Low-Energy electrons in Saturn’s Magnetosphere ANNA DEJONG, JAMES BURCH, Southwest Research Institute — Electron data from the Cassini Electron Spectrometer (CAPS-ELS) are examined from July 14, 2004 to April 30, 2010. When Cassini is within ±10° latitude of the equator a peak in the low energy electrons (∼100eV) is observed to extend from approximately 7 to 8.5 R₉. We find this low energy peak, which has been reported in total density by Wahlund et al. [2005], to be associated with localized plasma injections. When the electrons are separated by pitch angle there is difference in the longitudinal and local time dependences. This result indicates that there is a large source of interchange instability at 330° SLS3 and in the nightside of the Saturnian magnetosphere.