



## Mid-Latitude Single Station F region Storm Morphology and Forecast

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### A b s t r a c t

This paper describes certain aspects of the F region storm morphology based on vertical incidence measurements at single ionosonde station Chilton (51°.60'N, 358°.70'E). The topics discussed include requirements for better understanding of the ionospheric F region morphology and its forecasting under geomagnetically quiet and disturbed conditions. A few common storms during the years of low (1996 and 1997) and high (2000 and 2001) solar activity are considered as well as the Short-Term Ionospheric Forecasting (STIF) method by using two representative examples. The merits are stressed of near-real-time use of data to provide more accurate specification of the geomagnetically disturbed ionosphere and forecast its structure few hours in advance.

**Key words:** ionosphere (mid-latitude F region, ionospheric modelling and forecasting), geomagnetic storms, space weather.