



Hurricanes Irma and Katia: Stability Indices

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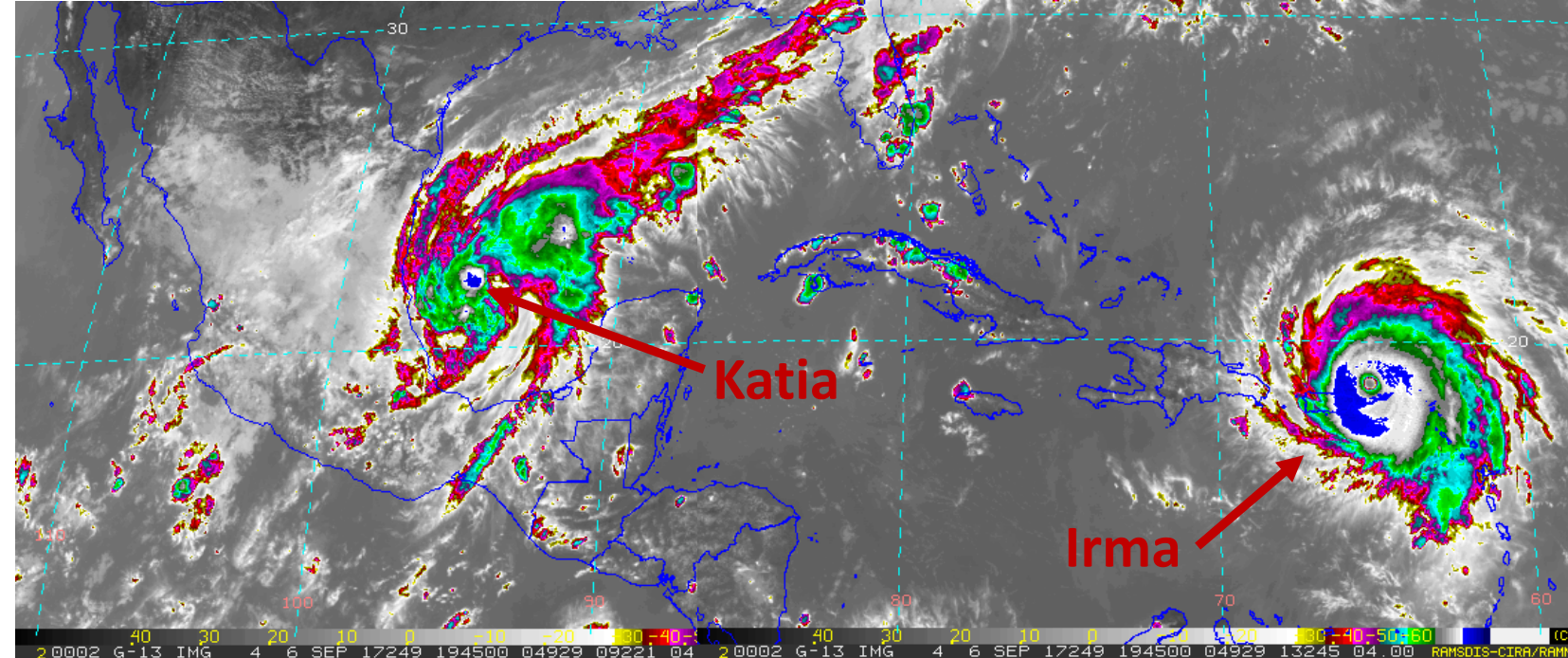
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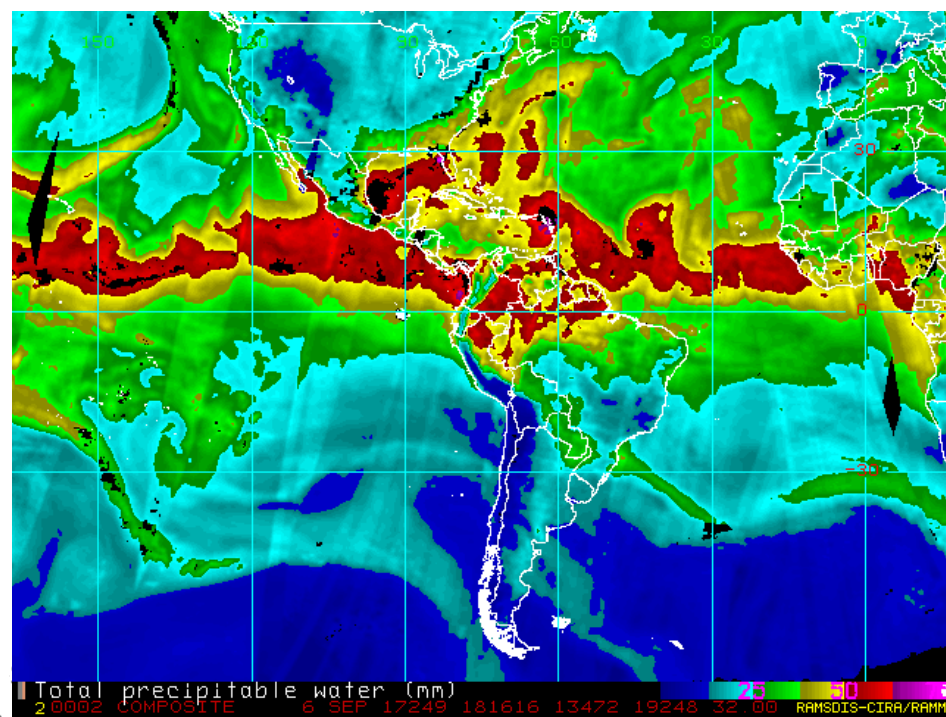
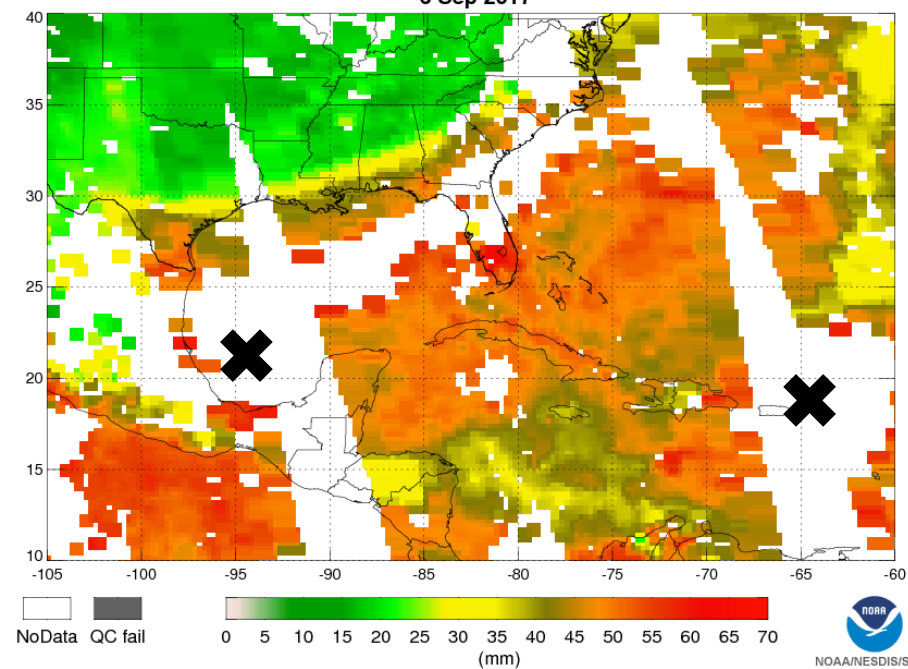
³Science and Technology Corporation

