

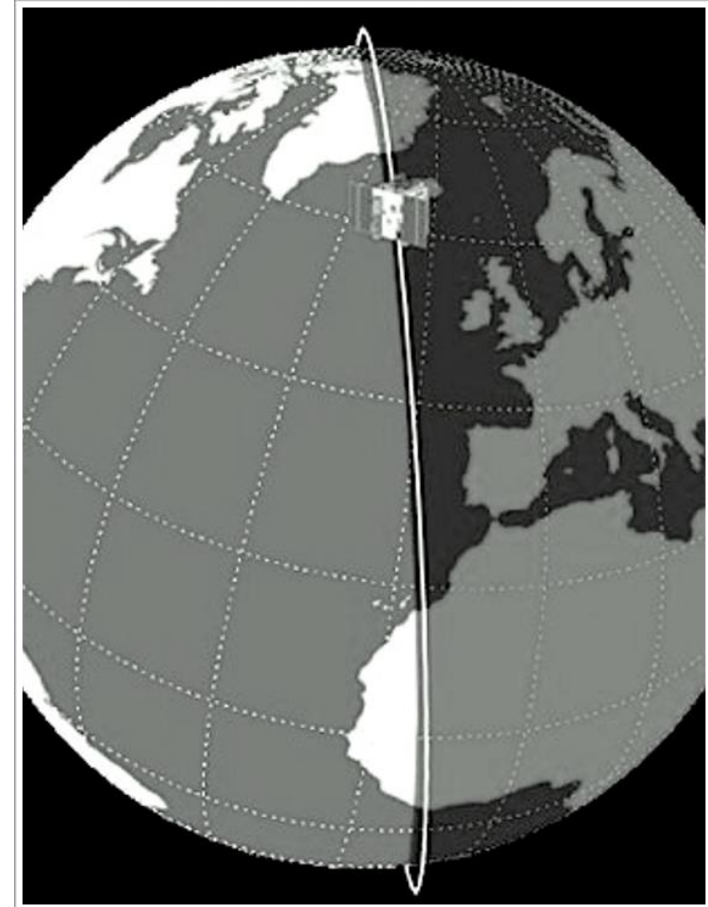
LYRA Perturbations Project

Thanassis Katsiyannis

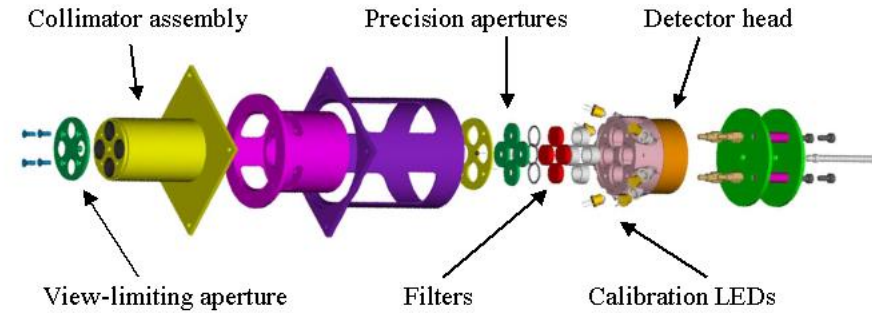
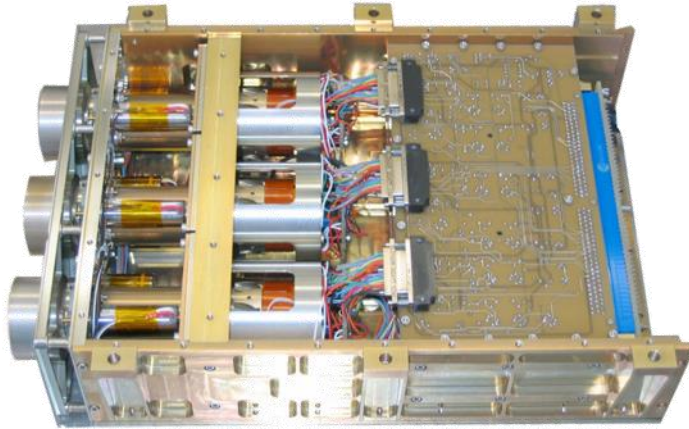
Marie Dominique

