



Multivariable Analysis of SSTs, VWS, and Convection as Precursors to TC Activity in the Atlantic MDR

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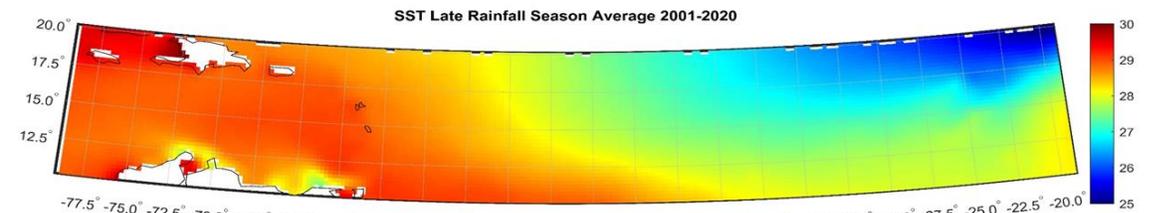
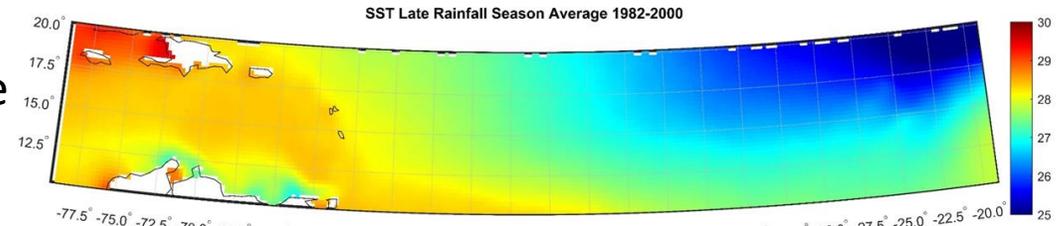
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Hurricanes in the Atlantic are becoming more frequent and intense over the years

