

Funding provided by NOAA
Sectoral Applications Research Project

CLIMATE PRODUCTS

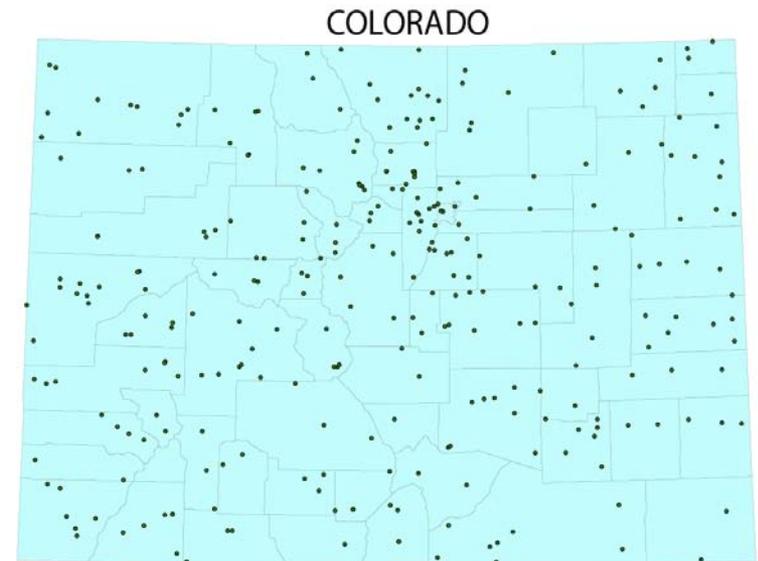
Basic Climatology
Colorado Climate Center



OBSERVING NETWORKS

Cooperative Observer Data (COOP)

- What is it?
 - ▣ Volunteers record temperature and precipitation observations once a day
 - ▣ Observations are either mailed on written forms or entered through the computer or a telephone system
 - ▣ Data are collected by the National Climatic Data Center (NCDC), where they are quality-assured
 - ▣ Typically takes 4-5 months before data are declared “official”
- What is observed?
 - ▣ Daily Maximum and Minimum Temperature:
 - ▣ Precipitation (liquid)
 - ▣ Snowfall, Snow Depth
- Where is it recorded?
 - ▣ ~8000 sites nationwide
 - ▣ ~288 active sites in Colorado
 - ▣ Dates back to before 1900



NWS – ASOS and AWOS

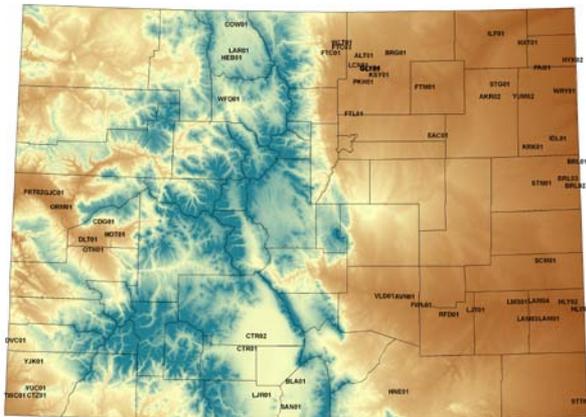
- Automated Surface Observing System (ASOS)
 - ▣ 882 NWS/FAA stations in the United States
 - ▣ Generally dating back to ~1940s
 - ▣ Hourly weather observations
- Automated Weather Observing System (AWOS)
 - ▣ Operated by the Federal Aviation Administration (FAA)
 - ▣ About 600 FAA stations in the United States
 - ▣ Older than ASOS
 - ▣ Usually do not report special observations (e.g., time of wind shifts)
- The original observations relate to WEATHER, not CLIMATE. But if we look at this information over a much longer period of time, we can see climate trends.



CoAgMet

Colorado Agricultural Meteorological Network

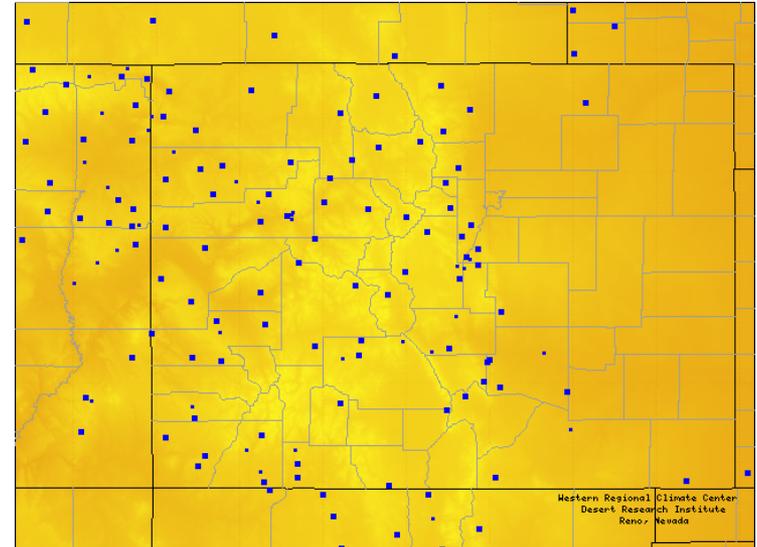
- *Automated weather stations with daily and hourly readings of:*
 - *Temperature*
 - *Humidity*
 - *Wind*
 - *Precipitation*
 - *Solar energy*
 - *Evapotranspiration*



