

## **VOS and activity of Port Meteorological Officer in the Russian Federation**

**by**  
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At present in the VOS scheme of Russia 290 VOS participate. Amongst them are 164 merchant vessels, 80 fishery, 37 scientific research and 9 specialized vessels. All them are classified as selected ships. During the past 10 years the amount of VOS decreases in 5 times. In the last 2-3 years this decreasing of VOS ceased. Every year by the efforts of PMO 2-3 ships are recruited for making observations, but 1-2 ships are excluded from VOS scheme.

Of the total amount of VOS, the SHIP reports are transmitted from 50-60 VOS at sea daily. So, throughout the year from VOS of Russia 8,5-9,0 thousand reports were delivered onto GTS. Monitoring shows that 1,5-2,0% of information perishes in different points of its traffic line. The PMO, telecommunication centers and Hydrometeorological Center of Russia make all attempts to reveal the causes of the information losses and to put a stop to them.

The VOS are fitted with domestic equipment, but it is out-of-date. Owing to the testing and calibration made on the regular basis, this equipment is in good condition and still works.

At the same time, meteorological instruments of new generation for marine usage have been developed in Russia, but here we have a problem. The economical conditions impose restraints on the production of these instruments. About 20 VOS have AWS systems MIDAS and MILOS on board. The transmission of the SHIP reports is made via INMARSAT-C.

The data management is a common procedure. Monitoring of data reception, quality control of them are performed in the PMO offices, the Hydrometeorological Center of Russia and in the WDC «Moskva», the important function of this center is data archiving. The monitoring is made for each of VOS. All remarks and shortcomings are brought promptly to the knowledge of the PMO concerned. The PMO give the corresponding advices and all possible assistance.

The PMO offices of Russia are located within 8 regions in main ports, where the offices of regional marine Departments for Hydrometeorology and Environmental Monitoring (DHEMs) are situated. There are 14 PMOs. In each port there are one or several PMO, their number depends on the quantity of ships involved into a regional VOS network. A person responsible for the coordination of PMOs activity is the National coordinator of VOS scheme having office in Moscow (Roshydromet).

The net of PMO are included into the divisions of marine hydrometeorology within regional Hydrometeorological centers. As a rule, there are the divisions of hydrometeorological service to shipping and other sea activity situated in vicinity. Due to this fact, PMOs can have regular contacts with marine forecasters and collaborate with them. Yet 10 years ago the PMOs perform their duties according to the «Guidance for Port Meteorological Offices» worked up by Captain Gordon V. Mackie. Such a situation lowered the status of our PMOs.

We, on studying the practice of PMOs of other countries, made a decision to enlarge the cooperation between PMOs and marine weather forecasters. It was resulting in perfection of PMOs knowledge of marine meteorology and forecasting, since they began to be engaged in the meteorological service of activity at sea, alongside with their direct duties. The cooperation between them and administrations of shipping companies and

marine ports became more efficient and close. Ships movements have been tracked by PMO on the better and more regular basis. In some regions PMO are involved into piloting of ships along routes recommended.

In the last years, the NMS of Russia put more attention to the increasing of the professional qualification and status of PMOs. Therefore, throughout past 3 years, the All-russian meeting – workshop of PMOs and experts on hydrometeorological service to marine activity and in 2001 the courses on upgrade of professional qualification of PMOs were held. In all the above mentioned events usually the representatives of marine agencies participate. For the lecturing the experts on meteorology, weather forecasting, communication media and experts on other matters have been invited. Such meetings help a profitable experience exchange between PMOs.

At the SOT-1 we reported about some achievements in the area of developments dedicated to methodic support of PMO and VOS activity. At present, we continue our work aimed at improvement and modification of the out-of-dated technologies concerning VOS operations.

However, the financial problems constrain our efforts directed to the re-equipment of ship stations. Our new developments are intended to automatization of all processes, from observation performance to the data transmission and archiving.

The physically worn and out-dated instruments on board VOS are hindering our successful work on implementation VOS program. About 1,5% of observation reports have errors. Additional errors appear due to the slapdash work or inexperience of some observers. Non-accurate compilation of reports and errors made by radio-operators result in loss of information. To overcome these difficulties, our PMO dedicate much time and efforts. For these purposes, they more thoroughly supervise the VOS inspecting them more often, organize instructive workshops and training of observers. Another our disadvantage is the PMO staff. From 14 PMOs only 3 are men. It is no picnic for women to get to ship in a nasty weather or when the ship stays on the outer roadstead. The cases when our PMO make visits to VOS which do not belong to Russia are rare, because the masters refuse them to visit the ship. There are problems connected with the inspections on board russian VOS, which are freighted.

In spite of a number of drawbacks in PMO and VOS activity in Russia, there are some regional VOS having a good results in their observational activity from year to year.

The PMOs, masters of ships, navigators and radio-operators which had the best results in the observational work over the year are awarded on behalf of the authorities of NMS of Russia by breastplates of the agencies, honour diploma, thanksgiving letters. Orders issued are brought to the attention of administrations of shipping companies which in their turn issue orders about awarding. The facts of such an encouragement of the observers is taken into account during the attestations of seamen and help to their promotion.

Further tasks are to provide appearance of notices dedicated to the best crews of ships in the marine press and to find the ways of financial encouragement of the observers.

### **Problems.**

Recruiting of vessels for making observations, because the principle of voluntary participation works badly;

Lack of suitable for use and compact handbooks for observers (State of sea card, Cloud Types for Observers, Tables of Codes);

Deficit of new meteorological devices for marine conditions, automated systems, new oceanographic and aerological equipment;

High precision equipment and instruments are not produced.

### **Proposals.**

1. PMOs of Russia appeal to JCOMM WMO and IMO to consider the possibility of introduction into Directive documentation of IMO additional articles according which the shipowners, independent of the type of ownership and flag under which ships ply, must be recommended or obliged to make and transmit meteorological observations on board as many ships as possible for their own safety.

2. In connection with distresses and damages of ships in Russia which happen more often during the last years, the matter is discussed that the specialized hydrometeorological service must be obligatory for each VOS leaving the port. Maybe, this matter should be considered by IMO, JCOMM WMO jointly.

We want to know the opinion of IMO and JCOMM on that question, since the agreements between the Roshydromet and marine agencies of Russia about the mutual commitments in the area of the collection of meteorological information from VOS, on the one part, and meteorological service to shipping by divisions of NMS of Russia, on the other part, most of shipping companies of Russia take for documentation bearing the recommendation character. Such a situation poses the limitations on possibilities of our PMOs to recruit new vessels for increase of SHIP reports quantity.