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**basic imagery interpretation report**

# **Soviet Major Surface Combatant Construction for 1982 (S)**

**STRATEGIC WEAPONS INDUSTRIAL FACILITIES**  
**BE: Various**  
**USSR**

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**Z-12048/83**  
**RCA-09/0009/83**  
**JUNE 1983**  
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**ACRONYMS AND ABBREVIATIONS**

|        |  |
|--------|--|
| ADG    | Deperming ship                         |
| AEM    | Missile support ship                   |
| AG     | Miscellaneous auxiliary                |
| AGBN   | Nuclear powered icebreaker             |
| AGE    | Experimental auxiliary                 |
| AGI    | Intelligence collection ship           |
| AOR    | Replenishment oiler                    |
| ASR    | Submarine rescue ship                  |
| ASW    | Antisubmarine warfare                  |
| CG     | Guided missile cruiser                 |
| CGN    | Nuclear powered guided missile cruiser |
| CHG    | Guided missile helicopter cruiser      |
| CVHG   | Guided missile V/STOL aircraft carrier |
| DD     | Destroyer                              |
| DDG    | Guided missile destroyer               |
| DP     | Dual purpose                           |
| FF     | Frigate                                |
| FFG    | Guided missile frigate                 |
| FFL    | Corvette                               |
| KGB    | Committee for State Security           |
| LCPA   | Amphibious personnel landing craft     |
| LPD    | Amphibious assault transport dock      |
| LST    | Amphibious vehicle landing ship        |
| mm     | Millimeter                             |
| MSF    | Fleet minesweeper                      |
| nm     | Nautical mile(s)                       |
| PCF    | Fast patrol craft                      |
| PG     | Patrol combatant                       |
| PGG    | Guided missile patrol combatant        |
| PM     | River monitor                          |
| RO/RO  | Roll-on/roll-off                       |
| SAM    | Surface-to-air missile                 |
| SESS   | Space events support ship              |
| V/STOL | Vertical/short takeoff and landing     |
| WFFL   | Nonnaval light frigate                 |
| YRRN   | Radiological support ship              |

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|  |                        |           |           |             |           |
|--|------------------------|-----------|-----------|-------------|-----------|
| INSTALLATION OR ACTIVITY NAME                        |                        |           |           |             | COUNTRY   |
| Soviet Major Surface Combatant Construction for 1982 |                        |           |           |             | 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

SAC. USATC; Series 200; Sheets 0169-10, 0249-16, 0204-22, 0153-4, 0250-9, and 0165-1; scale

LATEST IMAGERY USED

NEGATION DATE (If required)

NA

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| Installation Name                                 | Geographic Coordinates  | BE No | Category | COMIREX No | NIETB (MRN) No |
|---|-------------------------|-------|----------|------------|----------------|
| Kaliningrad Shipyard State 820                    | 54-41-32N<br>020-26-16E |       |          |            |                |
| Kerch Naval Base and Shipyard Kamysh Burun No 532 | 45-15-59N<br>036-25-00E |       |          |            |                |
| Khabarovsk Shipyard Ussuri South 876              | 48-24-07N<br>135-05-27E |       |          |            |                |
| Leningrad Shipyard Baltic Ordzhonikid 189         | 59-55-18N<br>030-15-39E |       |          |            |                |
| Leningrad Shipyard Zhdanov 190                    | 59-52-34N<br>030-14-02E |       |          |            |                |
| Nikolayev Shipyard Northern 61 Kommuna 445        | 46-58-42N<br>032-00-20E |       |          |            |                |
| Nikolayev Shipyard Nosenko 444                    | 46-56-53N<br>031-58-19E |       |          |            |                |
| Zelenodolsk Shipyard 340                          | 55-50-06N<br>048-30-11E |       |          |            |                |

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**ABSTRACT**

1. The Soviet Union continued to enhance and expand its surface combatant force during 1982, with 23 major surface combatants in various stages of construction. This total comprised two CVHGs, one CGN, three CGs, ten DDGs, three FFGs, and four FFLs. The most significant surface combatant activity for the year included the launch of the 444D CVHG, the second unit of the 445F-class CG, the fourth unit of the Sovremennyy-class DDG, and units 3 and 4 of the Udaloy-class DDG. (S/WN)

