

# Supporting Information for “Thermospheric and Ionospheric Effects by Gravity Waves from the Lower Atmosphere”

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1. Movie S1

## Additional Supporting Information (Files uploaded separately)

1. Captions for Movie S1

## Introduction

The animation included is the relative total electron content (TEC) from one day (January 13) of WACCM-X SE NE120/L273 simulation, high pass filtered using the Savitzky-Golay method with period shorter than 2 hours. The file format: QuickTime.

**Movie S1.** High-pass filtered relative total electron content (TEC) perturbations (unit: percent) with period shorter than 2 hours from WACCM-X SE simulation of January 13.

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