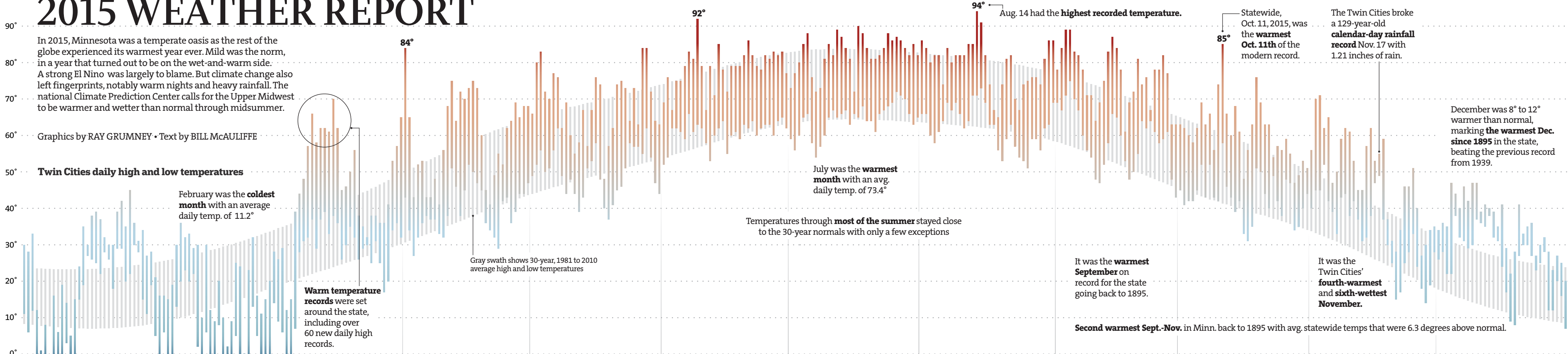


# 2015 WEATHER REPORT

In 2015, Minnesota was a temperate oasis as the rest of the globe experienced its warmest year ever. Mild was the norm, in a year that turned out to be on the wet-and-warm side. A strong El Nino was largely to blame. But climate change also left fingerprints, notably warm nights and heavy rainfall. The national Climate Prediction Center calls for the Upper Midwest to be warmer and wetter than normal through midsummer.

Graphics by RAY GRUMNEY • Text by BILL McAULIFFE

## Twin Cities daily high and low temperatures



January		
25.7°	12.3°	15.6°
Avg. high	Avg. low	Norm.*

The year got off to a cold start, with a minus-11 reading in the Twin Cities on Jan. 5. That was the lowest temp of the year, which was matched twice in February. Strong winds, low temps and snow combined to close many public schools and even some highways Jan. 7-8. In the Twin Cities, the high on Jan. 7 was 1-below. Some locations in the Arrowhead never got above 15-below. And while snow began to deepen Up North, little fell in the Twin Cities, where highs from midmonth on were consistently near or above freezing. The month's high of 45 came on Jan. 26, smack in the middle of the St. Paul Winter Carnival.

0.34	0.90	5.4	12.2
Precip.	Norm.*	Snow	Norm.*

February		
19.5°	2.9°	20.8°
Avg. high	Avg. low	Norm.*

The “easy winter” was derailed by a month that was 9.7 degrees below normal in the Twin Cities, pulling the average temp for December-February down to 1.7 degrees below normal. The month had 12 of the season's 28 subzero days, including minus-11 readings Feb. 19 and Feb. 23. Cotton, north of Duluth, plummeted to 42-below on Feb. 19. That reading, the state's lowest all winter, came during a stretch of weather that was the coldest in nearly 50 years across the Northland. In the Twin Cities, snowfall continued to run about 60 percent of normal.

