

2018 Calendar

*National Weather Service
in Lubbock, Texas*

Lubbock, Texas

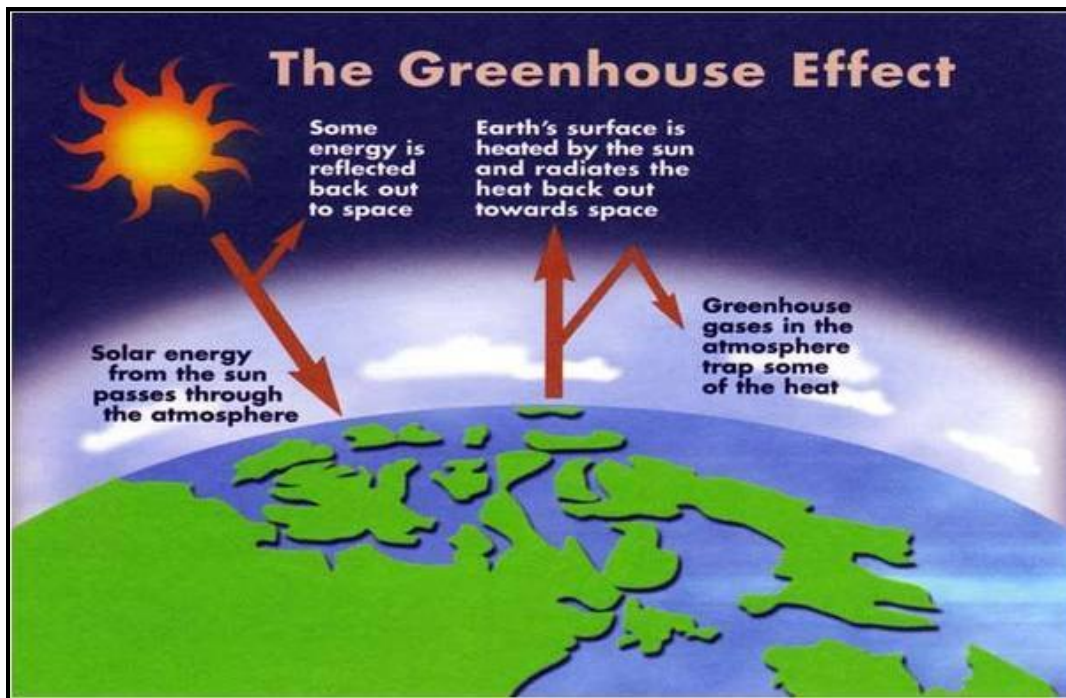
July 3, 2017

Photo courtesy

of Erin Shaw

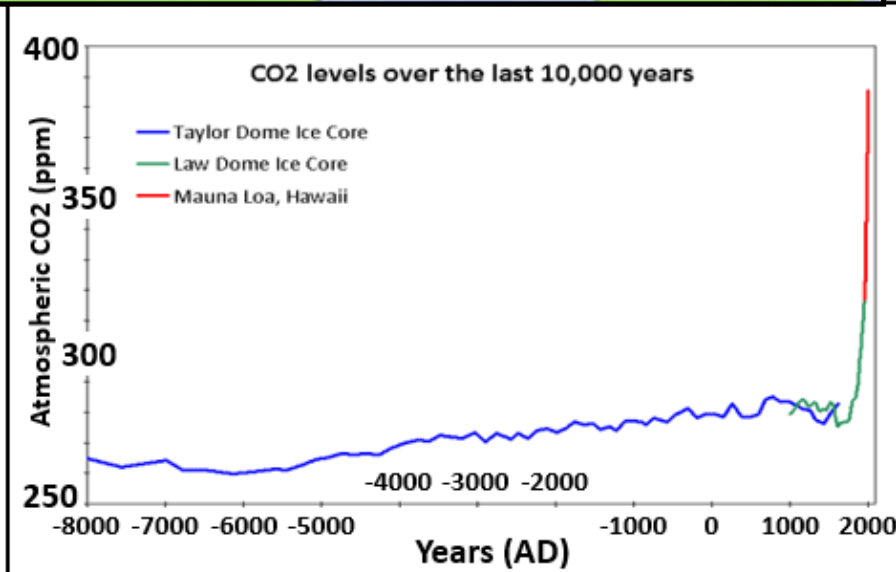
January 2018

Greenhouse Gas and Earth's Energy Budget











A Greenhouse traps warmth by allowing sunlight in, but limiting air-flow out. Earth is similar. Sunlight enters the atmosphere, and greenhouse gas covering the Earth traps much of the re-radiated warmth in the lower atmosphere. This process is critical for life to exist. Without greenhouse gas, Earth would be cold, dry and desolate. However, upsetting the balance of the greenhouse gas is a concern for climate change.

Global CO₂ levels have increased by more than a third since pre-industrial times. The net increase



in greenhouse gas concentration has been attributed to human-caused activities and warming of Earth since the mid-20th century.

The energy of the Sun reaching Earth is fairly constant, varying by plus or minus 0.3%. On average, about half of the Sun's energy directed to Earth makes it to the surface, warms the atmosphere, and promotes a host of biological processes. The remainder is reflected back into space or is absorbed by clouds, dust, and heat-trapping gas in the atmosphere. The greenhouse gases include carbon dioxide (CO₂), water vapor, and methane. CO₂ is the most influential by far.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <p>Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500</p>	<p>Normals: 53 / 26 0.02 76-1997 / -2-1919 Lubbock Records</p> <p>1 sr 752 am - sunrise ss 551 pm - sunset</p> <p>New Year's Day</p>  <p>Full Moon</p>	<p>53 / 26 0.02 77-2009 / -2-1979</p> <p>2 sr 752 am ss 551 pm</p>	<p>53 / 26 0.01 83-2006 / -2-1947</p> <p>3 sr 752 am ss 552 pm</p> <p>Quadrantids Meteor Shower (Peaks Jan 3-4)</p>	<p>53 / 26 0.02 76-1918 / -9-1947</p> <p>4 sr 752 am ss 553 pm</p>	<p>53 / 26 0.02 82-1927 / -4-1971</p> <p>5 sr 752 am ss 554 pm</p>	<p>53 / 26 0.02 79-1927 / 0-1971</p> <p>6 sr 753 am ss 555 pm</p>
<p>53 / 26 0.02 80-2006 / 6-1968</p> <p>7 sr 753 am ss 555 pm</p>	<p>53 / 26 0.02 82-1969 / 3-1967</p> <p>8 sr 753 am ss 556 pm</p>  <p>Last Quarter</p>	<p>53 / 26 0.02 81-2017 / 2-1920</p> <p>9 sr 753 am ss 557 pm</p>	<p>53 / 26 0.01 76-1928 / -10-1930</p> <p>10 sr 752 am ss 558 pm</p>	<p>54 / 26 0.02 80-2017 / -7-1918</p> <p>11 sr 752 am ss 559 pm</p>	<p>54 / 26 0.02 77-1953 / -10-1918</p> <p>12 sr 752 am ss 600 pm</p>	<p>54 / 26 0.02 79-1957 / -16-1963</p> <p>13 sr 752 am ss 601 pm</p>
<p>54 / 26 0.01 82-1928 / 3-1963</p> <p>14 sr 752 am ss 602 pm</p>	<p>54 / 26 0.02 80-1911 / 4-1963</p> <p>15 sr 752 am ss 603 pm</p> <p>Martin Luther King Jr. Day (Observed)</p>	<p>54 / 26 0.02 80-1974 / 6-1930</p> <p>16 sr 751am ss 603 pm</p>  <p>New Moon</p>	<p>54 / 26 0.02 87-1914 / -2-1930</p> <p>17 sr 751 am ss 604 pm</p>	<p>54 / 26 0.03 79-1914 / -5-1930</p> <p>18 sr 751 am ss 605 pm</p>	<p>54 / 26 0.02 80-2000 / 0-1963</p> <p>19 sr 751 am ss 606 pm</p>	<p>54 / 27 0.02 78-1986 / 7-1940</p> <p>20 sr 750 am ss 607 pm</p>
<p>55 / 27 0.02 81-1950 / -4-1918</p> <p>21 sr 750 am ss 608 pm</p>	<p>55 / 27 0.02 79-2009 / -6-1918</p> <p>22 sr 749 am ss 609 pm</p>	<p>55 / 27 0.03 83-1972 / 3-1983</p> <p>23 sr 749 am ss 610 pm</p>	<p>55 / 27 0.02 83-1970 / -1-1915</p> <p>24 sr 748 am ss 611 pm</p>  <p>First Quarter</p>	<p>55 / 27 0.03 79-1952 / 7-1940</p> <p>25 sr 748 am ss 612 pm</p>	<p>55 / 27 0.02 78-1975 / 7-1966</p> <p>26 sr 747 am ss 613 pm</p>	<p>55 / 27 0.03 78-1970 / 5-1925</p> <p>27 sr 747 am ss 614 pm</p>
<p>55 / 27 0.02 80-2003 / 6-2014</p> <p>28 sr 746 am ss 615 pm</p>	<p>56 / 27 0.03 80-1911 / 1-1948</p> <p>29 sr 746 am ss 616 pm</p>	<p>56 / 27 0.02 80-2016 / 6-1951</p> <p>30 sr 745 am ss 617 pm</p>	<p>56 / 28 0.03 84-1911 / 2-1985</p> <p>31 sr 744 am ss 618 pm</p>  <p>Full Moon</p>	 <p>Follow us on twitter at: www.twitter.com/NWSLubbock</p>		 <p>Follow us on facebook at: www.facebook.com/NWSLubbock</p>

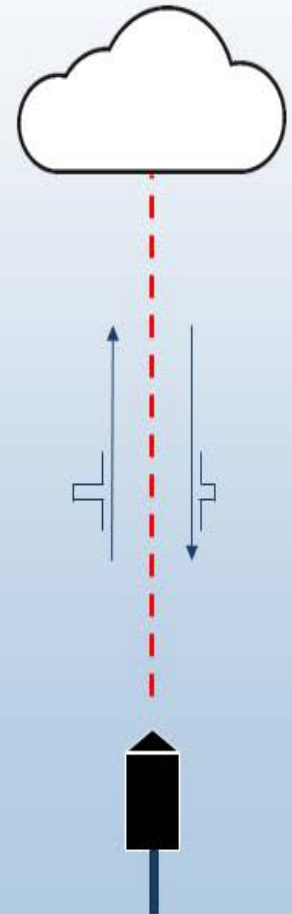
How do Meteorologists determine cloud heights?




