

The forecast system in Kazakh National Hydrometeorological Center

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forecasting Division

RSE Kazhydromet,
Astana, Kazakhstan →

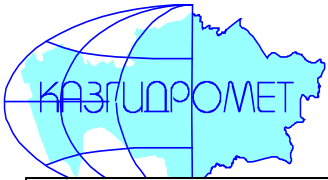
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web-site: www.kazhydromet.kz



Kazakhstan is the world's largest landlocked country, and the ninth largest in the world, with an area of 2,724,900 square kilometres.

Kazakhstan has an 'extreme' continental climate, with warm summers and very cold winters. Indeed, Astana is the second coldest capital city in the world after Ulaanbaatar. Precipitation varies between arid and semi-arid conditions, the winter being particularly dry



www.kazhydromet.kz

The screenshot displays the website interface for RSE "KAZHYDROMET", Ministry of Energy of the Republic of Kazakhstan. The header includes navigation links for KAZ, RUS, and ENG, along with social media icons for Facebook, VK, and Instagram. A search bar is present with the text "Поиск по сайту". The main navigation menu lists categories: HYDROMETEOROLOGY, AGROMETEOROLOGY, HYDROLOGY, CLIMATE, ECOLOGY, CASPIAN SEA, SERVICES, and ABOUT. The central content area features a large weather forecast for "Ақтау" (Aktau) for the period of October 31 to November 2, 2017, with a temperature of +9°C. Below this, there is a section for "AKMOLA REGION" with a table of weather data for various cities.

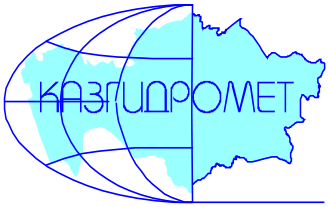
City	Temperature	Weather Icon
Арнасай	+1 °C	☾
Астана	+1 °C	☁
Байзақов	0-3C	☁

The Hydrometeorological Service of Kazakhstan was funded in January 1922. For today it is a large scientific and manufacturing enterprise of the Ministry of Energy.

For today RSE "Kazhydromet" includes 15 branches in each region of the Republic of Kazakhstan and in cities Almaty and Astana, where more than 3.5 thousand people work.

RSE "Kazhydromet" provides a round-the-clock monitoring, i.e. observes, analyzes, provides weather forecasts and warnings about the nature behavior in various conditions, notably in air, water and soil.

RSE "Kazhydromet" is the only authorized unit, which has the rights to provide an official information service to organizations about the storm warnings and natural hazards phenomena in our State.

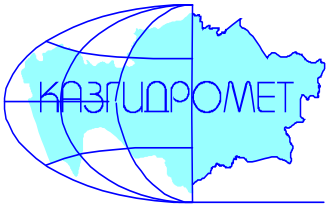


Goals and Objectives of Kazhydromet

The main purpose of Kazhydromet is to provide information on weather, climate and environment, hazard and disaster meteorological, agrometeorological, hydrological phenomena and extremely high levels of pollution, provision of estimates and projections of quantity also the quality of water resources.

The main objectives of Kazhydromet:

- 1. Development and preparation of all types of meteorological forecasts;**
- 2. Systematic meteorological observations and environmental monitoring;**
- 3. Warnings about the possibility of extreme weather events;**
- 4. Keeping the Republican fund data for Hydrometeorology and environmental pollution;**
- 5. Hydrometeorological support industries of the Republic of Kazakhstan.**

