Access to data and models of the Royal Observatory of Belgium (ROB)

Jean-Marie Chevalier and Nicolas Bergeot

TPW#5

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In the e-science center

DATA

Near Real Time European TEC Maps
every 5-min, based on multi-GNSS observations (GPS+GLONASS+Galileo) from ~180 EPN stations, no background model, IONEX Files (standard ionosphere map exchange format)

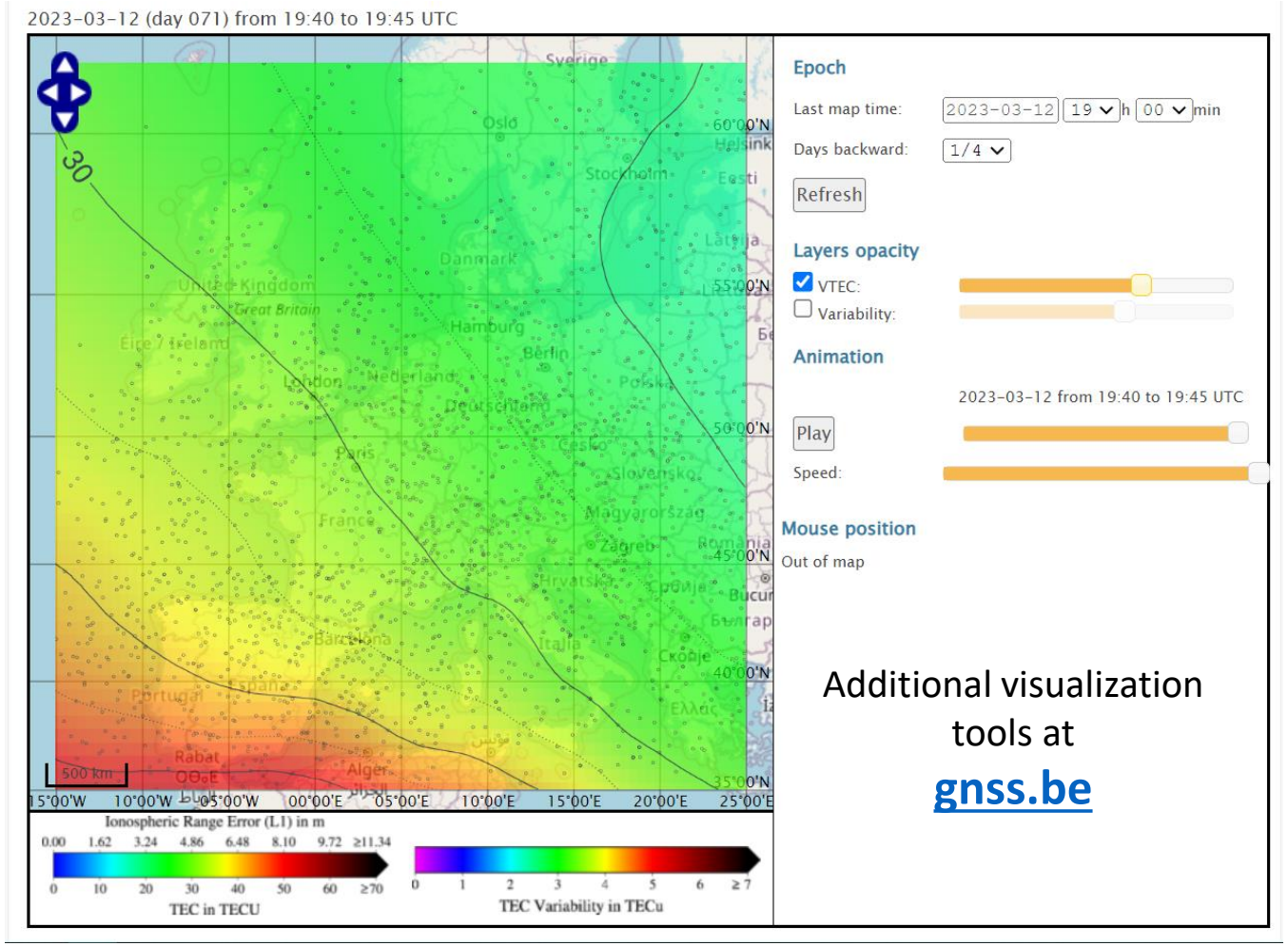
From 01-01-2012 to 20-05-2022, every 15-min, based on GPS-only observations

