

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
In Orbit - Postgraduate Space Education (4)

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

Mr. Roger Birkeland
Norwegian University of Science and Technology, Norway

Mr. Amund Gjersvik
Norwegian University of Science and Technology, Norway

Mr. Stian Vik Mathisen
Norwegian Centre for Space-Related Education (NAROM), Norway

Mr. Christoffer Stausland
Norwegian Centre for Space-Related Education (NAROM), Norway

NORWEGIAN STUDENT SATELLITE PROGRAM – LESSONS LEARNED

Abstract

The Norwegian Student satellite program was established in 2007 and is now coming to an end. The overall program management was run by the Norwegian Center for Space-related Education (NAROM) together with Andøya Space Center (ASC). Norwegian universities have been invited to join the program that has mainly been funded by the Norwegian Space Center, NAROM, ASC and the participating Universities; Narvik University College (now: University of Tromsø, campus Narvik), University of Oslo and the Norwegian University of Science and Technology.

After running the program for several years, the tangible output from the program is one CubeSat in orbit and two still under construction. This paper gives an overview of the achievements during this period. The student satellite program had several goals, not limited only to the launch of 3 CubeSats. More than 230 students have been involved in the program and more than 4700 ECTS have been produced. Several students have attended conferences and workshops; some presented their work at international conferences or even published their work in scientific papers. There are multiple spin-off projects and lessons learned from this program. Some examples of these, in addition to the main results from the satellite program will be presented. An analysis of which of the planned goals have been accomplished and why others have not been reached will be presented.

During the project period, there has been an increasing interest in continuing work with student satellites at university level. Two participating universities now have ongoing activities on scientific payloads for CubeSats for various applications.

Andøya Space Center has, together with partners, investigated the possibility of establishing a launch facility for nano- and micro satellites. If this becomes a reality, it will open many opportunities for universities and the space industry in Norway.

Space technology is often a strong field of interest for young students, and can be an important recruitment factor for STEM studies. Informal interviews with new students have shown that these university satellite projects have played a role when the students selected their field of study. Around 1 in 10 participating students were recruited into the space industry after graduation. As a conclusion, recommendations for future student satellite programs in Norway will be presented.