

## **50 Hz GPS Total Electron Content (TEC) data from Concordia**

### **1. Introductory information**

The dataset contains 50 Hz GPS Total Electron Content (TEC) data from Concordia (geographic coordinates: 75.10°S, 123.35°E) during March 7-11 and 26, 2012, September 23, 29-30, 2012, October 1, 2012, March 8, 16-18, 2013 and October 2-3, 5, 2013.

The data was produced by Istituto Nazionale di Geofisica e Vulcanologia (INGV) and the work is supported by Programma Nazionale di Ricerche in Antartide (PNRA).

### **2. Methodological information**

To extract the data, an application file `parsesin2win.exe` is required. The file can be obtained at <https://www.dropbox.com/s/zm6wuix158np5a9/parsesin2Win.exe?dl=0>

The format of getting the 50 Hz GPS TEC data is

```
parsesin2Win Satellite_number RWD_file output_file
```

### **3. Data specific information**

The 50 Hz data from Concordia consists of GPS Week and the PRN number in the first row. In the second row, the columns are

- 1) GPS Time of Week (TOW)
- 2) TEC
- 3) TECdot
- 4) Accumulated Doppler Range (ADR)
- 5) Power