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International distance education on polar-orbiting satellites through the use of web-based interactive multimedia

T. Spangler

Cooperative Program for Operational Meteorology, Education & Training (COMET®)

tspang@ucar.edu / Fax: (303) 497-8491 / Phone: (303) 497-8473

Polar-orbiting satellites provide a unique opportunity to develop an international education and training program since these satellites provide global coverage and offer opportunities for enhanced environmental monitoring to all countries. This presentation will explain the philosophy of international education efforts used by the COMET Program and provide numerous examples of how web-based educational modules have been developed to provide worldwide instruction on the use of the new generation polar-orbiting satellites such as NPOESS and METOPS.

COMET-produced modules have a number of characteristics that are important to effective learning: they are goal-oriented; have learner control for self-paced instruction; present realistic applications of the content; provide access to the opinions of experts; allow realistic practice of principles learned; and provide feedback to the learner. Modules on international data sources such as polar-orbiting satellites also contain examples of data from many globally diverse locations. COMET modules typically include graphic animations of atmospheric phenomena, and both text and audio presentations to support learners who are both visual and auditory. These approaches have been applied in more than 100 interactive multimedia modules available free of charge at http://www.meted.ucar.edu. A few modules have been translated into multiple languages and plans are now in place to provide a more extensive library of materials in Spanish, French, and Portuguese.

Applications of COMET modules are appropriate for undergraduate and graduate level university classes, in addition to professional development for satellite data users.

COMET Web modules are accessed by over 15,000 users per month worldwide.