RAWS

Remote Automated Weather Stations

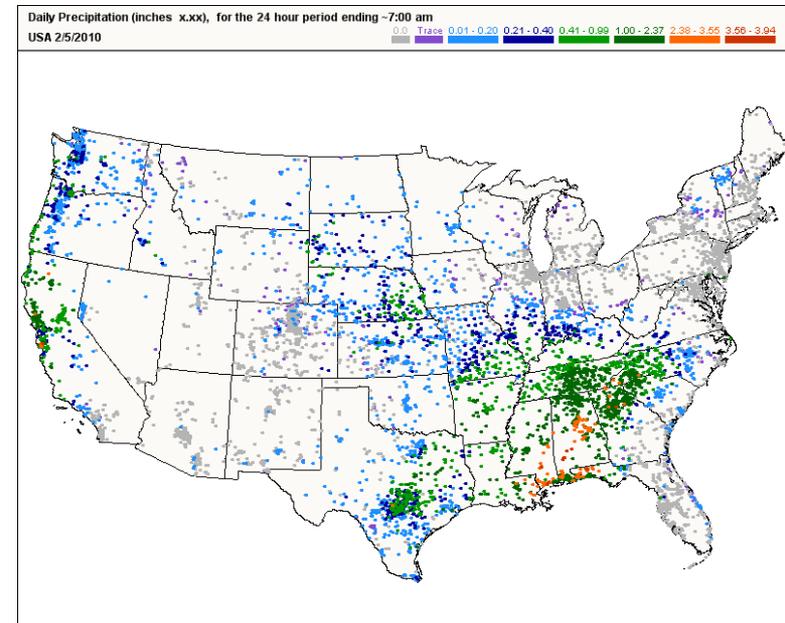
- *Automated weather stations with daily and hourly readings of:*
 - *Temperature*
 - *Humidity*
 - *Wind*
 - *Precipitation*
 - *Solar energy*
 - *Fuel Moisture*



<http://raws.dri.edu/>

CoCoRaHS

- Community Collaborative Rain, Hail and Snow Network
- Volunteer observers report rain, snow, and hail each day
 - ▣ Online “journal” allows tracking over time, comparing with neighbors
- Established in Colorado in 1998
- Currently 11,000+ observers in all 50 states
- Goal: a raingauge every mile
 - ▣ Need County Coordinators!



Storm Reports

- NOAA Storm Data publication (monthly – OFFICIAL RECORDS):
<http://www7.ncdc.noaa.gov/IPS/sd/sd.html>
- NCDC Storm Events Database (usually 90-120 days behind the current month):
<http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms>
- Storm Prediction Center (unofficial reports usually up within a day or so):
<http://www.spc.noaa.gov/> (Reports tab)
- Local Storm Reports (issued by National Weather Service offices as events are reported)
- Contact your State Climate Office for assistance:
<http://www.stateclimate.org/>



SOME USEFUL CLIMATE WEBSITES

NOAA Climate Prediction Center

www.cpc.noaa.gov

1 and 3 month outlooks

Short-term outlooks

U.S. Hazards Assessments

U.S. Drought Assessment
(also see www.drought.gov)

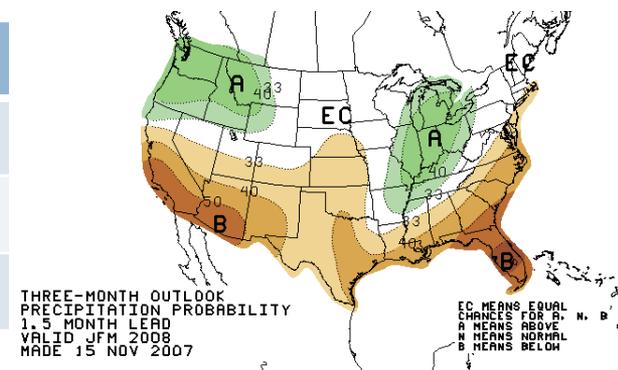
ENSO (El Nino/La Nina)

The screenshot shows the NOAA Climate Prediction Center website. The top navigation bar includes 'Home', 'Site Map', and 'News'. A search bar is located on the left. The main content area features a 'Climate News' section with several headlines. Below this is a grid of product links for '6-10 Day Outlook', '8-14 Day Outlook', 'One Month Outlook', and 'Three Month Outlook', each with sub-links for 'Temperature' and 'Precipitation'. There are also links for 'U.S. Hazards Assessment' and 'U.S. Drought Assessment'. A map of the United States is displayed, showing a 6-10 day outlook for temperature probability. The map includes a legend and a note: 'DOTTED BLACK LINES ARE THE PROTOLOGY OF THE 1980-2010 CLIMATE RECORD. VALUES INDICATE THE DEVIATION FROM NORMAL INCREASED PRECIPITATION NEAR-NORMAL'. At the bottom, there are sections for 'Related Products' and 'Local Climate Water & Weather Topics'.

