

Preliminary Results of the CPDS Instruments Aboard the ISS

K.T. Lee¹, J. Flanders², E. Semones², T. Shelfer², F. Riman³

¹ *University of Houston, 4800 Calhoun Rd., Houston, Texas 77204, USA*

² *Lockheed Martin Space Operations, 1300 Hercules Suite 100, Houston, Texas 77058, USA*

³ *Jacobs Sverdrup, 2224 Bay Area Blvd., Houston, Texas 77058, USA*

The LEO radiation environment has been directly observed by the IV and EV charged particle directional spectrometers (CPDS) aboard the International Space Station (ISS). The EV instrument is mounted on the S0 truss of the ISS, and was activated in late April 2002. The IV instrument is placed inside the USA Laboratory module of the ISS and it was activated on April 21, 2001. These instruments continue to take data up to the present time and are used as operational radiation dose level indicators, but these instruments are also capable of particle and energy identification. These data can provide information about the composition of the lower radiation belts, shielding provided by Earth's magnetosphere, and differences in the radiation environments inside and outside the ISS. We present a preliminary look at the ISS radiation instrumentation data with an overview of what we expect to be able to measure.