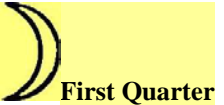




*A nanosecond is one billionth of a second!

We use a tool called a ceilometer. It uses a non-visible laser to send a very short duration flash upward (very similar to RADAR). The receiver looks straight up and “listens” to detect a resulting signal reflected back down to the sensor. Based on the time between transmitting and receiving, the cloud base can be determined. Light travels about 1 foot in one nanosecond*. So, a time delay of 0.000001 seconds means the cloud is around 500 feet above the ground. The pulse has to travel up and back for a total of 1,000 feet. Most ceilometers can detect clouds to 13,000 feet high with some sensing beyond 30,000 feet.

To detect cloud coverage (overcast, scattered, etc.) an algorithm tracks the last 30 minutes of detected clouds placing an emphasis on the last 10 minutes. If the amount of time that a cloud is detected is between 0 and 25%, it's considered a FEW clouds, 25%-50% is SCATTERED, 50%-87% is BROKEN, and 87%-100% is assigned OVERCAST.

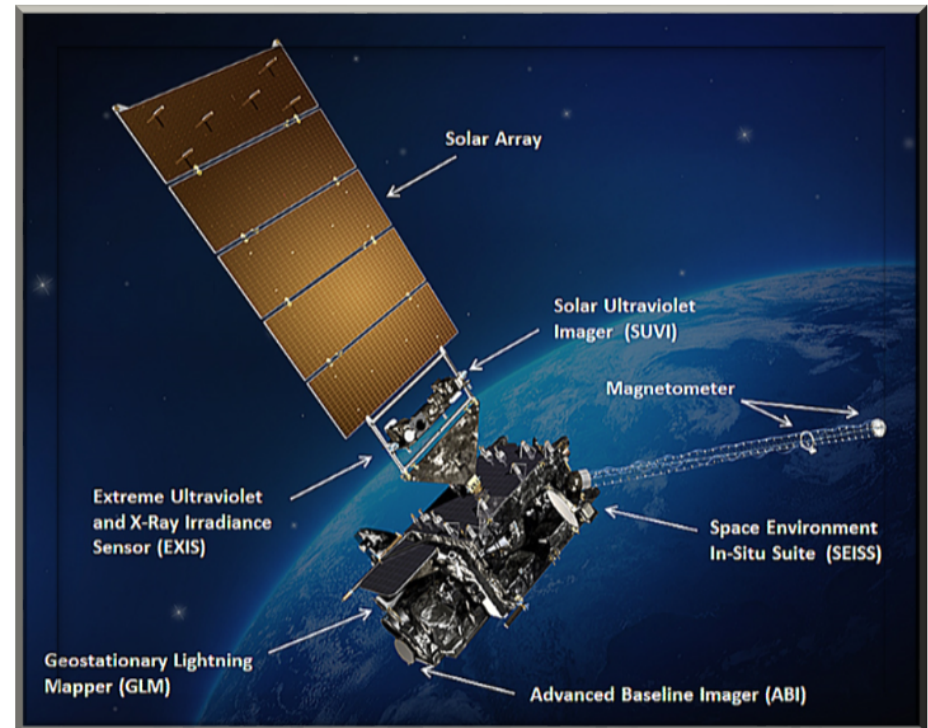


SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <p>Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500</p>	 <p>Follow us on facebook at: www.facebook.com/NWSLubbock</p>		<p>1 Normals: 56 / 28 0.03 83-1963 / -7-1951 Lubbock Records sr 744 am - sunrise ss 619 pm - sunset</p>	<p>2 56 / 28 0.02 80-2003 / -4-1951 sr 743 am ss 620 pm</p> <p>Groundhog Day</p>	<p>3 56 / 28 0.03 80-1934 / 4-1972 sr 742 am ss 621 pm</p>
<p>4 57 / 28 0.02 82-1925 / 3-1989 sr 741 am ss 622 pm</p>	<p>5 57 / 28 0.03 81-1937 / 3-1982 sr 741 am ss 623 pm</p>	<p>6 57 / 28 0.02 81-2015 / 4-1956 sr 740 am ss 624 pm</p>	<p>7 57 / 29 0.03 84-2015 / -3-1933 sr 739 am ss 625 pm</p>  <p>Last Quarter</p>	<p>8 57 / 29 0.03 83-1951 / -17-1933 (all-time) sr 738 am ss 626 pm</p>	<p>9 58 / 29 0.03 83-1976 / 0-1933 sr 737 am ss 627 pm</p>	<p>10 58 / 29 0.03 88-2017 / 1-1929 sr 736 am ss 627 pm</p>
<p>11 58 / 29 0.03 91-2017 / 6-1981 sr 735 am ss 628 pm</p>	<p>12 58 / 29 0.02 86-1962 / 9-1958 sr 734 am ss 629 pm</p>	<p>13 59 / 30 0.03 81-1979 / 7-1963 sr 733 am ss 630 pm</p>	<p>14 59 / 30 0.03 87-1979 / 12-2004 sr 733 am ss 631 pm</p> <p>Valentine's Day</p>	<p>15 59 / 30 0.02 87-2014 / 8-1951 sr 731 am ss 632 pm</p>  <p>New Moon</p>	<p>16 59 / 30 0.03 85-2011 / 13-1979 sr 730 am ss 633 pm</p>	<p>17 59 / 31 0.03 85-1970 / 0-1978 sr 729 am ss 634 pm</p>
<p>18 60 / 31 0.02 87-2016 / -2-1978 sr 728 am ss 635 pm</p>	<p>19 60 / 31 0.03 85-2016 / 2-1978 sr 727 am ss 636 pm</p> <p>Presidents' Day</p>	<p>20 60 / 31 0.03 85-2016 / 4-1918 sr 726 am ss 637 pm</p>	<p>21 60 / 31 0.02 84-1996 / 6-1964 sr 725 am ss 637 pm</p>	<p>22 61 / 32 0.03 87-1996 / 12-1911 sr 724 am ss 638 pm</p>	<p>23 61 / 32 0.02 85-2009 / 9-1914 sr 723 am ss 639 pm</p>  <p>First Quarter</p>	<p>24 61 / 32 0.03 89-1918 / 1-1960 sr 722 am ss 640 pm</p>
<p>25 61 / 32 0.02 86-1989 / -8-1960 sr 721 am ss 641 pm</p>	<p>26 62 / 33 0.03 85-1918 / 8-1935 sr 719 am ss 642 pm</p>	<p>27 62 / 33 0.03 81-2006 / 10-1934 sr 718 am ss 643 pm</p>	<p>28 62 / 33 0.03 89-2006 / 7-1962 sr 717 am ss 643 pm</p>			 <p>Follow us on twitter at: www.twitter.com/NWSLubbock</p>

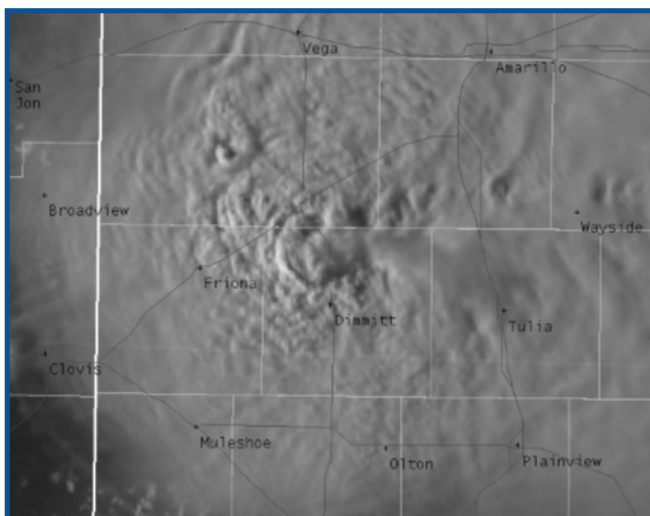
New weather satellite boosts forecasts

The latest National Oceanic and Atmospheric Administration (NOAA) satellite **GOES-16** was launched in November of 2016. GOES stands for **G**eostationary **O**perational **E**nvironmental **S**atellite, and it is the 16th in the series of satellites launched since 1975.

Among its new features, the increase in resolution is important for NWS forecasters. Horizontal resolution has been improved to 0.5 km (about 1640 feet), allowing forecasters to see important weather features in greater detail. The new satellite also provides images much faster than older ones. NWS offices normally receive images every 5 minutes, but during severe weather events the satellite can transmit images as fast as every 30 seconds, giving forecasters critical information on fast-developing storms.

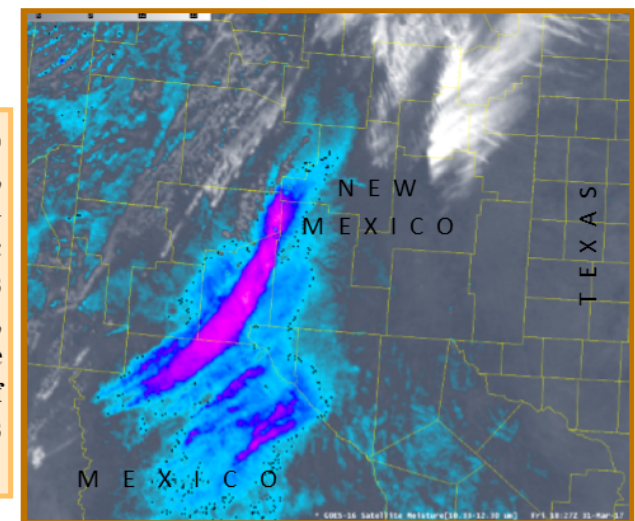


The major components of GOES-16



The high-resolution imagery in the visible spectrum allows forecasters to see thunderstorm features more clearly, like in this image of the top of a tornadic thunderstorm near Dimmitt in April of 2017.

