



Investigation of Sporadic E tidal variability and characteristics observed with the Athens Digisonde

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In the present study, ionogram observations made with the Digisonde DPS-4D system located in Athens, Greece (38°N; 23.5°E) are analyzed by applying the height–time–intensity (HTI) method with the aim to investigate prevalent tidal periodicities and diurnal patterns in occurrence and altitude transport of sporadic E (Es) and intermediate descending layers (IDL), induced by solar thermospheric tides via the windshear layer formation mechanism in the E and lower F region ionosphere. The results will be also compared with the corresponding ones as obtained from an identical Digisonde system located near Nicosia, in Cyprus (35°N, 33°E) on a monthly and seasonal basis for a long-term period. This will allow deriving more concrete and general conclusions pertinent to Es and IDL tidal variability and characteristics in mid-latitude areas.