

*The Glenda Project*

Developers of the Thunderocket™ Weather Research Series of rapid deployment payload delivery vehicles, since 1997

Multi-Dimensional Data Modeling Tornado Prediction®™

EMF Spectral Mapping Process and Identification of Tornado Signatures Systems®™

Celebrating 17 Years of Award Winning Research and Development 1997 - 2014



# The Glenda Project

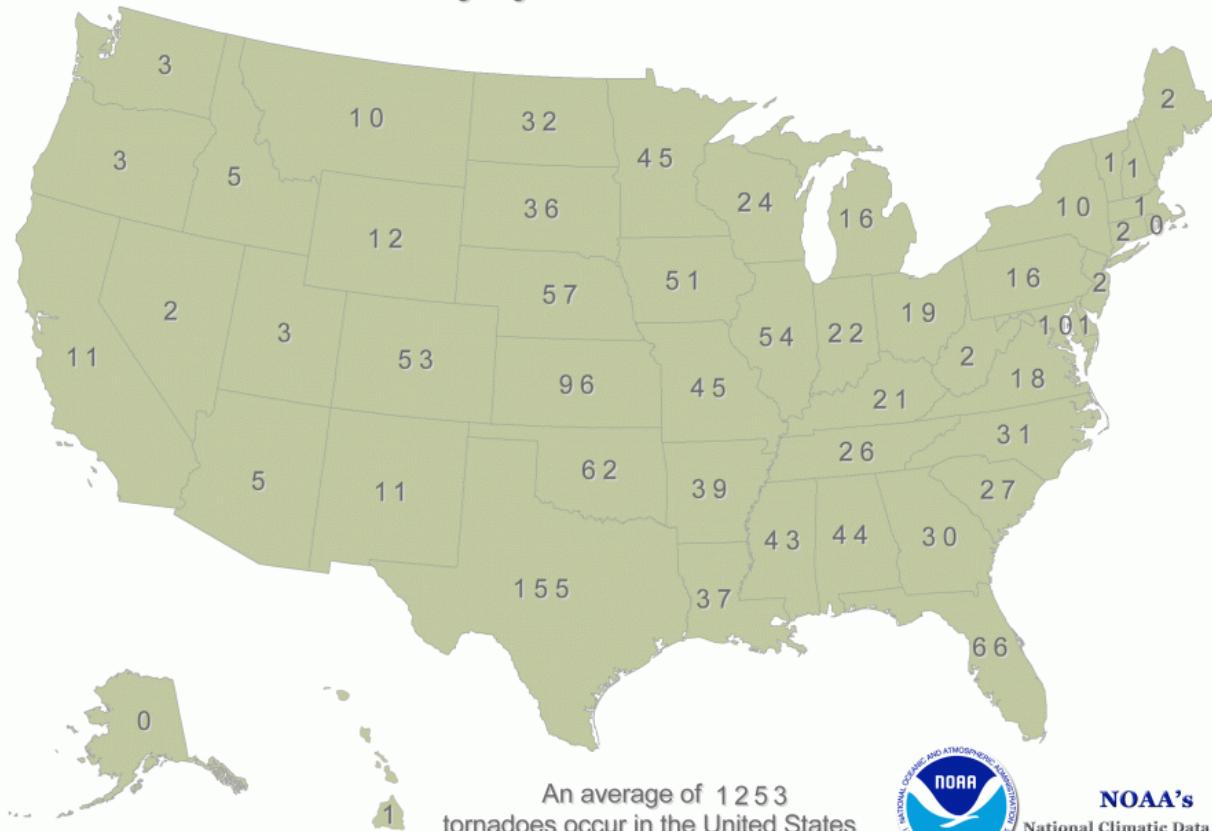


## Coastal Thermal Generators of Tornadoes

# Annual Average Number of Tornadoes

## Average Annual Number of Tornadoes

Averaging Period: 1991 - 2010



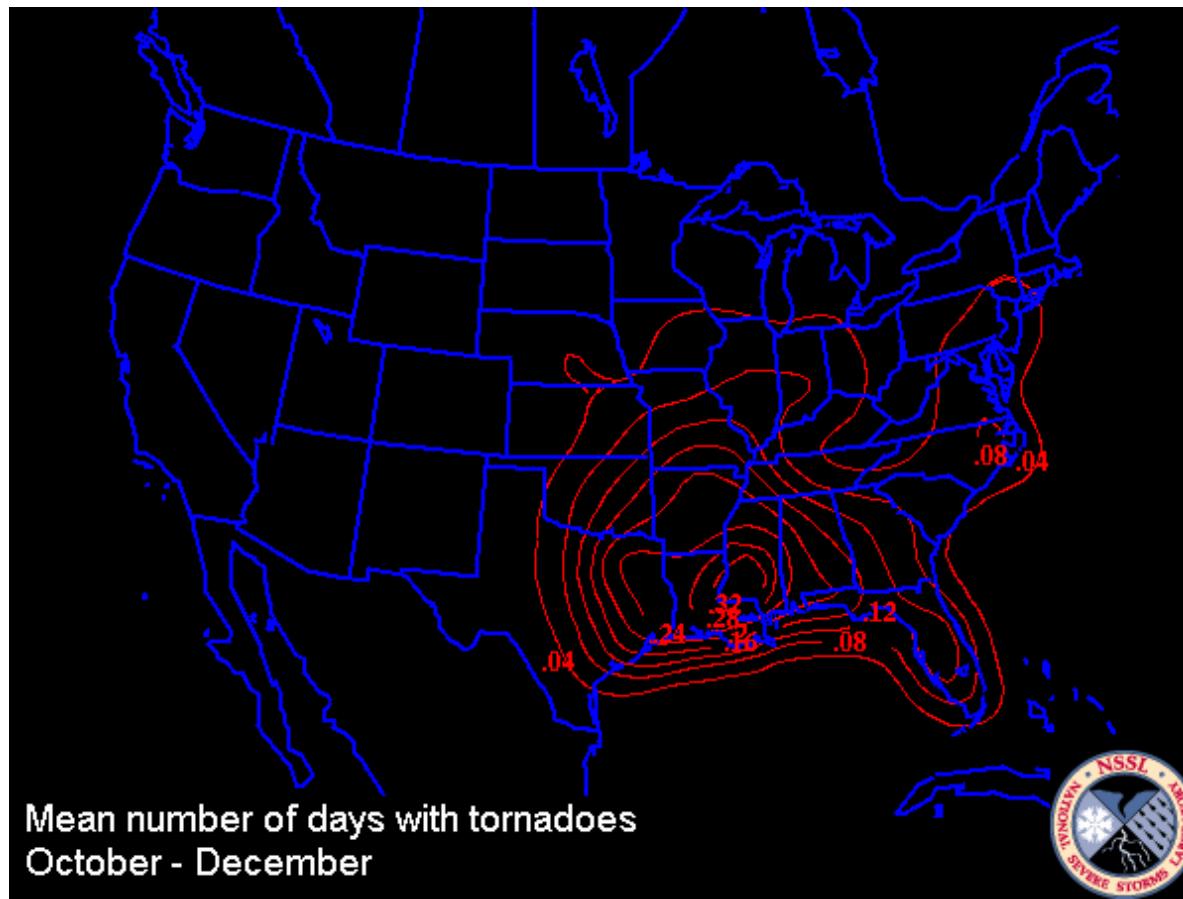
NOAA's  
National Climatic Data Center

- <http://www.ncdc.noaa.gov/climate-information/extreme-events/us-tornado-climatology>



