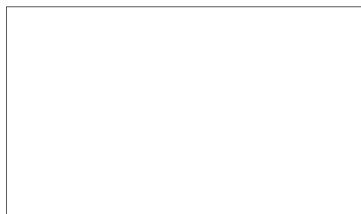


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Intelligence Report

*Soviet Naval Shipbuilding Programs:
Impact on Major Surface Forces*

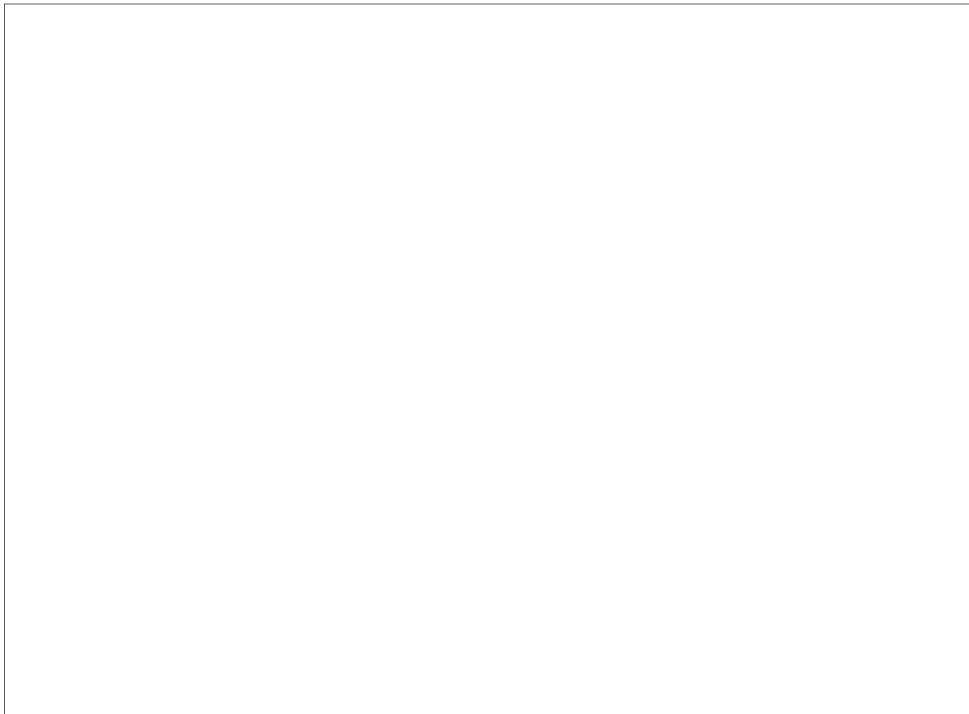


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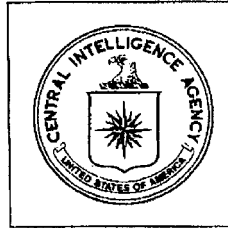
SR IR 73-19

November 1973

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November 1973

**Soviet Naval Shipbuilding Programs:
Impact on Major Surface Forces**

The Soviets continue to construct new major surface combatants and to modernize some older types, but they are faced with a growing problem of obsolescence affecting many of the ships in the current force.

Over a dozen new major surface combatants are currently under construction in the USSR. These include two V/STOL aircraft carriers, four frigates, at least seven destroyers, and probably a few ocean escorts.

A number of older combatants are being modernized. Recently completed programs include the conversion of two cruisers to command ships and the addition of surface-to-air missiles to a number of destroyers. Current programs involve improvement of antisubmarine, air defense, and probably antiship systems on destroyers and installation of improved antisubmarine systems on ocean escorts.

The overall capabilities of the Soviet surface forces also are being enhanced by the introduction of new underway replenishment ships.

These programs will provide significant qualitative improvements in the major surface forces over the next few years. The V/STOL aircraft carriers will give the Soviet Navy an entirely new capability for the employment of sea-based air power. The frigate, destroyer, and escort programs will substantially upgrade current capabilities for operating against surface, air, and submarine opposition. In addition, these new and modified combatants, supported by the underway replenishment forces now being developed, will provide better capabilities for operations in distant areas.