Interpreting Seasonal Outlooks

- A=Above, B=Below, N=Near Normal, EC=Equal Chances
- EC indicates a 33.3% chance of conditions falling into one of the three categories (above, near normal, or below)
- A (B) indicates that the forecaster thinks that conditions will be above (below) normal
 - ▣ Does not forecast how much above normal
- Any contours show an increased confidence in the forecast trend

	Above	Near Normal	Below
Equal Chances	33.3	33.3	33.3
40% Above	40.0	33.3	26.7
50% Below	16.7	33.3	50.0



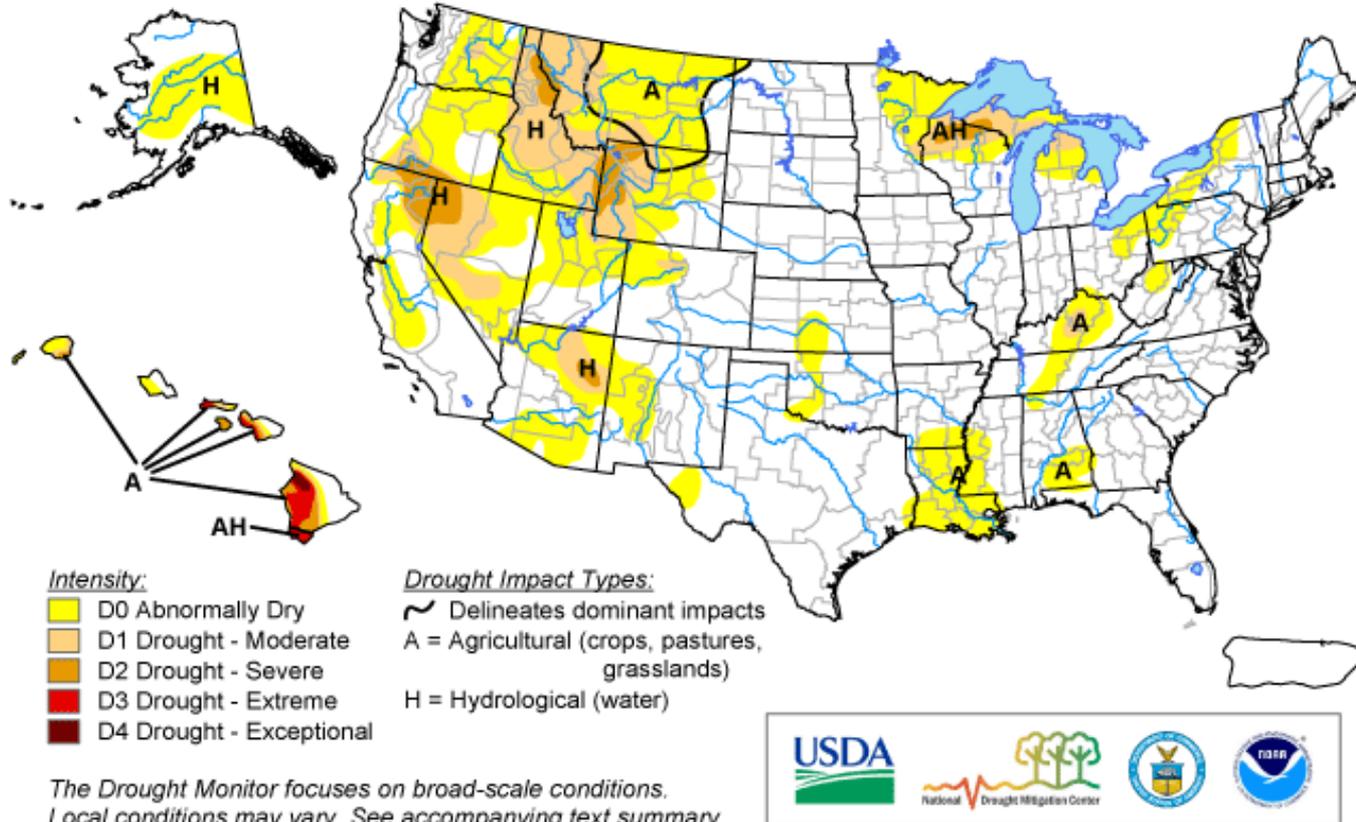
Drought Monitor

www.drought.gov

U.S. Drought Monitor

April 13, 2010

Valid 8 a.m. EDT



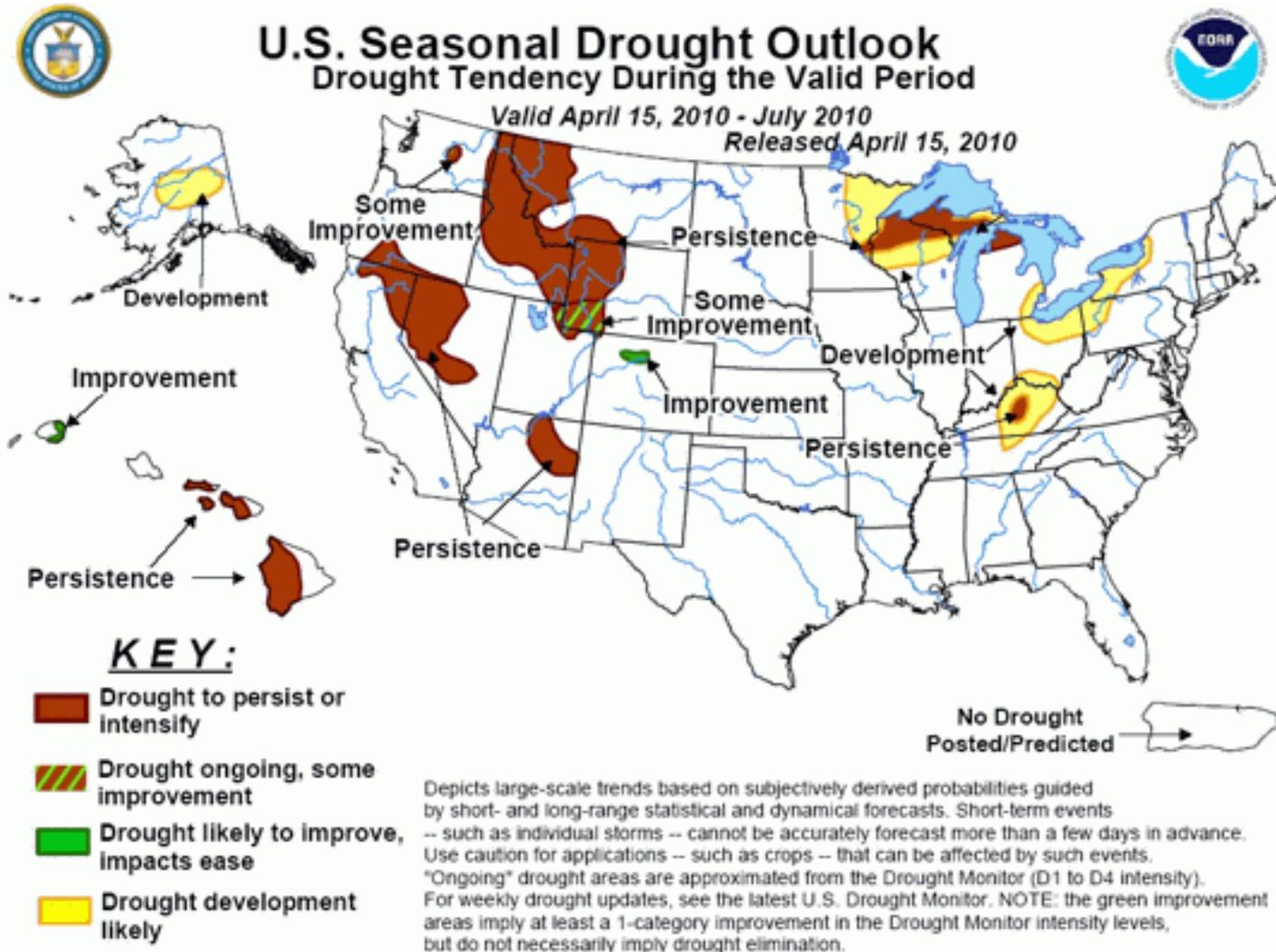
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>

Released Thursday, April 15, 2010
Author: David Miskus, CPC/NCEP/NWS/NOAA

Drought Outlook

www.drought.gov



National Weather Service

Norman: www.srh.noaa.gov/oun/

Tulsa: www.srh.noaa.gov/tsa/

Enhanced Page
(current concerns)

Data!

Point-and-click
Forecasts

National Weather Service Weather Forecast Office
Norman, OK

Home Site Map News Organization Search for: [] NWS All NOAA Go

Local forecast by "City, St" or Zip Code
City, St [] Go
XML RSS Feeds

Current News
Nationwide
Outlooks
Enhanced Page
Hazardous Weather Outlook
Forecasts
Local
Forecast Discussion
Activity Planner
Graphical
Fire Weather
Aviation Weather
Air Quality
Current Weather
Observations
Satellite Images
Rivers/Lakes
Oklahoma Mesonet
West Texas Mesonet
Radar Imagery
Nationwide
Central Oklahoma
SW OK/NW TX
Northern Oklahoma
Southern Plains
Pick a Radar
Climate
Local
National
More...
Weather Safety
Get Prepared
Weather Radio
SKYWARN
Storm Spotter Training

Top News of the Day
Click [HERE](#) for the Enhanced Page and Graphcasts

