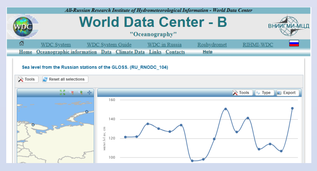
Preparation of oceanographic data for international projects

Alexander Mikheev, Evgenii Viazilov

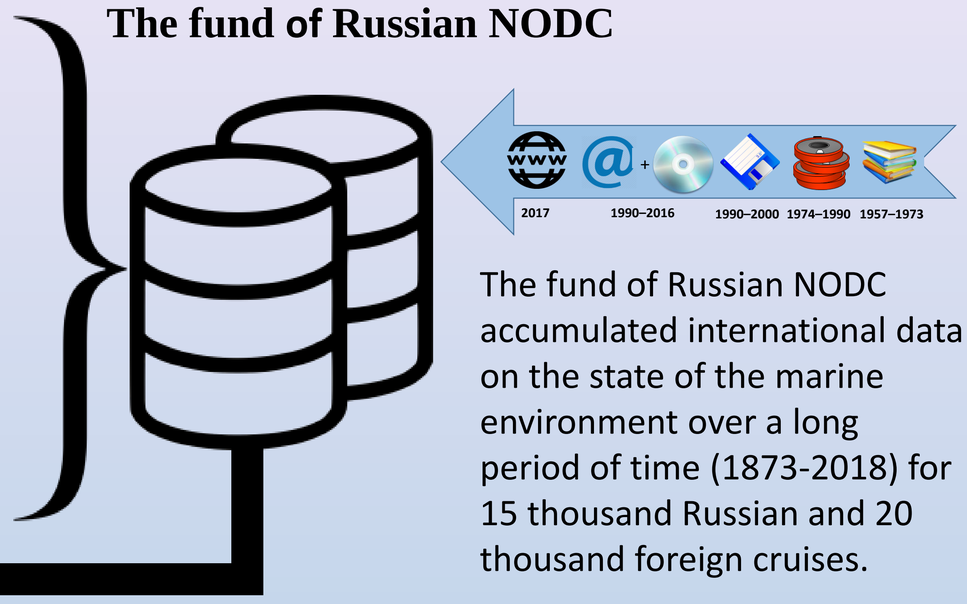
Russian National system ESIMO

WDC-B «Oceanography»

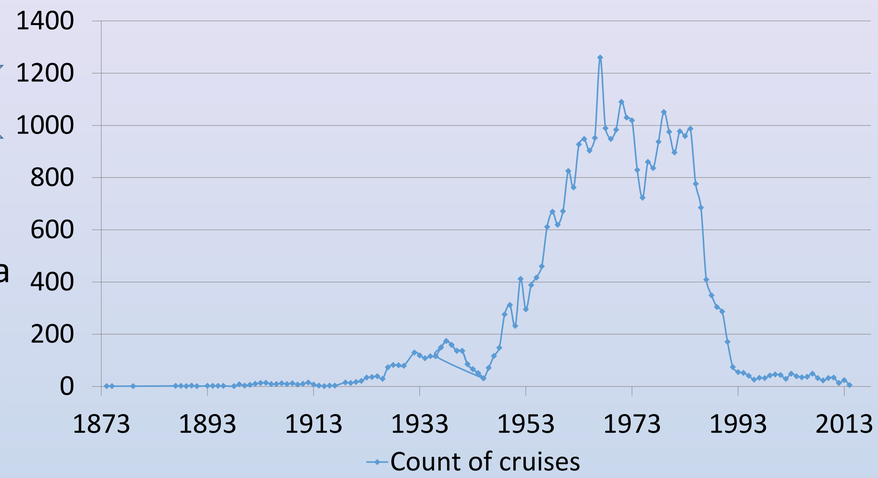


OceanDataPortal

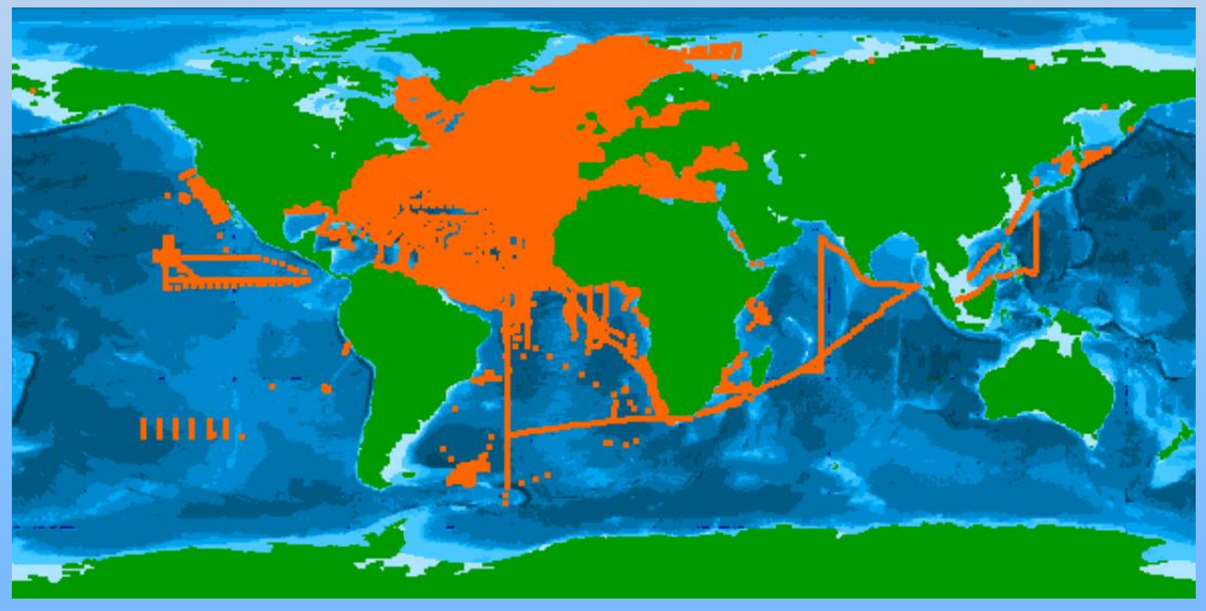
The fund of Russian NODC



The fund of Russian NODC accumulated international data on the state of the marine environment over a long period of time (1873-2018) for 15 thousand Russian and 20 thousand foreign cruises.