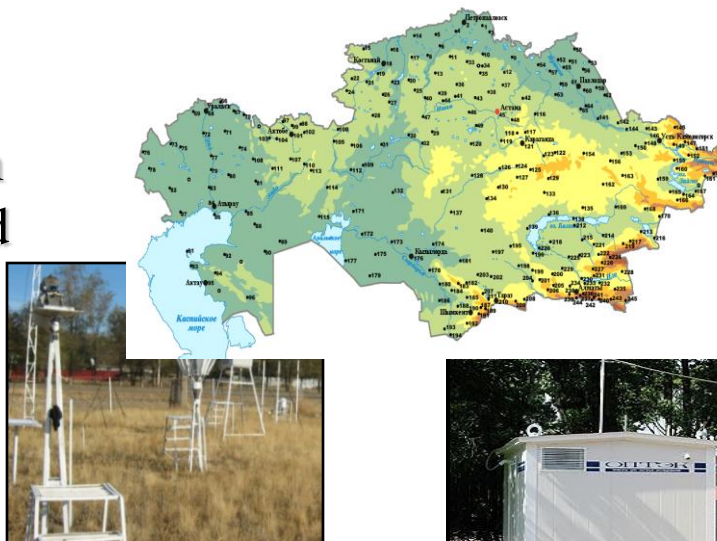


International cooperation of Kazhydromet is developing in the following main areas:

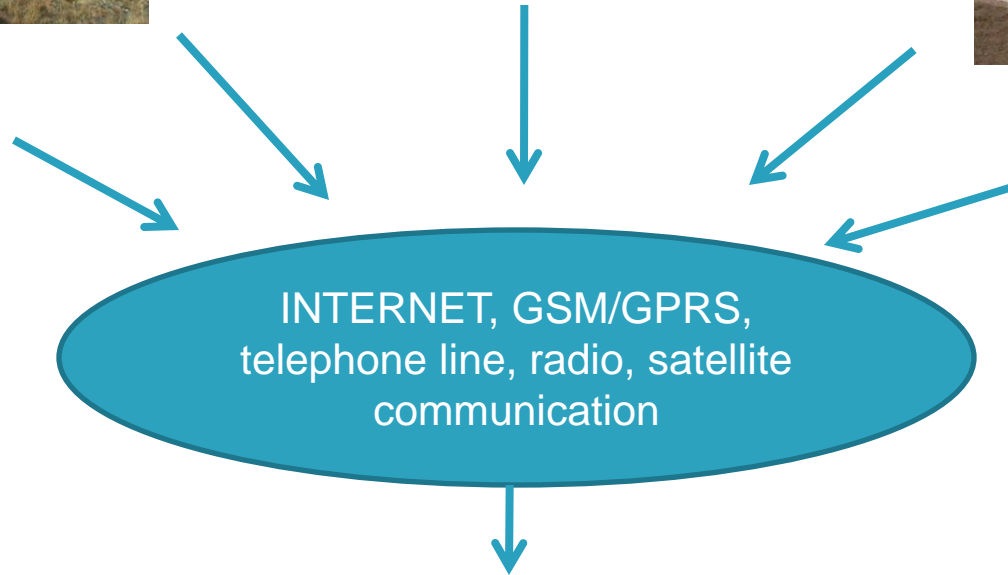
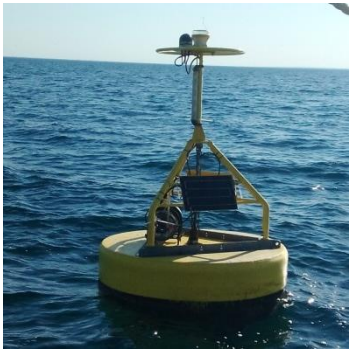
- ❖ **World Meteorological Organization (WMO)**
- ❖ **WMO Regional Associations II and VI**
- ❖ **Inter-state Council of Hydrometeorology (ICH)**
- ❖ **Bilateral and Multilateral agreements on Hydrometeorology**
- ❖ **International projects**
- ❖ **Participation in an international course, trainings and study seminars**

Monitoring of the Hydrometeorology and Environment

Monitoring is carried out on
328 meteorological stations, 83 of them
has an international status and included
in the global network
307 hydrological posts
88 agrometeorological posts
9 aerological stations
12 meteoposts
2 stations of snow avalanche
26 stations located in difficult areas
25 stations by snow routes
142 stations of air quality
105 water bodies of water quality
39 cities provides monitoring of soil contamination
85 stations of radiation exposure
46 stations of the chemical composition of precipitation
39 stations of the chemical composition of snow cover
1st radar MARS has been installed in 2013 in Taraz,
southern Kazakhstan.