By combining two or more channels, images can highlight specific weather features like smoke, fog, and in this case from March of 2017, dust plumes near El Paso.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 Follow us on twitter at: www.twitter.com/NWSLubbock		NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES: Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500	 Follow us on facebook at: www.facebook.com/NWSLubbock	Normals: 63 / 33 0.03 89-2006 / 5-1922 Lubbock Records 1 sr 716 am - sunrise ss 644 pm - sunset  Full Moon	63 / 34 0.03 86-1974 / -2-1922 2 sr 715 am ss 645 pm	63 / 34 0.03 88-2009 / 7-1943 3 sr 713 am ss 646 pm
4 63 / 34 0.03 89-2009 / -1-1917 sr 712 am ss 647 pm	5 64 / 34 0.04 90-1916 / 11-1989 sr 711 am ss 648 pm	6 64 / 35 0.03 87-1934 / 10-1943 sr 710 am ss 648 pm	7 64 / 35 0.03 88-2006 / 11-1996 sr 708 am ss 649 pm	8 64 / 35 0.03 87-1918 / 12-1967 sr 707 am ss 650 pm	9 65 / 35 0.04 88-1911 / 13-1969 sr 706 am ss 651 pm  Last Quarter	10 65 / 36 0.03 88-1911 / 4-1948 sr 704 am ss 652 pm
11 65 / 36 0.03 95-1989 / 2-1948 sr 803 am ss 752 pm Daylight Saving Time begins	12 66 / 36 0.04 94-1989 / 10-1948 sr 802 am ss 753 pm	13 66 / 36 0.03 91-1916 / 12-1950 sr 800 am ss 754 pm	14 66 / 37 0.04 86-1972 / 13-1954 sr 759 am ss 755 pm	15 66 / 37 0.03 88-2013 / 17-1947 sr 758 am ss 755 pm	16 67 / 37 0.04 87-2017 / 16-1923 sr 756 am ss 756 pm	67 / 37 0.03 90-2011 / 18-1970 sr 755 am ss 757 pm St. Patrick's Day  New Moon
18 67 / 37 0.04 88-1916 / 11-1923 sr 754 am ss 758 pm	19 68 / 38 0.04 89-2017 / 11-1923 sr 752 am ss 758 pm	20 68 / 38 0.03 93-2017 / 8-1965 sr 751 am ss 759 pm Spring Equinox (11:15 am)	21 68 / 38 0.04 93-1997 / 17-1983 sr 750 am ss 800 pm	22 68 / 38 0.04 87-2016 / 18-1952 sr 748 am ss 801 pm	23 69 / 39 0.04 87-2015 / 13-1952 sr 747 am ss 801 pm	69 / 39 0.04 88-1929 / 22-1965 sr 746 am ss 802 pm  First Quarter
25 69 / 39 0.04 90-1998 / 19-2013 sr 744 am ss 803 pm	26 70 / 40 0.04 88-1956 / 16-1965 sr 743 am ss 804 pm	27 70 / 40 0.04 94-1971 / 12-1931 sr 742 am ss 804 pm	28 70 / 40 0.04 90-1963 / 16-1931 sr 740 am ss 805 pm	29 70 / 40 0.04 91-2012 / 18-1944 sr 739 am ss 806 pm	71 / 41 0.03 91-2010 / 16-1987 30 sr 738 am ss 807 pm	71 / 41 0.04 95-1946 / 19-1931 31 sr 736 am ss 807 pm  Full Moon

April 14, 2017: Tornado strikes near Dimmitt!

Photograph of the developing tornado at 6:30 pm



Twisted wreckage of a large metal farm building

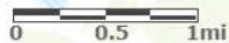


The dots represent locations of damage surveyed by the NWS.

On Good Friday, 2017, a large tornado just missed Dimmitt by a couple of miles. The tornado destroyed several homes and farm buildings to the west of town. The tornado tracked north to northeast for about 7 miles and was over a mile wide for a time. The tornado was given an EF-3 rating, with peak wind speeds of about 140 mph.

Some residents in the path of the tornado heard the warning and went to their safe areas.

NOAA Weather Radio saves lives!



County Road 618








3848 ft

385

Texas Parks & Wildlife, Esr

County Road 515A

194

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>1 Normals: 71 / 41 0.04 96-1946 / 22-1948 Lubbock Records sr 735 am - sunrise ss 808 pm - sunset</p> <p>Easter Sunday April Fool's Day</p>	<p>2 72 / 41 0.04 92-2011 / 20-1936 sr 734 am ss 809 pm</p>	<p>3 72 / 42 0.04 94-2011 / 26-1975 sr 732 am ss 810 pm</p>	<p>4 72 / 42 0.04 92-1928 / 18-1920 sr 731 am ss 810 pm</p>	<p>5 72 / 42 0.04 92-2006 / 21-1917 sr 730 am ss 811 pm</p>	<p>6 73 / 43 0.04 96-1972 / 21-1936 sr 728 am ss 812 pm</p>	<p>7 73 / 43 0.04 93-1930 / 21-1936 sr 727 am ss 813 pm</p>
<p>8 73 / 43 0.05 93-2017 / 23-1938 sr 726 am ss 813 pm</p> <p> Last Quarter</p>	<p>9 74 / 44 0.04 94-1939 / 23-1973 sr 725 am ss 814 pm</p>	<p>10 74 / 44 0.04 93-1972 / 22-2013 sr 723 am ss 815 pm</p>	<p>11 74 / 44 0.04 94-1972 / 25-1932 sr 722 am ss 815 pm</p>	<p>12 74 / 44 0.04 96-1972 / 22-1997 sr 721 am ss 816 pm</p>	<p>13 75 / 45 0.05 91-2006 / 26-1957 sr 719 am ss 817 pm</p>	<p>14 75 / 45 0.04 93-2006 / 27-1933 sr 718 am ss 818 pm</p>
<p>15 75 / 45 0.04 92-2006 / 25-2014 sr 717 am ss 818 pm</p> <p> New Moon</p>	<p>16 76 / 46 0.05 100-1925 / 31-1947 sr 716 am ss 819 pm</p>	<p>17 76 / 46 0.05 94-2006 / 23-1921 sr 715 am ss 820 pm</p>	<p>18 76 / 47 0.04 96-1987 / 29-1953 sr 713 am ss 821 pm</p>	<p>19 76 / 47 0.05 92-2001 / 25-2013 sr 712 am ss 821 pm</p>	<p>20 77 / 47 0.05 93-1925 / 30-1933 sr 711 am ss 822 pm</p>	<p>21 77 / 48 0.04 98-1989 / 28-1918 sr 710 am ss 823 pm</p>
<p>22 77 / 48 0.06 100-1989 / 29-1927 sr 709 am ss 824 pm</p> <p>Earth Day</p> <p> First Quarter</p>	<p>23 78 / 48 0.05 97-1989 / 30-1928 sr 708 am ss 825 pm</p> <p>Lynids Meteor Shower (Peaks Apr 22-23)</p>	<p>24 78 / 49 0.05 95-1996 / 25-2013 sr 706 am ss 825 pm</p>	<p>25 78 / 49 0.06 104-2012 / 35-1927 sr 705 am ss 826 pm</p>	<p>26 78 / 49 0.05 96-1943 / 29-1947 sr 704 am ss 827 pm</p>	<p>27 79 / 50 0.06 97-1996 / 27-1920 sr 703 am ss 828 pm</p>	<p>28 79 / 50 0.06 94-1992 / 35-1994 sr 702 am ss 828 pm</p>
<p>29 79 / 50 0.06 97-2011 / 31-1968 sr 701 am ss 829 pm</p> <p> Full Moon</p>	<p>30 80 / 51 0.06 94-2013 / 33-1918 sr 700 am ss 830 pm</p>		<p></p> <p>Follow us on twitter at: www.twitter.com/NWSLubbock</p>	<p></p>	<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <p>Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500</p>	<p></p> <p>Follow us on facebook at: www.facebook.com/NWSLubbock</p>

Number of "observed" tornadoes - 1950 to 2017

<u><i>Parmer</i></u>	<u><i>Castro</i></u>	<u><i>Swisher</i></u> Yellow where > 45 tornadoes	<u><i>Briscoe</i></u>	<u><i>Hall</i></u>	<u><i>Childress</i></u>
Total 49 F3+ 3	Total 63 F3+ 2	Total 67 F3+ 5	Total 46 F3+ 3	Total 50 F3+ 3	Total 26 F3+ 0
<u><i>Bailey</i></u>	<u><i>Lamb</i></u>	<u><i>Hale</i></u>	<u><i>Floyd</i></u>	<u><i>Motley</i></u>	<u><i>Cottle</i></u>
Total 51 F3+ 2	Total 83 F3+ 7	Total 126 F3+ 3	Total 58 F3+ 3	Total 23 F3+ 2	Total 33 F3+ 1
<u><i>Cochran</i></u>	<u><i>Hockley</i></u>	<u><i>Lubbock</i></u>	<u><i>Crosby</i></u>	<u><i>Dickens</i></u>	<u><i>King</i></u>
Total 29 F3+ 1	Total 59 F3+ 6	Total 94 F3+ 3 F5 1	Total 56 F3+ 2	Total 37 F3+ 1	Total 21 F3+ 0
<u><i>Yoakum</i></u>	<u><i>Terry</i></u>	<u><i>Lynn</i></u>	<u><i>Garza</i></u>	<u><i>Kent</i></u>	<u><i>Stonewall</i></u>
Total 25 F3+ 0	Total 32 F3+ 0	Total 42 F3+ 1	Total 19 F3+ 0	Total 23 F3+ 0	Total 24 F3+ 0

South Plains Tornado Trivia

Longest Tracked Tornado:

- ▽ From NE of Muleshoe to NE of Pampa on April 17, 1970 = 130 miles
- ▽ Entire track in Lubbock NWS area: From NW of Levelland to NE of Muleshoe on June 17, 1980 = 45 miles

Largest Tornado:

- ▽ May 31, 1968 – Multiple vortex tornado that tracked near Edmonson was estimated to be 2 miles wide.

