including a top story constructed over the machine, was nearly externally complete. The separation between this annex section and the northern experimental hall was also closed.

12. (S/WN) Annex section B (item 13b, Figure 5) is a small, single-story structure centrally attached to the south wall of annex section A. It was constructed during the same timeframe as annex section A, but no equipment was observed being installed. In mid-1982, this annex was being expanded. The south and west halls were constructed and two probable transformers were installed within the structure. The roof has not been constructed.

13. (S/WN) Annex section C (item 13c, Figure 5) is a large three-story structure, meters, that was constructed in the corner formed by the northern experimental hall and annex section A. Construction was underway as early as February 1981 and had been externally completed by November 1981. The ground floor was constructed with a row of vertical posts centrally located on the long axis of the building. At least two large pieces of equipment were installed on the second floor while under construction. This equipment probably has an electrical function (switches/control panels) that is probably associated with the large machine in annex section A. Construction of the third floor of section C was not observed.

14. (S/WN) During February 1981, two vertical high-pressure tanks, approximately in diameter and high, were installed adjacent to the spherical tank farm (item 12, Figure 5) at the northern end of the facility. The tanks, which had been in nearby open storage since May 1979, may be in support of the large probable machine installed in the new laboratory annex (item 13a, Figure 5).

15. (S/WN) During 1978 and 1979, a large new laboratory building (item 14, Figure 5) was constructed near the northern experimental building (item 2). Ground clearing was apparent in February 1978. By August, preparations for footings were underway, and by February 1979, the meter laboratory was nearly externally complete. During late 1979, a large pipe, approximately in diameter, was installed between the laboratory and the westernmost cylindrical tank (item 5); a covered pipe gallery was also installed between the laboratory and the northern experimental hall during the latter part of 1979. The laboratory has six large vents and several small vents. The pipe gallery and the large-diameter pipe suggest that the laboratory is involved in device testing at the northern experimental hall and supports the function of the nearby cylindrical and spherical tanks (items 5 and 12).

16. (S/WN) A single-story linear hall (item 15, Figure 5) was constructed adjacent to the southern end of the northernmost structure (item 6) between October 1976 and July 1977. The linear hall, is attached to the southern end of the structure and aligned over the buried conduit.

17. (S/WN) A two-story linear hall (item 18, Figure 5) was constructed adjacent to the southern experimental hall (item 11) between August 1978 and February 1979. This linear hall is attached to the southern experimental hall and aligned over the buried conduit.

18. (S/WN) The physical security at the Tunnel Facility was improved during the reporting period. A single-story administration/security building (item 6, Figure 5) was constructed west of the southern experimental hall between July 1977 and February 1978. This building allows personnel to enter/exit the Tunnel Facility from housing area I. Also, a single-story security building (item 17) was constructed east of the northern experimental hall between February 1978 and August 1979. This building probably houses the guards necessary to secure the facility.

Probable Design Bureau Under Construction

19. (S/WN) Since the mid-1970s, construction of a new probable design bureau has been underway at the complex. This probable design bureau (Figure 7) is in the forested area just east of the Tunnel Facility. By mid-1982, a large amount of the forest had been cleared and at least eight large permanent buildings in various stages of construction and a permanent open storage area were observed. A support area consisting of three buildings, a two-story administration building, a two-story administration/engineering building, and a vehicle storage building had been constructed by the end of 1975. Additionally, the complex utility conduit was extended to the area and was still under construction in the northern portion of the area at the end of this reporting period.