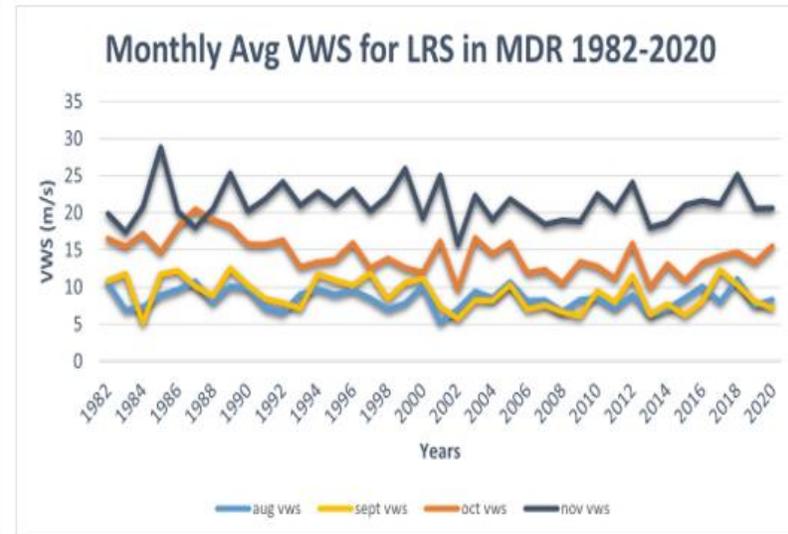
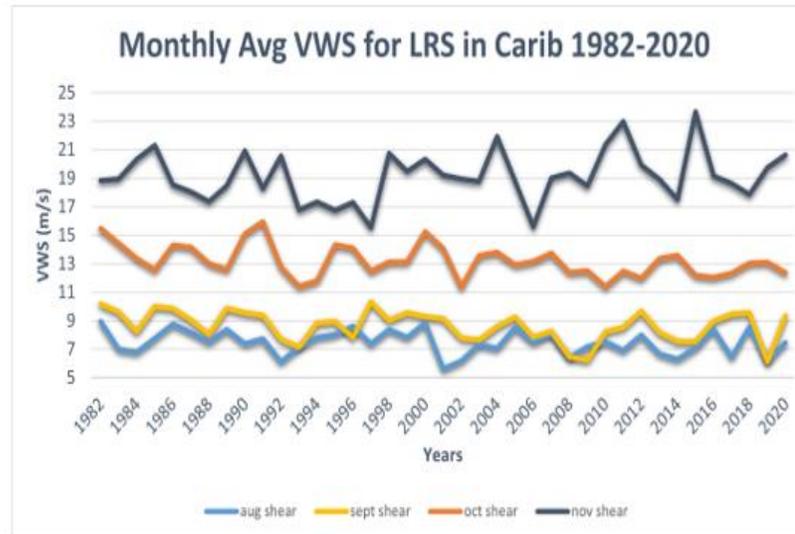
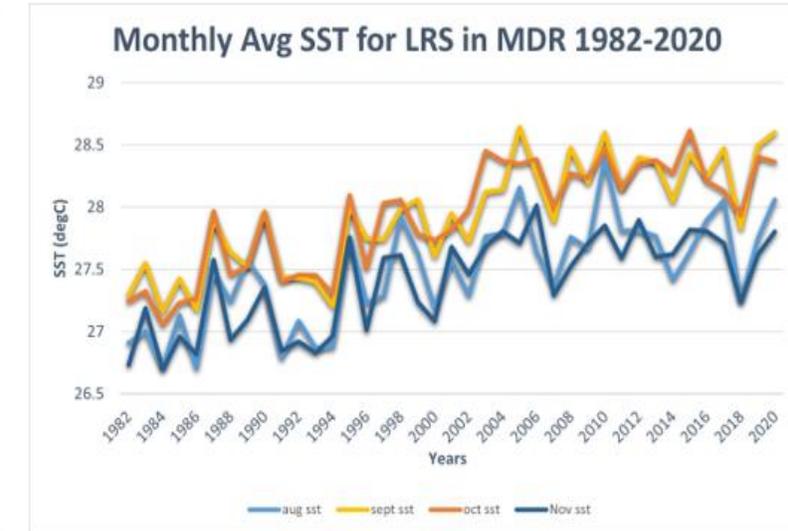
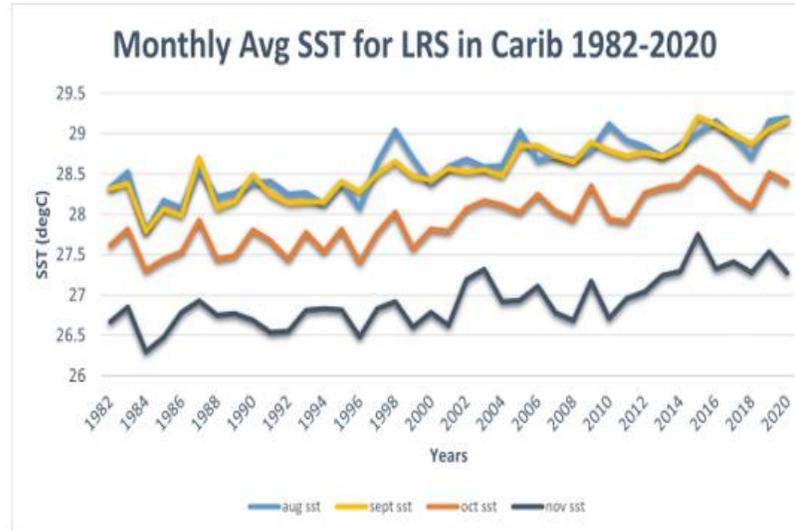
- Costs from weather and climate disasters in the U.S. have increased over time.
- Hurricanes of all recorded weather events have caused the most deaths and destruction in the U.S.
- Hurricanes are projected to continue to rise in frequency and intensity
 - due to increased sea-surface temperature (SSTs)
 - linked to climate change
 - SSTs are warmer now than 20 years ago



