Non-Governmental Organization Polar Foundation was founded by a group of scientists and Association of Polar Explorers of Russia. The purpose of the Foundation establishment is the integration of financial, material and intellectual resources to solve scientific, social, cultural, educational and charitable issues of exploration and development of polar lands.

A.N. Chilingarov
President of the Polar Foundation,
Vice Chairman of the State Duma
Special Representative of the RF
President for IPY
In 2002 Polar Foundation in cooperation with Roshydromet developed a Program of recovery of main and benchmark polar stations closed down in the 1990’s. The Program is being implemented in cooperation with the National Science Foundation.
The station was opened on November 1, 1933. The station personnel were 300 people in the time of the station maximum activity (60-70’s). A village consisting of a few individual stove heating one- and two- storey buildings was built in order to lodge the personnel. The station building was mothballed as work was scaled down. The last years the station was a single wooden building that was completely destroyed by a fire in March, 2001.
Main Characteristics:
Total Area – 195 sq.m.
including.
Working module – 120 sq.m.
Technical module – 60 sq.m.

Power Supply:
2 diesel generators 10 kW each
Backup power – batteries 750 A/h
Gasoline generator 6 kW.

Heating:
two 30 kW parallel
diesel boilers

Communications:
INMARSAT-S terminal and SW transmitter

Transport: DT-75, Buran

The station normal mode operation started on November 1, 2002.

Personnel: 3 people
Reference WS, belongs to the reference hydrometeorological network, synoptic index – 20046
The station was opened in 1929 on Tikhaya Bay, Hooker Island.
In 1957 the observatory was transferred to Heiss Island.
In 1965 the station was assigned a status of geophysical observatory.
In 1972 the observatory was given the name of E.G.Krenkel.
In the period of maximum activity, the station personnel were up to 150 through 200 people.
In 2001 the station was put in dead storage due to a fire which destroyed the power supply unit and damaged some other buildings.
Main Characteristics:

Total Area – 240 sq.m.

Power Supply:
2 diesel generators 16 kW each.
Gasoline generator 6 kW.
3 wind generators 3 kW each

Heating: two 50 kW parallel diesel boilers

Communications:
IRIDIUM terminals and GONETS SW-transmitter

Transport: DT-75, ZIL-130

The station normal mode operation started on October 30, 2004.
Personnel: 5 people.
2005 г.
Installation of AARI-made Automated Weather Stations on Zhelaniya Cape and Vise Island
2006 г.

Establishment of the International Climate Observatory in Tiksi within the Memorandum of Cooperation between Roshydromet and NOAA. Stage 1 – upgrade of the Roshydromet polar station
Program of Remediation of Contaminated Areas of Frantz Josef Land

In 2004 Polar Foundation in cooperation with the Arctic Council, Roshydromet and with participation of the Ministry of Natural Resources was implemented the Program of Remediation of Contaminated Areas of Frantz Josef Land.

1. Graham Bell Island. Abandoned air-base and radar station
2. Hoffman Island. Abandoned air-base
3. Heiss Island. Krenkel polar station
4. Alexandra Island. Frontier post Nagurskaya. Abandoned polar station and radar station
AMAP/ACAP/Polar Foundation Project
Assessment of PCB Contamination on Graham-Bell Island, 2004
Graham-Bell Island, 2004

There on the island
- About 18000 t of oil products, including 2000 t of waste oils – over 90000 drums
- Over 2000 t of aviation fuel TS-1 in tanks
Abandoned air-base and radar station

Study Results

• Over 30% of soil samples have PCB content exceeding MPC. Maximum PCB concentrations exceed MPC more than 10 times.
• Overall survey showed a high PCB content in some areas of the island. That is why it is expedient to recommend to carry out a detailed survey in the most PCB contaminated areas in order to determine contamination sources and their characteristics and also develop project proposals for the island surface cleanup and rehabilitation of contaminated areas.
2006 -2008 гг.
Program of Remediation of Contaminated Areas of Frantz Josef Land.

