

2009 CALENDAR

**National Weather Service
Lubbock, Texas**

Photo by
Erin Shaw

NWS Cooperative Observer Program (COOP)

What is the COOP Program?

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 11,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountain tops. The data are truly representative of where people live, work and play.

The NWS Lubbock COOP program has nearly 45 observers that collect valuable meteorological data every day. These data are widely used by surrounding NWS offices, River Forecast Centers at Tulsa, OK and Ft. Worth, TX, and the National Climatic Data Center (NCDC).

National Weather Service Lubbock would like to express their sincere appreciation to the many COOP observers who provide timely and superior service.



Lubbock NWS COOP observer Anna Belle Walker received the 30-year Length of Service Award from Lubbock Meteorologist-In-Charge Justin Weaver.



Lubbock NWS COOP observer Tommie Jo Cruse received the 30-year Length of Service Award from Jerry English.



Lubbock NWS COOP observer Clinton Bowman received the 10-year Length of Service Award.



Lubbock NWS COOP observer Herald Kitchens received the 10-year Length of Service Award.




Lubbock NWS COOP observer Elsie Hesterlee received the 15-year Length of Service Award.



Lubbock NWS COOP observer Ann Nell Smith received the 10-year Length of Service Award.



Lubbock NWS COOP observer Rex Harrison received the 30-year Length of Service Award from Lubbock Meteorologist-In-Charge Justin Weaver.

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>1 Normals: 51 / 24 0.02 76-1997 / -2-1919 Lubbock Records sr 752 am - sunrise ss 551 pm - sunset</p> <p>New Years Day</p>	<p>2 51 / 24 0.02 77-1997 / -2-1979</p> <p>sr 752 am ss 551 pm</p>	<p>3 51 / 24 0.02 83-2006 / -2-1947</p> <p>sr 752 am ss 552 pm</p>
	<p>4 51 / 24 0.02 76-1918 / -9-1947</p> <p>sr 752 am ss 553 pm</p>  <p>First Quarter</p>	<p>5 51 / 24 0.02 82-1927 / -4-1971</p> <p>sr 753 am ss 554 pm</p>	<p>6 51 / 24 0.02 79-1927 / 0-1971</p> <p>sr 753 am ss 555 pm</p>	<p>7 51 / 24 0.02 80-2006 / 6-1968</p> <p>sr 753 am ss 556 pm</p>	<p>8 51 / 24 0.01 82-1923 / 3-1967</p> <p>sr 753 am ss 556 pm</p>	<p>9 51 / 24 0.01 79-2002 / 2-1920</p> <p>sr 753 am ss 557 pm</p>
<p>11 51 / 24 0.01 75-2006 / -7-1918</p> <p>sr 752 am ss 559 pm</p>	<p>12 51 / 24 0.01 77-1953 / -10-1918</p> <p>sr 752 am ss 600 pm</p>	<p>13 51 / 24 0.01 79-1957 / -16-1963</p> <p>sr 752 am ss 601 pm</p>	<p>14 51 / 24 0.01 82-1928 / 3-1963</p> <p>sr 752 am ss 602 pm</p>	<p>15 52 / 24 0.01 77-1999 / 4-1963</p> <p>sr 752 am ss 603 pm</p>	<p>16 52 / 24 0.01 80-1974 / 6-1930</p> <p>sr 751 am ss 604 pm</p>	<p>17 52 / 24 0.01 87-1914 / -2-1930</p> <p>sr 751 am ss 605 pm</p>  <p>Last Quarter</p>
<p>18 52 / 24 0.01 82-1916 / -5-1951</p> <p>sr 751 am ss 606 pm</p>	<p>19 52 / 24 0.01 80-2000 / 0-1937</p> <p>sr 751 am ss 606 pm</p> <p>Martin Luther King Jr. Day (Observed)</p>	<p>20 52 / 24 0.02 78-1986 / 7-1937</p> <p>sr 750 am ss 607 pm</p>	<p>21 52 / 24 0.02 81-1950 / -4-1956</p> <p>sr 750 am ss 608 pm</p>	<p>22 52 / 25 0.02 79-1943 / -6-1957</p> <p>sr 749 am ss 609 pm</p>	<p>23 52 / 25 0.02 83-1972 / 3-1983</p> <p>sr 749 am ss 610 pm</p>	<p>24 53 / 25 0.02 83-1970 / -1-1915</p> <p>sr 748 am ss 611 pm</p>
<p>25 53 / 25 0.02 79-1952 / 7-1929</p> <p>sr 748 am ss 612 pm</p>	<p>26 53 / 25 0.02 78-1953 / 7-1966</p> <p>sr 747 am ss 613 pm</p>  <p>New Moon</p>	<p>27 53 / 25 0.02 78-1956 / 5-1925</p> <p>sr 747 am ss 614 pm</p>	<p>28 53 / 25 0.02 80-2003 / 8-1948</p> <p>sr 746 am ss 615 pm</p>	<p>29 54 / 25 0.02 79-1927 / 1-1948</p> <p>sr 746 am ss 616 pm</p>	<p>30 54 / 26 0.02 80-1967 / 6-1951</p> <p>sr 745 am ss 617 pm</p>	<p>31 54 / 26 0.02 77-1963 / 2-1985</p> <p>sr 744 am ss 618 pm</p>

West Texas Beauty

All photos were taken from around the South Plains region by Texas Tech West Texas Mesonet personnel.

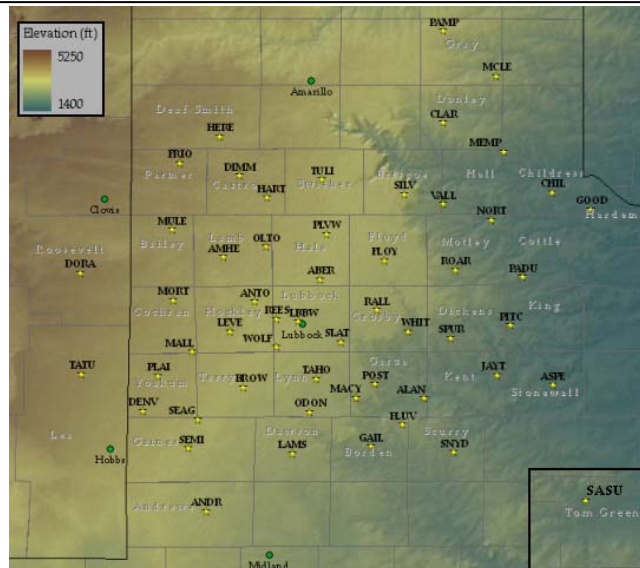



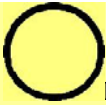



Above is a photograph taken of a Texas Tech West Texas Mesonet station.



West Texas Mesonet (<http://www.mesonet.ttu.edu/>)

The West Texas Mesonet project was initiated in 1999 to provide free real-time weather and agricultural information for residents of the South Plains of western Texas. Below is a map of the 54 stations (yellow stars) around the region. Temperature, moisture, wind, pressure, solar radiation, soil (temperature and moisture), and precipitation data are available.



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 Normals: 54 / 26 0.02 83-1963 / -7-1951 Lubbock Records sr 744 am - sunrise ss 619 pm - sunset	2 54 / 26 0.02 80-2003 / -4-1951 sr 743 am ss 620 pm Groundhog Day  First Quarter	3 55 / 26 0.02 80-1934 / 4-1972 sr 742 am ss 621 pm	4 55 / 27 0.02 82-1925 / 3-1989 sr 741 am ss 622 pm	5 55 / 27 0.02 81-1937 / 3-1982 sr 741 am ss 623 pm	6 55 / 27 0.02 79-1950 / 4-1956 sr 740 am ss 624 pm	7 56 / 27 0.02 84-1918 / -3-1933 sr 739 am ss 625 pm
8 56 / 27 0.02 83-1951 / -17-1933 (all-time) sr 738 am ss 626 pm	9 56 / 28 0.02 83-1976 / 0-1933 sr 737 am ss 627 pm  Full Moon	10 57 / 28 0.03 84-1962 / 1-1929 sr 736 am ss 628 pm	11 57 / 28 0.03 85-1916 / 6-1955 sr 735 am ss 629 pm	12 57 / 28 0.03 86-1962 / 9-1948 sr 734 am ss 630 pm	13 57 / 29 0.03 81-1979 / 7-1963 sr 733 am ss 630 pm	14 58 / 29 0.03 87-1979 / 12-2004 sr 732 am ss 631 pm St. Valentine's Day
15 58 / 29 0.03 83-1945 / 8-1951 sr 731 am ss 632 pm	16 58 / 29 0.03 79-1959 / 13-1936 sr 730 am ss 633 pm Presidents' Day  Last Quarter	17 58 / 29 0.03 85-1970 / 0-1978 sr 729 am ss 634 pm	18 59 / 30 0.03 83-1996 / -2-1978 sr 728 am ss 635 pm	19 59 / 30 0.03 83-1986 / 2-1978 sr 727 am ss 636 pm	20 59 / 30 0.03 82-1996 / 4-1918 sr 726 am ss 637 pm	21 60 / 30 0.03 84-1996 / 6-1964 sr 725 am ss 638 pm
22 60 / 31 0.03 87-1996 / 13-1963 sr 724 am ss 639 pm	23 60 / 31 0.03 85-1918 / 9-1914 sr 723 am ss 639 pm	24 60 / 31 0.03 89-1918 / 1-1960 sr 721 am ss 640 pm  New Moon	25 61 / 31 0.03 86-1917 / -8-1960 sr 720 am ss 641 pm Ash Wednesday	26 61 / 31 0.02 85-1918 / 8-1935 sr 719 am ss 642 pm	27 61 / 32 0.02 81-2006 / 10-1934 sr 718 am ss 643 pm	28 62 / 32 0.02 89-2006 / 7-1922 sr 717 am ss 644 pm
<h2>Severe Weather Awareness Week</h2>						
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						

Fire Weather



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When is the Fire Weather Season?

