

# Hands on web databases

Claudio Cesaroni<sup>1</sup>, Mirko Piersanti<sup>2</sup>, Luca Spogli<sup>1</sup>, Alan Wood<sup>3</sup>

<sup>1</sup>Istituto Nazionale di Geofisica e Vulcanologia



<sup>2</sup>Istituto Nazionale di Fisica Nucleare



<sup>3</sup>Nottingham Trent University



INTERNATIONAL SCHOOL OF SPACE SCIENCE  
L'Aquila - ITALY

THE POLAR UPPER ATMOSPHERE: FROM SCIENCE TO OPERATIONAL ISSUES

17-21 September 2018, L'Aquila (Italy)



G S  
S I



SPDF - Coordinated Da X +

Zimbra: In arrivo Structure | INFN Rom Dictionary.com | Mea WhatsApp Geo-electric measure Plotting service - Gec

https://cdaweb.sci.gsfc.nasa.gov/index.html/

Hub (Preferiti, Elenco di lettura, cronologia e download)

GODDARD SPACE FLIGHT CENTER Space Physics Data Facility + Goddard Home + Visit NASA.gov

+ SPDF HOME + DATA & ORBITS + MODELS at CCMC + SCIENCE ENABLED + AND MORE

CDAWeb

+ CDAWEB HOME + FEEDBACK + ABOUT CDAWEB

CDAWeb Mirror Site + RAL/UK

Guides and Tutorials + CDAWeb help + Internet browser help

Direct Access to Data + Direct FTP to Data + Direct HTTP(S) to Data

Additional Services + CDAWeb Inside IDL + Overview of Alternative Data Access Methods + Autoplot.org (non-NASA) interface to public CDAWeb database + Pre-generated Data and Orbit plots via SPDF's GFWALK

Coordinated Data Analysis Web (CDAWeb)

Public data from current and past space physics missions

**NEW**

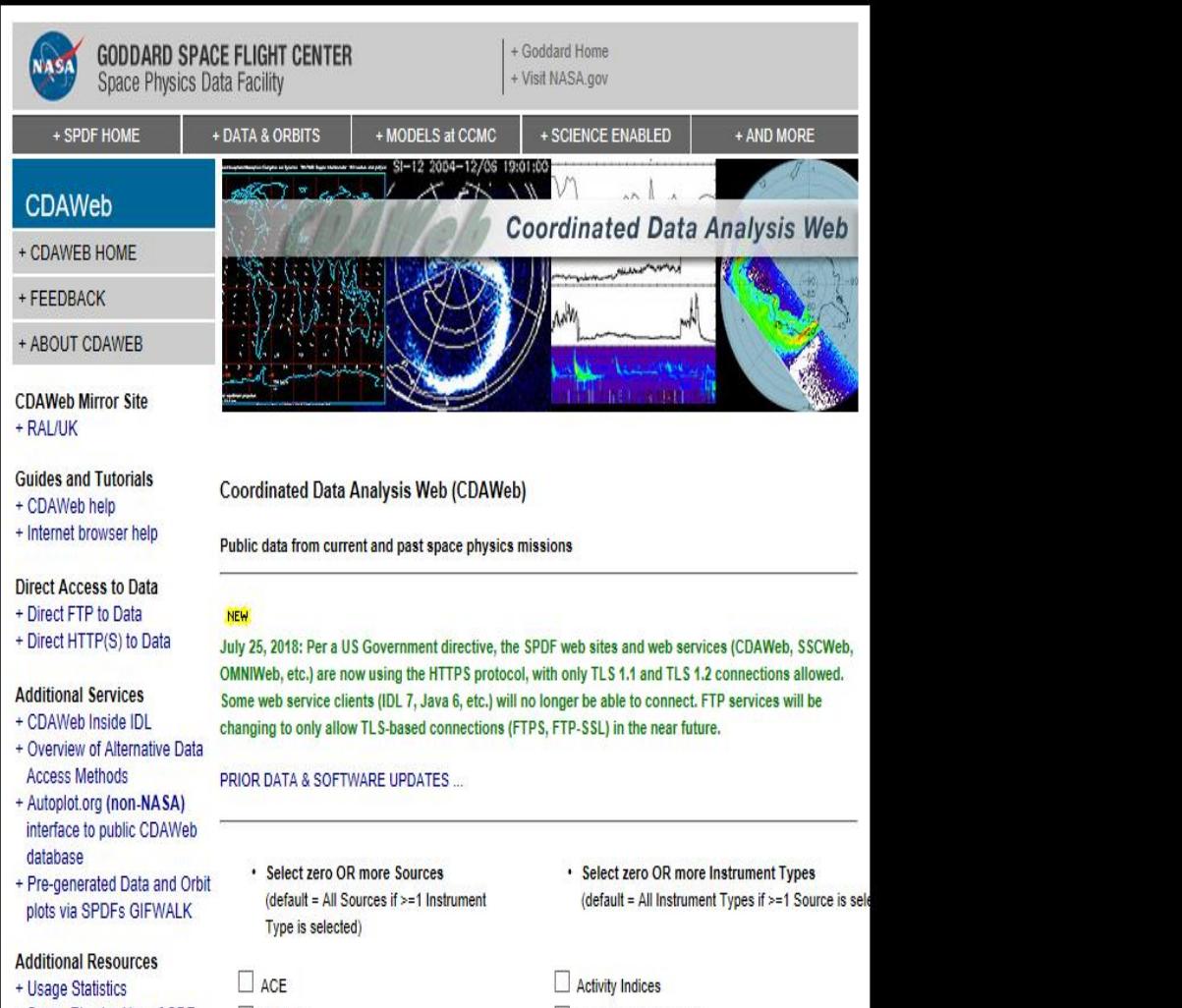
July 25, 2018: Per a US Government directive, the SPDF web sites and web services (CDAWeb, SSCWeb, OMNIWeb, etc.) are now using the HTTPS protocol, with only TLS 1.1 and TLS 1.2 connections allowed. Some web service clients (IDL 7, Java 6, etc.) will no longer be able to connect. FTP services will be changing to only allow TLS-based connections (FTPS, FTP-SSL) in the near future.

