NOAA - National Weather Service
Tampa Bay Area
2525 14th Avenue SE, Ruskin, Florida 33570
813-645-2323 http://weather.gov/tampa

Autumn Began at 10:49 AM Saturday September 22, So When Is It Going To Cool Off?

Astronomically speaking autumn began at 10:49 AM EDT Saturday September 22, but across West Central and Southwest Florida the temperatures are anything but fall-like. We`re continuing to have high humidity with dew points in the mid 60s to lower 70s during the afternoon hours, along with high temperatures in the upper 80s to lower 90s.

During most years we do not see the first shot of cooler drier air until the middle of October, albeit usually is rather short lived lasting only a day or two, with the real cool down not occurring until November. A good way to examine the timing of the first cool down is by looking at overnight low temperatures. The overnight low temperatures are highly dependent on a few factors, not the least being the amount of cloud cover, how strong the winds are and the amount of moisture in the air near the ground measured by looking at the dew point. In general overnight low temperatures cannot fall below the dew point, therefore if the dew points are still in the mid 60s to lower 70s as they are now, then the overnight low temperatures will most likely also be in the mid 60s to lower 70s unless a cool front moves through during the night. So to see when the first cool front moves across the region let's look at the dates when low temperatures fall below different thresholds at some locations.

Examining the tables below we do see that the average time of the first cool front appears to be during mid-October. This is when temperatures generally fall into the mid 50s across inland portions of the Nature Coast and below 60 degrees elsewhere across West Central and Southwest Florida. The only exception is near the coast where the water keeps temperatures higher and these areas take longer to fall below 60 degrees, as seen at St. Petersburg.

DATE OF FIRST LOW TEMPERATURE <= 60 DEGREES FAHRENHEIT

LOCATION	EARLIEST	LATEST	AVERAGE	RECORDS BEGAN
CHIEFLAND 5 SE	AUG 27 1969	OCT 25 1959	SEP 27	1956
INVERNESS 3 SE	SEP 09 1997	OCT 25 1959	OCT 07	1948
BUSHNELL 2 E	SEP 09 1997	NOV 03 1969	OCT 06	1948
WEEKI WACHEE	SEP 07 1982	OCT 23 1998	OCT 02	1969
ST LEO	SEP 14 2001	NOV 08 1919	OCT 11	1895
TARPON SPRINGS	SEP 19 1981*	NOV 15 1919	OCT 12	1892
TAMPA	SEP 19 1981	NOV 15 1919	OCT 17	1890
ST PETERSBURG	OCT 01 1920	DEC 04 1986	OCT 27	1914
PLANT CITY	SEP 15 1918	NOV 05 1900	OCT 10	1893
LAKELAND	SEP 19 1981	NOV 14 1946	OCT 15	1946
BARTOW	SEP 19 1981	NOV 14 1946	OCT 14	1892
WINTER HAVEN	SEP 19 1981	NOV 14 1946	OCT 18	1941
MOUNTAIN LAKE	SEP 19 1981	NOV 04 2007*	OCT 12	1935
PARRISH	SEP 19 1981	NOV 03 2007	OCT 14	1958
SARASOTA-BRADENTON	SEP 20 1981	NOV 02 1994	OCT 14	1948
MYAKKA RIVER ST PK	SEP 19 1981	NOV 04 1969	OCT 11	1956
WAUCHULA 2 N	SEP 19 1981	NOV 07 1941	OCT 13	1933
AVON PARK 2 W	SEP 20 1981	NOV 14 1946	OCT 16	1902
ARCADIA	SEP 16 1962	NOV 19 1911	OCT 12	1901
ARCHBOLD BIO STN	SEP 08 1997	NOV 04 2007	OCT 05	1969
VENICE	SEP 27 1956	NOV 05 1998*	OCT 18	1956
PUNTA GORDA 4 ESE	OCT 02 2001*	NOV 05 1985	OCT 18	1965
FORT MYERS	OCT 01 1920*	DEC 03 1986	OCT 27	1902

