



# El Niño & Expected Florida Severe Weather



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Tampa Bay  
Regional Planning Council  
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# El Niño & Expected Florida Severe Weather

Slides courtesy of:

Dan Noah

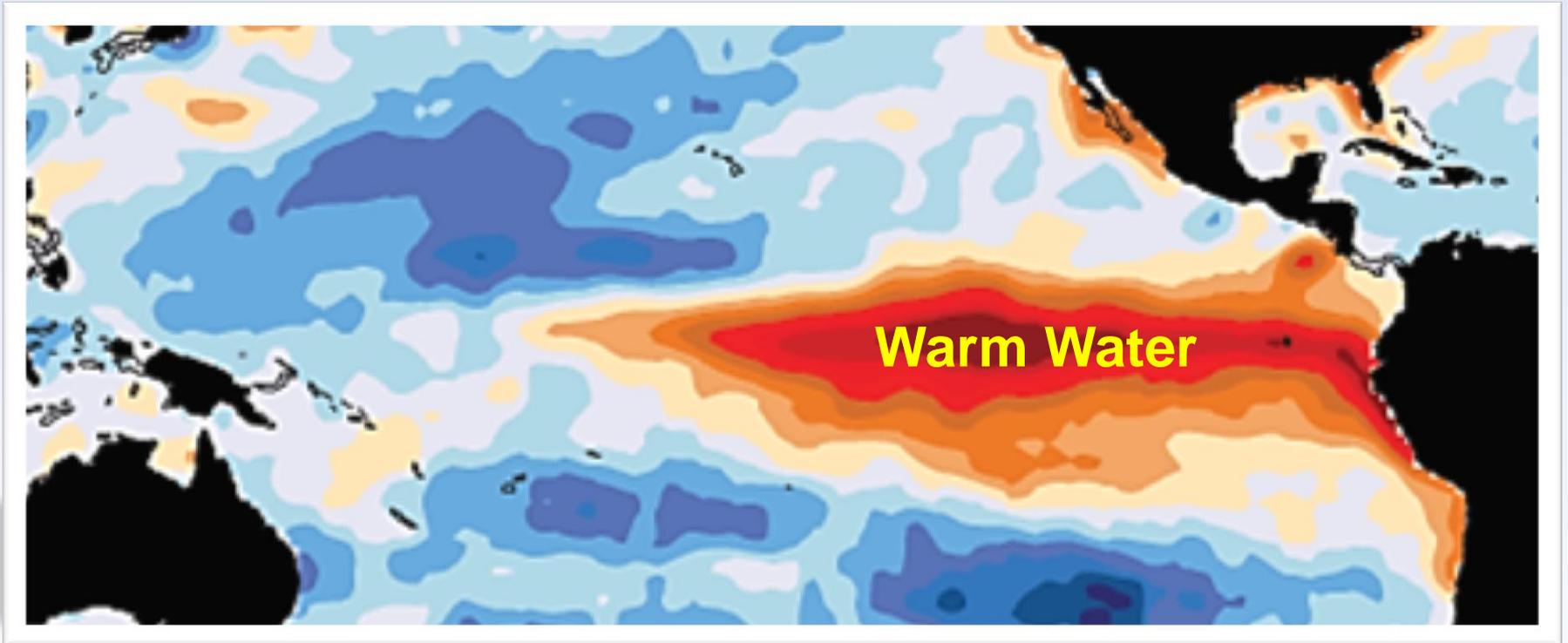
National Weather Service - Ruskin

[Daniel.Noah@noaa.gov](mailto:Daniel.Noah@noaa.gov)