Despite these improvements, the Soviet Navy faces a growing problem of obsolescence because many of the ships in the current force were built in the early Fifties. To maintain the size of this force the Soviets would either have to increase new construction rates substantially above present levels or retain aging ships of doubtful combat effectiveness. From the evidence currently available, however, Soviet planners apparently have chosen to accept some reduction in the size of the force while deploying fewer but relatively more capable surface ships.

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CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
November 1973

INTELLIGENCE REPORT

Soviet Naval Shipbuilding Programs:
Impact on Major Surface Forces

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Comments and queries regarding this publication
are welcomed. They may be directed to
the Office of Strategic Research

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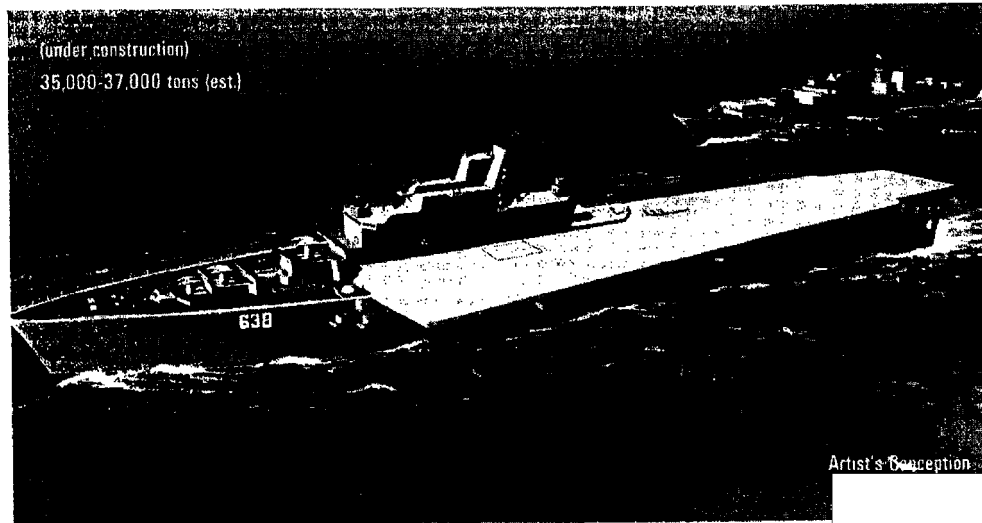
New Construction Programs

New major surface combatants under construction in the USSR include the Kuril class V/STOL (vertical or short takeoff and landing) aircraft carrier, the Kara class frigate, and the Krivak class destroyer. In addition, the last units of the Kresta II frigate class and the Kashin destroyer class are nearing completion. Other major shipbuilding programs include two new types of underway replenishment ships and a new ocean escort class.

V/STOL Aircraft Carriers

The Kuril, the first Soviet ship designed to carry fixed-wing aircraft as well as helicopters, is fitting out [redacted]. Displacing

Kuril Class V/STOL Aircraft Carrier



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about 35,000-37,000 tons, it is the largest combatant ever built in the USSR. The ship was laid down about mid-1970, was launched in December 1972, and will probably be ready for sea trials in about a year. It could enter service in 1975. A second carrier was laid down shortly after the first unit was launched, and could be in service by 1977 or 1978.

Frigates*

Two of the new Kara class frigates are operational or on sea trials, and two more are under construction. These 8,900 ton multipurpose combatants are equipped with an impressive array of antiship, antisubmarine, and air defense weapon systems. The fourth Kara hull, launched in September 1973, apparently is being equipped with a new weapon system.

With the exception of aircraft and helicopter carriers, the Kara is the largest surface combatant built in the USSR since the Sverdlov cruiser program of the early Fifties. Additional units of the Kara class or its follow-on are expected to enter service at the rate of about one per year through the late Seventies.