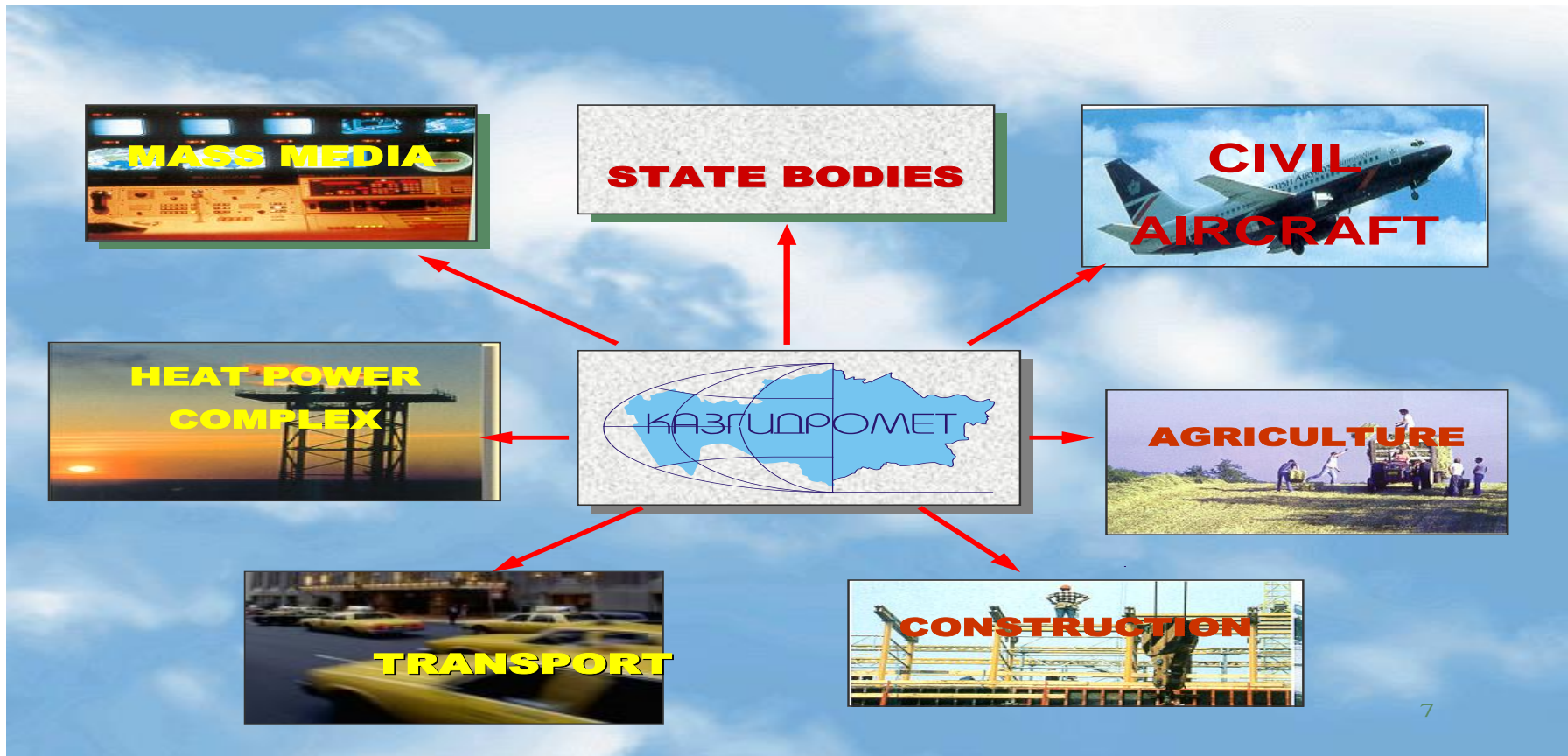


Telecommunication



The central communication node data

Consumers of the hydrometeorological information



- The basic consumers of hydrometeorological production are the Public authorities, Power industry, Agriculture, Oil and gas complex, Sailing charter, Air and road transport, Water supply and construction, Ecology and tourism, Population, Mass media

