

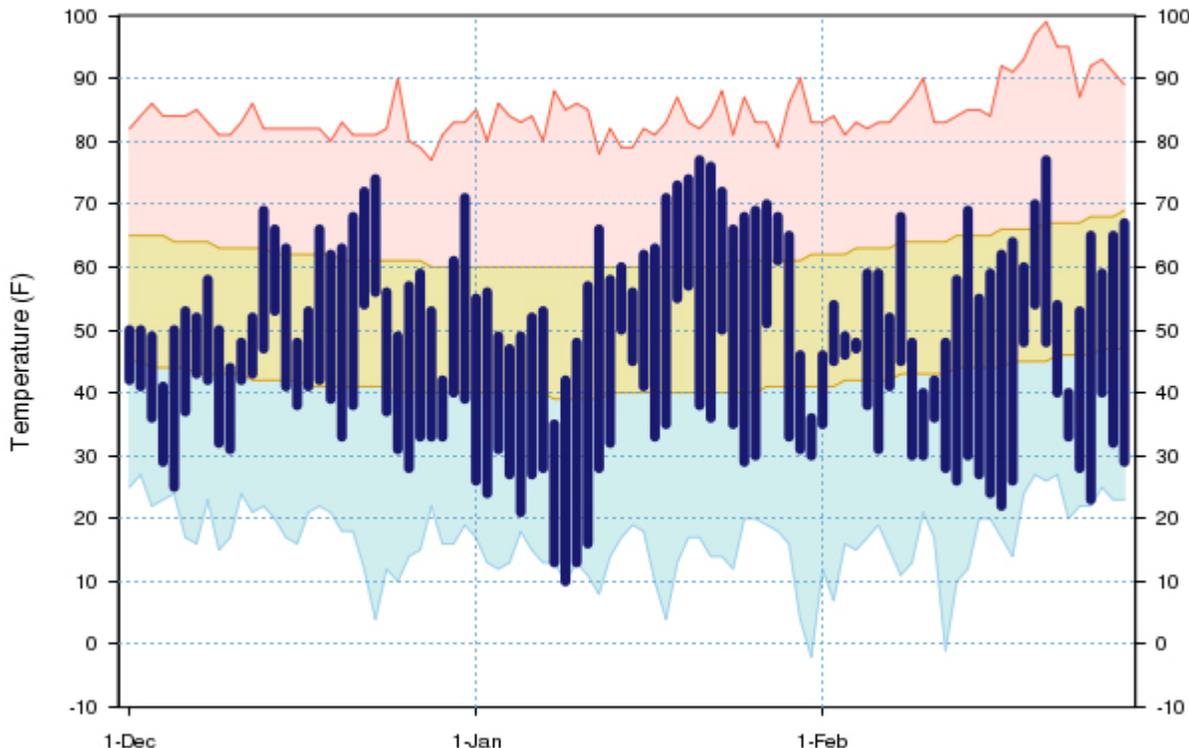
Winter 2009/2010 Summary

After the warmest summer of record in 2009 from June to August, cooler and wetter than usual conditions came in September and October. November was mild for much of the month until November 30th, when much cooler weather came. The trend of cooler than normal conditions persisted from December 2009 through February 2010. Some large scale synoptic features that made the Winter colder for South Central Texas was the strong El Nino and the most negative North Atlantic Oscillation Index from December 2009 to February 2010 since 1950. When the North Atlantic Oscillation Index is negative, cold air outbreaks are more common over the Eastern U.S. and Texas.

Frequent cold fronts followed by brief warming trends, more cloudiness than usual from active weather systems, and above normal rain made the winter season from December 2009 to February 2010 the coldest for South Central Texas since the winters of 1976/1977, 1977/1978, 1978/1979, and 1983/1984. The average temperature from December 2009 to February 2010 was a tie for the 4th coldest at Del Rio; the 7th coldest at San Antonio; and a tie for the 8th coldest at Austin Mabry. The average for the state of Texas in the Winter of 2009/2010 from December to February was the 5th coldest on record, statewide, since 1895, with the average temperature statewide at 43.6 degrees, 4.5 degrees below normal and the coldest since 1978/1979.

