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RUSSIAN BALTIC SHIPYARD NO. 890, IN TALLINN, ESTONIAN SSR

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FOREWORD

This report on the Russian Baltic Shipyard No. 890 is one of a series of Soviet shipyard studies made in an effort better to assess the capabilities of the Soviet shipbuilding and ship-repair industry.

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Chart

Russian Baltic Shipyard No. 890, Tallinn,
Estonian SSR Inside Back Cover

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CIA/SC/RR 104
(ORR Project 35.507A)

RUSSIAN BALTIC SHIPYARD NO. 890, IN TALLINN, ESTONIAN SSR*

Summary and Conclusions

The Russian Baltic Shipyard No. 890, in Tallinn, Estonian SSR, is an important ship-repair and modernization yard in the Baltic Sea area of the Soviet Bloc. The shipyard was reconstructed by the Russians after World War II, but no building ways were added. The major function of the shipyard is the repair and modernization of naval vessels of fleet destroyer size and smaller, including submarines in the Soviet Baltic Naval Fleet. The shipyard also serves the fleet as a refueling station. The vulnerable location of the shipyard at the mouth of the Gulf of Finland and the development of shipyards elsewhere in the USSR and the European Satellites for the construction of naval and merchant vessels make the shipyard an unlikely site for the construction of new vessels.

The shipyard has about 3,650 feet of quay and pier berthing space, of which 1,250 feet are allocated for refueling activities. The remaining 2,400 feet of quay and pier frontage, together with the floating dry-dock, permit the simultaneous repair of 9 fleet destroyers or 17 W-class submarines. Machine shops, foundry and forges, and hull fabrication shops have been developed to support adequately all repair and modernization activities. Current employment is estimated at 3,500 persons.

The proximity of the shipyard to the Leningrad-Moscow industrial area adds considerably to the efficiency of the yard through the availability and the relatively short rail haul of components.

* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 April 1955.

I. Name and Location.

The Soviet Shipyard No. 890, commonly known as the Russian Baltic Shipyard No. 890 and also known as Kopli No. 2, Kopli No. 890, or Vene-Baltic, is situated on the tip of the Teliskopli Neem Peninsula, approximately 4.9 nautical miles southeast of Naissaar Island and 1.5 nautical miles southwest of the northwest tip of Paljassaar Island. It is roughly 3.5 miles west-northwest of the center of Tallinn (formerly Reval), Estonian SSR, in Economic Region IIa.* The shipyard is approximately 170 nautical miles by water and 230 miles by rail west of Leningrad. 1/** The plane coordinates are latitude 59°27'48" N - longitude 24°39'28" E. 2/

The approach to the shipyard from the Gulf of Finland is through open waters. Tides do not affect navigation, and variations up to 4 feet in the water level are due almost entirely to winds. Ice interferes with navigation from the middle of January to the end of February. Icebreakers, however, usually are able to maintain open channels during the winter. 4/

The mean annual temperature is 40° F. Extreme recorded temperatures are 89° F in July and minus 19° F in February. 5/

The shipyard is about 3,000 feet long by 1,200 feet wide and covers an area of 4.19 million square feet, or approximately 96 acres.

Tallinn is an important railroad terminal for railroads which connect the city with Leningrad, the Latvian SSR, and other parts of the USSR. A Soviet standard-gauge rail line connects the shipyard with the city of Tallinn. 6/

* The term region in this report refers to the economic region defined and numbered on CIA Map 12048. 1, 9-51 (First Revision, 7-52), USSR: Economic Regions.

** For serially numbered source references, see Appendix C.

II. History.

The Russian Baltic Shipyard No. 890 in Tallinn had its origin during the days of the czars when Estonia was a province of the Russian Empire. The shipyard had eight shipbuilding ways and was an important shipyard for the construction of new vessels. The shipyard suffered much damage during World War I and was not reconstructed during the period of Estonian independence. During the latter period, several unrelated private enterprises occupied a few buildings, but there were no shipbuilding or ship-repair activities. 7/

Further damage was done to the shipyard during World War II. Following the war, reconstruction was started under the supervision of Soviet engineers with prisoner-of-war labor. Description of the reconstruction by many of these prisoners of war indicated that the shipyard was being developed to repair naval vessels, including submarines, and to serve as a refueling station for naval vessels. At the time when the prisoners of war left the shipyard in late 1949, no reconstruction work had been started on the shipbuilding ways. No confirmed reports of ship construction have since been received, and it is believed that the principal activity has been naval ship repair. 8/

III. Organization.

The shipyard is subordinate to the Seventh Chief Directorate of the Ministry of Shipbuilding (Ministerstvo Sudostroitel'noy Promyshlennosti -- MSP). This Chief Directorate controls Ministry of Shipbuilding yards engaged in major modernization, refit, and repair work. 9/

IV. Importance.

The city of Tallinn is the capital, the largest city, and the most important economic center and port in the Estonian SSR. Since World War II this port has become the main advanced base of the Baltic Fleet. The city of Tallinn, lying within the mouth of the Gulf of Finland, is well placed to defend the sea approaches

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to Leningrad. 10/ The operations of this naval base are supported in part by the repair facilities of the Russian Baltic Shipyard No. 890.