Main products manufactured by the RSE "Kazhydromet", which is transmitted

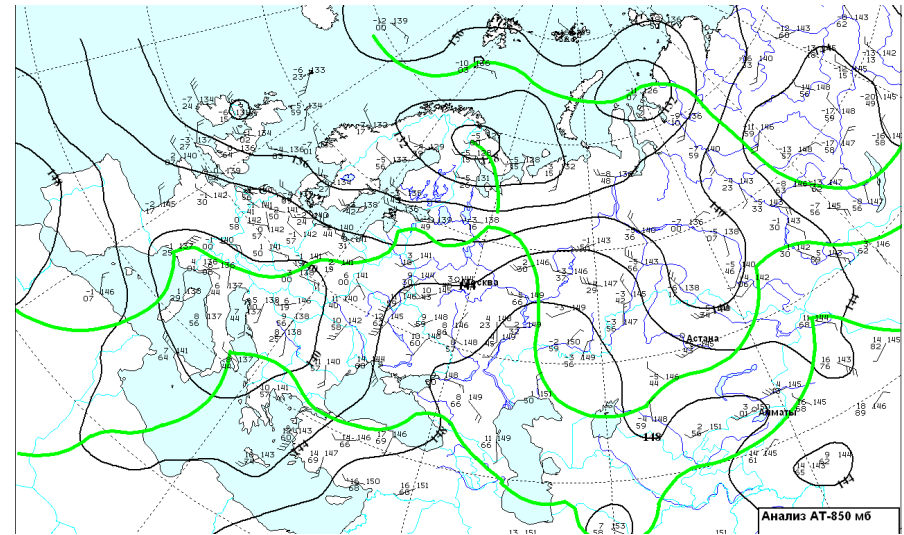
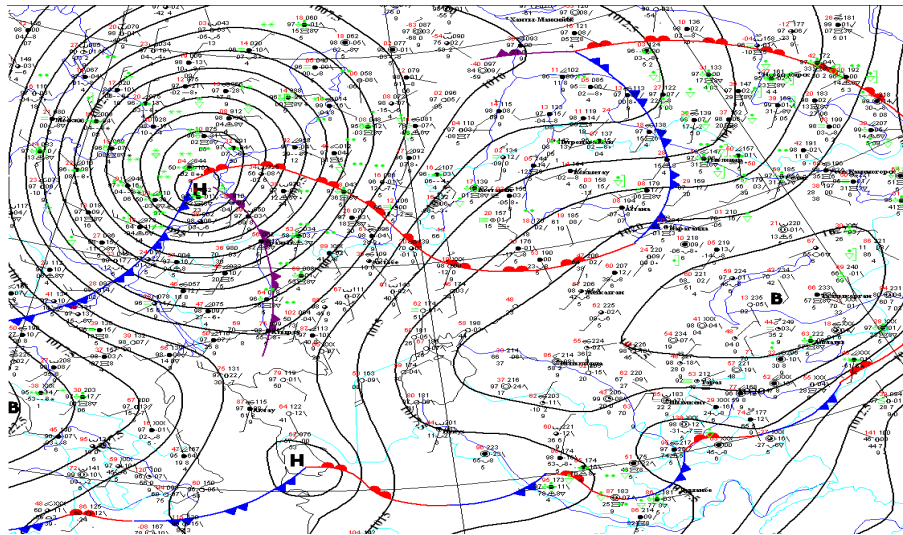
- Storm warnings as they occur
- Weather forecast for the first 24 hours
- for 48 and 72 hours
- for a week
- for 10 days
- for month and season
- bulletin of the daily hydrometeorological forecasts
- bulletin of the snow avalanche forecast
- bulletin of the flood
- weekly bulletins on the Caspian Sea
- monthly ecological bulletin
- agrometeorological bulletin
- agrometeorological forecasts for 10 days
- annual reports

- Administration of the President of Kazakhstan
- Ministries of Kazakhstan
- Government Administration
- Committee of Emergency
- Mass media: TV, radio, magazin etc
- Center for collecting and processing information, Almaty
- All regional branches Kazhydromet