# Dixie Alley

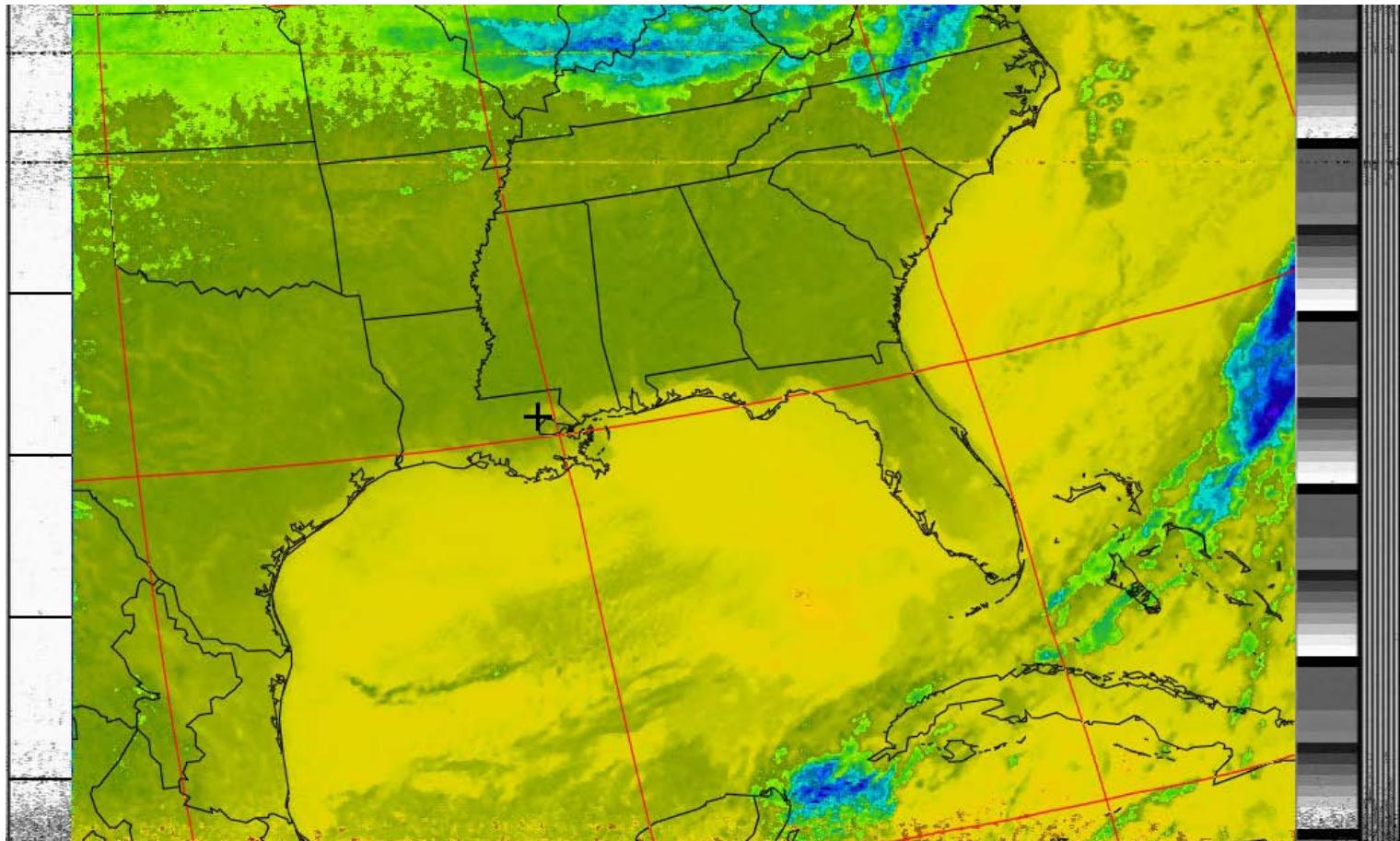
Bayou Canada Weather Center is in Dixie Alley



