Abstract Submitted
for the MAS14 Meeting of
The American Physical Society

First Results from the High Altitude Water Cherenkov Observatory JOHN PRETZ, Pennsylvania State University, HAWC COLLABORATION — The field of TeV astronomy has been rapidly expanding since the first detection of TeV photons from the Crab Nebula by the Whipple Observatory in 1989. There are currently more than 150 known TeV sources including Pulsar Wind Nebulae, Supernova Remnants, Active Galactic Nuclei, Galactic Binaries and Starburst Galaxies. Furthermore, extended emission from the Galactic Plane itself has been observed. The TeV emission from sources illuminates the highest-energy particle populations in these objects, elucidating leptonic and hadronic processes, as well as serving as a probe for new physics. The High Altitude Water Cherenkov Observatory is a new instrument for TeV astronomy. With a wide field of view and continuous observation, the instrument is being used to map the Northern sky at high sensitivity and search for transient emission. I will present results from the first year of operation of the partially-completed observatory.

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Date submitted: 29 Aug 2014 Electronic form version 1.4