Strongest Tornado:

- ▽ May 11, 1970 - F5 tornado tracked through Lubbock and produced \$250 million in damage, killed 26 people, and injured 1500.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
 Follow us on facebook at: www.facebook.com/NWSLubbock		1 Normals: 80 / 51 0.05 96-2012 / 32-1970 Lubbock Records sr 659 am - sunrise ss 831 pm - sunset	2 80 / 51 0.06 97-2012 / 30-1967 sr 658 am ss 831 pm	3 80 / 52 0.05 98-2012 / 27-2013 sr 657 am ss 832 pm	4 81 / 52 0.06 104-1947 / 35-1935 sr 656 am ss 833 pm	5 81 / 52 0.05 99-2014 / 34-1953 sr 655 am ss 834 pm Cinco De Mayo
6 81 / 53 0.06 99-2000 / 32-1917 sr 654 am ss 834 pm Eta Aquarids Meteor Shower (Peaks May 6-7)	7 81 / 53 0.05 100-2009 / 29-1917 sr 653 am ss 835 pm 	8 82 / 53 0.06 102-1989 / 31-1938 sr 652 am ss 836 pm	9 82 / 54 0.06 97-2011 / 38-1961 sr 652 am ss 837 pm	10 82 / 54 0.06 99-2000 / 33-1918 sr 651 am ss 837 pm	11 83 / 54 0.07 101-2000 / 37-1930 sr 650 am ss 838 pm	12 83 / 55 0.06 98-1962 / 35-1960 sr 649 am ss 839 pm
13 83 / 55 0.08 100-2006 / 37-1971 sr 648 am ss 840 pm Mother's Day	14 83 / 55 0.07 100-1996 / 35-1953 sr 648 am ss 840 pm	15 84 / 56 0.06 103-1996 / 34-1967 sr 647 am ss 841 pm 	16 84 / 56 0.07 102-1996 / 37-1945 sr 646 am ss 842 pm	17 84 / 56 0.08 101-1996 / 41-1986 sr 646 am ss 843 pm	18 84 / 57 0.08 103-2003 / 42-1916 sr 645 am ss 843 pm	19 85 / 57 0.08 105-1996 / 42-1971 sr 644 am ss 844 pm
20 85 / 57 0.08 102-2006 / 40-1931 sr 644 am ss 845 pm	21 85 / 58 0.09 101-1989 / 39-1967 sr 643 am ss 845 pm 	22 85 / 58 0.09 105-1996 / 40-1931 sr 643 am ss 846 pm	23 86 / 58 0.09 105-2000 / 45-1917 sr 642 am ss 847 pm	24 86 / 58 0.09 109-2000 / 40-1930 sr 642 am ss 848 pm	25 86 / 59 0.09 102-2017 / 44-1924 sr 641 am ss 848 pm	26 86 / 59 0.09 101-1945 / 43-1950 sr 641 am ss 849 pm
27 86 / 59 0.08 103-1984 / 48-1961 sr 640 am ss 850 pm	28 87 / 60 0.10 104-2011 / 43-1917 sr 640 am ss 850 pm Memorial Day	29 87 / 60 0.10 104-2011 / 38-1947 sr 639 am ss 851 pm 	30 87 / 60 0.09 103-1998 / 45-1983 sr 639 am ss 851 pm	31 87 / 61 0.10 102-1916 / 43-1983 sr 639 am ss 852 pm	NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES: Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500	 Follow us on twitter at: www.twitter.com/NWSLubbock

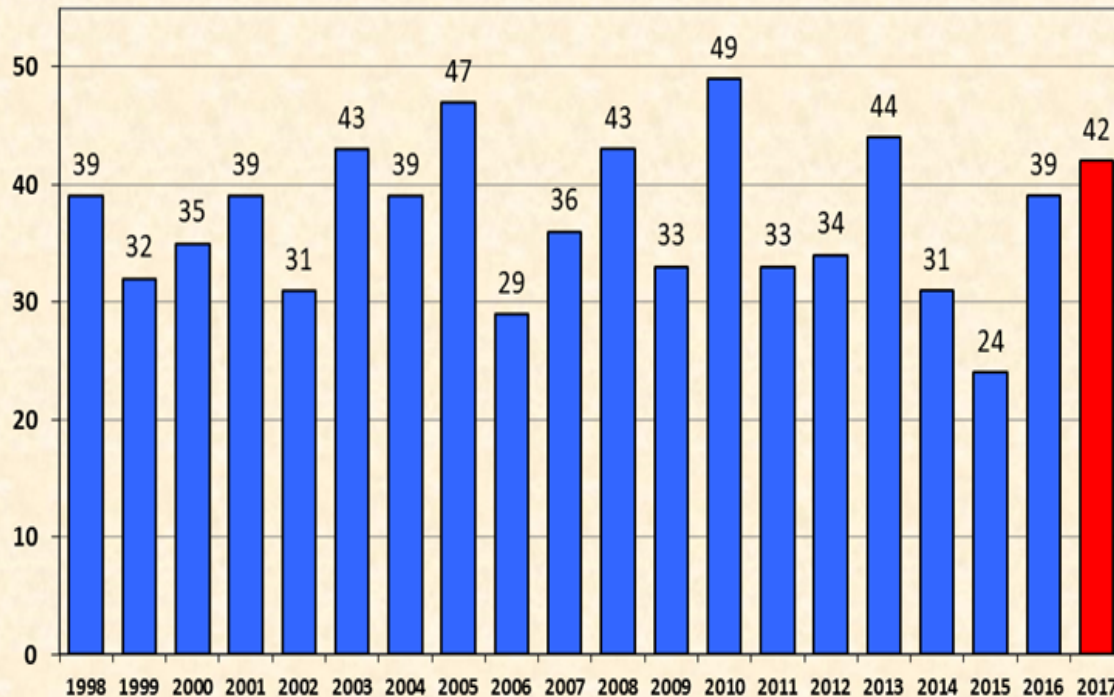
Beat The Heat...Check the Backseat!



It's simple, really. Before you get out of the car, check the backseat. Before you lock...LOOK!
Put your purse, briefcase, gym bag, etc. in the backseat to help remind you to check.

742 Children Have Died in Hot Cars since 1998

U.S. Child Vehicular Heatstroke Deaths



Courtesy <http://noheatstroke.org>

How fast does the inside of a car heat up?

- 5 min ~ 10 degree rise
- 10 min ~ 19 degree rise
- 20 min ~ 29 degree rise
- 60 min ~ 43 degree rise

2017 Child Vehicular Heatstroke Deaths by State

Texas	7
Florida	6
Alabama & Georgia	4
Louisiana	3
Idaho, Tennessee & Arizona	2
Several States	1

SUNDAY

MONDAY








TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

 <p>Follow us on facebook at: www.facebook.com/ NWSLubbock</p>	<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <p>Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500</p>	 <p>Follow us on twitter at: www.twitter.com/ NWSLubbock</p>			<p>Normals: 88 / 61 0.11 1 107-1998 / 45-1964 Lubbock Records sr 638 am - sunrise ss 853 pm - sunset</p>	<p>88 / 61 0.10 2 107-1998 / 39-1917 sr 638 am ss 853 pm</p>
<p>3 88 / 61 0.11 104-1998 / 43-1919 sr 638 am ss 854 pm</p>	<p>4 89 / 62 0.12 106-2013 / 47-1970 sr 638 am ss 854 pm</p>	<p>5 89 / 62 0.11 106-1990 / 45-1928 sr 637 am ss 855 pm</p>	<p>6 89 / 62 0.12 107-1990 / 45-1917 sr 637 am ss 855 pm</p>  <p>Last Quarter</p>	<p>7 89 / 62 0.11 103-1994 / 45-1915 sr 637 am ss 856 pm</p>	<p>8 89 / 63 0.11 106-1981 / 43-1915 sr 637 am ss 856 pm</p>	<p>9 90 / 63 0.12 107-1981 / 50-1955 sr 637 am ss 857 pm</p>
<p>10 90 / 63 0.10 105-1917 / 47-1955 sr 637 am ss 857 pm</p>	<p>11 90 / 63 0.11 105-2008 / 50-1955 sr 637 am ss 858 pm</p>	<p>12 90 / 64 0.10 105-2001 / 53-1951 sr 637 am ss 858 pm</p>	<p>13 90 / 64 0.11 105-2011 / 52-1945 sr 637 am ss 858 pm</p>  <p>New Moon</p>	<p>14 91 / 64 0.11 106-1939 / 44-1947 sr 637 am ss 859 pm</p> <p>Flag Day</p>	<p>15 91 / 64 0.10 109-1939 / 49-1927 sr 637 am ss 859 pm</p>	<p>16 91 / 65 0.10 108-2011 / 49-1981 sr 637 am ss 900 pm</p>
<p>17 91 / 65 0.10 112-2017 / 53-1999 sr 637 am ss 900 pm</p> <p>Father's Day</p>	<p>18 91 / 65 0.10 107-1924 / 47-1945 sr 637 am ss 900 pm</p>	<p>19 91 / 65 0.10 107-2011 / 52-1945 sr 637 am ss 900 pm</p>	<p>20 92 / 65 0.09 108-1935 / 49-1973 sr 638 am ss 901 pm</p>  <p>First Quarter</p>	<p>21 92 / 66 0.10 107-1981 / 54-1973 sr 638 am ss 901 pm</p> <p>Summer Solstice (5:07 am)</p>	<p>22 92 / 66 0.10 106-1978 / 50-1927 sr 638 am ss 901 pm</p>	<p>23 92 / 66 0.09 107-1980 / 56-1964 sr 638 am ss 901 pm</p>
<p>24 92 / 66 0.09 110-1990 / 56-1957 sr 639 am ss 901 pm</p>	<p>25 92 / 66 0.10 110-2011 / 54-1940 sr 639 am ss 901 pm</p>	<p>26 92 / 66 0.08 112-2011 / 53-1958 sr 639 am ss 901 pm</p>	<p>27 92 / 67 0.09 114-1994 / 56-1958 (all-time) sr 640 am ss 902 pm</p>	<p>28 92 / 67 0.08 108-1980 / 56-1946 sr 640 am ss 902 pm</p>  <p>Full Moon</p>	<p>29 92 / 67 0.09 107-2017 / 57-1948 sr 640 am ss 902 pm</p>	<p>30 93 / 67 0.09 106-1957 / 57-1940 sr 641 am ss 902 pm</p>

Meet the staff at NWS Lubbock

Every day of the year, 24 hours a day, staff with the National Weather Service in Lubbock are keeping a watchful eye on the weather across the Texas South Plains. Everything from forecasting a historic blizzard on Christmas Day in 2015, to dealing with life-threatening flooding on the 4th of July in 2010, we put service before self to help keep you and your family safe from the worst that West Texas weather can offer.