- Source: <http://www.ncdc.noaa.gov/file/1536>



# Satellite Air Thermal Map

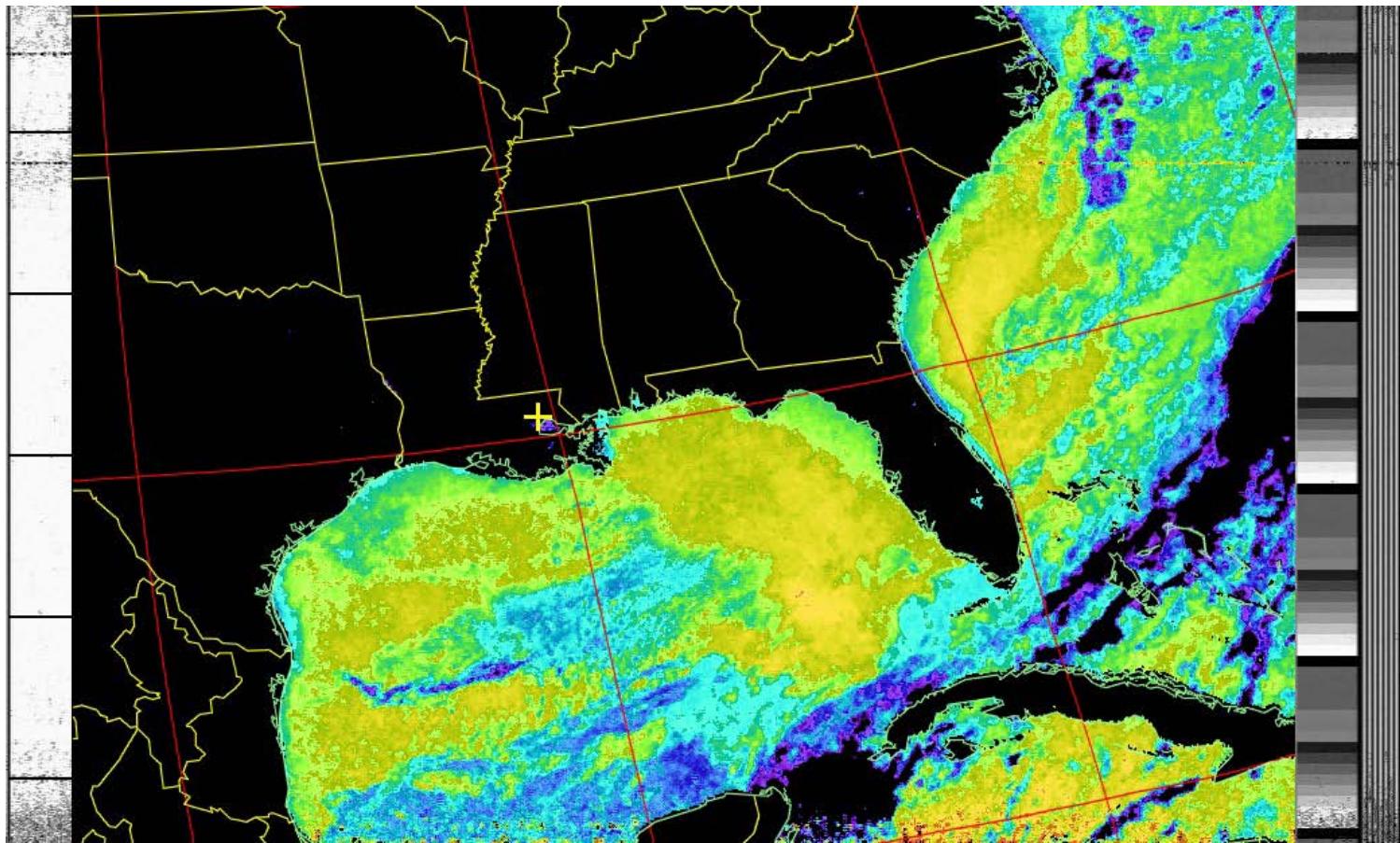


(Typical Day December 17 2013) Looks Calm



# Satellite Water Thermal Map

Examine South Louisiana Delta Coast

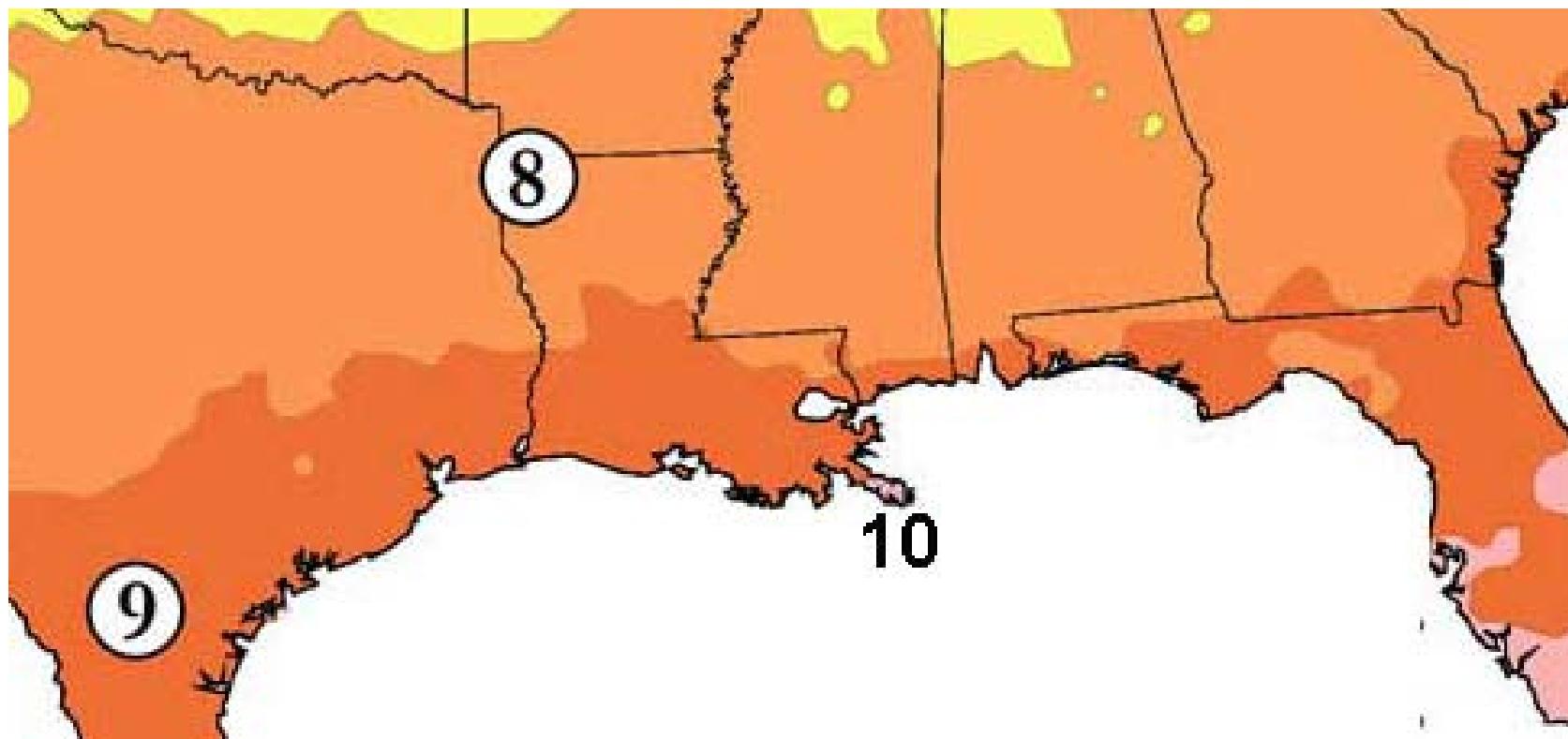


(Typical Day December 17 2013) Fresh Water Entering Gulf Cools Coast Areas



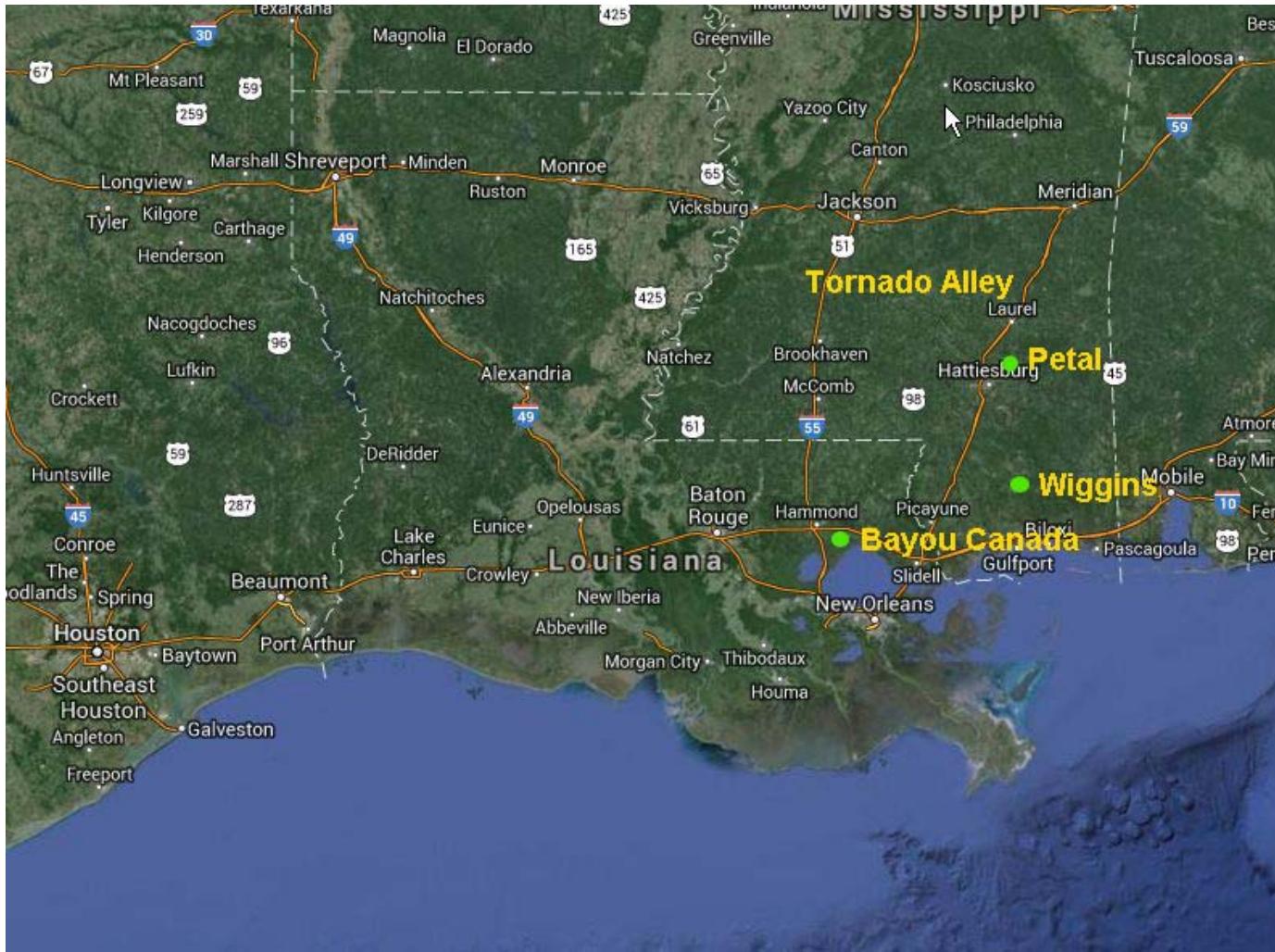