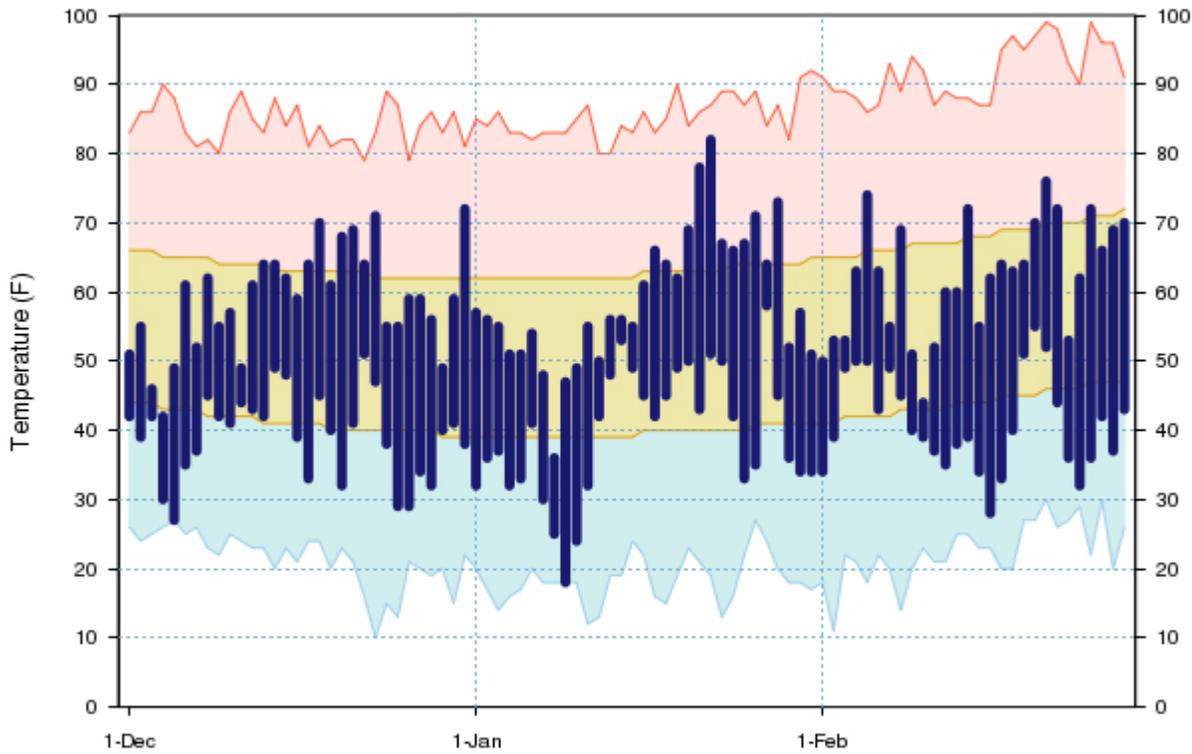
The averages did not capture the complete scope on how cool the winter was. The charts below and records show that the cool weather in the winter of 2009/2010 was much more consistent than usual, with only short warming trends. Other winters when conditions were consistently cooler than usual include the winters of 1935/1936, 1966/1967, and 1967/1968. The frequent cold fronts with limited warming trends, more clouds in the day from active weather systems, and higher soil moisture contributed to more consistent cool temperatures from day to day and month to month. The rainfall from September 2009 to February 2010 was the 2nd wettest September to February at San Antonio since 1871; the 12th wettest at Austin since 1856; and the 31st wettest at Del Rio since 1906.

