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basic imagery interpretation report

# Developments at Nenoksa and Balaklava Missile Test Centers (S)

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MISSILE RANGES: NAVAL LAUNCHED FACILITIES  
BE: VARIOUS  
USSR

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INSTALLATION OR ACTIVITY NAME					COUNTRY
Developments at Nenoksa and Balaklava Missile Test Centers					UR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	See below	See below	See below	See below	See below

MAP REFERENCE

NA

LATEST IMAGERY USED	NEGATION DATE (if required)
<span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	NA

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Installation Name	Geographic Coordinates	Category	BE No	COMIREX No	NIETB (MRN) No
Nenoksa Naval Missile Test Center	64-38-35N 039-11-45E				
Balaklava Missile Test Center	44-30-01N 033-32-23E				

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**ABSTRACT**

1. The Soviets were testing two strategic-naval ballistic systems and one cruise-missile system at the Nenoksa Naval Missile Test Center between mid-August 1982 and mid-September 1983. During that same period, no indications of either new or renewed testing occurred at the Balaklava Missile Test Center. This report, which describes activity associated with these two test centers and updates NPIC report Z-14627/82, includes a location map and eight annotated photographs. (S/WN)

**INTRODUCTION**

2. Significant activities observed at Nenoksa Naval Missile Test Center (NMTC) included:
  - a. Initial land-based flight testing of the SS-NX-23 missile (previously designated the SS-N-18 follow-on and the NE-5),
  - b. Initial land-based flight testing of a probable modification to the SS-NX-20 missile,
  - c. Initial delivery of operational SS-NX-20 missiles to the missile storage facility,
  - d. Initial land-based flight testing of the SS-N-12 follow-on missile, and
  - e. Termination of land-based testing of the SS-NX-21 missile. (S/WN)
3. Significant activities observed at Balaklava Missile Test Center (MTC) included:
  - a. Termination of popup testing of the SS-NX-23 missile, and
  - b. Termination of popup testing of the BL-10 missile. (S/WN)



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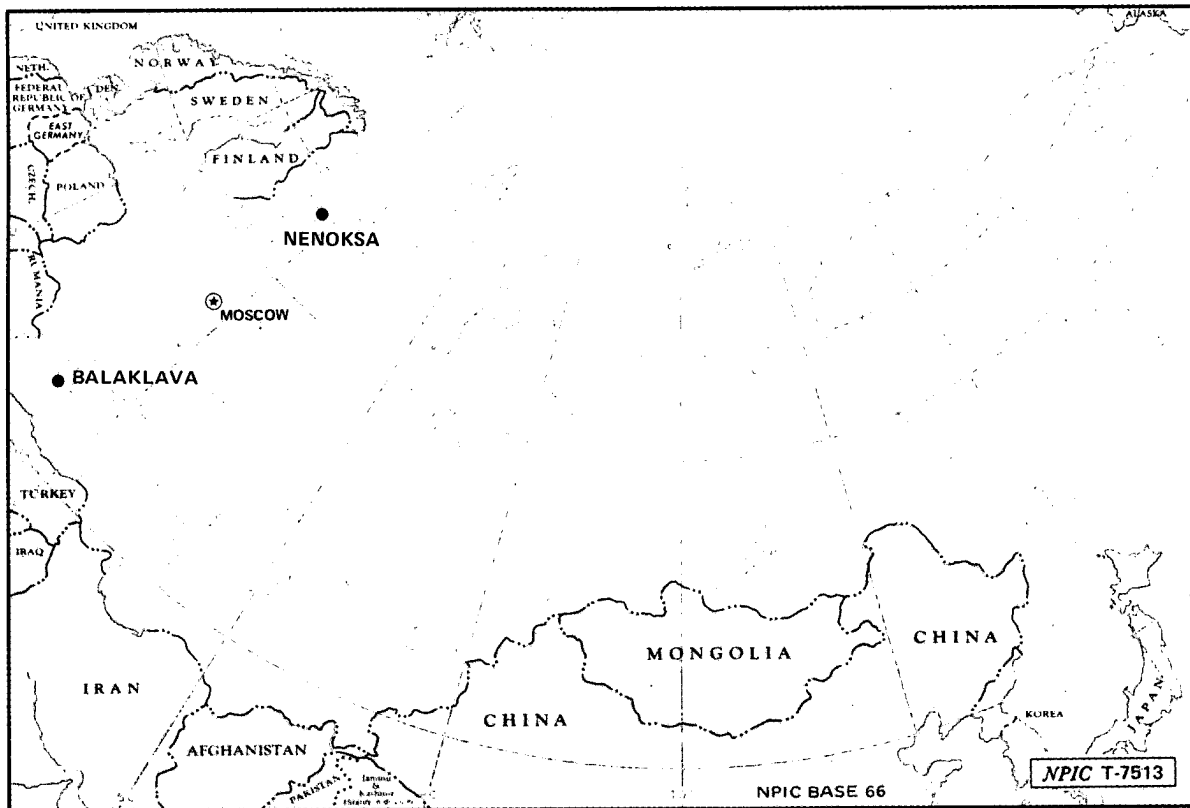


