

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
New Worlds - Innovative Space Education and Outreach (7)

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## EXPLOITING SPACE EXPERIENCE TO ENGAGE AND INSPIRE YOUNG PEOPLE

**Abstract**

In December 2006 I took part in the STS-116 mission, during the assembly of ISS. Being the first Scandinavian in space, it created a lot of interest in my home country Sweden. In various ways that was, and still is, exploited to inspire young people - from primary school pupils to university students - to become interested in STEM subjects, or even to go for a master education in aerospace engineering. A second shuttle flight in 2009 reinforced the interest and opened even new outreach possibilities. To achieve optimal outreach during a space mission - in particular a comparatively short one as shuttle missions - early and detailed planning is crucial. With favorable conditions the potential for post-flight exploitation of astronauts to inspire the young is huge, but smart selections are necessary. For example, there is no limit in how many schools could be visited, but that is probably not the most time-efficient although I have visited most Swedish universities and some schools. However, with the Swedish National Space Board a program is set up with dedicated school tours, a few of about a week each per year, targeting different geographical areas. On a higher level, I participated in a government appointed committee that was tasked to propose actions to increase the number of students in STEM subject. Partly to increase the attractiveness of a master program in aerospace engineering, I've been asked to be manage it and I'm developing a dedicated course "Human Spaceflight" within the program. Another way to create interest among the youngest ones is through children books about space. I've written four books about two siblings that travel in space with their uncle Albert. While trying to be entertaining and exciting, physics, mathematics and other science facts are mixed in to the stories. These books then acts by themselves to stimulate young to think about space and science in various ways. This year a campaign "talk-to-space" concluded, where children where encourage to formulate questions they like to ask an extraterrestrial. Earlier we arranged a mathematics challenge to school pupils. Space flights, and human space flights in particular, inspires and fascinates. We should do our utmost to exploit this to engage and attract young people to study and become interested in all areas of science, technology, mathematics and engineering.