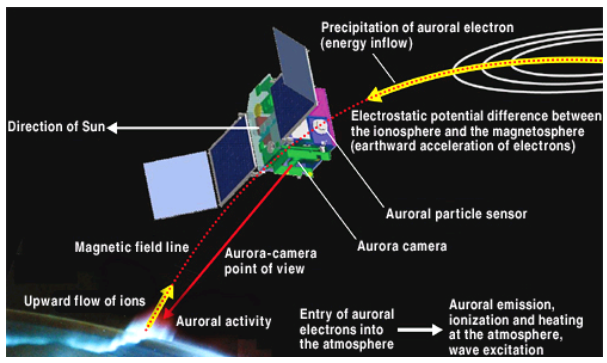
REIMEI and AKEBONO

Reimei — Simultaneous measurements of aurora from space

Capture of magnetic footprint within imager's FOV



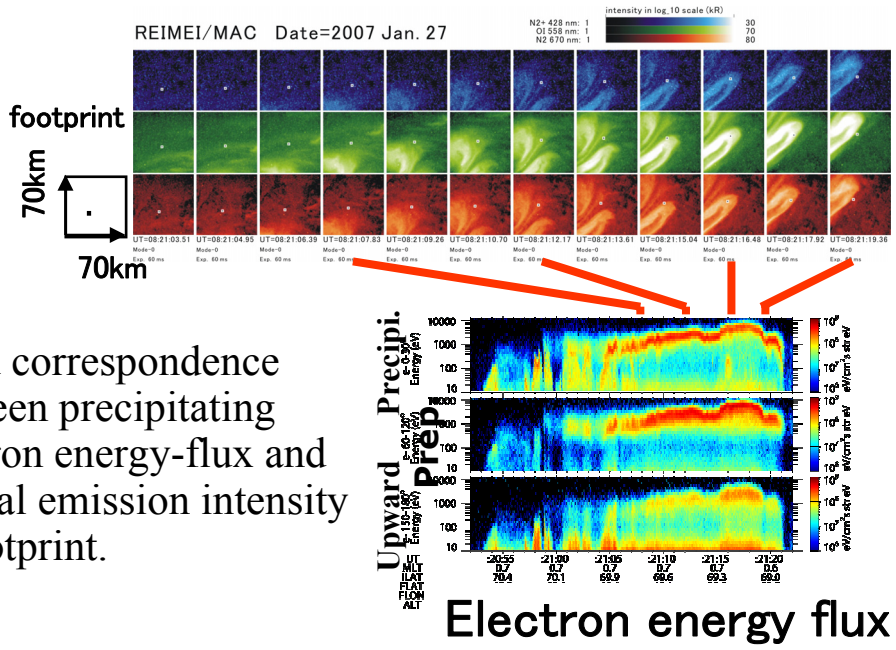
Auroral camera

Wavelength
428 nm (N2+) /558 nm (O) /670 nm (N2)
Time resolution 120 ms
Spatial resolution ～1 km

Electron/Ion sensors

Energy range 10 - 12000 eV/q
Time resolution 40 ms
Spatial resolution 300 m

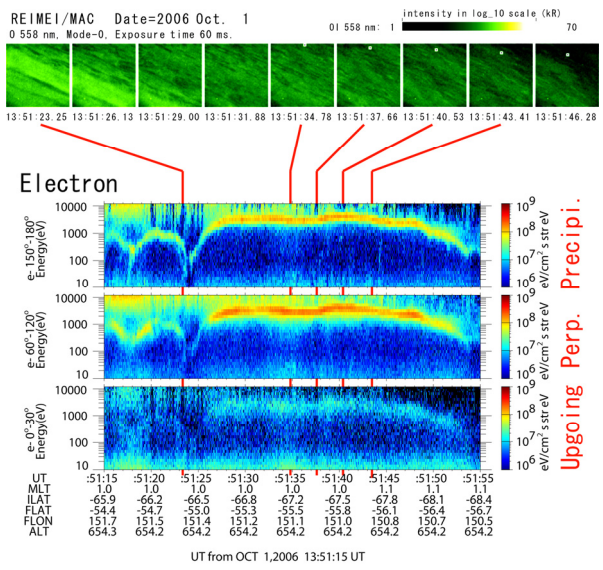
Auroral images and precipitating electrons



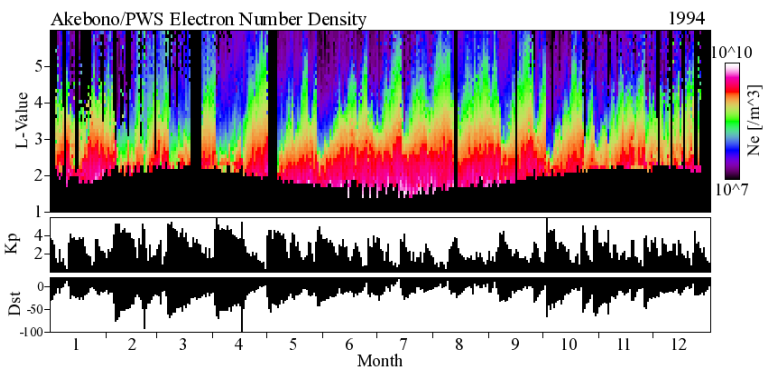
Good correspondence between precipitating electron energy-flux and auroral emission intensity at footprint.

Black auroras

Switch ON/OFF of electron precipitation with higher energies than Inverted-Vs



Akebono — New area for the inner magnetosphere monitor



Density in the plasmasphere varies corresponding to the geomagnetic activity

The radiation outer belt grows and decays corresponding to the sun activity. The 11-year cycle is clearly seen.