Watches & Warnings Observations Forecast Graphics Rivers & Lakes Climate Submit a Storm Report

Click on the map below for the latest forecast.

Read watches, warnings & advisories
Zoom Out

Flood Warning
Flood Advisory
Hazardous Weather Outlook

Last map update: Mon, Apr. 19, 2010 at 2:50:57 pm CDT

Latest Conditions In **OKC, Will Rogers World Airport, OK** Choose Your Front Page City

Apr 19
1:52 pm **60°F** (16°C)
Overcast

Select A City: []

Graphical Forecasts Radar Satellite Weather Map

LOCATION	TIME[cdt]	WEATHER	TEMP	DEWPT	RH %	WIND mph	PRESSURE	SUNRISE/SUNSET
Oklahoma City	01:52 PM	Overcast	60°F	46°F	60%	E 3	30.13 in	6:54 AM/8:06 PM
Wiley Post	01:53 PM	Overcast	59°F	46°F	62%	NE 6	30.13 in	6:54 AM/8:06 PM

NWS – Climate Section

Observed Weather | Climate Locations | Climate Prediction | Climate Resources | Local Data/Records | Astronomical | NOWData

Observed Weather Reports

1. Product »

- Daily Climate Report (CLI)
- Preliminary Monthly Climate Data (CF6)
- Record Event Report (RER)
- Monthly Weather Summary (CLM)
- State Summary (Temp/Precip)

[Storm Event Database \(SPC\)](#)
[Storm Data \(NCDC\)](#)

2. Location »

Oklahoma City Will Roger
Wichita Falls Sheppard Fi

3. Timeframe »

- Most Recent
- Archived Data:

April 18th, 2010
April 17th, 2010
April 16th, 2010
April 15th, 2010
April 14th, 2010
April 13th, 2010

4. View »

Go

Product Description:

DAILY CLIMATE REPORT - issued daily:
Detailed daily weather statistics (usually for yesterday), including temperature, precipitation, degree days, wind, humidity, sunrise/sunset, and record temperature data for the following day. Precipitation data includes both calendar year and water year totals, percent of normal values, and comparisons to normal. This product is available for up to 2 months.