The last two units of the 6,800-ton Kresta II frigate class are fitting out at Leningrad. Both probably will be completed within the next year or so. Five ships of this type are already in service and another four units of the generally similar Kresta I class were built in the late Sixties. Designed to operate against surface,

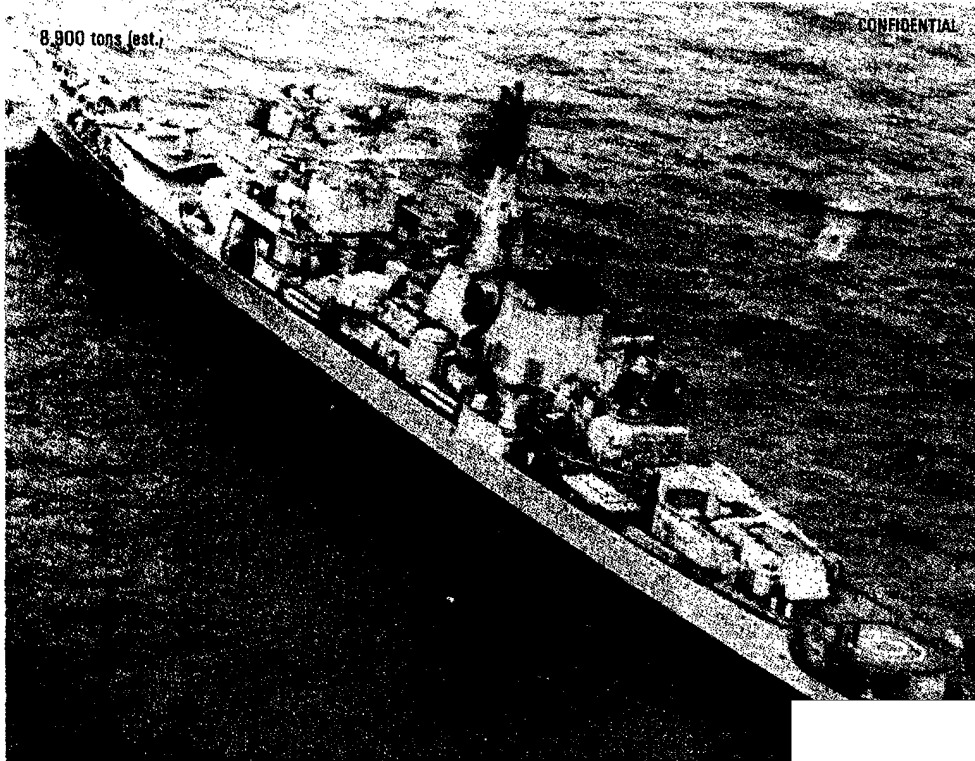
**These ships are officially classed as "light cruisers" by Western sources on the basis of their armament, but they are generally comparable in most respects to US "frigates." See Problems in Comparing US and Soviet Warships by Designation, SR RP 73-2, July 1973.*

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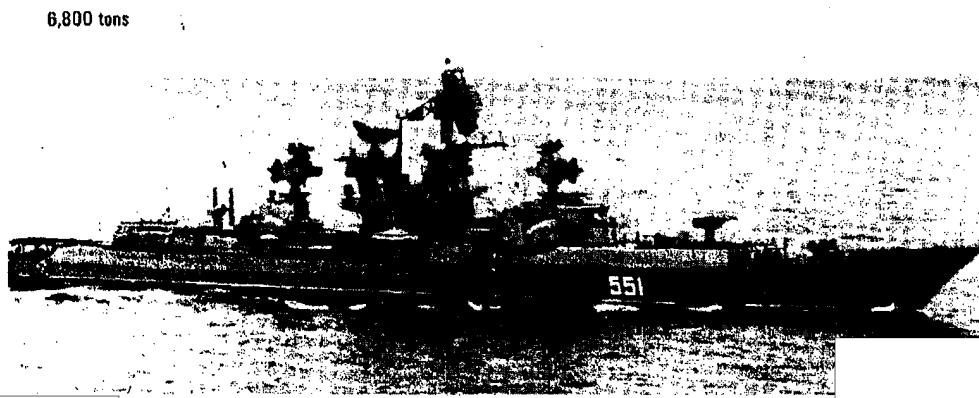
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Kara Class Frigate



Kresta II Frigate



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air, and submarine threats, the two Kresta variants form a key element of the USSR's modern surface combatant forces.

Destroyers

Five Krivak class destroyers are operational and at least six more are in various stages of construction. This relatively small, 3,680-ton class is heavily armed in comparison with Western destroyers, carrying both surface-to-surface and surface-to-air missiles in addition to ASW sensors and weapons. It is under construction at two locations [REDACTED]

[REDACTED] and is expected to replace many of the older Soviet destroyers such as the Kotlin and Skoryy class units built in the Fifties.