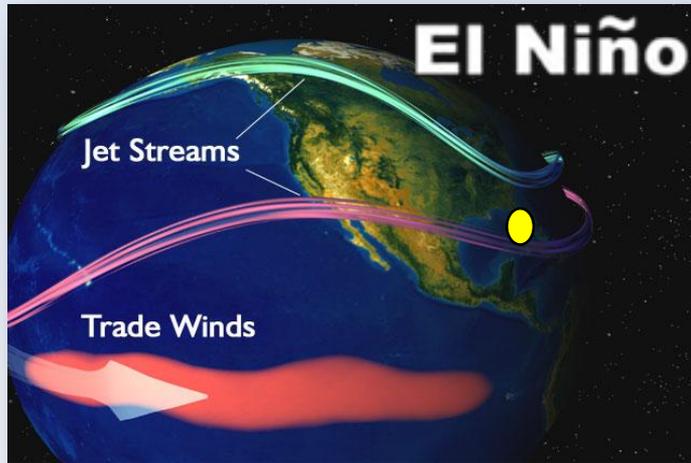


# What is El Niño?

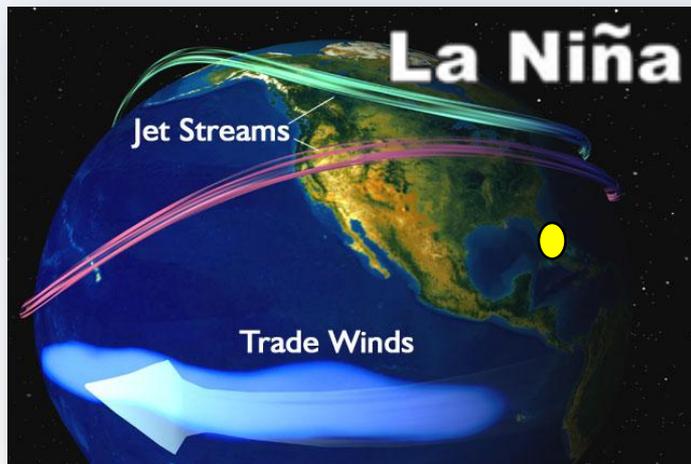




# El Niño vs La Niña Jet Stream Location



Jet stream over Florida  
with more active weather



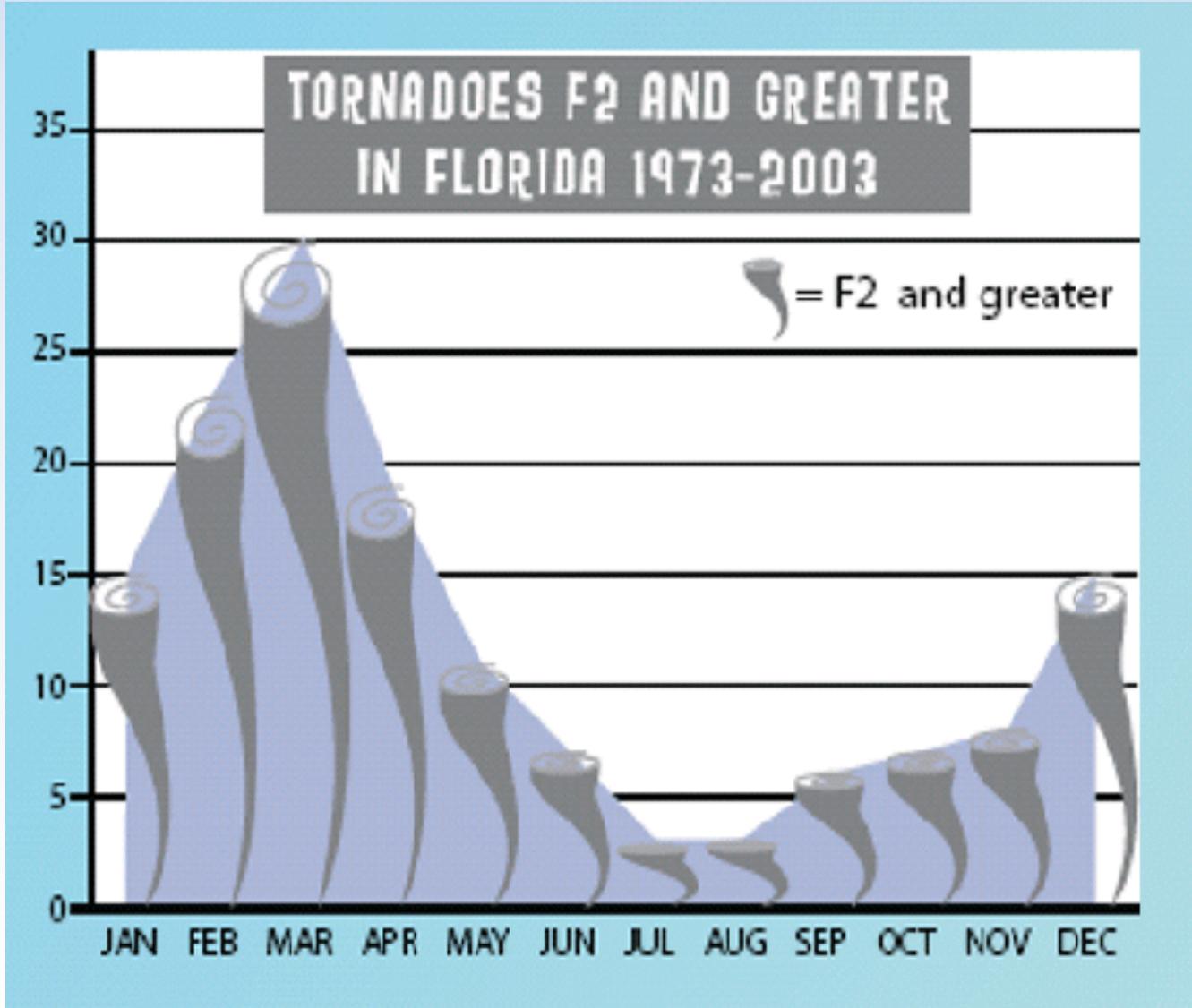
Jet stream north of  
Florida with less active  
weather

