



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL ENVIRONMENTAL SATELLITE DATA
AND INFORMATION SERVICE
NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION
151 PATTON AVE ROOM 120
ASHEVILLE NC 28801-5001

December 8, 2017

MEMORANDUM FOR: Derek S. Arndt
Chief, Climate Monitoring Section, Center for Weather and Climate
National Centers for Environmental Information

FROM: Karin Gleason
Meteorologist, Monitoring Section, Center for Weather and Climate

SUBJECT: SCEC Report for Texas Maximum 24-Hour Snowfall Total in 1929

Summary:

On 19 August 2015, a State Climate Extremes Committee (SCEC) convened to verify / validate a new record maximum 24-hour snowfall accumulation of 26" reported in Hillsboro, TX on 20-21 December 1929. The currently recognized record maximum 24-hour snowfall amount for Texas is 25" and occurred in Follett, TX on 28 March 2009.

The committee considered the meteorological plausibility and reviewed observing practices which measured the record in question. After reviewing the observational evidence, the SCEC unanimously agreed that the Hillsboro, TX 24-hour snowfall accumulation of 26" would establish a new record for the State of Texas. In particular, the committee found that the following were true and valid:

- LOCATION: Hillsboro, TX
- DATE: 20-21 December 1929
- 24-HOUR SNOWFALL: 26 inches

Sequence of Events, Examination & Decision:

The current 24 hour snowfall record for the state of Texas occurred on 28 March 2009 in Follett, TX in the northeast Panhandle. The total accumulation was 25". This record was [verified and validated](#) by the State Climate Extreme Committee (SCEC) later that same year.

<http://www.srh.noaa.gov/images/ama/climate/FollettPressRelease.pdf>

WFO FWD brought to the attention of NWS Southern Region and the Texas State Climatologist the existence of a 26" snowfall amount in Hillsboro, TX in a 24 hour period on 20-21 December 1929. The SCEC convened to ascertain whether or not the information from this snowfall event was (a) valid; and (b) occurred within a 24 hour period.





It was the unanimous decision of the SCEC that this 26” amount in 24 hours is indeed a new record for Texas. Supporting documentation follows:

- 1) The observation form from the COOP observer showed 26” of snowfall occurred on the afternoon of 20 December into the afternoon of 21 December for Hillsboro, TX in Hill County (Figure 1).
- 2) The observation form from the COOP observer at Clifton in Bosque County (about 30 miles to the southwest). It shows 24” of snowfall starting at 5PM on 12/20 and lasting until 5PM on 21 December (Figure 2).
- 3) The analysis of the total snowfall amounts from the event (Figure 3).
- 4) A Monthly Weather Review article from March 1930 which analyzed the snowfall.
<ftp://ftp.library.noaa.gov/docs.lib/htdocs/rescue/mwr/058/mwr-058-03-0108.pdf>
- 5) Write up from WFO Fort Worth commemorating the event. It shows 25” of snowfall in Hillsboro by 2PM, as reported by the local newspaper. Nearby COOP sites (Clifton and Hamilton) showed the event as starting at 5PM on 20 December 1929, and ending by 5PM on the following day in Clifton and 4PM in Hamilton. <http://www.weather.gov/fwd/1929snow>

Finding of Committee:

The SCEC convened via Webinar on 19 August 2015 to discuss the proposed new record. In accordance with NWSI 10-1004, there were five (5) representatives on the call. This included Karsten Shein, climatologist with NCEI; Kevin Robbins, Director of the Southern Region Climate Center; John Nielsen-Gammon, Texas State Climatologist; Daniel Huckaby, Climate Service Focal Point at WFO Fort Worth; and, Victor Murphy, Climate Service Program Manager for NWS Southern Region.

