



National Weather Service, Melbourne, FL

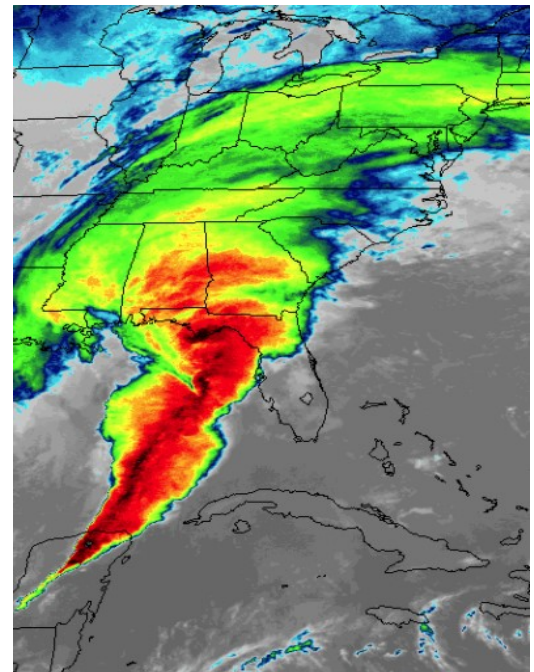
Blizzards, storm surge, tornadoes, high winds and hail—all impacts the U.S. East Coast faced during the Storm of the Century in March of 1993. One of the strongest mid-latitude cyclones on record, the “Superstorm of ‘93” would become one of the most costly weather events in the 20th century.

The Setup

A slow-moving cold front stalled over Central FL in the early hours of March 12, while a developing low off the southern coast of TX moved east into the Gulf of Mexico. Over the next 6 hours, this low began to rapidly intensify over the central Gulf, with sufficient warmth to spark convection in the area.

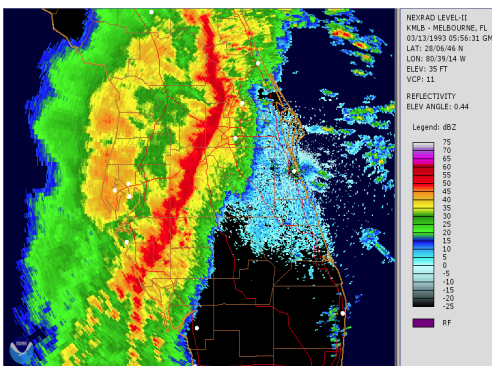
By sunset on March 12, the center of a mature low pressure system was posi-

tioned just southeast of the Mississippi Delta, where wind speeds over 50 knots and heavy rain were observed. Not only did this system feature a strong center of low pressure, but also a broad squall line, extending deep into the southern Gulf of Mexico. This squall line would later produce significant, damaging weather across the FL peninsula.



9:30pm March 12, 1993
Meteosat Courtesy of CIMMS

Late-Night Landfall



Shortly after midnight, the center of low pressure made landfall along the FL Gulf Coast near Panama City, with the lowest pressure reading near 977mb.

As this low pressure center tracked northeast across

12:56am March 13, 1993
KMLB WSR-88D

southern GA, a very broad squall line extending from north FL to the Yucatan Peninsula advanced rapidly across the state. Most of the significant weather impacts across FL occurred in the pre-dawn hours, when most residents were sleeping and may have been unable to receive severe alerts.

Florida Impacts

The Superstorm impacted FL for nearly an 18 hour period beginning on March 12. The most intense weather occurred from 11pm to 5am, as a squall-line moved across the FL peninsula, causing unprecedented severe weather. As the line raced through the state, significant wind damage occurred from wind gusts measured from 70 mph in central FL, to as high as 96 mph in the Tampa Bay area.

Small scale bowing segments of the squall line also produced tornadoes, with 11 tornadoes occurring within 2 hours. The strongest confirmed tornado occurred in Levy County (F-3), killing 3 people and destroying numerous homes in Chiefland. The longest track tornado was an F-2 and left a path of damage 31 miles long from central Lake County to Deland. This tornado killed 1, an infant inside a mobile home. A total of 7 lives were lost due to 15 confirmed tornadoes in the state.

The most unexpected impact was an unprecedented 9-12 ft storm surge along the Gulf Coast, severely inundating Taylor County and areas south to Tampa Bay. Major flooding in these areas caused 13 deaths, while high wind and seas up to 20 feet in the Gulf capsized boats, drowning 11 people.

Cold air behind the severe squall line moved into the FL Panhandle on Saturday, producing nearly 5 inches of snowfall in areas from Pensacola to Crestview.

In total, 44 deaths were attributed to the Superstorm in FL, nearly one-third of the direct deaths across the nation. Destruction from high seas, tornadoes, storm surge, and coastal flooding created a property damage estimate of \$1.6 billion, one of the most costly disasters of the 20th century.



High winds tossed boats all over Saturday in Bahia Beach in Hillsborough County. President Clinton declared 21 counties federal disaster areas.



PART OF ROOF flies off the Days Inn on SR 1A in Satellite Beach during Saturday's storm.



Figure 1-1. Aerial photo of destroyed homes. (Photo courtesy of Brian Smith.)



Figure 1-3. Aerial Photo of Ocala Airport including the DC-3. (Photo courtesy of Brian Smith.)



Figure 1-4. Damaged Industrial Park from the Ground. (Photo courtesy of Kevin McCarthy.)

National Impacts



SKIERS CROSS the Mall in front of the Washington Monument as the city began to recover from one of the fiercest winter storms in years. The Capitol is in the background.