# Comparison of Winter Storm Tracks



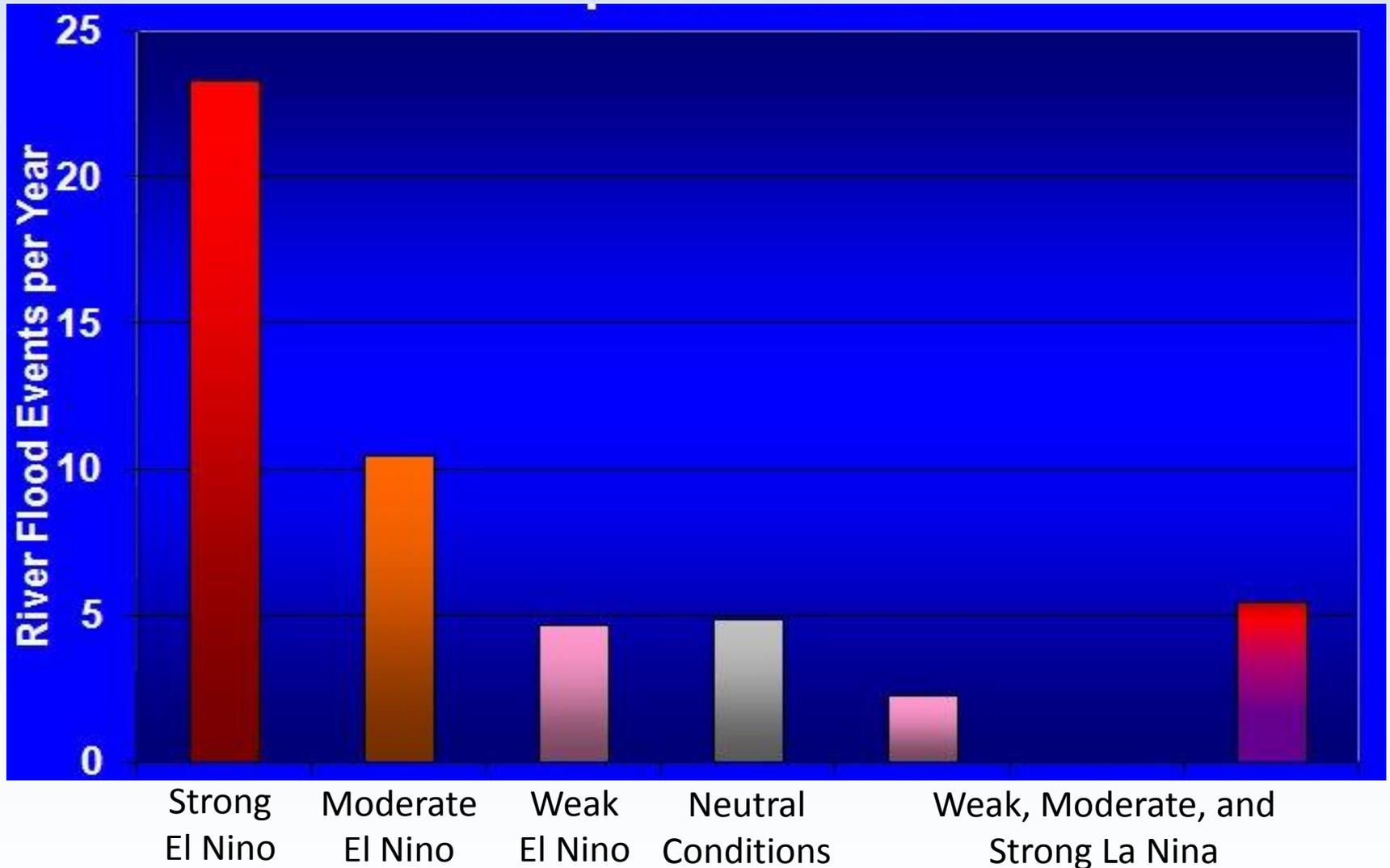


# Violent Tornadoes in Florida





# Expected Florida River Flood Events per Year





# Jan 17, 2016 Sarasota F2 Tornado – 127 mph

2 injuries





# Jan 17, 2016 Duette F2 Tornado – 127 mph

2 fatalities, 4 injuries





# El Niño Florida Impact Awareness

Potential for historic El Niño this winter and upcoming spring, even stronger than the 1997/98 El Niño

- increased chances for strong-to-violent tornadoes and tornado outbreaks
- increased chances for episodes of heavy rain and river flooding

