CENTRAL INTELLIGENCE AGENCY

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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

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1. The Main Inspectorate of Harbors and Navigation (Glavnaya Inspektsiya Portov i Moreplavaniya), hereafter abbreviated MIHN, was a department of the Ministry of the Merchant Fleet (MMF) and was subordinate to this ministry through Deputy Minister (fnu) BAYEV. The head of the Inspectorate was General Director MMF 3rd Class (fnu) POLKOVSKIY.

2. The MIHN had been a department of the MMF since the latter was organized in 1917. The MIHN was responsible for:

   a. Regulations governing duties of crew members (organizatsiya nutrikorabelnoy sluzhby);

   b. Organization of the communication service;

   c. Classification of MMF vessels;

   d. Research on navigation procedures, instruments, and equipment, as well as rescue equipment;

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e. Classification of lighthouses, both floating and stationary, and the determination of sites for new lighthouses;

f. Publication of the navigation bulletin, the Maritime Collision Prevention Manual, and regulations pertaining to ship inspections;

g. Promotion of the radio interference method to determine ships position (Based on the English Dekka method, this procedure was developed by the academicians, MANDEL'STAM and PAPELAKSI in 1930);

h. Expansion of the radio lighthouse network in order to facilitate the navigation of ships by means of radio direction finder (pelengator);

i. Coordination of those regulations pertaining to ships which were issued by the Central Directorate of Maritime Register [redacted] 25X1

j. Control of documents used by MMF vessels;

k. Determination of ships' markings and color;

l. Investigation of maritime accidents in conjunction with the Maritime Registry.

3. The watch services (Vakhtennaya Sluzhba) for the crews of maritime vessels were scheduled so that each man would have four hours on duty and eight hours off. The day watches were from 0800 to 1200 hours (first watch), 1200 to 1600 hours (second watch), 1600 to 2000 hours (third watch). The night watches were 2000 to 2400 (first watch), 2400-0400 (second), 0400-0800 (third). Deck and machine crews had watch duty on a monthly rotation schedule (skol'zyashchaya vakhta) which meant that that part of the crew that had duty the first day and night watches one month would be shifted to the second watch the second month, and the third month to the third watch. Officers were on duty as follows: the captain of the ship, third officer, chief engineer and fourth engineer were on duty the first watch; the first officer and second engineer had the second watch; the second officer and third engineer were on duty the third watch. The watch service of the electro-technical personnel of the MMF was organized in a similar way. Radio operators spent two hours on duty and four hours off, on a 24-hour schedule. Personnel of the various workshops worked from 0800 to 1700 hours daily. Medical and political personnel were not subject to watch duty. Because of the lack of qualified personnel and the shortage of living space on the ships, approximately 25% of the personnel periodically performed watch duty in two instead of three shifts much of the time. In such cases the watch was increased from four to six hours. Under certain conditions ship personnel working two-watch shifts got higher wages.

4. The duties, responsibilities and rights of officers on sea duty according to the MMF Ship Manual, USSR (Ustav Sluzby na Sudakh Morskogo Flota Soyuza, SSR) and the MMF Disciplinary Manual (Ustav o Distsipline Rabotnikov Morskogo Transporta Soyuza,SSR) were as follows:

a. Navigation personnel

(1) The captain had the over-all responsibility for the ship including its nagivation and mechanical operation.

(2) The first officer (Starshiy Pomos[illegible]hnik) was responsible for the administration of the ship and for loading and unloading.

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(3) The second officer (Vtoroy Pomoshchnik) was responsible for the ship's documents, entries in the ship's books, and bookkeeping and accounting.

(4) The third officer (Tretiy Pomoshchnik, often called Shturmanskiy Pomoshchnik) was responsible for the navigation equipment and instruments.

(5) The fourth officer (if there was one, as there always was on large freight-passenger vessels and on all passenger ships) was responsible for the organization and control of passenger transport.

