



EISCAT Scientific Association

Scientific Strategy

To understand the various forms of coupling between the Sun, the interplanetary medium, the terrestrial magnetosphere, ionosphere, and atmosphere of the high-latitude regions, natural and anthropogenic forcing, and related plasma physics and dynamics, and to achieve the necessary knowledge, understanding, principals, and techniques which would allow mankind to monitor, predict, and mitigate such processes within the next 30 years.

Specific goals

To develop large-scale facilities, techniques, and methods and, together with other ground-based and space-borne instruments, and as part of the global network of incoherent scatter and other middle and upper atmosphere radars, to encourage and undertake high quality research related to the Global Goal through studies addressing:

- Behaviour and energy budget of the high-latitude regions, including space weather effects
- Fundamental plasma physics and dynamic processes in the near-Earth space environment
- Trends in atmospheric and ionospheric conditions, including long term/global change
- Properties and dynamics of the interplanetary environment
- Parameterisation of these processes and the development of techniques for their prediction