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STEREO-IMPACT Education and Public Outreach: Sharing STEREO Science

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The Solar TErrestrial RElations Observatory (STEREO) is scheduled for launch in 2006. STEREO will study the Sun with two spacecrafts in orbit around it and on either side of Earth. The primary science goal is to understand the nature and consequences of Coronal Mass Ejections (CMEs). Despite their importance, scientists don't fully understand the origin and evolution of CMEs, nor their structure or extent in interplanetary space. STEREO's unique 3-D images of the structure of CMEs will enable scientists to determine their fundamental nature and origin. We will discuss the Education and Public Outreach (E/PO) program for the In-situ Measurement of Particles And CME Transients (IMPACT) suite of instruments aboard the two crafts and give examples of upcoming activities, including NASA's Sun-Earth day events, which are scheduled to coincide with a total solar eclipse in March. This event offers a good opportunity to engage the public in STEREO science, because an eclipse allows one to see the solar corona from where CMEs erupt. STEREO's connection to space weather lends itself to close partnerships with the Sun-Earth Connection Education Forum (SECEF), The Exploratorium, and UC Berkeley's Center for New Music and Audio Technologies to develop informal science programs for science centers, museum visitors, and the public in general. We will also discuss our teacher workshops locally in California and also at annual conferences such as those of the National Science Teachers Association. Such workshops often focus on magnetism and its connection to CMEs and Earth's magnetic field, leading to the questions STEREO scientists hope to answer. The importance of partnerships and coordination in working in an instrument E/PO program that is part of a bigger NASA mission with many instrument suites and many PIs will be emphasized.