Justin



Jody



Marsha



John L.



John H.



Bruce



Eric



Mike



Steve



Ron



Robert



Mark



Jason



Joe J.



Gary



Matt



Marissa



Emma



Jeff



Charles



Joe M.



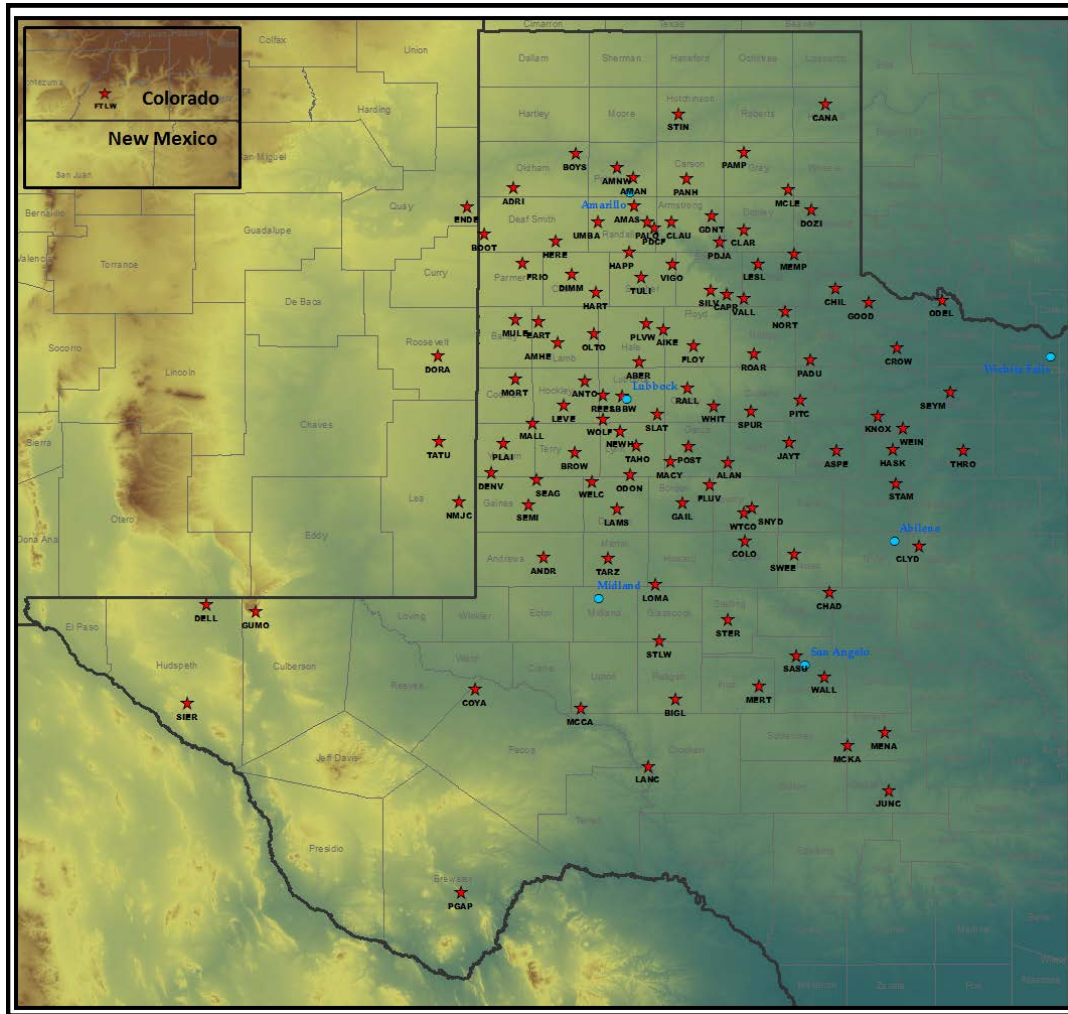
Jenn

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 Normals: 93 / 67 0.08 105-1994 / 56-1924 Lubbock Records sr 641 am - sunrise ss 902 pm - sunset	2 93 / 67 0.08 106-1989 / 56-1944 sr 642 am ss 901 pm	3 93 / 67 0.08 108-1983 / 54-1929 sr 642 am ss 901 pm	4 93 / 67 0.07 105-1987 / 56-1924 sr 642 am ss 901 pm Independence Day	5 93 / 67 0.07 104-1971 / 49-1915 sr 643 am ss 901 pm	6 93 / 67 0.07 105-2016 / 53-1946 sr 643 am ss 901 pm  Last Quarter	7 93 / 68 0.07 109-2016 / 51-1952 sr 644 am ss 901 pm
8 93 / 68 0.06 106-2009 / 51-1952 sr 644 am ss 901 pm	9 93 / 68 0.07 107-2009 / 56-1952 sr 645 am ss 900 pm	10 93 / 68 0.06 109-1940 / 58-1968 sr 646 am ss 900 pm	11 93 / 68 0.07 108-2016 / 57-1999 sr 646 am ss 900 pm	12 93 / 68 0.06 107-2016 / 57-1999 sr 647 am ss 859 pm  New Moon	13 93 / 68 0.06 108-2016 / 54-1953 sr 647 am ss 859 pm	14 93 / 68 0.07 108-1933 / 55-1990 sr 648 am ss 859 pm
15 93 / 68 0.06 105-2001 / 58-1926 sr 648 am ss 858 pm	16 93 / 68 0.06 105-2001 / 58-1935 sr 649 am ss 858 pm	17 93 / 68 0.06 105-1989 / 59-1930 sr 650 am ss 857 pm	18 93 / 68 0.05 103-1978 / 60-1935 sr 650 am ss 857 pm	19 93 / 68 0.06 108-1936 / 55-1947 sr 651 am ss 856 pm  First Quarter	20 93 / 68 0.05 105-1936 / 59-1971 sr 652 am ss 856 pm	21 93 / 68 0.06 102-1966 / 57-1988 sr 652 am ss 855 pm
22 93 / 68 0.05 104-2003 / 55-1915 sr 653 am ss 855 pm	23 93 / 68 0.06 104-2001 / 54-1915 sr 654 am ss 854 pm	24 93 / 68 0.05 104-1958 / 57-1915 sr 654 am ss 853 pm	25 93 / 68 0.05 104-1940 / 59-1956 sr 655 am ss 853 pm	26 93 / 68 0.06 105-1995 / 58-1959 sr 656 am ss 852 pm	27 93 / 68 0.05 106-1995 / 57-1933 sr 656 am ss 851 pm  Full Moon	28 93 / 68 0.06 105-1995 / 54-2005 sr 657 am ss 851 pm Delta Aquarids Meteor Shower (Peaks July 28-29)
29 93 / 68 0.05 102-1948 / 60-2004 sr 658 am ss 850 pm	30 93 / 68 0.05 104-1946 / 60-2000 sr 658 am ss 849 pm	31 93 / 68 0.06 104-1934 / 56-1971 sr 659 am ss 848 pm	 Follow us on facebook at: www.facebook.com/NWSLubbock	NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES: Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500		 Follow us on twitter at: www.twitter.com/NWSLubbock

WEST TEXAS MESONET

View live data at:

<http://www.mesonet.ttu.edu/>



The West Texas Mesonet project began in 1999 to provide **free, real-time** weather and agricultural information for residents of West Texas. Over the years the project has grown well beyond the South Plains to include four observation towers in eastern New Mexico, sites in Guadalupe Mountains and Big Bend National Parks, stations at Palo Duro and Caprock Canyons State Parks, and a site in southwest Colorado. Each observation station collects temperature, moisture, wind, pressure, solar radiation, and precipitation data, with most sites also sensing soil temperature and moisture at several depths. The data are valuable not only for the agriculture community, but they are also a tremendous resource for the National Weather Service.



Above is a map of the West Texas Mesonet domain as of late 2017. It now includes 111 stations (red stars), with even more planned.

