The Askaryan Radio Array (ARA): status and initial results
MING-YUAN LU, University of Wisconsin-Madison, ASKARYAN RADIO ARRAY COLLABORATION — Ultra-high energy (UHE) cosmogenic neutrinos are expected through photohadronic interactions of UHE cosmic rays with CMB photons. The Askaryan Radio Array (ARA) is a neutrino observatory located near the South Pole aimed at detecting these neutrinos via their interactions with Antarctic ice and subsequent electromagnetic emission in radio frequencies. At the end of 2014, 3 ARA stations have been deployed. When completed, ARA is projected to consist of 37 in-ice stations and cover up to 200km$^2$ while providing high sensitivity from 10PeV to 10EeV. We report here the current status of operation and preliminary results of initial data analysis.