0.35	0.77	4.9	7.7
Precip.	Norm.*	Snow	Norm.*

March		
45.3°	25.6°	32.8°
Avg. high	Avg. low	Norm.*

The shivering continued. Duluth's high of 3 degrees on March 4 was the chilliest ever for the date. But in less than a week (March 10), the Twin Cities had a high of 66, tying a record for the date. That led a 10-day “warm wave,” which brought a record 70 to the Twin Cities on March 15. Lake Shetek in southwestern Minnesota's Murray County went ice-free March 19, more than two weeks earlier than the median date in 55 years of record keeping. Then the deepest snowfall of the season for many areas came March 22-23, with up to 10 inches from the southern Twin Cities suburbs to Rochester.

0.67	1.89	6.8	10.3
Precip.	Norm.*	Snow	Norm.*

April		
59.9°	39.6°	47.5°
Avg. high	Avg. low	Norm.*

Luverne claimed a no-fooling April 1 state high temperature with 86, while the Twin Cities reached 84, a local record. Southern Minnesota saw nearly 3 inches of rain April 4-10. Water levels in lakes and rivers across much of the state were below average due to reduced winter snowfall. The Twin Cities saw 0.2 inches of snow with doily-sized flakes April 10, then hit 68 degrees the next day. A capacity crowd for the Twins' home opener April 13 enjoyed a high of 63. The low was the final score: Royals 12, Twins 3. High winds and dry air were common in April. The Twin Cities had an April 23 low dew point of 1 degree.

2.42	2.66	0.3	2.4
Precip.	Norm.*	Snow	Norm.*

May		
68.5°	49.9°	59.1°
Avg. high	Avg. low	Norm.*

A storm on May 3 pelted the metro area with heavy hail, including some stones in Stillwater that measured 1.75 inches. Morris received 4.24 inches of rain May 16-17, and the month ended with total rainfall well above normal for much of the state. Tornado season had a busy opening day. Approximately 15 twisters touched down across western Minnesota on May 16 but caused little damage. A cool blitz May 18-20 frosted some early crops. By month's end, most of the state's rivers were running well above median flows. Twin Cities rainfall, just above normal, ended an 11-month below-normal streak.

3.55	3.36		
Precip.	Norm.*		

June		
78.7°	60.7°	68.8°
Avg. high	Avg. low	Norm.*

More frost visited northern Minnesota on June 1. A low of 24 in Togo was a record for the state as well as the lowest temperature in the continental U.S. So the Twin Cities high of 92 on June 9 came out of the cool blue — especially because there wasn't another high in the 90s until July 17. Albert Lea got 9.09 inches of rain for the month, more than twice normal. The metro area was bombarded by hail June 29, with stones of 2 inches or more in diameter falling across the northern suburbs. Otherwise, Twin Cities temperatures and rainfall were nearly dead-on normal for the month.

4.4	4.25		
Precip.	Norm.*		

July		
82.4°	64.3°	73.8°
Avg. high	Avg. low	Norm.*

Smoke from distant Canadian forest fires muted the Minnesota skies and brought air-quality warnings for the July 4th weekend. Massive rains hit the metro area overnight July 5-6. A blast of storms July 12-13 made a direct hit on the lakes country, tearing up trees and cottages, tossing boats and docks around and damaging Brainerd International Raceway. More storms overnight July 17-18 knocked out power to 250,000 households, mostly in the metro area, some for days. The morning commute July 28 was more swim than slog: Richfield received 1.4 inches in 35 minutes.

7.32	4.04		
Precip.	Norm.*		

August		
79.3°	62.2°	71.2°
Avg. high	Avg. low	Norm.*

The state's biggest hailstone of the year — with a girth of 12 inches — fell west of Roseau on Aug. 12. The state's northwest corner also earned “heat island” status in mid-month. Hallock in northwest Minnesota had highs from 90 to 95 Aug. 12-15, running warmer than the Twin Cities, where the high of 94 on Aug. 14 made for the hottest day of the year locally. Cold, rainy, fall-like weather followed across much of the state. The Twin Cities had highs of only 67 and 65 on Aug. 18 and 19, respectively, and rain. Lightning and heavy rain led to two evacuations of fans at a Vikings preseason game Aug. 22.