While FL received a majority of the severe weather from the 1993 Superstorm, the entire East Coast felt impacts from the intense system. High winds continued across the Appalachians and Deep South, downing trees and powerlines and leaving thousands of residents without power. Intense winds were also recorded in the Northeast, where a peak wind gust of 144 mph was measured at Mt. Washington, NH.

Blizzard conditions were seen from N Georgia to Maine, with 43" of snow measured in Syracuse, NY and 56" in Tennessee. Over 200 hikers became stranded in the Appalachians due to blizzard conditions and heavy snowfall. March 1993 also recorded the most weather related flight cancellations in history to this point.

In total, 270 people were killed in 10 states along the East Coast from effects of the Storm of the Century.

Looking Back: A “Superstorm” Shift in 1993

An Interview with Randy Lascody, NWS Melbourne Senior Forecaster



Where were you during the 1993 Superstorm?

I was a General Forecaster here in Melbourne, working the evening of March 12 when the squall line moved across the peninsula.

Why is it called the “Superstorm” or “Storm of the Century”?

It was a really unique system. For this latitude, it was probably one of the strongest in terms of extra-tropical cyclones. There have been lower pressure centers move across the northern latitudes, but for Central Florida, it is pretty extraordinary.

What was the office dynamic like during this event?

Twenty-five years ago, there weren't as many staff as there is today. Offices didn't have forecast responsibility back then, so we were just there to watch radar. We did issue a Tornado Warning for the squall line as it approached Lake County, where there was a confirmed tornado touchdown. This had a 22 minute lead time, which was plenty for the warning. We also notified Lake County Emergency Management of the potential tornado outbreak before the squall moved onshore.

What was a challenge in forecasting the Superstorm?

At the time, we didn't have the computer models that we have now, but the models we did have showed a strong system developing in the Gulf of Mexico several days in advance. The largest loss of life in the state was from the storm surge in Taylor County. The challenge in this was recognizing

that an extra-tropical storm could produce storm surge type flooding similar to a hurricane. I don't recall anything like that since 1993; it was a pretty rare event. Nowadays, a system like this would receive more notoriety ahead of time and the media would help with messaging.

Twenty-five years later, what is the biggest takeaway from this event?

What caught people off-guard in this event was the storm surge fatalities in Apalachee Bay. People didn't understand storm surge or the warning, so there has been a lot of work to clarify through emergency management and the media.

What about this event was most memorable for you?

The coolest thing I remember from that storm was the day after once the front swept through, the winds were gusting to 60mph because the pressure gradient was so strong. I was riding my bike in front of my house into the wind and I stopped pedaling and let the wind push me backwards.



LAWTON CHILES talks with Deyawn Donaldson in Chiefland on Sunday among storm's ruins.



Storm shatters lives in state

BEN SHARP, 14, collects pieces of bark for a souvenir from the oak tree that fell on his neighbor's car Saturday in Gainesville. The damage was caused by a massive storm that swept through the Panhandle and Florida on the East Coast of the state Saturday in Gainesville. The storm killed at least 12 people, 10 from...



CHIEFLAND RESIDENTS stand among the ruins of their neighborhood Saturday after a tornado swept through late Friday night, killing three and wounding several others.

Newspaper Headlines

March 12-14, 1993

THE TAMPA TRIBUNE

and The Tampa Times

METRO

Tampa, Florida ■ Sunday, March 14, 1993

222 pages 75¢

Florida takes a wicked blow

At least 15 people die in state's fierce winds, floods

WEATHER: Winter's last stand. High in the mid-50s, low in the mid-30s. Details, Page B-2.

SUNDAY, March 14, 1993

The Orlando Sentinel

\$1.50

The best newspaper in Florida

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★★★

MARCH MONSTER ROARS

Storm ravages Florida

PANHANDLE
Arctic-deep snow reported

LEVY
Tornado kills 4 in Chiefland

TAYLOR
3 killed

LAKE
2 killed, heavy damage reported

PASCO
3 killed

GULF COAST
Flooding reported, some residents evacuated

DADE
High winds kill 1

DRY TORTUGAS
Wind gusts of 100 mph

DUVAL
85 percent of Jacksonville without power

ALACHUA
High winds kill 6-year-old

4 PAGES INSIDE: Stuck here?
Airports close throughout the East, stranding travelers in Orlando. Page A-10

A blowout
Virtually every business in downtown Mount Dora lost its windows overnight. Page A-11

Visions of Andrew
South Florida, still recovering from the hurricane, is hit with terrorizing winds. Page A-11

Monumental snow
They were skiing on the streets in Washington, D.C. Page A-9

More in Sports, D-1

State of emergency declared

MARK WILLIAMS/SENTINEL



CHIEFLAND: Devora Wheeler Patterson stands amid the ruins of her sister's house Saturday. Dayawn Wheeler Donaldson was asleep when the tornado hit but escaped. Patterson and Donaldson grew up in the house.

TOM SPITZ/SENTINEL

Possibly 'worst storm of century' kills at least 40 — 18 in Florida

At least 40 die, including 18 in Florida

FLORIDA TODAY Wires

Killer storm whips East

About 10,000 lose power in Brevard



At least 40 die, including 18 in Florida

FLORIDA TODAY Wires

By David A. Hall

... money in seven

The jackpot estimate could grow

Lottery results, 1B, 4B.

Gloria Abood, FLORIDA TODAY

Super Storm toll: 112 dead

Records fall