The Transition Region Explorer (TREx) Spectrograph is an imaging spectrograph designed to capture emissions between ~390 and 800 nm from night-time aeronomical phenomena, such as airglow and aurora, across a narrow meridional slice of the full night sky. The processed images have a resolution of about 0.4 nm per pixel in the spectral direction and ~1° of elevation per pixel in the spatial direction roughly along the geographical meridian. At the time of submission TREx is still in the development phase and is expected to be fully operational by December 2019. TREx data will be publically available in early 2020. While the calibration processes are still in progress, the TRSp data used in this study and uploaded in this folder represent our best calibration efforts to date.

TRSp data contain 256 elevation angle bins and 1024 wavelength bins for each time record. Of the 256 elevation bins, bins 27-226 are actually sky-viewing. Their elevation angles and azimuths are determined according to star traces, and are given in the **TRSp\_elev\_azm.dat** file contained in this directory. To date, the absolute responsivity calibration of TRSp is calibrated for the range of ~400-750 nm wavelengths. In this study we exclusively use the wavelength range 420-720 nm for we have confidence in the calibration. Currently, the TRSp operates with a 15-sec cadence and is located at Lucky Lake, Saskatchewan. Though glitches occasional exist (e.g., some vertical black slices as can be seen in the TRSP data in Figure 2a in the manuscript), they in general do not affect the overall instrumental data quality. The calibrated spectral intensities (in unit of Rayleigh over each bin) during the event interval of interest (2018-07-17 6-8 UT) are given in **TRSp\_20180717\_6-8UT.dat** in this folder. The data format is largely self-explanatory.