

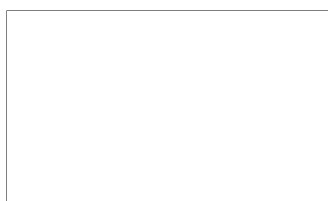
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**PHOTOGRAPHIC
INTERPRETATION
REPORT**

**NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER**

**NEW SHIPBUILDING FACILITIES AT
NIKOLAYEV SHIPYARD OKTYABRSKOYE AND
KERCH NAVAL BASE AND
SHIPYARD KAMYSH BURUN 532
USSR**



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|---|--|-------------------------------|---------------------------------|------------------------------------|--|
| INSTALLATION OR ACTIVITY NAME New Shipbuilding Facilities at Nikolayev Shipyard Oktyabrskoye and Kerch Naval Base and Shipyard Kamysh Burun 532 | | | | COUNTRY UR | |
| UTM COORDINATES NA | GEOGRAPHIC COORDINATES See below | BE NUMBER See below | COMIREX NO. See below | NIETB NO. See below 25X1 | |

MAP REFERENCE
ACIC. USATC, Series 200, Sheet 0250-9, scale 1:200,000 2d RTS. USATC, Series 200, Sheet 0249-16, scale 1:200,000

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|---|---------------------------------|
| NEGATION DATE (if required) NA 25X1 | |
| REQUIREMENT None | NPIC PROJECT 251031AC |

| Installation Name | Geographic Coordinates |
|-------------------|------------------------|
| Nikolayev | 46-51-35N 031-59-32E |
| Kerch | 45-16-06N 036-25-17E |

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ABSTRACT

1. Two similar shipbuilding facilities, one at Nikolayev Shipyard Oktyabrskoye and the other at Kerch Naval Base and Shipyard Kamysh Burun 532, were observed under construction on recent KEYHOLE photography. Each facility consisted of a very large shipbuilding dock and a large subassembly or platen area. Large fabrication buildings were under construction at Nikolayev, while none were under construction at Kerch when it was last observed. Both facilities are several years from completion, although the Nikolayev shipyard appeared to be in a later stage of construction than the shipyard at Kerch.

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2. This report provides a detailed imagery-derived analysis of the new shipbuilding facilities under construction and an estimate of their appearance and capabilities when construction is complete.

INTRODUCTION

3. Nikolayev Shipyard Oktyabrskoye is 6 nautical miles (nm) south of Nikolayev on the east bank of the Yuznyy Bug River. This shipyard has built refrigerator ships, fish factory ships, and timber carriers. Kerch Naval Base and Shipyard Kamysh Burun 532, 6 nm south-southwest of Kerch, has been building the new Krivak-class guided-missile destroyer (DDGM) as well as merchant ships.

4. Landfill operations at Nikolayev began immediately south of the yard in the winter of 1965-66; this area encompasses 110 acres and contains the above-mentioned large shipbuilding dock, subassembly area, and fabrication buildings. By February 1971 these facilities were in a midstage of construction. Landfill activity just south and east of the Kamysh Burun Shipyard at Kerch began approximately 18 months later, between August 1966 and June 1967. In August 1970 the building dock was in early-to-middle stages of construction, the portal cranes were being assembled in the subassembly area, and landfill was continuing.

5. These new shipbuilding facilities are several years from completion; however, enough indicators are present to predict the finished appearance of the facilities and to make an assessment of the capabilities of the yards.

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BASIC DESCRIPTION

6. The pilings and foundations for the shipbuilding docks and subassembly areas at Nikolayev and Kerch are identical (Figures 1 and 2); the only differences appeared in the fabrication areas and in the size of the subassembly or platen areas.

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Each dock has a subassembly or platen area beyond the inland end. Kerch has a six-acre platen area; at Nikolayev the platen area is nearly ten acres.

7. Each dock and platen area will be served by at least two very large portal cranes and at least one bridge crane (Figure 3). The portal cranes will run on ways on either side of the dock, and the bridge crane will straddle the building dock. The floors of the docks have two large slots which extend the entire length of the dock. These slots will probably house the mechanism to move the assembled ship along the dock floor as required when new block sections are added. Another feature of these docks is the four caisson stops spaced

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from the head of the dock. The massive gate structure will house the winching and pumping machinery necessary to fill and drain the dock and to move ships to the various construction positions.