Daily Climate Report (CLI)

Climatological Report (Daily)

000
 CDUS44 KOUN 190633
 CLIOKC

CLIMATE REPORT
 NATIONAL WEATHER SERVICE NORMAN OK
 131 AM CDT MON APR 19 2010

.....
 ...THE OKLAHOMA CITY CLIMATE SUMMARY FOR APRIL 18 2010...

CLIMATE NORMAL PERIOD 1971 TO 2000
 CLIMATE RECORD PERIOD 1890 TO 2010

WEATHER ITEM	OBSERVED VALUE	TIME (LST)	RECORD VALUE	YEAR	NORMAL VALUE	DEPARTURE FROM NORMAL	LAST YEAR
--------------	----------------	------------	--------------	------	--------------	-----------------------	-----------

.....
 TEMPERATURE (F)
 YESTERDAY
 MAXIMUM 53 212 AM 96 1925 72 -19 72
 MINIMUM 48 1159 PM 30 1953 49 -1 49
 AVERAGE 51 60 -9 61

PRECIPITATION (IN)
 YESTERDAY 0.93 2.97 1942 0.10 0.83 0.12
 MONTH TO DATE 2.38 1.63 0.75 1.64
 SINCE MAR 1 3.34 4.53 -1.19 4.17
 SINCE JAN 1 8.58 7.37 1.21 5.58

SNOWFALL (IN)
 YESTERDAY 0.0 0.0 MM 0.0 0.0 0.0
 MONTH TO DATE T T 0.0 0.0
 SINCE JUL 1 23.2 8.6 14.6 3.1

DEGREE DAYS
 HEATING
 YESTERDAY 14 6 8 4
 MONTH TO DATE 79 141 -62 182
 SINCE MAR 1 557 587 -30 543
 SINCE JUL 1 3795 3563 232 3232

COOLING
 YESTERDAY 0 1 -1 0
 MONTH TO DATE 31 17 14 2
 SINCE MAR 1 40 24 16 25
 SINCE JAN 1 40 25 15 26

WIND (MPH)
 HIGHEST WIND SPEED 16 HIGHEST WIND DIRECTION E (70)
 HIGHEST GUST SPEED 20 HIGHEST GUST DIRECTION NE (60)
 AVERAGE WIND SPEED 10.1

SKY COVER
 AVERAGE SKY COVER 1.0

WEATHER CONDITIONS
 THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.
 RAIN
 LIGHT RAIN
 FOG

RELATIVE HUMIDITY (PERCENT)
 HIGHEST 96 300 AM
 LOWEST 77 600 PM
 AVERAGE 87

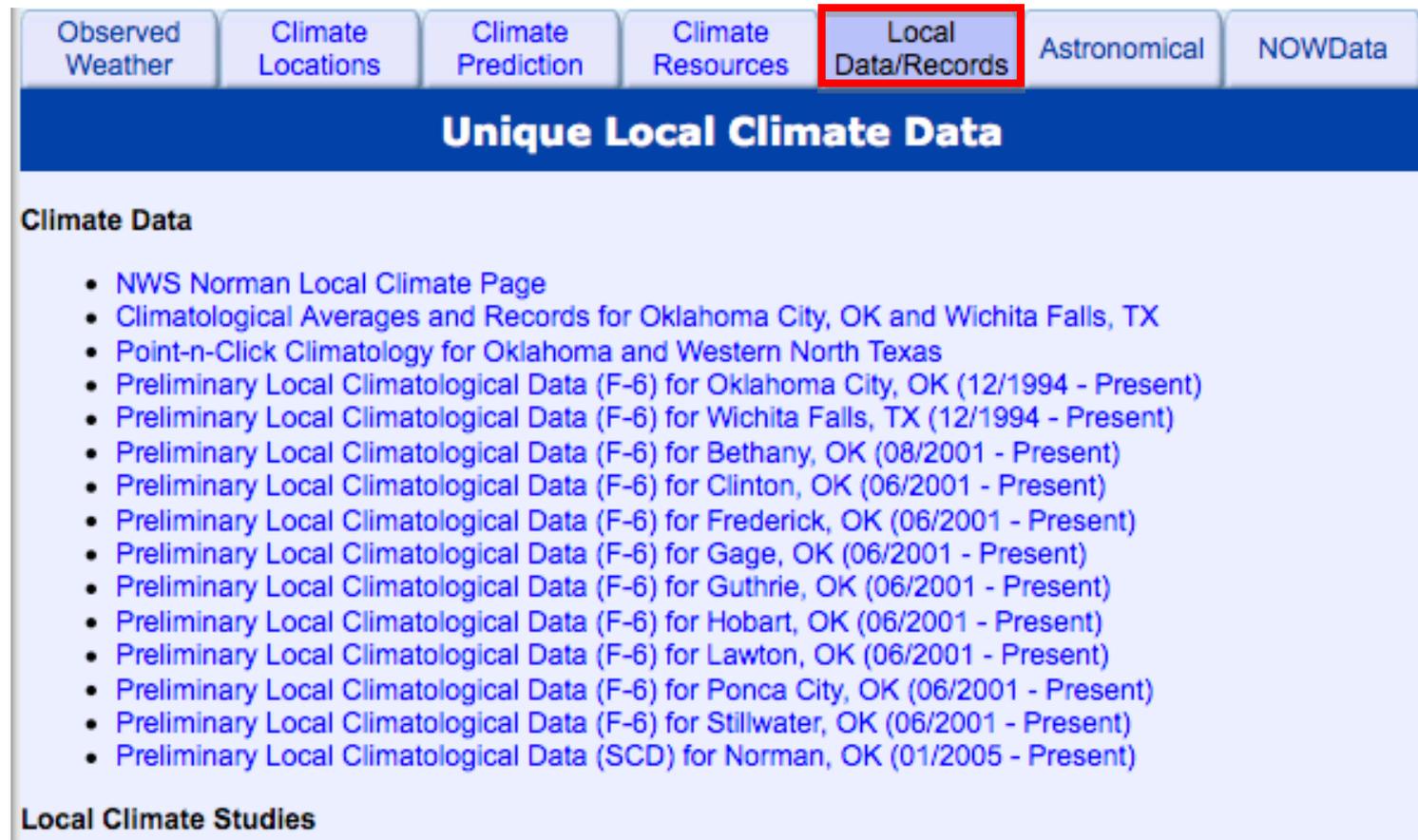
.....
 THE OKLAHOMA CITY CLIMATE NORMALS FOR TODAY

