

PUBLIC INFORMATION STATEMENT
NATIONAL WEATHER SERVICE MIAMI FL
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...SOUTH FLORIDA 2007 ANNUAL WEATHER REVIEW...
...WARM AND DRY YEAR ACROSS MUCH OF SOUTH FLORIDA...

THE WEATHER HIGHLIGHTS OF 2007 WERE THE DROUGHT CONDITIONS WHICH PERSISTED ACROSS A LARGE PART OF SOUTH FLORIDA, AS WELL AS WARMER THAN NORMAL TEMPERATURES.

PRECIPITATION AND DROUGHT:

THE PERIOD OF BELOW NORMAL PRECIPITATION WHICH BEGAN IN 2006 CONTINUED THROUGHOUT 2007, ESPECIALLY OVER NORTHERN AND WESTERN SECTIONS OF SOUTH FLORIDA, INCLUDING THE SOUTHWEST GULF COAST AND THE LAKE OKEECHOBEE AREAS. A MUCH DRIER THAN EXPECTED WINTER AND EARLY SPRING, IN COMBINATION WITH FEW ORGANIZED LARGE SCALE PRECIPITATION EVENTS DURING THE SUMMER, LED TO BELOW NORMAL PRECIPITATION AMOUNTS. THESE AREAS RECEIVED ANYWHERE FROM 10 TO 18 INCHES BELOW THE NORMAL RAINFALL VALUES FOR THE YEAR. AS A RESULT, PORTIONS OF SOUTH FLORIDA HAVE BEEN IN AT LEAST SEVERE DROUGHT STATUS SINCE MARCH. THE LEVEL OF LAKE OKEECHOBEE REACHED ITS LOWEST ALL TIME OBSERVED LEVEL OF 8.82 FEET ON JULY 1. DAILY RECORD LOW LAKE LEVELS WERE SET ON EVERY DAY SINCE LATE MAY. THE LOW LEVEL OF THE LAKE, ALONG WITH THE BELOW NORMAL RAINFALL, LED TO WATER USAGE RESTRICTIONS FOR ALL OF SOUTH FLORIDA. THE EAST COAST METRO AREAS FARED BETTER IN 2007 AS FAR AS RAINFALL IS CONCERNED, HOWEVER THESE AREAS WERE ALSO PLACED UNDER WATER RESTRICTIONS DUE TO THE LOW LEVEL OF THE LAKE.

HERE ARE SOME TOTALS FROM AROUND THE AREA (IN INCHES):

SITE	2007 PRECIP	DEPARTURE FROM NORMAL
MIAMI INTERNATIONAL	63.97	+ 5.46
PALM BEACH INTERNATIONAL	63.81	+ 2.42
NAPLES REGIONAL	34.94	-16.96
FORT LAUDERDALE INTL	57.85	- 6.34
HOLLYWOOD	64.25	- 2.80
MIAMI BEACH	64.60	+13.00
MOORE HAVEN	29.12	-17.32
IMMOKALEE	38.19	-11.88
CLEWISTON	34.57	-10.83
ORTONA	59.25	+ 7.37
BELLE GLADE	45.53	- 6.03

TEMPERATURES:

THE DRY WEATHER ALSO CONTRIBUTED TO THE WARMER THAN NORMAL TEMPERATURES OBSERVED ACROSS ALL OF SOUTH FLORIDA IN 2007. THE MONTHS OF AUGUST, SEPTEMBER, AND OCTOBER WERE PARTICULARLY WARM ACROSS THE REGION, WITH ALL TIME MONTHLY RECORD WARM TEMPERATURES SET AT NAPLES AND FORT LAUDERDALE. DECEMBER WAS ALSO VERY WARM WITH A RECORD MONTHLY AVERAGE TEMPERATURE SET AT MIAMI BEACH. IN ADDITION, A TOTAL OF 136 DAILY RECORDS WERE SET AT THE FOUR MAIN

OBSERVATION SITES OF MIAMI, FORT LAUDERDALE, WEST PALM BEACH AND NAPLES. ONLY 3 OF THOSE WERE FOR NEW DAILY RECORD LOWS. HIGHEST RECORDED TEMPERATURES AT THE FOUR MAIN OBSERVING STATIONS WERE: 98 IN NAPLES ON AUGUST 29, 97 IN MIAMI ON AUGUST 5, 95 IN FORT LAUDERDALE ON SEPTEMBER 3 AND 94 IN WEST PALM BEACH ON AUGUST 14.