PRIOR DATA & SOFTWARE UPDATES ...

Select zero OR more Sources (default = All Sources if >=1 Instrument Type is selected) Select zero OR more Instrument Types (default = All Instrument Types if >=1 Source is selected)

ACE  Activity Indices  AMPTE  Electric Fields (space)

14.50 17/09/2018



## NASA Website for Space Missions

<https://cdaweb.sci.gsfc.nasa.gov/index.html/>

INTERMAGNET X +

www.intermagnet.org/index-eng.php

Zimbra: In arrivo Structure | INFN Rom Dictionary.com | Mea WhatsApp Geo-electric measure Plotting service - Gec

Français English

INTERMAGNET

INTERMAGNET Data Observatories (IMOs) Participating Institutes Publications/Softwares How to Reach Us

History Vision and Mission Principles, Conditions, and Policies Organizational Structure Geomagnetic Information Nodes (GINs) Geomagnetic Activity Map FAQ

## INTERMAGNET

### International Real-time Magnetic Observatory Network

Welcome to INTERMAGNET - the global network of observatories, monitoring the Earth's magnetic field. At this site you can find [data](#) and information from [geomagnetic observatories](#) around the world.

The INTERMAGNET programme exists to establish a global network of cooperating digital magnetic observatories, adopting modern standard specifications for measuring and recording equipment, in order to facilitate data exchanges and the production of geomagnetic products in close to real time.

Where local support is lacking it is a further goal of INTERMAGNET to aid in the establishment of new observatories or to provide assistance with the upgrade and maintenance of existing facilities. Supplemental to this aim is the promotion of modern standards for measuring and recording the Earth's magnetic field. [INTERMAGNET is constituted from existing groups whose primary task is one of geomagnetic measurement.](#)

Member:  Associated: 

Date modified: 2018-06-18 14:55 17/09/2018

Windows Taskbar icons: File Explorer, Edge, File Manager, Mail, Settings, Power, Task View, Taskbar settings, Volume, Battery, Network, Signal strength, Date and time.