	NORMAL	RECORD	YEAR
MAXIMUM TEMPERATURE (F)	72	94	1987
MINIMUM TEMPERATURE (F)	49	35	1953

SUNRISE AND SUNSET
 APRIL 19 2010.....SUNRISE 653 AM CDT SUNSET 807 PM CDT
 APRIL 20 2010.....SUNRISE 652 AM CDT SUNSET 807 PM CDT

- INDICATES NEGATIVE NUMBERS.
 R INDICATES RECORD WAS SET OR TIED.
 MM INDICATES DATA IS MISSING.
 T INDICATES TRACE AMOUNT.

NWS – Climate Section



The image shows a screenshot of the NWS Climate Section website. At the top, there is a navigation menu with several tabs: "Observed Weather", "Climate Locations", "Climate Prediction", "Climate Resources", "Local Data/Records" (highlighted with a red border), "Astronomical", and "NOWData". Below the navigation menu is a blue banner with the text "Unique Local Climate Data". Underneath the banner, the section is titled "Climate Data" and contains a list of 15 bullet points, each representing a different local climate data source or study. The list includes links to the NWS Norman Local Climate Page, climatological averages and records for Oklahoma City, OK and Wichita Falls, TX, and point-n-click climatology for Oklahoma and Western North Texas. It also lists 13 preliminary local climatological data (F-6) sources for various locations in Oklahoma, including Bethany, Clinton, Frederick, Gage, Guthrie, Hobart, Lawton, Ponca City, Stillwater, and Norman (SCD).

Observed Weather Climate Locations Climate Prediction Climate Resources **Local Data/Records** Astronomical NOWData