Project of Russia (Ministry of Natural Resources, Roshydromet, Polar Foundation), of the Arctic Council (Arctic Council Arctic Monitoring and Assessment Program AMAP, Arctic Council Action Plan to Eliminate Pollution in the Arctic ACAP, Sustainable Development Working Group), of the Barents Euro-Arctic Council (Working Group for the Environment), UNEP/GEF (NAP “Arctic”).

Stages:

1. Demo project, including geodetic survey of pollution sources, chemical analysis, discharge of fuel from 500 drums, disposal of drums and remediation of a 1-ha area - 2006

2. Geodetic survey, inventory of pollution sources and development of a FJL remediation project – 2007

3. Start of island surface cleanup and disposal of pollution sources -2008 and subsequent years.
Program of study of Changes in the Siberian Rivers Runoffs due to Global Climate Change


Responsible Agency: Polar Foundation

Executors:
- Roshydromet’s State Hydrological Institute
- RAS Institute of geography
- Lena Basin Water Management Authority of the Ministry of Natural Resources
- Ministry of Civil Defense and Emergency Situations of the Republic Sakha (Yakutia)
- Mining Institute of the North, Siberian Branch of RAS

The project implementation resulted in the assessment of changes in the Lena runoff in the periods of 2010-2030 and 2030-2050.

In the period of 2010-2030, the highest increase in runoff is expected in the Amga river basin (32%), in the upper parts of the Lena and Nyua basins (17-18%), in the period of 2030-2050, the overall runoff increase is estimated at 11-41 mm. The highest increase in runoff (29-30%) is expected on Lena, Nyua and Amga rivers. On the basis of the above the following recommendations have been made:

- on adaptation of the water-economic complex to probable changes in the rivers hydrologic conditions in the nearest decades
- on measures to decrease severe ice block floods danger.
- on developing ice block phenomena monitoring
2. UNEP/GEF Project “Climate change sound water management, water and ice conditions of large Arctic rivers including development of water management facilities adaptation strategy”

Stakeholders involved in project:
1. Russian federal executive authorities (Ministry of Natural Resources, Roshydromet, Ministry of Emergency Situations, Ministry of Economic Development and Trade)
2. Government of the Republic Sakha (Yakutia)
3. Arkhangelsk Region Administration
4. Lena Basin Water Management Authority, Ob-Irtysh Water Management Authority
5. Ministry of Civil Defense and Emergency Situations of the Republic Sakha (Yakutia)
6. Northern and Yakutian Regional Hydro-Meteorological Agencies
7. State Hydrological Institute (St. Petersburg)
8. Arctic and Antarctic Research Institute (St. Petersburg)
9. State Oceanographic Institute
10. Russian Academy of Sciences (Institute of Geography and Yakutian research institutes subordinated to the Siberian Branch of RASci)
11. Academy of Sciences of the Republic Sakha (Yakutia)
12. Russian Association of the Indigenous Peoples of the North, Siberia and Far East (RAIPON)
13. Russian NGOs involved in environmental and water management activities (“ECO-Soglasie”, Center for Environmental Policy, etc.)
14. Polar Foundation
15. AMAP Secretariat

At present the project is under approval
Publishing
In the period of 2002-2005 the Foundation issued a series of high typographic quality scientific publications, including:

- ACIA Report in Russian «Impact of a Warming Arctic»
- Popular edition on the Lena river runoff change in Russian and Yakutian
- Final report on the UNEP/GEF Project “GEF Project “Persistent Toxic Substances, Food Security and Indigenous Peoples of the Russian North“
Other Activities of Polar Foundations

• ISTC Project 2254 “Search and investigation of the broken-down reactor container from the nuclear-powered icebreaker “Lenin” sunk in the Kara Sea”, 2002.

• Support to the Antarctic aerial expedition in 2002-200 and evacuation of AN-3 from the South Pole (2004-2005)

• Cooperation with AMAP in preparing the report “Assessment of Oil and Gas Activities in the Arctic”. 2005-2006

• Support to the International Polar Year Projects. 2006-2008

• Organization and conduction of International Meetings on various aspects of polar studies
Thank you

Franz Joseph Land, October 2005