20. (S/WN) By early September 1982, construction on the large assembly-type building (item 1), first evident in February 1975, was nearly externally complete. The building is and consists of five arch-roofed bays (items 1a through 1e); each bay is wide. The four southern bays (items 1a through 1d) were constructed first and are at ground level. The northern bay (item 1e) was constructed more slowly because a portion of this bay was to have two floors. By late 1975,

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an excavation for footings for this two-floor area was observed. Three rows of equally spaced [redacted] 25X1
footings for posts to support the second floor were subsequently installed. This 105-meter-long, two-floor
structure extends the [redacted] width of the bay. It is located 35 meters west of and 55 meters east of the 25X1
north bays east and west ends, respectively. By April 1979, the second floor had been partially installed
and this portion of the bay was being roofed. At least eight large, permanent, drive-through, double-
door entrances serve the assembly-type building, three on each end and one on each side of the
building. The building is also served by the complex utility tunnel which was installed along both its north
and south sides. A total of 1,080 skylight ports is on the roof of the building, 180 on each of the two
outside bays and 240 on each of the three center bays. An estimated 70 percent of the skylights appear to
be installed; the remaining uninstalled skylights are probably on the roof.

21. (S/WN) A double-bay machine shop (item 2) with an attached three-story engineering laboratory (item 3) and an adjacent open storage area (item 4) was constructed south of the large assembly-type building. Ground preparation for this construction was observed as early as December 1979; construction was externally complete in September 1982. The open storage area consists of a fenced area [redacted] 25X1
meters) containing a heavy rail-travelling gantry crane. The storage area has been operational and in use
since spring 1981. The [redacted] double-bay machine shop has several roof vents and 25X1
large double-hung door entrances on either end. The three-story engineering laboratory, [redacted] 25X1
meters, was the last building to be completed. Neither the machine shop nor the laboratory appear to be
operational/occupied.

22. (S/WN) Four identical, large, high-bay buildings, north of the assembly-type building, were also observed under construction at the new probable design bureau. These high-bay buildings, west (item 5), east (item 6), southwest (item 7), and southeast (item 8), were in various stages of construction. Each building is [redacted] and will consist of a flat-roofed structure with 24 massive steel 25X1
pillars, 12 equally spaced on each side, designed to support a heavy overhead travelling gantry crane.
Access to each building, excluding personnel entrances, will consist of at least two large drive-through
entrances on each end of the building. Each building will also have a large belowgrade shock/isolation
bench, which is [redacted] and consists of several concrete-filled prefabricated modular 25X1
rebar sections. The bench is equally spaced between the ends of the building but slightly off the center
line paralleling the length of the building. Additionally, each building will probably have a multistory
office-type building attached to one side.

23. (S/WN) Construction of the west high-bay building was apparent as early as October 1980. By September 1982, the building was externally complete. A five-story office-type building (item 5b) was constructed along the west outside wall of the building. This office building is [redacted] 25X1
and extends [redacted] beyond the entire length of the high-bay building. Its overall height is estimated 25X1
to be 2 or 3 meters below the bottom of the travelling crane in the high-bay building.

24. (S/WN) Construction of the east high-bay building was apparent in June 1981. By September 1982, the building was nearly externally complete, and the footings for a probably multistory office-type building had been installed and a crane was in place to start construction.

25. (S/WN) Construction was started on the southwest high-bay building in April 1982. In September, the building was still in the early stages of construction. The excavation was complete; all but three of the footings were installed; the shock/isolation bench was partially installed.

26. (S/WN) Construction had begun on the southeast high-bay building by July 1982. The building was still in the very early stages of construction in September 1982; the excavation was complete and the excavation for the shock/isolation bench was being prepared.

27. (S/WN) Construction on another building (item 9), situated midway between the east and west high-bay buildings and the southeast and southwest high-bay buildings, was started in August 1982. The foundation, which consists of hundreds of pile-driven steel beams enclosed by wooden forms and covered with concrete, has exterior and interior dimensions of 54 and 42 meters square, respectively. Construction was continuing at the end of this reporting period.

28. (S/WN) Construction of a possible administration/engineering laboratory (item 10) started during the summer of 1982 was observed in the very early stages of construction. This building, with its first floor partially constructed, is just west of the assembly-type building over the belowgrade utility tunnel. Construction is progressing at a very slow pace.

29. (S/WN) During the summer of 1982, additional forest was cleared from the area, indicating that more buildings are to be constructed.

