

**Program**  
**International Conference**  
**«Polar Geophysics of Yamal: observations, instruments, data bases**  
**and information systems related to the Oil and Gas industry – Polar 2014»**  
Salekhard, April, 13-17, 2014

<b>April, 13, Sunday</b>	
12.15 (Moscow time)	Flight from Moscow (Domodedovo Airport) Yamal Air, flight number 32
17.15	Arrival at Salekhard
17.30 – 18.30	Ceremony of crossing the Arctic Circle, Transfer to hotel
18.30 – 19.20	Accommodation
19.30 – 20.30	Excursion to the Hydromet Centre, ionospheric and ozone sounder
21.00	Dinner (hotel)

<b>April, 14, Monday</b>	
8.00 – 9.00	Breakfast
9.30 – 10.00	Transfer to the Conference Venue (Building of the Yamal-Nenets Government)
10.00 – 10.30	Registration
11.00	Official opening of the Conference (aud.113)  <u>Welcome addresses:</u> the Deputy Governor of the Yamal-Nenets Autonomous region, Presidium of the Russian Academy of Sciences and Program committee of the conference POLAR-2014
11.30 – 13.00	Plenary session: Space exploration and geophysical observations on the Yamal Peninsula - A.A.Denisyuk (Director of the Science Department of the Yamal-Nenets AO), Scientific infrastructure development on Yamal - V.G.Petrov , A.N.Zaitsev (IZMIRAN), The "Polar Geophysics of Yamal" and the perspectives of its development up to 2020 - A.A.Petrukovich, E.E.Grigorenko, L.M.Zeleny, A.K.Kuzmin, A.M.Merzly, (IKI RAN), Perspectives of using the satellite observations of polar aurora for diagnostics of ionosphere in the interest of geophysical studies at the Yamal Peninsula
13.00 – 13.30	Coffee break Interview for local mass media
13.30 – 15.00	Plenary session continues  - B.G.Sherstyukov (FGBU "RIHMI-WDC"), Current changes in the Arctic climate and forecast to 2030 - V.F.Loginov (Institute of Nature Management of NAS of Belarus ), Radiation factors of modern climate changes

	<ul style="list-style-type: none"> <li>- N.A.Zaitseva (Presidium RAN), Climate changes and the role of the Kyoto Protocol – opinion of the Russian Academy of Science</li> <li>- P.A.Dalin, N.N.Pertsev, V.I.Perminov, V.A.Romeiko, A.Dubietis, R.Balčiunas, K.Černis, M.Zalcik (IRF-Kiruna Sweden, IFA RAS, IKI RAS, ITFA Lithuania, NLC CAN AM Canada), Noctilucent clouds as an indicator of long-term climate changes in the subarctic region</li> <li>- S.N.Samsonov (IKFIA, Yakutsk), Technogenic and biospheric impact of the geophysical disturbances in high latitudes</li> <li>- E.A.Popova (Arctic Scientific Research Center, Nadym), The Influence of Geomagnetic Disturbances on the Behaviour of Laboratory Animals.</li> </ul>
15.00 – 16.00	Lunch (Building of the Yamal-Nenets Government, Café)
15.00 – 17.30	<p>Plenary Session: Real-time data collection and databases</p> <ul style="list-style-type: none"> <li>- O.A.Troshichev, A.S.Yanjura, (AASRI, Saint Petersburg), Russian network of geophysical observations in Arctic and Antarctic assigned to the space weather monitoring.</li> <li>- Peter Chi (UCLA, USA), Magnetoseismic Chain (McMAC) for research in magnetospheric sounding using ground magnetic field observations (via Internet virtual presentation)</li> <li>- A.V.Dmitriev (National Central University, Taiwan), Monitoring of the high-latitude ionosphere by fleets of LEO satellites from COSMIC and IGMASS missions</li> <li>- V.V.Alpatov, I.M.Aleshin, A.E.Vasilev, V.B.Lapshin, D.A.Molodtsov (E.K. Fedorov IAG, Moscow), Roshydromet Network of radio tomography and perspectives of its using in the polar regions of Russia</li> </ul>
17.30 – 18.00	Coffee break
18.00 – 19.30	<p>Plenary session continues</p> <ul style="list-style-type: none"> <li>- M.I.Orlyuk, A.A.Romenets (S.I.Subbotin Institute of Geophysics, Kiev), Geomagnetic fields at Ukraine and Yamal: spatio-temporal disturbance and ecological aspect</li> <li>- A.K.Kuz'min, A.M.Merzly, A.A.Petrukovich (IKI RAS), Methodical concepts of the electrodynamical characteristics of the polar ionosphere</li> <li>- Y.A.Saharov, Y.Katkalov, V.Selivanov, A.Vilyanen (PGI, Apatity), Simulation of GIC in the regional power grid.</li> <li>- A.V.Kuvshinov, O.V.Pankratov, S.V.Filippov, (IZMIRAN), The space weather and security of ground-based technology infrastructure, model of reality and forecast of electromagnetic effects due to substorm activity.</li> </ul>
19.30 – 20.00	Transfer to the hotel
20.00 – 21.00	City tour. Fort Obdorsky – open air museum complex
21.00	Dinner (hotel)

