

Education

Many of the initiatives and projects started in 2002 were consolidated during the year and their results exploited to increase the impact on the target groups still further. The launch of the Education Website (www.esa.int/education) in December 2002 considerably augmented the interaction with youngsters, students and teachers. This interactivity, in turn, provided an ideal opportunity to better understand their needs.

The steady growth in the number of readers of the *EDUnews* newsletter showed that ESA Education is reaching an increasing number of individuals. This trend is confirmed by the sales of books about the Agency and space activities produced in cooperation with international publishers, which are being sold in bookstores, thereby reaching different target groups.

Focus on Teachers

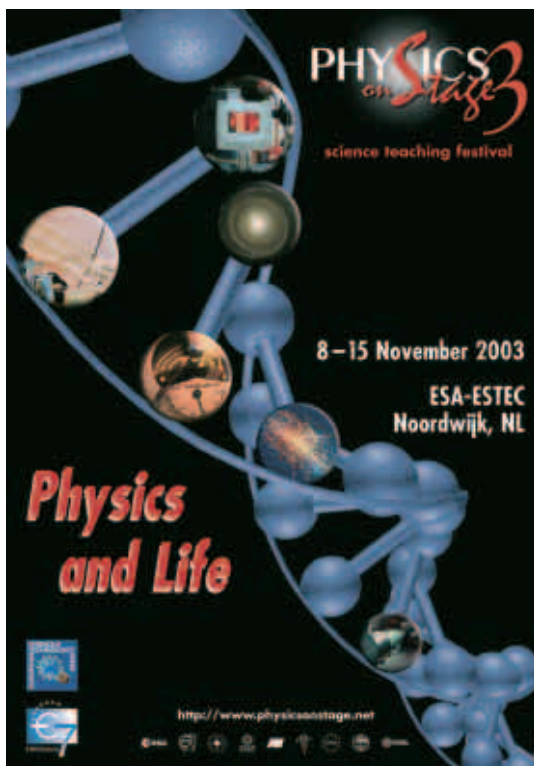
To encourage youngsters to take up space-related studies, ESA is focusing on demonstrating how effective the topic of 'space' is in attracting the interest of pupils studying physics, mathematics, geography, etc. To give teachers the relevant tools to exploit space as a topic in the classroom, several videoconferences, training sessions and



workshops were organised. ESA staff also went to various locations in Europe to train teachers and to obtain their feedback on the materials provided by the Agency.

In parallel, the 'Teach Space 2003' workshop on primary education and the 'Physics on Stage 3' festival on physics teaching were both organised at ESTEC to showcase the Agency's activities on the site. The 21 European primary-school teachers attending Teach Space 2003 in March, and the 350 physics teachers attending Physics on Stage 3 in November, provided the Agency with valuable information and a clear set of recommendations on how to increase the scientific literacy of youngsters through effective use of space as a topic.

Each workshop, conference or exhibition was an opportunity to advertise the Eduspace website, focusing on Earth Observation and available in 5 languages. By December, more than 900 schools were already registered and in order to continue feeding the needs of teachers new modules will soon be integrated. In addition, a 'Council of Teachers' has been created, made up of very motivated teachers keen to support the further development of Eduspace.





Physics on Stage 3 was an 'electrifying success'



Liftoff for the third edition of the Physics on Stage science teaching festival! His Royal Highness Prince Johan Friso of the Netherlands (right) launches a water-powered rocket as the opening act



The European astronauts making a donation to the ISS Education Fund

Direct Contact with Youngsters

Knowing how important it is to complement teachers' efforts, the Agency seized many opportunities to address and involve the youngsters directly. The Le Bourget airshow in Paris in June and the French 'Fête de la Science' in October, for example, gave hundreds of children the opportunity to play the space quiz, attend presentations on space topics, and learn more about the role of satellites in environmental monitoring and disaster relief.

Being well aware that competitions provide an incentive to learn new concepts, the 'Habla ISS Contest', inviting Spanish and Portuguese primary-school children to send in drawings and poems related to the International Space Station (ISS), was a great success. Approximately 5000 children from 250 school classes took part in the contest and the winners had the unique opportunity of making radio contact with Spanish ESA astronaut Pedro Duque during his mission to the ISS.

Student Projects

To further stimulate student interest in space, the Agency again sponsored such activities as the Student Parabolic Flight Campaign, the participation of 350 students in the International Astronautical Federation (IAF) Congress, a visit by 20 students to the Guiana Space Centre in Kourou, and student participation in the first Space Medicine Workshop.

The focus in 2003 was on optimum exploitation of the existing projects for university students, and greater emphasis on reaching secondary-school children. The Student Parabolic Flight campaign reflected this longer term objective with an external party, in this case the community of Brussels, financing a flight for the first time for its students and teachers.

The SSETI initiative, involving 350 students in 11 European countries joining forces, via the Internet and regular workshops at ESA/ESTEC, to build a remote-sensing micro-satellite, might also target younger pupils in the future. During the year SSETI students were busy preparing a precursor satellite for a demonstration flight in the first quarter of 2005.

The better comprehension of the multiple needs of the various target groups gained during the year will be further exploited to provide young Europeans between the ages of 6 to 28 with a sound knowledge of space-related matters. The inauguration in August of the ISS Education Fund, inviting Industry to provide money for the continuing space education of Europe's youth, will hopefully increase the number of learning opportunities still further.