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2. This report presents, in two parts, a review of the Soviet major surface combatant construction programs for 1982. The first part deals with the major surface combatant construction activity by class on a unit-by-unit basis; the second part discusses the construction programs and facilities at each of the eight shipyards presently involved in the construction of major surface combatants. This report is based on the analysis of all applicable satellite imagery acquired during 1982 and includes 18 annotated photographs, seven line drawings, a location map, and a construction chart. (S/WN)

**INTRODUCTION**

3. The Soviet major surface combatant construction programs (Chart 1) involve two classes of CVHGs (444D and Kiev), one class of CGN (Kirov), one class of CG (445F), two classes of DDGs (Sovremennyy and Udaloy), two classes of FFGs (Krivak I and modified Krivak), and two classes of FFLs (Grisha III and modified Grisha II). Within these ten classes of ships, 23 major surface combatants were in various stages of construction during 1982—one 444D CVHG, one Kiev CVHG, one Kirov CGN, three 445F CGs, five Sovremennyy DDGs, five Udaloy DDGs; three Krivak FFGs, three Grisha III FFLs, and one modified Grisha II FFL. The construction, launch, and fitting-out of these major surface combatants is conducted at eight shipyards (Figure 1)—two at Nikolayev, two at Leningrad, one at Kaliningrad, one at Zelenodolsk, one at Kerch, and one at Khabarovsk. (S/WN)

**BASIC DESCRIPTION**

**Aircraft Carrier Construction**

**444D-Class CVHG**

4. The 444D (NPIC interim designator) is a new class of CVHG (Figure 2). Construction of the unit began in December 1978, and it was launched from Nikolayev Shipyard Nosenko 444 between [redacted] Fitting-out of the unit continued throughout the reporting period. The 444D was formerly designated Kiev CVHG unit 4; however, because of significant changes in weapons and electronics and a redesigned island superstructure, the unit has been redesignated. The most significant changes included the addition of large openings in the superstructure, probably for a multifunctional phased-array radar similar to the AEGIS system on the USS Ticonderoga, and the addition of a large circular structure (cake stand) on top of the superstructure. This structure is similar in configuration to a structure used as a probable beam director housing at [redacted]

[redacted] Additionally, two SAM systems have been eliminated from this ship. After this unit was launched from buildingway 5 at Nikolayev, an extension to the buildingway was started. This suggests that the 444D will be unique and will be followed by a ship, possibly a conventional Western-style aircraft carrier, larger than those previously constructed at this facility. (S/WN)

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**Kiev-Class CVHG**

5. The third unit of the Kiev-class CVHG (Figure 3) completed fitting-out and sea trials during the year. This unit, the Novorossiysk, was first observed under construction at Nikolayev Shipyard Nosenko 444 in October 1975, was launched in December 1978, and departed the shipyard for initial sea trials between [redacted]

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[redacted] The ship returned to Nikolayev for post-sea-trials maintenance and repainting of the flight deck in late May; this activity was complete by late August. The