Website for geomagnetic world data

<http://www.intermagnet.org/index-eng.php>

# TEC and GNSS related DB

## Madrigal CEDAR Database

- Upper atmospheric science DB
- Experiments and instruments driven
- Distributed architecture
- Accessible via web, FTP or API's

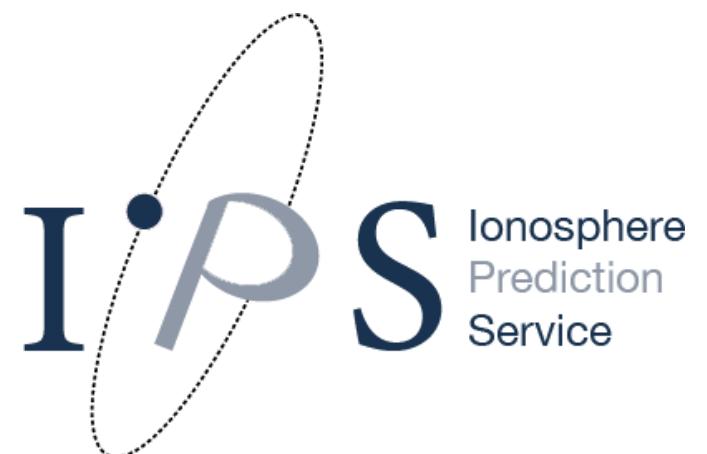
<http://cedar.openmadrigal.org/>

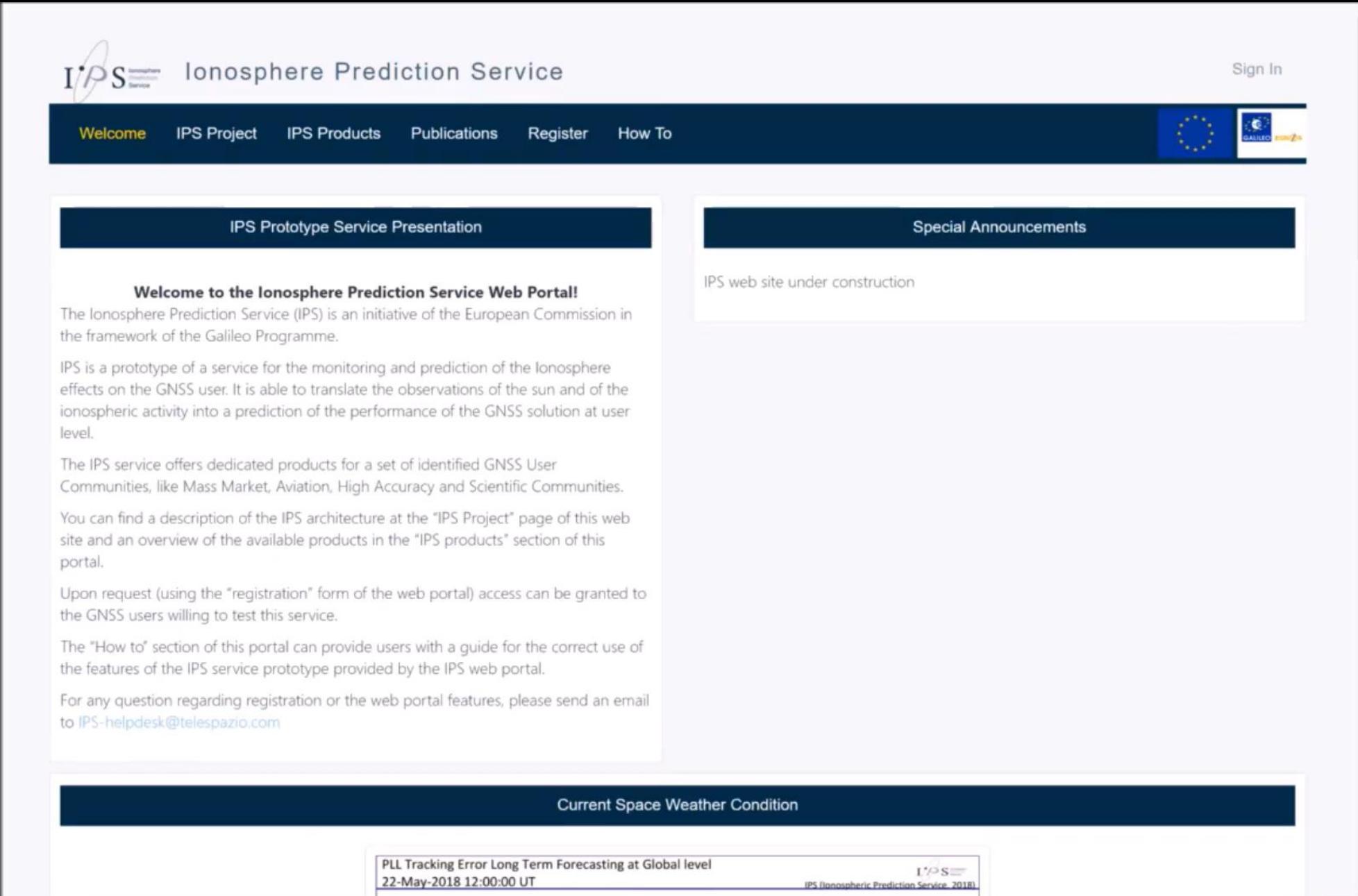


## Ionosphere Prediction Service (IPS) webportal

- Solar, Ionospheric and GNSS performance products
- GNSS users oriented
- Real-time and archive data and products
- Customization of products and alerts allowed

<https://ips.telespazio.com/>





The screenshot shows the homepage of the Ionosphere Prediction Service (IPS) website. At the top, there is a navigation bar with links to "Welcome", "IPS Project", "IPS Products", "Publications", "Register", and "How To". On the right side of the header, there are logos for the European Union and the Galileo Programme. Below the header, there are two main content boxes: "IPS Prototype Service Presentation" on the left and "Special Announcements" on the right. The "IPS Prototype Service Presentation" box contains text about the service's purpose, its role as a prototype for monitoring ionospheric effects on GNSS users, and details about its architecture and user communities. It also provides contact information for registration and support. The "Special Announcements" box contains a single line of text: "IPS web site under construction". At the bottom of the page, there is a section titled "Current Space Weather