IGS Wuhan Workshop Recommendation Template

Name of Working Group and Chair: *(if Chair is absent, who is acting in their place)*
Ionosphere Working Group, Andrzej Krankowski

Rapporteur: Andrzej Krankowski

Session Highlights:
This plenary session, poster session and splinter meeting have been an excellent forum for discussing possible improvements of IGS ionospheric products by incorporating new VTEC GIMs from one new IGS Ionosphere Associated Analysis Centre - DGFI-TUM in Munich.
The newly introduced IGS TEC fluctuation product – ROTI maps, global and regional distributions of ROTI presented by CAS, DLR, Shanghai's Observatory – were also discussed.
In addition, Empirical model such as IRI model and the International LOFAR Telescope datasets have been also evaluated.

Progress on Paris Workshop Recommendations: *(indicate which recommendations have been resolved, which are still in progress, and what impediments there are to completion)*

"The IONEX format shall be updated in order to accommodate contributions using multiple constellations and adequately describe the associated resulting differential code biases"

Recommendations: *(Please also indicate who in your group is the point of contact/responsible person for each recommendation, and their contact information)*

1) To accept DGFI-TUM as new Ionospheric Analysis Center, contributing to the IGS combined VTEC GIMs.
2) To aim to additional real-time ionospheric analysis centers to join to the going-on experimental real-time IGS Global Ionospheric Maps combination.
3) To aim to additional ionospheric analysis centers to join to the going-on experimental IGS ionospheric ROTI fluctuations maps combination.
4) Cooperation with IRI COSPAR group for potential improvement of both IRI and IGS TEC.
5) Cooperation with International LOFAR Telescope (ILT) for potential synergies.

Does this WG actively plan to transition its work to multi-GNSS? If yes, when?
(If applicable) **What impediments may prevent this WG from transitioning to multi-GNSS?**

Yes, the ionospheric analysis centers are actively incorporating multi-GNSS in the elaboration of the GIMs and DCBs; and we don't foresee any impediment in this regard.