# NATIONAL REPORT OF HYDROGRAPHIC SERVICE OF THE RUSSIAN FEDERATION NAVY

to the 1-st Arctic Regional Hydrographic Commission Meeting

Saint Petersburg 2010



### THE HYDROGRAPHIC SERVICE OF THE RUSSIAN FEDERATION NAVY

The Hydrographic Service is one of the important national bodies responsible for the safety of navigation.

Although the Hydrographic Service forms a part of the Navy, it also meets the requirement of merchant and fishing fleets and vessels of other ministries and agencies. The Hydrographic Service is under the direction of the Department of Navigation and Oceanography of the Russian Federation Ministry of Defense (DNO of the RF MD), which is traditionally located in Saint Petersburg.

The principle functions of the Department of Navigation and Oceanography are:

- to carry out oceanographic, hydrographic and geophysical surveys in the World Ocean:
  - to compile and produce Nautical Charts, Publications and Guides to Navigation;
- to develop and produce Guides, Instructions, Regulations and Methodical Directions on carrying out the World Ocean investigations and processing of its results;
  - to equip the coast of the Russian Federation by aids to navigation;
  - to organize mariner notification about changes in navigational conditions and regime;
  - to develop navigational instruments and complexes.

To carry out oceanographic surveys some special units have been created as a part of the Hydrographic Service of the Navy, such as expeditions and parties. The surveys are effected by oceanographic and hydrographic ships of up to 9000 tons displacement equipped with modern navigational and oceanographic facilities.



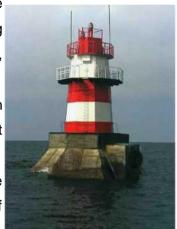
The results of the oceanographic surveys are submitted to the Navy Charts Division where they are used for compilation and updating of Nautical Charts, Publications and Guides to Navigation.

The Hydrographic Service of the Navy provides the operation of over 5000 aids to navigation objects.

The Department of Navigation and Oceanography guides the development of navigational and oceanographic facilities and fitting out with them the naval ships and vessels of other departments, arranges their operation and maintenance as well.

In special aspect the DNO of the RF MD has in its subordination the Hydrographic services of the Fleets. It has in direct subordination:

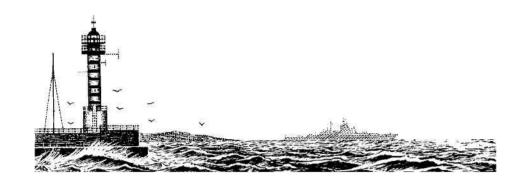
Ligthouse service the RF, the Navy Charts Division, the Navy Centre for Automatic Acquisition and Processing of Operational Hydrometeorological Information, the Long-



Range Radio-navigation Centre, the Navy Centre of Navigational, Hydrographic and Hydrometeorological Support (Moscow) and other units.

The Department of Navigation and Oceanography of the RF MD participates in realization of a series of regional projects of IOC UNESCO on charting of oceans. It is due to participation in these projects the DNO of the RF MD obtains new bathymetric data for the World Ocean and uses them for compilation of nautical charts and also takes into account advanced technologies and methods of charting used by leading countries in its work. Within the frameworks of Baltic Sea Hydrographic Commission (BSHC), the DNO of the RF MD actively participated in elaboration of agreed plan of systematically recurrent surveys of main navigable routes and ports of the Baltic Sea and the Gulf of Finland. Realization of this plan is performed within HELCOM project - Commission for the Protection of the Baltic Sea Area Environment.





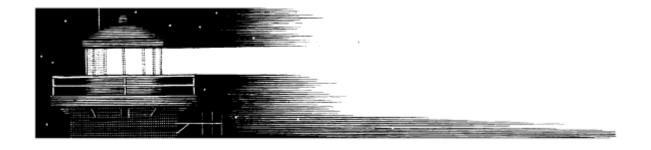
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## **ENCS OF THE ARCTIC OCEAN**

Nowadays, the cell collection for the seas of Arctic Ocean includes 256 of which:

14	cells on a scale of	700 000
91	cell on a scale of	180 000
19	cell on a scale of	90 000
74	cell on a scale of	45 000
28	cell on a scale of	22 000
13	cell on a scale of	12 000
12	cell on a scale of	8 000
4	cell on a scale of	4 000
4	cell on a scale of	2 000
1	cell on a scale of	1 000



### **NATIONAL PAPER CHARTS**

For waters under jurisdiction of Russia in the Arctic Ocean, the DNO of the MD has a collection of National paper charts, which includes 986 units.