The PROBA-2 orbit

- Heliosynchronous
- Polar
- Dawn-Dusk
- 750 km altitude
- 100 min duration

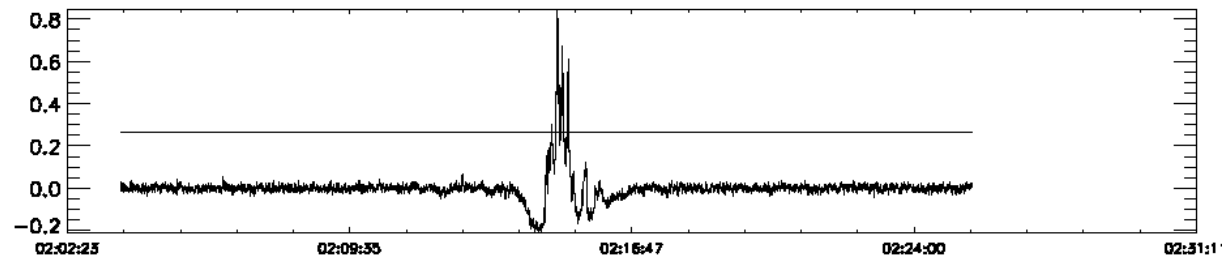
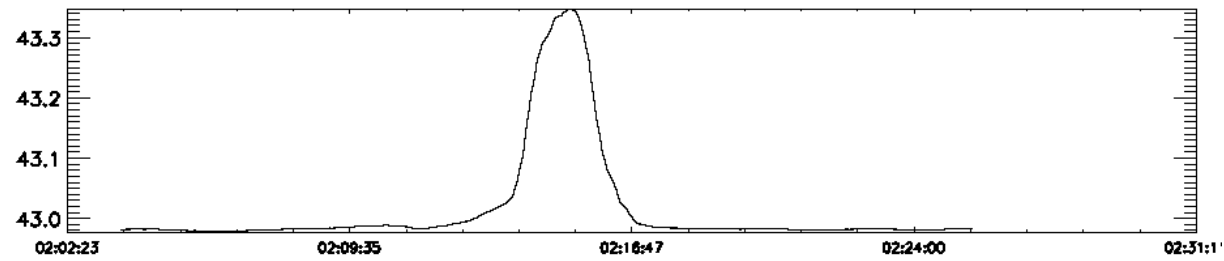
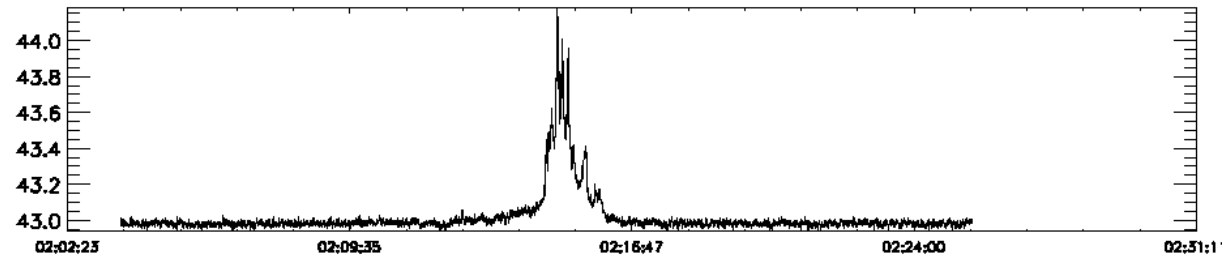