# Climate Growing Zones

Growing Zones Reflect Land vs Water Interaction



# Regional Map

## Layout of Major Players



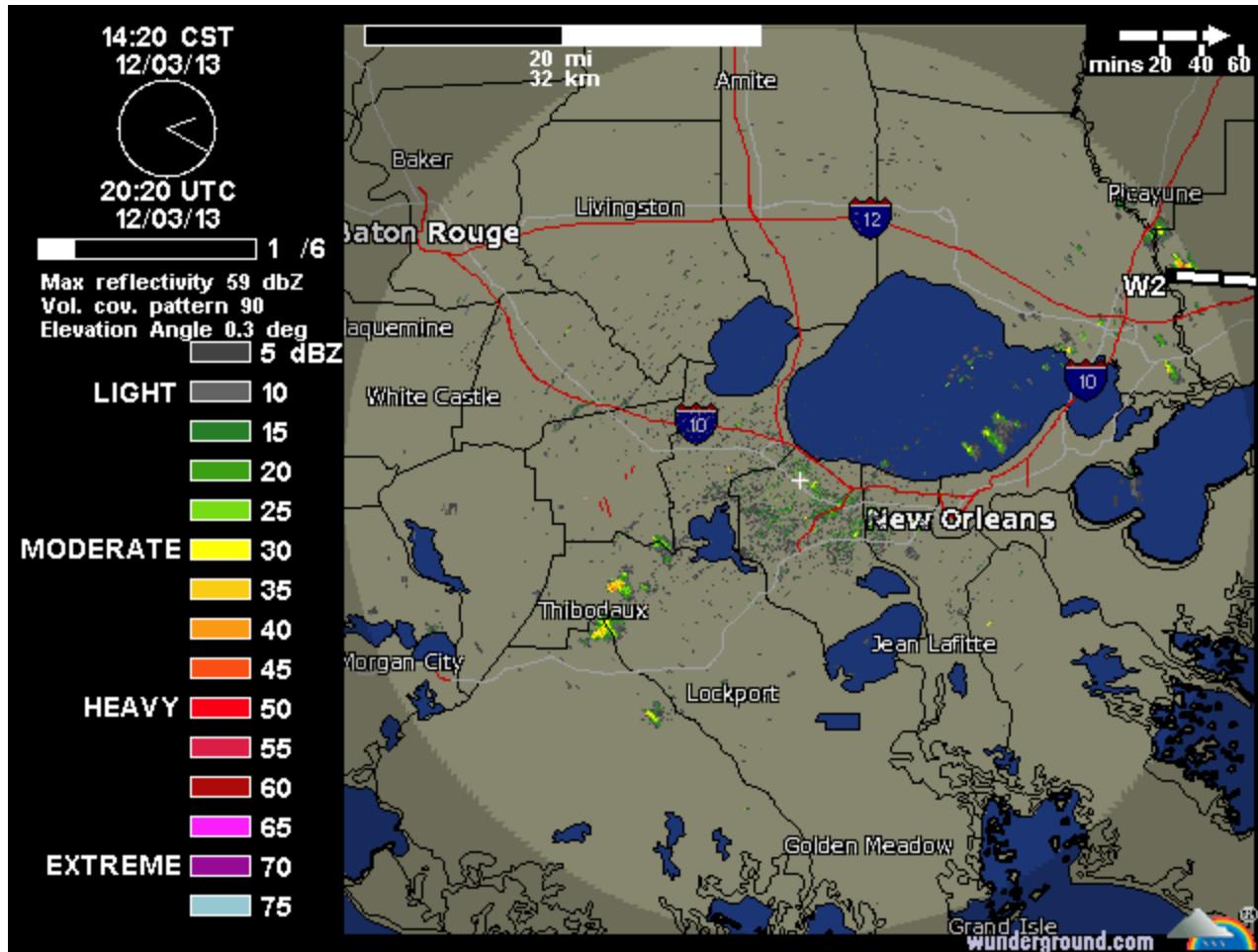
# December 3<sup>rd</sup> Weather Setup

In Past Tornadoes Have Tracked Houma to Wiggins



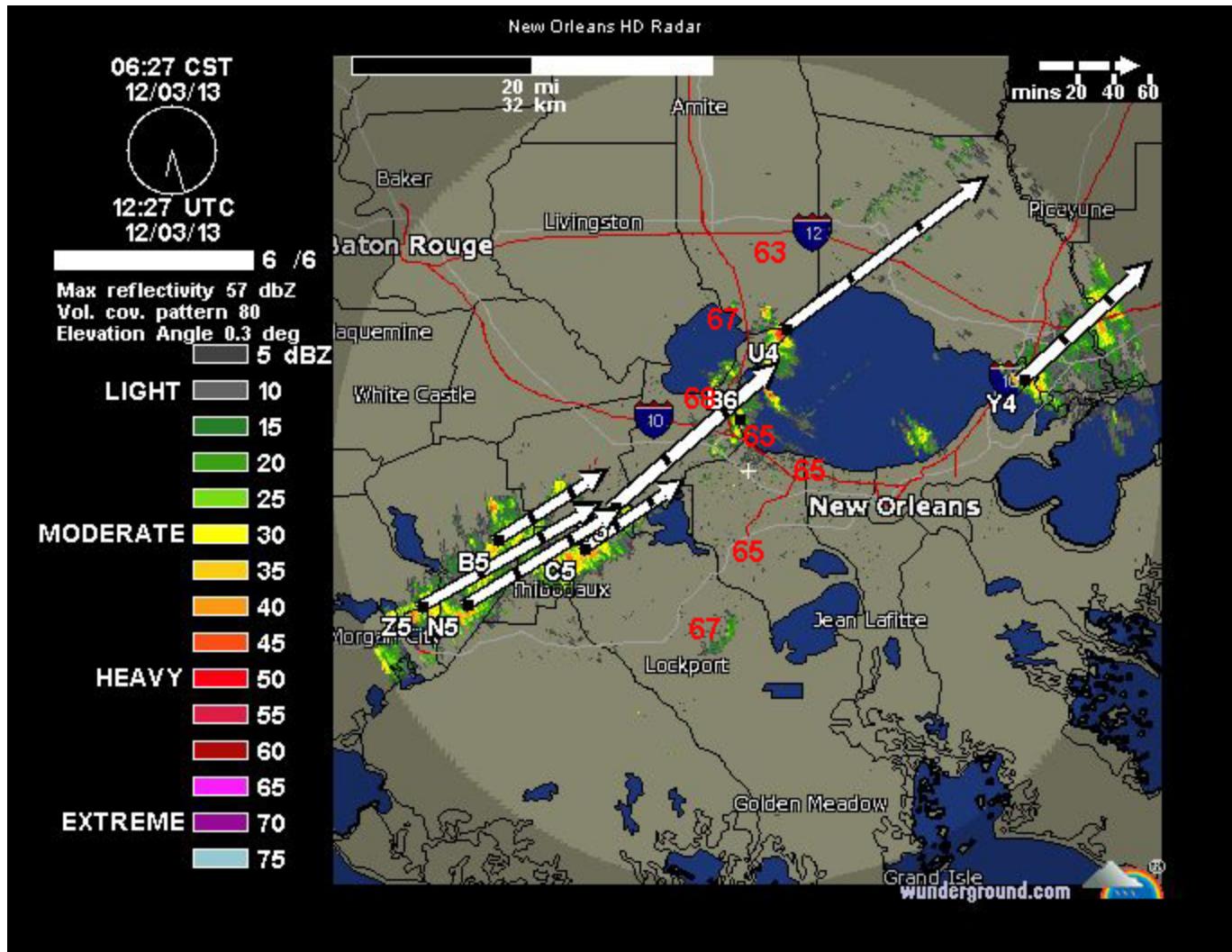
# Identification of Thermal Stream

## HD Radar View of Path To Wiggins