1. Data preparation
RIHMI - WDC automatically generates data using its own developed tools. One of the main formats used is SEADATANET ODV.



2. Metadata preparation
For prepared data set, the program allows generating metadata in the Common Data Index (CDI) format, based on ISO19139. Automating the preparation of CDI and ODV files has significantly reduced the complexity of data integration.

3. Data checking
The software developed by SeaDataNet - Octopus is used to verify the sent data files.

4. Send data
RIHMI-WDC uses various data transfer methods:
- SeaDataNet, EMODnet Chemistry, Black Sea Scene - used Download Manager Software;
- EMODnet Ingestion - used a web-based interface;
- EMODnet Physics - used a FTP server.

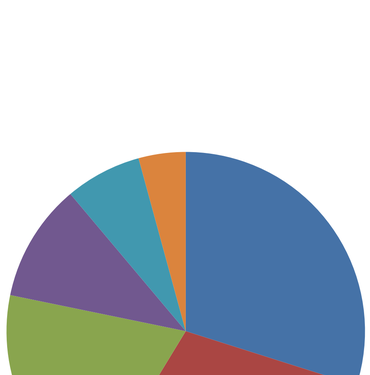
Various methods of automatic data exchange between systems are being developed:
- Web services or API for automatic data collection and transfer;
- Map services in the WMS standard (OGC).

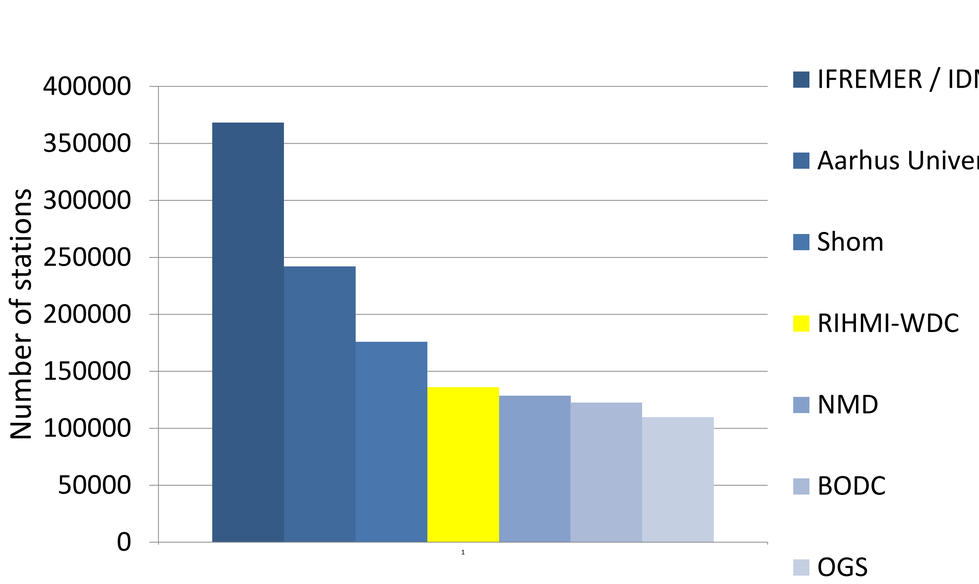
Black Sea SCENE

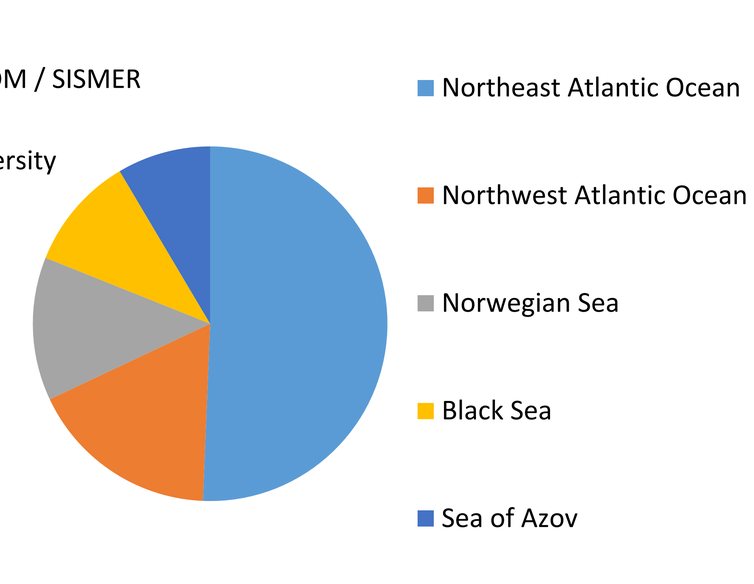
EMODnet European Marine Observation and Data Network

SeaDataNet

For all time participation in projects RIHMI - WDC has transferred more than 135 thousand stations,including for the Black Sea, the Baltic Sea, the Barents Sea,the Mediterranean Sea and the North-Eastern part of the Atlantic Ocean.







Address: 6, Korolyov str, Obninsk 249035, Russia Email: amiheev@meteo.ru, vjaz@meteo.ru