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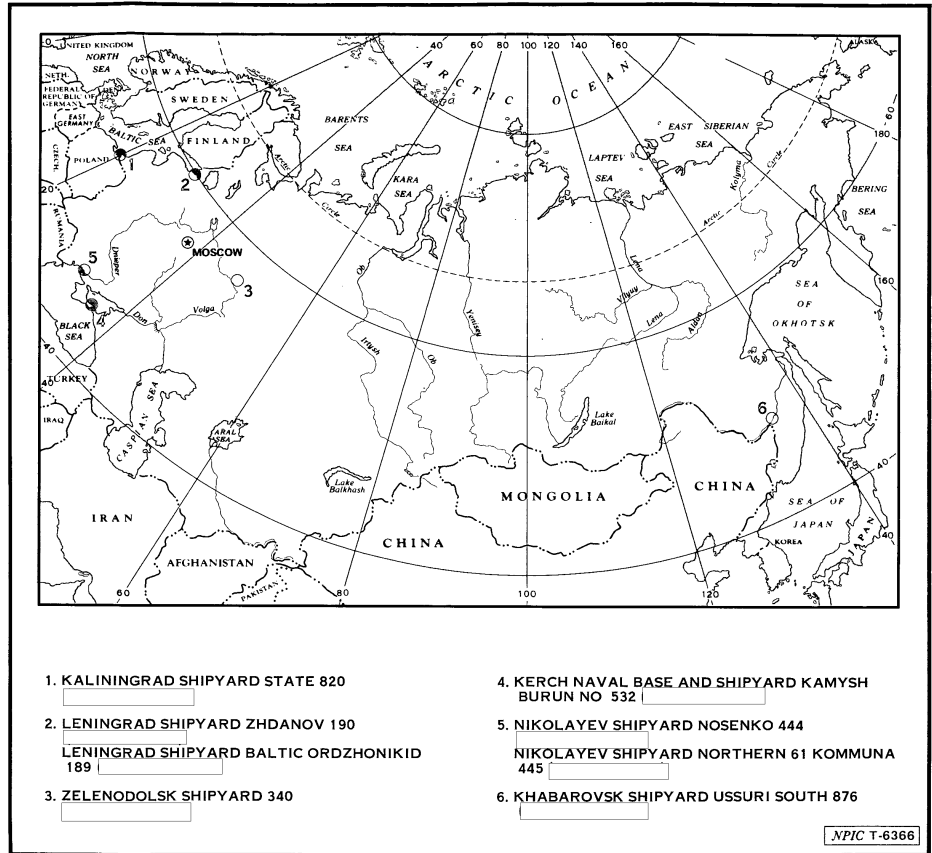


FIGURE 1. LOCATIONS OF SOVIET SHIPYARDS INVOLVED IN THE CONSTRUCTION OF MAJOR SURFACE COMBATANTS

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Novorossiysk remained in the Black Sea during the remainder of the year and was at Sevastopol Naval Base and Shipyard Kilenbal [redacted] on several occasions. No evidence of future Kiev-class CVHG construction was observed during the year. (S/WN)

**Nuclear-Powered Guided Missile Cruiser Construction**

**Kirov-Class CGN**

6. The second unit of the Kirov-class CGN continued fitting-out at Leningrad Shipyard Baltic Ordzhonikid 189 during 1982. This unit was first observed under construction at Leningrad in late December 1977 and was launched in May 1981. Unit 2 is slightly different from unit 1, as shown by the absence of the twin-tube SS-N-14 missile launcher and the addition of a possible Udalay-type SAM system. Additionally, a twin 130mm gun mount has replaced two 100mm gun mounts positioned aft on unit 1 (Figure 4). No evidence of construction for a third Kirov-class CGN was observed during the year. A new class of auxiliary, possibly an SESS, is under construction on the buildingways at reporting position 21, where prior Kirov-class construction took place. (S/WN)

**Guided Missile Cruiser Construction**

**445F-Class CG**

7. The 445F construction program continued at Nikolayev Shipyard Northern 61 Kommuna 445. This program has been underway at this shipyard since 1977. During 1982, one 445F hull was launched, one unit commenced and completed sea trials, and a third hull was in the late stages of construction on the buildingways (Figure 5). (S/WN)

8. The first 445F-class CG, which was under construction by March 1977, was launched in July 1979 and commenced sea trials between [redacted] The ship probably

was not operational by the end of 1982; however, towards the end of the year it was involved in several tests of its SAM systems. Missile transfer operations involving the unit were probably conducted on several occasions at Sevastopol Naval Missile Support and Major Ship Facility [redacted] Unit 2 of the class was launched between [redacted] This ship, which had been laid down by October 1978, continued fitting-out throughout the remainder of the reporting period. Unit 3 of the 445F class, which had been laid down by July 1980, remained on the buildingways in the late stages of construction at the end of the year. (S/WN)

**Guided Missile Destroyer Construction**

**Sovremennyy-Class DDG**

9. The Sovremennyy-class DDG construction program was active during 1982 at Leningrad Shipyard Zhdanov 190, in the Baltic. Two ships became operational during the year, one ship was launched, and four additional hulls were in various stages of construction. Sovremennyy components were identified at Nikolaev Shipyard Northern 61 Kommuna 445, in the Black Sea, during 1982, suggesting that production of this class will soon start at a second shipyard. (S/WN)

