



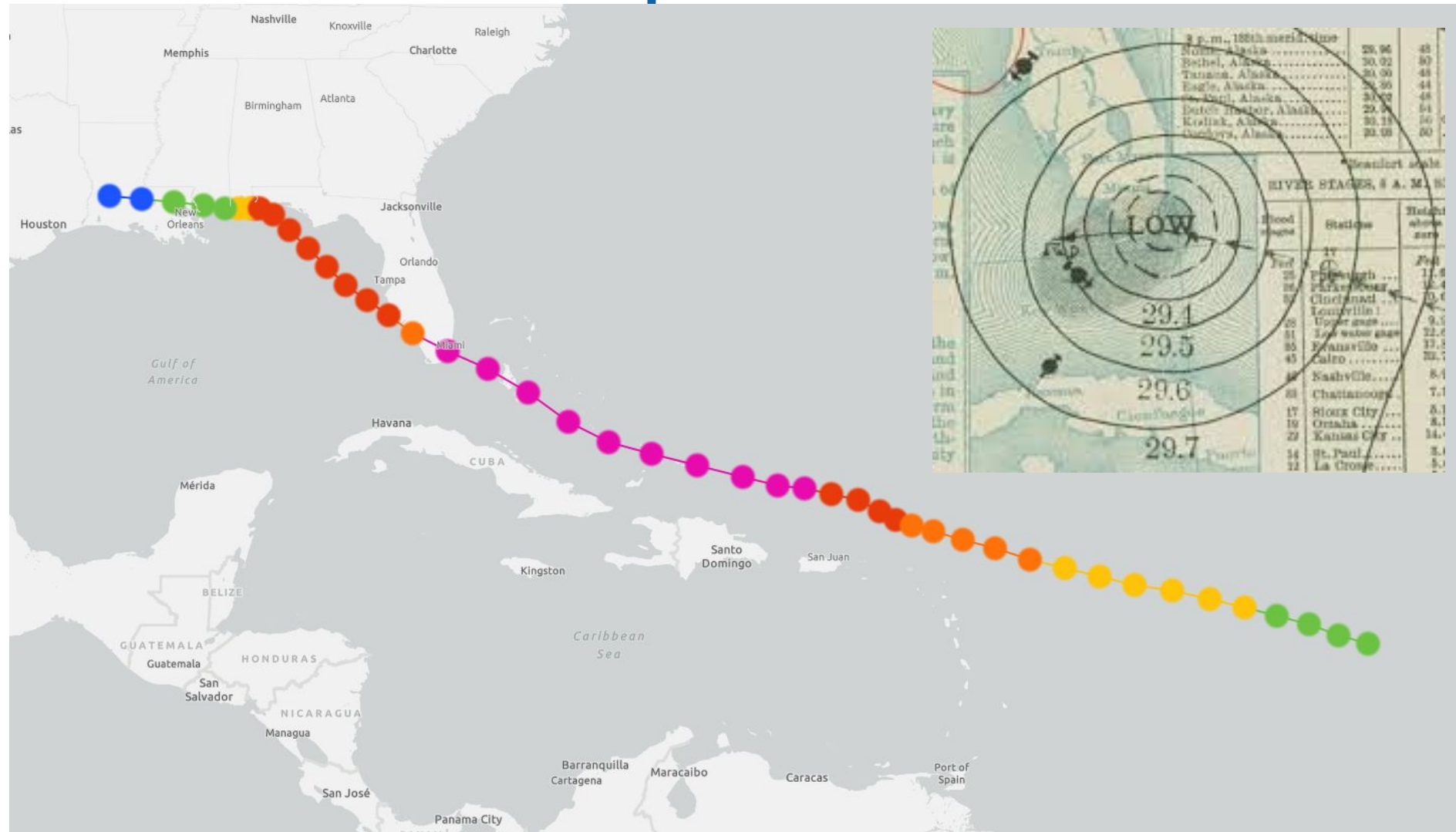
# The Great Miami Hurricane of 1926

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# Great Miami Hurricane of 1926