The LYRA instrument



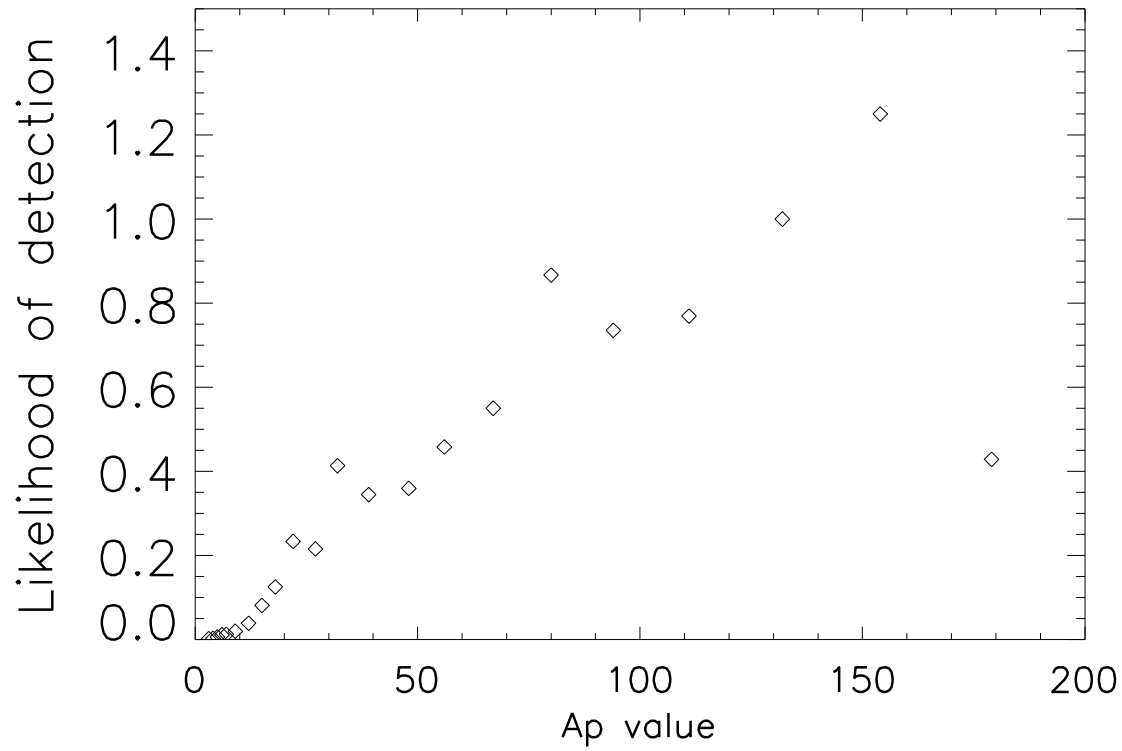
	Ly	Hz	Al	Zr
	120-123 nm	190-222 nm	17-80 nm + <5nm	6-20 nm + <2nm
Unit1	MSM - diamond	PIN- diamond	MSM- diamond	P-N Silicon
Unit2	MSM- diamond	PIN- diamond	MSM- diamond	MSM- diamond
Unit3	P-N Silicon	PIN- diamond	P-N Silicon	P-N Silicon