(6) The boatswains were responsible for the deck work and tackle.

b. Engineer personnel

(1) The chief engineer (Starshiy Mekhanik) was responsible for the operation and maintenance of all machinery and mechanical equipment on the ship.

(2) The second engineer (Vtoroy Mekhanik) was responsible for the operation and maintenance of the main propulsion engine.

(3) The third engineer (Tretiy Mekhanik) was responsible for the operation of the boilers and steam lines. On all diesel ships, the third engineer, in addition to the above duties, was responsible for the operation of the diesel generator, diesel loading and unloading machinery, and the electric power plant and equipment.

(4) The fourth engineer was responsible for the engine room and for deck auxiliary machinery.

5. MMF regulations stipulated that no MMF vessel could operate with less than two-thirds of its TO. This applied to both the deck crew and engine room personnel. The captain of the ship and chief engineer, or their deputies, were required to be on board at all times.

6. The Communications Service (Signal'nyaya Sluzhba) provided for the following types of signals:

a. Sound signals were of the following types: steam signals (called Revuny on diesel ships), whistles operated by compressed air (tifons), sirens, and bells. These signals were used in accordance with regulations of the international maritime convention.

b. Light signals were those lights on the port and starboard sides of the ship, the light on top the mast (Topovoy), a hook board light behind the funnel, flares (false fire), and special light signals prescribed for the tanker fleet to indicate such things as the name of the tanker. Except for the last group, all light signals on USSR merchant vessels were used in accordance with the international maritime convention.

c. Flag signals were of the following types:

(1) Holiday flags were flown for national holidays.

(2) The national flag was flown from the sterns of ships in the USSR merchant fleet from 0800 hours to sundown.

(3) Special flags, such as service pennants and honorary pennants. The service pennants were red and were flown from the main mast when the Minister or one of his deputies was on board. The honorary pennants were of two types: permanent pennants given to certain ships for outstanding service in World War II (either red pennants presented by the State Defense Committee or sky-blue pennants awarded by the MMF or by the USSR Central Committee of the Trade Union), and those given for outstanding service performed during a quarterly period. The latter might be the pennant of the USSR Council of Ministers, which is wedge-shaped, red, 3½ m. long, with the embroidered coat of arms of the USSR, or it might be the pennant of the MMF or USSR Central Committee of the Trade Union, which was sky blue, 3½ m. long, with the embroidered coat of arms of the MMF.

7. The large number of types of vessels, according to means of operation, in the merchant marine of the USSR made the task of classification of MMF vessels very difficult. The official manual for classification of MMF vessels was entitled Technical Operation of the MMF Vessels (Pravila Tekhnicheskoy Ekspluatatsii Sudov Morskogo Flota), which was published by the MMF in December 1947.

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8. Special attention was paid by the MMF to research in the following:

a. Navigation under difficult conditions such as rocky regions, foggy weather, storms, icy regions, canals, etc.

b. Methods of towing strings of barges, especially those which were heavily loaded, floats, railroad tank cars. (The best length of rope between the tug and the first barge was considered to be 650 m ; for subsequent barges the rope could be shorter.)

c. Determination of the ship's position by one of three methods:

(1) Navigational, based on known locations ashore such as lighthouses, ports, natural landmarks, etc.

(2) Astronomical

(3) Radio navigational (pelengator)

d. Modernization of navigational instruments and equipment. Special emphasis was given to providing ships with a new sextant equipped with a level and an integrator, mechanical sea-gauges, electrical logs, gyrocompasses equipped with a cooling device (type Kurs-III, manufactured at the Navigation Instruments Plant - Zavod Morekhodnykh Instrumentov - in Leningrad), radio navigational equipment such as radio locators and radio-pelengators (there were very few ships in the USSR equipped with radio locators), modern navigational maps, lotsiya /sea manuals/, and arctic maps.

