



PROGRAMME

of the International Applied Science Conference

**"HYDROMETEOROLOGICAL AND ENVIRONMENTAL SECURITY OF
MARINE ACTIVITY"**

16-17 October 2015

Astrakhan, Russia

Conference is organized by:

Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASPCOM)

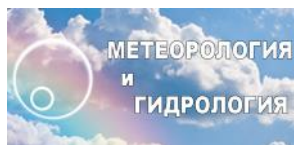
Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet)

Caspian Marine Scientific Research Centre

Information support of the Conference



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Information Partner of the Conference

16 October

Conference venue:

Opening and Plenary Session: Astrakhan State Philharmony 3 *Molodoy Gvardii* Str.

Sessions: **"Zolotoy Zaton" Hotel** 60B Admirala Nakhimova Str.

Transfer 08.30

(for Conference participants staying at "Zolotoy Zaton" hotel)

8.30-9.30 Registration

9.30-10.00 Opening ceremony. Greetings

10.00-11.00 Plenary Session

1. Report by the Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea
2. Evgeniy Nesterov (Hydrometeorological Centre of Russia, Moscow). Hydrometeorological support of activities in the Caspian Sea
3. Andrey Kostianoy (IO RAS, Moscow) Integrated satellite monitoring of the Caspian Sea

Coffee- break (11.00 - 11.30)

4. Alexander Danilov (AARI, St. Petersburg) Ensuring hydrometeorological security of the Arctic shelf projects
5. Galina Titova (ES RAS, St. Petersburg). The arsenal of modern knowledge on protection of the seas from environmental threats and the possibility of using it in Russia
6. Alexander Postnov (SOI, Moscow) Establishment of the regional monitoring system of the Caspian Sea under the aegis of the Tehran Convention

Lunch (12.30-14.00)

14.00-15.20 Plenary Session

7. Sergey Zatsepa, Valentin Zhuravel (SOI, Moscow) Modelling oil spills for oil spill response, NEBA and EIA plans

8. Sergey Popov (Hydrometeorological Centre of Russia, Moscow) Operational hydrodynamic model of forecasting Caspian Sea currents and level.
9. Vasiliy Dmitriev (SPbSU, St. Petersburg) Integral assessment of environmental well-being of a water body: new approach and results
10. Igor Zonn ("Soyuzvodproekt", Moscow) Caspian Pipeline-related Diplomacy

Transfer to "Zolotoy Zaton" Hotel (15.20-15.40)

Coffee- break (15.40 - 16.00)

Sessions 1, 2 and 4 (16.00-18.00):

Session 1 Marine hydrometeorological and ice forecasts (Co-Chairs: (15.20-15.40) (Meeting room, 7th floor)

1. Alexander Fedorenko (Hydrometeorological Centre of Russia, Moscow). On forecasting of ice conditions in the Azov and in the Caspian Seas
2. Natalya Ivkina (Kazhydromet, Almaty) Short-term and medium-term forecasts of water level surface and waves for the Kazakhstan sector of the Caspian Sea
3. Behzad Layeghi (IRIMO, Iran) Numerical simulation of wind driven wave in Southern Caspian using SWAN and MIKE21 (case study: off shore region of Amir Abad)
4. Tatyana Bayankina (MHI RAS, Sevastopol) The interaction between Experimental Center of Marine Forecast (ECMF) and Oceanographic Data Bank (BOD) of Marine Hydrophysical Institute (MHI) to provide forecasts of the state of hydrophysical fields in the Black Sea.
5. Alexander Zelenko (Hydrometeorological Centre of Russia, Moscow). Development of operational oceanology tools for the Caspian Sea

Session 2 Monitoring and assessment and standard-setting of marine pollution (Co-Chairs: Alexander Postnov, Homayoun Khoshnavan) ("Kaspiy" Hall, 7th floor)

1. Sergey Monakhov (Kaspmniz, Astrakhan) Industrial environmental monitoring of marine water areas: rules, uncertainties and risks
2. Inna Nemirovskaya (IO RAS, Moscow) Characteristics of hydrocarbon composition in the oil and gas field areas (Caspian, Baltic and Barents Seas)
3. Homayoun Khoshnavan (Water Research Institute, Iran) Apply new model on environmental vulnerability, Caspian Sea
4. Igor Zemlyanov (SOI, Moscow) Problems of environmental security of marine activities in estuarine zones
5. Dmitriy Shakhin (FRECOM, Moscow) Approaches to marine monitoring
6. Vitaliy Tatarnikov (Kaspmniz, Astrakhan). Identification and assessment of changes in the marine environment caused by stationary industrial facilities

