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

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THE NEW EDUSPACE, ESA'S ON-LINE EDUCATIONAL TOOL FOR EARTH OBSERVATION

Abstract

The Eduspace website is an on-line educational tool of the European Space Agency (ESA) introducing Earth observation techniques and applications to secondary school students, including some material that is also suited to university undergraduate level. This website has recently been completely redesigned and updated, so that it provides an even more valuable introduction to Earth observation and its applications. The website contains a section dedicated to explaining the principles and techniques of Earth observation. The new structure presents the various application areas as different themes – Earth from Space and Environmental Issues – that can also be searched by geographical area. A fourth theme, Envisat for Schools, provides information about the mission of ESA's largest environmental satellite, its instruments and applications.

The cornerstones of the website are the case studies. They provide teachers and students with examples of in-depth studies of a selected area, within a particular theme. The background information and varied exercises are intended to provide a valuable source of ideas about how to introduce Earth observation from space into the classroom. The website also makes available catalogues of Earth imagery and a sophisticated image processing software package called LEOWorks, which enables satellite imagery to be manipulated and analysed on school computers. These are now available without the need to register.

This dynamic site is constantly evolving. Additional case studies, covering an ever larger area of the continents, are constantly being added. This educational tool is also introduced in several teachers' workshops every year. Feedback received from teachers during these workshops is then fed back into the tool in order to make it even more relevant to the needs of the educational community. In the future there will be more case studies available specifically of interest for university level. These case studies will take advantage of the new, advanced capabilities offered by the forthcoming version of LEOWorks 4 which will include SAR (Synthetic Aperture Radar) processing and enhanced GIS (Geographical Information Systems). Eduspace is currently available in eight languages: English, French, German, Danish, Dutch, Italian, Spanish and Portuguese. A Greek version will be available shortly.

The website address is www.esa.int/eduspace