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APEX: The A Prime EXperiment at Jefferson Lab JAMES BEACHAM, New York University, APEX COLLABORATION — APEX is a fixed target experiment at Thomas Jefferson National Accelerator Facility (JLab) in Virginia, USA, that searches for a new gauge boson (A') with sub-GeV mass and coupling to ordinary matter of $g' \sim (10^{-2} - 10^{-6})e$. Electrons impinge upon a fixed target of high-Z material to produce an A' via a process analogous to photon bremsstrahlung, which then decays to an e^+e^- pair that is detected by the JLab Hall A High Resolution Spectrometers. A test run was held in July of 2010, covering an A' mass range from 175 to 250 MeV and couplings $g'/e > 10^{-3}$. A full run is approved and will cover $m_{A'} \sim 65$ to 525 MeV and $g'/e > 2.3 \times 10^{-4}$. I will present the results of the test run and report on the current status of preparations for the full run.

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