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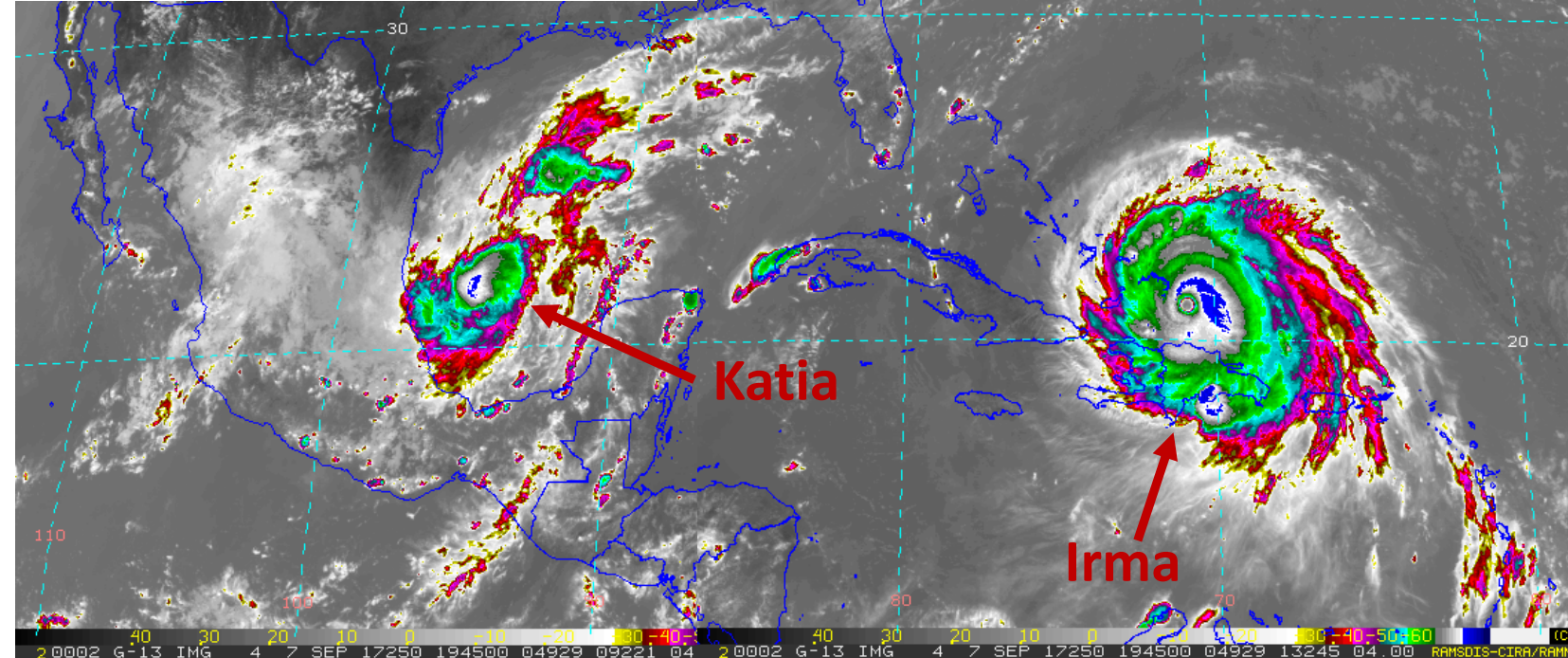
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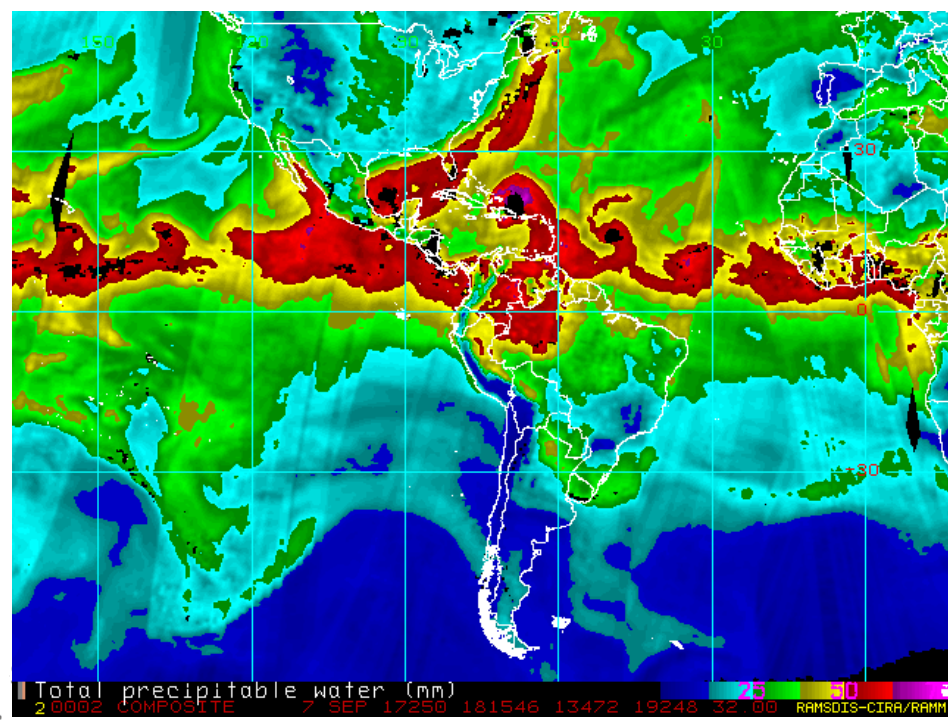
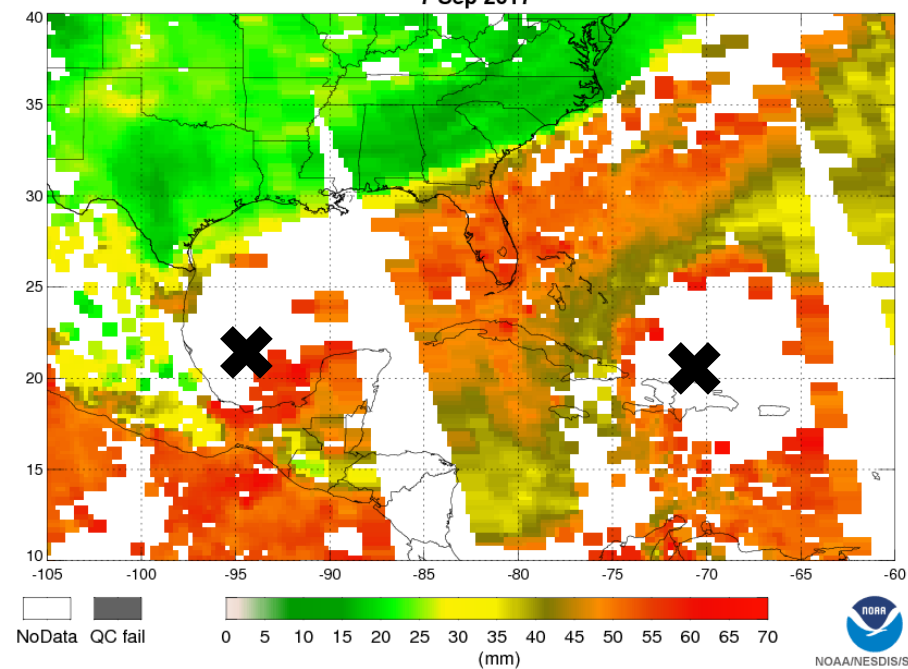
NUCAPS Total Precipitable Water Asc
