

**Fall of 2007: One of the Warmest and Nicest Autumns
Seen In These Parts That Had Staying Power**
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Much of the autumn’s weather across over Southeast Lower Michigan was just delightful with mainly warm, dry and tranquil conditions. Some of the nicest weather seen in these parts prevailed from September right through much of October with above normal temperatures and below normal precipitation. **Table - 1** below, displays pretty much the height of our pleasant fall season (or first six weeks) with the temperatures and rainfall totals. With the exception of the late season tornado outbreak in mid October (see below), the nice fall weather really stuck around until mid November. Even the first couple of weeks of November were pleasant enough with near seasonal temperatures and the continuation of rather dry conditions. These extended “summer-fall” temperatures accompanied by the mainly tranquil conditions, favored “resilient foliage” across the land this fall with many trees and shrubs changing color later and/or holding on to their leaves longer - well into November.

Table – 1

September – Mid October
9/1/07-10/16/07 TEMPERATURES/DEPARTURES

LOCATION	TEMP/NORM	DEPARTURE	RAIN/NORM	DEPARTURE
DETROIT	66.7/61.0	+ 5.7	1.44 / 4.40	- 2.96
FLINT	64.2/57.9	+ 6.3	1.46 / 4.97	- 3.51
SAGINAW	64.0/58.0	+ 6.0	2.15 / 5.28	- 3.13

It was exceptionally warm and dry during those first six weeks with temperatures averaging a good six degrees above normal which is more like the first week of September but for six weeks. Rainfall mimicked our late June into July period with well below normal rainfall. Most areas saw a good three inches below normal with only 1½” – 2.0” of rain falling.

Check out September’s and especially October’s statistics below, **Table – 2/Map-1** and placement in the **top 20 warmest Octobers lists**. October was near the top with the 6th warmest on record at Detroit with a record base of 137 Octobers /1871/, impressive! Over at Flint with a +8.1 departure, October 2007 became the 4th warmest on record since 1942, while at Saginaw with a +7.3 departure, placed October in 6th warmest since 1899.

At season’s end, all of Southeast Lower Michigan had one of its **warmest falls on record** and this, in spite of a cool, below normal November. **The metro Detroit area enjoyed its 10th warmest autumn on record, the Flint region its 5th warmest and at Saginaw, its 9th warmest.**

Autumn 2007 and 2005, Twins ?

When just looking at average fall temperatures, the Fall of 2007 was remarkably similar to that of just two years ago /2005/, when all three cities *also* placed in the 20 top warmest falls list. The Fall of 2005 was the 5th warmest fall on record at Detroit, the 6th warmest at Flint and 8th warmest at Saginaw. In fact, both Flint and Saginaw's average fall season temperature for each year (2005 & 2007) are right next to each other in the fall's warmest list. The seasons weren't complete "duplicates" however, while both falls were warm, the Fall of 2005 was much wetter over Flint and the Saginaw Valley areas. In Detroit however, like this past fall, drier than normal weather also prevailed in 2005.

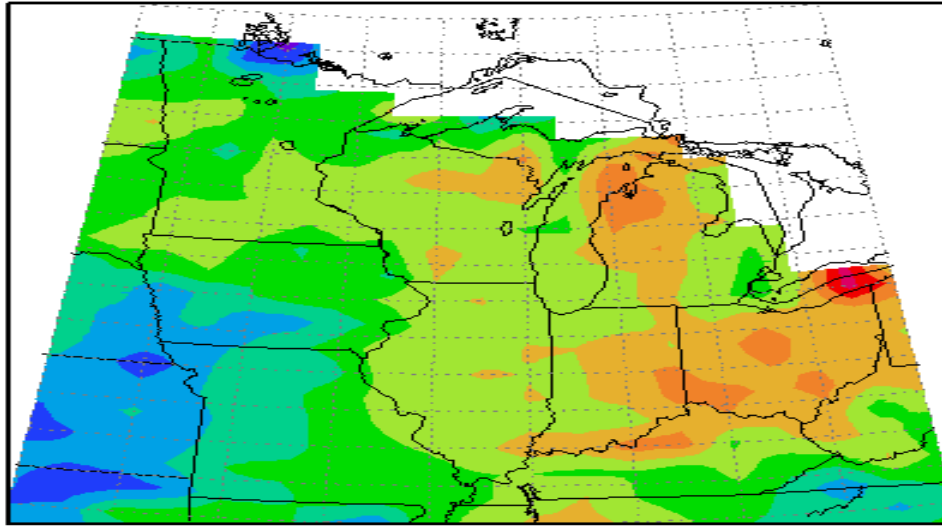
Table - 2

AUTUMN 2007 TEMPERATURES/DEPARTURES

LOCATION	SEPTEMBER	OCTOBER	NOVEMBER	FALL
FALL2007				
DETROIT	66.7 / +2.8	59.1/+7.1/6 th	39.9/-0.8	55.2/+3.0/10 th
FLINT	64.2/+3.5/10 th	57.3/+8.1/4 th	37.1/-1.0	52.9/+3.6/ 5 th
SAGINAW	64.0/+3.3/20 th	56.8/+7.3/6 th	37.0/-1.0	52.6/+3.2/ 9 th
FALL 2005				TEMP COMP
DETROIT				55.6/+3.4/ 5 th
FLINT				52.8/+3.5/ 6 th
SAGINAW				52.8/+3.4/10 th

Map-1

Average Temperature Departure from Mean in Degrees F
September 1, 2007 to November 30, 2007



Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

As stated above, precipitation during the fall was deficient note both Flint and Saginaw end up on their respective driest list.

