HIGH-ENERGY SOLAR PROTONS SEEN BY THE APE-B TELESCOPE

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APE-B is one of two Alpha-Proton-Electron telescopes on the WIND spacecraft. It was designed to accept high-energy particles which enter the instrument from either direction. We use the penetrating particles, which traverse the entire telescope, to extend the energy spectra of protons from SEP events to several hundred MeV. The fluxes are normalized to those seen by IMP-8 near 100 MeV. Results are presented for several large and medium SEP events from 1997 to the present, including the time evolution of the high-energy proton flux near the onset of each event. The instrument has returned pulse height information for very few particles heavier than protons during SEP events. The onboard software is being modified to give a higher priority to the penetrating events produced by alphas and heavier nuclei during future SEP events.