SUNDAY

MONDAY

TUESDAY

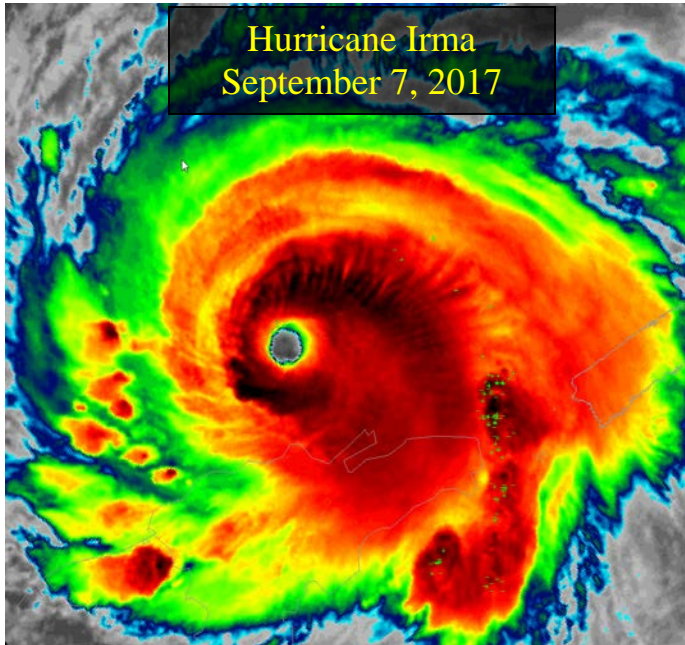
WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

 <p>Follow us on facebook at: www.facebook.com/NWSLubbock</p>		 <p>Follow us on twitter at: www.twitter.com/NWSLubbock</p>	<p>Normals: 93 / 68 0.05 106-1966 / 55-1925 Lubbock Records 1 sr 700 am - sunrise ss 847 pm - sunset</p>	<p>2 93 / 68 0.06 105-2012 / 54-1936 sr 701 am ss 846 pm</p>	<p>3 93 / 68 0.07 107-1944 / 56-1921 sr 701 am ss 846 pm</p>	<p>4 93 / 68 0.06 105-2003 / 57-1915 sr 702 am ss 845 pm</p>  <p>Last Quarter</p>
<p>5 92 / 68 0.07 102-2011 / 57-1915 sr 703 am ss 844 pm</p>	<p>6 92 / 68 0.06 105-2013 / 57-1990 sr 703 am ss 843 pm</p>	<p>7 92 / 68 0.06 104-2003 / 58-1971 sr 704 am ss 842 pm</p>	<p>8 92 / 68 0.06 105-2003 / 58-1990 sr 705 am ss 841 pm</p>	<p>9 92 / 68 0.07 103-2011 / 51-1946 sr 706 am ss 840 pm</p>	<p>10 92 / 68 0.06 104-2011 / 55-1915 sr 706 am ss 839 pm</p>	<p>11 92 / 67 0.06 103-1936 / 56-1931 sr 707 am ss 838 pm</p>  <p>New Moon</p>
<p>12 92 / 67 0.05 107-1936 / 54-1979 sr 708 am ss 837 pm</p> <p>Perseids Meteor Shower (Peaks Aug 12-13)</p>	<p>13 92 / 67 0.06 107-1936 / 54-1920 sr 708 am ss 836 pm</p>	<p>14 92 / 67 0.06 103-1946 / 53-1920 sr 709 am ss 835 pm</p>	<p>15 92 / 67 0.06 103-1982 / 56-1920 sr 710 am ss 834 pm</p>	<p>16 92 / 67 0.06 104-1943 / 55-1931 sr 711 am ss 832 pm</p>	<p>17 92 / 67 0.06 103-1978 / 56-1931 sr 711 am ss 831 pm</p>	<p>18 91 / 67 0.06 103-1994 / 55-1943 sr 712 am ss 830 pm</p>  <p>First Quarter</p>
<p>19 91 / 67 0.05 103-1994 / 57-2015 sr 713 am ss 829 pm</p>	<p>20 91 / 66 0.06 103-1943 / 54-1915 sr 713 am ss 828 pm</p>	<p>21 91 / 66 0.07 103-1930 / 52-1956 sr 714 am ss 827 pm</p>	<p>22 91 / 66 0.06 100-1999 / 58-1967 sr 715 am ss 825 pm</p>	<p>23 91 / 66 0.06 101-1985 / 54-1923 sr 715 am ss 824 pm</p>	<p>24 91 / 66 0.06 101-1936 / 51-1916 sr 716 am ss 823 pm</p>	<p>25 90 / 66 0.07 105-1936 / 54-1962 sr 717 am ss 822 pm</p>
<p>26 90 / 65 0.06 102-1922 / 51-2010 sr 717 am ss 820 pm</p>  <p>Full Moon</p>	<p>27 90 / 65 0.06 100-1931 / 53-1926 sr 718 am ss 819 pm</p>	<p>28 90 / 65 0.06 103-2011 / 54-1916 sr 719 am ss 818 pm</p>	<p>29 90 / 65 0.07 99-1943 / 51-1917 sr 719 am ss 817 pm</p>	<p>30 89 / 64 0.07 104-2011 / 44-1915 sr 720 am ss 815 pm</p>	<p>31 89 / 64 0.07 100-2014 / 43-1915 sr 721 am ss 814 pm</p>	<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <p>Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500</p>



Hurricane Irma
September 7, 2017

The Tropics



Hurricane Harvey
August 25, 2017

2017 Tropical Season

The 2017 Atlantic hurricane season was extremely active, producing 17 named storms, 10 hurricanes, and 6 major hurricanes (long-term averages are 12, 6, and 2, respectively). Both Hurricane Irma and Maria reached Category 5 strength and unfortunately they both impacted land while very intense. Irma moved through the northern Leeward Islands, skirted Puerto Rico, slammed northern Cuba and the Florida Keys and eventually tracked up western Florida. After dodging the worst of Irma, just a little over a week later Hurricane Maria made a direct landfall on Puerto Rico, causing massive devastation to the U.S. territory.

2018 Atlantic Cyclone Names

Alberto	Helene	Oscar
Beryl	Isaac	Patty
Chris	Joyce	Rafael
Debbie	Kirk	Sara
Ernesto	Leslie	Tony
Florence	Michael	Valerie
Gordon	Nadine	William

Tropical Impacts Closer to Home

Texas took a direct hit from Hurricane Harvey in late August 2017, the first major hurricane to strike the United States since Wilma in 2005. The wind and storm surge devastated locations in and around Rockport before Harvey moved inland and stalled. Although much weaker, Harvey lingered over southeast Texas for several days where it dropped torrential rainfall. Houston was at the epicenter of the rainfall, recording widespread 40 to 50 inch rain totals. This amount of water inundated the entire region and resulted in unprecedented flooding.

Saffir-Simpson Scale

Type	Maximum Wind Speeds (mph)
Tropical Depression	< 39
Tropical Storm	39 - 73
Category 1 Hurricane	74 - 95
Category 2 Hurricane	96 - 110
Category 3 Hurricane	111 - 130
Category 4 Hurricane	131 - 155
Category 5 Hurricane	156 +

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY



Follow us on twitter at:
www.twitter.com/NWSLubbock

NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:

Lubbock 162.400
Dimmitt 162.500
Plainview 162.450
Childress 162.525
Dickens 162.500



Follow us on facebook at:
www.facebook.com/NWSLubbock



1 Normals: 89 / 64 0.08
104-2014 / 43-1915
Lubbock Records
sr 722 am - sunrise
ss 813 pm - sunset

2 89 / 64 0.07
101-1947 / 50-1955
sr 722 am
ss 811 pm



3 88 / 63 0.09
101-2000 / 48-1974
sr 723 am
ss 810 pm

Labor Day

4 88 / 63 0.08
101-2000 / 46-1915
sr 724 am
ss 809 pm

5 88 / 63 0.09
102-2000 / 46-1961
sr 724 am
ss 807 pm

6 87 / 62 0.09
103-1948 / 51-1918
sr 725 am
ss 806 pm

7 87 / 62 0.09
99-2012 / 45-1918
sr 726 am
ss 805 pm

8 87 / 62 0.09
97-1985 / 47-2004
sr 726 am
ss 803 pm

9 87 / 61 0.09
99-1984 / 47-1956
sr 727 am
ss 802 pm



10 86 / 61 0.09
100-2000 / 47-1962
sr 728 am
ss 801 pm

11 86 / 61 0.09
103-2000 / 47-1959
sr 728 am
ss 759 pm

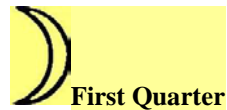
12 86 / 60 0.08
100-1930 / 44-1959
sr 729 am
ss 758 pm

13 85 / 60 0.09
101-1930 / 43-1959
sr 730 am
ss 757 pm

14 85 / 60 0.09
100-1965 / 42-1945
sr 730 am
ss 755 pm

15 85 / 59 0.08
99-1965 / 42-1993
sr 731 am
ss 754 pm

16 84 / 59 0.09
100-1965 / 42-1951
sr 732 am
ss 752 pm



17 84 / 58 0.09
98-2005 / 42-1951
sr 732 am
ss 751 pm

18 84 / 58 0.08
100-2015 / 43-1971
sr 733 am
ss 750 pm

19 83 / 58 0.09
105-1930 / 42-1991
sr 734 am
ss 748 pm

20 83 / 57 0.08
98-1977 / 41-1991
sr 734 am
ss 747 pm

21 83 / 57 0.08
98-1998 / 33-1983
sr 735 am
ss 745 pm

22 83 / 56 0.09
98-1977 / 40-1995
sr 736 am
ss 744 pm

Autumnal Equinox
(8:54pm)