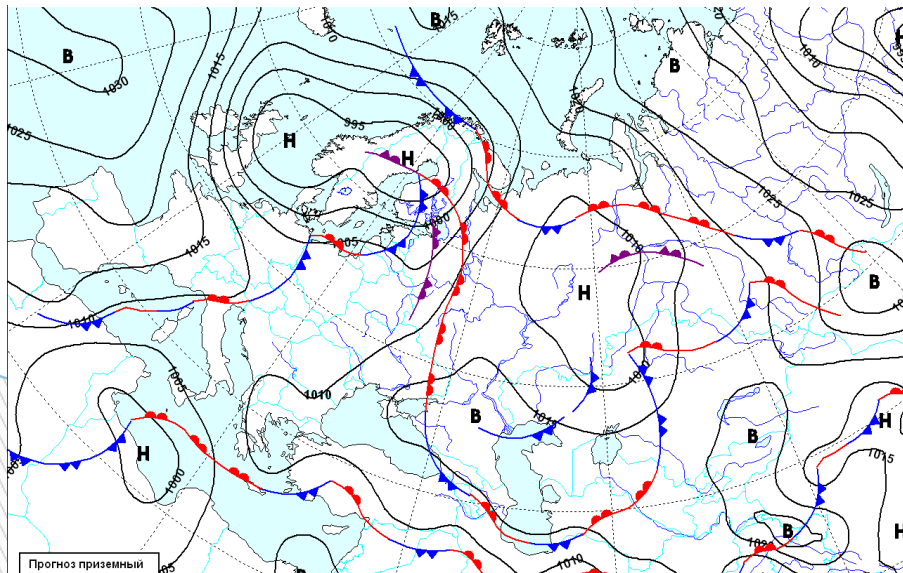




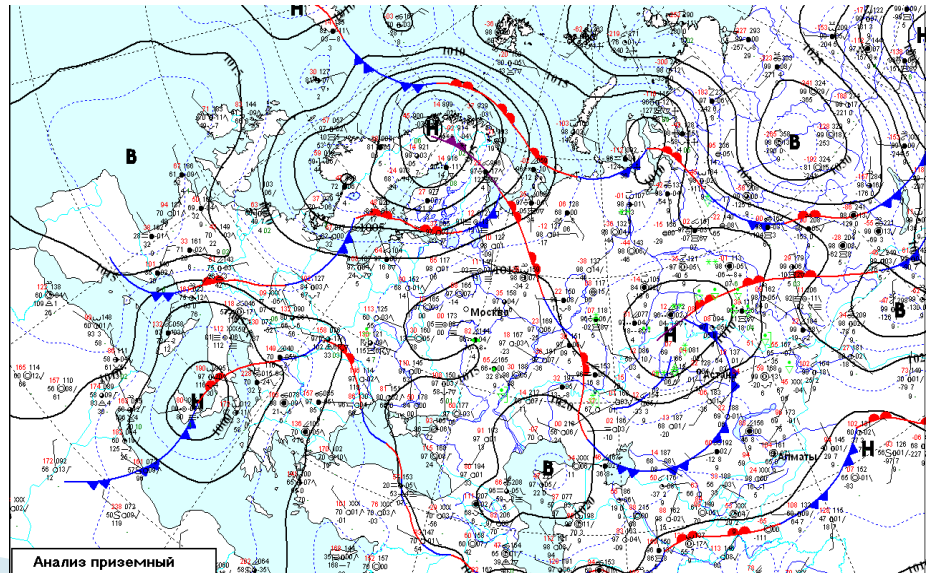
ARM-Synoptic is a GIS technological programm where can use actual and forecast charts



