

FRANCOURVILLE NETWORK AS AN EUROPEAN MID-LATITUDE OBSERVATORY OF THE IONOSPHERIC ACTIVITY

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The Francourville (FRC) sounding station is located near Chartres (France) (48.39°N , 1.63°E , 63° dip angle) and is 60 km far away of the geomagnetic station of Chambon la Forêt. Ionograms and continuous Doppler soundings are performed at FRC. Ionograms are realised with a frequency of one per five minutes (this frequency may be increased for campaign measurements up to 1 ionogram per minute). CW Doppler soundings give a dynamic image of the ionosphere. A transmitter is installed at FRC and three receivers are located up to 80 km far away around FRC. With three sounding points we can find the horizontal velocity of an ionospheric perturbation going over the FRC network. We present few results obtained with this station as : earthquake influence on the ionosphere, gravity wave generated by the August 11th 1999 total solar eclipse, effects of the huge magnetic storm of March 13th 1989, and acoustic wave measurements when auroras were observed in France during the April 6th 2000 magnetic storm.