The Krivak program apparently encountered difficulties which extended construction times after the first two or three units were completed. Recent trends in new starts suggest that the Soviets have resolved the problem, however. If so, the construction rate, now about two per year, probably will increase to three or possibly four units per year in the mid-Seventies. Continued Soviet development of new sensors and weapon systems, however, may lead to the introduction of a follow-on to the Krivak by the late Seventies.

The 20th and last unit of the Kashin class destroyer is now fitting out [REDACTED]. This class had an unusually long production run, the first unit having entered service in 1963. The Kashin serves mainly in an ASW role, but it was also the first Soviet destroyer designed to carry surface-to-air missiles. The last unit incorporates several improvements over the basic model and the Soviets have a program under way to make these changes on older units. (See discussion under *Destroyer Conversion*.)

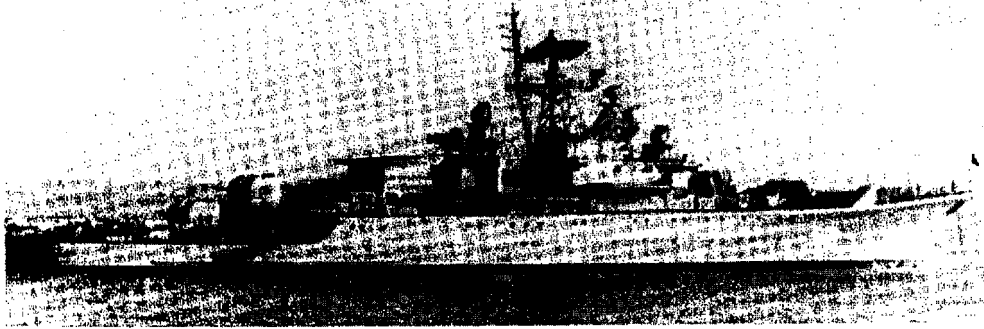
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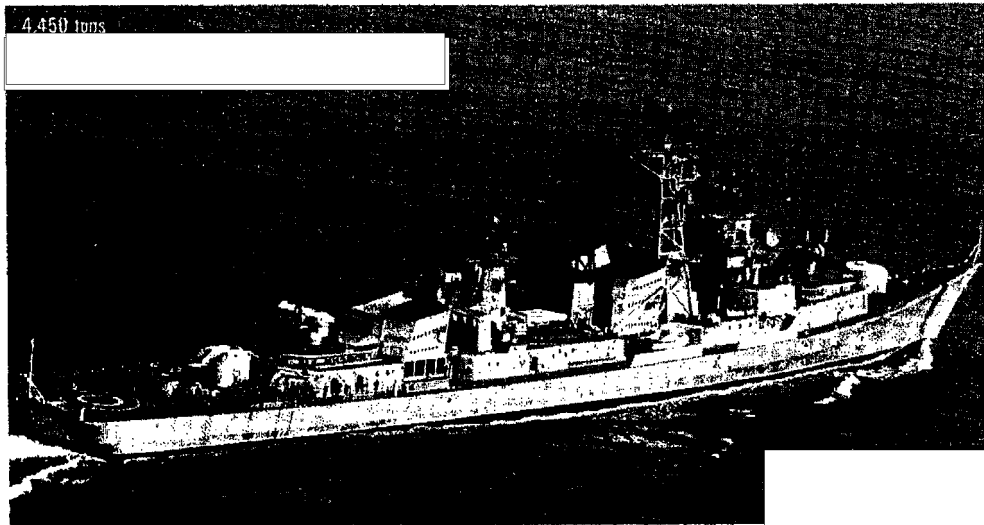
Krivak Class Destroyer