Based upon the documented evidence, the SCEC agreed unanimously (by a vote of 5-0) that the 24-hour maximum snowfall record for Texas which occurred in Hillsboro, TX during 20-21 December 1929 is valid and **recommends the NCEI Climate Monitoring Chief approve the SCEC action to acknowledge the 26 inch 24-hour accumulation for 20-21 December 1929 in Hillsboro, TX as the new state record maximum 24-hour snowfall record for Texas.**

NCEI Climate Monitoring Chief Decision:

Approved (as recommended in boldface above):

Signed _____ Date: _____

Not approved (will be returned to SCEC with no action taken):

Signed _____ Date: _____





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Month of DECEMBER 1929; Station, Hillsboro County, Hill
 State TEXAS Latitude, _____ Longitude, _____
 Hour of Observation, _____ Time used on this form, 11:30 AM

DATE	TEMPERATURE			WIND	PRECIPITATION				DIRECTION OF WIND ON GROUND AND TIME OF OTHER WINDS	PREVALENT WIND DIRECTION	CHARACTER OF DAY (SUN RISE TO SUNSET)	MISCELLANEOUS PHENOMENA
	MAX. (1)	MIN. (2)	RANGE (3)		AMOUNT (7)	SNOWFALL IN INCHES (8)	WIND (9)	WIND (10)				
1	47	23	23								P Cloudy	
2	51	25	15		Trace						Cloudy	
3	40	16	38								Clear	
4	54	17	50								Clear	
5	67	27	40								Clear	
6	67	32	43								Clear	
7	75	44	18		0.59						Clear	
8	62	38	39								Clear	
9	77	46	32								Clear	
10	78	57	23								P Cloudy	
11	80	68	12								P Cloudy	
12	78	68	10		Trace						Cloudy	
13	74	65	9		0.08						Cloudy	
14	72	61	7								Cloudy	
15	68	60	13								Foggy	
16	72	60	13		Trace						Cloudy	
17	73	63	10		0.09						Cloudy	
18	78	75	3								Cloudy	
19	82	76	17								P Cloudy	
20	82	15	19								Clear	
21	84	25	7		1.60	0.45	16.0	16.0			Cloudy	
22	32	04	32		1.02	0.52	19.0	26.0			Cloudy	
23	36	06	32								Clear	
24	38	08	34								Clear	
25	42	19	40								Clear	
26	57	33	34								Clear	
27	67	35	25								Cloudy	
28	60	31	33								Cloudy	
29	64	32	32								P Cloudy	
30	64	35	35								Clear	
31	70	36	39								Clear	
31	75	37	38								Clear	
31	61.2	37.8	23.8		4.86	0.03	26.0				Clear	

Mean maximum, 61.2
 Mean minimum, 37.8
 Mean, 48.0
 Maximum, 80 date, 10
 Minimum, 4 date, 22
 Greatest daily range, 50
 PRECIPITATION:
 Total, 4.86 inches
 Greatest in 24 hours, 1.60 inches, date, Dec 21
 SNOW:
 Total snowfall, 26 inches; on ground 15th, _____ inches;
 at end of month, _____ inches
 NUMBER OF DAYS:
 With 0.1 inch or more precipitation, 6
 Clear, 13; partly cloudy, 5; cloudy, 13
 DATES OF:
 Killing frost, _____
 Thunderstorms, _____
 Light, _____
 Hail, Moderate, _____
 Heavy, _____
 Sleet, _____
 Auroras, _____
 REMARKS:
No snow turning 21
amounted to 1/4 inch and
when melted down was .45
inch. Total snow - 26 inches
Dec 21-22.

Observer: Harry L. Blount Cooperative Observer
 Post Office Address: Hillsboro, Tx

Figure 1. Observer form for Hillsboro, TX in December 1929.





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COOPERATIVE OBSERVERS METEOROLOGICAL RECORD:
 Month of December, 1929, Station Clifton, County Barren
 State Texas, Latitude 31° 46', Longitude 97° 32', Time used on this form 90

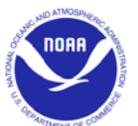
DATE	TEMPERATURE				TIME OF BEGINNING OR ENDING	PRECIPITATION AMOUNT	SNOWFALL IN INCHES	DEPTH OF SNOW OR ICE IN INCHES AT TIME OF OBSERVATION	DIRECTION AND FORCE OF WIND	CHARACTER OF SKY SUNSET TO SUNSET	MISCELLANEOUS PHENOMENA
	MAX. MIN.	BAROM.	WIND MAX.	WIND DIR.							
1											
2											
3											
4											
5											
6											
7					early AM	0.01					
8											
9											
10											
11					11 AM - 2 PM	0.01					
12					11 AM - 1 PM	0.02					
13					11 AM - 1 PM	0.05					
14					11 AM - 1 PM	0.05					
15					11 AM - 1 PM	0.05					
16					11 AM - 1 PM	0.05					
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
TOTAL						3.08	2.40				