Condition" which displays a "PLL Tracking Error Long Term Forecasting at Global level" for May 22, 2018, at 12:00:00 UT. The forecast is shown as a small chart with a red line indicating the error over time. The IPS logo and copyright information are visible at the bottom right of this section.

# Ionosphere Prediction Service

Welcome    IPS Project    IPS Products    Publications    Register    How To

Sign In

EU GALILEO

## IPS Prototype Service Presentation

**Welcome to the Ionosphere Prediction Service Web Portal!**

The Ionosphere Prediction Service (IPS) is an initiative of the European Commission in the framework of the Galileo Programme.

IPS is a prototype of a service for the monitoring and prediction of the ionosphere effects on the GNSS user. It is able to translate the observations of the sun and of the ionospheric activity into a prediction of the performance of the GNSS solution at user level.

The IPS service offers dedicated products for a set of identified GNSS User Communities, like Mass Market, Aviation, High Accuracy and Scientific Communities.

You can find a description of the IPS architecture at the "IPS Project" page of this web site and an overview of the available products in the "IPS products" section of this portal.

Upon request (using the "registration" form of the web portal) access can be granted to the GNSS users willing to test this service.

The "How to" section of this portal can provide users with a guide for the correct use of the features of the IPS service prototype provided by the IPS web portal.