3,880 tons



Kashin Class Destroyer

4,450 tons



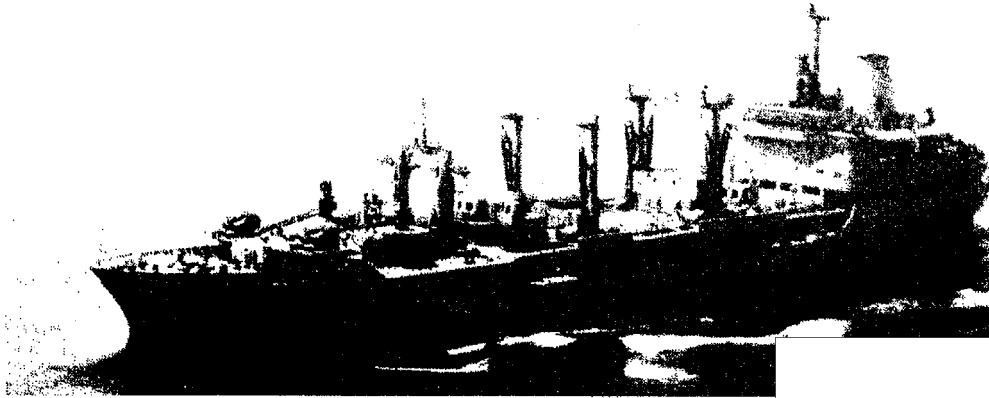
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Underway Replenishment Ships

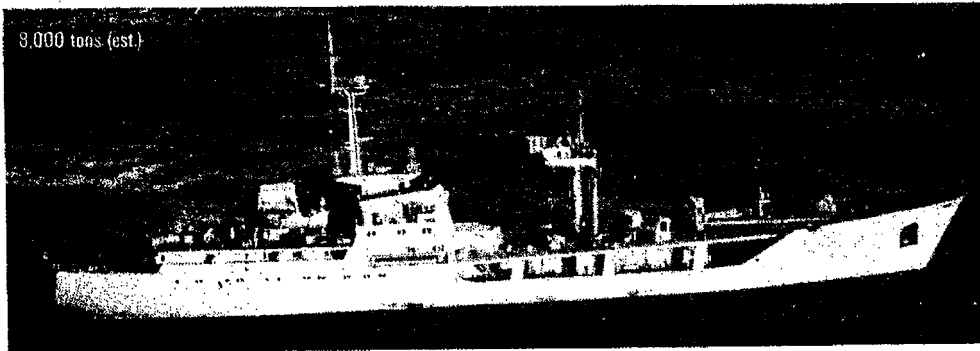
Boris Chilikin Class

24,450 tons



Manych Class

8,000 tons (est.)



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~~TOP SECRET~~ [REDACTED]New Ocean Escort

The Soviets are building a new ocean escort class [REDACTED]

[REDACTED] Some of these ships,

[REDACTED] may be intended for export. Considering the large numbers of escorts designed in the Fifties that are still in Soviet service, however, it is believed that the Soviet Navy will also use this ship. A construction rate of some four to six units per year by the middle Seventies is projected on the basis of assumed requirements and the observed pace of earlier escort ship programs.

Underway Replenishment Ships

The first Soviet underway replenishment ship, the 24,450-ton Boris Chilikin, entered service in 1971. A second ship of this class is now operational and a third is fitting out [REDACTED] at Leningrad. A second type of underway replenishment ship--the Manych class of about 8,000 tons displacement--is now under construction [REDACTED]. One unit is already in service and another is on the ways. Both types are expected to be produced at a rate of about one ship per year.

The Chilikin and the Manych are the first Soviet naval auxiliaries specifically equipped to provide underway replenishment to combatants. Although they are not currently being so used, the deployment of these new auxiliaries will eventually ease the problems of supporting naval forces deployed beyond Soviet waters.