The fire weather season for West Texas generally starts during the winter months and continues on into spring. Some years the fire weather season can be rather benign, while others become extreme and can result in catastrophic wildfire events. Wildfires depend on a number of factors including **fuels**, **weather** and **topography**. While topography remains nearly constant, the fuels vary seasonally and the weather changes constantly.

What Makes for a “Bad” Fire Weather Season?

Both fuels and weather factor into the severity of any given fire weather season. On the South Plains, the fuels consist primarily of grasses. A wet summer can lead to above average vegetation growth, and thus potentially more fuel for a fire when that vegetation dries out. However, just having greater amounts of fuel does not ensure a “bad” fire season. But, when combined with persistent dry and windy weather, conditions will become more favorable for the ignition and spread of wildfires. The threat is further exacerbated by the development of drought conditions.

Products Issued by the NWS :

A **Fire Weather Watch** will be issued when dangerous fire weather conditions are expected in the next 24 to 72 hours. Dangerous fire weather conditions are defined as three hours or more of sustained winds speeds of 20 mph or greater (measured at 20 feet) coupled with relative humidity values of 15 percent or lower and a high, very high, or extreme fire danger rating. A **Red Flag Warning** will be issued when the above conditions are anticipated in the next 24 hours. Also, **Fire Weather Forecasts** are issued twice daily noting any possible weather related fire hazards. **Fire Weather Special (Spot) Forecasts** are site-specific forecasts created upon request for any local, state, or federal agency to support land management activities like controlled burns.



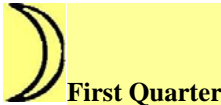

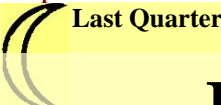


Smokey Lubbock Sunset on March 12, 2006

© Todd Lindley



© West Texas Mesonet

Smoke Rises into a Thunderstorm

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 Normals: 62 / 32 0.03 89-2006 / 5-1922 Lubbock Records sr 716 am - sunrise ss 644 pm - sunset	2 62 / 32 0.03 86-1974 / -2-1922 sr 714 am ss 645 pm  First Quarter	3 62 / 33 0.02 84-1974 / 7-1943 sr 713 am ss 646 pm	4 63 / 33 0.02 83-1916 / -1-1917 sr 712 am ss 647 pm	5 63 / 33 0.02 90-1916 / 11-1989 sr 711 am ss 648 pm	6 63 / 33 0.02 87-1929 / 10-1920 sr 709 am ss 649 pm	7 64 / 34 0.02 88-2006 / 11-1996 sr 708 am ss 649 pm
8 64 / 34 0.02 87-1918 / 12-1967 sr 807 am ss 750 pm Daylight Saving Time begins	9 64 / 34 0.02 83-1940 / 13-1924 sr 805 am ss 751 pm	10 64 / 35 0.02 86-1989 / 4-1948 sr 804 am ss 752 pm  Full Moon	11 65 / 35 0.02 95-1989 / 2-1948 sr 803 am ss 752 pm	12 65 / 35 0.02 94-1989 / 10-1948 sr 802 am ss 753 pm	13 65 / 35 0.02 91-1916 / 12-1950 sr 800 am ss 754 pm	14 66 / 36 0.02 86-1972 / 13-1954 sr 759 am ss 755 pm
15 66 / 36 0.02 86-1966 / 17-1947 sr 758 am ss 756 pm	16 66 / 36 0.02 87-1966 / 16-1923 sr 756 am ss 756 pm  Last Quarter	17 67 / 36 0.02 89-1989 / 18-1917 sr 755 am ss 757 pm St. Patrick's Day	18 67 / 37 0.02 88-1916 / 11-1923 sr 754 am ss 758 pm	19 67 / 37 0.02 87-1995 / 11-1923 sr 752 am ss 759 pm	20 67 / 37 0.03 90-1960 / 8-1965 sr 751 am ss 759 pm Spring Equinox (6:44 am)	21 68 / 38 0.03 93-1997 / 17-1955 sr 750 am ss 800 pm
Flood Safety Awareness Week						
22 68 / 38 0.03 86-1934 / 18-1914 sr 748 am ss 801 pm	23 68 / 38 0.03 84-1998 / 13-1952 sr 747 am ss 802 pm	24 69 / 38 0.03 88-1929 / 22-1965 sr 745 am ss 802 pm  New Moon	25 69 / 39 0.03 90-1998 / 20-1996 sr 744 am ss 803 pm	26 69 / 39 0.03 88-1956 / 16-1965 sr 743 am ss 804 pm	27 69 / 39 0.03 94-1971 / 12-1931 sr 741 am ss 805 pm	28 70 / 40 0.03 90-1963 / 16-1931 sr 740 am ss 805 pm
29 70 / 40 0.03 89-1967 / 18-1944 sr 739 am ss 806 pm	30 70 / 40 0.03 90-1946 / 16-1987 sr 737 am ss 807 pm	31 70 / 40 0.03 95-1946 / 19-1931 sr 736 am ss 808 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

Lightning Safety



Lightning routinely **kills** more people each year than tornadoes or hurricanes.

IF YOU CAN HEAR THUNDER, YOU ARE WITHIN STRIKING DISTANCE. SEEK SAFE SHELTER IMMEDIATELY!

Valuable and timely weather information can be obtained through NOAA Weather Radio (NWR) All Hazards. Below are some NWR frequencies:

Lubbock	162.400 MHz
Plainview	162.450 MHz
Summerfield /Dimmitt	162.500 MHz
Childress	162.525 MHz
Dickens	162.500 MHz



Except for heat related fatalities, more deaths occur from flooding than any other hazard. Why? Most people fail to realize the power of water. For example, six inches of fast-moving flood water can knock you off your feet.

While the number of fatalities can vary dramatically with weather conditions from year to year, the national 30-year average for flood deaths is 127. That compares with a 30-year average of 73 deaths for lightning, 68 for tornadoes and 16 for hurricanes.

National Weather Service data also shows:

- Nearly half of all flash flood fatalities are vehicle-related
- The majority of victims are males
- Flood deaths affect all age groups