Temperature Summary for Austin Area
Dec 1, 2009 - Feb 28, 2010



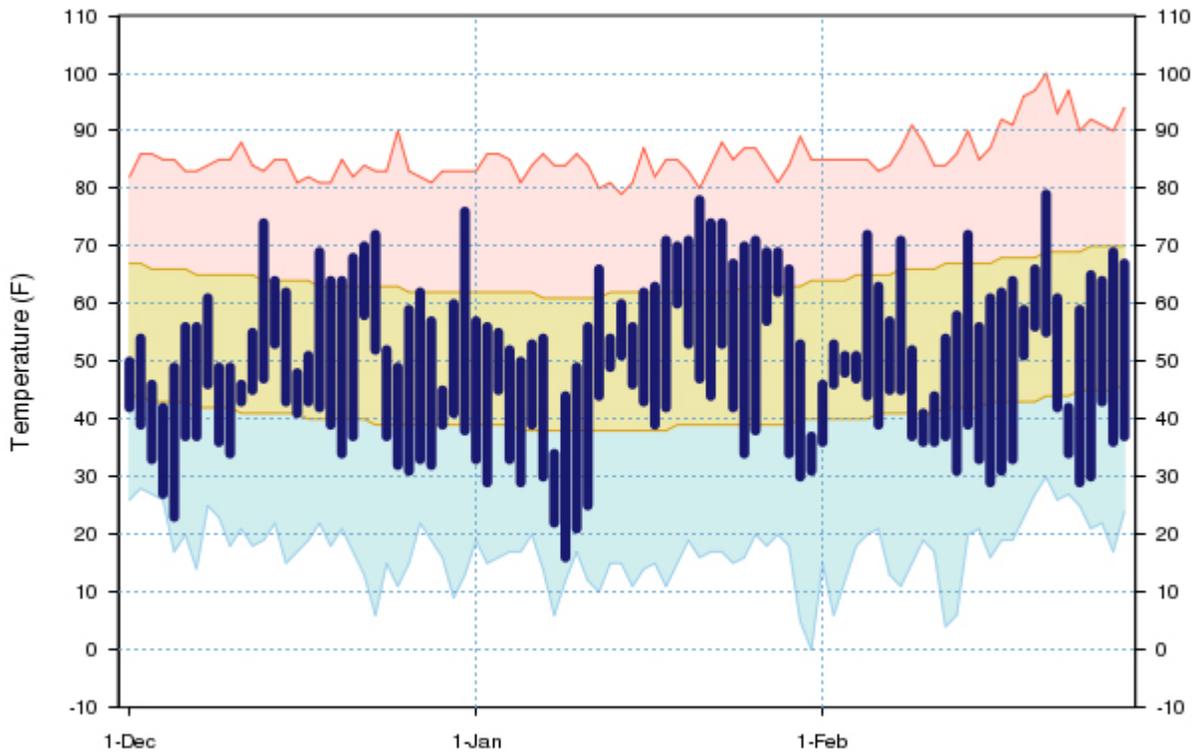
Observed daily maximum and minimum temperatures are connected by dark blue bars.
Area between normal maximum and minimum temperatures has tan shading.
Red line connects record high temperatures. Light blue line connects record low temperatures.

Temperature Summary for Del Rio Area Dec 1, 2009 - Feb 28, 2010



Observed daily maximum and minimum temperatures are connected by dark blue bars.
Area between normal maximum and minimum temperatures has tan shading.
Red line connects record high temperatures. Light blue line connects record low temperatures.

Temperature Summary for San Antonio Area Dec 1, 2009 - Feb 28, 2010



Observed daily maximum and minimum temperatures are connected by dark blue bars.
Area between normal maximum and minimum temperatures has tan shading.
Red line connects record high temperatures. Light blue line connects record low temperatures.

The cold outbreak in early January produced the coldest low temperatures on January 9th since December 1989 at Del Rio and Austin Bergstrom and since December 1990 at Austin Mabry and San Antonio. Even though these were the coldest lows in many years, the extremes between the coldest lows and the warmest highs was limited, as there were fewer warm days. The coldest to warmest temperatures from December to February at Austin, Del Rio, and San Antonio are listed below.