e. Rescue equipment. The MMF not only was interested in research on rescue equipment and methods but also promoted the manufacture of such equipment as lifeboats, floats, wooden benches provided with fastened tow lines (perlin), cork life rings (spasatel'nyy krug) of three types: standard, those provided with a cord 26 m. long (regulations stated that there should be at least two such rings on each ship as well as a cork

life jacket for each member of the crew). Since 1951 both rings and life jackets have been manufactured from foamed polyvinyl-chloride (Russian transliteration of formula is PKhV-1), which replaced cork, which was always in short supply in the USSR. [redacted] the life jackets and rings made from the polyvinyl-chloride were satisfactory. 25X1

9. After World War II, there was a tendency in the MMF to build lighthouses of wood instead of stone or concrete. This decision was apparently based on experience; it was considered reasonably certain that lighthouses built of impregnated lumber would be serviceable for 100 years if given proper care. Although those made of stone or concrete might last 600 years, they were 5 to 10 times more expensive, and navigation conditions such as character of shores, sea level, and sea canals were subject to considerable change in much less time. This was especially true of the White Sea and the Caspian Sea. Such changing conditions necessitated the construction of new lighthouses and the consequent abandonment of old ones. [redacted] there was a Ministry project for the construction of prefabricated, wooden lighthouses that could be transported. The MMF was also endeavoring to expand the radio lighthouse network in order to facilitate the navigation of ships by means of radio pelengators. In connection with this, [redacted] much had been done in the sea regions of the northern USSR. In the Volga Caspian regions there were two such radio lighthouses, at Stalingrad and Baku. 25X1 25X1 25X1

10. The Navigation Bulletin (Izveshcheniye Moreplavatelyam) published by the MIHN served to notify maritime personnel of all changes discovered in navigation waters which might have an effect on sailing conditions, such as new rocks, shallow waters, sunken objects such as mines, drifting icebergs, etc. This bulletin was also distributed to the Naval Ministry and the Ministry of Fisheries. The MMF also had charge of the publication of the Maritime Collision Prevention Manual (Pravila Preduprezhdeniya Stolknoveniya Sudov v More - PPS) which was prepared in accordance with the provisions of the international maritime collision prevention manual for passing ships, inclement weather, night sailing, etc. In addition to the above publications, the MMF was in charge of the publication of regulations for the mandatory inspection of ships which was conducted semi-annually by special commissions composed of representatives of the respective steamship companies (maritime engineering and maritime inspectorate branches), maritime registry, and port authorities.

11. The MIHN was responsible for setting up the following documents for use on merchant vessels:

a. Excerpt containing all the information on the ship that was included in the book entitled Port Vessel Register (Portovoy Sudovoy Registr). Each MMF vessel was attached to a particular port, and the entire Port Vessel Register was kept by the administration of the port. The excerpt kept on the ship was the most important document on the ship.

b. Authorization to sail under the USSR flag (Svidetel'stvo na Pravo Plavaniya pod Flagom Soyuza SSR)

c. Crew Register (Sudovaya Rol'): contained data on all members of the crew.

d. Watch Journal (Vakhtennyy Zhurnal), listed all the deck, engine, electric, and radio equipment.

e. Inspection sheets (Formulyary): contained notations by all inspectors of the ship as to the condition of equipment and preparatory measures in fire-fighting, sanitary, and "sanitary patent" on those ships which had a dispensary and medical officer.

f. Materiel books T/E (Tabel' Snabzheniya Sudna): contained specifications of all equipment and supplies (including food) required to be available on the ship.

g. Regulation of ship's specifications (Meritel'noye Svidetel'stvo): contained the ship's dimensions (gabarity). It was issued to ships passing through the Suez and Panama canals. A special type was issued to those ships which visited [redacted] ports. 25X1

h. Safety Certificate (Svidetel'stvo o Bezopasnosti): was issued in compliance with the International Maritime Safety Convention to all vessels carrying more than 12 passengers. In the USSR this certificate was issued only to ships visiting foreign waters.