It is believed that this shipyard is the only shipyard in the Baltic area under the jurisdiction of the Seventh Chief Directorate. For this reason, it is assumed that the yard engages in activities similar to Shipyard No. 202 in Vladivostok, Shipyard No. 201 in Poti, and Shipyard No. 497 in Sevastopol, all of which are subordinate to the Seventh Chief Directorate.

V. Building and Facilities.

Information on development of the Russian Baltic Shipyard No. 890 in Tallinn since late 1949 is sparse. Much work remained to be done when the prisoners of war were repatriated in late 1949, and it is doubtful that the shipyard was fully activated until about 1952. 11/ Buildings and facilities have been constructed in a permanent manner, indicating that the shipyard will be integrated into Soviet long-range planning.

Intrayard transportation is chiefly by railroad of Soviet standard gauge. 12/

The shipyard is protected on the land side by a fence about 6 feet high. All entrances are guarded by armed guards, and entrance is by pass only. 13/

The chart of the shipyard, * developed from aerial photography but revised to agree with various intelligence reports, is believed to present a reasonably accurate picture. 14/ Shops in addition to those shown on the chart probably have been added, and mobile heavy lift facilities have been installed along the quays and piers. There are no reports that the original shipbuilding ways have been reconstructed. However, it is significant that during the reconstruction the old ways were not demolished and no new buildings were erected close by which might interfere with the future development in this area.

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Following the war, buildings 29 and 31 were occupied by industry not related to shipbuilding. Building 29, formerly known as the ETKVL plant, was engaged in the production of farm machinery. Building 31 was engaged in the manufacture of bricks. During the reconversion period it was reported that these activities would be transferred to other locations in the Tallinn area and that the buildings would be converted into shops for the shipyard. 15/ It is probable that this conversion took place by 1952.

The shipyard has a floating drydock capable of docking vessels of fleet destroyer size. 16/

VI. Production.

The Russian Baltic Shipyard No. 890 in Tallinn probably was not equipped for full operation until about 1952.

the shipyard was engaged in refit work on the Gnevnyy-class and Silnyy-class destroyers ,, as well as in several unidentified projects. 17/ Prisoners of war reported that destroyers and other small naval vessels were overhauled during 1948-49. Because the heavy lift facilities had not been installed on the repair quays, the work on the destroyers was accomplished by the use of a 20-ton floating crane. 18/

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An extensive program of S-class submarine modernization has been underway in the Black Sea area at Poti and Sevastopol and in the Pacific area at Vladivostok. This program was started in the Northern Sea area at Shipyard No. 402 at Molotovsk, but it was cancelled in the fall of 1954. Although not confirmed, it is considered probable that the S-class modernization for the Northern Sea and Baltic Fleet areas is underway at Shipyard No. 890. 21/

Shop production is believed to be largely confined to rebuilding worn or damaged parts of vessels and to assembling new components for replacement. It is doubtful whether any major production of components is accomplished.

VII. Technical and Labor Force.

Assuming that the Russian Baltic Shipyard No. 890 is engaged in repair and modernization work only, it is estimated that the current total employment is a minimum of 3,500 persons. The shipyard probably follows the practice of other shipyards in the USSR and operates on one principal 8-hour shift, with certain shops and possibly some vessel repair of high priority working additional shifts.

VIII. Sources of Power and Material.

Electric power is supplied by the 50,000-kw Tallinn Thermal Power Plant. 23/

Shipyard No. 890 receives components from plants in Far Eastern USSR

The equipment furnished by these plants probably is in connection with the Interplant Cooperation Plan (Mezh Zavodskoye Kooperirovaniye -- MZK), which provides for standardized production of components.

Because of the proximity to the Leningrad-Moscow-Ukraine industrial and steel-producing region, adequate sources of supply for machinery, electrical and electronic equipment, and iron and steel are available to the shipyard through relatively short rail hauls.

IX. Capabilities and Vulnerabilities.

A. Capabilities.

The Russian Baltic Shipyard No. 890 in Tallinn has adequate piers, quays, floating drydocks, and shops to effect repair and modernization of hull and machinery and possibly of electronic equipment on naval vessels of fleet destroyer size and smaller.

