

OSSE Observations of Nova Velorum 1999

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Gamma-ray line emission has long been predicted from classical novae, but never detected. Nova Velorum 1999 reached 3rd magnitude in May and is probably closer than 2 kpc, making it CGRO's best candidate yet for detecting line emission from ${}^7\text{Be}$ (478 keV) and ${}^{22}\text{Na}$ (1275 keV). CGRO OSSE observed N Vel 1999 for 26 days beginning on 27 May 1999 (5 days after optical discovery.)

Preliminary analysis reveals no evidence for either 478 or 1275 keV line emission, with 99% upper limits of 5.6×10^{-5} and $8.1 \times 10^{-5} \text{ cm}^{-2} \text{ s}^{-1}$, respectively. We do see a significant hard X-ray continuum, but can not unambiguously associate it with the classical nova. Efforts to understand this emission continue. Here we will report the progress of this work and the implications of the line limits.