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<p>5 72 / 42 0.03 92-2006 / 21-1917</p> <p>sr 729 am ss 811 pm</p>	<p>6 72 / 42 0.03 96-1972 / 21-1936</p> <p>sr 728 am ss 812 pm</p>	<p>7 72 / 43 0.04 93-1930 / 21-1936</p> <p>sr 727 am ss 813 pm</p>	<p>8 73 / 43 0.04 91-1930 / 23-1938</p> <p>sr 726 am ss 813 pm</p>	<p>9 73 / 43 0.04 94-1939 / 23-1938</p> <p>sr 724 am ss 814 pm</p> <p> Full Moon</p>	<p>10 73 / 44 0.04 93-1934 / 26-1928</p> <p>sr 723 am ss 815 pm</p>	<p>11 73 / 44 0.04 94-1972 / 25-1932</p> <p>sr 722 am ss 816 pm</p>
<p>12 74 / 44 0.04 96-1972 / 22-1997</p> <p>sr 720 am ss 816 pm</p> <p>Easter</p>	<p>13 74 / 45 0.04 91-2006 / 26-1957</p> <p>sr 719 am ss 817 pm</p>	<p>14 74 / 45 0.04 93-2006 / 27-1933</p> <p>sr 718 am ss 818 pm</p>	<p>15 75 / 45 0.04 92-2006 / 25-1928</p> <p>sr 717 am ss 819 pm</p>	<p>16 75 / 45 0.04 100-1925 / 31-1947</p> <p>sr 716 am ss 819 pm</p>	<p>17 75 / 46 0.04 94-2006 / 23-1921</p> <p>sr 714 am ss 820 pm</p> <p> Last Quarter</p>	<p>18 75 / 46 0.05 96-1987 / 29-1944</p> <p>sr 713 am ss 821 pm</p>
<p>19 76 / 46 0.05 92-2001 / 31-1920</p> <p>sr 712 am ss 822 pm</p>	<p>20 76 / 47 0.05 93-1925 / 30-1933</p> <p>sr 711 am ss 822 pm</p>	<p>21 76 / 47 0.05 98-1965 / 28-1918</p> <p>sr 710 am ss 823 pm</p>	<p>22 76 / 47 0.05 100-1989 / 29-1927</p> <p>sr 708 am ss 824 pm</p> <p>Earth Day</p>	<p>23 77 / 48 0.05 97-1989 / 30-1928</p> <p>sr 707 am ss 825 pm</p>	<p>24 77 / 48 0.05 95-1996 / 30-1968</p> <p>sr 706 am ss 825 pm</p> <p> New Moon</p>	<p>25 77 / 49 0.05 96-1959 / 35-1918</p> <p>sr 705 am ss 826 pm</p>
<p>26 78 / 49 0.05 96-1943 / 29-1947</p> <p>sr 704 am ss 827 pm</p>	<p>27 78 / 49 0.05 97-1996 / 27-1920</p> <p>sr 703 am ss 828 pm</p>	<p>28 78 / 50 0.05 94-1992 / 35-1994</p> <p>sr 702 am ss 828 pm</p>	<p>29 78 / 50 0.05 96-1928 / 31-1968</p> <p>sr 701 am ss 829 pm</p>	<p>30 79 / 50 0.06 93-2008 / 33-1918</p> <p>sr 700 am ss 830 pm</p>		

Number of "observed" tornadoes - 1950 to 2008

<u><i>Parmer</i></u>	<u><i>Castro</i></u>	<u><i>Swisher</i></u>	<u><i>Briscoe</i></u>	<u><i>Hall</i></u>	<u><i>Childress</i></u>
Total 48 F3+ 3	Total 54 F3+ 1	Total 65 F3+ 5	Total 40 F3+ 3	Total 42 F3+ 2	Total 25 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 49 F3+ 2	Total 82 F3+ 7	Total 119 F3+ 3	Total 47 F3+ 3	Total 20 F3+ 2	Total 23 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 28 F3+ 1	Total 57 F3+ 6	Total 85 F3+ 3 F5* 1	Total 50 F3+ 2	Total 29 F3+ 1	Total 17 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 30 F3+ 0	Total 39 F3+ 1	Total 18 F3+ 0	Total 19 F3+ 0	Total 21 F3+ 0

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3 79 / 51 0.06 98-1996 / 30-1918 sr 657 am ss 832 pm	4 80 / 52 0.06 104-1947 / 35-1933 sr 656 am ss 833 pm	5 80 / 52 0.06 99-1940 / 34-1953 sr 655 am ss 834 pm Cinco De Mayo	6 80 / 52 0.06 99-2000 / 32-1917 sr 654 am ss 835 pm	7 80 / 53 0.06 99-2000 / 29-1917 sr 653 am ss 835 pm	8 81 / 53 0.06 102-1989 / 31-1938 sr 652 am ss 836 pm	9 81 / 53 0.07 97-1996 / 38-1961 
10 81 / 54 0.07 99-2000 / 33-1918 sr 651 am ss 838 pm Mother's Day	11 81 / 54 0.07 101-2000 / 37-1930 sr 650 am ss 838 pm	12 82 / 54 0.07 98-1962 / 35-1960 sr 649 am ss 839 pm	13 82 / 55 0.07 100-2006 / 37-1953 sr 648 am ss 840 pm	14 82 / 55 0.07 100-1996 / 35-1953 sr 648 am ss 841 pm	15 83 / 55 0.07 103-1996 / 34-1967 sr 647 am ss 841 pm	16 83 / 56 0.07 102-1996 / 37-1945 sr 646 am ss 842 pm
17 83 / 56 0.08 101-1996 / 41-1916 sr 645 am ss 843 pm 	18 83 / 56 0.08 103-2003 / 42-1916 sr 645 am ss 843 pm	19 84 / 57 0.08 105-1996 / 42-1971 sr 644 am ss 844 pm	20 84 / 57 0.08 102-2006 / 40-1931 sr 644 am ss 845 pm	21 84 / 57 0.08 101-1966 / 39-1967 sr 643 am ss 846 pm	22 84 / 58 0.08 105-1996 / 40-1931 sr 642 am ss 846 pm	23 85 / 58 0.08 105-2000 / 45-1917 sr 642 am ss 847 pm
24 85 / 58 0.08 109-2000 / 40-1930 sr 641 am ss 848 pm New Moon 31 87 / 60 0.09 102-1916 / 43-1983 sr 639 am ss 852 pm	25 85 / 59 0.09 101-1953 / 44-1924 sr 641 am ss 848 pm Memorial Day	26 85 / 59 0.09 101-1945 / 43-1950 sr 640 am ss 849 pm	27 86 / 59 0.09 103-1984 / 48-1961 sr 640 am ss 850 pm	28 86 / 59 0.09 102-1974 / 43-1917 sr 640 am ss 850 pm	29 86 / 60 0.09 104-1938 / 38-1947 sr 639 am ss 851 pm	30 87 / 60 0.09 103-1998 / 45-1947 

Damaging Downburst Winds

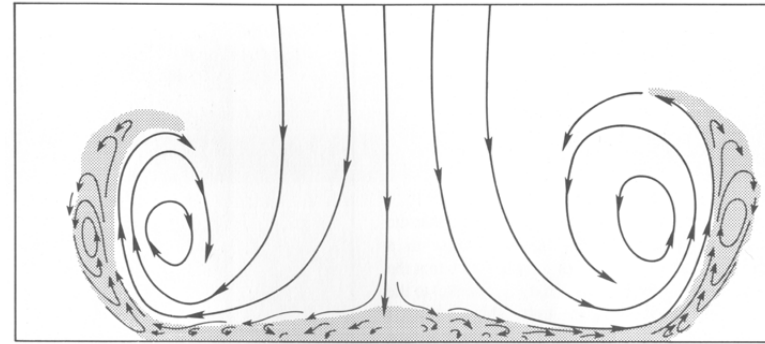


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Image of a severe macroburst that hit Childress on June 15, 2008. The bulbous dark area is a descending core of heavy rain and hail from a thunderstorm. When the dropping precipitation core hit the ground it produced very strong winds in excess of 80 mph which, when coupled with hail, produced extensive damage.

What causes downburst winds?

Strong downburst winds develop when large amounts of precipitation (rain and hail) fall toward the ground. In addition to the momentum of the falling particles, the precipitation can evaporate in dry environments, with the cooled air finding itself denser, which in turn causes it to sink faster. The strong thunderstorm downburst winds can form in a variety of environments ranging from wet to dry. In humid environments, the strong winds, known as a **wet micro- or macroburst**, will be accompanied by intense rainfall. In contrast, in dry environments much or all of the rain may evaporate before reaching the ground leaving only the strong winds, known as a **dry micro- or macroburst**.



Although not as glamorous as tornadoes, large hail and lightning, strong downburst straight-line winds can also pose a severe weather hazard. Downburst winds are classified into two categories; **macrobursts** and **microburst**. A macroburst is more than 2 ½ miles in diameter, whereas a microburst is smaller, but both can produce very strong winds well in excess of 100 mph.








© Todd Lindley

Picture of a dry microburst taken near Lubbock on May 21, 2008. Although precipitation is seen descending from the very high based clouds, little is making it to ground level. However, the rain cooled air aloft still plunges to the earth resulting in gusty winds that kick up a lot of dirt. On this day, strong downburst winds near the Lubbock airport led to a U.S. Airforce aircraft mishap.

