

## **Russian Federation**

The Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) performs functions of a meteorological and oceanographic zonal coordinator (ZMOC).

Fourteen forecast centers and three science research institutes in Roshydromet (Russian Hydrometeorological Center, State Oceanographic Institute in Moscow and Far East Research Hydrometeorological Institute in Vladivostok), in the framework of the MAES, provides the Russian emergency services and local authorities with all needed meteorological and oceanographic information for their areas of forecast responsibility (Bering, Barents, Kara, Laptevs, Okhotsk, Japan, East-Siberian, Chukotka, Caspian, Black and Baltic Seas), area of Marine Accident Emergency (MAE) XIII.

The forecast centers provide emergency services with meteorological and oceanographic analyses and forecasts of different range.

This operational, analytical and prognostic information, coupled with data on parameters and location of the occurred pollution of marine environment, is simultaneously transmitted to the SOI (for seas circumfluent the European territory of Russia and Arctic regions) and to FERHRI (for Far-East seas and MAE XIII). These scientific research centers perform analyses and calculation of propagation and dissipation of the pollution spots in the marine environment. This information then is submitted to forecast centers and transmitted to the emergency services.

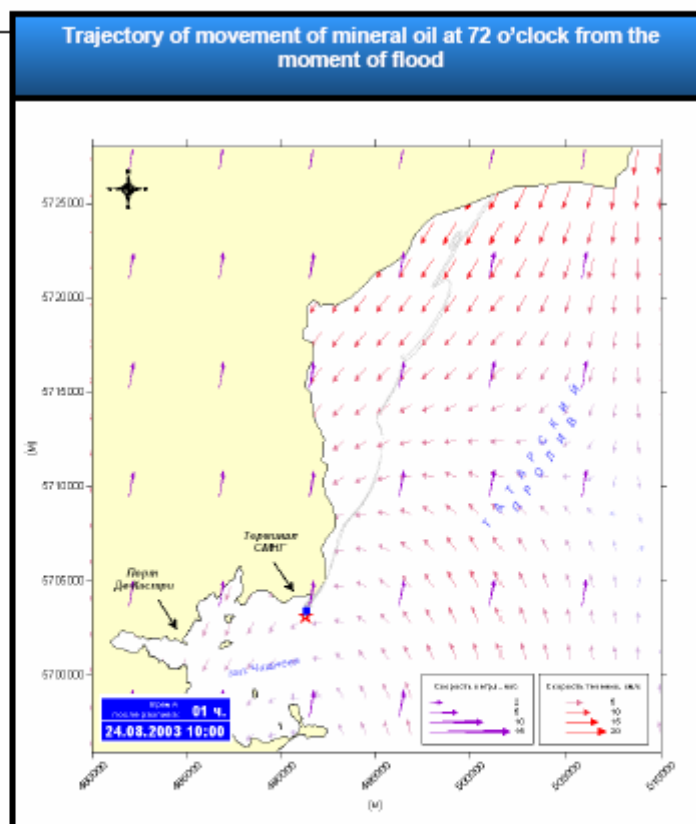
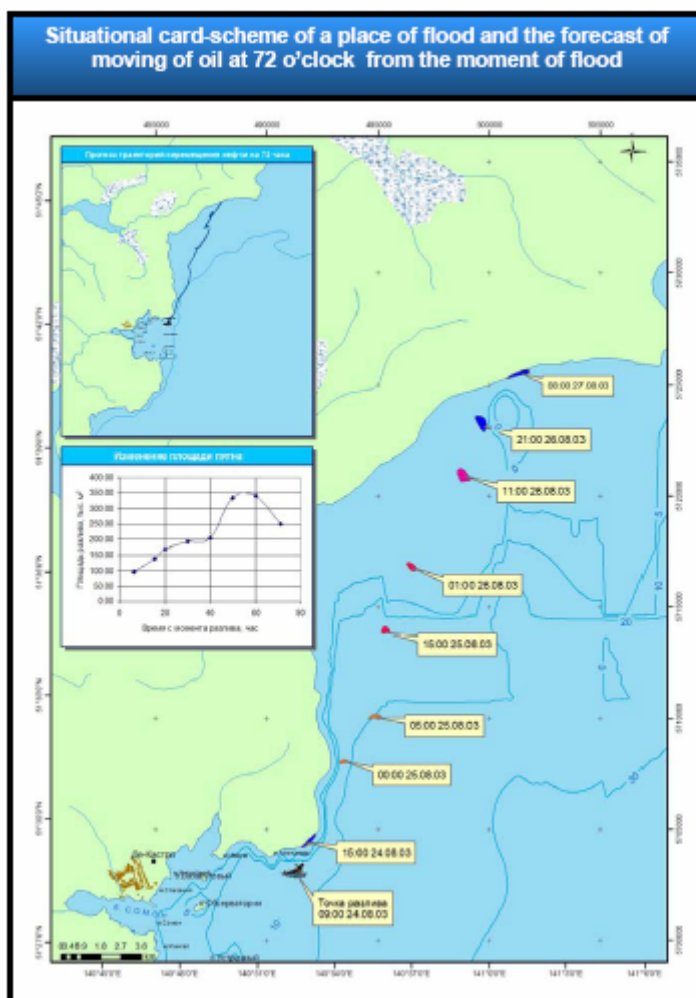
For calculations of propagation and dissipation of pollution spots in the marine environment, the models are used, which have been developed by the SOI and FERHRI. These models are improved and corrected, when the new data from marine aquariums become available.

In Annexes 1, 2 and 3 there are examples of such calculations with the use of the meteorological and oceanographic information including the data from the emerging buoys PALAS are provided.

It should be noted that, at the present time, the work on improving forecast accuracy is performed by the forecast centers of Roshydromet. A new atlas of these areas is currently being prepared. After completion, the atlas will be presented to the WMO and published in marine editions containing navigational warnings and reports on emergencies for shipping. A new national guidance on marine meteorological service is also currently under preparation. This edition will take into account the statements of the Guidance on marine meteorological service of the WMO (WMO-No. 471) and those containing description of activities on detection and liquidation of accident pollution of marine environment under MAES.







Characteristic of flood								
Time	Coordinates of a contour of a spot	Square, thousand m <sup>2</sup>	Perimeter, m	Density, kg/m <sup>3</sup>	Speed, cm/s	Thickness, mm	Volume, ton	Output on coast, km
15:00 24.08.03	140°52'45"E 51°29'28"N 140°53'0"E 51°29'24"N	96	1445	855	17	0.06	7,2	1,5
05:00 25.08.03	140°55'20"E 51°32'35"N 140°55'38"E 51°32'29"N	170	3248	860	20	0.04	7,4	-
15:00 25.08.03	140°55'48"E 51°34'43"N 140°58'5"E 51°34'33"N	194	3113	870	21	0.03	7,6	-
01:00 26.08.03	140°56'47"E 51°36'16"N 140°57'8"E 51°36'2"N	205	3239	890	16	0.03	8,0	-
11:00 26.08.03	140°58'44"E 51°38'28"N 140°59'15"E 51°38'11"N	335	3780	895	18	0.02	8,8	-
21:00 26.08.03	140°59'27"E 51°39'50"N 140°59'52"E 51°39'28"N	341	3927	920	19	0.02	9,0	-
09:00 27.08.03	141°0'53"E 51°40'52"N 141°1'25"E 51°40'49"N	253	4595	930	22	0.04	10,2	2,0

