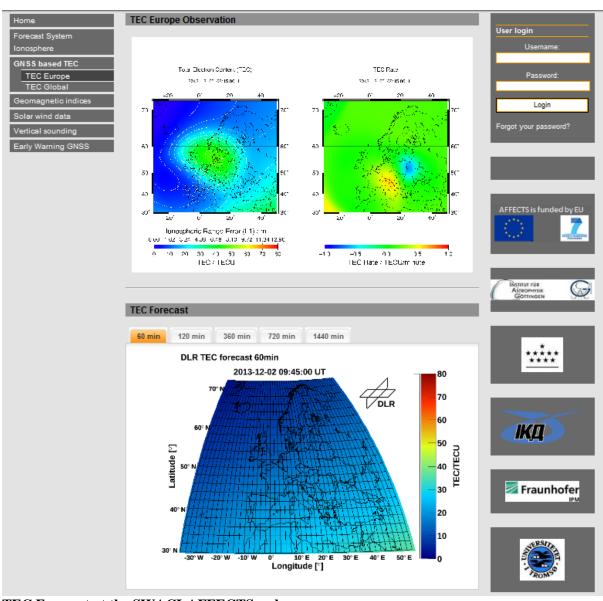
# **TEC forecast over Europe**

developed within the AFFECTS project.



## **General description**

The forecast predicts the total electron content over Europe up to 24 hours in advance also taking into account possible ionospheric perturbation caused by geomagnetic storms. The underlying empirical TEC storm model is based on identified storm patterns in the ionosphere from 1995 till 2011 over Europe and takes into account seasonal, local time, storm time and latitudinal dependencies. The TEC perturbation amplitude is estimated using an approach based on Dst and solar wind correlations. The "TEC forecast over Europe" is part of the Forecast System Ionosphere (FSI)



TEC Forecast at the SWACI-AFFECTS webpage

#### Limitations

The prototype TEC Forecast is now operational. However, the performance under real time conditions and for ionospheric perturbations is subject to ongoing validation and verification work. Therefore future changes and improvements are possible. Please note that the underlying storm statistic of the TEC Forecast is based on single ionospheric storms with quite conditions in the ionosphere before and after arrival of a CME. Therefore two or more strong solar events in short sequence will most probably lead to a significant reduced TEC forecast quality.

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#### Disclaimer

The TEC forecast is created on best efforts basis and is provided "as is" without warranties of any kind. The forecasts issued by the products are accurate to the best knowledge of the developers; however, the developers cannot be held responsible for any damage, loss of profit and similar charges rising out of the use of this product and its output. In particular, the developers of this product cannot be held responsible for any action, or the lack of, based on the forecast provided by this product. Any such consequences shall be at sole responsibility of the respective decision makers.

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