For any question regarding registration or the web portal features, please send an email to [IPS-helpdesk@telespazio.com](mailto:IPS-helpdesk@telespazio.com)

## Special Announcements

IPS web site under construction

## Current Space Weather Condition

PLL Tracking Error Long Term Forecasting at Global level

22-May-2018 12:00:00 UT

IPS Ionospheric Prediction Service - 2018

# TEC and GNSS related DB

## RINEX files repositories

- International GNSS service (IGS)
- UNAVCO
- EUREF
- RING

<http://www.igs.org/>  
<http://www.unavco.org/>  
<http://www.epnccb.oma.be/>  
<http://ring.gm.ingv.it/>

## TEC and related products DB

- International GNSS service (IGS)
- ESA SSA-SWE
- DLR IMPC
- ROB
- IONORING

<http://www.igs.org/>  
<http://swe.ssa.esa.int/>  
<https://impc.dlr.de/>  
<http://gnss.be/>  
<http://ionos.ingv.it/ionoring/ionoring.htm>

## and many many others...

# Ionospheric scintillation and ionosonde data



ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA

**electronic Space Weather upper atmosphere**  
Istituto nazionale di geofisica e vulcanologia

Welcome!

**Ionospheric monitoring**

- Italy
- Mediterranean Area
- Antarctica
- Equatorial Area
- Host

**Scintillation monitoring**

- Arctic
- Antarctica
- Mediterranean Area
- New Monitoring Tools
- Equatorial Area
- Host

**Riometer monitoring**

- Antarctica

**Miscellanea**

- Available Data Statistics
- Real-Time Ionospheric Monitoring

User: luca.spogli@ingv.it - Feedback - Logout

electronic Space Weather upper atmosphere © Istituto Nazionale di Geofisica e Vulcanologia - Rome

**electronic SPACE WEATHER upper atmosphere**  
eSWua electronic SPACE WEATHER upper atmosphere

HOME ITALY EUROPE ARCTIC ANTARCTICA MEDITERRANEAN SOUTH AMERICA

The electronic Space Weather upper atmosphere site is based on measurements performed by all the instruments installed by the "upper atmosphere physics group" of the Istituto Nazionale di Geofisica e Vulcanologia, Italy, and on all the related studies. The aim of the eSWua project is the realization of a hardware-software system to standardize historical and real-time observations for different instruments.

ISACCO Nyalesund OP [LAT: 78.92; LONG: 11.93] 2018-09-04T11:00:00+02:00

Geomagnet

Solar

Ionosphere

Scintillation

WARNINGS OVER ITALY

The electronic Space Weather upper atmosphere site is based on measurements performed by all the instruments installed by the "upper atmosphere physics group" of the Istituto Nazionale di Geofisica e Vulcanologia, Italy, and on all the related studies. The aim of the eSWua project is the realization of a hardware-software system to standardize historical and real-time observations for different instruments.

Register User Management Statistics Contacts

eSWua © 2017. All Rights Reserved

ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA

[www.spaceweather.it](http://www.spaceweather.it)  
<http://www.eswua.ingv.it>

# Ionospheric scintillation and ionosonde data

**CHAIN**

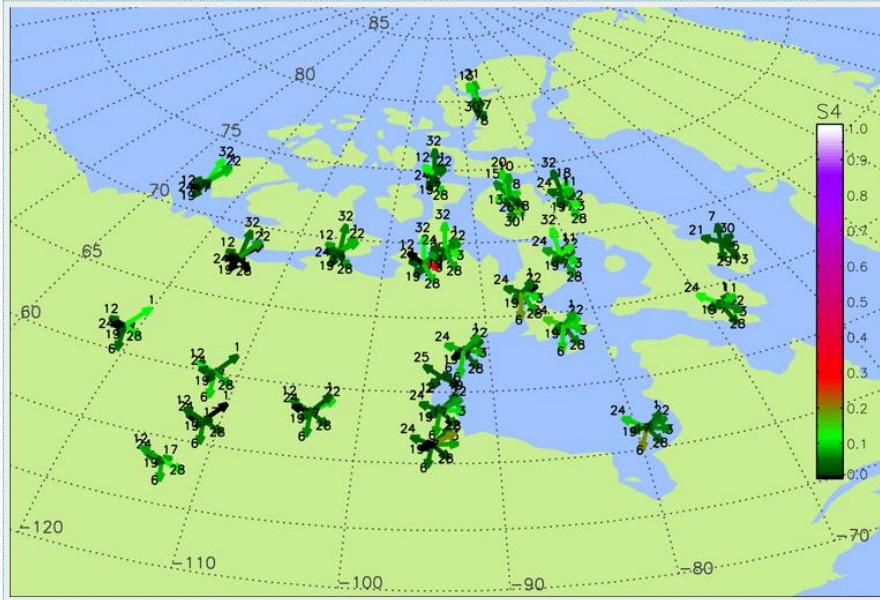
the Canadian High Arctic Ionospheric Network