Institute of High-Pressure Physics (IFVD), Academy of Sciences

30. (S/WN) IFVD (Figure 8) was operational and active throughout the reporting period. Construction of the annex (item 1c) had been completed by late 1976. Two construction starts have occurred since June 1979. The first is a multistory administration/laboratory building (items 13a and b) adjacent to the southern perimeter fence of this institute. The building, which was not complete during the reporting period, will be at least five stories and will consist of an [redacted] primary building (item 13a) 25X1
with a [redacted] wing addition (item 13b). The other construction (item 14), started in June 1980, 25X1
is adjacent to the annex (item 1c) to the 50,000-ton press building (item 1a). Construction consists of an
excavation, approximately 28 by 25 by 3 meters, with a small compartment in its northwest corner.

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Institute of Spectroscopy (ISAN)

31. (S/WN) ISAN (Figure 9) was probably operational and very active throughout the reporting period. New building construction has more than doubled the size of ISAN since 1974. The construction consists of a large laboratory/engineering building, two vehicle-associated buildings, and a new institute entrance pavilion.

32. (S/WN) The large laboratory building (item 3), under construction in 1975, was externally complete by mid-1976 and subsequently occupied. The building consists of a two-story laboratory with a high-bay, two-compartment laboratory on its north end. The high-bay laboratory was connected to the rear laboratory extension (item 2b) of the main institute building by an overhead pipe as early as October 1976. Between October 1980 and February 1981, a tall, small-diameter tank (item 4), similar to the eight tall small-diameter tanks adjacent to the experimental laboratory building (item 23, Figure 4) at FIAEh, was installed near the high-bay section of the laboratory. An overhead pipe, which extends towards the tank, may be connected to the tank.

33. (S/WN) Construction on the large laboratory/engineering building (item 5) was started prior to early 1979 and was externally complete in late 1981. The grounds around this irregular-shaped three-/four-story building, [redacted] overall, have not been completed and the building was still vacant in September 1982. 25X1

34. (S/WN) Two vehicle-associated buildings were constructed during the period. The first building is a large vehicle maintenance/storage building (item 6) which was constructed during the period 1976—1977. This building is [redacted] and has three large doors. The second building is a long vehicle/equipment storage building (item 7) and was constructed during the spring of 1978. It is [redacted] and has several doors. Both buildings are in use. 25X1 25X1 25X1

35. (S/WN) Construction on a new institute entrance pavilion (item 8), which was began prior to November 1981, was almost externally complete by September 1982. This two-story pavilion is [redacted] and is connected by covered walkways to the new large laboratory/engineering building (item 5) and the main institute building (item 2a). 25X1 25X1

Institute of Physics Imeni Lebedev (FIAN)

36. (S/WN) FIAN (Figure 10) was operational and active throughout the reporting period. Between early 1976 and mid-1982, construction of four buildings was completed or started and completed. A cryogen storage bunker was started and completed and a belowgrade bunker/laboratory was started during the period.

37. (S/WN) Two buildings, started prior to 1976, were completed and occupied during the period. The large warehouse (item 11) had been completed and occupied by February 1978. The warehouse has several large doors. At the accelerator building, the large attached three-story laboratory building (item 15) had been completed and occupied by early 1979.

38. (S/WN) A chemical laser research facility (item 14) has been identified at FIAN. This very large building was previously reported as an administration headquarters for INR. Construction on this building began prior to June 1971. The building was externally complete by 1981 and heated during the winter of 1981/1982. Although, the building may be occupied, there has been no activity to suggest that testing is underway. The building consists of a main floor (item 14a), [redacted] overall, with two separate upper-level sections. The south upper-level section (item 14b), [redacted] meters, is a three-story (above the main floor) probable laboratory/engineering section. The north upper-level section (item 14c), [redacted] is a high-bay (above the main floor) probable laser laboratory connected to a [redacted]-high scrubber assembly/vent. The building has numerous roof-mounted ventilators and is served by several nearby support buildings/facilities—including a small unidentified vented building with a a [redacted]-diameter underground tank immediately north; a small unidentified building adjacent to the north wall of the building; two transformers near the southwest corner of the building; and a large cooling pond immediately south. 25X1 25X1 25X1 25X1 25X1