Available in the e-science centre:

[ROB-IONO Near-Real Time European Ionospheric Maps (pithia.eu)]

via ftp link:

ftp://gnss.oma.be/gnss/products/IONEX/



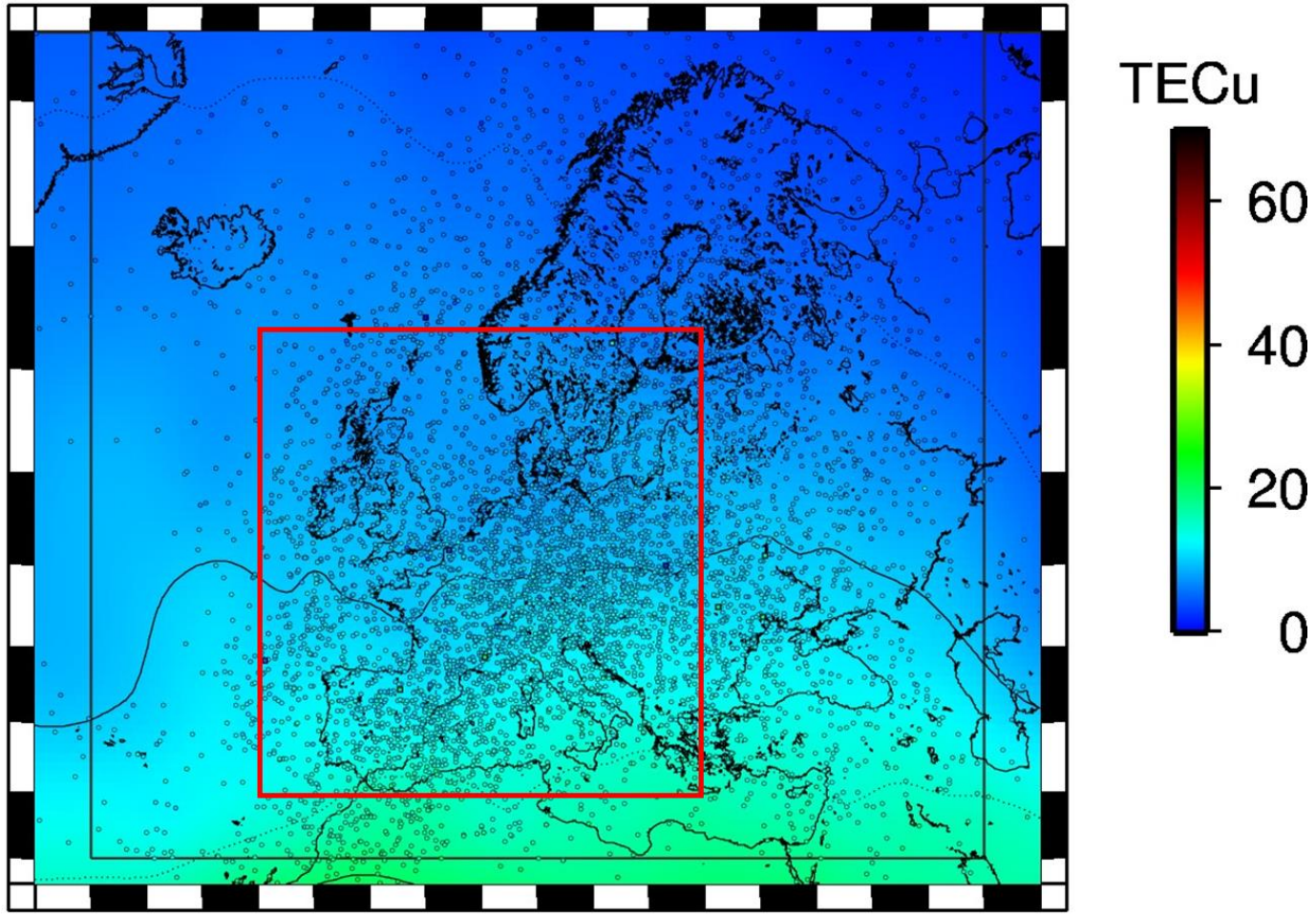
Additional visualization tools at **gnss.be**