DATE OF FIRST LOW TEMPERATURE <= 55 DEGREES FAHRENHEIT

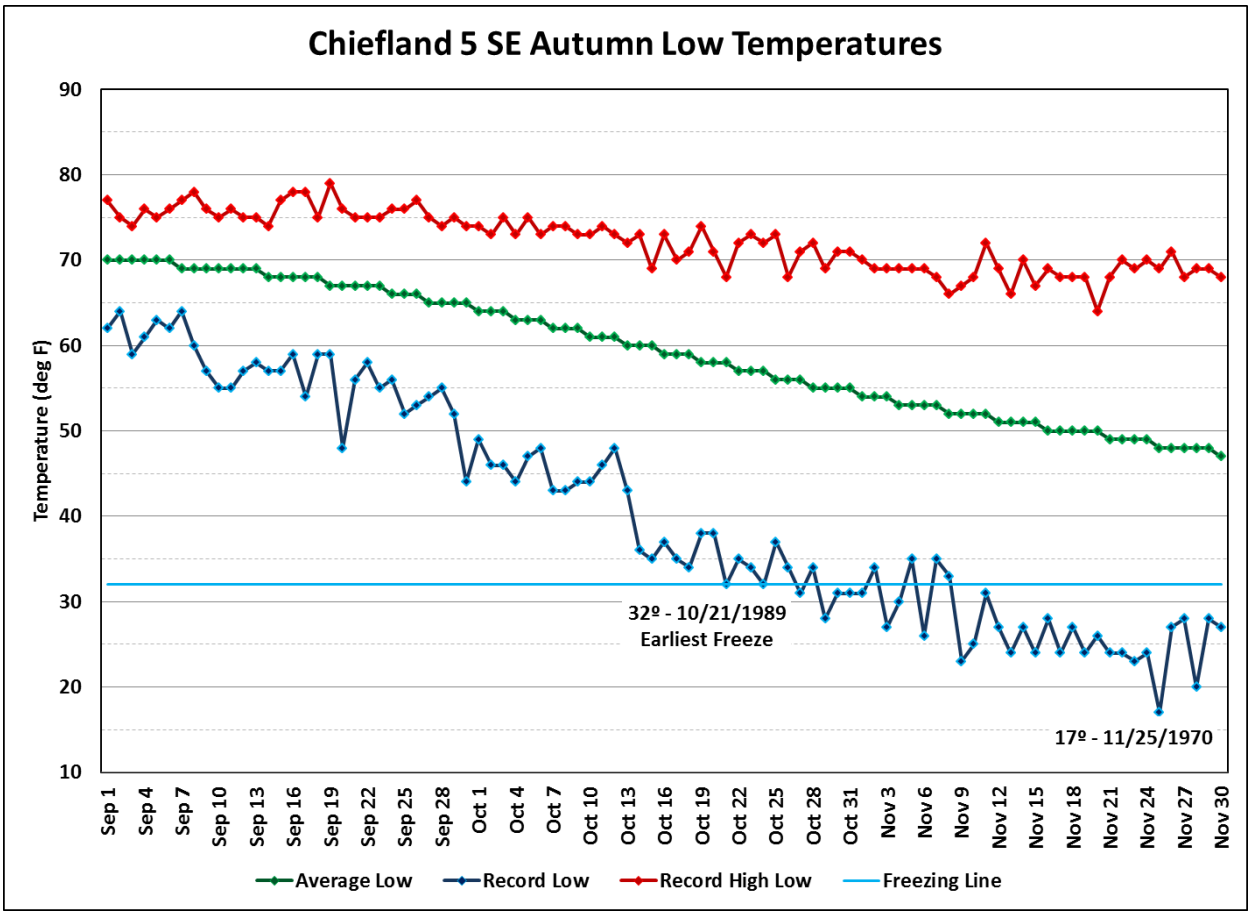
LOCATION	EARLIEST	LATEST	AVERAGE	RECORDS BEGAN
CHIEFLAND 5 SE	SEP 10 1963	OCT 27 1994	OCT 06	1956
INVERNESS 3 SE	SEP 16 1956	NOV 05 1985	OCT 15	1948
BUSHNELL 2 E	SEP 27 1956	NOV 05 1950	OCT 16	1948
WEEKI WACHEE	SEP 19 1981	NOV 02 1994	OCT 13	1969
ST LEO	SEP 19 1981	NOV 15 1919	OCT 20	1895
TARPON SPRINGS	SEP 20 1981	NOV 25 1922	OCT 22	1892
TAMPA	SEP 22 1897	NOV 25 1948*	OCT 27	1890
ST PETERSBURG	OCT 01 1920	DEC 15 1998*	NOV 07	1915
PLANT CITY	SEP 20 1981	NOV 22 1986	OCT 20	1893
LAKELAND	OCT 03 1984	NOV 25 1948	OCT 23	1946
BARTOW	SEP 22 1913*	NOV 25 1922	OCT 23	1892
WINTER HAVEN	OCT 04 1974	DEC 03 1986	OCT 27	1941
MOUNTAIN LAKE	SEP 21 1938	NOV 15 1946*	OCT 22	1935
PARRISH	OCT 02 1984	NOV 14 2003	OCT 21	1958
SARASOTA-BRADENTON	OCT 01 1920	NOV 24 1994	OCT 25	1911
MYAKKA RIVER ST PK	OCT 02 1984	NOV 22 1994	OCT 23	1956
WAUCHULA 2 N	SEP 27 1956	NOV 22 1986	OCT 24	1933
AVON PARK 2 W	OCT 01 1920	NOV 25 1948*	OCT 27	1902
ARCADIA	OCT 01 1920	DEC 04 1986	OCT 25	1901
ARCHBOLD BIO STN	SEP 29 2006	DEC 03 1986	OCT 20	1969
VENICE	OCT 03 1974	DEC 03 1986	OCT 29	1956
PUNTA GORDA 4 ESE	OCT 10 2000	DEC 04 1986	OCT 30	1965
FORT MYERS	OCT 01 1920	DEC 11 1994	NOV 04	1902