39. (S/WN) A cryogenic storage bunker (item 18), first observed under construction in October 1976, is near the southeast corner of FIAN. The bunker consists of an earth-covered, partially belowgrade concrete vault, [redacted] with two large vents and six small vents/ports. In February 1978, the vault was partially constructed and three cryogen tanks with estimated dimensions of [redacted] meters and possibly five smaller cryogen tanks were near the open end of the stucture. The vault appeared to be externally complete by mid-1978, but work continued on the interior until early 1981. The vault was not earth covered until June 1981. [redacted] 25X1 25X1 25X1

40. (S/WN) Between late 1978 and October 1980, a large, metal, high-bay warehouse (item 19) was constructed adjacent to the special design bureau building (item 5). The 100- by 25- by 12-meter warehouse has several vents and ten large double-door entrances (five on either side); the hardstands on both sides of the building are routinely kept free of material.

41. (S/WN) Since October 1980, a belowgrade bunker/laboratory (item 20) has been under construction just northwest of the four special design bureau buildings (items 4, 5, 6, and 7) at the institute.

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Institute of Spectroscopy (ISAN)

31. (S/WN) ISAN (Figure 9) was probably operational and very active throughout the reporting period. New building construction has more than doubled the size of ISAN since 1974. The construction consists of a large laboratory/engineering building, two vehicle-associated buildings, and a new institute entrance pavilion.

32. (S/WN) The large laboratory building (item 3), under construction in 1975, was externally complete by mid-1976 and subsequently occupied. The building consists of a two-story laboratory with a high-bay, two-compartment laboratory on its north end. The high-bay laboratory was connected to the rear laboratory extension (item 2b) of the main institute building by an overhead pipe as early as October 1976. Between October 1980 and February 1981, a tall, small-diameter tank (item 4), similar to the eight tall small-diameter tanks adjacent to the experimental laboratory building (item 23, Figure 4) at FIAEh, was installed near the high-bay section of the laboratory. An overhead pipe, which extends towards the tank, may be connected to the tank.

33. (S/WN) Construction on the large laboratory/engineering building (item 5) was started prior to early 1979 and was externally complete in late 1981. The grounds around this irregular-shaped three-/four-story building, [redacted] overall, have not been completed and the building was still vacant in September 1982. 25X1

34. (S/WN) Two vehicle-associated buildings were constructed during the period. The first building is a large vehicle maintenance/storage building (item 6) which was constructed during the period 1976—1977. This building is [redacted] and has three large doors. The second building is a long vehicle/equipment storage building (item 7) and was constructed during the spring of 1978. It is [redacted] and has several doors. Both buildings are in use. 25X1 25X1 25X1

35. (S/WN) Construction on a new institute entrance pavilion (item 8), which was began prior to November 1981, was almost externally complete by September 1982. This two-story pavilion is [redacted] and is connected by covered walkways to the new large laboratory/engineering building (item 5) and the main institute building (item 2a). 25X1 25X1

Institute of Physics Imeni Lebedev (FIAN)

36. (S/WN) FIAN (Figure 10) was operational and active throughout the reporting period. Between early 1976 and mid-1982, construction of four buildings was completed or started and completed. A cryogen storage bunker was started and completed and a belowgrade bunker/laboratory was started during the period.

37. (S/WN) Two buildings, started prior to 1976, were completed and occupied during the period. The large warehouse (item 11) had been completed and occupied by February 1978. The warehouse has several large doors. At the accelerator building, the large attached three-story laboratory building (item 15) had been completed and occupied by early 1979.