With account of scales it is shown by the following way:

Central Arctic Basin	1:2 500 000	1
National charts	1:2 000 000	7
National charts	1:500 000	39
National charts	1:100 000	216
National charts	Scale 1:100 000 and larger	724
	scales	

### **REFERENCE ON**

# THE OPERATIVE NAVIGATIONAL INFORMATION SYSTEM AT THE ARCTIC OCEAN

MSI transmission for Arctic Regions is realized:

S of latitude 76°

within international frame of safety SafetyNet from INMARSAT satellites; within NAVTEX-system from available NAVTEX-stations;

N of latitude 76° (out of INMARSAT zone of action)

radio stations working on international frequencies are planned to use.

The Russian Federation has at its disposal three NAVTEX-stations in Arctic Seas: Barents Sea (Murmansk), White Sea (Arkhangel'sk), Laptev Sea (Tiksi).

Ministry of Transport plans for the future to put 8 additional NAVTEX-stations into operation along Northern Sea Route.

In order to perform functions of area and national co-ordination in bringing of navigational information to mariners in Arctic Regions, the following zones of responsibility are defined for:

Hydrographic Service of Northern Fleet

Murmansk PRIP Region (Barents Sea) -

Information is transmitted by Murmansk NAVTEX-station;

Arkhangel'sk PRIP Region (White Sea) -

Information is transmitted by Arkhangel'sk NAVTEX-station.

FSUE (Federal State Unitary Enterprise) «Hydrographic Enterprise»

ZAPAD PRIP Region (Western Part of Northern Sea Route) -

Information is transmitted by Tiksi NAVTEX-station and INMARSAT technical means.

VOSTOK PRIP Region (Eastern Part of Northern Sea Route) -

Information is transmitted by Tiksi NAVTEX-station and INMARSAT technical means.

WWNWS NAVAREA XX and NAVAREA XXI Regions (beginning on 1 January, 2011)

— Information is transmitted by INMARSAT technical means. Besides,
Mintrans considers possibility to transmit information on international
frequencies.

Hydrographic Enterprise on behalf of the Russian Federation is entrusted with coordinator function for NAVAREA XX and NAVAREA XXI Regions. In November, 2007, changes were made in the Charter of FSUE HE by the order of Federal Agency of Marine and River Transport (No DD-148-r of 26 November 2007) namely the enterprise is entrusted with national coordinator function of collection, preparation and transmission of maritime safety information for WWNWS NAVAREA XX and NAVAREA XXI Regions.

Beginning on 1 July, 2010, MSI service of FSUE HE has started to transmit real NAVAREA warnings for NAVAREA XX and NAVAREA XXI Regions (in mode of «Initial Operational Capability» (IOC)). 19 warnings for NAVAREA XX and 5 warnings for NAVAREA XXI have been announced as of end of September, 2010.

### Arctic NAVAREA/METAREA Boundary limits:

### NAVAREA/METAREA XX bound by:

From the border between Norway and Russia (Inland) to:

69° 47′.68N 030° 49′.16E, 69° 58′.48N 031° 06′.24E,

70° 22′.00N 031° 43′.00E, 71° 00′.00N 030° 00′.00E,

From this geographical position (71° 00′.00N 030°00′.00E)

further north along the 030°00′.00E meridian to: 90° 00′.00N 030° 00′.00E, 90° 00′.00N 125° 00′.00E,

then south to the Russian Federation coastline along the 125° 00'.00E meridian;

### NAVAREA/METAREA XXI bound by:

From a geographical position on the Russian Federation coastline at the 125°00′. 00E meridian to: 90° 00′.00N 125° 00′.00E, 90° 00′.00N 168° 58′.00W, 67° 00′.00N 168° 58′.00W, west to a geographical position on the Russian Federation coastline along the 67° 00′.00N parallel

Arctic NAVAREA Broadcast Schedules:

NAVAREA XX (IOR) at 0530UTC and1730UTC NAVAREA XXI (POR) at 0630UTC and 1830UC

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