Detection Algorithm

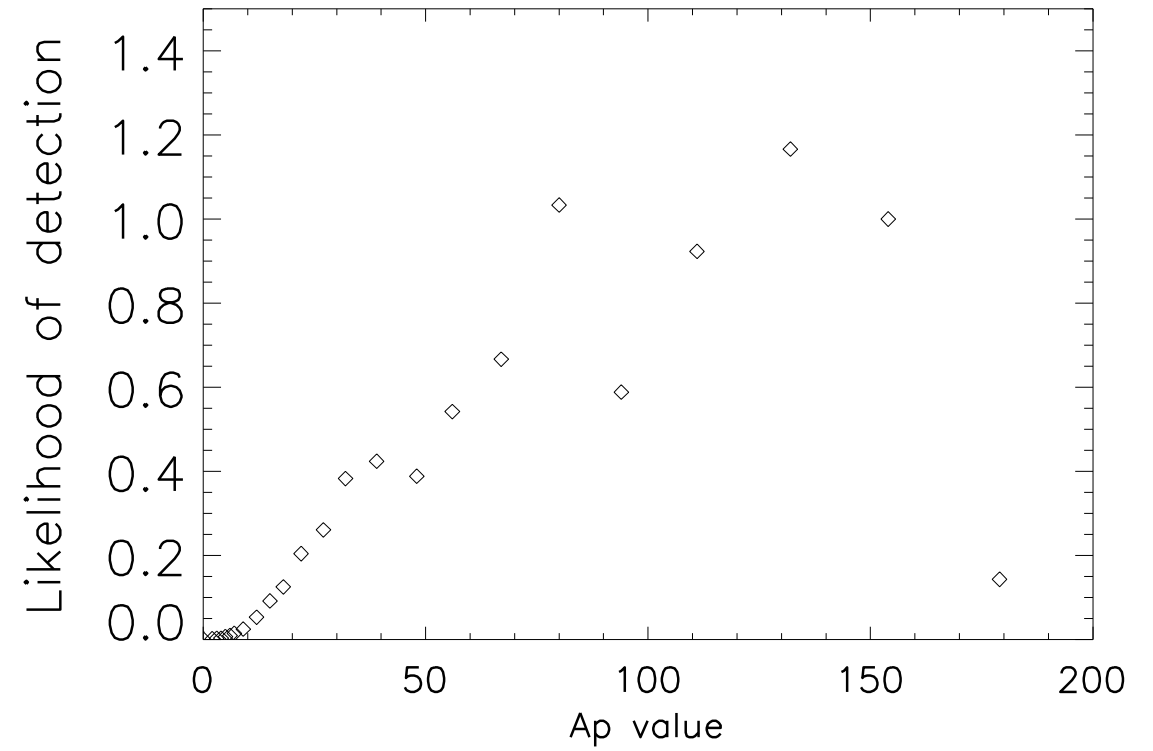


Likelihood of detection VS Geomagnetic disturbance

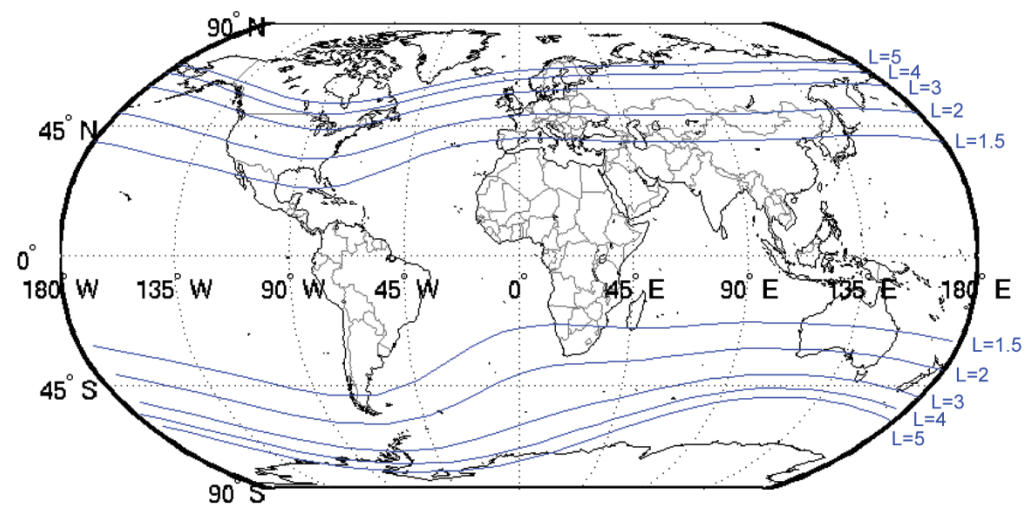
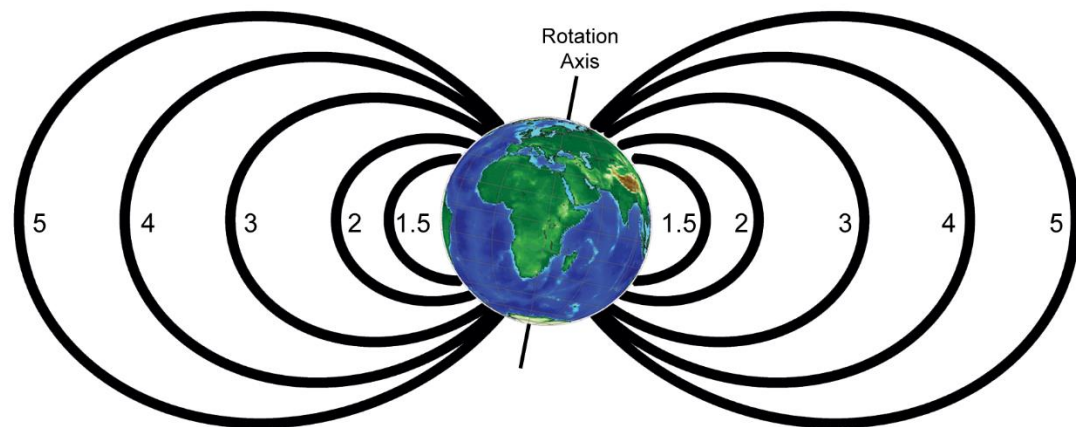
Likelihood of detection vs Ap for channel 3



