

## HAWC Quarterly Report

April-June 2014

- Construction:** Shipments of photomultiplier tubes (PMTs) and calibration equipment were made from LANL to HAWC. The new shipping process began working after almost 9 months of no approvals from the Mexican government. Brenda Dings made a two-week trip to the HAWC site to install electronics, calibration hardware, and PMTs.
- Operations:** HAWC Observatory availability remains high with 138 water Cherenkov detectors (HAWC 138) operating at 90% duty factor, while the 10% down time is primarily attributed to the installation of new detectors. HAWC 111 data was reprocessed with new calibration constants.
- Science:** Brenda Dings presented HAWC at a VERITAS sponsored workshop on Galactic Sources at Columbia University. As Spokesperson Brenda Dings signed MOUs with LIGO, FACT, and IceCube to work on joint science analysis. Patrick Harding submitted paper to Astroparticle Physics on HAWC sensitivity to WIMP dark matter and received favorable review requiring minor changes. Patrick Younk and Patrick Harding organized HAWC collaboration workshop on likelihood analysis to estimate flux and significance of HAWC sources.
- Publications:**
1. "Milagro Limits and HAWC Sensitivity for the Rate-Density of Evaporating Primordial Black Holes", Abdo, A.A., *et al.*, Submitted to Astroparticle Physics Journal, 2014arXiv1407.1686A
  2. "The Sensitivity of HAWC to High-Mass Dark Matter Annihilations", Abeysekara, A. U., *et al.*, Submitted to Astroparticle Physics Journal, 2014arXiv1405.1730A
  3. "Milagro observations of potential TeV emitters", Abdo, A. A., *et al.*, Astroparticle Physics, Volume 57, p. 16-25.