# Early Morning Location

## Temperatures Cross Section



# Thermals Identified

## Petal Thermal Originates Near Houston



Wiggins Thermal Originates Near Houma

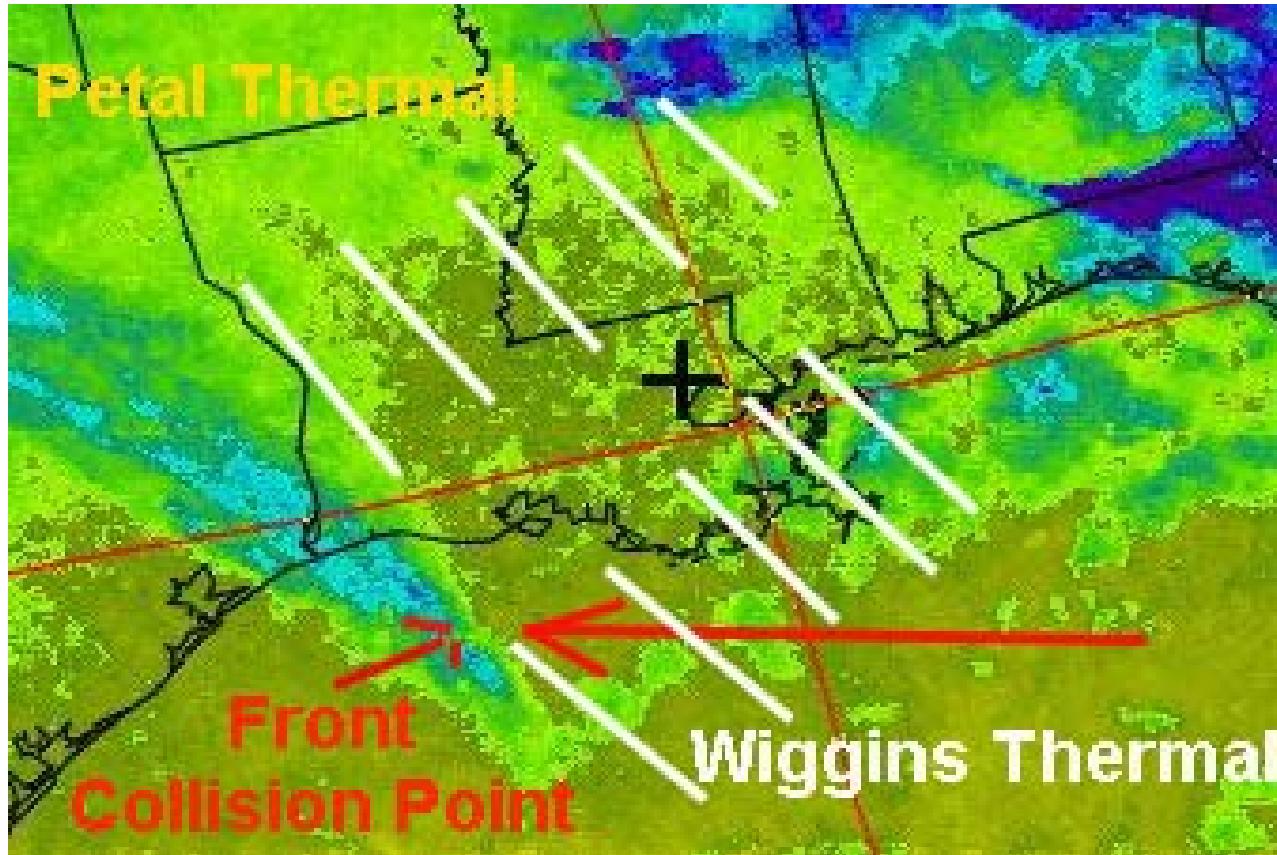


# Add Cold Front To the Mix

Cold Front Approaches at Right Angle to Thermals (Spin)

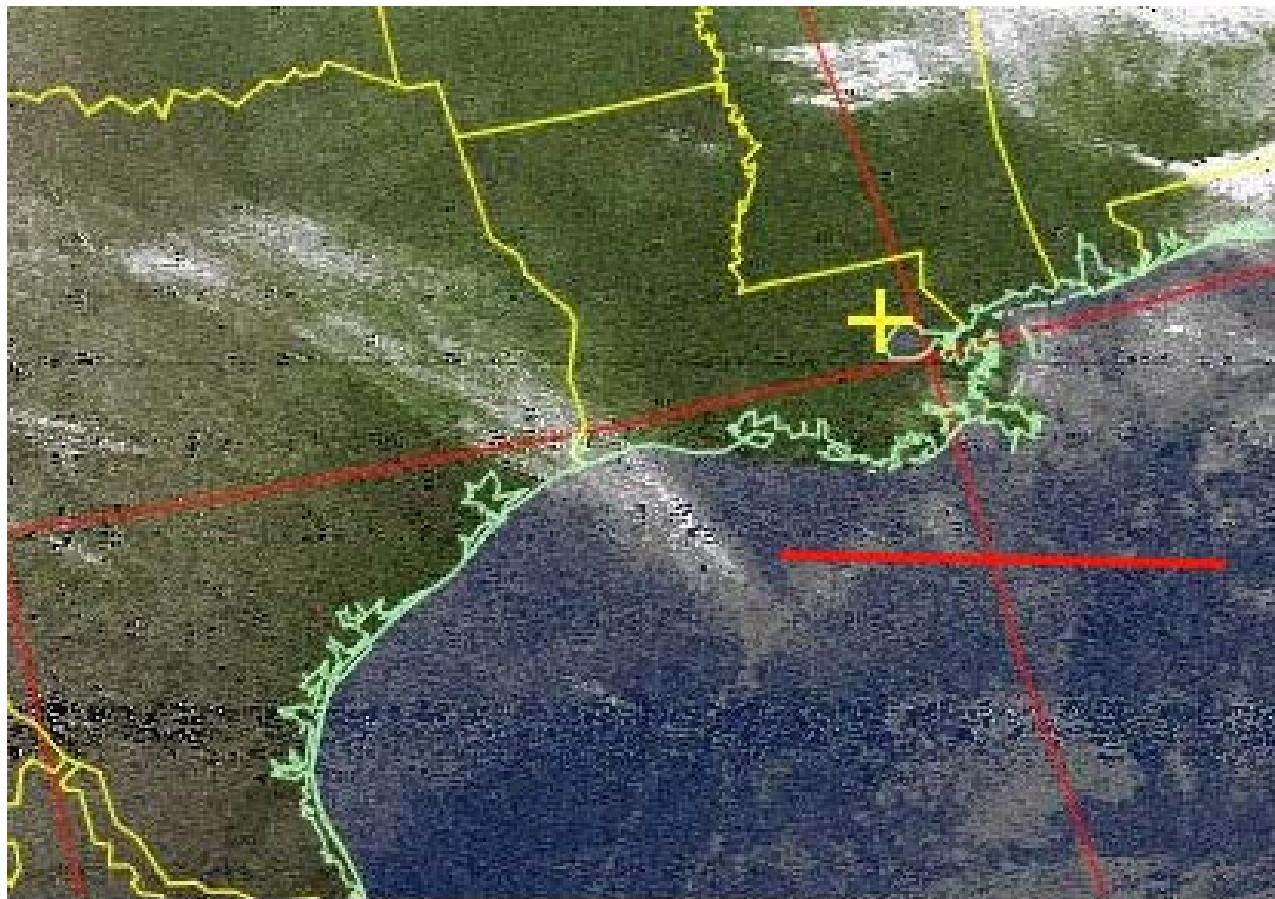
Energy Levels in Right Amount Cause Water Funnels

