IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

On Track - Undergraduate Space Education (3)

Author: Mr. Jøran Grande Norwegian Centre for Space-Related Education (NAROM), Norway

> Mrs. Arne Hjalmar Hansen Andøya Space Center, Norway

INTERNATIONAL SPACE EDUCATIONAL ACTIVITIES AT NAROM

Abstract

The Norwegian Center for Space-related Education provides different space related activities, seminars and conferences for students and teachers. NAROM is mainly funded by the Norwegian Ministry of Education and Research. Even though NAROM is a Norwegian national center, the mandate from the Ministry of Education clearly states that NAROM should also focus on international space education activities and collaboration. This paper will focus on the international space educational activities and resources at NAROM current and future opportunities. The international activities at NAROM are often run in collaboration with other national and international partners. NAROM carries out a number of rocket courses every year for pupils, students and teachers, where participants are split into smaller groups to do practical and theoretical work in a real sounding rocket campaign. The groups do simulation of rocket trajectory, set up telemetry transmitter and receiver systems, build the rocket payload and assemble the rocket. Participants are then manned at various stations at the space center to take an active part in the rocket launch and analyzing the data retrieved. NAROM is a partner in the CaNoRock program between Canada and Norway. The main delivery by NAROM is to arrange a one-week student rocket course for university students. A similar activity for undergraduate students from ESA member states was done for the first time in collaboration with the European Space Agency (ESA), called "Fly a Rocket!". Even teachers are able to participate in a sounding rocket course through the Nordic Teacher Space Camp. The focus is a bit different to make sure that the teachers bring educational resources back to their classroom. The space educational web resource Sarepta.org was in February 2018 updated and launched on a new platform on the web-site Sarepta.space. All these and more activities and resources will be presented in this paper.

NAROM is an ideal subsidiary company of Andøya Space Center (ASC). The co-location with ASC provides some unique opportunities for hands on-space education activities. A close interaction with scientists from both Norway and abroad contribute to make activities and lectures both instructive and inspiring for the participants. ASC is currently looking in to the possibility of establishing a launch site for small satellite launchers. This is a unique opportunity also to develop and offer new educational activities and resources for students and teachers. This paper will present the possibility to establish a European student satellite training facility at NAROM.