

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

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THE FIRST EUROPEAN CANSAT COMPETITION FOR HIGH SCHOOL STUDENTS

Abstract

This paper is about the first European CanSat competition for high school students. The competition, which is organised by the European Space Agency (ESA) in collaboration with the Norwegian Centre for Space-related Education (NAROM), will take place from 15-19 August 2010. Ten teams have been selected, consisting of high school students (aged 16+) from ESA Member States and Cooperating States, assisted by a teacher or tutor.

The European CanSat competition is part of ESA's initiative to inspire young people to follow a career in science or engineering, with a view to ensuring the availability of a highly qualified work force for the space industry of the future. Several CanSat competitions have taken place in ESA Member States over the past five years and these have proven to be an effective, practical and low-cost way to inspire students. ESA hopes to encourage the set-up of many more such activities on a national and regional level.

The competition will offer a unique experience by enabling students to carry out a full space project lifecycle, as well as encouraging interaction between teams from many different countries. It will also provide students with a wide range of hands-on benefits. They will gain a wealth of knowledge and skills throughout the process, which includes CanSat design, integration, testing, launch, data analysis and presentation of results. Other practical benefits will include knowledge of soldering, programming, technical design, teamwork and making presentations.

An introductory workshop for the teachers who are involved was held on 12-13 February at ESTEC, the European Space Agency's technical centre in the Netherlands. With the assistance of experts from NAROM, they learned all the basic steps to build a CanSat and accomplish the mission objectives. In addition they also had the opportunity to tour part of the site, including the satellite testing facilities and the Space Expo.

ESA will cover the cost of launching the completed CanSats on a rocket that will fly from Andøya Rocket Range to an altitude of approximately 1 km. Andøya, located 2 degrees north of the Arctic Circle on the Norwegian island of Andenes, is a premier launch facility for sounding rockets and balloons.