To be fed in the e-science center

DATA

- **Daily European TEC Maps**
  enlarged zone, 5min, M-GNSS based, ~380 EPN stations, (on-going, archives up to 2022 available)

- **Global Daily TEC at IPP**
  ~650 stations IGS+EPN networks GPS+Galileo+GLONASS,



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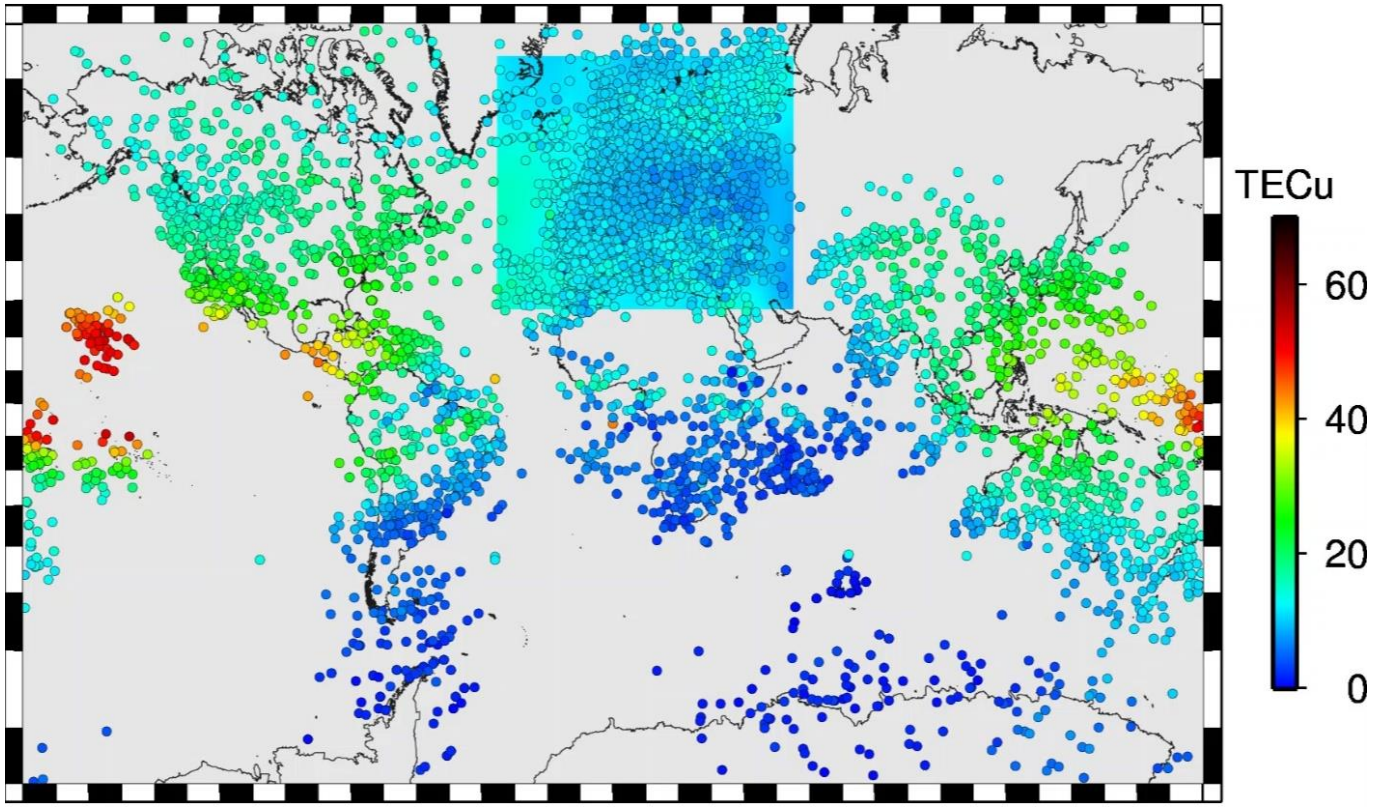


