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CALET Searches and Sensitivity to GeV-energy EM Counterpart Emission from Gravitational Wave Events NICHOLAS CANNADY, Louisiana State University, CALET COLLABORATION — The CALorimetric Electron Telescope (CALET) is a 30 radiation length deep imaging calorimeter launched to the International Space Station in August 2015 composed of a charge detector (CHD), imaging calorimeter (IMC), and total absorption calorimeter (TASC). With a depth of 27 radiation lengths, the lead tungstate TASC provides virtually total containment of electromagnetic showers well into the TeV region. The charge measurement, precise tracking, and hadron rejection provided by the sampling IMC and the CHD also allow CALET to function as a high-energy gamma-ray observatory sensitive in the energy range 1 GeV - 10 TeV. In this paper we describe the analysis methodology for GeV-energy photon events, the resulting sensitivity to gravitational wave/gamma-ray burst EM counterpart emission, the development of automated and offline searches for such emission, and initial gamma-ray results from the calorimeter.

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