Session 4 Application of remote sensing data and mathematical models for ensuring hydrometeorological and environmental security of marine activities. (Co-Chairs: Andrey Kostianoy, Edige Zakarin) ("RAKIT" Hall, 1st floor)

1. Sergey Lebedev (HC RAS, Moscow) Satellite altimetry of the Caspian Sea
2. Petr Bukharitsin (WPI, Astrakhan) Results and issues of interconnecting methods of satellite and sub-satellite monitoring of surface film pollution under the conditions of marine oil and gas production
3. Valentin Zhuravel (Informatika riska, Moscow) Integrated plan of oil spill prevention and elimination in the course of development of North Caspian oilfields.
4. Edige Zakarin, Tatyana Dedova (TOO "EcoRisk", Almaty, Kazakhstan). Risk- model of biota damage in case of an emergency oil spill in the North Caspian water area
5. Daniyar Nurseitov (TOO "EcoRisk", Almaty, Kazakhstan). Mapping environmental risks in case of an emergency oil spill in the North Caspian

6. Karina Asaeva (KaspMNIZ, Astrakhan) Probability approach to the analysis of marine biota spatial distribution to estimate its damage by an emergency oil spill
7. Galina Monakhova (KaspMNIZ, Astrakhan). Estimation of pollutants transport between different sectors and parts of the Caspian Sea.

18.00 – 19.00 Poster Session

19.00 - Buffet Reception Venue: "Zolotoy Zaton" Hotel

17 October

Conference venue:

Sessions: **"Zolotoy Zaton" Hotel** 60B Admirala Nakhimova Str.

Final Plenary Session: **"Zolotoy Zaton" Hotel**, "RAKIT" Conference-hall

9.00-11.00 Sessions 1, 2, 3

Session 1 Marine hydrometeorological and ice forecasts (Co-Chairs: Evgeniy Nesterov, Behzad Laeghi) (Meeting room, 7th floor)

1. Sergey Monakhov (KaspMNIZ, Astrakhan). New method to forecast Caspian Sea level for 1-10 years term.
2. Petr Bukharitsin (WPI RAS, Astrakhan) Improving hydrometeorological security of ports and transport complexes in winter period in the presence of sea ice
3. Tatyana Bayankina (MHI RAS, Sevastopol) Formation of large-scale anomalies of hydrometeorological fields in the surface layer of the Black Sea in winter period
4. Denis Blinov (Hydrometeorological Centre of Russia, Moscow). System of non-hydrostatic mesoscale short-term weather forecast COSMO-Ru of Hydrometeorological Centre of Russia: data acquisition and forecast of meteorological hazards and data assimilation.

Session 2 Monitoring and assessment and standard-setting of marine pollution (Co-Chairs: Alexander Postnov, Homayoun Khoshravan) ("Kaspiy" Hall, 7th floor)

1. Anatoliy Opekunov (SPbSU, St. Petersburg) Assessment of pollution and quality of bottom sediments in water bodies subject to anthropogenic impact
2. Homayoun Khoshravan, Hossein Bagheri (INIOAS, Iran) Spatial variation and ecological risk assessment of heavy metals in the surface sediments of Gorganrud River, Caspian Sea
3. Elena Ostrovskaya (KaspMNIZ, Astrakhan). Persistent organic pollutants in the marine environment of the North Caspian
4. Vladimir Ushvtsev (NC Branch of IO RAS, Astrakhan) Environmental monitoring system employing bottom stations.
5. Olga Kozlovskaya (MHI RAS, Sevastopol) Development of the monitoring system of biogenous elements (inorganic nitrogen and silicon) entry to the Black Sea surface with atmospheric precipitations
6. Sergey Monakhov (KaspMNIZ, Astrakhan). Managing marine environmental quality at the local level
7. Evgeniy Medvedev (MHI RAS, Sevastopol) Approximation of hydrogen sulphide profile to estimate the carbonate system of the Black Sea

Session 3. Engineering, hydrometeorological surveys and ice research (Co-Chairs: Alexander Danilov, Sergey Mironyuk) ("RAKIT" Hall, 1st floor)

1. Alexander Vorontsov (RIHMI WDC, Obninsk). Electronic reference guide to hydrometeorological regime of the Caspian Sea by means of ESIMO technologies.
2. Akbar Asgarov (Azhydromet, Baku) Definition of thermocline of the deep-water part of the Caspian Sea
3. Artem Maksimov (RS Planeta, Moscow) Identification and monitoring of ice hummocks in the Caspian Sea based on remote sensing information of high and medium resolution
4. Alexander Lobov (Hydrometeorological Centre of Russia, Moscow). Application of hydrodynamic models in hydrometeorological surveys.
5. Olga Gorelits (SOI, Moscow) Current hydrological research of the Lower Volga water bodies.

