

Abstract Submitted
for the TSS16 Meeting of
The American Physical Society

Dependence of Ionospheric Flows on Solar Wind Mach Number

KATHLEEN BRACKNEY, WALTER SLAVEN, KEVIN PHAM, RAMON LOPEZ,
University of Texas at Arlington — The Sun emits the solar wind, which carries a part of the Sun's magnetic field into interplanetary space. As this interplanetary magnetic field (IMF) travels to Earth, it interacts with Earth's magnetic field. In this study, we are looking for events that have a steady southward component of the IMF. We separate the events into two categories, high mach and low mach numbers. Mach number corresponds to the density. High mach numbers relate to high density and low mach numbers to low density. Then we look at corresponding ionospheric flows measured by Defense Meteorological Satellite Program (DMSP). We will determine if there are any dependence between ionospheric flows on the solar wind mach number. We will present any differences found between the ionospheric flows under these conditions.

Kevin Pham
University of Texas at Arlington

Date submitted: 08 Mar 2016

Electronic form version 1.4