Abstract Submitted
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Increase of Ionizing Radiation at the Pfotzer Maximum ENRIQUE GOMEZ, MICHELE CARMICHAEL-COKER, Western Carolina University — Verso l'alto is a multi-disciplinary research and development project whose goal is to gain insight into the cosmic ray profile of the atmosphere and geolocation of terrestrial gamma-ray flashes (TGFs) over North Carolina, USA. This experiment is comprised of high-altitude weather balloons carrying radiation, pressure and temperature detectors. Eight successful balloon flights have been completed from October 2012-June 2014. Live tracking and telemetry of the flight is performed by an amateur radio communications payload, and beacon coordinates are uploaded to `aprs.fi` for real-time access online. We conclude that fluctuation peaks within the tropopause are due to the Pfotzer Maximum. Other statistically significant peaks within the time scale of minutes are observed. All data sets confirm peak counts within the Pfotzer Maximum, ranging from altitudes 13.4-22 km (44,146-72,441 feet).

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