June 2009

Lubbock National Weather Service

WWW.WEATHER.GOV/LUBBOCK

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 Normals: 87 / 61 0.10 107-1998 / 45-1917 Lubbock Records sr 638 am - sunrise ss 853 pm - sunset Beginning of the Atlantic Hurricane Season	2 87 / 61 0.10 107-1998 / 39-1917 sr 638 am ss 853 pm	3 88 / 61 0.10 104-1998 / 43-1919 sr 638 am ss 854 pm	4 88 / 61 0.10 101-1933 / 47-1970 sr 638 am ss 854 pm	5 88 / 62 0.10 106-1990 / 45-1928 sr 637 am ss 855 pm	6 88 / 62 0.10 107-1990 / 45-1917 sr 637 am ss 855 pm
7 89 / 62 0.10 103-1994 / 45-1915 sr 637 am ss 856 pm  Full Moon	8 89 / 63 0.10 106-1981 / 43-1915 sr 637 am ss 856 pm	9 89 / 63 0.10 107-1981 / 50-1923 sr 637 am ss 857 pm	10 89 / 63 0.10 105-1917 / 47-1955 sr 637 am ss 857 pm	11 90 / 63 0.10 105-2008 / 50-1940 sr 637 am ss 858 pm	12 90 / 64 0.10 105-2001 / 52-1945 sr 637 am ss 858 pm	13 90 / 64 0.11 105-1931 / 53-1947 sr 637 am ss 859 pm
14 90 / 64 0.11 106-1939 / 44-1947 sr 637 am ss 859 pm Flag Day	15 90 / 64 0.10 109-1939 / 49-1927 sr 637 am ss 859 pm  Last Quarter	16 90 / 64 0.10 108-1924 / 49-1917 sr 637 am ss 900 pm	17 91 / 65 0.10 107-1924 / 53-1999 sr 637 am ss 900 pm	18 91 / 65 0.10 107-1924 / 56-1922 sr 637 am ss 900 pm	19 91 / 65 0.10 106-1998 / 52-1945 sr 638 am ss 900 pm	20 91 / 65 0.10 108-1935 / 49-1973 sr 638 am ss 901 pm
21 91 / 65 0.10 107-1981 / 54-1946 sr 638 am ss 901 pm Father's Day Summer Solstice (12:45 am)	22 91 / 66 0.10 106-1978 / 50-1927 sr 638 am ss 901 pm  New Moon	23 91 / 66 0.10 107-1980 / 56-1927 sr 638 am ss 901 pm	24 91 / 66 0.10 110-1990 / 56-1957 sr 639 am ss 901 pm	25 91 / 66 0.10 108-1994 / 54-1940 sr 639 am ss 901 pm	26 91 / 66 0.10 111-1994 / 53-1958 sr 639 am ss 902 pm	27 92 / 66 0.09 114-1994 / 56-1958 (all-time) sr 640 am ss 902 pm
Lightning Safety Awareness Week						
28 92 / 66 0.09 108-1928 / 56-1946 sr 640 am ss 902 pm	29 92 / 67 0.09 107-1957 / 57-1948 sr 640 am ss 902 pm  First Quarter	30 92 / 67 0.09 106-1957 / 57-1940				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



Landspout-type tornado captured on September 27, 2007. The tornado formed with a storm located west of Cotton Center in Hale County.

Landspout-type Tornadoes



Landspout-type tornado photographed about 6 miles north-northwest of Smyer around 11:50 am on May 7, 2008.

What is a Tornado?

A tornado is defined as a violently rotating column of air, in contact with the ground, either pendant from a cumuliform cloud or underneath a cumuliform cloud, and often (but not always) visible as a funnel cloud.

There are two basic types of tornadoes, one that form aloft and descends from a rotating supercell thunderstorm, and those that form from rotating air near the ground being stretched upward.

The latter is a **landspout-type** tornado, while the former produce the strongest and most well known of the tornadoes.








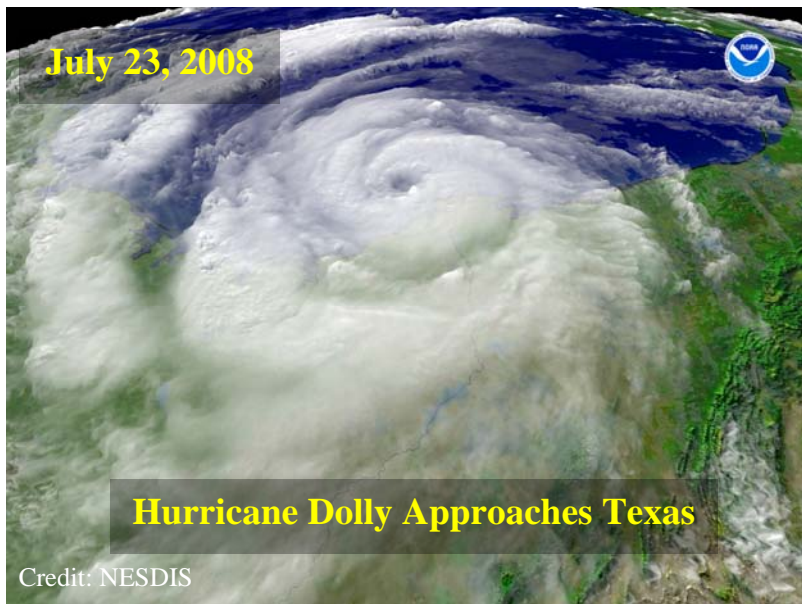
Image of funnel clouds (possible landspout tornadoes) taken from north of Olton around 5:00 pm on March 25, 2007.

How do Landspout Tornadoes Form?

Unlike supercell tornadoes, which descend from a rotating storm, landspout-type tornadoes develop from near ground level. Usually some type of wind shift boundary (with slowly rotating air), will be present at the surface. If a storm develops above this boundary and conditions are right, the rapidly rising air can stretch the slowly rotating air causing its rotation to speed up, forming a landspout tornado.

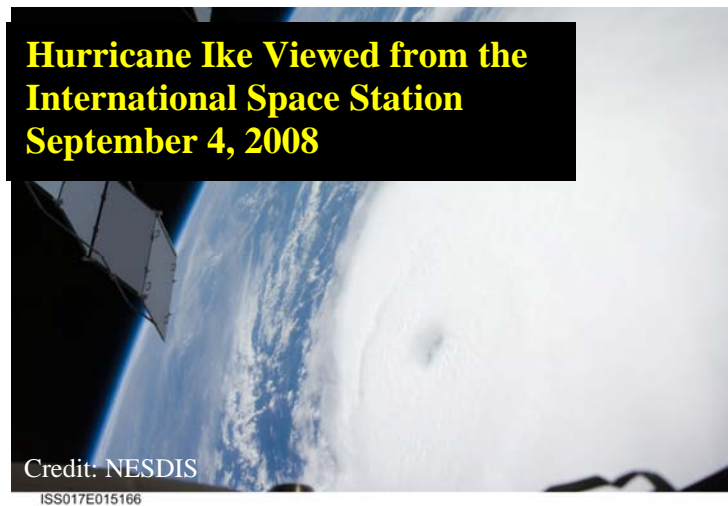
Landspout tornadoes often appear quite laminar, like waterspouts, and can usually be seen for long distances, but are not easily detected by radar due to the general lack of rain with the newly formed storm.

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: 91 / 67 0.09 1 105-1994 / 56-1924 Lubbock Records sr 641 am - sunrise ss 902 pm - sunset</p>	<p>2 106-1989 / 56-1944 sr 642 am ss 901 pm</p>	<p>3 108-1983 / 54-1924 sr 642 am ss 901 pm</p>	<p>4 105-1987 / 56-1922 sr 643 am ss 901 pm</p> <p>Independence Day</p>
<p>5 104-1971 / 49-1915 sr 643 am ss 901 pm</p>	<p>6 105-1994 / 53-1946 sr 644 am ss 901 pm</p>	<p>7 103-1998 / 51-1952 sr 644 am ss 901 pm</p> <p> Full Moon</p>	<p>8 103-1939 / 51-1952 sr 645 am ss 901 pm</p>	<p>9 107-1940 / 56-1952 sr 645 am ss 900 pm</p>	<p>10 109-1940 / 58-1915 sr 646 am ss 900 pm</p>	<p>11 104-1933 / 57-1999 sr 646 am ss 900 pm</p>
<p>12 105-1933 / 57-1999 sr 647 am ss 859 pm</p>	<p>13 107-1933 / 54-1953 sr 647 am ss 859 pm</p>	<p>14 108-1933 / 55-1950 sr 648 am ss 859 pm</p>	<p>15 105-2001 / 58-1926 sr 649 am ss 858 pm</p> <p> Last Quarter</p>	<p>16 105-2001 / 58-1926 sr 649 am ss 858 pm</p>	<p>17 105-1989 / 59-1930 sr 650 am ss 857 pm</p>	<p>18 103-1978 / 60-1935 sr 650 am ss 857 pm</p>
<p>19 108-1936 / 55-1947 sr 651 am ss 856 pm</p>	<p>20 105-1925 / 59-1971 sr 652 am ss 856 pm</p>	<p>21 102-1951 / 57-1988 sr 652 am ss 855 pm</p> <p> New Moon</p>	<p>22 102-2001 / 55-1915 sr 653 am ss 854 pm</p>	<p>23 104-2001 / 54-1915 sr 654 am ss 854 pm</p>	<p>24 104-1943 / 57-1915 sr 654 am ss 853 pm</p>	<p>25 104-1940 / 59-1916 sr 655 am ss 853 pm</p>
<p>26 105-1995 / 58-1942 sr 656 am ss 852 pm</p>	<p>27 106-1995 / 57-1933 sr 657 am ss 851 pm</p>	<p>28 105-1995 / 54-2005 sr 657 am ss 850 pm</p> <p> First Quarter</p>	<p>29 102-1948 / 60-2004 sr 658 am ss 850 pm</p>	<p>30 104-1946 / 60-2000 sr 659 am ss 849 pm</p>	<p>31 104-1934 / 56-1971 sr 659 am ss 848 pm</p>	



2008 Brought Three Tropical Systems to Texas

The 2008 Hurricane season started quickly, bringing **Hurricane Dolly**, a category 2 storm with sustained winds to around 100 mph, to South Texas in July, and **Tropical Storm Edouard** to southeast Texas quickly on its heels in early August. Although Dolly did cause some wind damage along the immediate coastline, the primary impacts from both storms were from the heavy rains they produced. The remnants of Dolly even aided in the development of storms that brought flooding rains to the Ruidoso area July 27th.



