



FLORIDA KEYS

National Weather Service Forecast Office

<http://www.weather.gov/keywest>

ISSUED: 435 AM EST WED JAN 13 2010

HISTORIC COLD WAVE IN KEY WEST

THE LAST SEVERAL DAYS HAVE SEEN ONE OF THE LONGEST AND MOST INTENSE PERIODS OF COLD WEATHER EVER RECORDED IN KEY WEST. TEMPERATURES DROPPED WELL BELOW NORMAL IN THE WAKE OF A STRONG COLD FRONT ON JANUARY 2ND...AND HAVE REMAINED MORE THAN 10 DEGREES BELOW NORMAL EACH DAY SINCE THEN...UP THROUGH JANUARY 12TH. THE COLDEST TEMPERATURES DURING THIS EVENT WERE OBSERVED ON JANUARY 10TH AND 11TH...AFTER A POWERFUL REINFORCING ARCTIC COLD FRONT MOVED THROUGH THE REGION.

BELOW ARE THE HIGH AND LOW TEMPERATURES...ALONG WITH THE DEPARTURE FROM NORMAL OF THE DAILY AVERAGE TEMPERATURE...RECORDED AT KEY WEST AIRPORT EACH DAY SINCE THE COLD WAVE BEGAN.

Day / Date		High	Low	Dep.
SAT	JAN 2	64	57	-10
SUN	JAN 3	60	55	-13
MON	JAN 4	60	54	-14
TUE	JAN 5	62	53	-13
WED	JAN 6	57	52	-16
THU	JAN 7	59	47	-18
FRI	JAN 8	71	47	-12
SAT	JAN 9	66	49	-13
SUN	JAN 10	52	46	-21
MON	JAN 11	56	42	-21
TUE	JAN 12	59	48	-16

FOR COMPARISON...THE NORMAL HIGH TEMPERATURE IN KEY WEST THIS TIME OF YEAR IS 75 DEGREES...AND THE NORMAL LOW TEMPERATURE IS 65 DEGREES.

SIX NEW RECORD DAILY LOW AND LOW MAXIMUM TEMPERATURES HAVE BEEN SET IN KEY WEST DURING THIS COLD WAVE. A LIST OF THE NEW RECORDS FOLLOWS.

Day / Date		New Record / Type	Old Record / Year
WED	JAN 6	57 (LOW MAXIMUM)	60/1919
THU	JAN 7	47 (LOW)	48/1879
THU	JAN 7	59 (LOW MAXIMUM)	60/1892
FRI	JAN 8	47 (LOW)	50/1970
SUN	JAN 10	52 (LOW MAXIMUM)	55/1970
MON	JAN 11	42 (LOW)	48/1970

THE RECORD LOW OF 42 DEGREES ON MONDAY JANUARY 11TH IS PARTICULARLY NOTEWORTHY. THIS SHATTERED THE PREVIOUS RECORD LOW FOR THE DATE BY SIX DEGREES...AND WAS THE SECOND COLDEST TEMPERATURE EVER RECORDED IN KEY WEST...WITH TEMPERATURE RECORDS DATING BACK TO 1873. THE ALL TIME RECORD LOW TEMPERATURE IN KEY WEST IS ONLY ONE DEGREE COLDER AT 41 DEGREES. THIS HAS OCCURRED TWICE...ON JANUARY 13TH 1981...AND JANUARY 12TH 1886.

THE RECORD LOW MAXIMUM TEMPERATURE OF 52 DEGREES OBSERVED ON JANUARY 10TH WAS THE COLDEST HIGH TEMPERATURE RECORDED IN KEY WEST IN ALMOST 70 YEARS...SINCE JANUARY 28TH 1940...WHEN THE HIGH TEMPERATURE WAS ALSO JUST 52 DEGREES. ONLY TWO COLDER HIGH TEMPERATURES HAVE EVER BEEN RECORDED IN KEY WEST...51 DEGREES ON JANUARY 26TH 1905...AND THE ALL-TIME COLDEST HIGH TEMPERATURE OF 48 DEGREES ON DECEMBER 29TH 1894.