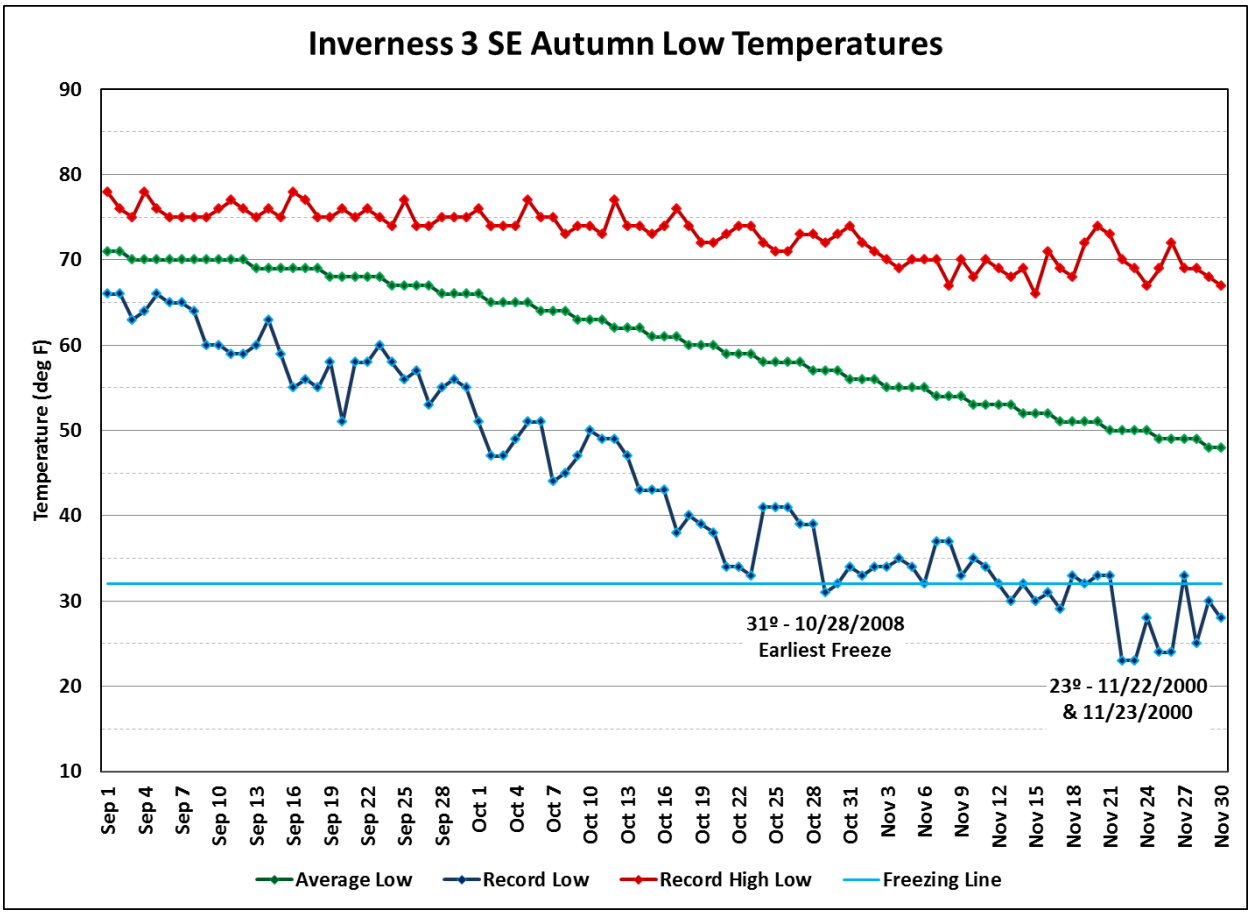
DATE OF FIRST LOW TEMPERATURE <= 50 DEGREES FAHRENHEIT

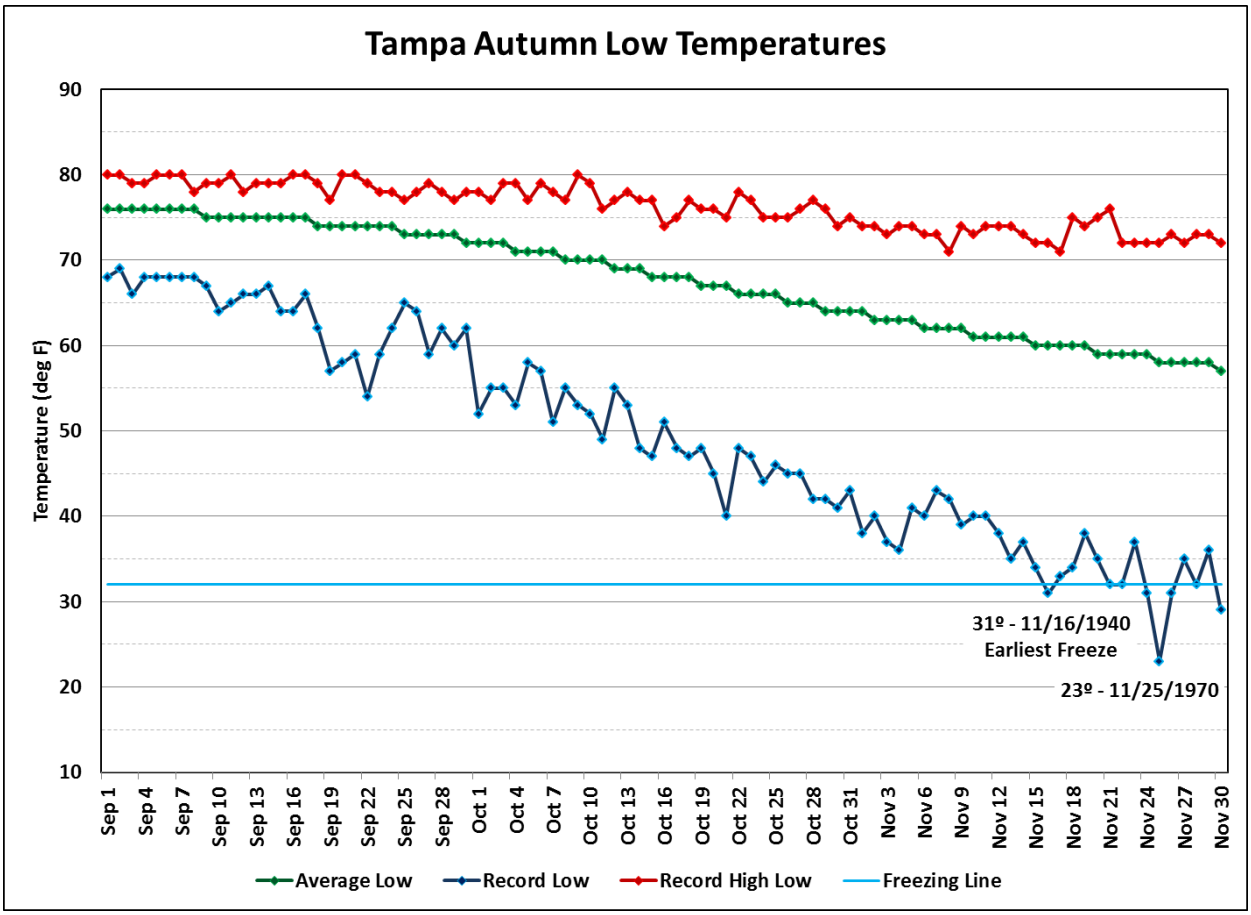
LOCATION	EARLIEST	LATEST	AVERAGE	YEAR RECORDS BEGAN
CHIEFLAND 5 SE	SEP 20 1981	NOV 06 1998	OCT 15	1956
INVERNESS 3 SE	OCT 02 2001*	NOV 21 1986	OCT 23	1948
BUSHNELL 2 E	OCT 02 1984	NOV 14 2003	OCT 24	1948
WEEKI WACHEE	OCT 02 2001*	NOV 14 2003	OCT 20	1969
ST LEO	SEP 22 1897	NOV 30 1958	OCT 31	1895
TARPON SPRINGS	OCT 01 1920	DEC 05 1919	NOV 02	1892
TAMPA	OCT 11 1906	DEC 15 1998*	NOV 07	1890
ST PETERSBURG	OCT 17 1943	JAN 02 1987	NOV 20	1915
PLANT CITY	OCT 04 1929	NOV 25 1948	OCT 28	1893
LAKELAND	OCT 10 2000	DEC 11 1958	NOV 02	1946
BARTOW	OCT 01 1920	DEC 16 1998	NOV 02	1892
WINTER HAVEN	OCT 14 1977	DEC 16 1998	NOV 06	1941
MOUNTAIN LAKE	OCT 08 1987	DEC 05 1946	OCT 31	1935
PARRISH	OCT 10 1976	DEC 16 1998	NOV 02	1958
SARASOTA-BRADENTON	OCT 02 1920	DEC 04 1986	NOV 05	1911
MYAKKA RIVER ST PK	OCT 08 1987	DEC 15 1998	NOV 01	1956
WAUCHULA 2 N	OCT 10 2000	DEC 04 1986	NOV 01	1933
AVON PARK 2 W	OCT 04 1929	DEC 12 1994	NOV 05	1902
ARCADIA	OCT 01 1920	DEC 12 1994	NOV 01	1901
ARCHBOLD BIO STN	OCT 09 1972	DEC 12 1994	OCT 29	1969
VENICE	OCT 14 1977	DEC 12 1994	NOV 09	1956
PUNTA GORDA 4 ESE	OCT 14 1977	JAN 02 1987	NOV 10	1965
FORT MYERS	OCT 18 1977	JAN 16 1972	NOV 18	1902