Given that the previous eight winters in Florida experienced storminess much below normal, the likely transition to a very active season may come as a surprise to those who are unaware

**February 2, 2007 1 a.m. – 3 a.m.**  
**Lake / Volusia Counties**  
**21 fatalities (2 EF3 Tornadoes)**



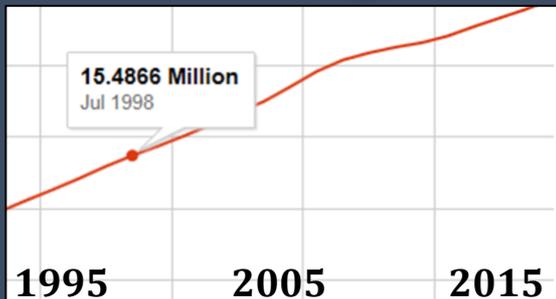
**February 22-23, 1998 11 p.m. – 3 a.m.  
Osceola / Orange / Seminole Counties  
42 fatalities (3 F3 Tornadoes)**





# Florida Societal Considerations

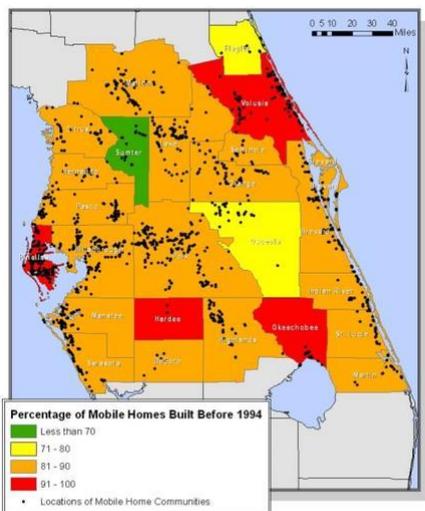
## Increasing Vulnerability



4.7 million new residents since 1998 outbreak!