Hurricane Ike was the third and most significant tropical system to impact Texas in 2008. Ike made landfall near Galveston early on September 13, with sustained winds near 110 mph. The strong winds and powerful storm surge caused extensive damage in and around the Galveston area, and also resulted in numerous fatalities.

How are Tropical Systems Named?






Since 1953, Atlantic tropical storms have been named from lists originated by the National Hurricane Center. They are now maintained and updated by an international committee of the World Meteorological Organization. The original name lists featured only women's names. In 1979, men's names were introduced and they alternate with the women's names. Six lists are used in rotation. Thus, the 2008 list will be used again in 2014.

The only time that there is a change in the list is if a storm is so deadly or costly that the future use of its name on a different storm would be inappropriate for reasons of sensitivity. In the event that more than 21 named tropical cyclones occur in the Atlantic basin in a season, like in 2005, additional storms will take names from the Greek alphabet: Alpha, Beta, Gamma, etc.

August 2009

Lubbock National Weather Service

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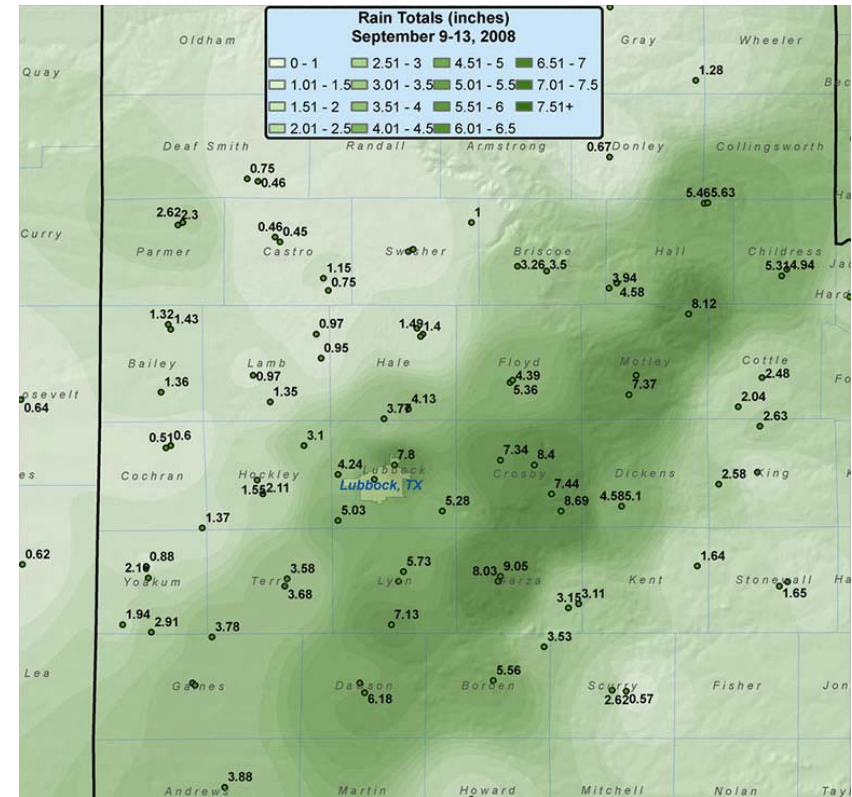
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <p>Lubbock 162.400 Dimmitt 162.500 Plainview 162.450 Childress 162.525 Dickens 162.500</p>					<p>Normals: 92 / 68 0.07 106-1966 / 55-1925 Lubbock Records sr 700 am - sunrise ss 847 pm - sunset</p>
<p>2 92 / 68 0.07 105-1943 / 54-1925</p> <p>sr 701 am ss 846 pm</p>	<p>3 92 / 68 0.07 107-1944 / 56-1921</p> <p>sr 701 am ss 845 pm</p>	<p>4 92 / 68 0.07 105-2003 / 57-1915</p> <p>sr 702 am ss 845 pm</p>	<p>5 91 / 68 0.07 102-2003 / 57-1915</p> <p>sr 703 am ss 844 pm</p> <p> Full Moon</p>	<p>6 91 / 67 0.07 102-2003 / 57-1990</p> <p>sr 704 am ss 843 pm</p>	<p>7 91 / 67 0.07 104-2003 / 58-1971</p> <p>sr 704 am ss 842 pm</p>	<p>8 91 / 67 0.07 105-2003 / 58-1989</p> <p>sr 705 am ss 841 pm</p>
<p>9 91 / 67 0.07 101-1943 / 51-1946</p> <p>sr 706 am ss 840 pm</p>	<p>10 91 / 67 0.07 103-1935 / 55-1915</p> <p>sr 706 am ss 839 pm</p>	<p>11 91 / 67 0.07 103-1936 / 56-1915</p> <p>sr 707 am ss 838 pm</p>	<p>12 91 / 67 0.07 107-1936 / 54-1979</p> <p>sr 708 am ss 837 pm</p> <p>Perseids Meteor Shower (Aug 12-13)</p>	<p>13 91 / 67 0.07 107-1936 / 54-1920</p> <p>sr 708 am ss 836 pm</p> <p> Last Quarter</p>	<p>14 91 / 67 0.07 103-1946 / 53-1920</p> <p>sr 709 am ss 834 pm</p>	<p>15 90 / 66 0.08 103-1982 / 56-1920</p> <p>sr 710 am ss 833 pm</p>
<p>16 90 / 66 0.08 104-1943 / 55-1931</p> <p>sr 711 am ss 832 pm</p>	<p>17 90 / 66 0.08 103-1978 / 55-1915</p> <p>sr 711 am ss 831 pm</p>	<p>18 90 / 66 0.08 103-1994 / 55-1943</p> <p>sr 712 am ss 830 pm</p>	<p>19 90 / 66 0.08 103-1994 / 58-1950</p> <p>sr 713 am ss 829 pm</p>	<p>20 90 / 66 0.08 103-1930 / 54-1915</p> <p>sr 713 am ss 828 pm</p> <p> New Moon</p>	<p>21 89 / 65 0.08 103-1930 / 52-1956</p> <p>sr 714 am ss 826 pm</p>	<p>22 89 / 65 0.08 100-1999 / 58-1915</p> <p>sr 715 am ss 825 pm</p>
<p>23 89 / 65 0.08 101-1985 / 54-1923</p> <p>sr 716 am ss 824 pm</p>	<p>24 89 / 65 0.08 101-1936 / 51-1916</p> <p>sr 716 am ss 823 pm</p>	<p>25 89 / 65 0.08 105-1936 / 54-1962</p> <p>sr 717 am ss 821 pm</p>	<p>26 88 / 64 0.08 102-1922 / 53-1962</p> <p>sr 718 am ss 820 pm</p>	<p>27 88 / 64 0.08 100-1931 / 53-1926</p> <p>sr 718 am ss 819 pm</p> <p> First Quarter</p>	<p>28 88 / 64 0.08 100-1943 / 54-1916</p> <p>sr 719 am ss 818 pm</p>	<p>29 88 / 64 0.08 99-1943 / 54-1917</p> <p>sr 720 am ss 816 pm</p>
<p>30 88 / 63 0.09 101-1943 / 44-1915</p> <p>sr 720 am ss 815 pm</p>	<p>31 87 / 63 0.09 100-1930 / 43-1915</p> <p>sr 721 am ss 814 pm</p>					

Record Rain September 11-12, 2008

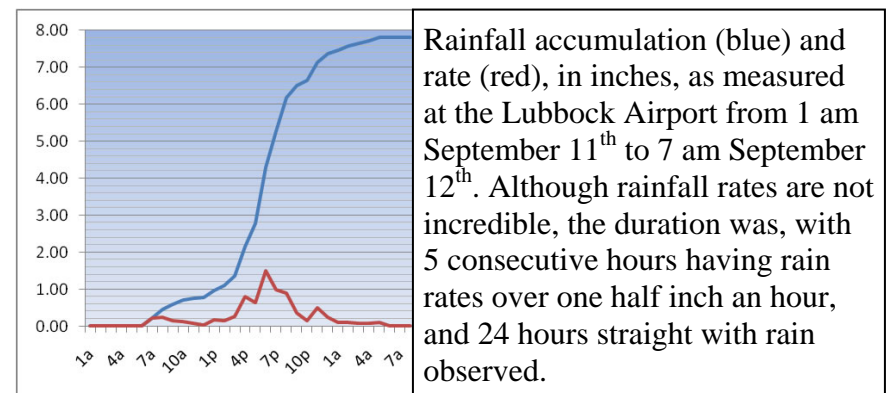


Picture of flooding at Charles Guy Park in Lubbock on September 12, 2008.