Mean maximum, _____
 Mean minimum, _____
 Mean, _____
 Maximum, _____ date, _____
 Minimum, _____ date, _____
 Greatest daily range, _____
 PRECIPITATION
 Total, 3.08 inches
 Greatest in 24 hours, 0.05 inches
 Total snowfall, 1.7 inches on ground 15th, _____ inches at end of month, _____ inches
 NUMBER OF DAYS
 With .01 inch or more precipitation, _____
 Clear, 16; partly cloudy, 7; cloudy, 8
 DATES OF
 Killing frost, 25/28 high
 Thunderstorms, _____
 Light, _____
 Hail, Moderate, _____
 Heavy, _____
 Sleet, _____
 Auroras, _____
 REMARKS:
 BEST AVAILABLE RECORD
 JEB

* Reading of maximum thermometer immediately after sunrise.
 † Including rain, hail, sleet, and melted snow.
 ‡ Thunderstorms, halos, auroras, etc.

IN TRIPPLICATE. See cover for instructions. OP. M. Jones Cooperative Observer.
 Post-Office Address: Clifton

Figure 2. Observer form for Clifton, TX in December 1929.





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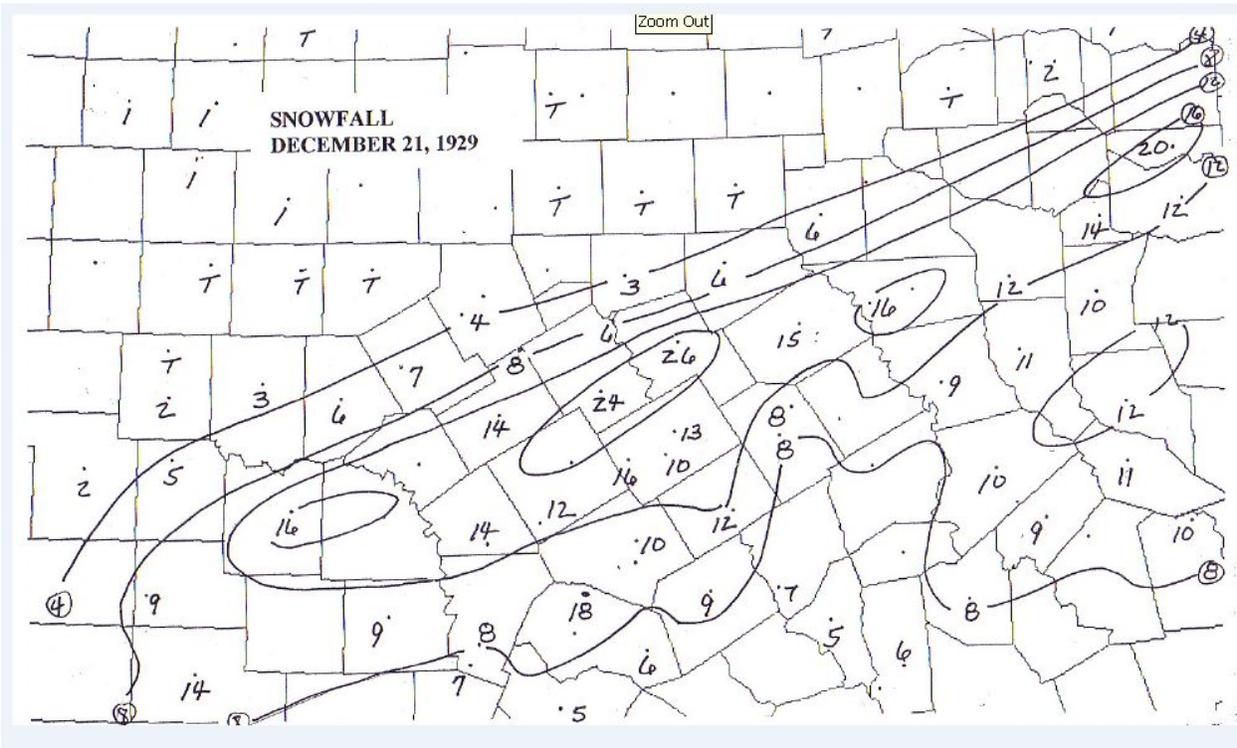


Figure 3. Analysis of daily snowfall event for 21 December 1929.