Assuming that one quay, No. 7 on the shipyard chart,* will be used exclusively for refueling, the remaining quay and pier facilities, including the floating drydock, provide berthing space for the simultaneous repair of 9 fleet destroyers or 17 W-class submarines.

Although the shipbuilding facilities were not reconstructed, the shipyard is a potential shipbuilding yard. It is estimated that within a period of 9 to 12 months the old building ways could be rebuilt, new platens for the assembly of hull subsections could be constructed, and other facilities related to new construction could be brought into production. The undeveloped area adjacent to the old

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shipbuilding ways could easily be developed into platen areas for the assembly of hull subsections, and the shipbuilding ways could be reconstructed to provide building facilities for the simultaneous construction of 2 cruisers and 6 coastal destroyers or 6 Z-class submarines. The supporting shops in the shipyard are believed to be adequate to produce new vessels, assuming that all hull steel would be fabricated and assembled within the shipyard from rolled plates and shapes, that light castings and forgings would be produced within the shipyard, that all machinery would be assembled and installed, and that probably all naval ordnance would be installed. Machinery, ordnance, heavy castings, and forgings, including propellers and propeller shafts, would be procured from the industrial area of Leningrad, probably from one of the larger shipyards in Leningrad. The development of the shipyard to construct new vessels would practically preclude repair work.

It is believed, however, because of the following reasons, that any future expansion of the shipyard will be in the direction of additional repair facilities such as graving docks and marine railways, constructed in the area of the old building ways, rather than development as a shipbuilding yard because of the following reasons: (1) the proximity of the shipyard to the Baltic area of the Naval Fleet operations as well as to the fleet's base in Tallinn makes it ideally situated for fleet maintenance support; (2) the apparent trend of the USSR to develop naval shipbuilding facilities within the interior or at least in less vulnerable locations such as Molotovsk, Nikolayev, and Komsomol'sk indicates a trend toward sites that can be protected for a longer period of time in case of war; and (3) the use of the yard to build merchant vessels is believed to be very remote in view of the merchant shipbuilding capabilities in the Baltic region of the Soviet Bloc.

B. Vulnerabilities.

The Russian Baltic Shipyard No. 890 in Tallinn probably has developed into a well-coordinated plant. As the shipyard is located about 230 miles, by rail, west of Leningrad and has good railroad connections with the Leningrad industrial area, it can

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safely be assumed that sources of supply available to the shipbuilding industry in Leningrad will be available to the shipyard. Probably the most critical item in the operation of the shipyard is an adequate supply of skilled labor. The shipyard, operating as an adjunct to the Soviet Naval Forces, undoubtedly enjoys a higher priority for the procurement of labor and materials than do repair yards of the merchant or river fleets.

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APPENDIX A

METHODOLOGY

This report was compiled chiefly from post-World War II intelligence. The determination of the use to which the shipyard would be put was derived principally from an analysis of reports by repatriated prisoners of war and confirmed by other intelligence reports and digests.

The chart of the shipyard was compiled by using 1944 aerial photography as a base and revising this base to agree with reported development since 1944.

The labor force was estimated by using a factor of 200 square feet per employee and calculating the total area of all buildings, including the area of multiple floors and a space of 30 feet along each pier and quay. This method evolved from data obtained from a number of US shipyards and has been found to agree in general with data obtained from shipyards in East Germany.