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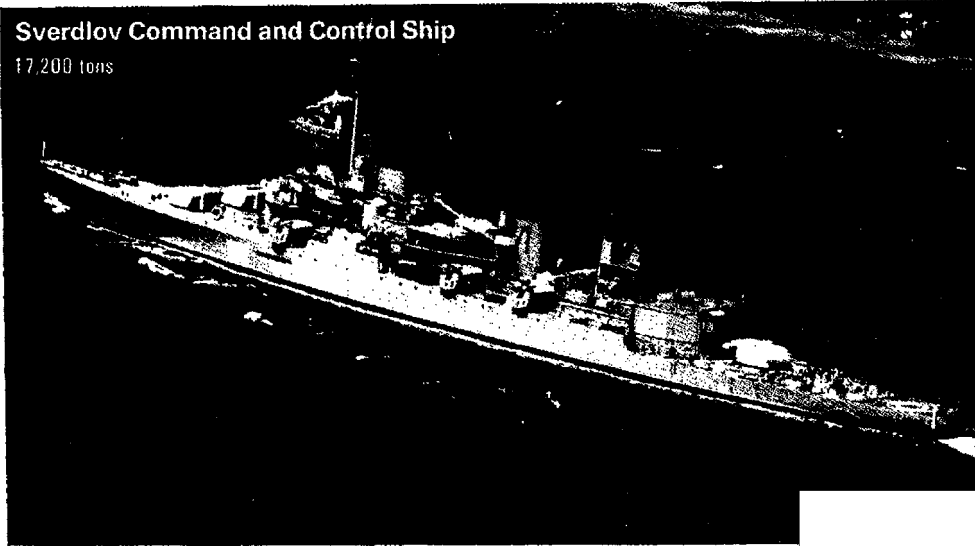
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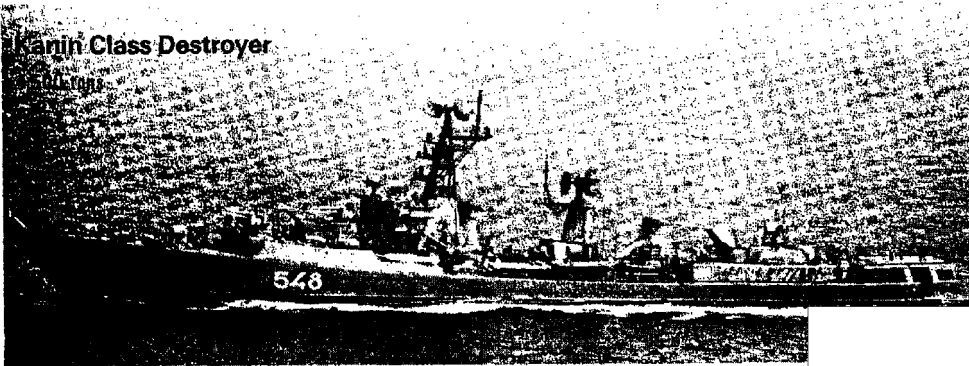
Selected Conversion Programs

Sverdlov Command and Control Ship

17,200 tons

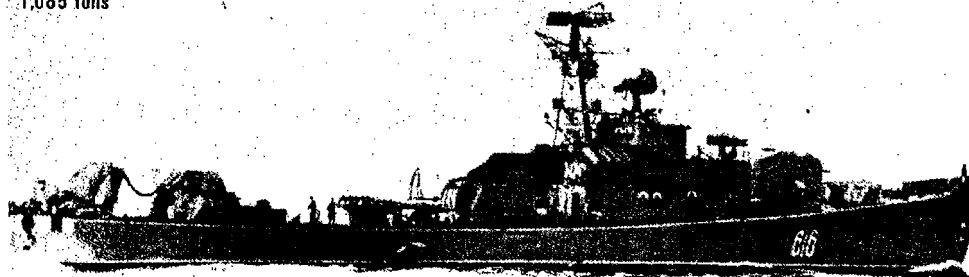


Kanin Class Destroyer



Petya I Class Destroyer Escort with Variable-Depth Sonar

1,085 tons



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Major Conversion Programs

Concurrently with their new construction programs the Soviets are modernizing some older combatants.

Command Ships

In 1972 the Soviets completed the conversion of two Sverdlov cruisers to command ships. This work [REDACTED] included the installation of advanced communications systems, short-range surface-to-air missiles, additional small-caliber air defense guns, and helicopter platforms. One of the two ships was also fitted with a helicopter hangar.

Destroyer Conversions

Three major destroyer modernization programs currently are under way in the USSR. These programs provide older destroyers with improved systems for ASW and air defense and probably for combat against surface ships as well.

The first of these continuing programs dates from the late Sixties and involves the conversion of the Krupnyy destroyer class, which became operational in 1960, from an antiship missile launching platform to a SAM-armed ASW destroyer. The converted ships are designated the Kanin class. Five of the eight Krupnyys have completed conversion and two more are in the process.

