

EPS: The Energetic Particle Sensor on NPOESS

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The EPS is an energetic particle sensor that will be flying on NPOESS C1 as Part of the SEM-N suite. The EPS detects ions and electrons from ~25 keV to 10 MeV (1 MeV for electrons). It provides observations from six different look directions, as well as ion composition. The detector is a Time-Of-Flight (TOF) – solid state detector hybrid. The TOF system sharpens ion energy resolution, reduces background noise, and provides composition information. These advanced capabilities will greatly enhance the low earth orbit (LEO) space weather capability.