23 82 / 56 0.08
98-1926 / 41-2009
sr 736 am
ss 743 pm

30 80 / 53 0.07
99-1977 / 35-1985
sr 741 am
ss 733 pm

24 82 / 56 0.09
97-1953 / 38-1989
sr 737 am
ss 741 pm



25 82 / 55 0.08
100-2005 / 36-2000
sr 738 am
ss 740 pm

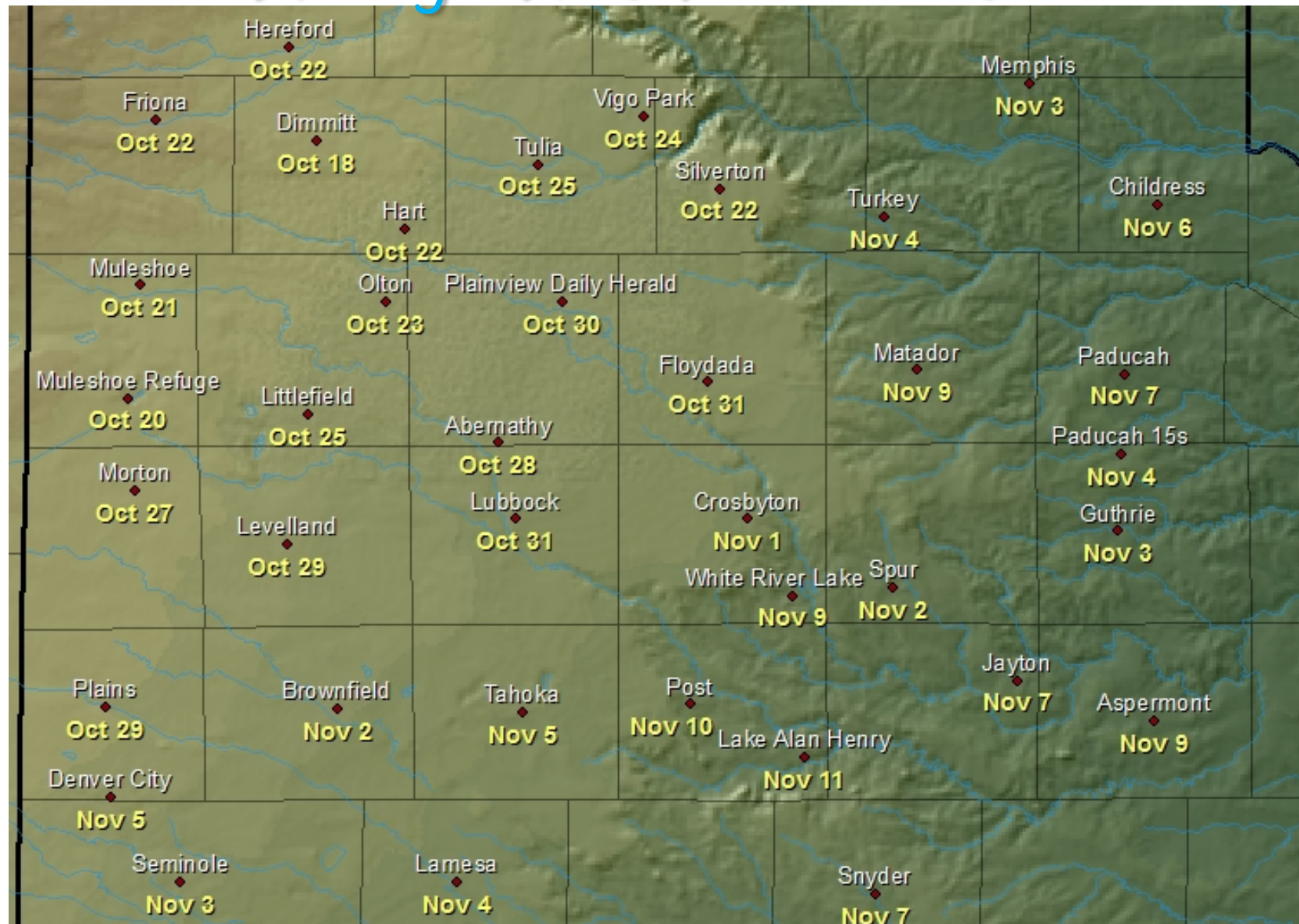
26 81 / 55 0.08
99-1997 / 36-1926
sr 738 am
ss 739 pm

27 81 / 55 0.08
100-1953 / 39-1942
sr 739 am
ss 737 pm






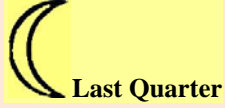


28 81 / 54 0.07
98-1994 / 36-1918
sr 740 am
ss 736 pm

29 80 / 54 0.07
97-2011 / 33-1916
sr 740 am
ss 734 pm

Average First Freeze Dates



The earliest first fall freeze in Lubbock occurred on October 7, 1952.
The latest first fall freeze in Lubbock occurred on November 23, 2003.

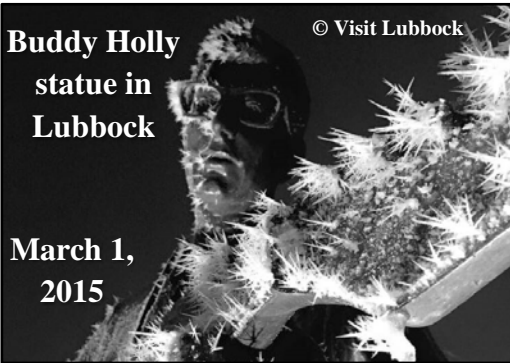
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Normals: 80 / 53 0.07 98-2000 / 39-1985 Lubbock Records sr 742 am - sunrise ss 732 pm - sunset	2 79 / 53 0.07 99-2000 / 40-2009 sr 743 am ss 730 pm  Last Quarter	3 79 / 52 0.06 100-2000 / 35-1961 sr 743 am ss 729 pm	4 79 / 52 0.06 96-2000 / 41-1961 sr 744 am ss 728 pm	5 79 / 52 0.07 97-1934 / 33-1932 sr 745 am ss 726 pm	6 78 / 51 0.07 94-1939 / 34-2001 sr 745 am ss 725 pm
	7 78 / 51 0.07 98-1979 / 31-1952 sr 746 am ss 724 pm	8 78 / 51 0.07 98-1979 / 31-1976 sr 747 am ss 722 pm Columbus Day  New Moon	9 77 / 50 0.07 93-1965 / 29-1970 sr 748 am ss 721 pm	10 77 / 50 0.07 93-1965 / 37-2009 sr 748 am ss 720 pm	11 77 / 50 0.08 93-1979 / 34-2009 sr 749 am ss 719 pm	12 77 / 49 0.07 92-1989 / 33-1969 sr 750 am ss 717 pm
14 76 / 49 0.07 93-2009 / 31-1969 sr 752 am ss 715 pm	15 76 / 48 0.07 92-1965 / 31-1966 sr 752 am ss 714 pm	16 75 / 48 0.07 92-2003 / 30-2001 sr 753 am ss 712 pm  First Quarter	17 75 / 48 0.06 94-2016 / 32-1999 sr 754 am ss 711 pm	18 75 / 47 0.07 90-2001 / 32-1968 sr 755 am ss 710 pm	19 74 / 47 0.06 92-1940 / 24-1917 sr 755 am ss 709 pm	20 74 / 47 0.06 93-2012 / 25-1916 sr 756 am ss 708 pm
21 74 / 46 0.07 90-2003 / 26-1917 sr 757 am ss 707 pm Orionids Meteor Shower (Peaks Oct 21-22)	22 74 / 46 0.06 89-1961 / 28-1945 sr 758 am ss 705 pm	23 73 / 46 0.06 91-2003 / 22-1917 sr 759 am ss 704 pm	24 73 / 45 0.05 91-1933 / 26-1929 sr 800 am ss 703 pm  Full Moon	25 72 / 45 0.05 91-1959 / 30-1955 sr 800 am ss 702 pm	26 72 / 44 0.05 91-2014 / 26-1913 sr 801 am ss 701 pm	27 72 / 44 0.05 87-1922 / 26-2012 sr 802 am ss 700 pm
28 71 / 44 0.05 91-1943 / 25-1970 sr 803 am ss 659 pm	29 71 / 43 0.05 90-2003 / 20-1917 sr 804 am ss 658 pm	30 71 / 43 0.04 90-2010 / 18-1993 sr 805 am ss 657 pm	31 70 / 43 0.05 88-1934 / 20-1991 sr 806 am ss 656 pm Halloween  Last Quarter	 Follow us on twitter at: www.twitter.com/NWSLubbock	NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES: Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500	 Follow us on facebook at: www.facebook.com/NWSLubbock

NWS Cooperative Observer Program (COOP)

Buddy Holly
statue in
Lubbock

© Visit Lubbock

March 1,
2015



Near Caprock Canyons State Park

Late November 2013



The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the nation's weather and climate observing network of, by, and for the people. The COOP was formally created in 1890 under the Organic Act. More than 10,000 volunteers take observations on farms, in urban and suburban areas, in National Parks, on seashores, and on mountain tops. The data are representative of the places people live, work, and play.

The NWS Lubbock COOP program is supported by about 40 observers that collect valuable meteorological data every day, with dozens more that send in information when it rains, sleet or snows. These data are widely used by surrounding NWS offices, River Forecast Centers at Tulsa, OK, and Fort Worth, TX, and the National Climatic Data Center (NCDC). The weather information is not only valuable for day-to-day forecast operations, but help establish a baseline for the climate across our nation.

Near Tulia, TX, on February 26, 2013



© Kristina Alexander



Muleshoe, TX, on January 20, 2007

© Jack Rennels



NWS Lubbock staff would like to express our sincere appreciation to the many COOP observers who provide these important services. Thank You!

In addition to the COOP observers, many other groups provide great information to the NWS. These groups include, but are not limited to:

- SKYWARN Storm Spotters
- Sheriff's Offices
- Media
- Emergency Management Officials
- Public