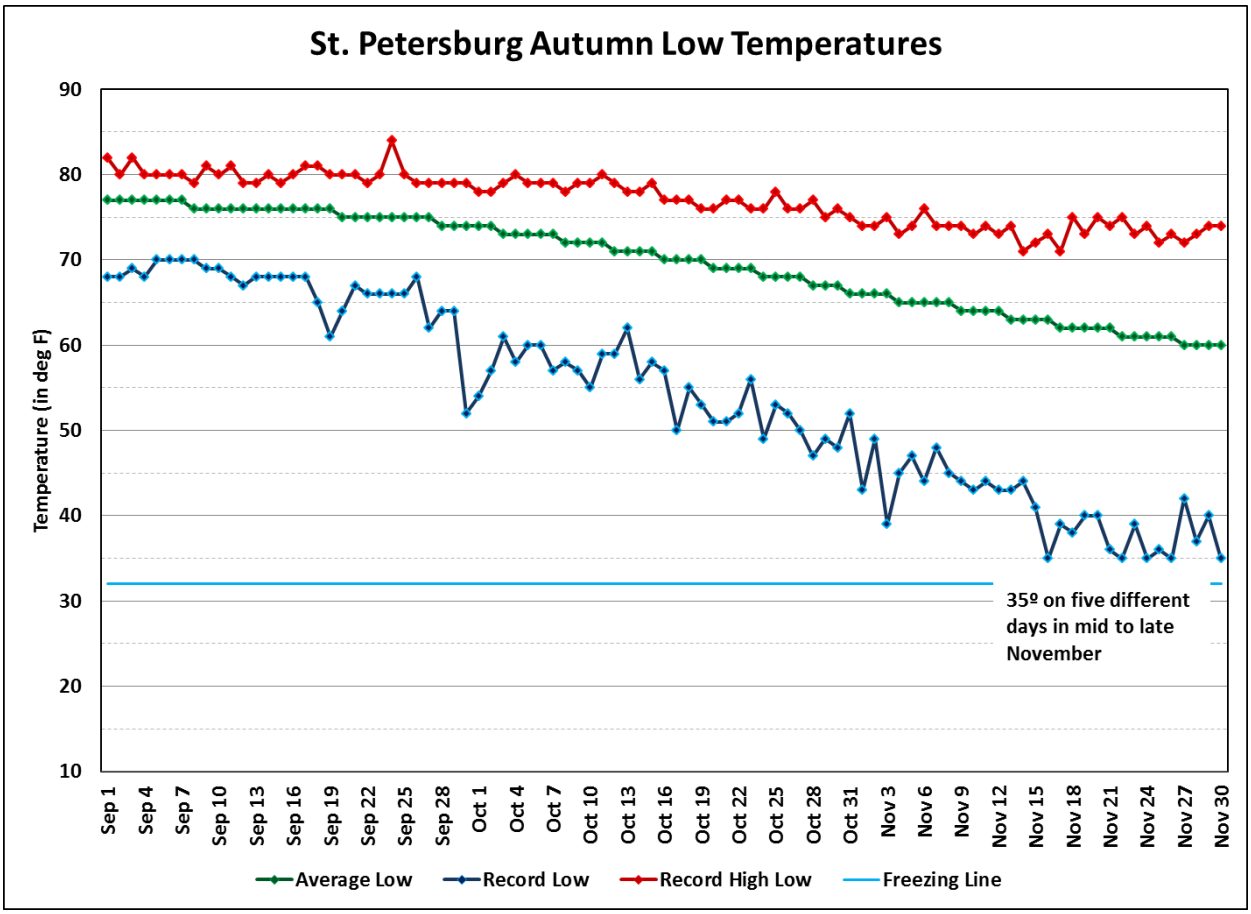
* LAST OF MULTIPLE OCCURRENCES

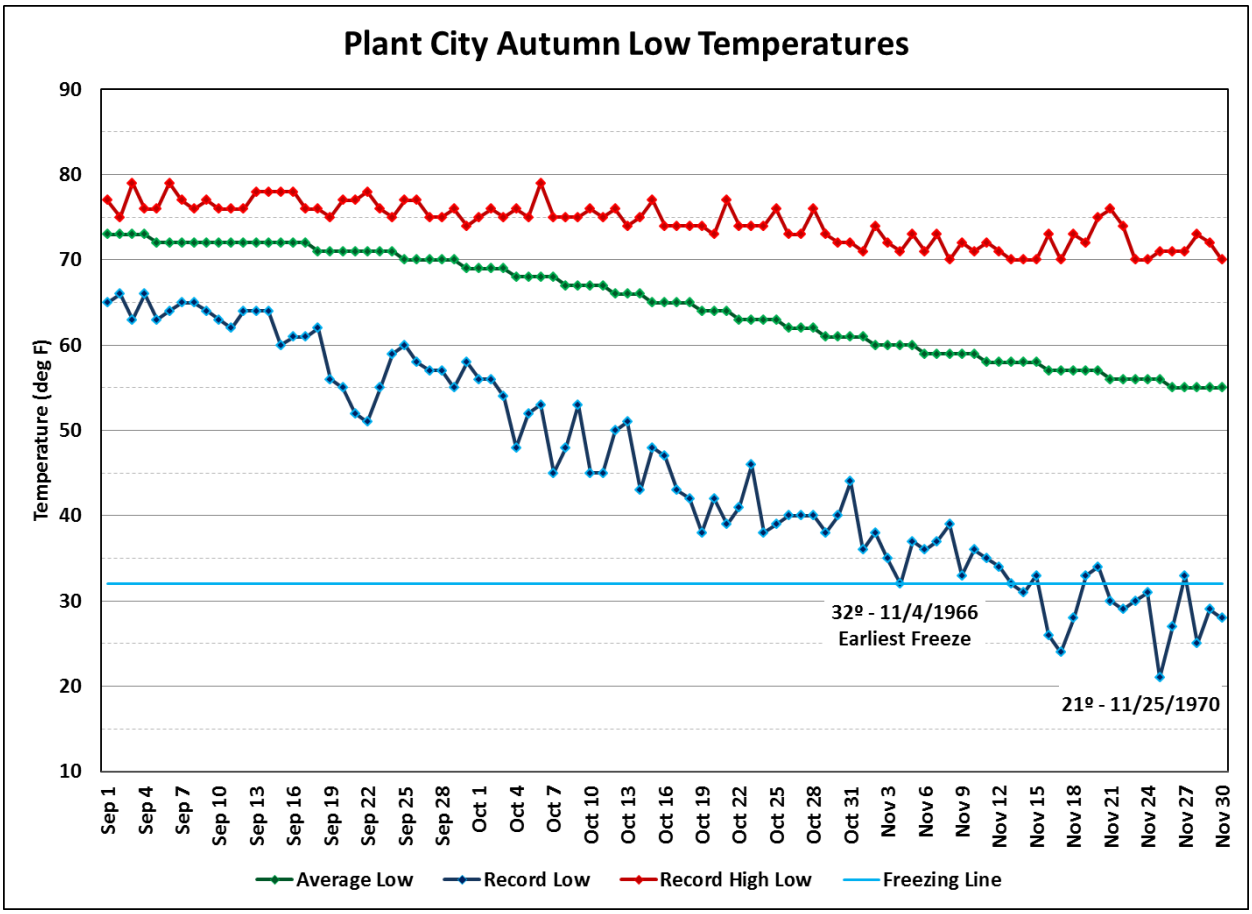
Another way to look at when it may cool down is to take a look at the graphs of the average (based on 1981-2010 Normals) and record low temperatures during the autumn at a few sites across the region. We can see from the graphs below that during some years the first cool down has occurred as early as mid-September when temperatures have fallen into the upper 40s across northern portions of the Nature Coast to the lower 60s south. However, looking at the average lows we see that for the most part it takes until November before low temperatures fall into the mid 50s north to lower 60s south on a consistent basis. Also on these graphs we can see that on a few rare occasions there has been a freeze across portions of the Nature Coast during the second half of October, with areas further south during November.