To the right is a map that displays the rainfall totals recorded September 9-13, 2008. A large swath of 3+ inches fell from the southern South Plains through the southeast Texas Panhandle, with a remarkably large area of 7+ inches running from Lubbock and Lynn counties northeast into Hall County. Although rainfall amounts were much lighter outside the very heavy rain axis, most of the remainder of West Texas still saw 1/2 to 2 1/2 inches.



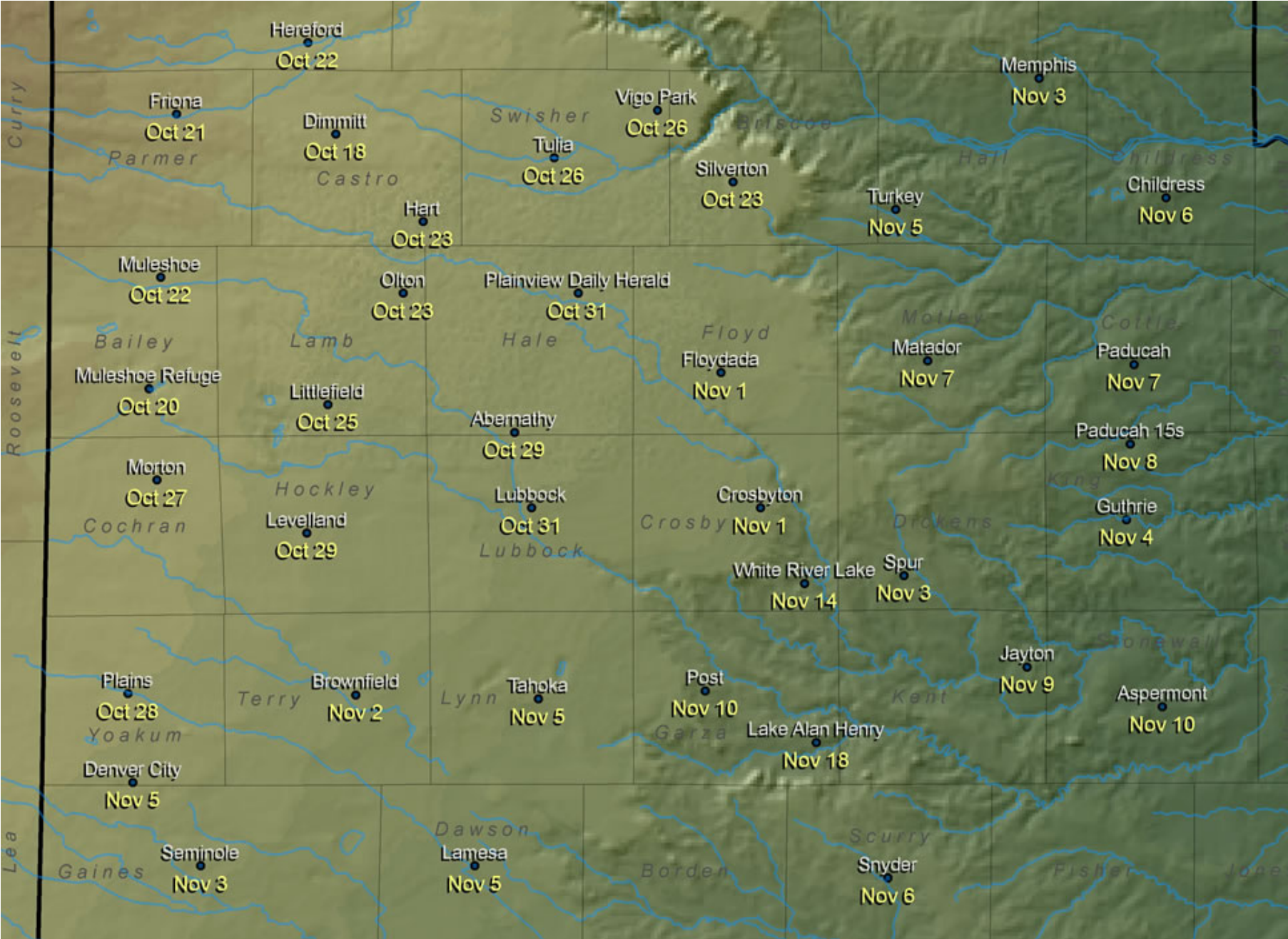
Early September of 2008 brought record-setting rainfall to portions of the South Plains and Rolling Plains. From late on the 10th to early on the 12th numerous rain showers moved across the South Plains. The weather pattern responsible featured a deep trough of low pressure across the western U.S. and resulted in southwest winds aloft moving from the Pacific Ocean into West Texas. The winds tapped into some rich moisture - including some from Tropical Storm Lowell located near the southern tip of the Baja Peninsula. All of the above combined with a weak front which tended to concentrate the showers across the South Plains area. Lubbock received its highest ever 24 hour rainfall - **7.80 inches**. Interestingly, the previous 24-hour record (5.82 inches) was set back in October of 1983 when the area was impacted by the remnants of Pacific Hurricane Tico.



Rainfall accumulation (blue) and rate (red), in inches, as measured at the Lubbock Airport from 1 am September 11th to 7 am September 12th. Although rainfall rates are not incredible, the duration was, with 5 consecutive hours having rain rates over one half inch an hour, and 24 hours straight with rain observed.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
		1 Normals: 87 / 63 0.09 99-1922 / 43-1915 Lubbock Records sr 722 am - sunrise ss 812 pm - sunset	2 101-1947 / 50-1915 sr 722 am ss 811 pm	3 101-2000 / 48-1915 sr 723 am ss 810 pm	4 101-2000 / 47-1961 sr 724 am ss 809 pm  Full Moon	5 102-2000 / 46-1961 sr 724 am ss 807 pm	
	6 103-1948 / 51-1918 sr 725 am ss 806 pm	7 98-2000 / 45-1918 sr 726 am ss 804 pm Labor Day	8 97-1915 / 47-2004 sr 726 am ss 803 pm	9 99-1984 / 47-1956 sr 727 am ss 802 pm	10 100-2000 / 47-1956 sr 728 am ss 800 pm	11 103-2000 / 47-1959 sr 728 am ss 759 pm  Last Quarter	12 100-1930 / 44-1959 sr 729 am ss 758 pm
13 101-1930 / 43-1959 sr 730 am ss 756 pm	14 100-1965 / 42-1945 sr 730 am ss 755 pm	15 99-1956 / 42-1993 sr 731 am ss 754 pm	16 100-1965 / 42-1951 sr 732 am ss 752 pm	17 98-2005 / 42-1951 sr 732 am ss 751 pm	18 98-1997 / 43-1971 sr 733 am ss 749 pm  New Moon	19 105-1930 / 42-1991 sr 734 am ss 748 pm	
20 98-1977 / 41-1971 sr 734 am ss 747 pm	21 98-1998 / 33-1983 sr 735 am ss 745 pm	22 98-1977 / 40-1995 sr 736 am ss 744 pm Autumnal Equinox (4:18 pm)	23 98-1926 / 42-1989 sr 736 am ss 742 pm	24 97-1953 / 38-1989 sr 737 am ss 741 pm	25 100-2005 / 36-2000 sr 738 am ss 740 pm	26 99-1953 / 36-1926 sr 739 am ss 738 pm  First Quarter	
27 100-1953 / 39-1917 sr 739 am ss 737 pm	28 98-1994 / 36-1918 sr 740 am ss 736 pm	29 97-1977 / 33-1916 sr 741 am ss 734 pm	30 99-1977 / 35-1985 sr 741 am ss 733 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			



