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Preface

C/NOFS results and equatorial ionospheric dynamics

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The Communication/Navigation Outage Forecasting System (C/NOFS) satellite was launched into orbit in April 2008 as part of an ongoing effort to understand and identify plasma irregularities that adversely impact the propagation of radio waves in the upper atmosphere. Combined with recent improvements in radar, airglow, and ground-based studies, as well as state-of-the-art modeling techniques, the C/NOFS mission has led to new insights into equatorial ionospheric electrodynamics.

In order to document these advances, the C/NOFS Results and Equatorial Dynamics Technical Interchange Meeting was held in Albuquerque, New Mexico from 12 to 14 March 2013. The meeting was a great success with 55 talks and 22 posters, and covered topics including the numerical simulations of plasma irregularities, the effects of atmospheric tides, stratospheric phenomena, and magnetic storms on the upper atmosphere, causes and predictions of scintillation-causing ionospheric irregularities, current and future instrumentation efforts in the equatorial region. The talks were broken into the following three topical sessions:

A. Ambient Ionosphere and Thermosphere

B. Transient Phenomena in the Low-latitude Ionosphere

C. New Missions, New Sensors, New Science and Engineering Issues

The following special issue was planned as a follow-up to the meeting. We would like to thank Mike Pinnock, the editors and staff of Copernicus, and our reviewers for their work in bringing this special issue to the scientific community. Our thanks also go to Patricia Doherty and the meeting organizing committee for arranging the C/NOFS Technical Interchange Meeting.

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