6. Sergey Mironyuk ("Gazprom Engineering" Ltd., Moscow). Lithodynamics of the coast and the North-Eastern part of Sakhalin shelf
7. Alexey Chernov, Alexey Naumov (AARI, St. Petersburg) Integrated field ice research by FSBI AARI
8. Valentin Politko (Moscow State Construction University, Moscow) Peculiarities of ice conditions and ice load on offshore constructions in the North Caspian.
9. Leonid Nepomenko (IPROKAM, Astrakhan). Integrated ice research in the license area "North - Caspian area" in 2014 - 2015.
10. Leonid Lopatukhin (SPbSU, St. Petersburg) Spectral wave climate of the North Caspian
11. Vladislav Evstigneev (DHMC of Krym, Simferopol) Assessment of climatic characteristics under the conditions of changing climate on the example of the Azov - Black Sea basin

Coffee- break (11.00 - 11.30)

12.00 – 13.00 Poster Session

15.00 City Tour (Please inform us of your intention to take part in the tour in advance)

13.00-14.00: Final Plenary Session. Summary of the Conference. ("RAKIT" Hall, ground floor)

Poster session

1. Yuri Artamonov (MHI RAS, Sevastopol) The use of satellite data to study the climatic variability of temperature on the Black Sea surface.
2. Rudolf Balakin (AARI, St. Petersburg) Development of the system with noiseproof hydroacoustic communication channel for data exchange with buoy-based station
3. Nikita Vodovskiy (NC Branch of IO RAS, Astrakhan) Creation of local productive ecosystems on the basis of artificial biotopes
4. Mariya Voynova (KaspMNIZ, Astrakhan) Environmental protection in the course of oil and gas fields development in the coastal area of southern seas of Russia
5. Larisa Degtyareva (KaspNIRKh, Astrakhan) Content of organic matter in the bottom sediments of the North Caspian
6. Olga Esina (KaspMNIZ, Astrakhan) Pollution of the Russian subsoil management sector of the Caspian Sea in 2012 - 2014
7. Natalya Ivkina (Kazhydromet, Almaty) Research of the ice regime in northeast part of the Caspian Sea
8. Natalya Klimenko (MHI RAS, Sevastopol) Temporal - spatial variability of the water pollution index in the northern part of the Black Sea throughout the monitoring period from 1989 to 2013
9. Sergey Martynov (Roshydromet, Moscow) Parametrisation of the wind waves model for the Caspian Sea basin
10. Elena Ostrovskaya, Evgeniy Kolmykov, Oxana Kholina (KaspMNIZ, Astrakhan) Approaches to identification of hydrocarbon pollution sources in the north-western part of the Caspian Sea
11. Mariya Pavlova (KaspMNIZ, Astrakhan) Information resources on the status of the environment in the Russian Federation and their use for assessing the environmental status of seas.
12. Valeriya Petrechenkova (KaspMNIZ, Astrakhan) Engineering and environmental surveys in marine water areas and ensemble assessment of marine environmental pollution
13. Nurislam Rakhimbirdiev (KaspMNIZ, Astrakhan) Estimation of pollutants balance in the license area using the hydrodynamic model and the data of industrial environmental monitoring
14. Leila Rashidian (Ocean and Atmospheric Science Centre, Iran) Climate change and its impact on water level

15. Vladimir Fedyunin (MSU, Moscow) Assessment of heavy metals toxicity in coelomic fluid cells of *Asterias rubens* starfish
16. Ildus Khalikov (RPA Typhoon, Obninsk) Polycyclic aromatic hydrocarbons in the bottom sediments of Lake Baikal in 2014
17. Dmitriy Khoruzhiy (MHI RAS, Sevastopol) Peculiar hydrochemical characteristics of the River Chernaya estuary (the Bay of Sevastopol, the Black Sea)