In the second half of March 2015, three researchers from the University of Silesia (dr Dariusz Ignatiuk, mgr Tomasz Budzik, mgr Oskar Lipiński) and two from the Institute of Geophysics - Polish Academy of Sciences (dr Bartosz Luks, mgr Kacper Wojtysiak), took part in „the spring expedition” on Spitsbergen. The expedition lasted three weeks and was held in the framework of the international project - "Awake2". Awake-2 is the multidisciplinary research project investigating the Arctic climate system where the ocean interacts with the atmosphere, sea ice, fjords and tidewater glacier. The project is coherent with the topic “Climate change” and will focus on the changing climate in Svalbard area where glaciers and sea ice decreases, air temperature increases, and the ocean – fjord system has changed during recent years. The project investigates climate processes on regional scale which can have impact on the entire Arctic climate system.

The expedition was funded by the project "AWAKE2", with the financial support from the Centre for Polar Studies – KNOW (Leading National Research Centre). The fieldwork performed in South-west part of Spitsbergen, based on logistic facilities of Polish Polar Station in Hornsund on glaciers located around Hornsund and northerly from the fiord on Wedel Jarlsberg Land.
Our journey began in Longyearbyen from where, using the snowmobiles, we went to our destination – The Polish Polar Station, Hornsund – which belongs to the Institute of Geophysics of the Polish Academy of Sciences. The station is located on the northern shore of the Hornsund Fjord in the Centre of the South Spitsbergen National Park. We have come a long way – overcome a total of 180 km (Figure.1.) - exceeding two frozen fjords and several glaciers. During the trip in excellent weather conditions, the views were amazing (Figure.2.).

![Figure. 2. Typical landscape in Spitsbergen - Werenkskiold Glacier (Photo by O. Lipiński)](image)

Representing the Center of Polar Studies, I had the pleasure to participate in a three-week research internship, so that I had the opportunity to:

- Take part in field trips on the wild part of the South Spitsbergen National Park (more than 800 km on snowmobiles)
- Have additional educational experiences, like:
  a) Work with GPR (Ground-Penetrating Radar) - thus we can obtain data about the internal of glaciers structure. Using this geophysical methods - I have been involved in the measurement of winter accumulation on glaciers
  b) I gained experience at work and modernization of the Meteorological stations (AWS - Automatic Weather Station) on the Hansbreen Glacier. AWS provides information about the conditions prevailing in the area of topoclimatic Glacier
  c) I have participated in the Glaciology research, performing on a glacier snow pits - by means of which we can measure the mass balance of Glacier. In great simplification, the mass balance is an assessment of how much snow has fallen in a given year (accumulation), and how much snow and ice melting away (ablation)
• I have met fantastic scientists who exchanged with me their experiences from the work in such difficult conditions. Especially I was interested in the work of meteorologists - which I have replaced valuable comments during joint observation.

Acknowledgements

Author would like to thank scientists, who currently are working at the Polish Polar Station (Hornsund), comrades from journey - behind support and opportunity to gain experience work in such a beautiful place like Spitsbergen. The same thanks are directed to The Centre for Polar Study and The University of Silesia.

Oskar Lipiński

Below are some photos from the expedition:

Photo.1&2.: Outlook form snowmobile and author of the report (Photo by T. Budzik)
Photo.3. Northern Lights before Polish Polar Station (Photo by K. Wojtysiak)

Photo.4.: Torell Glacier (Photo by O. Lipiński)
Photo. 5. Meteorological phenomena – Halo, above Wilczek Cape (Photo by O. Lipiński)

Photo. 6. Author of the report (Photo by O. Lipiński)