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**Progress Towards Real-Time Radiation Measurements on Aircraft** L. DUANE BELL, W. KENT TOBISKA, ROBERT W. SCHUNK, DONALD D. RICE, Utah State University — The Space Weather Center (SWC) at Utah State University has created a team to deploy and obtain radiation effective dose rate data from dosimeters flown on commercial aircraft. The objective is to improve the accuracy of radiation dose and dose rate estimates for commercial aviation flight crews. There are two general sources of radiation exposure for flight crews: (1) the ever-present, background galactic cosmic rays (GCR), which originate outside the solar system, and (2) the solar energetic particle (SEP) events (or solar cosmic rays), which are associated with solar flares and coronal mass ejections lasting for several hours to days with widely varying intensity. The Automated Radiation Measurements for Aviation Safety (ARMAS) project is making substantial progress, currently implementing dosimeters flown in commercial aircraft to provide and improve sample data collected for the Nowcast of Atmospheric Ionizing Radiation for Aviation Safety (NAIRAS) estimates. We report on the results of our flights and the calibrations of the dosimeters.

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