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## The electrodynamic influence of thermospheric winds in the daytime ionosphere.

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The electrodynamic influence of thermospheric winds is an effect thought to dominate the development of the daytime low-latitude ionosphere, through the generation of dynamo currents and associated vertical plasma drifts. Until recently, observations of the thermospheric and ionospheric state variables have mainly been defined and compared on climatological time scales, due to their collection from separate observatories with disparate measurement capabilities. These datasets are inadequate for investigation of the actual action of thermospheric drivers as they modify the ionospheric state, as the response clearly changes on 24-hour timescales, and shorter when viewed in the a constant-local-time frame of reference. New observations of thermospheric winds, uninterrupted over the 90-300 km altitude range, are now provided by the Ionospheric Connection Explorer along with simultaneous plasma velocity and density measurements. These observations are directly comparable to the wind measurements in crossings of the magnetic equator, where the winds are magnetically conjugate to the drift measurements. Investigation of the noon-sector drifts vs wind drivers is presented. We find that the local driver is clearly evident in the noon-time vertical plasma drifts under all conditions.