## September 11-22



- Classic “Cape Verde” storm originating in eastern Atlantic during peak season
- Reached Category 4 intensity east of the Bahamas, maintaining that intensity through Florida landfall on September 18



# Statistics and Impacts

- Eye moved over Miami before 7 AM on Sept. 18th
- Max sustained winds: 145 mph
- Estimated storm tide: 8-10 feet
- Inundation of 3-5 feet in structures near Biscayne Bay. Sand several feet deep covered Miami Beach

“Northeast Storm Warnings” issued for the Florida east coast at Noon on Sept. 17th, less than 24 hours before peak impacts

“Hurricane Warning” was issued around 11 PM the evening prior to landfall, providing less than 6 hours of lead time to arrival of hurricane force winds in Miami





# Poll Question

**What Level of Damage Would this Hurricane Produce in Miami if it Occurred Today?**

- A. Bad, but with fewer deaths due to more warnings/better forecasts**
- B. Catastrophic with massive casualty count**
- c. Current building code would hold up pretty well**

# Statistics and Impacts



- 372 U.S. deaths (most in the Miami/Fort Lauderdale area) and over 6,000 injured in South Florida. Most of the deaths resulted from storm surge
- \$105 million in estimated damage (normalized damage of around \$200 billion under current conditions)



# Tough Lesson #1 - Complacency/Lack of Experience



- First hurricane to impact Miami in 20 years (1906)
- Miami population exploded from just over 40,000 in 1920 to well over 100,000 in 1926 as result of the Florida Land Boom of the 1920s
- Boom was already in decline when the hurricane hit, precipitating an economic downfall that lasted into the next decade



*Getty Images*

# Tough Lesson #1- Complacency/Lack of Experience



- From Floy Cooke Mitchell, wife of former mayor of Boca Raton J.C. Mitchell:

*“We had never been through a hurricane in 1926, when we experienced our first one. ... We didn't know that all windows should be covered in a hurricane. ... I was watching as railroad cars were being knocked off the tracks and telegraph poles were snapped like toothpicks. ...[Immediately] almost all the windows on the top floor were broken.”*



# Lessons for Today

- *Common to have long periods between hurricanes - challenge to keep a growing population informed & educated*
- *Hurricanes invariably cause economic hardships to communities that can linger for many years. Resiliency/planning is key to mitigate long-term effects*
- *Despite vast improvements in forecasting since 1926, hurricanes can still form and strengthen very quickly before landfall. Can't assume we're always going to have several days of advance notice*



# Tough Lessons #2 - Infrastructure

- Florida Land Boom of the 1920s was associated with shoddy construction due to unscrupulous developers
- In Miami alone, 4,725 buildings destroyed and 9,100 damaged. About 43,000 people left homeless
- A few years later, Miami Beach enacted first building code in the U.S. which was duplicated by more than 5,000 U.S. cities





# Lessons for Today

- *Continuous testing/evaluation of building codes based on latest science and data*
- *Community development in hurricane-vulnerable areas*
- *Hardening of existing infrastructure*



# Tough Lesson #3 - Impacts

- Majority of deaths resulted from storm surge during the second half of the storm
- Streets became “crowded with people” as the eye passed over the city. Lull lasted 35 minutes. This unfortunately caught people off-guard and “many lives were lost” as a result
- Second half of the storm/back side produced stronger winds and more damage
- Very large radius of hurricane force winds, extending as far north as St. Lucie County
- Storm surge on south shore of Lake Okeechobee breached frail, earthen dikes and submerged towns of Clewiston and Moore Haven. Some estimates place number fatalities in this area at around 300.



# Lessons for Today

- *Focus on impacts!*
- **Timing** of impacts just as important as potential severity
- Reinforce safety messaging (“don’t go out in the eye”, “evacuate if under an evacuation order”, etc.)



# Questions?