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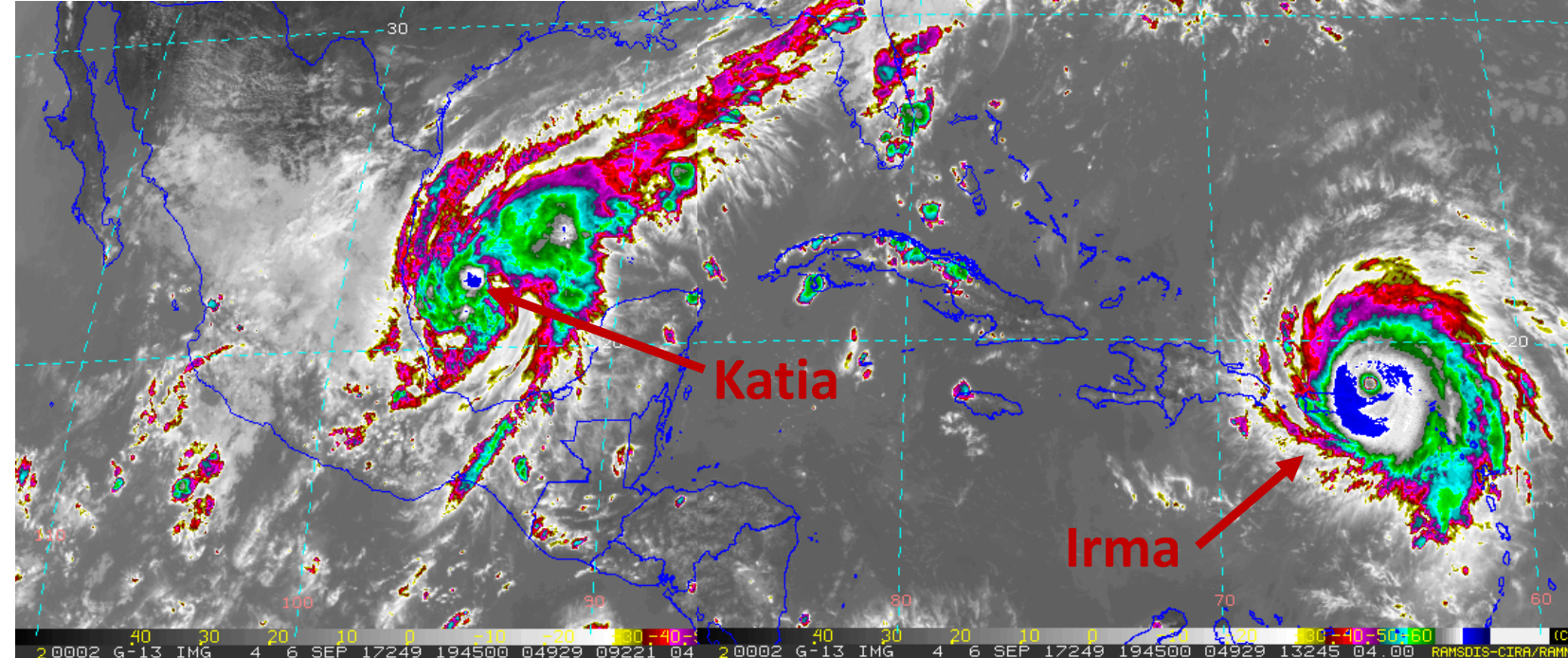
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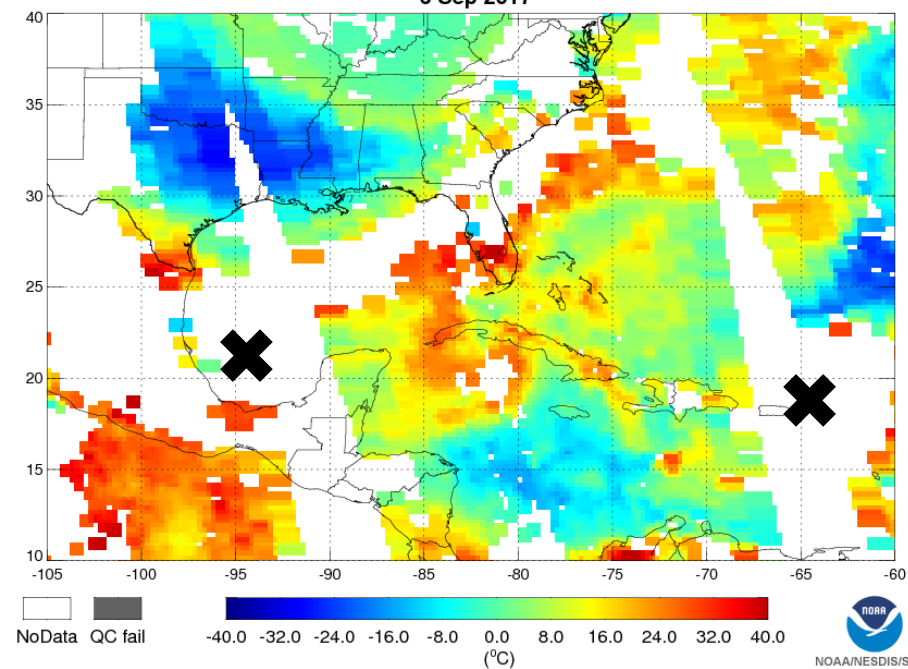
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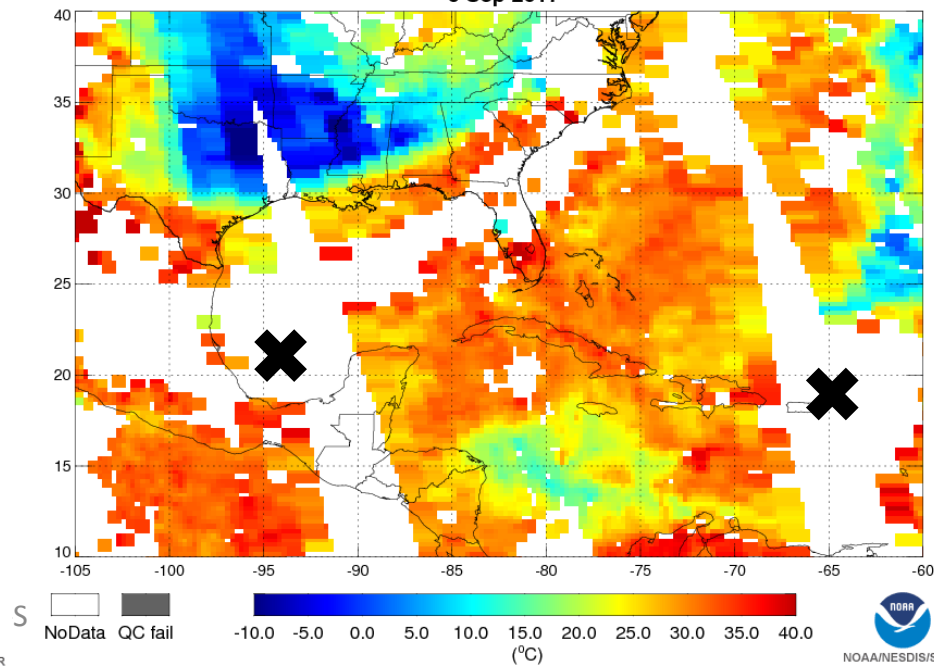
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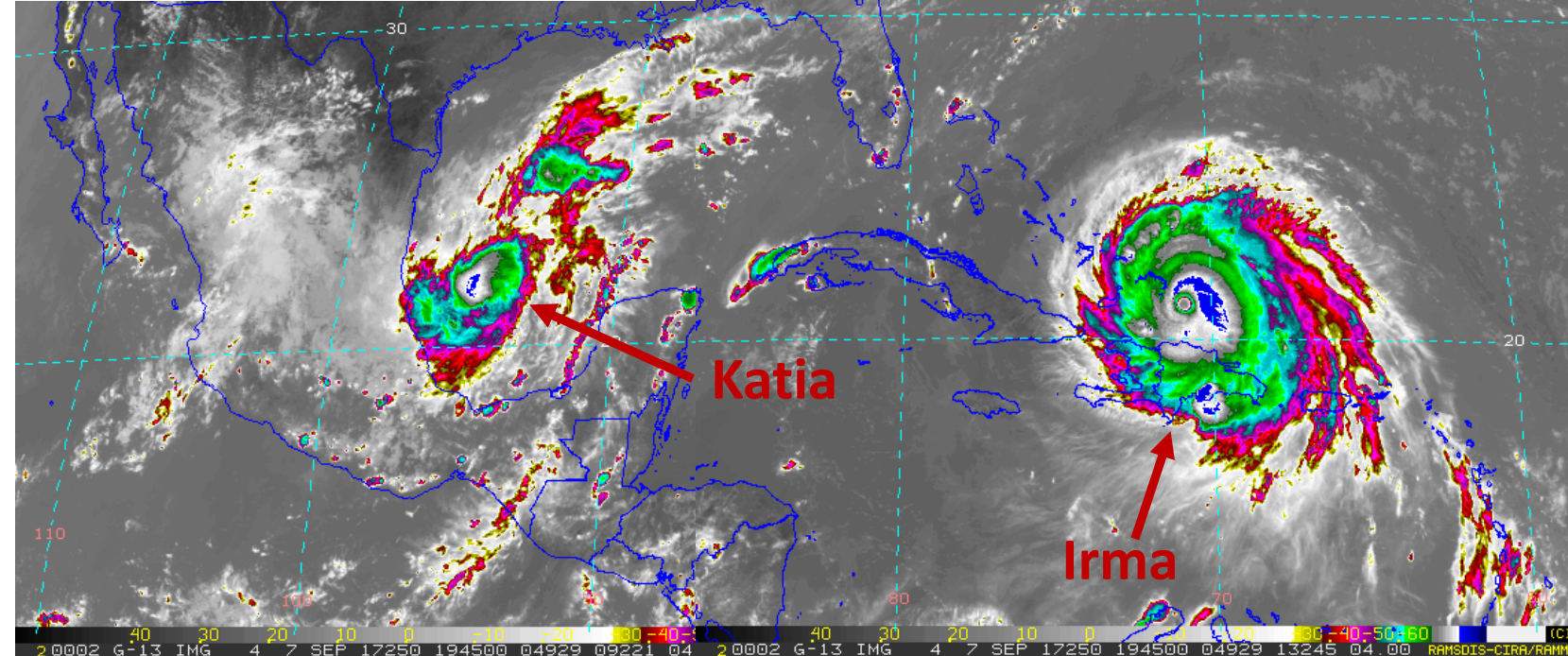
