Space weather in Canada

- Natural Resources Canada
  - Forecasts
  - Critical Infrastructure support

- National Research Council
  - F10.7 Solar Flux Measurements and expertise

- Canadian Space Agency
  - Scientific space missions
  - Data gathering and analysis to further space science in support of space weather
Natural Resources Canada

- **Space Weather Forecasting**
  - Alerts sent to
    - Government Operations Centre
    - Critical Infrastructure Operators
  - Member of the International Space Environment Service network (ISES)

- **Ground Measurement Network**
  - Magnetometers, Riometers

- **Protection of critical infrastructure**
  - Supports critical infrastructure operators risk assessment and mitigation
• F10.7 solar flux is one of the most widely used indices of solar activity

• The National Research Council performs world standard measurements since 1947
Solar-Terrestrial Missions supported by the Canadian Space Agency (CSA)

- **Geospace Observatory (GO) Canada**
  - Contribution agreements for space science data acquisition across Canada

- **NASA/THEMIS**
  - Ground observatories in Canada

- **ESA/Swarm**
  - Support Electric Field Instrument operations

- **Science & Application grants**
  - Science grants with Canadian Universities
  - Developing models
  - Space mission data analysis
Solar-Terrestrial Activities at CSA

**Policy**
- Space Weather Socioeconomic impact Study on Canadian Infrastructure
- UN/COPUOS space weather working group
- Canada-USA Bilateral on Space Weather

**Solar-Terrestrial Science Advisory Committee (STSAC)**
- Advises CSA on Solar Terrestrial Science issues in Canada

**Space Science & Technology branch (SS&T)**
- Flight for the Advancement of Science and Technology (FAST) grants
- Canada-Norway Sounding Rocket (CaNoRock) support
- Space Technology Development Program (STDP) contracts

**Space Exploration**
- Science maturation studies