A second destroyer program involves the Kildin class, the first Soviet major combatant armed with antiship cruise missiles. Two of the four Kildins, which first became operational in the late Fifties, are undergoing conversion to a new configuration--

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removal of the original antiship missile launcher and the installation of four launchers similar to those used on the Osa class guided-missile patrol boat. The missile system involved [redacted] probably is a short-range antiship weapon, possibly the SS-N-11. An alternative but less likely possibility is a new antisubmarine system--a cruise missile carrying a homing torpedo. One of the Kildin conversions has already been completed and both could be in service in about a year.

The latest destroyer modernization program involves the Kashin class. Changes include the addition of a variable-depth sonar, new small-caliber air defense guns, and unidentified missile launchers similar or identical to those involved in the Kildin conversion. One modified Kashin has been completed and two others are in the process of conversion. The same changes also were incorporated in the last newly built Kashin, which is now fitting out (*see earlier discussion*). Similar modifications probably will be made to most or all of the remaining Kashins during the mid-Seventies.

In addition to these on-going programs, the Soviets have added surface-to-air missiles to eight old destroyers of the Kotlin class. The first of these Kotlin conversions dates from the early Sixties, and the other seven entered service in the 1967-1972 period. This program appears to have ended, although 15 gun-armed Kotlins remain in the inventory.

Escort Conversions

The Petya class ocean escort is being modified by the addition of a variable-depth sonar. Two conversions have been completed and at least two more units are in process. This work is being accomplished in [redacted] and the conversion probably will be applied to many of the 47 Petya escorts currently in the inventory.

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~~TOP SECRET~~Impact on Future Forces

The construction and conversion programs outlined will provide significant improvements in major surface force capabilities over the next few years.

New Capabilities

The advent of the Kuril class V/STOL carrier will open a new dimension in Soviet naval capabilities. Although this ship will not provide air power comparable to that of a US attack carrier, it will be armed with V/STOL aircraft which probably will be capable of maritime reconnaissance and fleet air defense. This will free naval forces from their present dependence on shore-based aircraft for air cover. The Kuril also is expected to carry helicopters for ASW missions, providing capabilities comparable to those of the Moskva class ASW cruisers. The carrier could also participate in amphibious landing operations, but this is not likely to be a primary mission.

The deployment of larger ships such as the Kara frigates, combined with the forward support capabilities of the new replenishment ships, will provide improved capabilities for extended operations at sea. Operating independently or in conjunction with the Kuril class carrier, and supported by the Sverdlov-conversion command ships, the growing force of modern frigates and destroyers will be capable of rapid deployment and sustained operations in areas outside Soviet home waters.

Current construction and conversion programs also will provide significant improvements to the overall ASW, air defense, and antiship capabilities of the surface forces. All units of new construction are being equipped with improved ASW systems and surface-

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to-air missiles, and many of the new classes also have antiship cruise missiles. In contrast, most of the ships in the current force must rely on guns for both air defense and surface combat, and most of them have inferior ASW sensors.

Quality vs Quantity

Current construction programs place more emphasis on the capabilities of individual units than on the numbers of new ships to be added to the force. This emphasis is reflected in a general growth in the size of combatants to accommodate new and more varied weapon systems and to provide improved endurance and seaworthiness. The trend is especially marked in the frigate classes, which progressed from the 5,600-ton Kynda of 1962 to the 8,900-ton Kara of 1972.

This trend toward quality over quantity presents the Soviet Navy with a problem of structuring its future forces. As a result of the high construction rates maintained through the mid-Fifties, these forces face a growing problem of obsolescence. (See chart.) At present, about 15 percent of the force has been in service for 20 years or more; moreover, nearly half of the [] ships in the present force were built before 1959. All the conventional cruisers and gun-armed destroyers--about one-fourth of the major surface combatants--will have been in service for 20 years or longer by 1977. Although a few of these older ships are being modernized, little effort has been made to upgrade the capabilities of the remainder. Many older units will soon be due for retirement from the active fleet. The current conversion programs involve ships built mainly during the Sixties.

To maintain the major surface forces at their present size, the Soviets would either have to increase construction rates substantially or accept the retention of a growing number of obsolescent ships.