Likelihood of detection vs Ap for channel 4

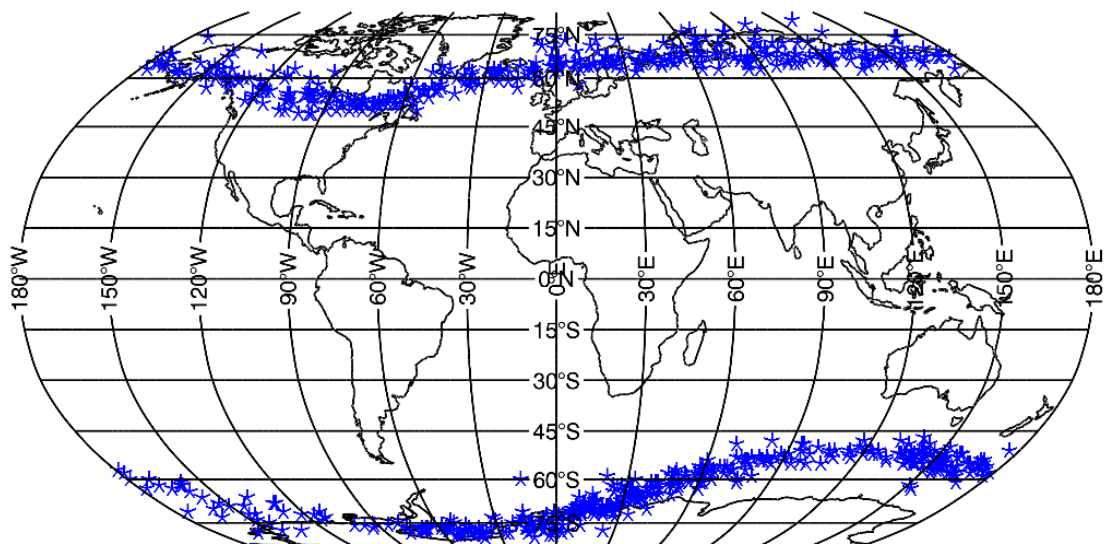


McIlwain L-Shells

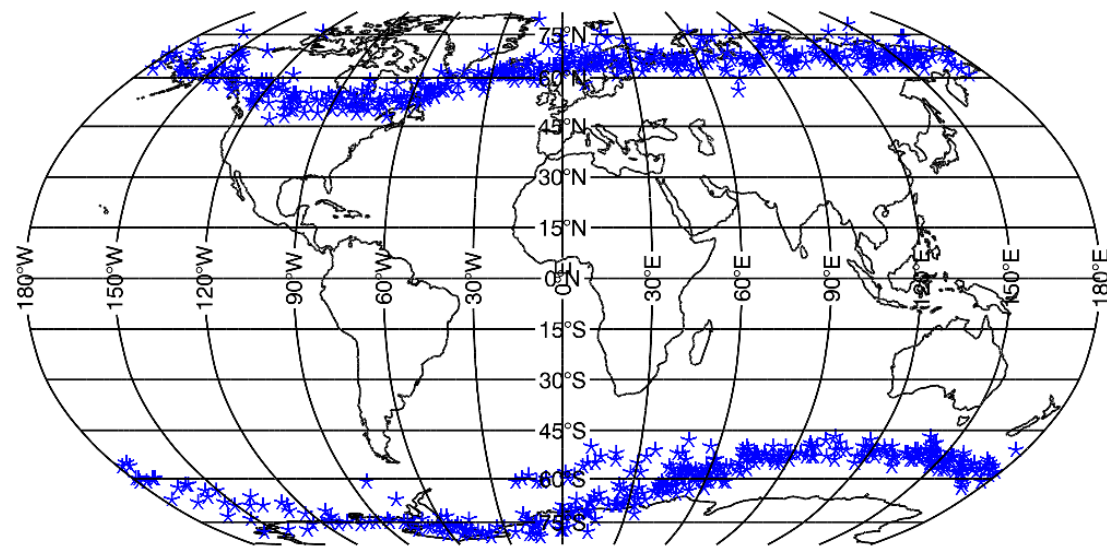


Detection Maps

