THE 37-DAY FLIGHT OF CREAM DURING THE 2009-2010 AUSTRAL SUMMER

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CREAM-V collaboration

The balloon-borne Cosmic Ray Energetics And Mass (CREAM) experiment was launched from McMurdo Station Antarctica on December 1, 2009, an early-launch record for Antarctic Long Duration Balloon (LDB) flights. A cumulative exposure of ~156 days was achieved when this 37-day fifth flight of CREAM was terminated over the Ross Ice Shelf on January 8, 2010. Combining a sampling calorimeter for energy measurement with multiple charge detectors for particle identification, CREAM-V provided a large data sample to measure elemental spectra for $1 \leq Z \leq 26$ in energies above $10^{14}$ eV. This was the first time that CREAM was supported with the standard Support Instrumentation Package (SIP) for LDB payloads. The first four flights were supported by the Command and Data Module (CDM) developed by the NASA Wallops Flight Facility for Ultra Long Duration Balloon (ULDB) flights. The instrument performance, results from the ongoing data analysis, and future plans will be presented.