FIGURE 1. LOCATION OF NENOKSA NMTC AND BALAKLAVA MTC, USSR

## BASIC DESCRIPTION

### Nenoksa NMTC

4. Nenoksa NMTC, on the southern shore of the White Sea (Figure 1), is the major naval ballistic and extended-range cruise missile flight test facility in the USSR. The most recent test activity has involved the SS-NX-23 submarine-launched ballistic missile (SLBM), the probable modified SS-NX-20 SLBM, and the SS-N-12 follow-on antiship cruise missile. Land-based testing of the SS-NX-21 long-range, land-attack cruise missile, which was initiated at this facility in May 1981, has ended. (S/WN)

### SS-NX-23 Flight Testing

5. Land-based flight testing of the SS-NX-23 SLBM has been initiated at launch facility C. The first two launches of the SS-NX-23 occurred on  New components and ground support equipment used in this testing began arriving at the main support area at Nenoksa in March; however, the first launch was somewhat unexpected because the support facilities and the control bunker at the launch site were still under construction/renovation. Minor construction continued on these facilities and on the propellant facility through mid-September. (S/WN/NOFORN)

- 2 -

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6. Before the [redacted] launch, several related events took place. On [redacted] a canvas-covered missile dolly, possibly with a missile being checked out for launch, was protruding from the new assembly/checkout building.

[redacted]

On [redacted] two cranes at launch facility C were involved in prelaunch activity (Figure 2). By [redacted] both cranes had been removed from the immediate launch area, an indication that the launch was imminent (Figure 3). (S/WN)

7. No imagery was available on the days immediately preceding the second launch on [redacted] and no postlaunch activity was observed on the next available imagery of [redacted] (S/WN)

8. At least two probable SS-NX-23-related missile components and three associated missile dolly/transporters were in the SS-NX-20 SLBM checkout area in March (Figure 4). A possible post boost vehicle (PBV) or PBV container with an overall height of [redacted] and a diameter of [redacted] was on the hardened apron at the west end of the SS-NX-20 SLBM checkout building. The second SS-NX-23 component, positioned on a flatbed trailer next to the first component, had an overall height of [redacted] and a diameter of [redacted]. This component was probably one of the three stages of the SS-NX-23 missile or a container for one of the stages. The three dollies/transporters, delivered to the SS-NX-20 SLBM checkout area in March, were [redacted] long, with two [redacted] arms extending to the rear. The outside width of the dollies was [redacted]. By May, the dollies/transporters were moved to the SS-NX-23 assembly/check-out building. The probable SS-NX-23-related components and three dollies/transporters were delivered to the SS-NX-20 assembly/checkout building, probably because the rail line did not completely extend to the SS-NX-23 assembly/checkout building. (S/WN)

9. The new assembly/checkout building (Figure 5) was probably operational and externally complete by June; however, the rails leading from the building had not been connected to the main rail line. By [redacted] the first TT-EL-01 antenna was installed on the roof of the building; the second antenna had not been installed. By April, most of the construction materials stored outside the building were moved, presumably into the building, an indication that the interior was nearly complete. The presence of a missile dolly/transporter protruding from the building on [redacted] suggests the building was operational. (S/WN)