Many unaware of Florida (winter) severe weather risks

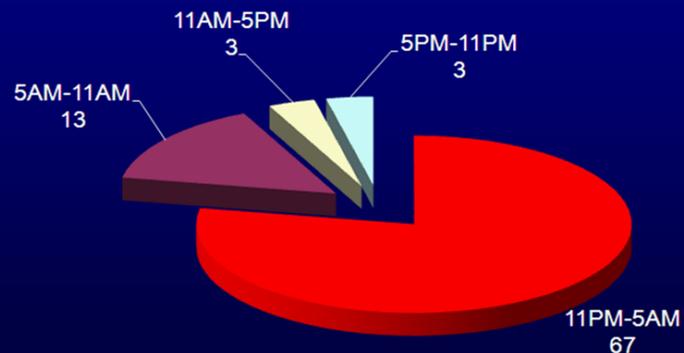
- High percentage of mobile homes
- Much lower threshold for damage
- High winter occupancy
- Greater casualty rate



RV Parks, Manufactured and Mobile Home Communities in Central Florida

## Time of Day

Most of The Tornado Deaths During El Nino Have Occurred Between 11PM and 5AM!



Hourly Distribution of 86  $\geq$ F2 Tornado Deaths During 11 Strongest El Niño's Since 1950

## Overnight Tornadoes

- Lower perception of threat
- Decreased Awareness (asleep)
- Favored time period



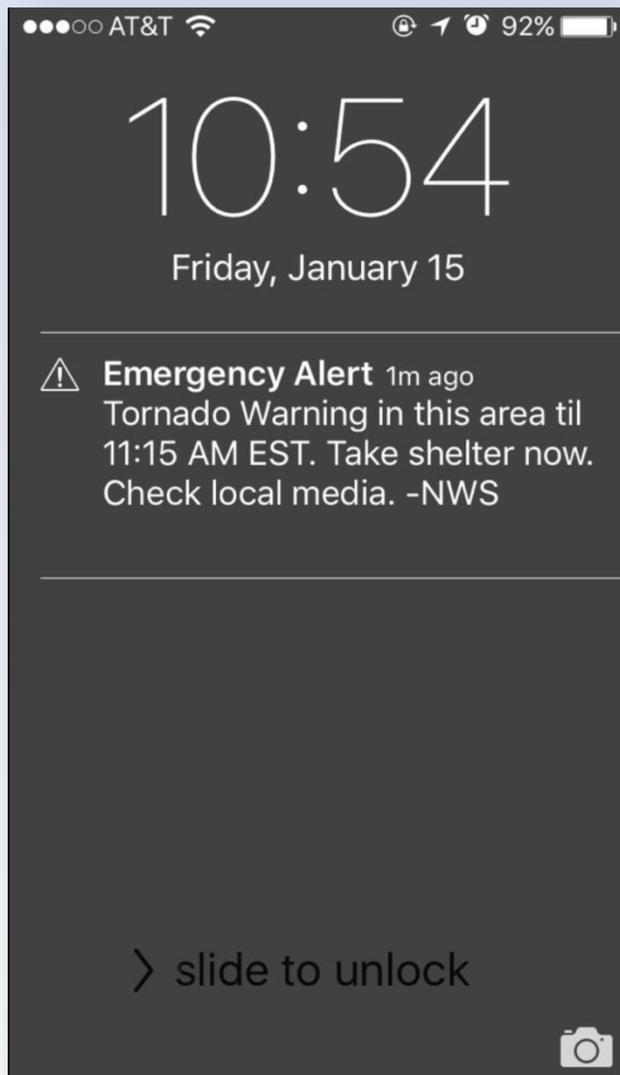
# Public Awareness and Safety



- Monitor local television and radio for severe weather situations
- Have multiple ways to receive timely weather warnings
  - ✓ NOAA Weather radio
  - ✓ Wireless Emergency Alert
  - ✓ Reverse 911
  - ✓ Smartphone App



# Wireless Emergency Alert



- FCC/FEMA Initiative
- Free
- Available since 2012
- Cell phones auto enrolled
- Limited to 90 characters
- All phones connected to a tower within the warning receive message at same time

# NWS Tampa Bay Social Media



<http://weather.gov/tampabay>



@NWSTampaBay



NWSTampaBay



NWSTampa

# Pinellas County El Niño Web Page

<http://www.pinellascounty.org/emergency/El-Nino.htm>

Pinellas County, Florida - E X

www.pinellascounty.org/emergency/El-Nino.htm

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Pinellas County FLORIDA

Emergency Management

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Hurricane Information

For Emergencies Only

Other Hazards

Resources

**Be Prepared**

SURVIVING THE STORM... IT'S EVERYONE'S RESPONSIBILITY

**EL NIÑO**  
Weather Event

**El Niño Severe Winter Weather**

With a strong El Niño weather pattern this year, the National Weather Service predicts an increased chance of severe weather in Florida over the winter with the threat of powerful thunderstorms, flooding, cold temperatures and tornadoes.