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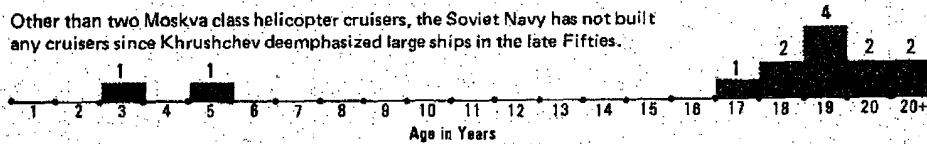
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Age Distribution of the Soviet Major Surface Combatants

Midyear 1973

Cruisers

Other than two Moskva class helicopter cruisers, the Soviet Navy has not built any cruisers since Khrushchev deemphasized large ships in the late Fifties.



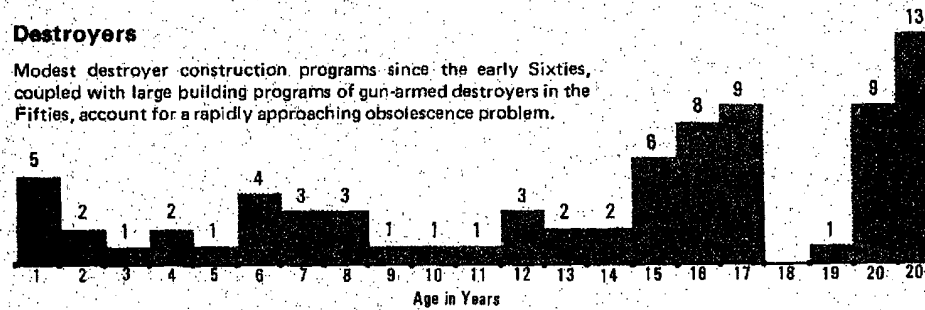
Frigates

Soviet construction of frigate-size ships has been modest, but they are relatively new and do not present problems of obsolescence.



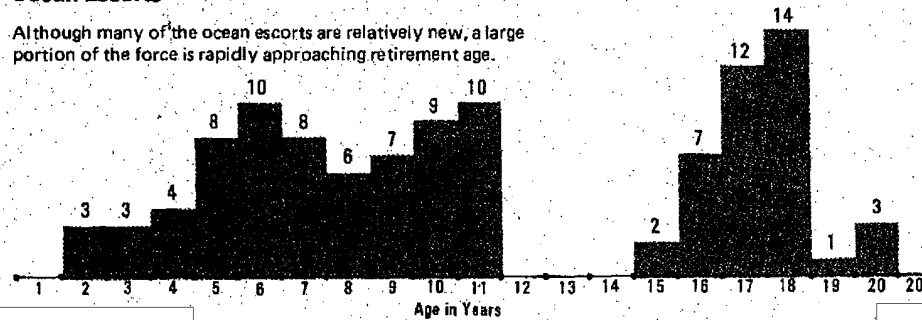
Destroyers

Modest destroyer construction programs since the early Sixties, coupled with large building programs of gun-armed destroyers in the Fifties, account for a rapidly approaching obsolescence problem.



Ocean Escorts

Although many of the ocean escorts are relatively new, a large portion of the force is rapidly approaching retirement age.



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During the past three years, for example, new deliveries of major surface combatants have averaged about six units per year, whereas it would take a rate of about 15 units per year to maintain the fleet at its present composition (size and age distribution) through the Seventies.

Current trends suggest some pickup in the rate of construction of the Krivak destroyers, and series production of the new escort class [REDACTED] [REDACTED] would also help alleviate the growing problem of obsolescence. Even with projected rates of three to four Krivaks and four to six escorts per year in the mid-Seventies, however, the surface forces could not be maintained at the present level unless a number of older ships were continued in service.

From the evidence currently available, Soviet planners apparently have chosen not to attempt to maintain the Navy at its present size. By emphasizing construction of new ships that are qualitatively superior to earlier ones, they probably feel they can retire some older units without an appreciable loss in the net capabilities of the forces. The extent to which the Soviets will allow the size of these forces to decline through the remainder of the Seventies remains open to question. Given the broad missions now assigned to the Soviet Navy, however, it seems doubtful that naval planners would willingly accept cuts in the size of the force of much more than about ten percent.

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