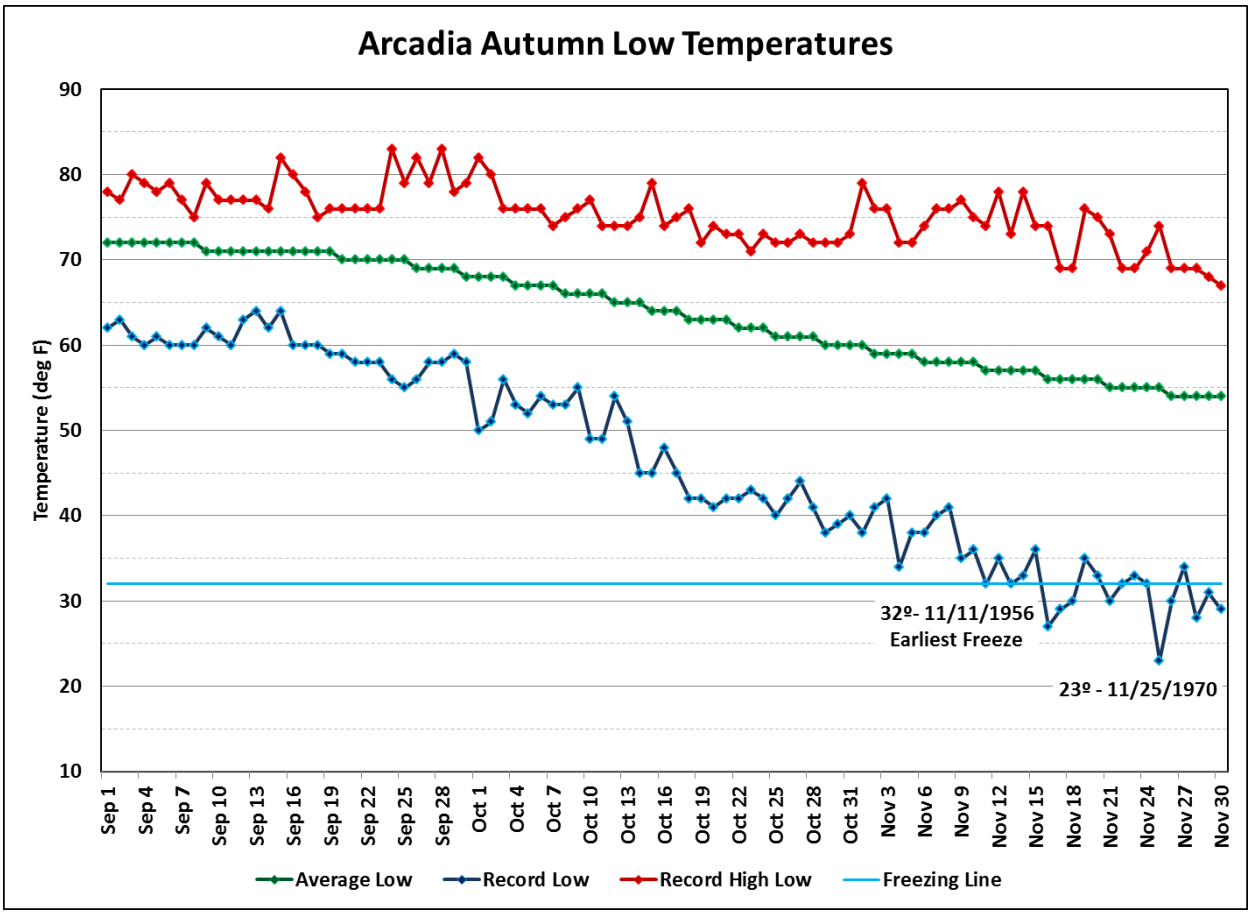


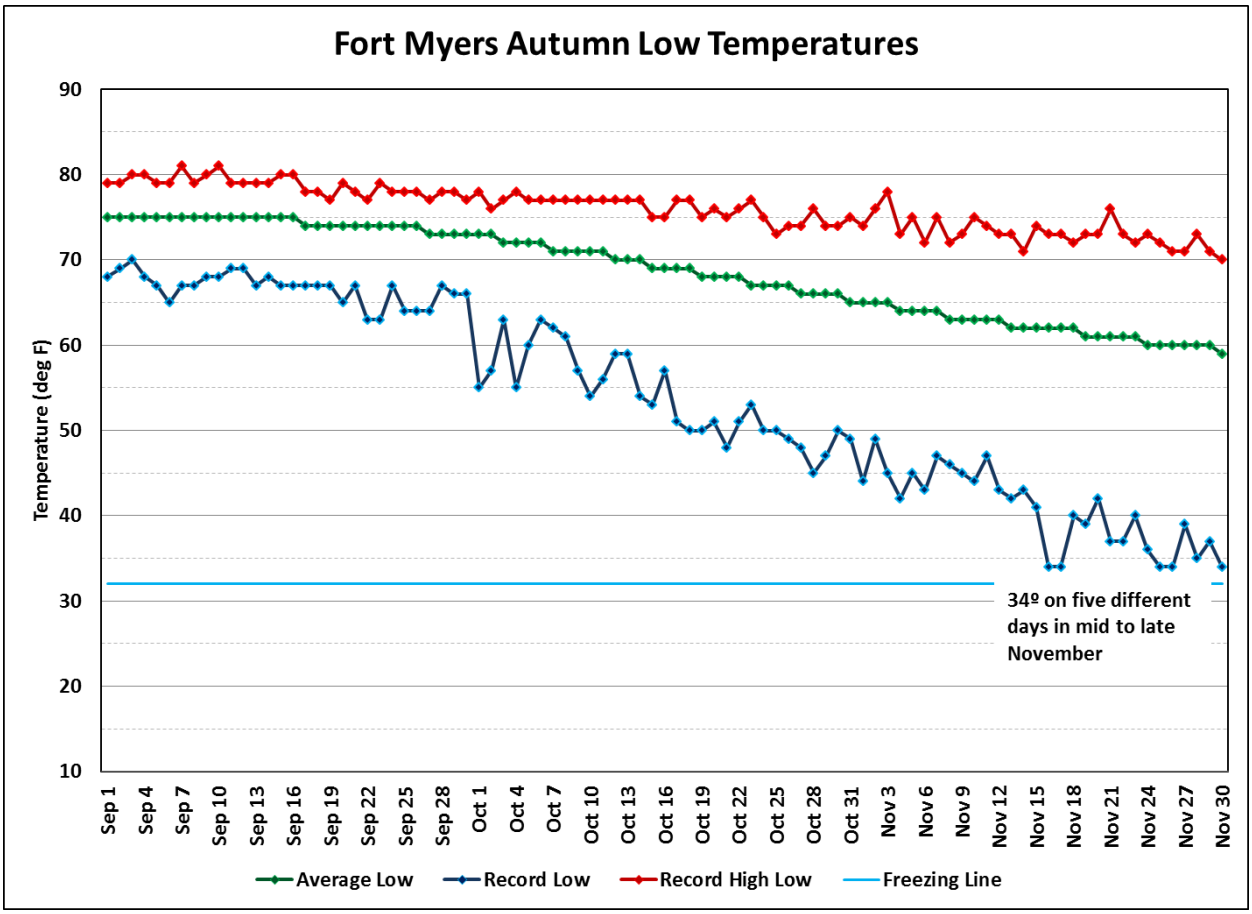

Inverness 3 SE Autumn Low Temperatures
Temperature (deg F)
90
80
70
60
50
40
30
20
10
Sep 1
Sep 4
Sep 7
Sep 10
Sep 13
Sep 16
Sep 19
Sep 22
Sep 25
Sep 28
Oct 1
Oct 4
Oct 7
Oct 10
Oct 13
Oct 16
Oct 19
Oct 22
Oct 25
Oct 28
Oct 31
Nov 3
Nov 6
Nov 9
Nov 12
Nov 15
Nov 18
Nov 21
Nov 24
Nov 27
Nov 30
31º - 10/28/2008
Earliest Freeze
23º - 11/22/2000
& 11/23/2000
Average Low
Record Low
Record High Low
Freezing Line


Tampa Autumn Low Temperatures
Temperature (deg F)
90
80
70
60
50
40
30
20
10
Sep 1
Sep 4
Sep 7
Sep 10
Sep 13
Sep 16
Sep 19
Sep 22
Sep 25
Sep 28
Oct 1
Oct 4
Oct 7
Oct 10
Oct 13
Oct 16
Oct 19
Oct 22
Oct 25
Oct 28
Oct 31
Nov 3
Nov 6
Nov 9
Nov 12
Nov 15
Nov 18
Nov 21
Nov 24
Nov 27
Nov 30
31º - 11/16/1940
Earliest Freeze
23º - 11/25/1970
Average Low