10. Sovremennyy DDG unit 1 departed the Baltic in January 1982 for its first operational deployment, to the Northern Fleet. This unit was first observed under construction in August 1974 and was launched in November 1978. Unit 2 became operational in the fall of 1982, when it also deployed from the Baltic to the Northern Fleet. Unit 2 was laid down between mid-1976 and early 1977 in the construction hall, had been launched by [redacted] and departed for sea trials in April 1982. Unit 3, which was laid down in late February and early March 1978, was launched in March 1981 and continued fitting-out at Leningrad during 1982 (Figure 6). Unit 4, which had been laid down by October

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1978, was launched in late April 1982. Fitting-out of the unit continued throughout the reporting period. Unit 5 has been under construction in a covered construction hall since [redacted]. Components for units 6 and 7 recently have been identified at Leningrad, suggesting that Sovremennyy construction will continue not only at this facility but also at Nikolayev Shipyard Northern 61 Kommuna 445, where hull and bulkhead components were identified in October 1982. (S/WN)

**Udaloy-Class DDG**

11. The Udaloy construction program also was active during 1982 at both Kaliningrad Shipyard State 820 and Leningrad Shipyard Zhdanov 190. Two ships were launched during the year, and three additional hulls were in various stages of construction. (S/WN)

12. Units 1 and 2 of the Udaloy class (Kaliningrad hull 1 and Zhdanov hull 1) have been operational since July and September 1981, respectively. Unit 3 (Kaliningrad hull 2) was launched in early November 1982 (Figure 7). This unit, which was first observed under construction in July 1979, continued fitting-out throughout the remainder of the reporting period. Unit 4 (Zhdanov hull 2) was launched between [redacted]

This unit, which was laid down prior to May 1980, continued fitting-out throughout the reporting period (Figure 6). Unit 5 (Zhdanov hull 3), which was first observed under construction in April 1980, was in the late stages of construction at the end of the year. Unit 6 (Kaliningrad hull 3) was laid down prior to June 1981 and was in the late stages of construction at the end of the year (Figure 7). Unit 7 (Zhdanov hull 4), which was first observed under construction in June 1981, was in the late stages of construction at the end of the year. The construction of this class at the two yards suggests a firm Soviet commitment to ASW prosecution, a capability amply exhibited in prior CG, DDG, and FFG/FFL classes. (S/WN)

**Guided Missile Frigate Construction****Krivak-Class FFG**

13. The Krivak construction program continued at Kerch Naval Base and Shipyard Kamysh Burun No 532 during 1982. One Krivak I became operational during the year, one modified Krivak was launched, and an additional Krivak (probably a modified version) was in the early stages of construction. (S/WN)

14. The seventh Kerch-constructed Krivak I (Figure 8) was first observed under construction in September 1979 and commenced sea trials in March 1982. This ship was presumed to be operational shortly thereafter. The eighth Kerch-constructed Krivak hull was launched during 1982. This ship had been laid down by June 1981 and launched by [redacted]. fitting-out continued during the year. Significant modifications to the hull were seen as compared to previously launched Krivak hulls (Figure 9). These modifications included the addition of a flight deck and an area forward of the flight deck large enough to accommodate a helicopter hangar, the elimination of an SA-N-4 launcher and two aft 76mm gun mounts, and the replacement of the forward SS-N-14 ASW missile launcher with an unknown weapons system. These modifications suggest that the ship will be for export. The Krivak construction program continues at Kerch, with the ninth hull in the early stages of construction. Components for this unit were first observed in October 1982; however, it cannot be determined at this time whether this ship will be similarly modified. (S/WN)

**Corvette Construction****Grisha-Class FFL**

15. The Grisha-class construction program continued at both Zelenodolsk Shipyard 340 and Khabarovsk Shipyard Ussuri South 876. Grisha II WFFLs (Figure 10), utilized by the KGB

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in border and coastal operations, were constructed at Zelenodolsk. Grisha III FFLs (Figure 10) are constructed at both Zelenodolsk and Khabarovsk. During the year, one modified Grisha II and two Grisha IIIs were launched, and one Grisha III became operational. Determining the initial construction dates for these units is difficult, since the modified Grisha II and the Grisha III are built in construction halls at both shipyards. (S/WN)