Unique Local Climate Data

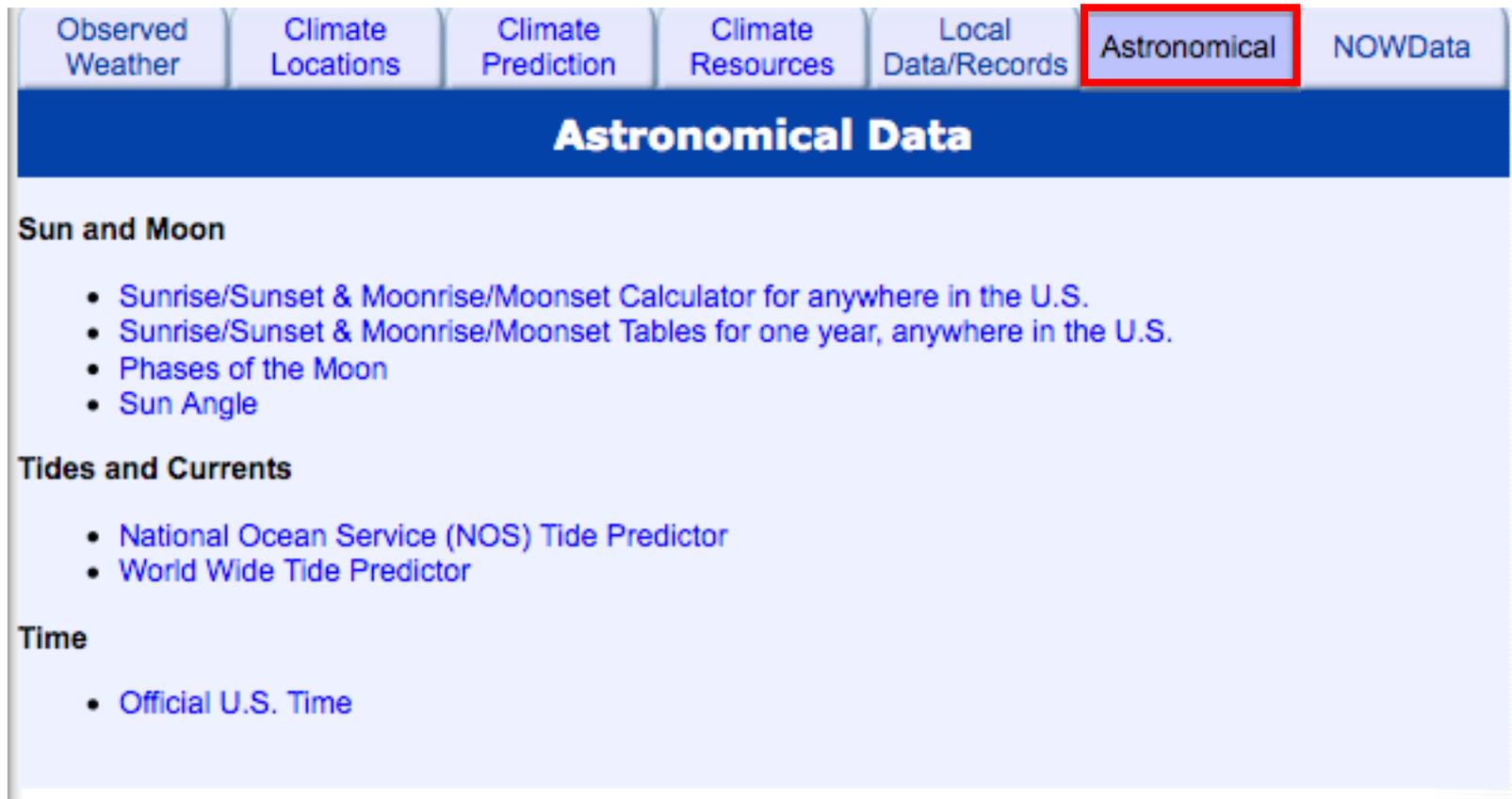
Climate Data

- [NWS Norman Local Climate Page](#)
- [Climatological Averages and Records for Oklahoma City, OK and Wichita Falls, TX](#)
- [Point-n-Click Climatology for Oklahoma and Western North Texas](#)
- [Preliminary Local Climatological Data \(F-6\) for Oklahoma City, OK \(12/1994 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Wichita Falls, TX \(12/1994 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Bethany, OK \(08/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Clinton, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Frederick, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Gage, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Guthrie, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Hobart, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Lawton, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Ponca City, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(F-6\) for Stillwater, OK \(06/2001 - Present\)](#)
- [Preliminary Local Climatological Data \(SCD\) for Norman, OK \(01/2005 - Present\)](#)

Local Climate Studies

Summaries, studies, and resources produced by the local office

NWS – Climate Section



The screenshot shows a navigation menu with the following items: Observed Weather, Climate Locations, Climate Prediction, Climate Resources, Local Data/Records, **Astronomical** (highlighted with a red border), and NOWData. Below the menu is a blue header for 'Astronomical Data'.

Astronomical Data

Sun and Moon

- [Sunrise/Sunset & Moonrise/Moonset Calculator for anywhere in the U.S.](#)
- [Sunrise/Sunset & Moonrise/Moonset Tables for one year, anywhere in the U.S.](#)
- [Phases of the Moon](#)
- [Sun Angle](#)

Tides and Currents

- [National Ocean Service \(NOS\) Tide Predictor](#)
- [World Wide Tide Predictor](#)

Time

- [Official U.S. Time](#)

NWS – Climate Section

Observed Weather	Climate Locations	Climate Prediction	Climate Resources	Local Data/Records	Astronomical	NOWData
------------------	-------------------	--------------------	-------------------	--------------------	--------------	----------------

NOWData - NOAA Online Weather Data

1. Product » <ul style="list-style-type: none"><input type="radio"/> Daily data for a month<input type="radio"/> Daily almanac<input checked="" type="radio"/> Monthly avgs/totals<input type="radio"/> Monthly occurrences<input type="radio"/> Monthly extremes<input type="radio"/> Daily extremes<input type="radio"/> Daily/monthly normals<input type="radio"/> Record extremes<input type="radio"/> First/last dates	2. Location » <ul style="list-style-type: none">Oklahoma City AreaWichita Falls AreaCopper Breaks St, TXDundee 6 Nnw, TXLake Kemp, TXQuanah 2 Sw, TXTruscott 3 W, TXWichita Falls Mu, TXAltus Irig Res S, OKAltus Dam, OK	3. Variable » <ul style="list-style-type: none"><input checked="" type="radio"/> Max Temperature<input type="radio"/> Min Temperature<input type="radio"/> Avg Temperature<input type="radio"/> Precipitation<input type="radio"/> Snowfall<input type="radio"/> Snow Depth<input type="radio"/> Heating Degree Days<input type="radio"/> Cooling Degree Days<input type="radio"/> Growing Degree Days	4. Year » <ul style="list-style-type: none"><input checked="" type="radio"/> Current year<input type="radio"/> Last year<input type="radio"/> 1971-2000	5. View » <input type="button" value="Go"/>
--	---	---	--	---

Product Description:
MONTHLY AVERAGES/TOTALS - calculates averages or totals, as appropriate, for the selected variable for each month of the year. This product is available for the current year, the previous year, or an average of the years 1971 through 2000. Additional stations and years of data are available from the Regional Climate Centers and the National Climatic Data Center.