38. (S/WN) A chemical laser research facility (item 14) has been identified at FIAN. This very large building was previously reported as an administration headquarters for INR. Construction on this building began prior to June 1971. The building was externally complete by 1981 and heated during the winter of 1981/1982. Although, the building may be occupied, there has been no activity to suggest that testing is underway. The building consists of a main floor (item 14a), [redacted] overall, with two separate upper-level sections. The south upper-level section (item 14b), [redacted] is a three-story (above the main floor) probable laboratory/engineering section. The north upper-level section (item 14c), [redacted] is a high-bay (above the main floor) probable laser laboratory connected to a [redacted]-high scrubber assembly/vent. The building has numerous roof-mounted ventilators and is served by several nearby support buildings/facilities—including a small unidentified vented building with a [redacted]-diameter underground tank immediately north; a small unidentified building adjacent to the north wall of the building; two transformers near the southwest corner of the building; and a large cooling pond immediately south. 25X1 25X1 25X1 25X1 25X1

39. (S/WN) A cryogenic storage bunker (item 18), first observed under construction in October 1976, is near the southeast corner of FIAN. The bunker consists of an earth-covered, partially belowgrade concrete vault, [redacted] with two large vents and six small vents/ports. In February 1978, the vault was partially constructed and three cryogen tanks with estimated dimensions of [redacted] meters and possibly five smaller cryogen tanks were near the open end of the stucture. The vault appeared to be externally complete by mid-1978, but work continued on the interior until early 1981. The vault was not earth covered until June 1981. The security provided by the earth covering, the absence of entrances, and the construction time required for checkout indicates that toxic/corrosive cryogens are being stored in this vault. 25X1 25X1

40. (S/WN) Between late 1978 and October 1980, a large, metal, high-bay warehouse (item 19) was constructed adjacent to the special design bureau building (item 5). The 100- by 25- by 12-meter warehouse has several vents and ten large double-door entrances (five on either side); the hardstands on both sides of the building are routinely kept free of material.

41. (S/WN) Since October 1980, a belowgrade bunker/laboratory (item 20) has been under construction just northwest of the four special design bureau buildings (items 4, 5, 6, and 7) at the institute.

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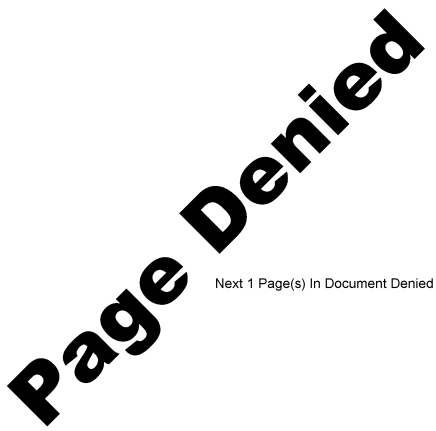

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By September 1982, a 50- by 20- by 3-meter concrete structure had been constructed and backfilling was underway. The structure has a large [redacted]-square opening in its top center adjacent to its northern end. Two conduits, one extending from its east wall eastward, were observed under construction. 25X1

Institute for Nuclear Research (INR), Academy of Sciences

42. (S/WN) INR (Figures 11 and 12), which has been under construction for several years, has two sections. The north section contains a linear accelerator (LINAC) or Meson facility that is in the midstages of construction. The south section contains laboratories and support facilities associated with the LINAC.

43. (S/WN) At the south section (Figure 11), only one possibly associated INR building has been started since 1976. As of September 1982, the large two-section laboratory building (item 24) had been completed and occupied. The two southernmost sections of the larger six-section laboratory building (item 25) was complete and possibly occupied, but the remaining four sections were observed in the mid-to-late stages of construction and have not been occupied. The five storage buildings (items 19 through 23) are complete and have been in use for several years, but the multistory laboratory/engineering building (item 18), although externally complete by 1976, was probably not occupied until 1982.

44. (S/WN) A large unidentified building (item 26) probably associated with INR was observed under construction just west of the southern laboratory building. This building, which is being separately secured, is partially complete and may eventually consist of several stories.

45. (S/WN) A large construction support facility, associated with INR, is just east of the south section. This facility has been operational for several years and consists of a motor vehicle maintenance area, a small concrete batch plant, and two building materials storage areas. A large high-bay motor vehicle maintenance building was observed under construction in the motor vehicle maintenance area.