16. Unit 15 of the Grisha class (a Grisha III) had been launched from Zelenodolsk by [ ] [ ] This unit had departed the facility for sea trials by [ ] and is presumed to be operational. Unit 16 of the class (a modified Grisha II) was launched from Zelenodolsk between [ ] (Figure 11). By [ ] this ship had departed the shipyard for sea trials. The modifications to this unit included the replacement of the forward twin-barrel, 57mm DP gun mount with a new, probable, lightweight, single-barrel 76mm DP gun mount. Unit 17 of the Grisha class (a Grisha III) was launched from Khabarovsk in late 1981 and departed for sea trials in July 1982. Like unit 16, this unit is presumed to be operational. Unit 18 (a Grisha III) had been launched from Khabarovsk by early October. This unit continued fitting-out throughout the remainder of the year (Figure 12). (S/WN)

### **Surface Combatant Construction Facilities**

17. Soviet construction of the nine major classes of surface combatants is conducted at eight shipyards. (S/WN)

#### **Nikolayev Shipyard Nosenko 444**

18. This facility (Figure 13) is on the east bank of the Yazhnyy Bug River, on the southern side of the city of Nikolayev. Construction programs for the Kiev and 444D CVHGs probably have just been finished at this shipyard, and preparations may be underway for the construction of a new type of aircraft carrier which

will be larger than any previously built at the facility. This shipyard also is involved in the construction of the 444E YRRN, the Kapitan Smirnov-class RO/RO ship, and fish factory trawlers. Units previously constructed at the shipyard include the Moskva-class CHG and the Lama-class AEM. Facilities include one construction hall; three open buildingways (including one with two Finnish-built, 900-ton, heavy-lift gantry cranes); seven quays; two fabrication buildings; two subassembly buildings; and approximately 250 other buildings/structures. (S/WN).

#### **Nikolayev Shipyard Northern 61 Kommuna 445**

19. This facility (Figure 14) is along the banks of the Ingul River, approximately 60 nm northeast of Odessa and on the northern side of the city of Nikolayev. This shipyard presently is involved in the construction of the 445F CG, the Rajput DDG (Indian Kashin), the Elbrus ASR, and civilian cargo ships. Additionally, construction of the Sovremennyy DDG apparently will begin soon. Combatants previously constructed at this shipyard include the Kara CG, the Kashin DDG, and the Kotlin DD. This yard also was involved in the Kashin conversion program. Facilities include three open buildingways, four quays, three subassembly buildings, and approximately 200 other buildings/structures. (S/WN)

#### **Leningrad Shipyard Baltic Ordzhonikid 189**

20. This shipyard (Figure 15) is on Ostrov (island) Vasilyevskiy, along the north shore of the Bolshaya Neva River, in the western part of the city of Leningrad. The shipyard presently is involved in the construction of the Kirov CGN, the Arktika AGBN, and an unidentified naval auxiliary (189B). This yard also has been involved in the construction of civil and naval units of the Boris Chilikin-class AOR and the Baltika-class bulk carrier. Facilities include two open buildingways, four quays, two fabrication buildings, and approximately 100 other buildings/structures. (S/WN)

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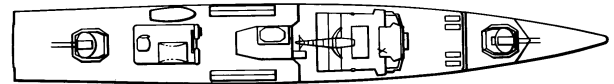
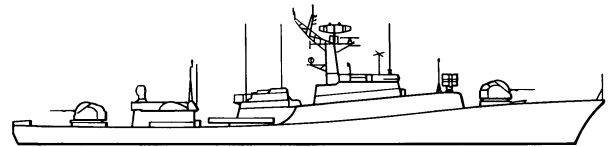
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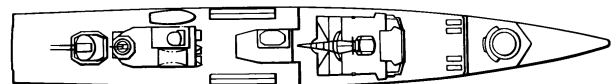
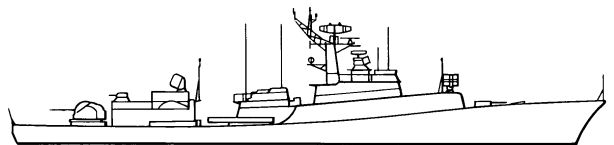
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GRISHA II - CLASS WFFL



GRISHA III - CLASS FFL

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**FIGURE 10. GRISHA II WFFL AND GRISHA III FFL**

