The NOAA Space Weather Prediction Center (NOAA-SWPC) includes an operational Forecast Center that operates 24 hours a day/7 days a week and provides space weather alerts, watches, and warnings to tens of thousands of commercial customers and international agencies. The Center is the lead of the 14-Nation International Space Environment Services organization.

One of the fastest growing segments of the customer base depends on GPS/GNSS systems for daily commercial operations. The GPS/GNSS customers have very clearly requested improved specification and forecast products to improve their efficiency and reliability in the market place. In some cases, such as commercial air transportation, there is a risk to life and property during major space weather storms. For this reason, the ionospheric products developed within the AFFECTS project will have great benefit to the customers and users of GPS/GNSS systems. The SWACI model of the ionosphere is currently undergoing test and evaluation at the NOAA-SWPC. Forecasting GPS/GNSS conditions has proven to be quite difficult.

Any forecast product from AFFECTS will have great benefit to space weather customers worldwide.

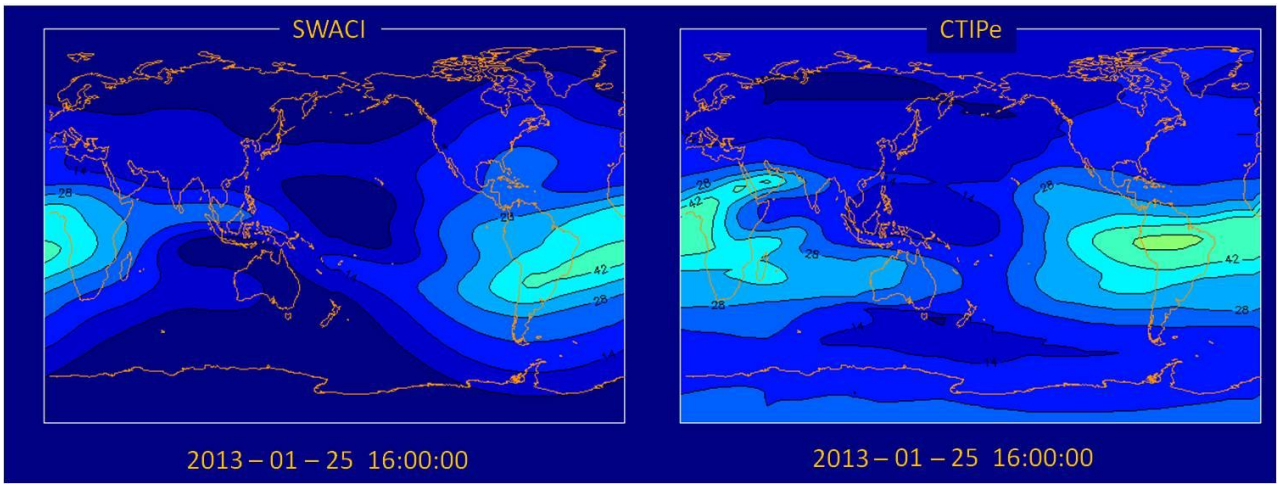

Fig. 1: Validation of the SWACI product for Total Electron Content (TEC) is done by comparing with the Coupled Thermosphere Ionosphere Plasmasphere with electrondynamics (CTIPe) model.