NUCAPS Galvez-Davison Index Asc
6 Sep 2017



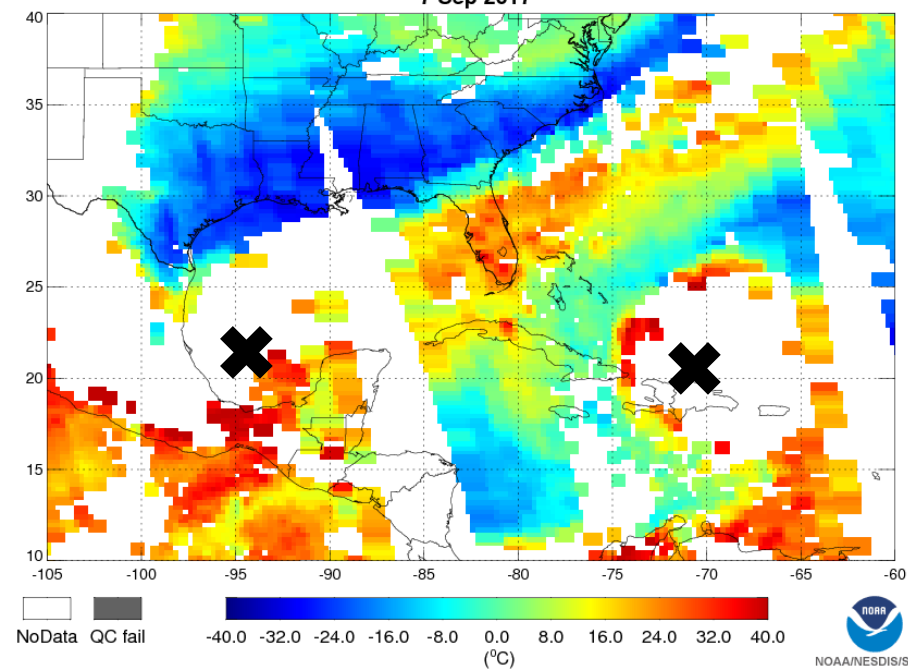
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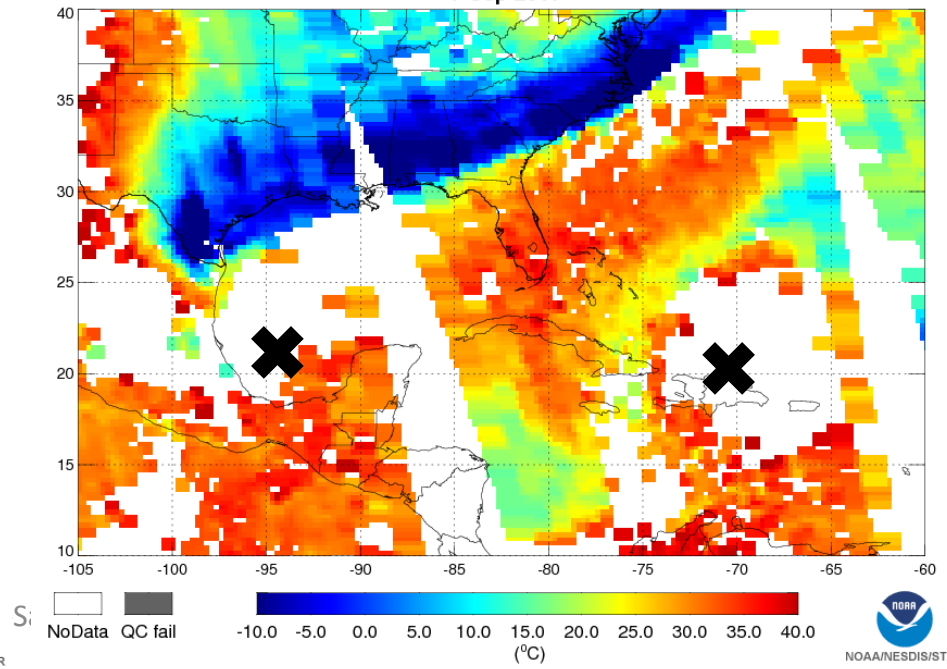
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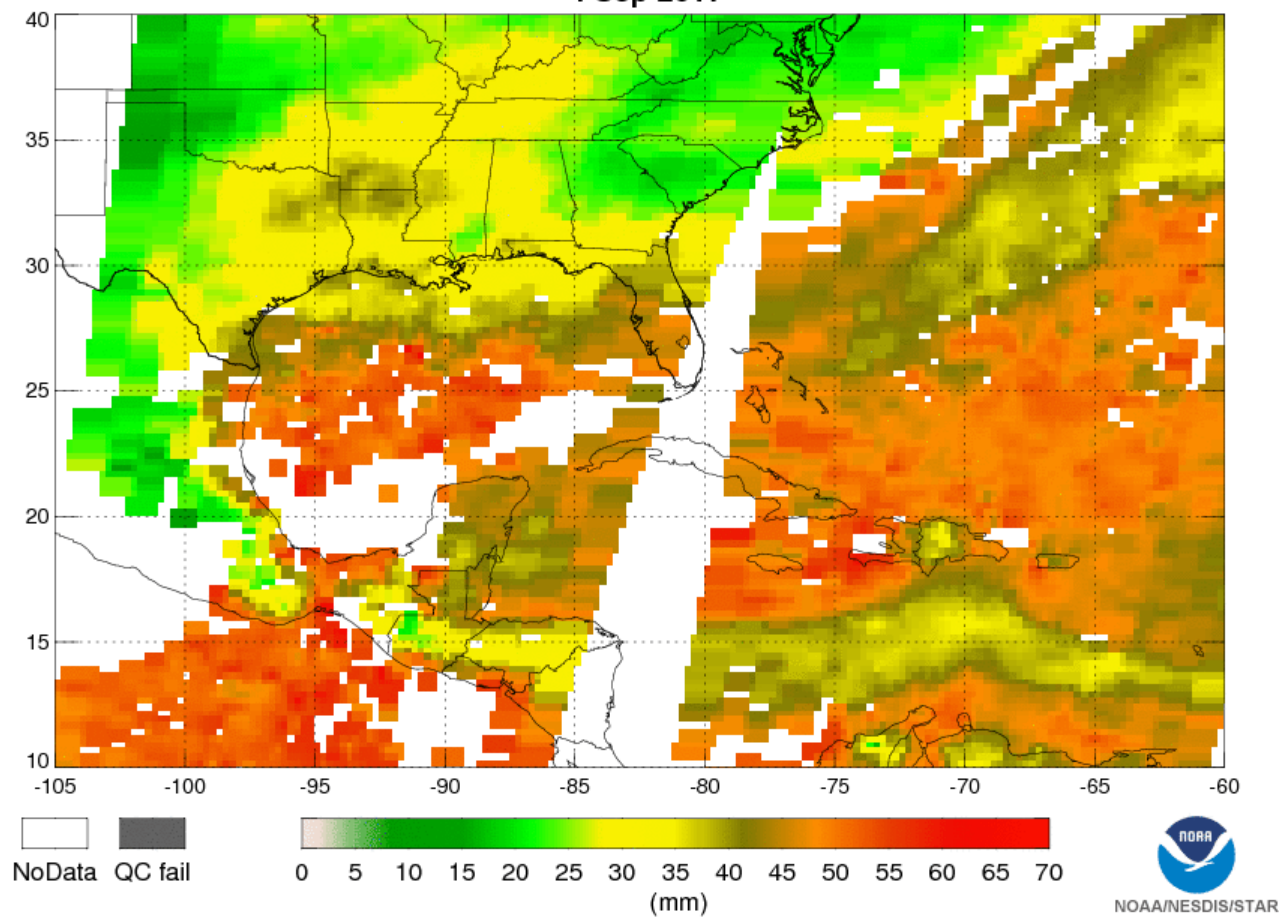


