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Supporting Information for

**Factors affecting the 2019 North Atlantic hurricane season and the role of the Indian Ocean Dipole**

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**Introduction**

This supporting information document includes additional figures to further illustrate points made in the manuscript. Figure S1 provides maps of 2019 monthly sea surface temperature (SST) anomalies relative to the 1981-2010 climatological base period calculated from the Centennial in-situ Observation-Based Estimates (COBE) dataset (<https://ds.data.jma.go.jp/tcc/tcc/products/elnino/cobesst/cobe-sst.html>). Figure S2 depicts a diagram of the September-October 2019 Wheeler-Hendon index (Wheeler & Hendon, 2004), a metric that quantifies the behavior of the Madden-Julian Oscillation (<http://www.bom.gov.au/climate/mjo/graphics/rmm.74toRealtime.txt>).

Figure S1 was generated using the following Python packages:

* Matplotlib (<https://matplotlib.org/>)
* NumPy (<https://numpy.org/>)
* Cartopy (<https://scitools.org.uk/cartopy/docs/latest/>)
* xarray (<http://xarray.pydata.org/en/stable/>)

Figure S2 was generated using Matplotlib and NumPy.

A close up of a map

Description automatically generated

Figure S1. Monthly SST anomalies (°C; shading) and values (°C; contours) in 2019 for the months of (a) June, (b) July, (c) August, (d) September, (e) October, and (f) November. In each panel, the 26°C isotherm is highlighted by the thicker black contour. Anomalies are relative to the 1981-2010 climatological base period.

A close up of a map

Description automatically generated

Figure S2. The Wheeler-Hendon Real-time Multivariate MJO (RMM; Wheeler & Hendon, 2004) index for September 2019 (blue) and October 2019 (orange). Dots indicate daily values. Dates are labeled every other day.