8. Two large fabrication buildings, one L shaped, were under construction at Nikolayev. The larger portion of the L-shaped building

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immediately inland of the subassembly area and adjacent to the L-shaped building,

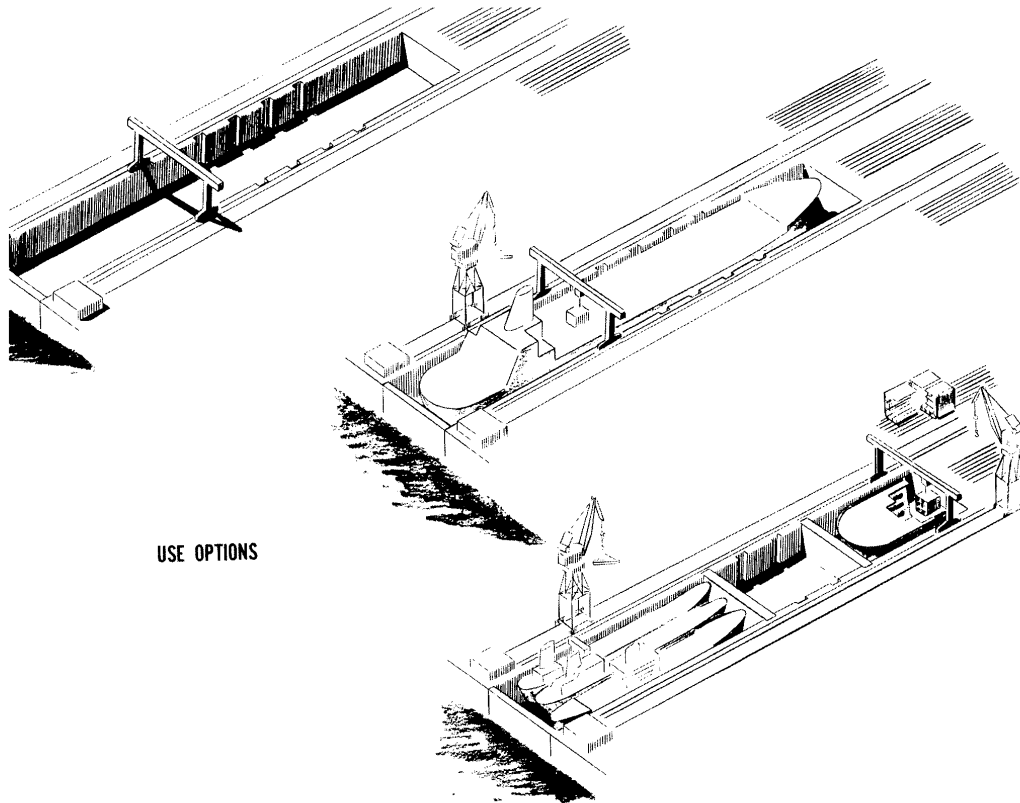
No fabrication buildings were observed under construction at Kerch; however, the large landfill area adjacent to the dock facility was being graded, possibly in preparation for the construction of fabrication buildings.

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9. The cranes (two portal and one overhead) that serve the building docks will also serve the subassembly areas at both Nikolayev and Kerch. At Nikolayev the subassembly area will extend inland from the dock; at Kerch it will extend inland.r

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FIGURE 3. ARTIST'S CONCEPT OF BUILDING DOCKS

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10. The facilities at Nikolayev and Kerch are strikingly similar to Gotoverken Shipyard at Arendal, Sweden (Figure 4). The basic principles of block construction and of changing construction positions are the same. At Gotoverken, however, the subassembly area is confined to a building, whereas in the Soviet yards subassembly will take place in the open. There are three practical reasons for this: 1) the weather in the Black Sea region is better than in Sweden; 2) larger subassemblies can be handled in the open than in a building; and 3) the cranes can be used both in the subassembly area and over the dock.

11. Another distinguishing feature of Nikolayev and Kerch is the modification of the dock structure to include caisson stops (Figure 3). This innovation allows portions of the dock to be used for repair work without interrupting the new construction cycle. For example, three ships the size of a Poltava-class merchant ship could be drydocked abreast in the last section of the dock until that section was needed for the new ship under construction. Larger ships could also be drydocked, but for shorter periods of time. The largest ship which could be drydocked without stalling new construction would be approximately 900 feet in length. Another way the caisson stops might be used is to speed up new construction. If a ship under construction were under 900 feet long, construction could begin on the next unit before the first unit was launched, thereby reducing building time.

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REFERENCES

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MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0250-9, scale 1:200,000 2d RTS. US Air Target Chart, Series 200, Sheet 0249-16, scale 1:200,000

RELATED DOCUMENTS

Department of Commerce. JPRS 50078, *Modern Dock Structures for Large and Medium-Size Ships*, 16 Mar 71, Complete translation of book by Gleb Anatolyevich Vakharlovskiy, Petr Filippovich Kucheryavenko, and Valentin Filippovich Buzik, Leningrad, 1968 (UNCLASSIFIED)

REQUIREMENT

NPIC/IEG/WGD/SSB Project 251031AC

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