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Affects of curtains on the scaler system in HAWC THOMAS HARRIS, ANDREAS TEPE, IGNACIO TABOADA, Georgia Institute of Technology — HAWC is a high-energy gamma-ray observatory currently under construction in Mexico. It consists of 300 large water tanks instrumented with photomultiplier tubes. HAWC has two DAQs. The main DAQ reconstructs the direction and energy of individual air showers, the scaler DAQ monitors the rate of each PMT. A gamma ray transient can be searched for as a statistical excess over the noise of all PMTs in the scaler system. We investigate a modification of HAWC's design that adds opaque curtains to the tanks to optically isolate each PMT. In particular we studied whether the scaler system would have better sensitivity to gamma-ray transients with this alternative design. We find modest gain in sensitivity using the additional curtains.

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