46. (S/WN) The LINAC or Meson facility has been under construction in the north section (Figure 12) since 1975. The facility includes an injector building and a side-coupled LINAC section (long tunnel) as well as supporting outbuildings. The injector building was constructed on concrete pilings positioned in a Y-shape to accept at least two types of particle injectors. The remainder of the building probably contains an injector control room, supporting offices, laboratories, and shops. Part of the drift-tube LINAC is probably in the southern section of the tunnel along the east wing of the injector building. The east wing probably contains the necessary drift-tube LINAC control equipment.

47. (S/WN) As of late September 1982, construction of the injector building and drift-tube LINAC section were nearly externally complete (item 27). By March 1982, the overall length of the side-coupled LINAC section (item 28), including the injector building, was approximately 480 meters. Construction on the side-coupled LINAC has since remained unchanged and ground preparation for the probable experimental test area, approximately 100 meters north of the north end of the side-coupled LINAC, was subsequently started.

48. (S/WN) By September 1982, several supporting outbuildings had been or were being constructed on the east side of the facility. The complex utility conduit was installed belowgrade approximately 50 meters east of the facility. The conduit is parallel to and extends the entire length of the facility. A heavily vented, high-bay, probable power conditioning building (item 29), [redacted] was constructed over the conduit approximately 40 meters east of the injector building. An elevated enclosed gallery was constructed between the injector building and the probable power conditioning building. A covered possible transformer area (item 30), [redacted] was also constructed over the utility conduit on the north end of the probable power conditioning building. 25X1 25X1

49. (S/WN) East of the probable power conditioning building, two large multistory support buildings (items 31 and 32), [redacted] respectively, were nearly complete. A two-story, 35- by 12-meter support building (item 33) was constructed over the utility conduit near the north end of the side-coupled section. Another multistory 30- by 18-meter building (item 34) was under construction nearby. 25X1

Complex Support Facilities

50. (S/WN) Krasnaya Pakhra Complex support facilities consist of an electric substation and a sewage treatment plant, both located in the southern portion of the complex (Figure 2). The power substation has remained unchanged since 1973, but expansion of the sewage treatment plant has been underway since the early 1970s. This expansion was nearly complete and was partially operational by mid-1982. When fully operative, the plant's capacity will be more than double that of the original plant.

Housing

51. (S/WN) Two housing areas (I and II) support the complex. Expansion of both housing areas has been underway for the past several years. During the past six years, housing area I (Figure 2) was enlarged by approximately 25 percent. Four large multistory apartment buildings were constructed and another large probable multistory apartment building was observed in the early stages of construction. Housing area II (Figure 2) was enlarged by approximately 15 percent. Four large multistory apartment buildings were constructed during this reporting period and two large multistory probable apartment buildings were observed in the early stages of construction.

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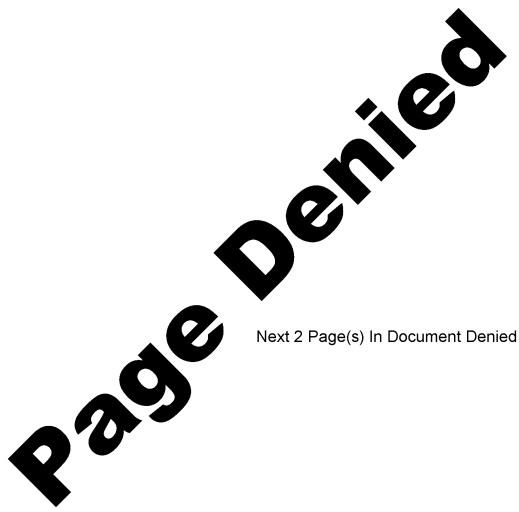

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REFERENCES

IMAGERY

(S/WN) All pertinent satellite imagery acquired through September 1982 was used in the preparation of this report.

MAP OR CHART

SAC. US Air Target Chart, Series 200, Sheet 0167-5, scale 1:200,000 (SECRET)

DOCUMENT

1. NPIC. [redacted] RCA-14/0018/76, *Krasnaya Pakhra Research Complex (U)*, May 76 (TOP SECRET [redacted] 25X1 25X1

*Extracted information is classified SECRET/WNINTEL/[redacted] 25X1

REQUIREMENT

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Project 542005J

(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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