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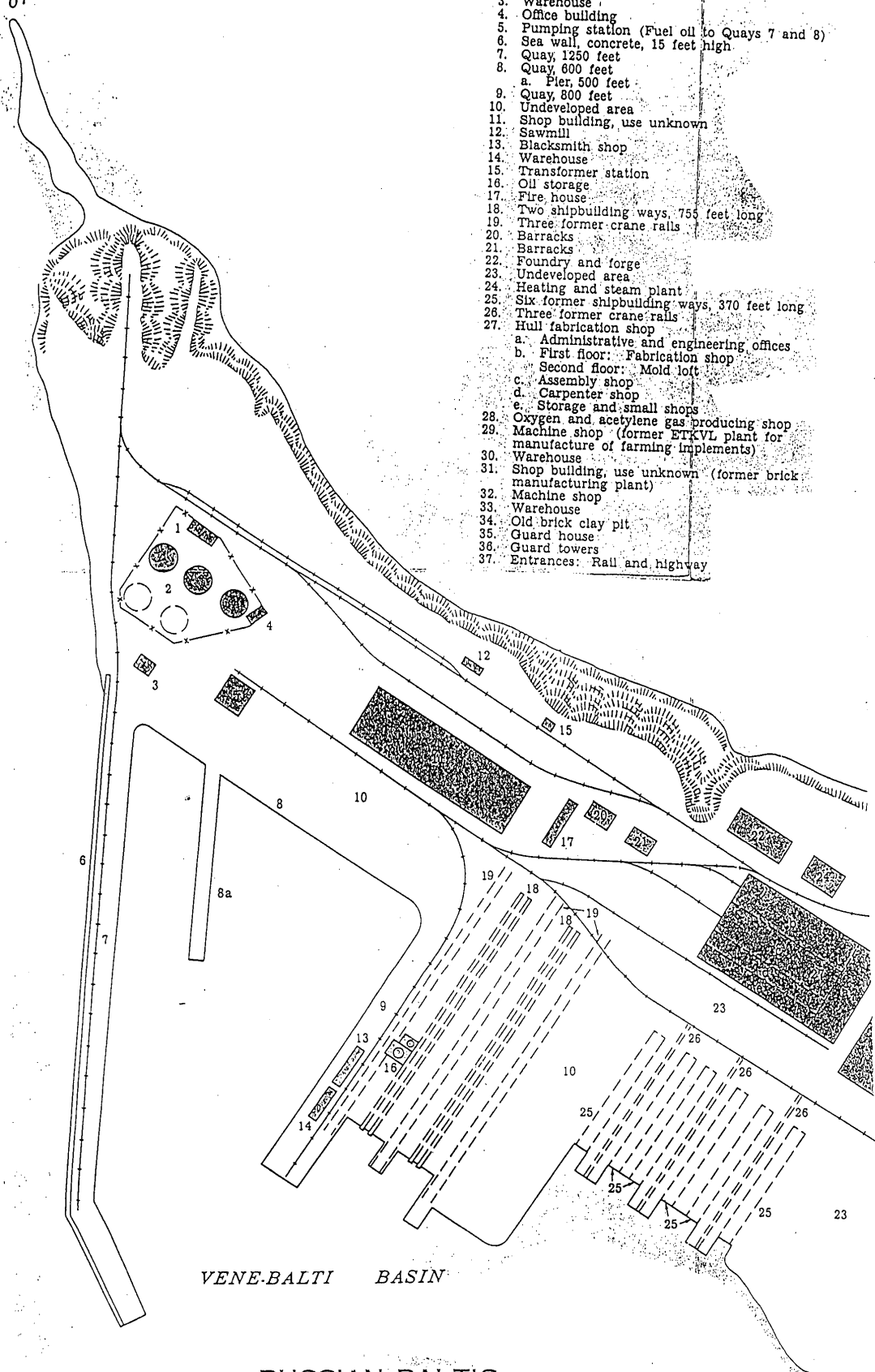
APPENDIX B

GAPS IN INTELLIGENCE

Information is required on the current status of development of facilities and the availability and competence of labor in the Russian Baltic Shipyard No. 890. Data on the type and amount of work performed; on the technology; on the source and availability of raw, semifinished, and finished material; and on the capital investment, budgets, and administrative control are also needed.

Gulf of Finland

1. Pumping station (Oil storage)
2. Oil storage
3. Warehouse
4. Office building
5. Pumping station (Fuel oil to Quays 7 and 8)
6. Sea wall, concrete, 15 feet high
7. Quay, 1250 feet
8. Quay, 600 feet
 - a. Pier, 500 feet
9. Quay, 800 feet
10. Undeveloped area
11. Shop building, use unknown
12. Sawmill
13. Blacksmith shop
14. Warehouse
15. Transformer station
16. Oil storage
17. Fire house
18. Two shipbuilding ways, 755 feet long
19. Three former crane rails
20. Barracks
21. Barracks
22. Foundry and forge
23. Undeveloped area
24. Heating and steam plant
25. Six former shipbuilding ways, 370 feet long
26. Three former crane rails
27. Hull fabrication shop
 - a. Administrative and engineering offices
 - b. First floor: Fabrication shop
 - c. Second floor: Mold loft
 - d. Assembly shop
 - e. Carpenter shop
 - f. Storage and small shops
28. Oxygen and acetylene gas producing shop
29. Machine shop (former ETKVL plant for manufacture of farming implements)
30. Warehouse
31. Shop building, use unknown (former brick manufacturing plant)
32. Machine shop
33. Warehouse
34. Old brick clay pit
35. Guard house
36. Guard towers
37. Entrances: Rail and highway



VENE-BALTI BASIN

RUSSIAN BALTIC
SHIPYARD NO. 890
TALLINN, ESTONIAN S.S.R.

(59°27'48"N. - 24°39'28"E.)

Building
 Former facilities not reconstructed
 Railroad
 Boundary fence and gate

0 100 200 400 600 800 1000

1. Pumping station (Oil storage)
2. Oil storage
3. Warehouse
4. Office building
5. Pumping station (Fuel oil to Quays 7 and 8)
6. Sea wall, concrete, 15 feet high
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