Abstract Submitted
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Atmospheric γ Radiation Associated with Lightning[1] MARK GREENFIELD, MIHO ISHIGAKI, MIKE KUBO, International Christian University, KAZUHISA KOMURA, Kanazawa University, GEOFF AUSTIN, DAVID KROFCHECK, Univ. of Auckland, MARGARET PEACE, PAUL BARKER, University of Auckland, PAUL RUSCHER, WILLIAM COTTRILL, Florida State University — Increases in atmospheric γ ray rates, GRR, during thunderstorms have been observed in Mitaka, Utsunomiya and Sishiku, **Japan**. Increased GRR associated with lightning persisted for a few hours and subsequently decayed with $\tau_{1/2}$=50 min. In the summer of 2003 a Ge detector with 2 keV resolution positioned near the rocket launch site at the lightning research center in Starke, Fla, **USA** was used to observe increases in integrated GRR following five rocket triggers up to five times pre-trigger background which subsequently decayed with about $\tau_{1/2}$=50 min. Recent data from **Japan** presented in the previous paper as well as data from Auckland, **New Zealand,** using high resolution Ge detectors, verify the previously observed correlations of GRR with precipitation, but additional gamma rays following lightning strikes, with energies other than those from anomalous increases in radon progeny and positrons, have yet to be observed.

[1]see Science Vol. 304, (2004) p 43.

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