Abstract Submitted
for the DNP16 Meeting of
The American Physical Society

Overview and Status of the SeaQuest Experiment[1] LARRY DONALD ISENHOWER, Abilene Christian Univ, SEAQUEST COLLABORATION — SeaQuest (E906) is a Fermilab fixed target experiment and has been running since December 2013. It has made significant progress towards its goal of extending measurements made by earlier Fermilab Drell-Yan (D-Y) experiments, E866 and E772. A description will be given of the effort that went into building this new high-mass, high-rate capability di-muon spectrometer with entirely new target, trigger, and DAQ systems. These were integrated into detector systems which are new or recycled from other experiments. A completely new beam operation mode had to be developed by Fermilab that would allow a slow extraction of the beam for SeaQuest over four seconds while not disturbing the fast extraction mode for neutrino running. A beam Cherenkov detector was built that could run at the necessary 53 MHz rate to monitor each beam pulse and produce a beam veto for large proton bunches. After commissioning, SeaQuest has made steady progress on the amount of data recorded. The current status will be shown, along with expectations for the next year. Many challenges have been overcome by this collaboration in order to produce data for analysis. A broad range of physics results will be the result of this effort as well as a number of possible future experiments.

[1]Work supported by U.S. DOE MENP Grant DEFG0203ER41243

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Date submitted: 02 Jul 2016 Electronic form version 1.4