[Home](#) [About](#) [People](#) [Instruments](#) [Stations](#) [Data Products](#) [Photos](#) [Publications](#) [Software](#)



Welcome to the Canadian High Arctic Ionospheric Network

CHAIN Real-time Scintillation Map



You are logged in as:  
luca.spogli@ingv.it  
From: 192.135.27.141

[Logout](#)

News

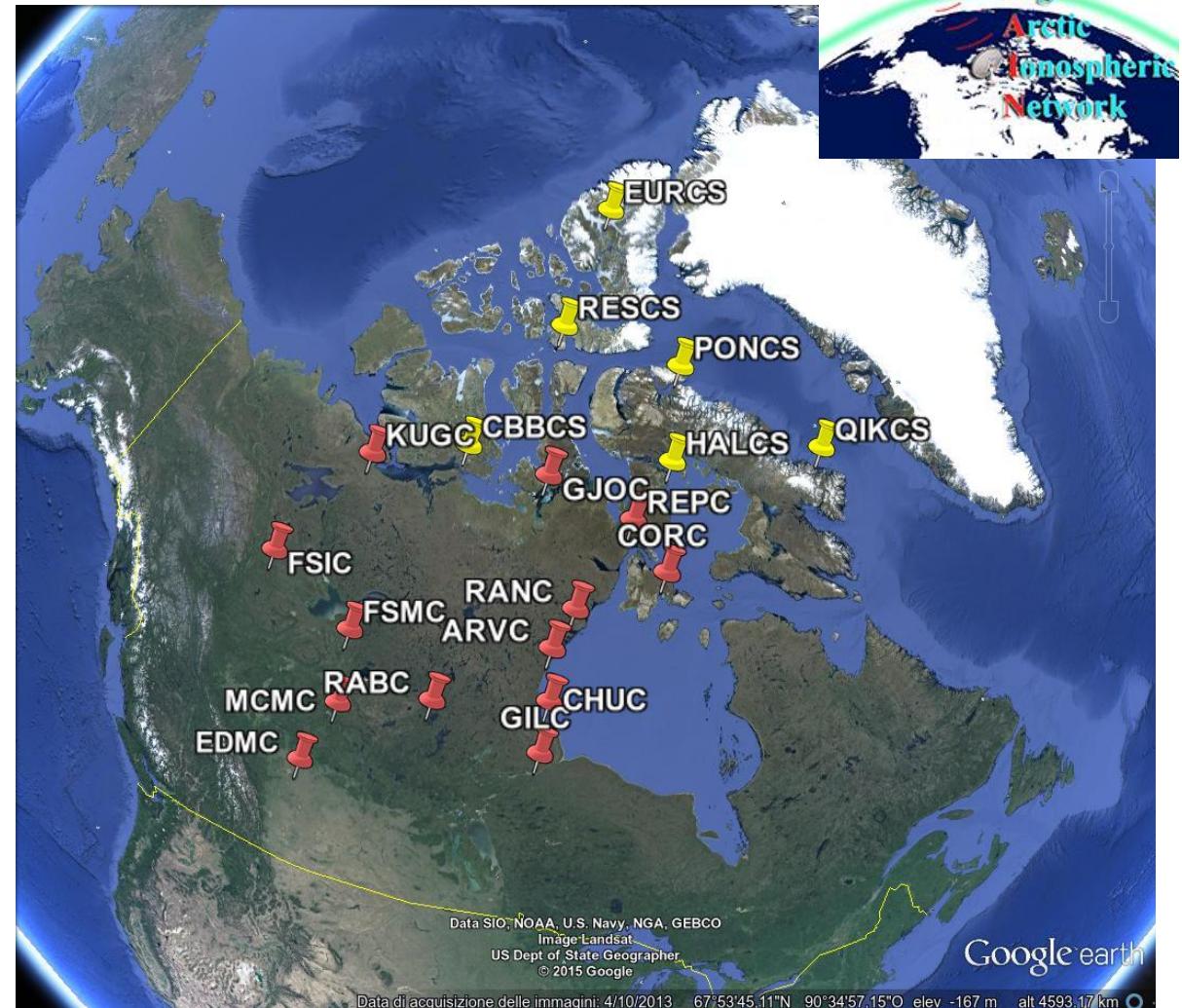
- Rankin data 2018-01-07 to 2018-03-05 now available  
(Updated: 2018 Apr 27 11:52 UTC)
- Eureka Data available on a same day basis  
(Updated: 2018 Apr 16 11:30 UTC)
- Naujaat (repc) communications restored  
(Updated: 2018 Mar 22 12:15 UTC)
- Coral Harbour data available until 2018-01-31  
(Updated: 2018 Mar 07 19:00 UTC)
- New GPS/GISTM Station in Sachs Harbour  
(Updated: 2016 Nov 18 18:10 UTC)
- Grise Fiord GPS/GISTM not operating  
(Updated: 2015 Sep 21 18:00 UTC)