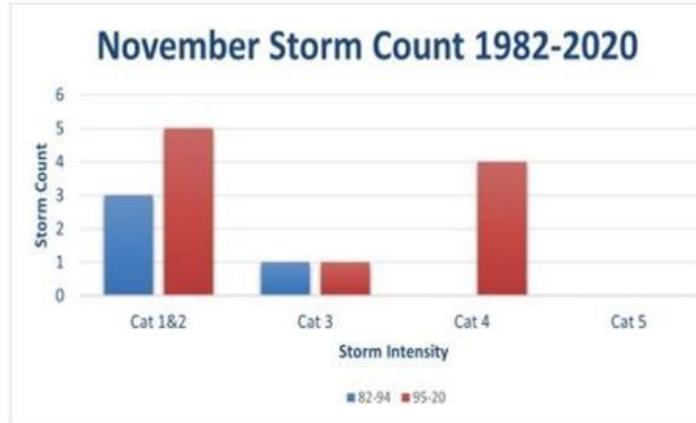
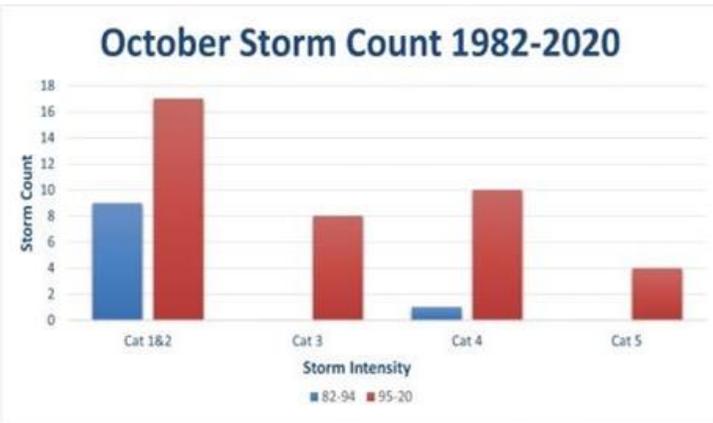
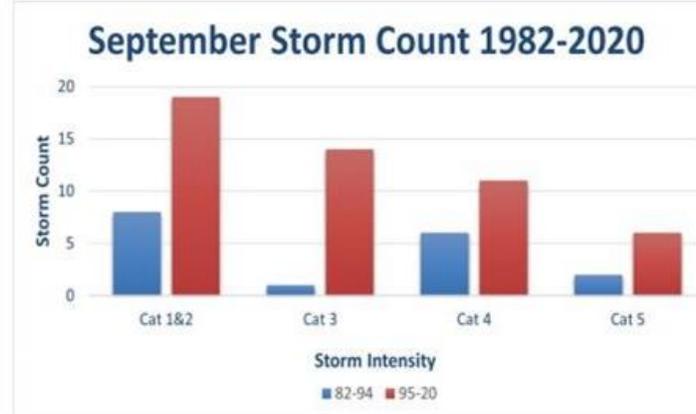
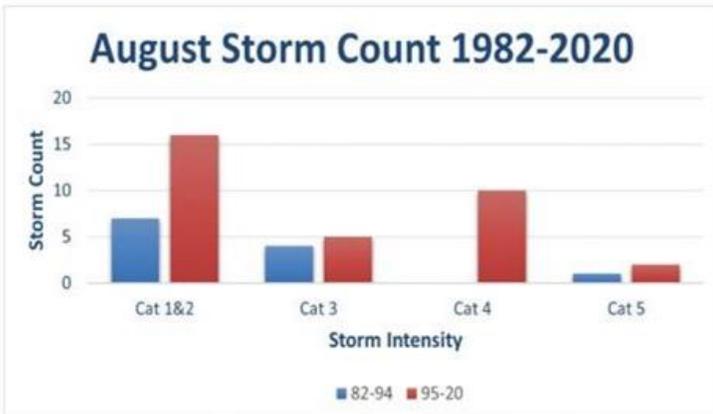
Observation of the individual LRS months helps us quickly identify when the most notable changes occur

- August/September has warmest SSTs in the Carib, however October presents warmer temps than August in the MDR

- Peak hurricane months are Aug/Sept, however, October trends suggests inclusion



Storm counts and intensity have notably increased since the anomalously warm shift in SSTs after 1995



- August/September most active hurricane months – Storm count and intensity increased tremendously after 1995.
- October shows striking increases in both storm count and intensity, more notably other than Sept, has the most category 5 storms.
- Warming SST trends + more frequent/intense storms in area suggests expanding the ‘MDR’.