There were several additional documents issued by the port authority [redacted] however, [redacted] all important documents are listed above. 25X1 25X1

12. The following color combinations were authorized for MMF vessels:

a. Black for the hull above the water line and yellow for weather deck structures and above; this combination was used for freight, passenger and freight, and passenger ships.

b. Gray for both the hull above the water line and deck was not widely used as this particular paint was very expensive.

c. White for the entire ship was used only in exceptional cases, as there was always a shortage of white paint.

Formerly the hull below the water line was painted with red lead paint, referred to as "minium" or "surik". The remaining supply of this paint, which was received as US lend-lease during World War II, was not used for its original purpose, but for the floors of offices of the higher MMF personnel.

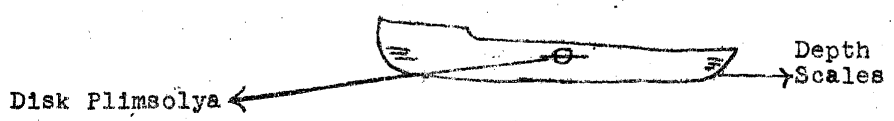
13. The following types of inscriptions (Nadpisi na sudakh) were authorized by the MIHN for its vessels:

a. The name of the ship was inscribed on both sides of the prow. If the ship belonged to a line whose ships called at foreign ports, the name in Latin characters was written below the original Russian name.

b. The name of the ship as well as its home port was on the stern (na podreze kormy).

c. Depth scales (shkaly uglubleniya), used to approximate the weight of the cargo, appeared on the hull.

d. Plimsol marks (diski Plimsolya) were marked on the side of the ship to indicate the maximum permissable load.



e. The coat of arms of the USSR and a red band were on the funnel.

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14. The MIHN was divided into the following sections:

a. Control and Inspection Section (Kontrol'no-Inspektorskiy Otdel), with 12-15 employees, was responsible for the supervision of the agencies of the MIHN, and for the compilation of comprehensive reports and charts.

b. Navigation Section (Navigatsionno-Shturmanskiy Otdel) employed some 10 engineers, including those who corrected compass deviation, and served as a body for consultation in the field of navigation, piloting service, etc.

c. Electrical and Radio Navigation Section (Elektro-Radio-Navigatsionnyy Otdel), which included eight radio navigators and "electro-radio navigators" (sic), was responsible for research on, and introduction of, modern navigation methods for the MMF fleet.

d. Technical Supply Section (Otdel Tekhnicheskogo Snabzheniya), with three or four employees, was charged with supplying the entire MMF fleet with navigation equipment.

e. Accounting office had three employees.

15. The MIHN had two basic types of field agencies: executive and inspectional. The executive (Ispolnitel'nyye) agencies of the MIHN were maritime inspectorates attached to all MMF steamship companies. The maritime inspectorates were subordinate to the steamship companies in administrative and disciplinary matters. The wages of the employees of the maritime inspectorates were paid by the respective steamship companies. The MIHN, however, retained supervision over the operational direction and instruction of the inspectorate's personnel. The number of personnel employed in each inspectorate varied from 10 to 14 depending on the size of the steamship company. Normally an inspectorate of a steamship company was composed of:

a. Maritime Inspectorate Administration, which included a chief, several senior maritime inspectors, and several other maritime inspectors.

b. Instructors Group (Operativnaya Grupa) was composed of several captain (skipper) instructors, ship engineer instructors, and stoker instructors.

c. Navigation Instruments (Navigatsionnyye Kamery) Workshops had navigators, radio navigators, "electro radio navigators" (sic), map correctors, navigation equipment mechanics, those persons charged with correcting compass deviation, etc.