On Land Energy Levels in Right Amount Create Tornadoes



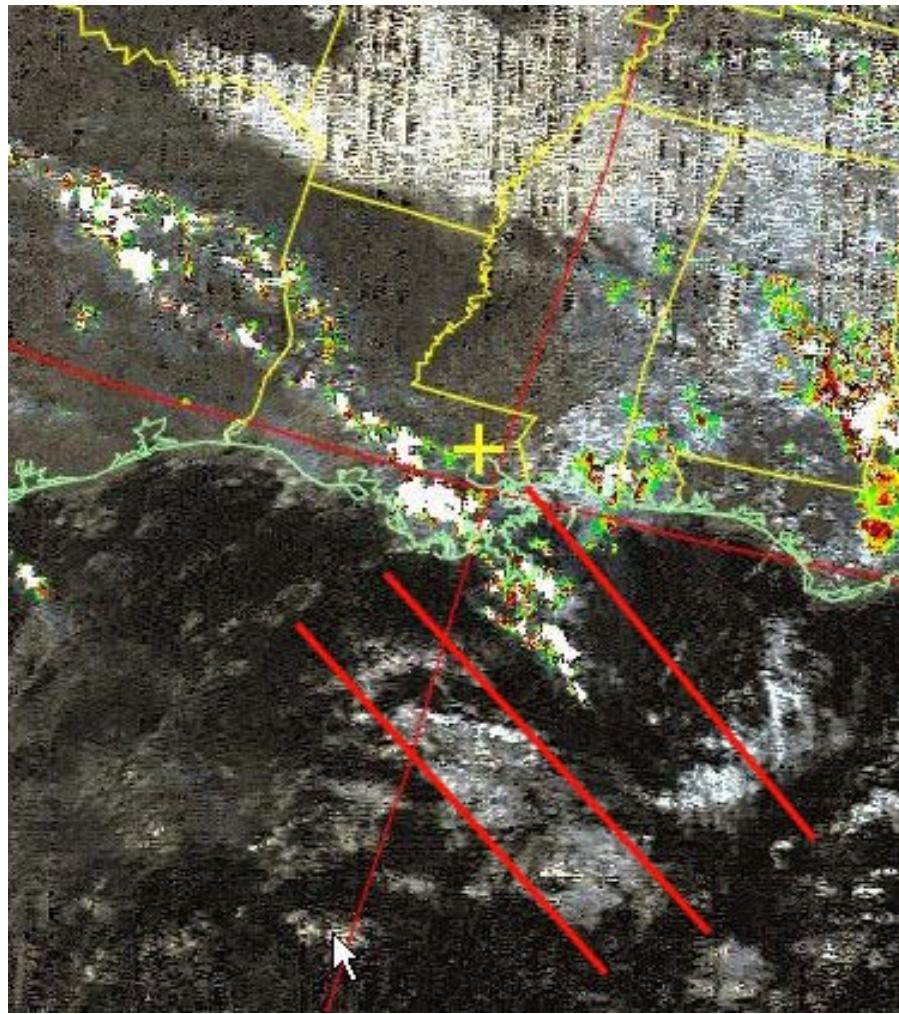
# Satellite View of Front

## Thermal Barely Visible on Satellite Image



# Front Progression East Thermal Moves

## Thermal Over Water Energizes



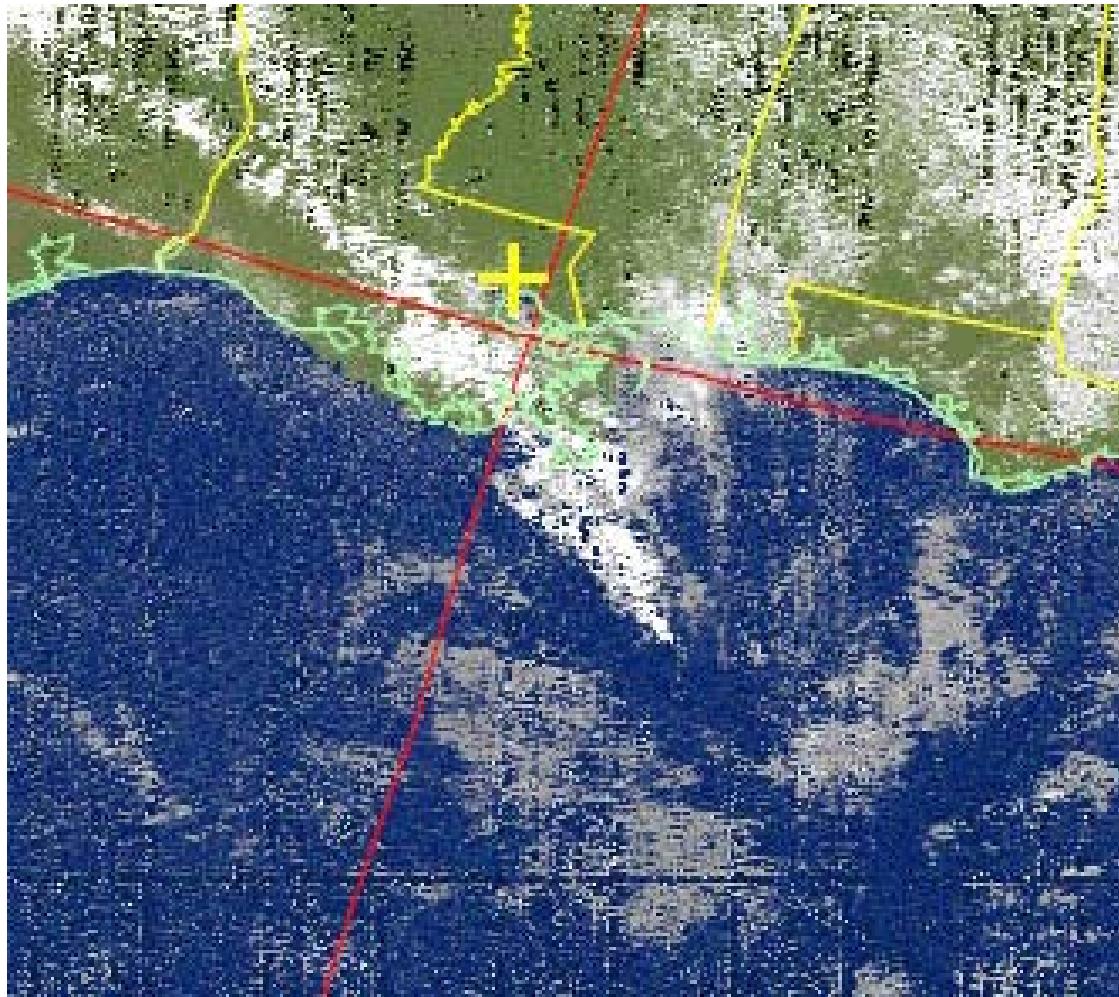
# Thermal Changes Location Over Land

Slight Movement = More Moisture From Swamps



# Front Energizes

## Front Picks up Energy from Swamps



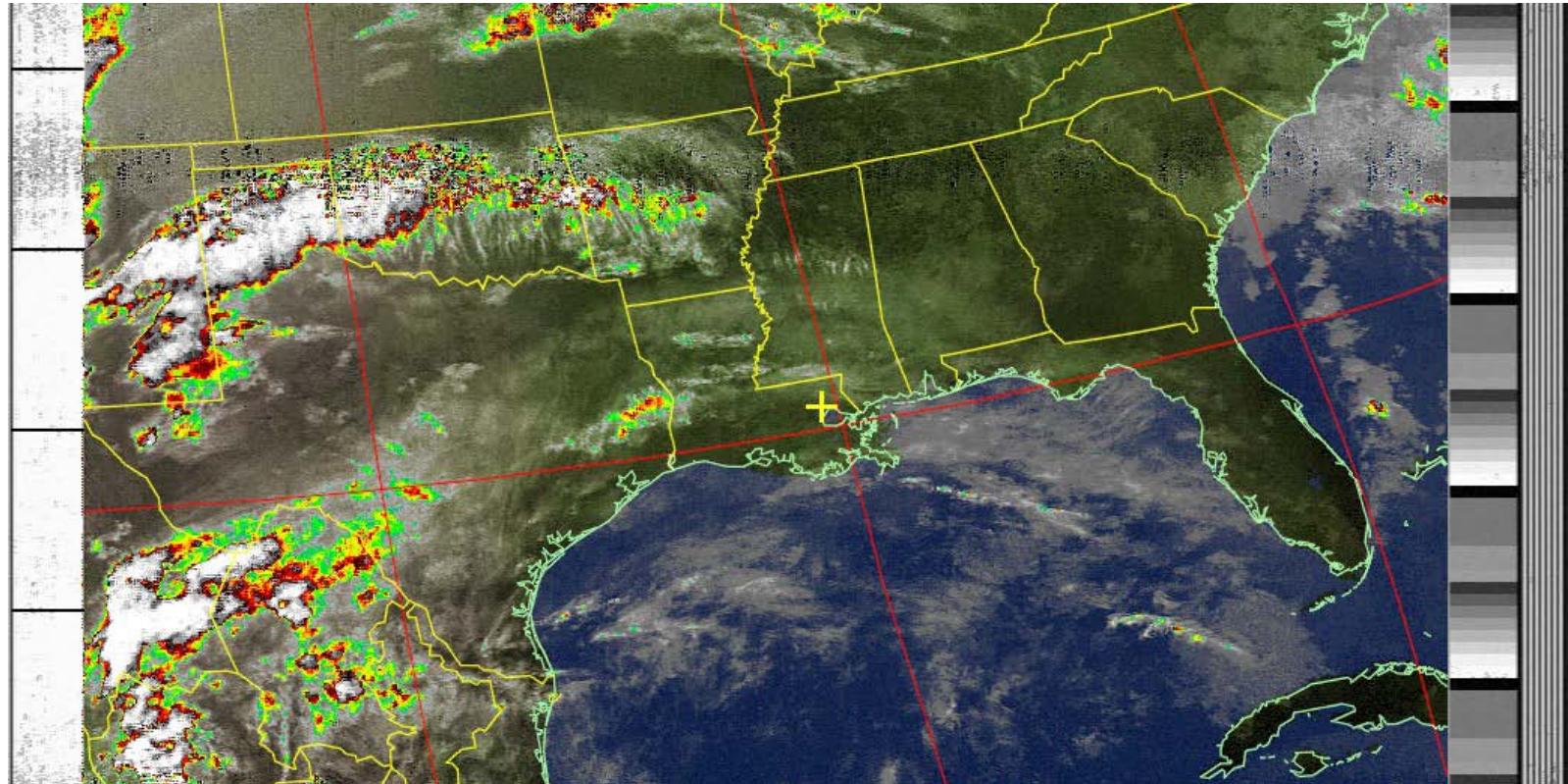
# Firing The Tornado

- The Energy of the Thermal must be high enough to stay intact as front passes overhead
- If Thermal stays strong and Front movement is fast Tornadoes will Spawn
- RH, Temp and Baro Parameters in Place Verifies Generator Will Fire
- If Thermal stays strong but Front movement is slow there may not be sufficient energy to fire
- Petal and Wiggin Thermals may fire independently
- Thermals may move up or down in flow but will track within a general zone – hence local Tornado Alley valid concept
- Coastal Climate Zones May influence localized Tstorm and Tornado Development



# Front Passage

Tornado Alley's can stretch into Alabama with either Thermal Generator – Hence the Chase Need

