

ICI-4 Mission objective

- Investigate the micro-physics of plasma instabilities and turbulence phenomena associated with polar cap patches being pulled into the nighttime aurora, referred to as auroral blobs.

ICI 4 : 9-22 February 2015

“A space weather rocket mission”

Payload measures:

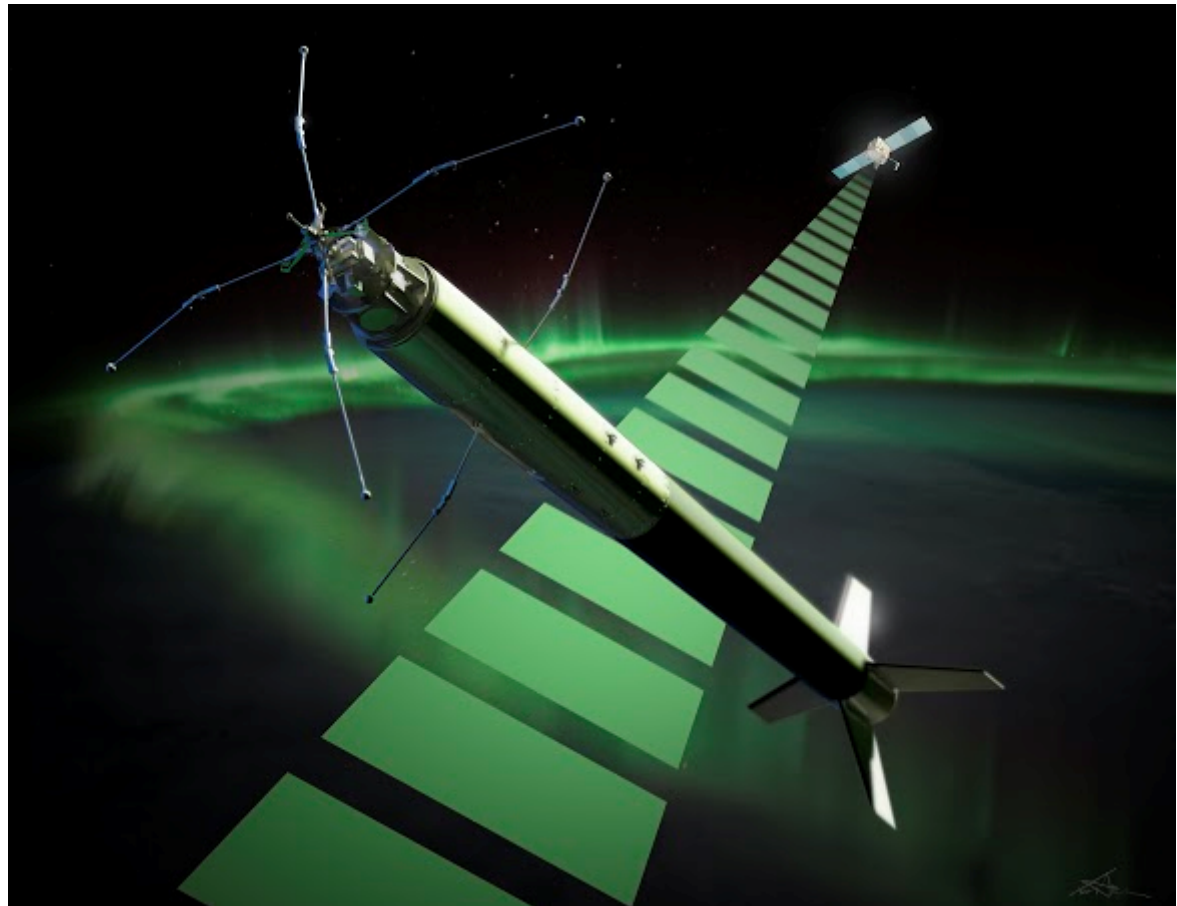
Length: 2.9 meter

Weight : 140 kg

Apogee : 350 km

Flight time : 10 min

Ground range : 500 km



ICI 4 instrumentation



FBP : Fixed Bias Langmuir Probe – ISAS/JAXA



m-NSLP : multi -Needle&Sphere Langmuir Probe system – UiO



LEP-ESA : Low Energy Particle spectrometer (10eV-10keV), ISAS/JAXA



EFW : Electric Field and Wave Experiment, UiO



ADM : AC/DC Magnetometer – LPP, Ecole Polytechnique, France.



FGM : Flux Gate Magnetometer Univ. of Alberta, Canada



SRADS: Sounding Rocket Attitude Detection System, UiO

Optimal launch conditions:

- 1) Clear sky and a **polar cap patch entering the substorm auroral activity** situated over the nominal trajectory
- 2) EISCAT radars record a **patch entering the auroral activity situated above the** nominal trajectory.

Minimal launch conditions:

- 3) Auroral activity and F-region plasma structures above the rocket trajectory

Launch Window:

9 – 22 February 2015

17:00-22:00 UT (20-01MLT)

DAY 1-7 : Criterion 1 or 2 are met

DAY 7-14: Criterion 1 or 2 or 3 are met

This is however a subject to change depending on the weather and space weather forecasts