

EDUCATIONAL INITIATIVES IN GEOSCIENCE AND REMOTE SENSING

Project SUN ORAL PRESENTATION

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Project SUN (Students Understanding Nature) is an educational project that is driven by a scientific need. Project SUN, a part of the NASA Mission to Planet Earth Program, is a long term monitoring effort (10 years or longer) for both the visible and UVR surface radiation levels. JPL and its vendors have developed low cost, yet accurate visible and erythermal UV sensors. These are coupled with modified commercial low cost interfaces and software that turn old computers such as the Apple IIe and Macintosh (soon old PC) into dedicated data loggers. JPL has developed appropriate conditioning software and detailed instructions that allows long term school student research teams (similar to school's athletic teams) all over the world to collect and send their data via internet back to JPL and CSUN for processing, analysis and posting on the World Wide Web (<http://sunshine.jpl.nasa.gov>). Over the last quarter of 1995, this Home Page had approximately 8000 hits with over 63 megabytes of information downloaded.

The initial pilot program done by JPL with a limited number of Australian and USA schools has proven that with adequate technical (and emotional) support, good "hands on" teachers and their secondary level students (grades 7-12) are quite capable of conducting real research programs. During the approximate two years of the project, students have investigated and published research into the type of clouds that are most likely to produce short term enhanced surface radiation via cloud optics, correlations between higher levels of relative humidity and lower measured surface UV and new software for data storage and reduction. This is in addition to the hundreds of days of data recording taken at three minute intervals.

CSUN and JPL have just established a partnership to provide much needed support with the reduction and graphical presentation of the data, development and maintenance of the world wide network and the Home Page. JPL will work with CSUN to provide training of teachers to conduct Project SUN in their schools. The Physics and Astronomy Dept. of CSUN will be offering, via the internet, Physics 595S, a course designed to give teachers the needed background and skills to be a Project SUN station manager. I-Mb JPL and CSUN will also provide long term support of the research teams.