Austin Mabry	Austin Bergstrom	Del Rio	San Antonio
17 Jan. 9th to 76 Jan. 21 and Feb. 21	10 Jan. 9th to 76 Jan. 21 and Feb. 21	18 Jan. 9th to 82 Jan. 22	16 Jan. 9th to 79 Feb. 21

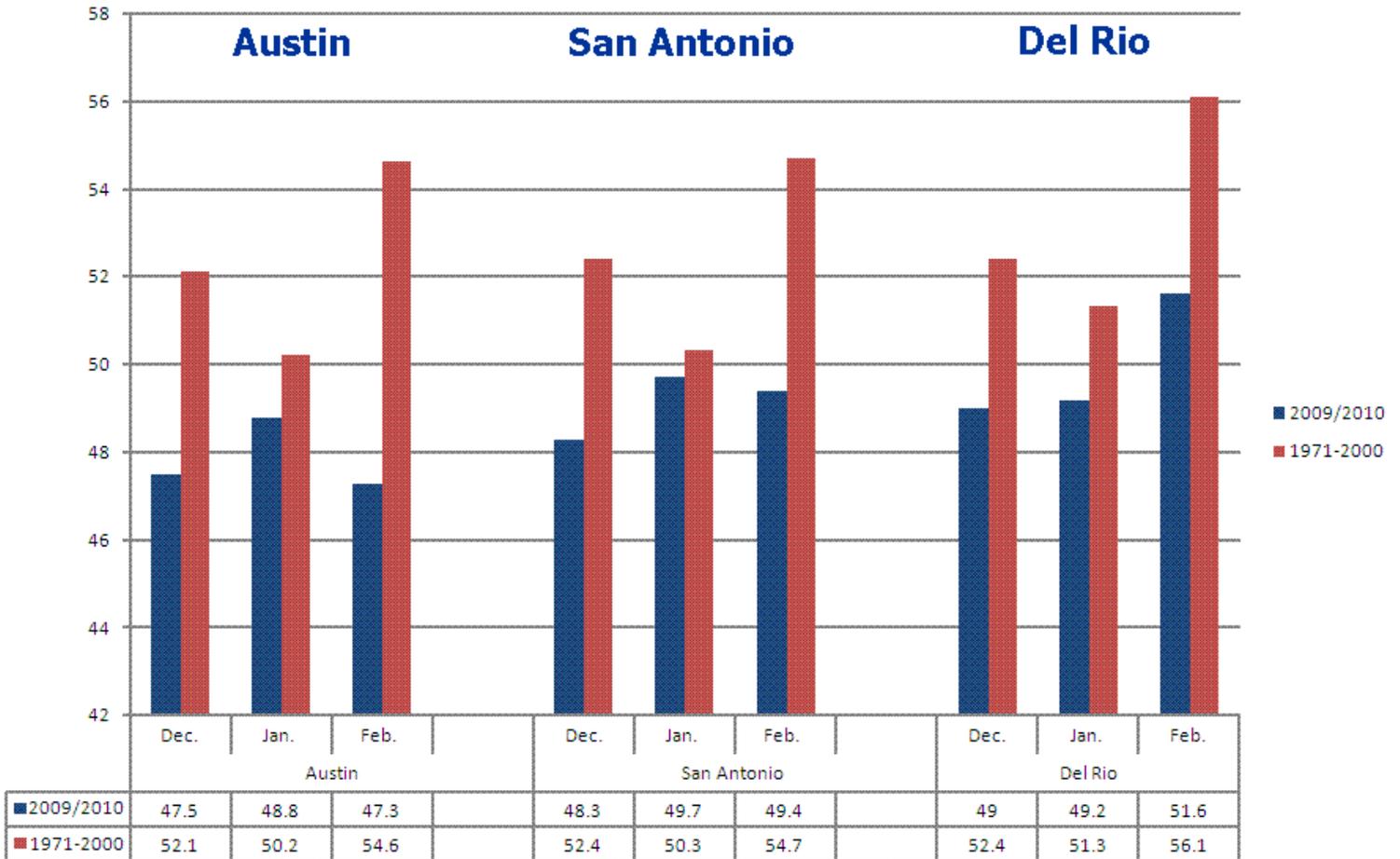
The winter of 2009/2010 was the first winter since 1885 at San Antonio, where the average monthly temperature for December, January and February stayed below 50 degrees for all 3 months. At Austin Mabry the averages stayed below 50 also; however, this has happened in other winters at Austin. At Del Rio the average monthly temperature was below 50 in December and January and slightly above 50 in February. The table below shows the coldest December to February periods at Austin Mabry, San Antonio and Del Rio, using the average temperature from December to February. This ranking is ranked by event.