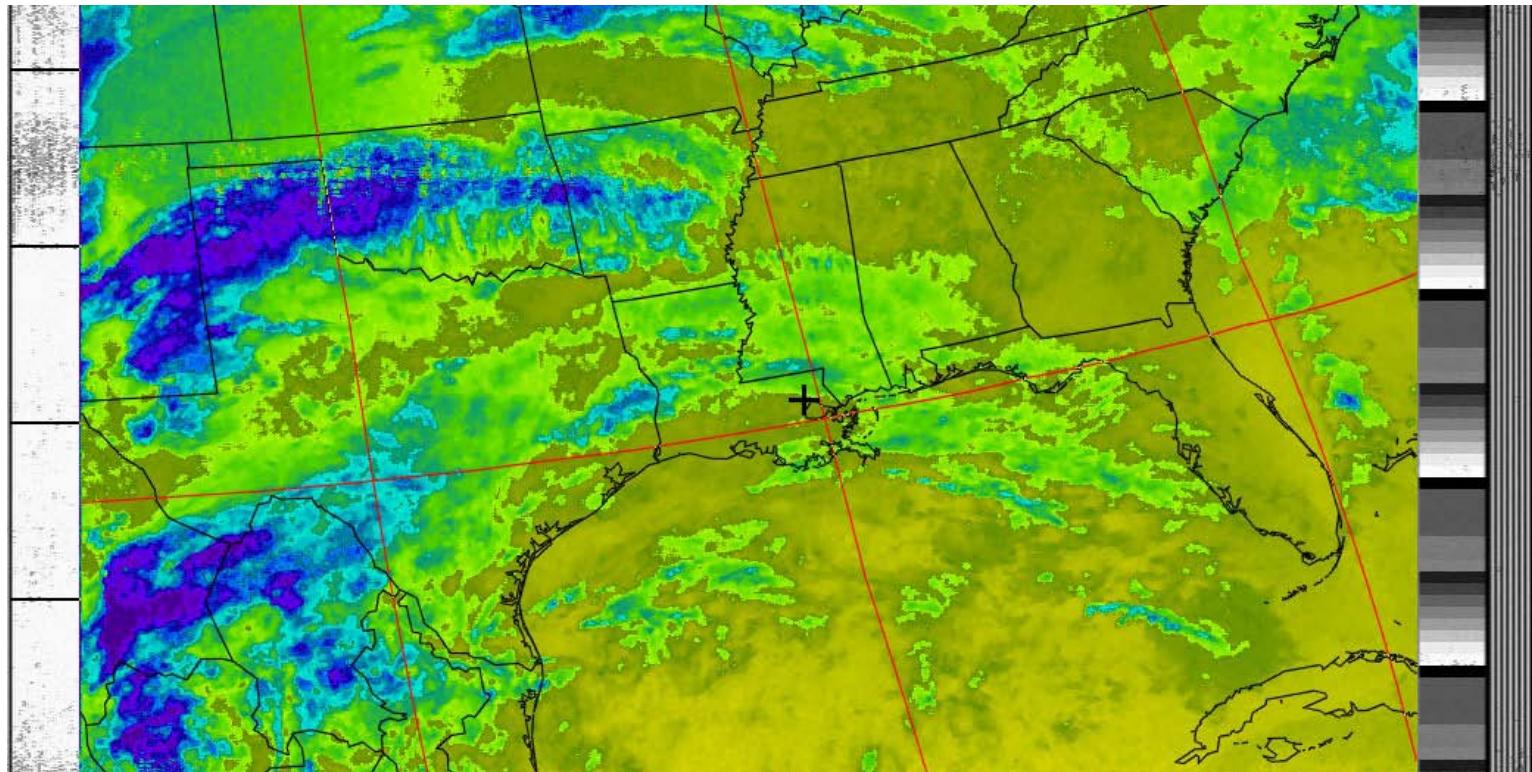


If Energy Missing Front Passes With No Tornadoes



# Thermal Influence Continues

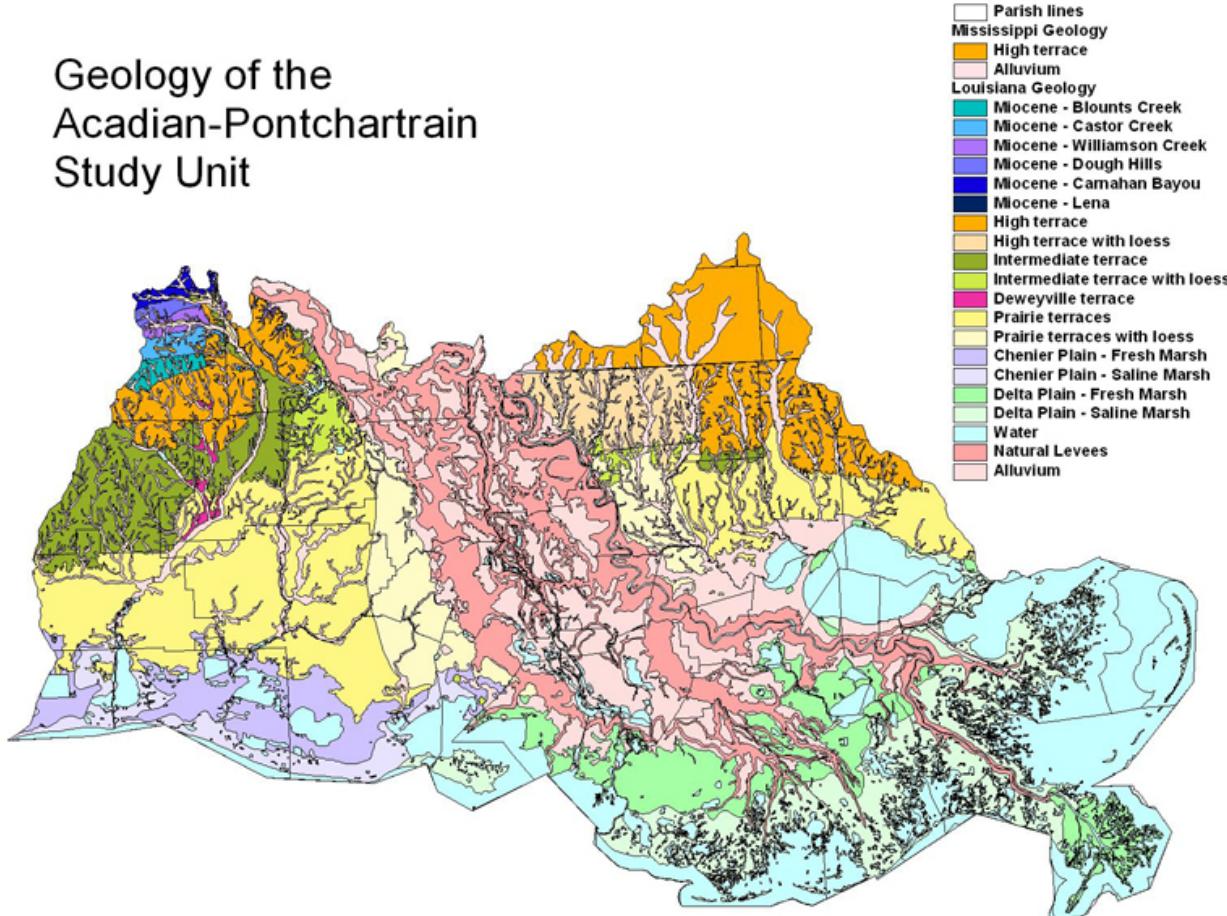
Even as front moves East Wiggin's Thermal Still Influences Local Weather Temps



# What Creates The Thermal?

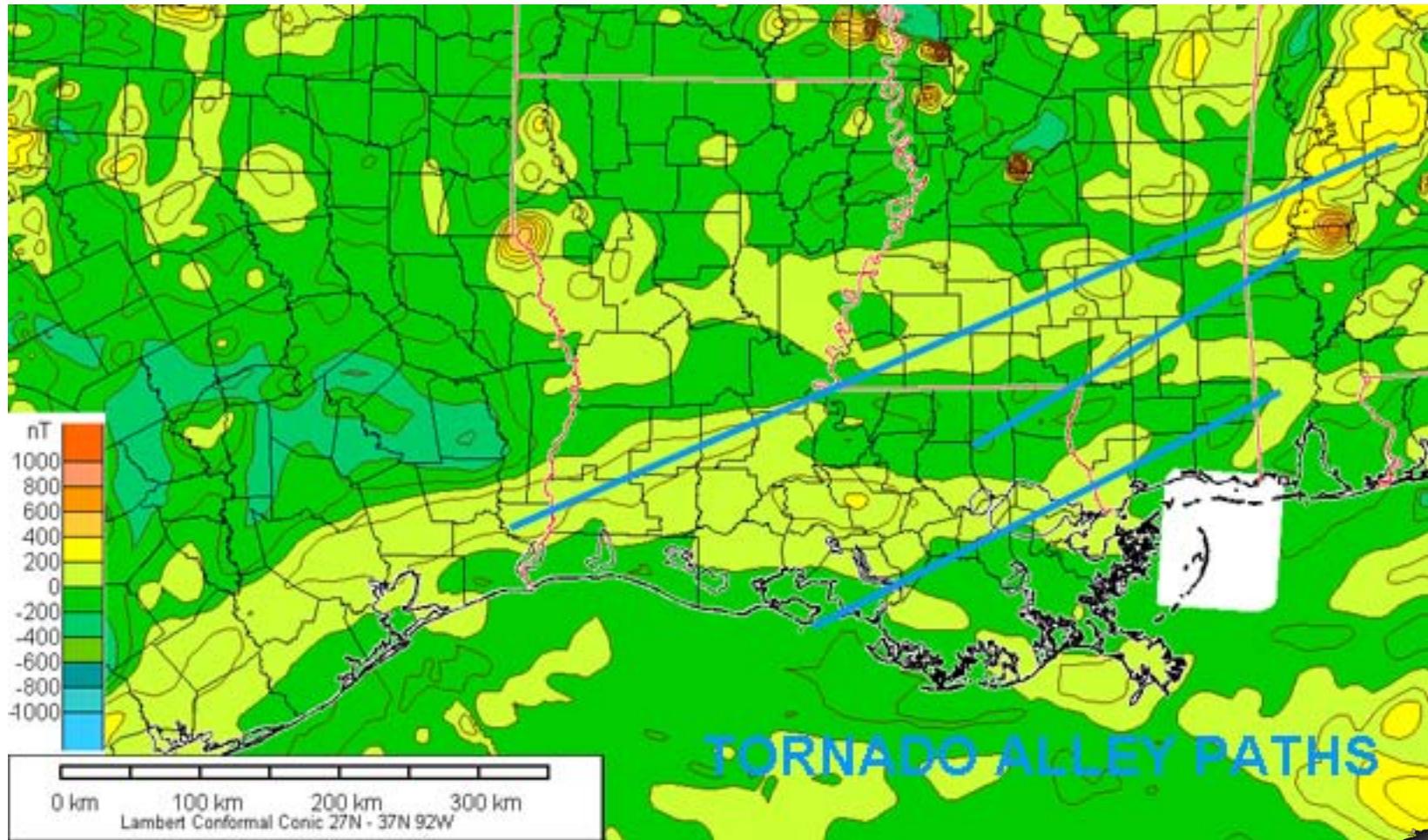
## Is it the Geology?

Geology of the  
Acadian-Pontchartrain  
Study Unit



# Gravity and Magnetic Map

## Thermal Paths Match Map Zones



# Conclusion

- There appears to be a direct correlation between the paths of the Tornadoes and the Gravity/Magnetic Patterns of the Locale
- The edges of a GeoMag Zone can create a continuous Thermal Flow in the Atmosphere
- Magnetic Zones can aim the Tornadoes
- The interaction of the Thermal Flows with Atmospheric Energy can fire the Generators



# Contact Information

Pullman Geosciences Research Foundation

<http://pullmangeosciences.org>

Glenda Project

<http://glendaproject.org>

Email:

[bayoucanada@pullman.net](mailto:bayoucanada@pullman.net)



# Summary