**Speaker's Bureau:**  
[El Niño Presentation](#)  
[Now Available](#)

**What is El Niño?**

The name El Niño was originally given by fishermen off the west coast of South America to the warm current that appeared every year around Christmas. It is Spanish for "The Child" and — is the name climate scientists use for the occasional periods of warming in the Pacific Ocean that create havoc for global weather patterns. El Niño is known to intensify winter storms across the

All-HazardsGuide  
Official Guide for  
Pinellas County

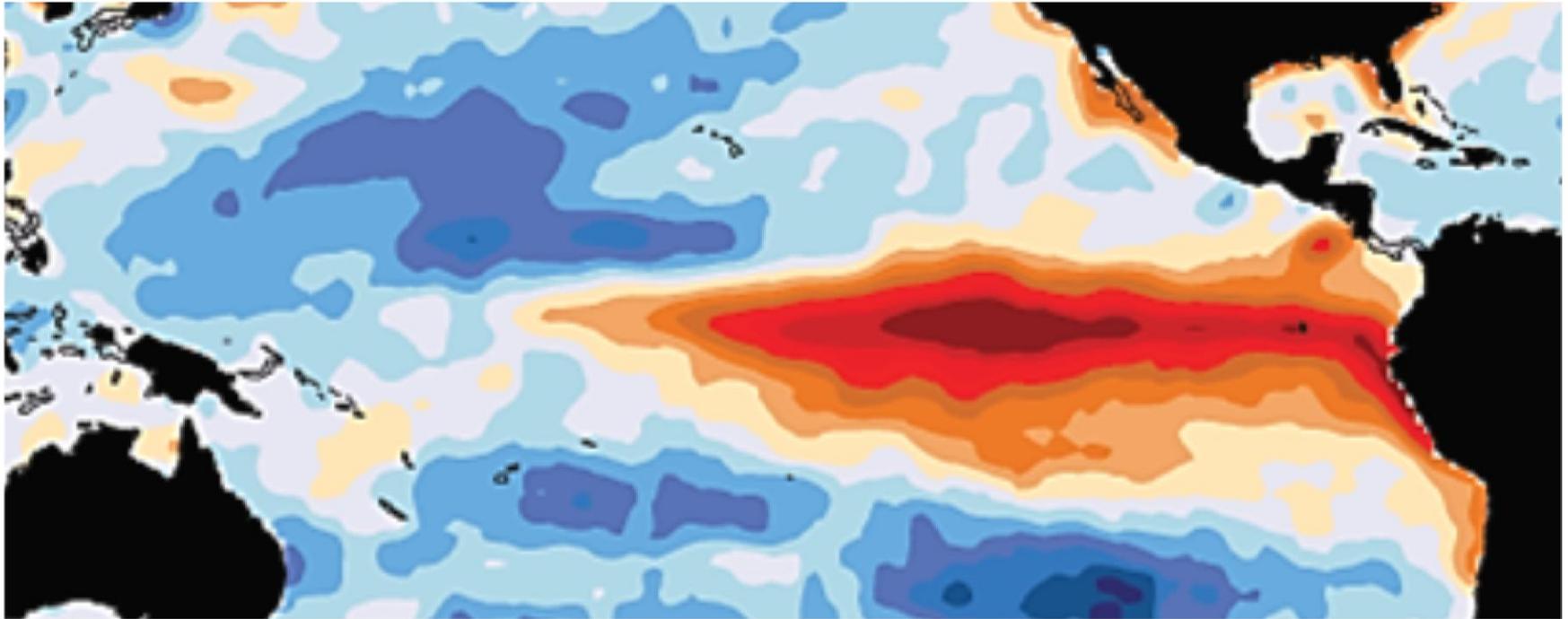
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# QUESTIONS?



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