2.99	4.3		
Precip.	Norm.*		

September		
76.4°	59.3°	62.0°
Avg. high	Avg. low	Norm.*

Summer won in overtime, with the warmest September in the state and the fourth warmest in the Twin Cities. Warm nights — one of the central features of Minnesota's warming climate — were key: Detroit Lakes had a record warm low of 73 Sept. 16, one of many at midmonth. More heavy rain fell; several central Minnesota cities absorbed more than 3 inches on Sept. 6 alone; then Mahtomedi received 3.43 on Sept. 17. Cotton and other locations north of Duluth reported up to 3.8 inches on Sept. 24. Clear skies allowed for a full eclipse of the harvest moon on Sept. 27.

4.65	3.08		
Precip.	Norm.*		

October		
61.0°	43.0°	48.9°
Avg. high	Avg. low	Norm.*

And you thought September was warm? Wheaton and Moorhead hit 97 on Oct. 11, the highest temperature recorded on so late a date in Minnesota. Swimmers took to the lakes, although some probably were surprised to find the water less summerlike than the air. (Lake Minnetonka's surface temperature dropped to about 60, 10 degrees lower than three weeks earlier.) Less than a week later, on Oct. 17, the Twin Cities temperature dropped to 31, the first sub-freezing mark of the season. It was nine days later than average. The low wouldn't drop below freezing for nearly four more weeks.

2.61	2.43	0	0.6
Precip.	Norm.*	Snow	Norm.*

November		
49.0°	33.7°	33.7°
Avg. high	Avg. low	Norm.*

Minnesotans turned back their clocks Nov. 1, and the weather followed. The Twin Cities saw highs in the low 70s on Nov. 2-3. Gardeners continued to harvest fruits and vegetables, and some perennials sent out spring blooms. Again, warm nights were significant: There were 145 records set for warm low daily temperatures across the state, and not a single record cold low. Winnebago (2.6 inches) and Faribault (2.45) set November single-day rainfall records Nov. 11. The Twin Cities' first dip back into the 20s Nov. 20 was the latest such event in the 138-year-old record book.

4.52	1.77	5.1	9.3
Precip.	Norm.*	Snow	Norm.*

December		
35.1°	25.2°	19.7°
Avg. high	Avg. low	Norm.*

The Twin Cities had its third-warmest December. Many records fell, including a Dec. 7 high of 50 at Grand Portage, and daily rainfalls topping an inch Dec. 13-14 across southern Minnesota. Many lakes were ice-free in the year's final week, forcing the U.S. Pond Hockey Championships to be postponed. The Twin Cities had its third brown Christmas in five years, but snow lovers were thrilled by a Dec. 28-29 storm that dropped 10 inches across southern Minn. The 5.5 inches in the Twin Cities was more than from any storm last winter. The Twin Cities had only one sunny day.

Bill McAuliffe is a Minneapolis-based freelance writer.

Annual totals

TEMPERATURES

Avg. high	2015	2014	Normal*
	56.7°	51.8°	55.1°
Avg. low	2015	2014	Normal*
	39.9°	34.8°	37.1°

PRECIPITATION (inches)

2015	2014	Normal*	24 hour maximum
36.1°	35.4	30.6	2.83 inches on June 19

SNOWFALL (inches)

2015	2014	Normal*	24 hour maximum
32.0	67.8	54.4	3.8 inches on Nov. 30

HEATING DEGREE DAYS

2015	2014	Normal*
6,728	8,520	7,580

COOLING DEGREE DAYS

2015	2014	Normal*
809	759	753

**Heating and cooling degree days:** The higher the number, the more energy required to heat or cool a building to 65 degrees. Heating degree days are based on annual data. \*Normals for temperatures, precipitation, heating and cooling degree days are based on 1981-2010, 30-year average.