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**SECRET****Leningrad Shipyard Zhdanov 190**

21. This shipyard (Figure 16) is just off the Morskoy Canal, the shipping lane from the Gulf of Finland to the city of Leningrad, and presently is involved in the construction of the Sovremennyy- and Udaloy-class DDGs and the Ivan Skuridin-class RO/RO ship. Classes previously constructed at this shipyard include the Kresta I and II and Kynda CGs, the Krivak I FFG, and the Kashin DDG. Additionally, modifications to the Kashin DDG and the Vytegrales (Volkov)-class SESS were done there. Facilities include five open buildingways, one construction hall, one transverser, two quays, and approximately 160 other buildings/structures. (S/WN)

**Kaliningrad Shipyard State 820**

22. This shipyard (Figure 17) is a river port approximately 18 nm east of Baltiysk, on the south bank of the Pregolya River. The yard presently is involved in the construction of the Udaloy-class DDG, the Ivan Rogov-class LPD, the Bal'zam-class AGI, and the Sakhalin-class icebreaker ferry. Classes produced at this shipyard in the past include the Krivak I and II FFGs, the Petya/ Mirka FFLs, and the Alligator LST. Facilities include six buildingways, one construction hall, one subassembly building, four fabrication buildings, five quays, and approximately 125 other buildings/structures. (S/WN)

**Kerch Naval Base and Shipyard Kamysh Burun No 532**

23. This shipyard (Figure 18) is on the western side of Kerchenskiy Proлив, the strait which connects the Sea of Azov with the Black Sea. It lies on the south edge of Arshintsevo, 6 nm south-southwest of the city of Kerch. The shipyard presently is involved in the construction of the Krivak-class FFG and the Krym-class super tanker. Classes previously constructed at the yard include the Poti PG, the Shmel PM, the Velikiy Oktyabr tanker, and several classes of

experimental hydrodynamic vehicle hulls. Facilities include three buildingways, one graving dock, five quays, one side-launching way, and approximately 145 other buildings/structures. (S/WN)

**Zelenodolsk Shipyard 340**

24. This shipyard (Figure 19), approximately 20 nm west of Kazan and 365 nm east of Moscow, is in the southern section of Zelenodolsk, on the north bank of the Volga River. It presently is involved in the production of the Koni-class FF, the modified Grisha II-class WFFL and Grisha III-class FFL, the Onega-class AG, and civil hydrofoils. Classes previously constructed at this yard include the Poti PG, the SO 1-class PCF, and the Potok AGE. Facilities include a construction yard with two covered building docks, one covered buildingway, one side-launch transverser, a launch and fitting-out basin, two fabrication buildings, two subassembly buildings, and approximately 85 other buildings/structures. (S/WN)

**Khabarovsk Shipyard Ussuri South 876**

25. This shipyard (Figure 20) is on the east bank of the Ussuri River, in the southern section of Khabarovsk, approximately 20 nm north-east of the Sino-Soviet border. The Amur and Ussuri Rivers converge approximately 4 nm north of the yard. This shipyard presently is involved in the construction of the Grisha III-class FFL; the Tarantul PGG; the Yaz, Vosh, and Piyavka PMs; the Gus LCPA; the Natya and Yurka MSFs; and the Pelym ADG. Classes previously constructed at the yard include the Petya FFL and several older PMs. Facilities include one construction hall, one transverser, one quay, and approximately 85 other buildings/structures. Extensive expansion of this facility currently is ongoing and includes an additional construction hall and several support buildings. (S/WN)



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**REFERENCES**

**IMAGERY**

All applicable satellite imagery acquired from [redacted] was used in the preparation of this report. The [redacted] imagery provided the most recent usable coverage for the purpose of illustration. All intelligence-related data coincides with the information cutoff date of 31 December 1982. (S/WN)

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**MAPS OR CHARTS**

SAC. US Air Target Chart; Series 200; Sheets 0153-4, 0165-1, 0169-10, 0204-22, 0249-16, and 0250-9; scale 1:200,000 (UNCLASSIFIED)

**DOCUMENT**

1. NPIC. Z-14630/82, IAR-0097/82, *Soviet 444D Guided Missile Aircraft Carrier Weapon System (S)*, Nov 82 [redacted]

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**REQUIREMENT**

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

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