NUCAPS K-Index Asc
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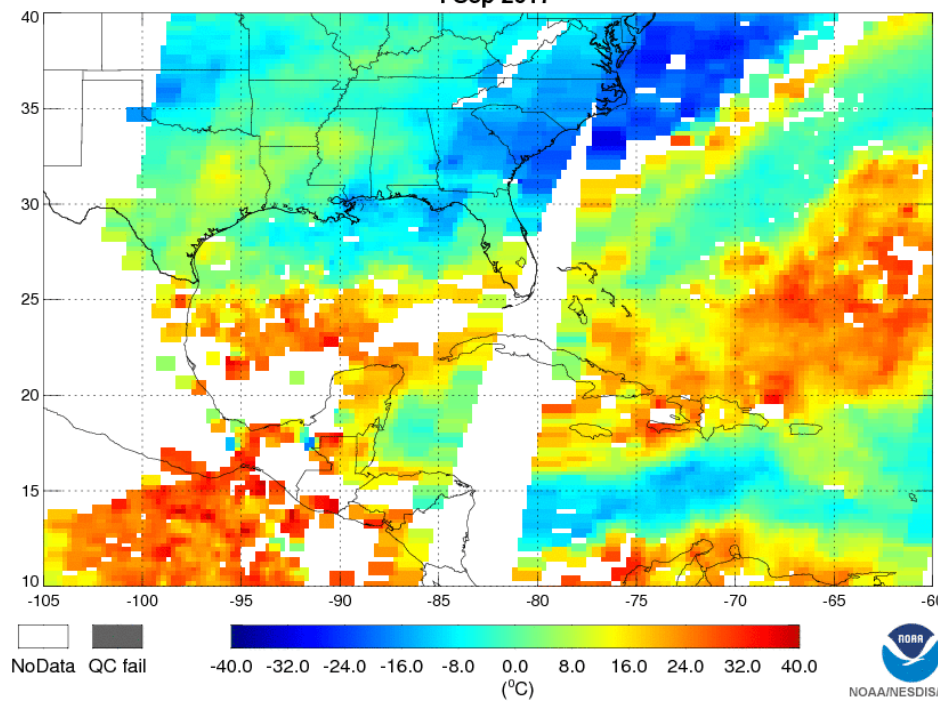


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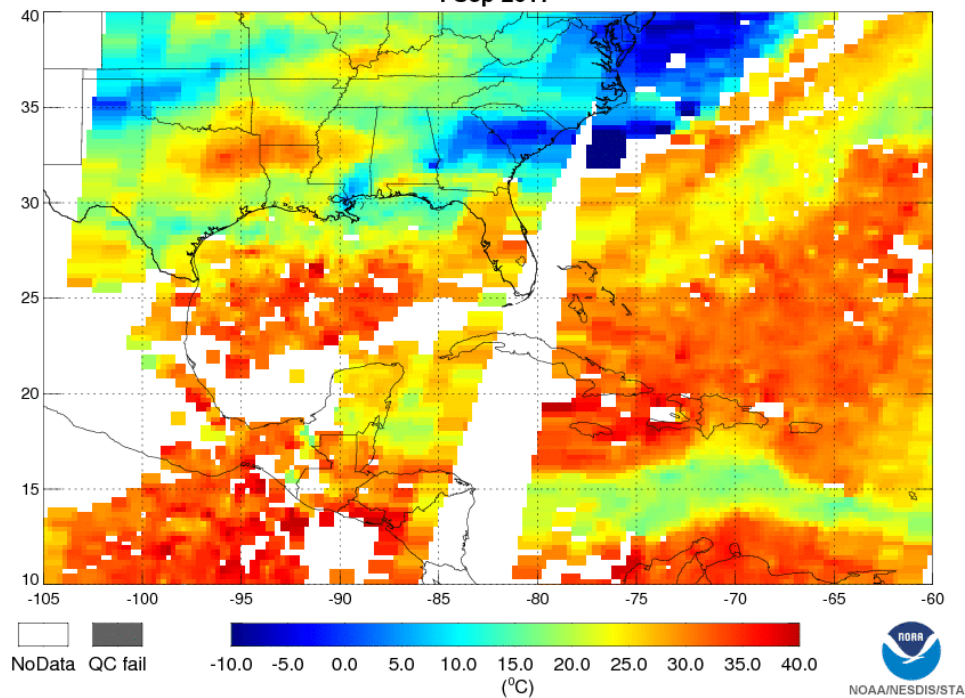
4 Sep 2017



NUCAPS Galvez-Davison Index Des
 4 Sep 2017



NUCAPS K-Index Des
 4 Sep 2017





Conclusions

- NUCAPS TPW shows large moisture availability over the Atlantic ocean including the Gulf of Mexico (also over the Pacific ocean) consistent with the RAMSDIS/CIRA TPW product.
- NUCAPS TPW values increasing around the areas where both hurricanes are located.
- 07 Sep map: note the moist tongue from the Katia's position extending northeastward also passing over Florida.
- NUCAPS TPW successfully shows the great moisture contrast between US versus ocean.
- NUCAPS GDI and NUCAPS KI also show consistent results. Both tend to increase magnitudes around the areas where the storms are located as well as over the moist tongue (07 Sep map).
- NUCAPS GDI and NUCAPS KI also show the great contrast between stability conditions over the oceanic air masses and the continental US.
- CAPE not included: further tests needed.

Note: RAMSDIS/CIRA TPW product available at:

http://rammb.cira.colostate.edu/ramsdiskonline/rmtc.asp#Sector_5