

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
LIFT OFF - PRIMARY AND SECONDARY SPACE EDUCATION (1)

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POLAR RESEARCH IN THE CLASSROOM, AFTER THE IPY

Abstract

NAROM, The Norwegian Centre for Space-related Education, wanted to run an educational IPY project related to Arctic satellite applications as part of its activities in 2007-2008. The focus on the project has been on accepted Norwegian IPY research projects that use satellite data as a tool in their research, and projects for which satellite data from our educational project (PolarEduSpace) may be a useful supplement to scientific results.

The PolarEduSpace project was implemented through funding from the Norwegian Research Council, with support from the Norwegian Directorate for Education and Training, the Norwegian Space Centre and ESA.

The PolarEduSpace project has provided opportunities for classroom teachers to attend on-line activities presented at the website sarepta.org. The participants have been provided with content knowledge and ideas for activities related to current curricula and focusing on polar science. Example of these have been IPY research projects in the area of sea ice, glacier monitoring, ocean currents, permafrost and arctic weather situation. Based on report from these activities, we selected a group of teachers who we invited for one week field based training course at Svalbard in August 2008.

In cooperation with the University in Bergen, we have developed four "Space Suitcases" filled with instruments. Among these are a sunspotter (a simple solar telescope) and magnetometer to measure the magnetic disturbances due to electrical currents in the Aurora. The schools have the possibility to borrow the Suitcase to do some exciting field research in the classroom combined with on-line space weather observations. These activities have been highly focused in the International Year of Astronomy 2009.

In spring 2008 we applied the Nordplus horizontal programme announced by the Nordic Council of Ministers. We wanted to develop "Polar research in the classroom" at Nordic level based on experience, knowledge and data from the PolarEduSpace project. Our project was accepted in October 2008. In a Nordic educational network and cooperation we develop three different web based and field based teacher training courses (10 credits) at Nordic level with the titles "Climate research in Polar landscape", "Below the Polar sky" and "Environmental changes in the sub-polar regions". The first training course will be offered spring 2010 with a week field work at Svalbard in August.