66th International Astronautical Congress 2015

## SPACE LIFE SCIENCES SYMPOSIUM (A1) Radiation Fields, Effects and Risks in Human Space Missions (5)

Author: Prof. Lawrence Pinsky University of Houston, United States, pinsky@uh.edu

## REPORT ON THE ACTIVE RADIATION MEASUREMENTS IN THE ORION MODULE DURING THE EFT-1 MISSION

## Abstract

The only active radiation monitor flown on the first test of the new Orion module was a Medipix-based Battery-powered Independent Radiation Detector (BIRD). There were two independent detectors in the same housing, and both functioned flawlessly throughout the entire flight. Data were taken continuously starting with an accelerometer activated turn-on at launch through splashdown. The detectors record the details of the incident radiation on a track-by-track basis, and the results of the first measurements inside a man-rated vehicle at higher altitudes in the trapped radiation belts since Apollo.