Record Low
Record High Low
Freezing Line


St. Petersburg Autumn Low Temperatures
Temperature (in deg F)
90
80
70
60
50
40
30
20
10
Sep 1
Sep 4
Sep 7
Sep 10
Sep 13
Sep 16
Sep 19
Sep 22
Sep 25
Sep 28
Oct 1
Oct 4
Oct 7
Oct 10
Oct 13
Oct 16
Oct 19
Oct 22
Oct 25
Oct 28
Oct 31
Nov 3
Nov 6
Nov 9
Nov 12
Nov 15
Nov 18
Nov 21
Nov 24
Nov 27
Nov 30
35º on five different days in mid to late November
Average Low
Record Low
Record High Low
Freezing Line


Plant City Autumn Low Temperatures
Temperature (deg F)
90
80
70
60
50
40
30
20
10
Sep 1
Sep 4
Sep 7
Sep 10
Sep 13
Sep 16
Sep 19
Sep 22
Sep 25
Sep 28
Oct 1
Oct 4
Oct 7
Oct 10
Oct 13
Oct 16
Oct 19
Oct 22
Oct 25
Oct 28
Oct 31
Nov 3
Nov 6
Nov 9
Nov 12
Nov 15
Nov 18
Nov 21
Nov 24
Nov 27
Nov 30
32º - 11/4/1966
Earliest Freeze
21º - 11/25/1970
Average Low
Record Low
Record High Low
Freezing Line