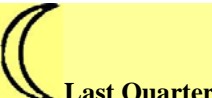


Average First Freeze Dates



October 2009

Lubbock National Weather Service

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		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		Normals: 79 / 53 0.07 98-2000 / 39-1985 Lubbock Records 1 sr 742 am - sunrise ss 731 pm - sunset	79 / 53 0.07 99-2000 / 40-1975 2 sr 743 am ss 730 pm	79 / 52 0.07 100-2000 / 35-1961 3 sr 743 am ss 729 pm
79 / 52 0.07 96-2000 / 41-1961 4 sr 744 am ss 727 pm 	78 / 51 0.07 97-1934 / 33-1932 5 sr 745 am ss 726 pm	78 / 51 0.07 94-1931 / 34-2001 6 sr 746 am ss 725 pm	78 / 51 0.07 98-1979 / 31-1952 7 sr 746 am ss 724 pm	77 / 50 0.07 98-1979 / 31-1976 8 sr 747 am ss 722 pm	77 / 50 0.06 93-1965 / 29-1970 9 sr 748 am ss 721 pm	77 / 50 0.06 93-1965 / 38-1993 10 sr 749 am ss 720 pm
77 / 49 0.06 93-1979 / 38-1932 11 sr 749 am ss 718 pm 	76 / 49 0.06 92-1989 / 33-1927 12 sr 750 am ss 717 pm Columbus Day	76 / 48 0.06 92-1989 / 28-1969 13 sr 751 am ss 716 pm	75 / 48 0.06 91-1917 / 31-1969 14 sr 752 am ss 715 pm	75 / 47 0.06 92-1917 / 31-1966 15 sr 752 am ss 713 pm	75 / 47 0.05 92-1917 / 30-2001 16 sr 753 am ss 712 pm	74 / 47 0.05 93-1988 / 32-1999 17 sr 754 am ss 711 pm
75 / 46 0.05 90-2001 / 32-1968 18 sr 755 am ss 710 pm 	74 / 46 0.05 92-1940 / 24-1917 19 sr 756 am ss 709 pm	73 / 45 0.05 92-2007 / 25-1916 20 sr 756 am ss 708 pm	73 / 45 0.05 88-1961 / 26-1917 21 sr 757 am ss 706 pm	72 / 45 0.05 89-1961 / 28-1945 22 sr 758 am ss 705 pm	72 / 44 0.05 88-1921 / 22-1917 23 sr 759 am ss 704 pm	71 / 44 0.04 91-1933 / 26-1929 24 sr 800 am ss 703 pm
71 / 43 0.04 91-1959 / 30-1955 25 sr 801 am ss 702 pm 	71 / 43 0.04 88-1979 / 29-1932 26 sr 801 am ss 701 pm	70 / 42 0.04 87-1922 / 26-1997 27 sr 802 am ss 700 pm	70 / 42 0.04 91-1943 / 25-1925 28 sr 803 am ss 659 pm	69 / 42 0.04 90-2003 / 20-1917 29 sr 804 am ss 658 pm	69 / 41 0.04 88-1945 / 18-1993 30 sr 805 am ss 657 pm	68 / 41 0.04 88-1934 / 20-1991 31 sr 806 am ss 656 pm Halloween

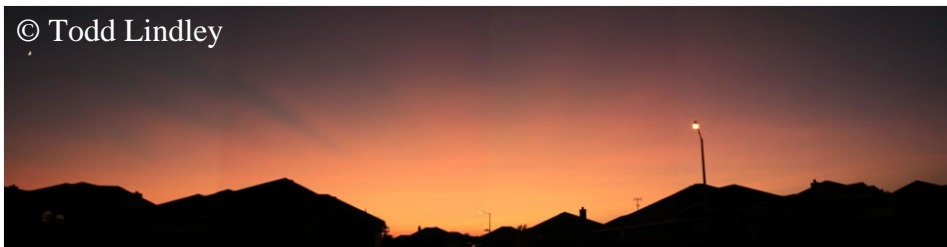
Celestial Sights



© Todd Lindley

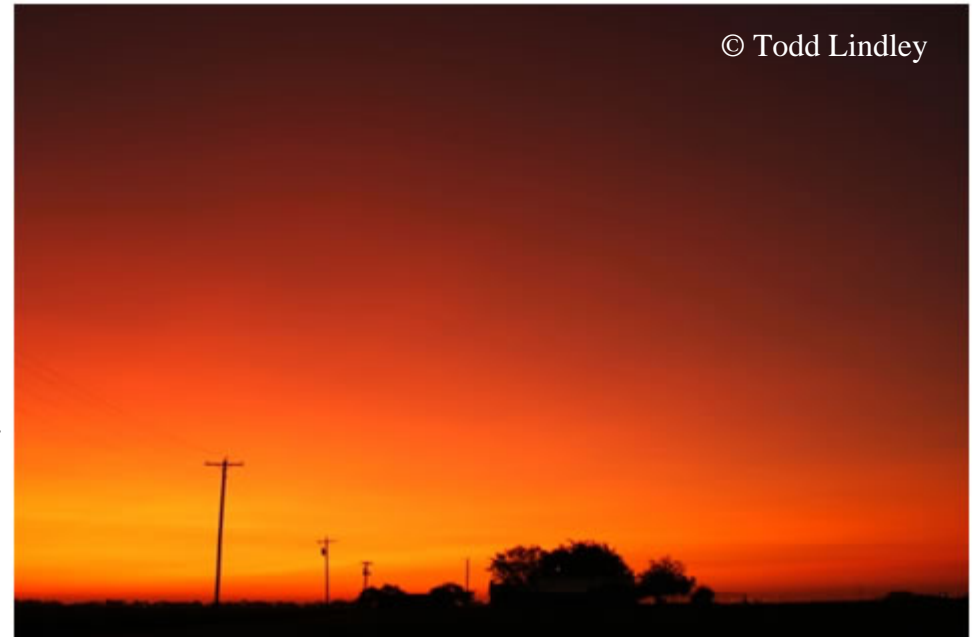
Above is a composite image of the moon's transition to totality during the lunar eclipse on the early morning hours of Tuesday, August 28, 2007. The lunar eclipse brought one of the best visual lunar eclipses in recent history. The pictures were taken from Lubbock, Texas.

2009 Major Meteor Showers		
<u>Shower</u>	<u>Peak Dates</u>	<u>Notes</u>
Quadrantids	Jan 3-4	sharp peak
Lyrids	Apr 21-22	sporadic
Delta Aquarids	Jul 29-30	sporadic
Perseids	Aug 12-13	one of best
Orionids	Oct 21-22	sporadic
Leonids	Nov 17-18	variable
Geminids	Dec 13-14	one of best



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Above and to the right are photographs taken from Lubbock, Texas, of brilliant volcanic twilight on September 4, 2008. The vivid colors and rays at sunrise and sunset during the end of August and into September of 2008 were attributed to tons of volcanic gases, dust and ash that were lofted into the upper atmosphere by a series of volcanic eruptions in Alaska's Aleutian Islands (most notably the August 7, 2008 eruption of Mount Kasatochi).