HERE IS A LISTING OF AVERAGE YEARLY TEMPERATURES FOR 2007:

SITE	2007 AVG TEMP (RANK)	DEPARTURE FROM NORMAL
FT LAUDERDALE HOLLYWOOD INTL	78.24 1 (SEE NOTE)	+ 2.3
MIAMI INTERNATIONAL	77.83 4	+ 1.1
MIAMI BEACH	77.81 1 (OLD 1994)	+ 1.9
NAPLES REGIONAL	76.60 1 (TIE 1946)	+ 2.5
PALM BEACH INTERNATIONAL	76.43 8	+ 1.1

NOTE - THE OFFICIAL FORT LAUDERDALE CLIMATE SITE WAS MOVED IN 2002 FROM THE DIXIE WATER PLANT TO THE FORT LAUDERDALE HOLLYWOOD INTERNATIONAL AIRPORT. THE NEW SITE HAS SHOWN TO BE MUCH WARMER THAN THE OLD SITE. THIS IS PROBABLY BECAUSE THE AIRPORT IS CLOSER TO THE ATLANTIC OCEAN, AT A LOWER ELEVATION AND THE FACT THAT THERE IS MORE CONCRETE AND ASPHALT AT THE AIRPORT SITE COMPARED TO THE DIXIE WATER PLANT SITE. WHILE 2007 IS A NEW RECORD ANNUAL AVERAGE TEMPERATURE USING THE NEW SITE AND THE OLD RECORDS DATING BACK TO 1911, IT WOULD BE ONLY THE 8TH WARMEST YEAR AT THE DIXIE WATER PLANT SITE.

HOWEVER, 2007 DID HAVE ITS SHARE OF COLD WEATHER. A SERIES OF ARCTIC COLD FRONTS MOVED THROUGH SOUTH FLORIDA ON PRESIDENTS DAY WEEKEND IN FEBRUARY, PRODUCING FREEZING TEMPERATURES OVER THE INTERIOR NORTHERN AND WESTERN AREAS ON FEBRUARY 17 AND AGAIN ON FEBRUARY 19. TEMPERATURES BOTH MORNINGS DROPPED INTO THE 20S OVER PORTIONS OF COLLIER, GLADES, HENDRY AND WESTERN PALM BEACH AREAS AWAY FROM LAKE OKEECHOBEE. IN ADDITION, TEMPERATURES DROPPED TO AROUND FREEZING OVER SOUTH MIAMI-DADE COUNTY ON THE MORNING OF FEBRUARY 19. IN ALL, THE FREEZING TEMPERATURES CAUSED AN ESTIMATED 50 MILLION DOLLARS IN DAMAGE TO WINTER CROPS ACROSS THE REGION, ESPECIALLY IN WESTERN PALM BEACH COUNTY. LOWEST OBSERVED TEMPERATURES AT THE FOUR MAIN OBSERVING STATIONS WERE: 36 IN WEST PALM BEACH ON FEBRUARY 17, 37 IN NAPLES ON FEBRUARY 19, 42 DEGREES IN FORT LAUDERDALE ON FEBRUARY 17 AND 42 DEGREES IN MIAMI ON FEBRUARY 19.

WEATHER-RELATED DEATHS:

DESPITE THE LACK OF SIGNIFICANT TROPICAL ACTIVITY, A TOTAL OF 15 PEOPLE DIED AS A RESULT OF WEATHER-RELATED HAZARDS IN 2007. THIS NUMBER IS GREATER THAN THE COMBINED DIRECT TROPICAL CYCLONE RELATED DEATHS OBSERVED DURING THE EXTREMELY ACTIVE 2005 HURRICANE SEASON.

RIP CURRENTS ONCE AGAIN TOPPED THE LIST, CLAIMING SEVEN LIVES. FIVE OF THESE DROWNINGS OCCURRED DURING THE PERIOD FROM MAY 27 THROUGH JUNE 1, INCLUDING MEMORIAL DAY WEEKEND.

LIGHTNING RESULTED IN SIX DEATHS ACROSS SOUTH FLORIDA, WITH AN ADDITIONAL 12 PEOPLE INJURED. THIS IS THE HIGHEST NUMBER OF LIGHTNING RELATED DEATHS IN SOUTH FLORIDA SINCE 1971, AND TIES THAT YEAR FOR THE HIGHEST NUMBER OF LIGHTNING DEATHS IN SOUTH FLORIDA SINCE 1959. IN ADDITION TO THE CASUALTIES, LIGHTNING STRUCK SEVERAL

STRUCTURES, CAUSING TOTAL DAMAGE WHICH WAS ESTIMATED AT \$16 MILLION.