To be fed in the e-science center

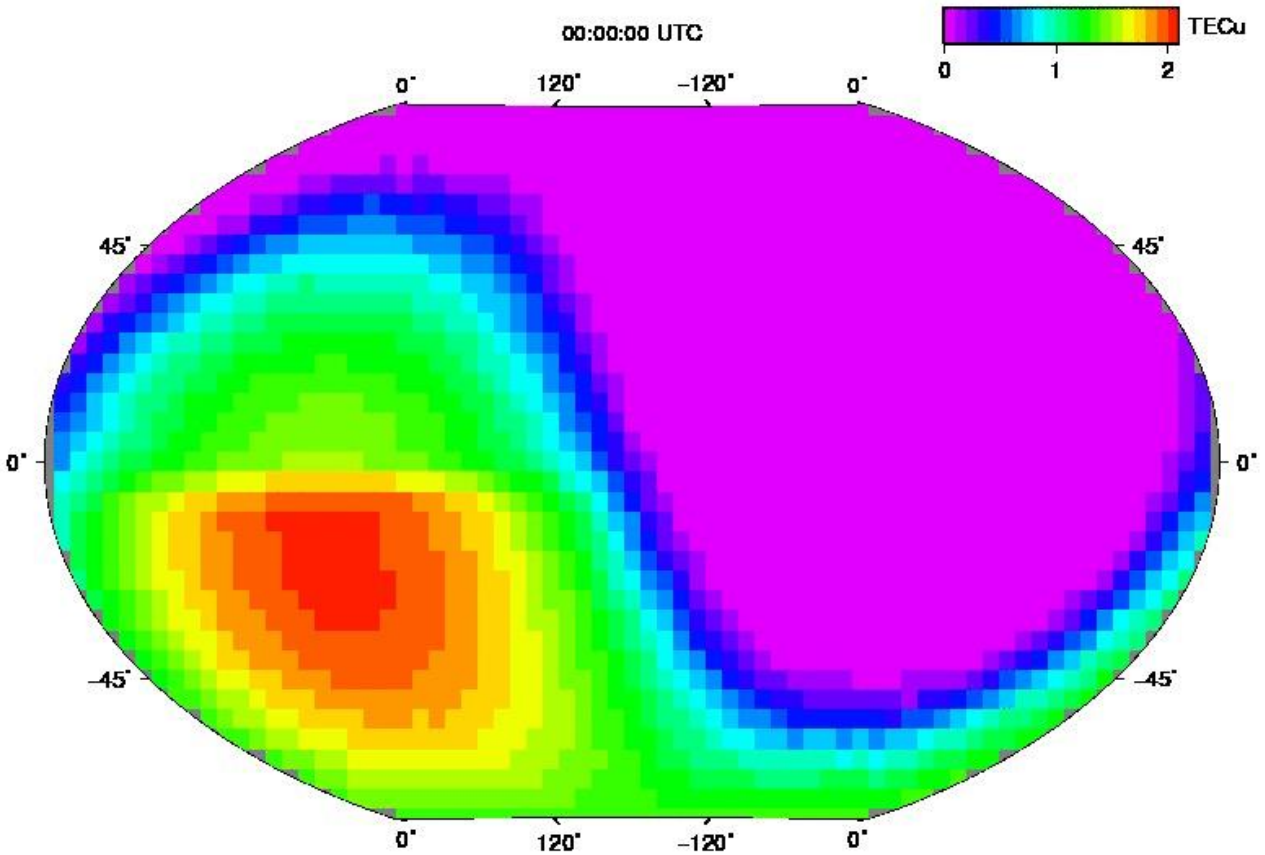
https://lara.oma.be/marsatmo/iono/momo.html

MODEL

- **Mars Semi-Empirical TEC Model MoMo**

Input: location and time (i.e. Solar Longitude and Solar Zenith Angle) (solar activity level (F10.7P) automated)

Output: TEC



To do

1. Run and ingest in the e-science centre the daily ionospheric maps and the global IPP data;
2. Develop API for Mars Ionospheric models