Анализ AT-850 мб



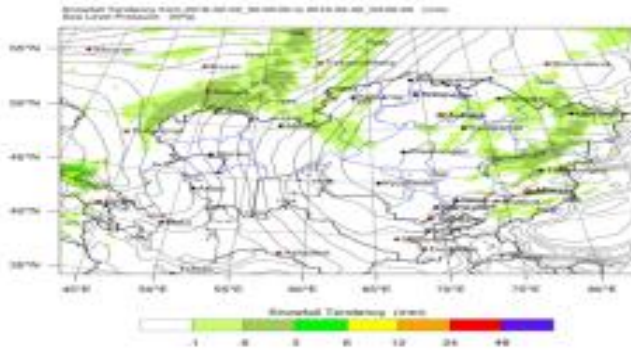
Прогноз приземный



Анализ приземный

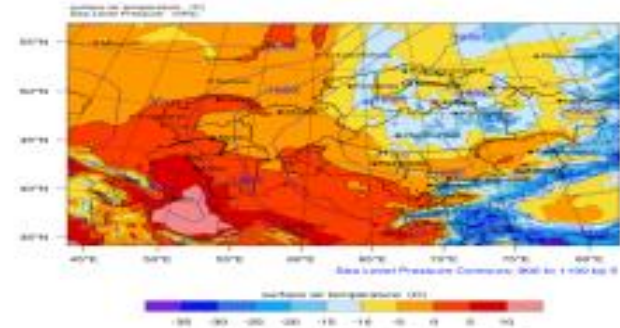
American mesoscale numerical prediction model WRF adapted to territory of Kazakhstan

KAZHYDROMET REAL-TIME WRF



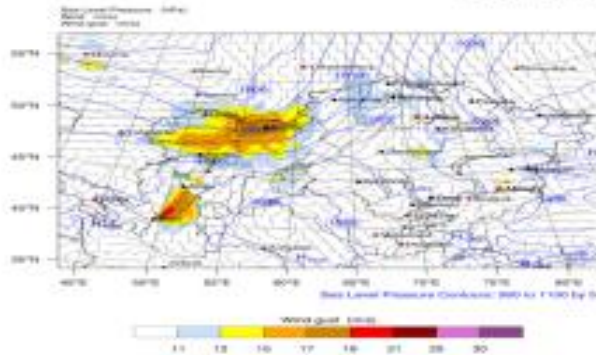
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KAZHYDROMET REAL-TIME WRF



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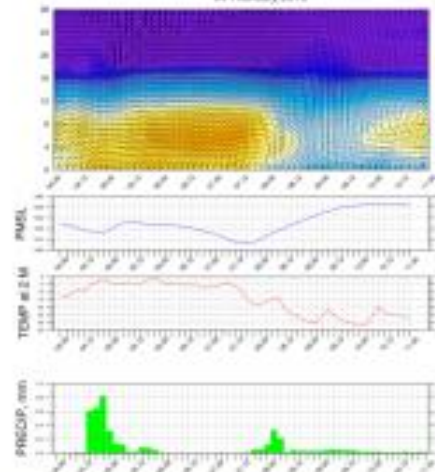
KAZHYDROMET REAL-TIME WRF



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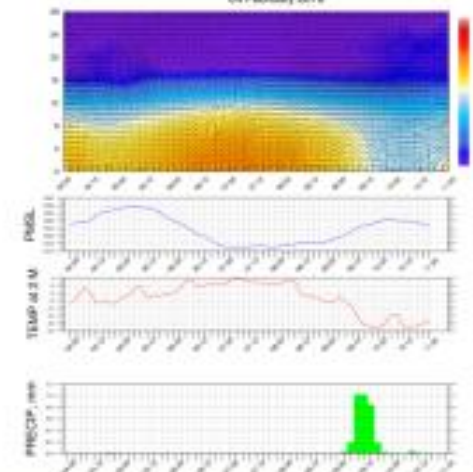
Kazhydromet for Astana(51.19 71.42)