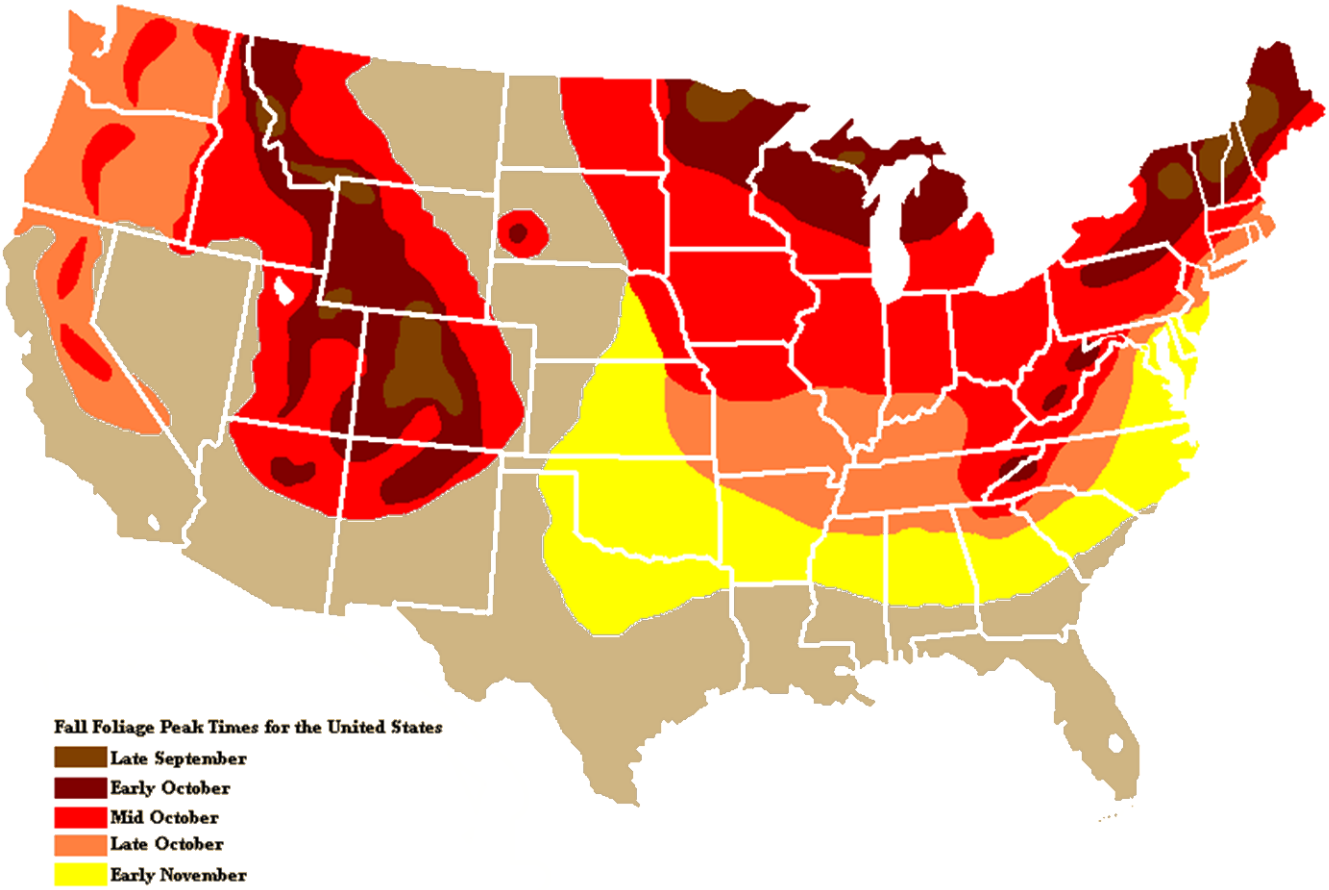

Arcadia Autumn Low Temperatures
Temperature (deg F)
90
80
70
60
50
40
30
20
10
Sep 1
Sep 4
Sep 7
Sep 10
Sep 13
Sep 16
Sep 19
Sep 22
Sep 25
Sep 28
Oct 1
Oct 4
Oct 7
Oct 10
Oct 13
Oct 16
Oct 19
Oct 22
Oct 25
Oct 28
Oct 31
Nov 3
Nov 6
Nov 9
Nov 12
Nov 15
Nov 18
Nov 21
Nov 24
Nov 27
Nov 30
32º- 11/11/1956
Earliest Freeze
23º - 11/25/1970
Average Low
Record Low
Record High Low
Freezing Line


Fort Myers Autumn Low Temperatures
Temperature (deg F)
90
80
70
60
50
40
30
20
10
Sep 1
Sep 4
Sep 7
Sep 10
Sep 13
Sep 16
Sep 19
Sep 22
Sep 25
Sep 28
Oct 1
Oct 4
Oct 7
Oct 10
Oct 13
Oct 16
Oct 19
Oct 22
Oct 25
Oct 28
Oct 31
Nov 3
Nov 6
Nov 9
Nov 12
Nov 15
Nov 18
Nov 21
Nov 24
Nov 27
Nov 30
34º on five different days in mid to late November
Average Low
Record Low
Record High Low
Freezing Line

As a side note, for those who miss or would like to see where the foliage has begun to change color across the United States, visit the USDA Forest Service web site listed below.

http://www.fs.fed.us/fallcolors/2012/

And for an idea of the approximate time of peak fall foliage see the image below:



For more local climate information, visit our web site at

http://weather.gov/tampabay

and click on the "Local" link under the Climate subsection on the left side of the page.