16. The executive agencies of the MIHN were responsible for the following:

a. Providing ships with navigational equipment as specified by the MIHN;

b. Supervising material maintenance of vessels;

c. Instructing officers and crews on new navigational methods and technical operation of vessels;

d. Participating in the investigations of maritime accidents;

e. Inspecting ships periodically with reference to their technical, operational, and sanitary conditions;

f. Collecting information on outstanding performances of individual vessels in order to award honorary pennants;

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g. Maintaining and repairing navigation equipment;

h. Providing and correcting charts and manuals (lotsiya) for ships;

i. Eliminating deviation in ships' compasses. There was a mandatory check before the navigation season each year as well as after all repairs.

j. Organizing watch services;

k. Familiarizing crews with the rules established for the operation of ships, and performing periodical inspections to check on the efficiency of such familiarization;

l. Insuring that crews knew their duties in cases of disaster such as shipwreck, fire, etc., and performing periodic inspections of such training;

m. Organizing and controlling lifeboat drills;

n. Assuring compliance with disciplinary regulations for crews as set forth in the MMF disciplinary manual (Ustav Sluzhby na Sudakh Morskogo Flota Soyuza SSR).

17. An inspecting agency (Kontroliruyushchaya) of the MIHN was located in each port; it was referred to as the Office of the Harbor Master (Otdel Kapitana Porta). The only exception was the Port Control Inspectorate of the Northern Caspian Sea (Kaspiyskaya Inspektsiya Portovogo Nadzora Severnoy Chasti Kaspiyskogo Morya); the reason for the difference was that until 1947 there was no seaport at Astrakhan and, since offices of the harbor masters were component parts of seaports, there was no justification for such an office in Astrakhan. Therefore a port control inspectorate was set up there. When a part of the port at Astrakhan was declared a seaport, the State T/O Commission would not permit its reorganization into an Office of the Harbor Master, and so it remained under the old title with the old T/O. It was located in Astrakhan, Zayachiy Island, Factory (Zavoda) Housing Project of the 10th Anniversary of the October Revolution. The Port Control Inspectorate of the Northern Caspian Sea was subordinate to the MIHN both operationally and administratively (the basic difference between it and the offices of the harbor master). The Port Control Inspectorate was financed by the MIHN, which drew the funds from ReydTanker, Astrakhan Seaport, and ReydTekhFlot, all of which were serviced by the Port Control Inspectorate. The Port Control Inspectorate of the Northern Caspian Sea had the following T/O:

Chief of the Inspectorate -- Sr. Lt., MF, Nikolay LARIN

Deputy Chief -- Lt. MF LODYGIN

Senior Port Inspectors -- three

Port Inspectors -- three

Senior Roadstead Inspector -- one
Roadstead Inspectors -- three
} All located on the 14-Foot Roadstead on the Debarkader Donbass

Road Inspector - one for the Gur'yev Roadstead located on the Debarkader Mary

Secretary -- one

19. The harbor master offices were components of the respective ports and in administrative and disciplinary matters were subordinate to the port captain (Nachal'nik Porta). Operational direction, however, was the responsibility of the MIHN. The harbor master offices were financed by the port administration. The harbor master offices (as well as the Port Control Inspectorate in Astrakhan) were responsible for the following:

a. Controlling ships' supplies of equipment as prescribed by the ships' equipment charts (Tabel' Snabzheniya Sudov Morskogo Flota);

b. Providing vessels with the required navigational equipment as well as supervising its maintenance;

c. Supervising handling of ships' documents and the manner in which entries were made;

d. Providing vessels with crews; this entailed also control over the qualifications of crew members;

e. Participating in the investigation of maritime accidents;

f. Inspecting vessels' technical and sanitary services. Results of such inspections were rated excellent, very good, satisfactory, or unsatisfactory;

g. Examining periodically all crew members, including the captain, as to their knowledge of the current maritime regulations and the MMF service manuals;

h. Inspecting periodically the training of crews in the event of disaster;

i. Providing vessels with the required permanent documents;

j. Providing vessels with the authorization to sail (Pravo Otkhoda iz Porta) each time the vessels left port;

k. Detaining vessels in ports whenever the condition of the vessel warranted or when the ship's documents were not in order;

l. Participating in the examination commission for the promotion of personnel;

m. Providing the officers with proper licenses (diplomas) and crew members with official certificates authorizing them to hold their positions. This was true of all personnel except those graduates of navigational and equivalent MMF schools, who received their licenses upon graduation.