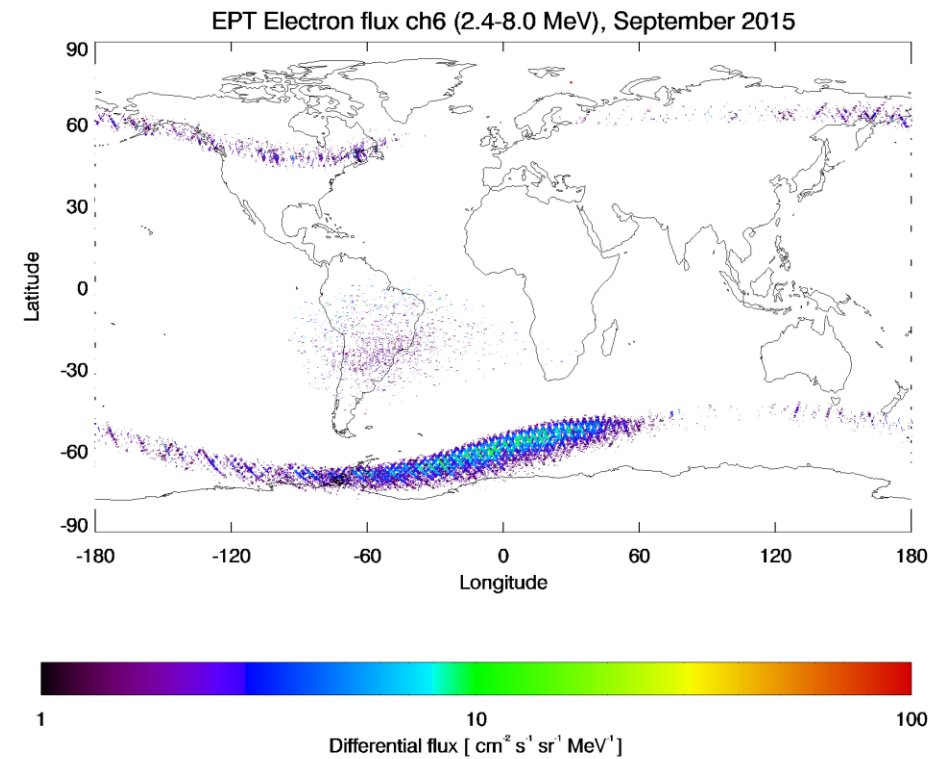
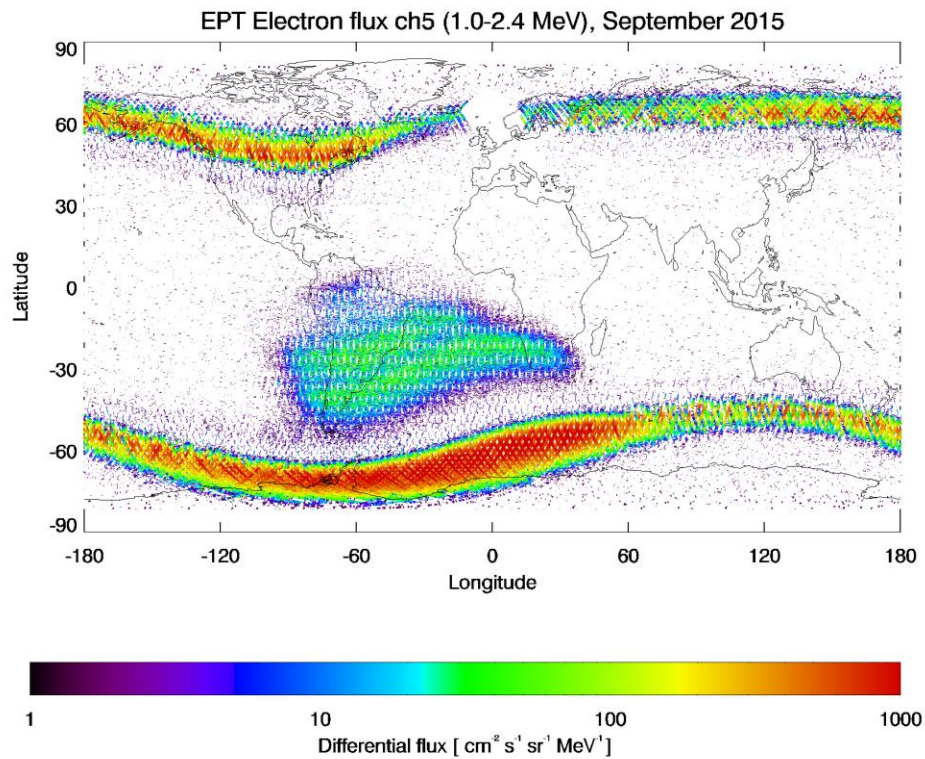
Unit 2, Channel 3



Unit 2, Channel 4



PROBA-V/EPT detections



Dawn vs Dusk detections