WITH THE LOW TEMPERATURE AT KEY WEST HAVING ALREADY DROPPED TO 47 DEGREES JUST AFTER MIDNIGHT TODAY...JANUARY 13TH...THERE HAVE NOW BEEN SEVEN CONSECUTIVE CALENDAR DAYS WITH LOWS BELOW 50 DEGREES...RUNNING FROM JANUARY 7TH THROUGH JANUARY 13TH. THIS IS THE LONGEST STREAK OF DAYS WITH LOW TEMPERATURES LESS THAN 50 DEGREES EVER RECORDED IN KEY WEST. THE PREVIOUS RECORD STREAK WAS SIX DAYS...WHICH OCCURRED DECEMBER 1ST THROUGH DECEMBER 6TH IN 1876.

ANOTHER WAY TO MEASURE THE INTENSITY AND LENGTH OF THIS COLD WAVE IS TO LOOK AT HEATING DEGREE DAYS. THESE ARE USED IN ENERGY USAGE CALCULATIONS...AND ARE CALCULATED BY DETERMINING THE DIFFERENCE BETWEEN THE AVERAGE TEMPERATURE FOR A GIVEN DAY AND THE BASE TEMPERATURE OF 65 DEGREES. FOR EXAMPLE...A DAY WITH A HIGH OF 66 AND A LOW OF 56 WOULD HAVE AN AVERAGE TEMPERATURE OF 61 DEGREES...AND WOULD ACCUMULATE FOUR HEATING DEGREE DAYS.

FOR THE PERIOD OF JANUARY 2ND THROUGH JANUARY 12TH...AN ELEVEN DAY PERIOD...KEY WEST ACCUMULATED 104 HEATING DEGREE DAYS. THIS IS THE MOST HEATING DEGREE DAYS EVER RECORDED IN ANY ELEVEN DAY PERIOD AT KEY WEST SINCE TEMPERATURE RECORDS BEGAN

IN 1873. THE PREVIOUS RECORD FOR HEATING DEGREE DAYS IN AN ELEVEN DAY PERIOD WAS 87...WHICH OCCURRED FROM JANUARY 24TH THROUGH FEBRUARY 3RD IN 1940. ELEVEN DAYS IS ALSO THE SECOND LONGEST STREAK OF CONSECUTIVE DAYS WITH AT LEAST ONE HEATING DEGREE DAY RECORDED AT KEY WEST. THE LONGEST SUCH STREAK IS CURRENTLY 12 DAYS WHICH ALSO OCCURRED IN 1940. HOWEVER...IT APPEARS CERTAIN THAT THIS STREAK WILL BE TIED TODAY...JANUARY 13TH...AND THERE IS A GOOD CHANCE THAT A NEW RECORD OF 13 CONSECUTIVE DAYS WITH ONE OR MORE HEATING DEGREE DAYS WILL BE SET ON JANUARY 14TH.

BELOW ARE THE LOW TEMPERATURES OBSERVED AT SELECTED LOCATIONS THROUGHOUT THE FLORIDA KEYS ON THE COLDEST MORNING OF THIS EVENT...MONDAY JANUARY 11TH.

Location	Low
North Key Largo	35
South Key Largo	35
Upper Matecumbe Key	36
Islamorada	37
Long Key	38
Duck Key	38
Curry Hammock State Park	37
Marathon Airport	39
Big Pine Key	40
Ramrod Key	40
Boca Chica NAS	43
Key West Airport	42
Key West NWS Office	43
Key West Harbor	44

TEMPERATURES ARE EXPECTED TO SLOWLY WARM UP ACROSS THE KEYS DURING THE REST OF THIS WEEK...BUT WILL LIKELY REMAIN BELOW NORMAL TODAY AND THURSDAY. TEMPERATURES MAY FINALLY RETURN TO NEAR NORMAL LEVELS ON FRIDAY...WHICH WOULD MARK AN END TO THIS HISTORIC COLD WAVE IN KEY WEST.

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JACOBSON/KASPER