Intelligence Report

Leningrad Enters Nuclear Submarine Program With New Attack Class
CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
May 1968

INTELLIGENCE REPORT

Leningrad Enters Nuclear Submarine Program With New Attack Class

Summary

The growing importance of submarines in Soviet military strategy is evidenced by the expansion of submarine shipbuilding facilities and the construction of several new classes of submarines since 1962. The number of shipyards producing submarines has increased from three to five, and four of them are building nuclear-powered classes.

The latest confirmed producer of submarines is Admiralty shipyard in Leningrad. Evidence shows that the yard entered the nuclear submarine construction program in early 1964, and that it has launched at least two, and probably three, units of a new class of attack boat since July 1966. This new submarine is about 280 feet long, has an advanced sonar installation, and has a shape suggesting high-speed performance.

Admiralty shipyard is capable of producing 1.5 to two units per year, but this rate probably could

Note: This report was produced solely by CIA. It was prepared by the Office of Strategic Research and coordinated with the Offices of National Estimates and Scientific Intelligence.
not be achieved for several years. As many as 15 units could be produced by 1975.

This shipyard has been heavily involved in nuclear ship programs since 1954. It designed and built the nuclear-powered icebreaker Lenin and later some of the nuclear-support ships and barges. The facilities for nuclear submarine production were added between 1962 and 1964.
Expansion of Submarine Construction Program

1. The period from 1959 to the early 1960's was marked by an intensive review of the future role of the Soviet Navy in the military structure of the USSR. The navy emerged from this period with expanded responsibilities. Ballistic missile submarines were to be given a larger role in Soviet strategic offense, and defensive capabilities against Western naval forces were to be strengthened.

USSR: Shipyards Constructing Submarines

2. One of the early indicators of the expanded role for the navy was the expansion and improvement of facilities for the production of submarines after 1962. The number of shipyards producing submarines increased from three to five, and in 1966 and 1967 four new classes of submarines appeared—two ballistic missile and three attack types. Three of the four new classes of submarines are almost certainly nuclear powered, and four of these five shipyards are producing nuclear submarines (see map).
3. One of the new shipyards added to the submarine construction effort in the early 1960's is produces a new class of nuclear-powered attack submarine which was first identified in 1966. The second new submarine producer is Admiralty shipyard in Leningrad, which is turning out still another new class of nuclear-powered attack boat. The program at Admiralty probably started about the same time as the one at Gor'kiy, but it was not confirmed until late last year.

Construction at Admiralty Shipyard


5. The first clear look at this submarine was obtained in high-quality photography of the nuclear-support facility at Yagri Island, Severodvinsk, and was identified as a new class of attack submarine with characteristics different from those of the A subsequent comparison with the indistinct pictures of the submarine at Admiralty yielded the conclusion that these photographs were in fact of the same submarine, and that it had been produced in the Leningrad shipyard and later moved to Severodvinsk.

6. This evidence indicates that the first unit was launched in July 1966. A second unit was probably launched in April 1967, and more recent photography shows that a third unit--now in the shipyard basin--came off the building ways in early January 1968.

7. The is about 280 feet long, over 30 feet in beam, Its streamlined configuration generally similar to the USS Albacore suggests high-speed performance.
10. The Admiralty yard is assumed to have a higher rate of production than other shipyards with similar facilities, because of its location in the heart of the Leningrad shipbuilding and industrial centers. Similar facilities in other yards have produced one submarine per assembly way every two years. The Admiralty yard, which has two assembly ways, is estimated capable of annually producing 1.5 to two submarines per year, although this rate probably could not be achieved for several years. It is doubtful that more than 15 units of this class will be produced by 1975.

Admiralty Shipyard's Role in Nuclear Ship Development

11. Admiralty shipyard was the logical choice in the Leningrad area to build nuclear submarines.

12. At the 20th party congress in February 1956, the Soviets announced plans to build a nuclear-powered icebreaker. In August of that year the keel of the icebreaker Lenin was laid at the Admiralty shipyard. This ship was completed in September 1959. The reactor was fueled at the shipyard during the summer of 1959 and all systems tested. On 14 September, two days after departing the Admiralty yard, the Lenin began sea trials in the Baltic. It joined the Northern icebreaker fleet in December of the same year, about three and one-half years after the start of construction.

13. In October 1954 the uncompleted cargo ship Lepse was hauled up on one of the inclined shipbuilding ways in the Admiralty yard and extensively modi-
fied to support the Lenin. It was finally completed in March 1962. The Lepse is equipped to provide total afloat support for the Lenin, including storage, transportation, and handling of special materials for servicing the nuclear propulsion system. It also provides auxiliary steam, electric power, laboratory facilities, test equipment, repair facilities, and billeting of technical personnel.

15. Several other barges of various sizes and configurations also have been observed near nuclear-powered submarines and are believed to provide some
sort of special support for nuclear propulsion systems.

16. Recently the Soviets have publicized plans for building two additional nuclear-powered icebreakers (Arktika class).

Facilities at Admiralty Shipyard for Submarine Construction

17. Preparations for submarine construction at Admiralty shipyard started in 1953, when a submarine assembly building was erected. This structure, 290 feet by 360 feet, was to be capable of assembling four W-class units simultaneously, but the W-class program ended before any were turned out there. A similar facility was built at the nearby Baltic shipyard, and a few units were produced before the program phased out.

18. When the Soviets breathed new life into their submarine effort in late 1962 and early 1963, major improvements were begun at several shipyards in preparation for new construction programs. Admiralty shipyard was one of them. The building for the defunct W-class program was doubled in size and given a high-bay section about 125 feet wide and 145 feet high. This section has two doors in either end, and each door is about 55 feet wide by 85 feet high. In addition, a transverser was installed to handle submarine sections at least 70 feet long. (See photos, opposite page.)

19. The arrangement of the new facility suggests that construction techniques practiced in other major Soviet submarine building yards are followed here. The high-bay section probably is used to assemble two submarines simultaneously. Subsections are probably assembled in the remainder of the building. A floating dock is apparently used for launching—a technique indicated in the planning of the original structure and used at other Soviet shipyards.
20. In addition to the land-based facilities, the shipyard has available one Zeya-class nuclear support ship and four barges that are probably equipped to provide some sort of special support in the construction of nuclear-powered ships.

21. No alterations have been made to the Baltic shipyard's facility, and it is not likely to be used in the new submarine program. Past activity indicates that it is being used to modify existing diesel-powered submarines.