04 February 2018

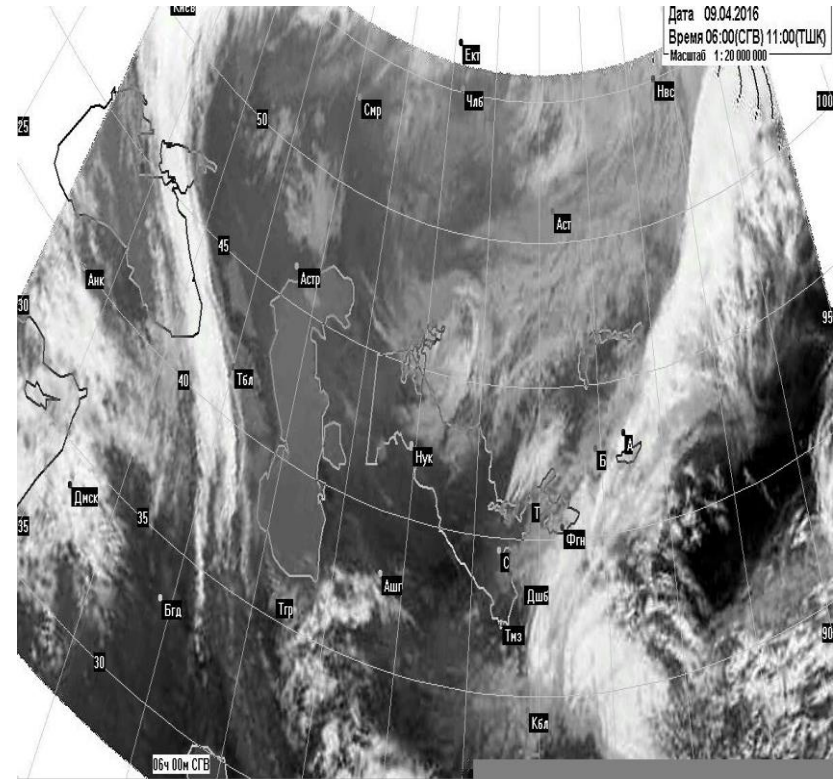
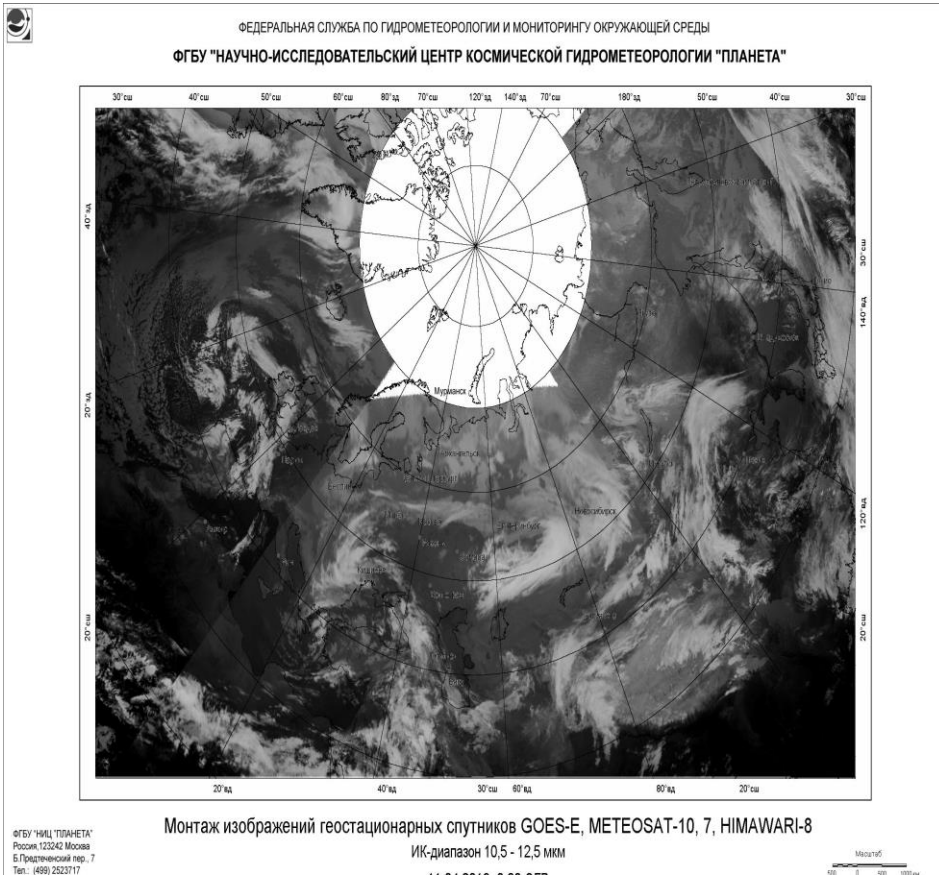


Kazhydromet for Almaty(43.23 76.93)

04 February 2018



Satellite information





THANK YOU FOR
YOUR ATTENTION

RAHMET