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

 <p>Follow us on twitter at: www.twitter.com/NWSLubbock</p>		 <p>Follow us on facebook at: www.facebook.com/NWSLubbock</p>		<p>Normals: 70 / 42 0.04 88-2016 / 23-1951 Lubbock Records</p> <p>1 sr 806 am - sunrise ss 655 pm – sunset</p>	<p>69 / 42 0.04 85-2012 / 19-1991</p> <p>2 sr 807 am ss 654 pm</p>	<p>69 / 41 0.04 88-2005 / 7-1991</p> <p>3 sr 808 am ss 653 pm</p>
<p>4 69 / 41 0.04 88-2017 / 20-1950</p> <p>sr 709 am ss 553 pm</p> <p>Daylight Saving Time Ends</p>	<p>5 68 / 40 0.03 86-1924 / 22-1959</p> <p>sr 710 am ss 552 pm</p>	<p>6 68 / 40 0.03 85-1975 / 16-1959</p> <p>sr 711 am ss 551 pm</p> <p>Election Day</p>	<p>7 67 / 40 0.03 89-1916 / 19-1947</p> <p>sr 712 am ss 550 pm</p>  <p>New Moon</p>	<p>8 67 / 39 0.03 88--2005 / 20-1943</p> <p>sr 713 am ss 549 pm</p>	<p>9 67 / 39 0.02 90-2006 / 21-1943</p> <p>sr 714 am ss 549 pm</p>	<p>10 66 / 38 0.03 85-1927 / 19-1950</p> <p>sr 715 am ss 548 pm</p>
<p>11 66 / 38 0.03 82-1956 / 16-1950</p> <p>sr 716 am ss 547 pm</p> <p>Veterans Day</p>	<p>12 65 / 37 0.03 85-1995 / 19-2014</p> <p>sr 716 am ss 547 pm</p>	<p>13 65 / 37 0.02 82-1973 / 14-1976</p> <p>sr 717 am ss 546 pm</p>	<p>14 64 / 37 0.03 85-1933 / 4-1976</p> <p>sr 718 am ss 545 pm</p>	<p>15 64 / 36 0.03 85-1965 / 10-1916</p> <p>sr 719 am ss 545 pm</p>  <p>First Quarter</p>	<p>16 63 / 36 0.02 83-1966 / 11-1916</p> <p>sr 720 am ss 544 pm</p>	<p>17 63 / 35 0.03 88-2017 / 10-1959</p> <p>sr 721 am ss 544 pm</p> <p>Leonids Meteor Shower (Peaks Nov 17-18)</p>
<p>18 62 / 35 0.02 82-1999 / 16-1951</p> <p>sr 722 am ss 543 pm</p>	<p>19 62 / 34 0.03 85-1996 / 14-1937</p> <p>sr 723 am ss 543 pm</p>	<p>20 62 / 34 0.02 88-1996 / 17-1937</p> <p>sr 724 am ss 542 pm</p>	<p>21 61 / 33 0.03 84-1927 / 18-1956</p> <p>sr 725 am ss 542 pm</p>	<p>22 61 / 33 0.02 82-2006 / 6-1957</p> <p>sr 726 am ss 541 pm</p> <p>Thanksgiving Day</p>	<p>23 60 / 33 0.03 84-1965 / -1-1957</p> <p>sr 727 am ss 541 pm</p>  <p>Full Moon</p>	<p>24 60 / 32 0.02 84-2017 / 7-1938</p> <p>sr 728 am ss 541 pm</p>
<p>25 59 / 32 0.03 86-1965 / 15-1993</p> <p>sr 728 am ss 540 pm</p>	<p>26 59 / 32 0.03 82-1970 / 8-1980</p> <p>sr 729 am ss 540 pm</p>	<p>27 59 / 31 0.02 81-1949 / 12-1976</p> <p>sr 730 am ss 540 pm</p>	<p>28 58 / 31 0.03 83-1949 / 5-1976</p> <p>sr 731 am ss 540 pm</p>	<p>29 58 / 30 0.03 80-2014 / 1-1976</p> <p>sr 732 am ss 539 pm</p>  <p>Last Quarter</p>	<p>30 58 / 30 0.02 81-2012 / 10-1918</p> <p>sr 733 am ss 539 pm</p> <p>End of the Atlantic Hurricane Season</p>	<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <p>Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500</p>

How to Receive Timely Weather Information



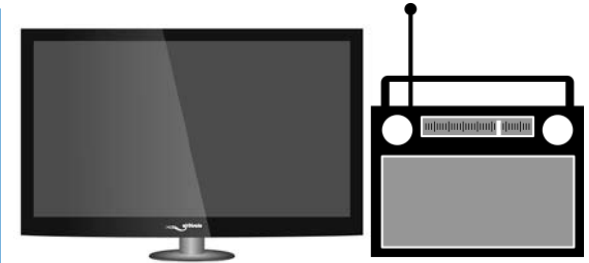
NWR is one of the best ways to get information directly from the National Weather Service (NWS). A NWR receiver can even be programmed to audio alert when watches and warnings are issued for your area, which can be a literal life-saver during the overnight hours when you are sleeping.

Mobile Devices



Smartphones can receive urgent weather information through several different methods. Since June of 2012, all cell phones are equipped to receive Wireless Emergency Alerts (WEA). WEA messages appear like a short text message and convey only basic information. WEA messages are only created for tornado, flash flood, extreme wind, dust storm, hurricane, ice storm, and blizzard warnings.

There are many different ways to receive weather information. Some methods are more reliable than others, but it is always a good practice to have several means to obtain the most critical watches and warnings in case one fails. Once you receive the warning you can then implement your severe weather plan. To take protective actions, first you must get the watch or warning. **THE RESPONSIBILITY IS YOURS!** A tornado warning with 20 minutes of lead time is of no value if you have no way to get the warning. Don't be the next person to say, "It came without warning." Just because you didn't receive the warning doesn't mean there wasn't a warning. Take action now so you will be prepared when the weather takes a turn for the worse.



Commercial Broadcast Media

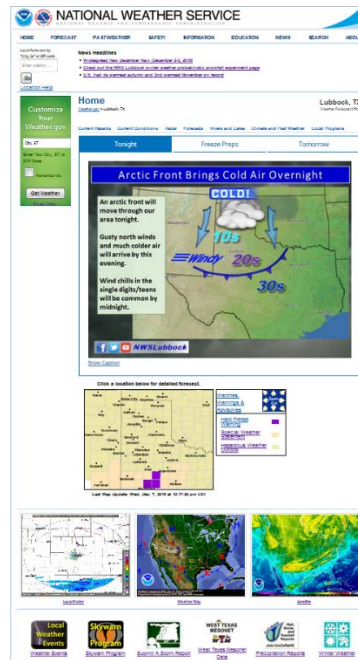
Local TV is the primary source of warning information reaching a majority of people. On-air meteorologists can add valuable details to the NWS products through the aid of visual means. In addition, radio stations will often transmit various amounts of weather information. TV and radio are often a great source for urgent weather information, though you must know when to tune in to get it.

Other Sources

Sirens, where available, are useful in alerting people who are outdoors that dangerous weather is occurring and they should take shelter. In addition, **Friends and Family** are often a big reason many people choose to seek shelter, though they should never be a primary method of receiving a warning. **Social Media** is also becoming an ever increasing way to share weather information, though it does also have several drawbacks.

The Internet

In addition to the NWS website (www.weather.gov), there are a variety of other sites that have access to NWS products.



SUNDAY

MONDAY



TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	 Follow us on facebook at: www.facebook.com/NWSLubbock	NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES: Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500		 Follow us on twitter at: www.twitter.com/NWSLubbock		Normals: 57 / 30 0.02 79-2012/ 12-1918 Lubbock Records sr 734 am - sunrise ss 539 pm – sunset
2 81-1995 / 13-1985 sr 735 am ss 539 pm	3 82-2010 / 15-1967 sr 735 am ss 539 pm	4 81-1958 / 15-1921 sr 736 am ss 539 pm	5 79-1939 / 10-1950 sr 737 am ss 539 pm	6 83-1939 / 1-1950 sr 738 am ss 539 pm	7 79-2007 / 8-2005 sr 739 am ss 539 pm 	8 78-1970 / 3-1917 sr 739 am ss 539 pm
9 80-1939 / 5-1978 sr 740 am ss 539 pm	10 81-1933 / 5-1917 sr 741 am ss 540 pm	11 80-1939 / 6-1917 sr 742 am ss 540 pm	12 82-1937 / 6-1961 sr 742 am ss 540 pm	13 79-1921 / 5-1917 sr 743 am ss 540 pm Geminids Meteor Shower (Peaks Dec 13-14)	14 82-2010 / 8-1987 sr 744 am ss 541 pm	15 80-2010 / 2-1987 sr 744 am ss 541 pm 
16 78-2016 / 3-1987 sr 745 am ss 541 pm	17 78-1980 / 5-1932 sr 746 am ss 542 pm	18 77-1980 / 4-2016 sr 746 am ss 542 pm	19 76-1921 / 0-1924 sr 747 am ss 543 pm	20 80-1921 / 3-1924 sr 747 am ss 543 pm	21 78-1981 / 2-1983 sr 748 am ss 543 pm Winter Solstice (4:23 pm)	22 79-1969 / -2-1989 sr 748 am ss 544 pm 
23 80-1964 / -1-1989 sr 749 am ss 545 pm	24 80-1955 / 0-1983 sr 749 am ss 545 pm	25 76-1955 / -1-1924 sr 750 am ss 546 pm Christmas	26 77-2005 / 0-1918 sr 750 am ss 546 pm	27 76-2006 / 3-1918 sr 750 am ss 547 pm	28 81-1928 / -2-1924 sr 751 am ss 548 pm	29 77-1920 / -1-1939 sr 751 am ss 548 pm 
30 80-2008 / 7-2000 sr 751 am ss 549 pm	31 76-2011 / 8-1923 sr 752 am ss 550 pm New Year's Eve					

Severe Weather Safety Tips

Prepare a Home Severe Weather Plan—

- Pick a place where family members can gather if a tornado is headed your way. It could be your **basement** or, if there is no basement, a **center hallway, bathroom, or closet on the lowest floor**. Keep this place uncluttered.
- If you are in a high-rise building, you may not have enough time to go to the lowest floor. Pick a place in a **hallway** in the center of the building.

Assemble a Disaster Supplies Kit containing—

- First aid kit and essential medications.
- Canned food and can opener.
- At least three gallons of water per person.
- Protective clothing, bedding, or sleeping bags.
- Battery-powered radio, flashlight, and extra batteries.
- Special items for infant, elderly, or disabled family members.

When a Severe Thunderstorm or Tornado WATCH is issued—

- Listen to NOAA Weather Radio, local radio and TV stations for further updates.
- Be alert to changing weather conditions.

When a Severe Thunderstorm or Tornado WARNING is issued—

- If you are inside, go to the safe place you picked to protect yourself from glass and other flying objects.
- If you are outside, hurry to the basement of a nearby sturdy building or lie flat in a ditch or low-lying area.
- If you are in a car or mobile home, get out immediately and head for safety (as above).

After the Severe Thunderstorm or Tornado passes—

- Watch out for fallen power lines and stay out of the damaged area.
- Listen to the radio for information and instructions.
- Use a flashlight to inspect your home for damage.

Conduct periodic Severe Weather drills so everyone remembers what to do. Stay tuned for warnings—

- Listen to your local radio and TV stations for updated storm information.
- Be especially alert to the weather when Severe Thunderstorm and Tornado WATCHES are in effect and take action when WARNINGS are issued.
- Know what a Severe Thunderstorm or Tornado WATCH and WARNING means:
 - A Tornado/Severe Thunderstorm WATCH means a Tornado/Severe Thunderstorm is possible in your area.
 - A Tornado/Severe Thunderstorm WARNING means a Tornado/Severe Thunderstorm has been detected and may be headed for your area. Go to a safe location immediately.