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CALET Ultra-Heavy Cosmic-Ray Observations Incorporating Trajectory Dependent Geomagnetic Rigidities[1] BRIAN RAUCH, WOLFGANG ZOBER, Washington University, St. Louis, FOR THE CALET COLLABORATION — The CALorimetric Electron Telescope (CALET), launched to the International Space Station (ISS) in August 2015, continues to measure cosmic-ray (CR) electrons, nuclei and gamma-rays. The main calorimeter (CAL) has a 30 radiation length deep calorimeter for high energy electrons that also measures the energy spectra and secondary to primary ratios of the more abundant CR nuclei through $_{26}$Fe. The CAL charge detector has the dynamic range to measure CR nuclei from $_{1}$H to $_{40}$Zr, but to maximize the acceptance of the rare ultra-heavy (UH) CR above $_{30}$Zn a special high duty cycle ($\sim$90%) UH trigger is used that does not require passage through the main calorimeter. Forgoing the calorimeter energy measurement provides a $\sim$6$\times$ increase in geometry factor that reduced by ISS obstructions allows CALET to collect in 5 years a UHCR data set similar to that from the first flight of the balloon-borne SuperTIGER instrument. Previous CALET UHCR analyses using time and position corrections based on $_{26}$Fe and a geomagnetic vertical cutoff rigidity selection have shown abundances of even nuclei in agreement with SuperTIGER/ACE-CRIS. To further improve resolution and maximize statistics a trajectory dependent geomagnetic rigidity selection is employed here.

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