<b>April, 15, Tuesday</b>	
7.30 – 8.30	Breakfast
8.45 – 9.00	Transfer to the Conference Venue

9.30 – 11.20	<p>Plenary Session: Yamal resources, survey techniques, and geophysical exploration</p> <ul style="list-style-type: none"> <li>- A.K.Arabsky, S.A.Kirsanov, G.E.Krivitsky (Gazprom-dobycha-Yamburg) Gravimetric control over the development of the Arctic shelf deposits</li> <li>- V.D.Yushkin (LLC "NIIMorGeofizika - Servis.kom", Murmansk), Accounting for the effect of the surface layer of the Earth to the gravitational acceleration in high-precision gravimetric survey</li> <li>- A.M.Lobanov (MGRI - RSGPU), Glyatsioistaziya as a factor in the formation of hydrocarbon deposits.</li> <li>- T.I.Zvereva (IZMIRAN), Will the North Geomagnetic Pole come to Yamal?</li> <li>- A.A.Zhamaletdinov, E.A.Kopytenko, M.S.Petrishchev (SPb IZMIRAN, PGI, GI KSC RAS, Apatity), Results and Prospects of Applications for Deep Electromagnetic Sounding by Power Industrial Electric Lines with the Aims of Search the Gas and Oil Deposits in Yamal region.</li> <li>- Y.A.Kopytenko, A.A.Petrova, M.S.Petrishchev, (SPb IZMIRAN – Saint-Petersburg branch), The Prospecting of Gas and Oil deposits on Yamal based on the usage of geomagnetic data.</li> </ul>
11.30 – 12.00	Coffee break
11.50 – 14.00	<p>Plenary session continues</p> <ul style="list-style-type: none"> <li>- T.A.Bondar (IZMIRAN), Calculation of magnetic fields and maps for the purposes of accurate navigation in conditions of the oil and gas production</li> <li>- M.I.Orlyuk (S.I.Subbotin Institute of Geophysics, Kiev), Regional and local forecast of the oil and gas content in the crust based on the geomagnetic data</li> <li>- O.A.Predeina, K.M.Oboltin (Regional Data Bank GKU "Yamal Resources") Regional Data Bank of Yamal - management and access for researchers and practical applications</li> <li>- N.A.Sergeeva, E.P.Kharin (Geophysical Centre of RAS), Modern world system of the geophysical data exchange: past experience and future perspectives</li> <li>- S.V.Filippov (IZMIRAN), The Prospects for Russian Scientists to Participation in the Global Magnetic Survey of SWARM.</li> <li>- M.Nosé, T.Iyemori, A.Janzhura, <b>O.Troshichev, (AARI)</b>, J.Matzka, et.al., Present status and future perspective of AE/Dst index derivation.</li> </ul>
14.00 – 15.00	Lunch
15.00 – 16.30	<p>On-line Presentations via Internet – virtual presentations</p> <ol style="list-style-type: none"> <li>1. D.H.Boteler and L.Trichtchenko ( GS Canada), Monitoring of Geomagnetic Activity in Canada and its Utilization in Applications</li> <li>2. T.L.Hansen, Magnar G.Johnsen, (Tromsø, Norway), The Tromsø Geophysical Observatory magnetometer network - description and status</li> <li>3. R.Clauer, Hyomin Kim, Kshitija Deshpande, and Zhonghua Wu, (Virginia Tech, USA), Autonomous Adaptive Low-Power Instrument Platforms for Remote Deployment in the Antarctic to Enable Conjugate High Latitude Measurements along the 40 Magnetic Meridian</li> <li>4. F.Sigernes<sup>1,2</sup>, M.Dyrland<sup>1,2</sup>, S.Chernouss<sup>3</sup>, P.Brekke<sup>4</sup>, D.A.Lorentzen<sup>1,2</sup>, K.Oksavik<sup>2</sup> and C.S.Deehr<sup>5</sup>, ( UNIS, Norway, PGI Kola region, GI UA Alaska), Real Time Auroral Oval Forecasting in Arctic and Antarctic</li> <li>5. O.I.Mandrikova, I.S.Solovev, D.G.Baishev (IK IR FEB RAS, IKFIA SB RAS), Model and algorithms for analysis of geomagnetic data in the problems of revealing the geomagnetic disturbances and calculation of the index of geomagnetic activity</li> </ol>