THE OTHER WEATHER-RELATED DEATHS OCCURRED IN MARINE INCIDENTS: A BOATER DROWNED WHEN HIS BOAT CAPSIZED IN BISCAYNE BAY DURING A SEVERE THUNDERSTORM ON APRIL 12, AND A 15-YEAR-OLD GIRL DIED IN A PARASAILING ACCIDENT OFF POMPANO BEACH CAUSED BY STRONG THUNDERSTORM WINDS ON AUGUST 18.

SEVERE WEATHER:

SOUTH FLORIDA SAW AN INCREASE IN SEVERE WEATHER EVENTS COMPARED TO THE PAST THREE YEARS. A TOTAL OF 11 TORNADOES WERE OBSERVED, ALTHOUGH ONLY FOUR CAUSED ANY DAMAGE. A TORNADO IN CUTLER BAY IN MIAMI-DADE COUNTY ON JUNE 1 WAS RATED AS AN EF1 ON THE ENHANCED FUJITA SCALE WITH MAXIMUM WINDS ESTIMATED BETWEEN 85 AND 90 MPH. DAMAGE ESTIMATES WERE AROUND 20 THOUSAND DOLLARS. ANOTHER TORNADO IN LABELLE ON JUNE 7TH WAS RATED AN EF0 WITH HIGHEST WINDS OF 70 MPH, WITH DAMAGE ESTIMATED AT 8 THOUSAND DOLLARS. A TORNADO IN BOYNTON BEACH ON APRIL 10 WAS ALSO RATED AN EF0 WITH DAMAGE ESTIMATED AT AROUND 10 THOUSAND DOLLARS, AND A TORNADO IN TAMARAC ON FEBRUARY 28 WAS ALSO RATED AN EF0 WITH DAMAGE ESTIMATED AT 10 THOUSAND DOLLARS.

A TOTAL OF 80 REPORTS OF LARGE HAIL AND OR WINDS OF 58 MPH OR GREATER WERE RECEIVED, CAUSING AN ESTIMATED 890 THOUSAND DOLLARS IN DAMAGE. A TOTAL OF 42 WATERSPOUT REPORTS WERE RECEIVED, THREE OF WHICH BRIEFLY TOUCHED LAND WITHOUT CAUSING DAMAGE.

THE MOST ACTIVE SEVERE WEATHER DAYS IN SOUTH FLORIDA WERE:

- FEBRUARY 28: TORNADO AND LARGE HAIL IN BROWARD COUNTY. - APRIL 10: TORNADO, LARGE HAIL AND STRONG WINDS IN PALM BEACH COUNTY. - MAY 6: TORNADOES, LARGE HAIL AND STRONG WINDS ACROSS MOST OF SOUTH FLORIDA.

- JUNE 12-14: STRONG WINDS AND LARGE HAIL OVER MUCH OF SOUTH FLORIDA.

TROPICAL CYCLONES:

THE HURRICANE SEASON OF 2007 MARKED THE SECOND YEAR IN A ROW IN WHICH SOUTH FLORIDA WAS SPARED OF THE EFFECTS OF A HURRICANE. A TOTAL OF THREE SYSTEMS INDIRECTLY AFFECTED SOUTH FLORIDA: SUBTROPICAL STORM ANDREA ON MAY 9, TROPICAL STORM BARRY ON JUNE 1-2, AND TROPICAL STORM NOEL ON OCTOBER 31-NOVEMBER 1. THE MAIN EFFECTS FROM THESE STORMS WERE SEVERE TO EXTREME BEACH EROSION ALONG THE SOUTHEAST COAST CAUSED BY LONG PERIOD SWELLS AND PROLONGED PERIODS OF STRONG ONSHORE WINDS. THE LOW WHICH EVENTUALLY BECAME SUBTROPICAL STORM ANDREA PRODUCED LARGE SWELLS WHICH CAUSED SEVERE BEACH EROSION ON MAY 7-8 ALONG THE NORTHERN AND CENTRAL PALM BEACH COUNTY COAST. THIS PORTION OF THE COASTLINE WAS HIT AGAIN BY HIGH SURF CAUSED BY THE STRONG PRESSURE GRADIENT ASSOCIATED WITH TROPICAL STORM NOEL IN LATE OCTOBER AND EARLY NOVEMBER. DAMAGE FROM THE NOEL EVENT TOTALLED UP TO \$4 MILLION ALONG THE PALM BEACH COUNTY COAST, WITH SIGNIFICANT BEACH EROSION ALSO REPORTED ALONG SOME BROWARD AND MIAMI-DADE COUNTY BEACHES.

THE OUTERMOST BANDS OF TROPICAL STORM BARRY SPAWNED THE EF1 TORNADO WHICH STRUCK CUTLER BAY ON JUNE 1.