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November 2009

Lubbock National Weather Service

WWW.WEATHER.GOV/LUBBOCK






SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY										
<p>1 Normals: 68 / 40 0.03 85-1994 / 23-1951 Lubbock Records sr 707 am - sunrise ss 555 pm - sunset</p> <p>Daylight Saving Time ends</p>	<p>2 67 / 40 0.03 83-2001 / 19-1951</p> <p>sr 708 am ss 554 pm</p> <p> Full Moon</p>	<p>3 67 / 39 0.03 88-2005 / 7-1991</p> <p>sr 708 am ss 553 pm</p> <p>Election Day</p>	<p>4 66 / 39 0.03 86-1916 / 20-1950</p> <p>sr 709 am ss 552 pm</p>	<p>5 66 / 38 0.03 86-1916 / 22-1959</p> <p>sr 710 am ss 552 pm</p>	<p>6 65 / 38 0.03 85-1975 / 16-1959</p> <p>sr 711 am ss 551 pm</p>	<p>7 65 / 38 0.03 89-1916 / 19-1947</p> <p>sr 712 am ss 550 pm</p>										
<p>8 64 / 37 0.03 88--2005 / 20-1943</p> <p>sr 713 am ss 549 pm</p>	<p>9 64 / 37 0.03 90-2006 / 21-1943</p> <p>sr 714 am ss 548 pm</p> <p> Last Quarter</p>	<p>10 64 / 36 0.03 85-1927 / 19-1950</p> <p>sr 715 am ss 548 pm</p>	<p>11 63 / 36 0.03 82-1956 / 16-1947</p> <p>sr 716 am ss 547 pm</p> <p>Veteran's Day</p>	<p>12 63 / 36 0.02 85-1995 / 19-1915</p> <p>sr 717 am ss 546 pm</p>	<p>13 62 / 35 0.02 82-1973 / 14-1976</p> <p>sr 718 am ss 546 pm</p>	<p>14 62 / 35 0.02 85-1933 / 4-1976</p> <p>sr 718 am ss 545 pm</p>										
<p>15 62 / 35 0.02 88-1948 / 10-1916</p> <p>sr 719 am ss 545 pm</p>	<p>16 61 / 34 0.02 83-1966 / 11-1916</p> <p>sr 720 am ss 544 pm</p> <p> New Moon</p>	<p>17 61 / 34 0.02 85-1966 / 10-1959</p> <p>sr 721 am ss 544 pm</p>	<p>18 60 / 33 0.02 82-1999 / 16-1951</p> <p>sr 722 am ss 543 pm</p>	<p>19 60 / 33 0.02 85-1996 / 14-1921</p> <p>sr 723 am ss 543 pm</p>	<p>20 60 / 33 0.02 88-1996 / 17-1937</p> <p>sr 724 am ss 542 pm</p>	<p>21 59 / 32 0.02 84-1927 / 18-1956</p> <p>sr 725 am ss 542 pm</p>										
<p>22 59 / 32 0.02 81-1998 / 6-1957</p> <p>sr 726 am ss 541 pm</p>	<p>23 59 / 32 0.02 84-1965 / -1-1957</p> <p>sr 727 am ss 541 pm</p>	<p>24 58 / 31 0.02 82-1915 / 7-1938</p> <p>sr 728 am ss 541 pm</p> <p> First Quarter</p>	<p>25 58 / 31 0.02 86-1965 / 15-1993</p> <p>sr 729 am ss 540 pm</p>	<p>26 58 / 31 0.02 82-1970 / 8-1980</p> <p>sr 730 am ss 540 pm</p> <p>Thanksgiving Day</p>	<p>27 57 / 30 0.02 81-1950 / 12-1938</p> <p>sr 730 am ss 540 pm</p>	<p>28 57 / 30 0.02 83-1949 / 5-1976</p> <p>sr 731 am ss 540 pm</p>										
<p>29 57 / 30 0.02 76-1927 / 1-1976</p> <p>sr 732 am ss 539 pm</p>	<p>30 56 / 30 0.02 80-1946 / 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> <table> <tr> <td>Lubbock</td> <td>162.400</td> </tr> <tr> <td>Dimmitt</td> <td>162.500</td> </tr> <tr> <td>Plainview</td> <td>162.450</td> </tr> <tr> <td>Childress</td> <td>162.525</td> </tr> <tr> <td>Dickens</td> <td>162.500</td> </tr> </table>	Lubbock	162.400	Dimmitt	162.500	Plainview	162.450	Childress	162.525	Dickens	162.500			
Lubbock	162.400															
Dimmitt	162.500															
Plainview	162.450															
Childress	162.525															
Dickens	162.500															

Photo by Erin Shaw



Photo by John Lipe



WINTER WEATHER PREPAREDNESS

Winter storms are considered deceptive killers because most of the deaths are indirectly related to the storm:

- ❖ People die in traffic accidents on icy roads
- ❖ People die of heart attacks while shoveling snow
- ❖ People die of hypothermia from prolonged exposure to cold, even with temperatures above freezing

When caught in a winter storm. . .

If outside: Find shelter, try to stay dry and cover all exposed parts of the body. If no shelter, prepare a lean-to or wind-break for protection from the wind. Build a fire for heat and to attract attention; place rocks around the fire to absorb and reflect the heat. Do not eat snow; it will lower your body temperature. Melt it first.

If in a car: Stay in your car or truck. Disorientation occurs quickly in wind-driven snow and cold. Run the motor about 10 minutes each hour for heat; open the window a little for fresh air to avoid carbon monoxide poisoning, and make sure the exhaust pipe is not blocked. Make yourself visible to rescuers; turn on the dome light at night when running the engine. Tie a colored cloth (preferably red) to your antenna or door. Raise the hood to indicate trouble after the snow stops falling. Exercise from time to time by vigorously moving arms, legs, fingers, and toes to keep blood circulating and to keep warm.

If inside: Stay inside. When using alternative heat from a fireplace, wood stove, space heater, etc. use fire safeguards and proper ventilation. If you have no heat, close off unneeded rooms and stuff towels or rags in cracks under doors. Cover windows at night. Eat and drink. Food provides the body with energy for producing its own heat. Keep the body replenished with fluids to prevent dehydration. Wear layers of loose-fitting, light-weight, warm clothing. Remove layers to avoid overheating, perspiration, and subsequent chill.

SUNDAY

MONDAY







TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

		<p>1 Normals: 56 / 29 0.02 76-1995 / 12-1918 Lubbock Records sr 734 am - sunrise ss 539 pm - sunset</p>	<p>2 56 / 29 0.02 80-2005 / 13-1915 sr 735 am ss 539 pm</p> 	<p>3 56 / 29 0.02 79-1926 / 15-1967 sr 736 am ss 539 pm</p>	<p>4 55 / 28 0.02 81-1958 / 15-1921 sr 736 am ss 539 pm</p>	<p>5 55 / 28 0.02 79-1939 / 10-1950 sr 737 am ss 539 pm</p>										
<p>6 55 / 28 0.02 83-1939 / 1-1950 sr 738 am ss 539 pm</p>	<p>7 55 / 28 0.02 79-2007 / 8-2005 sr 739 am ss 539 pm</p>	<p>8 55 / 27 0.02 78-1970 / 3-1917 sr 740 am ss 539 pm</p> 	<p>9 54 / 27 0.02 80-1939 / 5-1978 sr 740 am ss 540 pm</p>	<p>10 54 / 27 0.02 81-1933 / 5-1917 sr 741 am ss 540 pm</p>	<p>11 54 / 27 0.03 80-1939 / 6-1917 sr 742 am ss 540 pm</p>	<p>12 54 / 27 0.03 82-1937 / 6-1961 sr 743 am ss 540 pm</p>										
<p>13 53 / 26 0.03 79-1921 / 5-1917 sr 743 am ss 540 pm</p> <p>Geminids Meteor Shower Dec 13-14</p>	<p>14 53 / 26 0.03 75-1922 / 8-1919 sr 744 am ss 541 pm</p>	<p>15 53 / 26 0.03 76-1977 / 10-1917 sr 745 am ss 541 pm</p>	<p>16 53 / 26 0.02 76-1939 / 11-1914 sr 745 am ss 541 pm</p> 	<p>17 53 / 26 0.02 78-1980 / 5-1932 sr 746 am ss 542 pm</p>	<p>18 53 / 26 0.02 77-1980 / 6-1996 sr 746 am ss 542 pm</p>	<p>19 52 / 25 0.02 76-1921 / 0-1924 sr 747 am ss 543 pm</p>										
<p>20 52 / 25 0.02 80-1921 / 3-1924 sr 748 am ss 543 pm</p>	<p>21 52 / 25 0.02 78-1981 / 2-1983 sr 748 am ss 544 pm</p> <p>Winter Solstice (11:47 am)</p>	<p>22 52 / 25 0.02 79-1955 / 1-1983 sr 749 am ss 544 pm</p>	<p>23 52 / 25 0.02 80-1964 / 3-1983 sr 749 am ss 545 pm</p>	<p>24 52 / 25 0.02 80-1955 / 0-1983 sr 749 am ss 545 pm</p> 	<p>25 52 / 25 0.02 76-1955 / -1-1924 sr 750 am ss 546 pm</p> <p>Christmas</p>	<p>26 52 / 24 0.02 77-2005 / 0-1918 sr 750 am ss 546 pm</p>										
<p>27 52 / 24 0.02 76-1976 / 3-1918 sr 751 am ss 547 pm</p>	<p>28 51 / 24 0.02 81-1928 / -2-1924 sr 751 am ss 548 pm</p>	<p>29 51 / 24 0.02 77-1920 / -1-1939 sr 751 am ss 548 pm</p>	<p>30 51 / 24 0.02 77-1951 / 7-2000 sr 751 am ss 549 pm</p>	<p>31 51 / 24 0.02 75-2005 / 8-1923 sr 752 am ss 550 pm</p> <p>New Year's Eve</p> 		<p>NOAA WEATHER RADIO CAN BE FOUND AT THE FOLLOWING FREQUENCIES:</p> <table border="0"> <tr> <td>Lubbock</td> <td>162.400</td> </tr> <tr> <td>Dimmitt</td> <td>162.500</td> </tr> <tr> <td>Plainview</td> <td>162.450</td> </tr> <tr> <td>Childress</td> <td>162.525</td> </tr> <tr> <td>Dickens</td> <td>162.500</td> </tr> </table>	Lubbock	162.400	Dimmitt	162.500	Plainview	162.450	Childress	162.525	Dickens	162.500
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Severe Weather Safety Tips

Prepare a Home Severe Weather Plan—

- Pick a place where family members could 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.
- Severe Thunderstorm and Tornado WATCHES and WARNINGS are issued by county.
- 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 sighted and may be headed for your area. Go to a safe location immediately.