10. The liquid propellant facility (Figure 6) is operational. Panels were placed over the partially completed sheds covering the pumping stations, probably to conceal temporarily any fueling activity associated with the [redacted] launch. Construction on the sheds began in early January and by [redacted] the sheds appeared to be nearly complete. On [redacted] portions of the sheds were being torn down. Evidently, the temporary roof was being removed and replaced with a more permanent one. (S/WN)

11. Launch facility C, which has been undergoing modification to support the flight testing of the SS-NX-23 since early 1983, is now operational, although not totally complete. Reinforcement of the control bunker at the launch site began in late February; the beginning of a gridlike structure atop the bunker was evident by [redacted] (Figure 2). This gridlike structure, probably for additional sound-proofing, suggests that the first stage of the SS-NX-23 is noisier than the first stage of the SS-N-18, previously tested at this facility. (S/WN)

**Probable Modified SS-NX-20 Flight Testing**

12. Land-based flight testing of a probable modification to the SS-NX-20 SLBM has been initiated at launch facility D. Testing at launch facility D resumed in late June after a hiatus of one year. Until then, this SS-NX-20

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launch facility had remained in a caretaker status. Movement of 19-meter missile railcars in and out of the SLBM assembly/checkout area during this hiatus is probably related to the assembly/checkout of operational SS-NX-20 missiles. The resumption of land-based testing after an apparently successful SS-NX-20 at-sea test program suggests that the missile being tested is a modification to the SS-NX-20. (S/WN)

13. A launch of a probable modified SS-NX-20 missile took place from launch facility D

on [redacted] Launch preparations were observed at the launch site on [redacted] when a probable systems checkout was underway. The erector/loader was positioned over the launch tube and a crane was positioned next to it. Postlaunch activity at launch facility D (Figure 7) on [redacted] involved the return of two of three sections of the erector/loader cover to the launch area. These sections were removed before the [redacted] launch. Activity at launch facility D has continued, an indication that future launches are planned. (S/WN/NO-FORN)

