



Integrated water vapour (IWV) of the atmosphere derived from surface based GNSS station located on the territory of georgia

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The delay of radio signals from the Global Navigation Satellite System (GNSS) is proportional to the integrated water vapour (IWV) in the atmosphere above GNSS station. We present some peculiarities of atmospheric water vapor distribution derived from 7 GNSS station located on the territory of Georgia. We calculate zenith wet delay (ZWD) from this stations and converted into IWV using observed surface pressure and temperature obtained from the surface meteorological stations of Georgia's NHMS. The same variables have been obtained from the ECMWF operational analyses – ERA interim for two years 2014-2015 period and compared with station observations. As radiosonde data for Georgia's stations are not available, GNSS derived IWV values were compared to the IWV from the ECMWF operational analyses with a special focus on the monthly averaged difference (bias) and the standard deviation of daily differences.