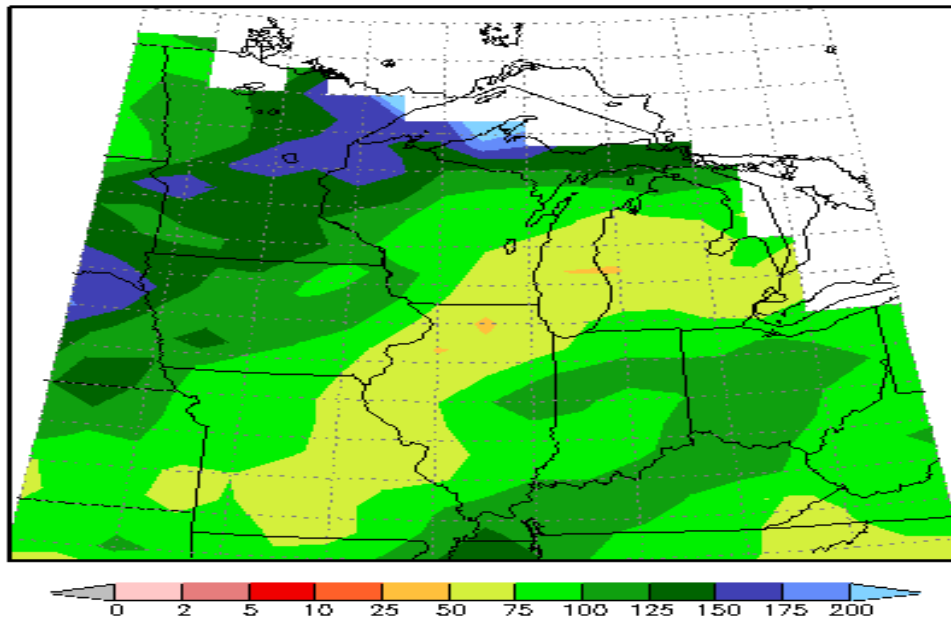
Table-3

AUTUMN PRECIPITATION/DEPARTURES

<u>LOCATION</u>	<u>SEPTEMBER</u>	<u>OCTOBER</u>	<u>NOVEMBER</u>	<u>FALL</u>
DETROIT	1.44 / -1.83	2.00 / - 0.23	1.77 / -0.89	5.21/-2.95
FLINT	1.46 / -2.30	3.20 /+0.86	1.42 / -1.23	6.08/-0.67/16 th
SAGINAW	2.15 / -1.80	2.26 / - 0.23	0.81 / -1.84	5.22/-3.87/14 th

Map-2

**Total Precipitation Percent of Mean
September 1, 2007 to November 30, 2007**



Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

Beautiful Autumn Marred by a Terrible Tornado Outbreak

As stated above, October was unseasonably warm and actually, this was partly to blame for unusual, but not unheard-of late season [scary October tornado outbreak](#). The severe weather event erupted late on the 18th into the early morning hours of the 19th. Many of the ingredients for the severe weather read like a spring severe outbreak with strong winds, high instability and tornadic shear. All this was looming in the atmosphere over most of Lower Michigan as an impressive cold front plowed through the region overnight. Numerous severe thunderstorms, some producing damaging tornadoes, moved into most of the region. While no tornadoes occurred around metro Detroit, far northwest and north portions of Southeast Lower Michigan did see the severe weather. A great in-depth write-up of the event can be found, again, at: <http://www.crh.noaa.gov/dtx/?n=oct18tor>

**Fall Outlook Performance
([Autumn Outlook](#)).**

The data researched and used for our Outlook not only reflected the general warm and dry temperature and precipitation trend well, but also intimated

the abrupt change seen in many Novembers.

“A Relatively Mild and Dry Autumn

Our analogue fall data and subsequent composite maps of those years, suggest a mild and somewhat dry autumn over Southeast Lower Michigan”

“While the majority of the falls in our outlook averaged above normal, that doesn’t mean the temperatures arrived at that above normal figure by way of mainly consistent warm weather throughout the entire fall. In fact, late October in November in the analogue years (and certainly by nature) are generally more tumultuous in the Great Lakes...”

“The later part of October into November in our analogue falls showed an over-all change in the pattern, from mainly above normal, to more normal fall weather with wide gyrations both above and below. In fact, six out of the 12 Novembers averaged below normal at Detroit. The overall average temperature for the 12 Novembers averaged very close to normal /41.1/ as opposed to the above for September and October.”

Note the blatant temperature trend change in November, when we transitioned from fall to winter, quickly!

LOCATION	SEPTEMBER	OCTOBER	NOVEMBER	FALL
FALL 2007				
DETROIT	66.7 / +2.8	59.1/+7.1/ 6th	39.9 / -0.8	55.2/+3.0/ 10th
FLINT	64.2/+3.5/ 10th	57.3/+8.1/ 4th	37.1 / -1.0	52.9/+3.6/ 5th
SAGINAW	64.0/+3.3/ 20th	56.8/+7.3/ 6th	37.0 / -1.0	52.6/+3.2/ 9th