AUSTIN	SAN ANTONIO	DEL RIO
COLDEST DEC-FEB. FROM 1854-2010	COLDEST DEC-FEB. FROM 1885-2010	COLDEST DEC-FEB FROM 1905-2010
1. DEC 1855-FEB 1856 43.7	1. DEC 1977-FEB 1978 47.7	1. DEC 1963-FEB 1964 48.6
2. DEC 1978-FEB 1979 46.2	2. DEC 1983-FEB 1984 47.9	2. DEC 1978-FEB 1979 49.2
3. DEC 1977-FEB 1978 46.4	3. DEC 1898-FEB 1899 48.0	3. DEC 1983-FEB 1984 49.7
4. DEC 1880-FEB 1881 46.6	4. DEC 1963-FEB 1964 48.8	4. DEC 1912-FEB 1913 49.9
5. DEC 1876-FEB 1877 47.4	5. DEC 1904-FEB 1905 48.9	DEC 1914-FEB 1915 49.9
6. DEC 1911-FEB 1912 47.8	DEC 1976-FEB 1977 48.9	DEC 1967-FEB 1968 49.9
DEC 1884-FEB 1885 47.8	7. DEC 2009-FEB 2010 49.1	DEC 1972-FEB 1973 49.9
8. DEC 1983-FEB 1984 47.9	8. DEC 1978-FEB 1979 49.3	DEC 2009-FEB 2010 49.9
DEC 1963-FEB 1964 47.9	9. DEC 1967-FEB 1968 49.7	9. DEC 1911-FEB 1912 50.0
DEC 2009-FEB 2010 47.9	10. DEC 1972-FEB 1973 49.8	10. DEC 1918-FEB 1919 50.2

Heavy rain events with widespread rains came in the Winter of 2009/2010 in a similar pattern like the winters of 1967/1968, 1991/1992, and 2006/2007. The biggest rain events came on January 14th to 16th, February 3rd, and February 11th. From January 14th to January 16th the heaviest rain amount was 5.32 inches at Leming in Atascosa County. The winter of 2009/2010 was the 8th wettest at Del Rio since December 1905; the 8th wettest at San Antonio since 1871; and a tie for the 40th wettest at Austin Mabry since 1856, with December 1945 to February 1946. Several winter precipitation events from early December to February came. The most extensive winter precipitation event came February 23rd, when snow fell from the Hill Country to adjacent parts of Central Texas, with reports of sleet and trace amounts of snow from Del Rio to San Antonio to Yoakum. Austin Mabry had 0.6 inches of snow; Austin Bergstrom 0.3 inches of snow; and Del Rio a Trace of snow. At San Antonio 0.2 inches of sleet was observed, that melted quickly after it fell. The most snowfall on February 23rd was 2 to near 4 inches across Williamson County.

The charts below show the average temperature compared to the 1971 to 2000 Normals, and the rainfall compared to the 1971 to 2000 Normals for Austin, Del Rio, and San Antonio.

Average December 2009 to February 2010 Temperature Compared to the 1971 to 2000 Average



December 2009 to February 2010 Rainfall Compared to the 1971 to 2000 Average