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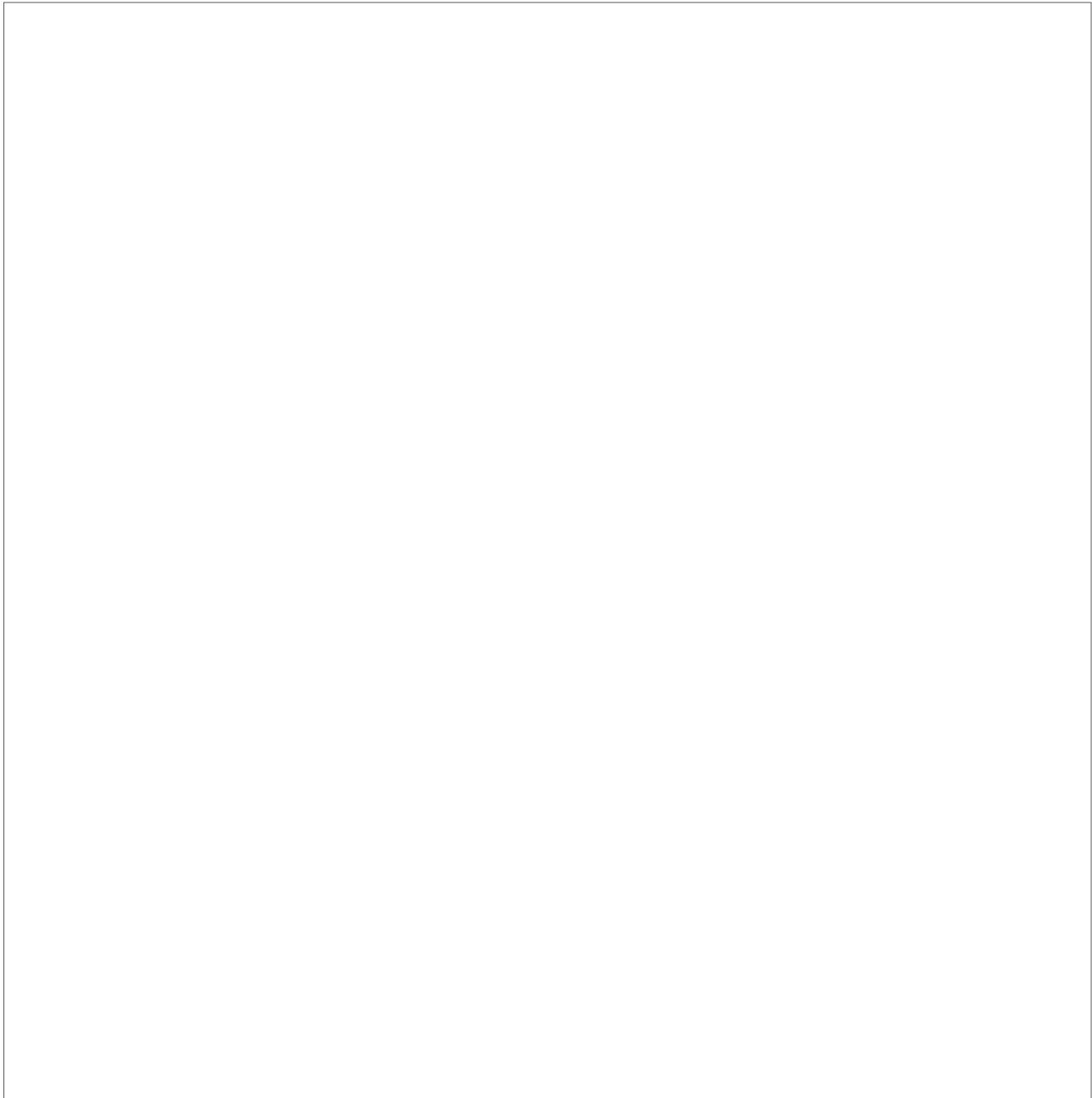
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**SS-NX-20 Missile Storage**

14. Operational SS-NX-20 missiles are probably being stored at the missile storage facility at Nenoksa. Two of the three previously reported large SS-NX-20 bunkers (79 by 13 by [redacted] and the one small bunker (31 by 13 by [redacted] appear to be operational. By early February, these three bunkers were

enclosed in a double security fence. A third large bunker was complete by [redacted]. One 19-meter missile railcar was in the completed portion of the storage facility (Figure 8) intermittently throughout the reporting period, an indication that SS-NX-20 missiles were probably being stored in the completed bunkers. (S/WN)

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**SS-N-12 Follow-On Flight Testing**

15. Preparations for testing the SS-N-12 follow-on antiship cruise missile, which began at Nenoksa at launcher A3 in June 1981, are complete, and land-based flight testing of the missile has been initiated. [redacted]

16. Activity leading to the first SS-N-12 follow-on launch on [redacted] included the movement of two 12-meter missile crates to launch facility A in early January. These crates, which were stored outside for several months, probably contained dummy missiles and were used for loading practice and or crew training. A nitrogen purge vehicle, used to purge fuel lines and tanks of excess fuel, was at the cruise missile assembly/checkout area in March. In addition, launcher A3, normally positioned in a northerly direction, was turned to the northwest by [redacted]. During previous cruise missile tests, launcher A3 has either been turned to the northwest toward the Kandalakshskaya Bay test range or to the northeast toward the Cheshskaya Bay test range. [redacted]

17. Possible prelaunch activity for the [redacted] test was in progress in early August, when a crane was positioned at the launcher at launch site A3. Additional prelaunch activity was observed when a nitrogen purge vehicle was again observed in the cruise missile assembly/checkout area in early August. Continued activity in the cruise missile assembly/checkout area suggests that additional launches are planned for the future. (TSZ)

**SS-NX-21 Flight Testing**

18. Land-based flight testing of the SS-NX-21 long-range, land-attack cruise missile has ended. No launch-related activity has been observed since mid-1982. In December 1982, the uniquely modified ZIL cargo truck associated with the program was removed from Nenoksa. At-sea testing of the missile system, using the uniquely modified Victor-III nuclear-powered attack submarine, was underway in the White Sea. (S/WN)

