

2QFY15 Progress Report

HAWC

The fabrication of the full HAWC observatory was completed this last quarter. An inauguration was held on March 20, 2015 which was attended by about 300 people including France Cordova, the director of the NSF and Anwar Bhatti, DOE program officer. This event resulted in articles in many venues, including Physics Today and Science.

LANL scientist Brenda Dingus made 2 trips this quarter, January 13-22 and March 9-23, to work on the installation of photomultiplier tubes and electronics. She also worked on the laser calibration system to improve its response for low occupancy channels.

Brenda Dingus and LANL postdoc Pat Harding also attended the HAWC collaboration meeting at the University of Utah in February. Brenda reported on the status of HAWC operations as she is the operations manager and Pat organized the session on Particle Physics with HAWC. He presented calculations of the sensitivity of HAWC to decaying dark matter which has less astrophysical uncertainties due to the clumsiness of the dark matter density distribution.

DOE sponsored SULI student Bonnie Klamm began working with the HAWC group at LANL. She tested front end electronics for HAWC and simulated the effect of violations of Lorentz invariance on gamma-ray burst light curves.