Copyright © 2018 Canadian High Arctic Ionospheric Network



Contact Us



<http://chain.physics.unb.ca>

# Ionospheric scintillation

More on scintillation data repositories in...

GRAPE

GNSS Research and Application for Polar Environment

is a SCAR Expert Group since 2012.

Claudio Cesaroni 2013

Chief Officer: Giorgiana De Franceschi (e-mail: giorgiana.defranceschi @ ingv.it)  
Deputy Chief Officer: Nicolas Bergeot (e-mail: nicolas.bergeot @ oma.be)

<http://grape.scar.org>

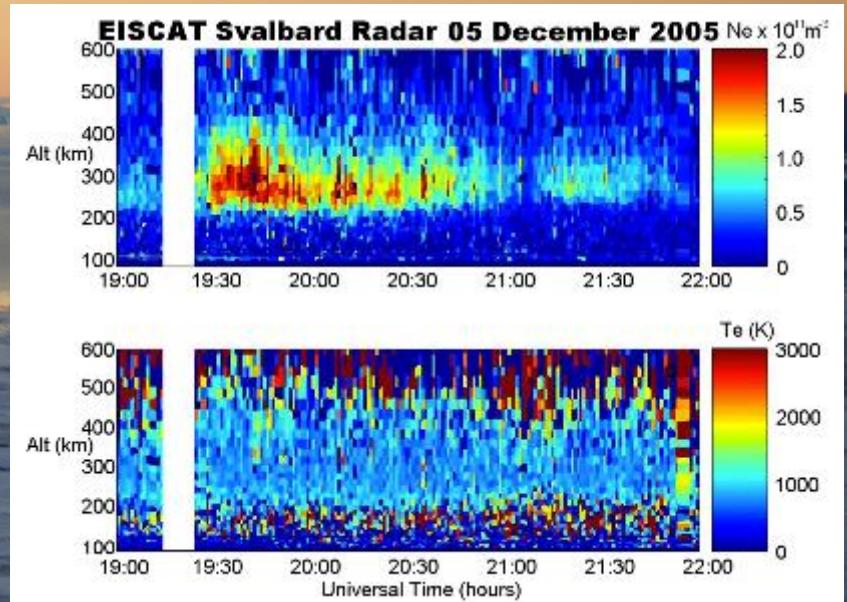
# EISCAT

Radars at polar and high latitudes

Archive available at [www.eiscat.se](http://www.eiscat.se) (click on Science, then schedule)

All Special Programme data is available after one year

All Common Programme data is available at once



EISCAT Scientific Association includes Norway, Sweden, Finland, China, Japan and UK

200 hours of observing time available for researchers based outside of these countries <https://www.eiscat.se/blog/2018/04/05/eiscat-peer-reviewed-program-experiments-2/>

EISCAT Radar Summer School 12<sup>th</sup> – 17<sup>th</sup> August 2019

<https://blog.sgo.fi/2018/06/eiscat-symposium-and-radar-school-2019.html>