**Miscellaneous Activity**

19. In early January, a new rail-served, high-bay building was under construction next to the main rail line east of the cruise missile assembly/checkout area. By mid to late July, this building appeared to be externally complete. In addition, a second large building was under construction on the opposite side of the rail line. Construction was continuing on this building. (S/WN)

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**Balaklava Missile Test Center**

20. Balaklava Missile Test Center is on the coast of the Black Sea, 6 nautical miles southeast of Sevastopol (Figure 1). Static popup testing of all SLBMs and submerged-launched cruise missiles is conducted at this center. The facility has most recently been involved in the SS-NX-23 test program and the BL-10 (previously unidentified weapons system) cruise missile test program. (S/WN)

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**SS-NX-23 Popup Testing**

21. Popup testing of the SS-NX-23 began in late 1981. This testing, which used popup test platform 9 (previously designated modified popup test platform 8), ended by August 1982. Platform 9 (Figure 9) has been inactive since that time and has remained in the popup barge storage area at Balaklava Submarine Base and Ship Repair Yard [redacted] (S/WN)

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**BL-10 Popup Testing**

22. The BL-10 cruise missile testing ended by late August 1982 when fuel/oxidizer vehicles, believed to be used with this testing, were removed from the test center. Popup test platform 10 (previously referred to as the naval weapons test vessel), the popup test platform for the BL-10, has been tied up to the quay at Balaklava Submarine Base near platform 9 (Figure 9). (S/WN)

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**Miscellaneous Activity**

23. The Golf-V ballistic missile submarine, originally used in underway popup testing for the SS-NX-20, is normally berthed at Balaklava Submarine Base. It was out to sea during three different periods, the last being from [redacted] the submarine was moved from its normal berthing position at the quay to a pier at the eastern portion of the base, where it has since remained (Figure 9). (S/WN)

when in port, was always moored to the quay where the Golf-V normally had been berthed (Figure 9). (S/WN)

25. The Typhoon model, the scale model of the nuclear-powered ballistic missile submarine, was first observed at Balaklava Submarine Base in April 1981. By [redacted] it was moved to Leningrad Shipyard Sudomekh 196 [redacted] to be modified, to be placed on display, or to be put in storage. (S/WN)

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24. A Juliett cruise missile attack submarine was moved to Balaklava Submarine Base from the North Fleet by [redacted] This is the second Juliett to be observed in the Black Sea Fleet. [redacted]

26. A two-bay, single-story storage building, under construction in the missile handling area since August 1982, was complete by [redacted]

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[redacted] In the housing area, one multistory administration/apartment building was complete by mid-June in the western area of the facility; in the southern central edge of the facility, work was continuing on an additional building. (S/WN)

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[redacted] The Juliett was in and out of port several times, and

**REFERENCES**

**IMAGERY**

All applicable satellite imagery acquired through [redacted] was used in the preparation of this report. (S/WN)

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**MAPS OR CHARTS**

DMA. US Air Target Chart, Series 200, Sheets 0092-22 and 0250-25, scale 1:200,000 (UNCLASSIFIED)

**DOCUMENTS**

1. DIA. DIN 221-4A, *USSR: SLBM TEST (U)*, 9 Aug 83 (SECRET/WNINTEL/NOFORN)

[redacted]

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3. DEFSMAC. *K/DQ/403-83*, 9 Apr 83 ([redacted])

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4. DEFSMAC. *K/DQ/1021-83*, 15 Aug 83 ([redacted])

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**RELATED DOCUMENTS**

NPIC. *Z-14627/82, RCA-17/0002/82, Developments at Nenoksa and Balaklava Missile Test Centers (S)*, Dec 82 ([redacted])

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NPIC. [redacted] *RCA-09/0021/83, SS-NX-20 Submarine-Launched Ballistic Missile System (S)*, Dec 83

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**REQUIREMENTS**

COMIREX R01  
Project 543063R  
Distribution 86-010

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

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