	6. A.A. Malovichko, A.N. Vinogradov, Yu.F. Vinogradov (GS RAS), Application of the seismo-infra-sounding technique of environmental monitoring for the control of the geodynamic regime in the areas of active exploration of mineral resources		
16.30 – 17.00	Coffee break		
17.00 – 19.00	Posters (20 reports) (Building of the Yamal-Nenets Government, 1 Floor, Hall)	18.00 – 20.00 (Yamal College)	Open Public scientific lectures «Cosmonautics achievements and cosmic weather» (A.A.Petrukovich, RAS); «Modern methods of atmospheric research and why the weather forecast is not always true» (N.A.Zaitseva, RAS).
19.00 – 19.30	Transfer to the hotel		
20.00 – 21.00	Excursion to the Yamal-Nenets Museum		
21.00	Dinner		

<b>April, 16, Wednesday</b>	
7.30 – 8.30	Breakfast
8.45 – 9.00	Transfer to the Conference Venue
9.30 – 11.30	<p>Plenary Session: observations, databases and information systems in the practice of development of the oil and gas fields</p> <ul style="list-style-type: none"> <li>- C.Stolle, J.Matzka, S.Kotsiaros, Results from recent scientific studies that include Greenland magnetometer data</li> <li>- J.V.Matzka, (DMI, Denmark), Instrumentation of the DTU Space Greenland Magnetometer Array</li> <li>- M.I.Orlyuk, (S.I.Subbotin Institute for Geophysics, Kiev), The calculation of the total value of power and angle of the geomagnetic field at Yamal</li> <li>- B.R.Pavlovsky, N.Shtanov (Ltd. Fund "Institute of Physical diagnostics and modeling", Moscow), The diagnostic capabilities of geophysical instruments for state of gas pipelines at Yamal</li> <li>- A.N.Zaitsev, V.G.Petrov (IZMIRAN), The development of geophysical observations on the Yamal Peninsula as a basis of developing open databases.</li> <li>- Y.Katkalov, M.Vik, A.Vilyanen, Y.A.Saharov (PGI, Apatity), Web-based tool for visualization of geomagnetic, geoelectric and GIC data on interactive online maps</li> </ul>
11.30 – 12.00	Coffee break
12.00 – 14.00	<p>Plenary session continues</p> <ul style="list-style-type: none"> <li>- Benny Poedjono, N.Beck (Schlumberger, USA), C.A.Finn, T.White, S.Maus (U.S. Geological Survey), “Geomagnetic Referencing in the Arctic Environment”.</li> <li>- L.Hegymegi, (Budapest University, Hungary), High quality magnetovariation data at remote observatories.</li> <li>- Jan Reda, P.Glowacki, (Polar Department, Institute of Geophysics Polish Academy of Sciences), Geophysical observations carried out in the Polish Polar Station Hornsund in Spitsbergen.</li> <li>- I.Edvardsen (Baker Huges, Tromsø, Norway), Some Experiences from Magnetic</li> </ul>

	Directional Surveying Offshore Norway in the period 2000-2013 - C.E.Clarke, C.Turbitt, S.Parkinson, (British Geological Survey, Edinburgh, UK, Halliburton Sperry Drilling, Anchorage, Alaska, USA), Geomagnetic Reference Field Estimates for Directional Drilling in Alaska. - V.D.Yushkin ( NII MORGEOFIZIKA, Murmansk), The Estimation of Influence of Earth Surface Layer on the G-value in Case of Precision Gravimetric Survey. - TBD		
14.00 – 15.00	Lunch		
15.00 – 16.30	Round Table «The geomagnetic variations and their applications in practice: directional drilling; GPS positioning; health influence» (convener A.N.Zaitsev, experts: Inge Edvardsen, Benny Poedjono, A.A.Petrukovich, T.A.Bondar, V.V.Alpatov (Building of the Yamal-Nenets Government, aud.113)	15.00 – 16.30	Master-class on geophysical instruments: magnetometers, gravimeters, georadars (A.M.Lobanov, L.Hedmegi) (Building of the Yamal-Nenets Government, 3 floor, hall)
16.30 – 17.00	Coffee break		
17.00 – 18.30	Summary of conference results, recommendations, the proposals for cooperation of participants, the formation of an working group (WG) with the support of Russian Academy of Sciences and international institutes. Resolution of the Conference POLAR-2014.		
18.30 – 19.00	Transfer to the hotel		
19.20 – 22.00	Transfer to the open air museum Gornoknyazevsk, National Reception in Gornoknyazevsk		
22.00	Transfer to the hotel		

<b>April, 17, Thursday</b>	
7.00 – 8.00	Breakfast
8.00 – 8.30	Transfer to the airport
10.00	Departure to Moscow, flight 31
	Arrival in Moscow at 11.00 (Moscow time)