- [NCDC Map Services](#) -
- [Common questions](#) -
- [Submit a question/comment](#) -

Powered by 
NOAA Regional Climate Centers

National Climatic Data Center

<http://www.ncdc.noaa.gov/oa/climate/severeweather/extremes.html>



NOAA Satellite and Information Service
National Environmental Satellite, Data, and Information Service (NESDIS)



National Climatic
Data Center
U.S. Department of Commerce



[DOC](#) > [NOAA](#) > [NESDIS](#) > [NCDC](#)

Search Field:

Search NCDC

U.S. Hurricanes	Heavy Precipitation	Temperature Extremes & Drought	U.S. Tornadoes
Billion \$\$ Weather Disasters			Worldwide Weather & Climate Events
Global Climate Change			Historical Global Extremes
El Nino/ La Nina			Satellite Images & Posters
Climate Monitoring	U.S. Local Storm Events Data	Climatic Data	U.S. Radar Composites

National Climatic Data Center

Storm Events Database

Enter Search Parameters for Oklahoma

Begin Date: [* 01/01/1950 thru 12/31/2008](#)

End Date: *If Different from Begin Date*

County:

Event Type:

Limit Search Results

Tornados :

Hail, Size of at Least: **Inches**

High Wind Speed of at Least: **Knots**

Number of Injuries :

Number Of Deaths

Amount of Property Damage \$:

Amount of Crop Damage \$:

Storm Events

for Oklahoma

List Storms

Reset

New State

All States

Fujita Tornado Scale

F0: 40-72 mph (35-62 kt)
F1: 73-112 mph (63-97 kt)
F2: 113-157 mph (98-136 kt)
F3: 158-206 mph (137-179 kt)
F4: 207-260 mph (180-226 kt)
F5: 261-318 mph (227-276 kt)

National Climatic Data Center

Climate Monitoring Reports



NOAA Satellite and Information Service
National Environmental Satellite, Data, and Information Service (NESDIS)



National Climatic
Data Center
U.S. Department of Commerce



[DOC](#) > [NOAA](#) > [NESDIS](#) > [NCDC](#)

Search Field:

NCDC Climate Monitoring Reports and Products

Current Events

[About NCDC](#)
[In the Spotlight](#)
[What's New](#)

Data & Products

[Products and Services](#)
[Find a Station](#)
[Search by Map](#)
[Free Data](#)
[Data Access tools](#)
[CD-ROM Products](#)
[Climate Inventories](#)
[Metadata](#)
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Climate Info

[Regional Climate Centers](#)
[Research](#)
[Monitoring](#)
[Extremes](#)
[Global Hazards](#)

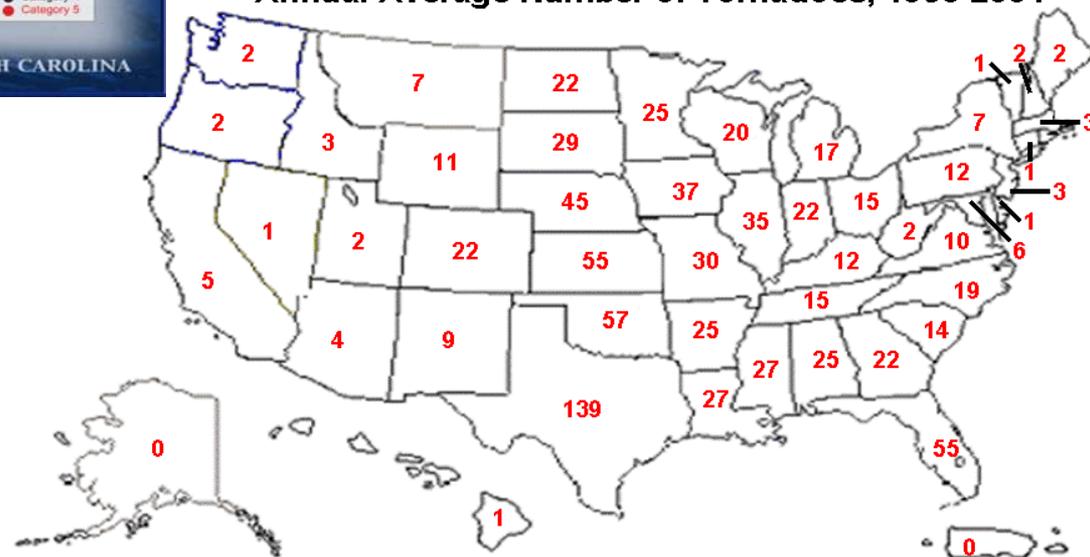
State of the Climate	▶
Special Reports	▶
BAMS Annual State of the Climate Reports	
U.S. Products	▶
Download U.S. Temp/Prcp/Drought Data	▶
U.S. and Global Extremes	▶
Global Products	▶
Hurricanes/Tropical Storms	▶
Tornadoes	▶
Climate and Network Monitoring	▶
Drought Monitoring	▶
Snow Data	▶
Other Products	▶

National Climatic Data Center

Hurricanes and Tornadoes



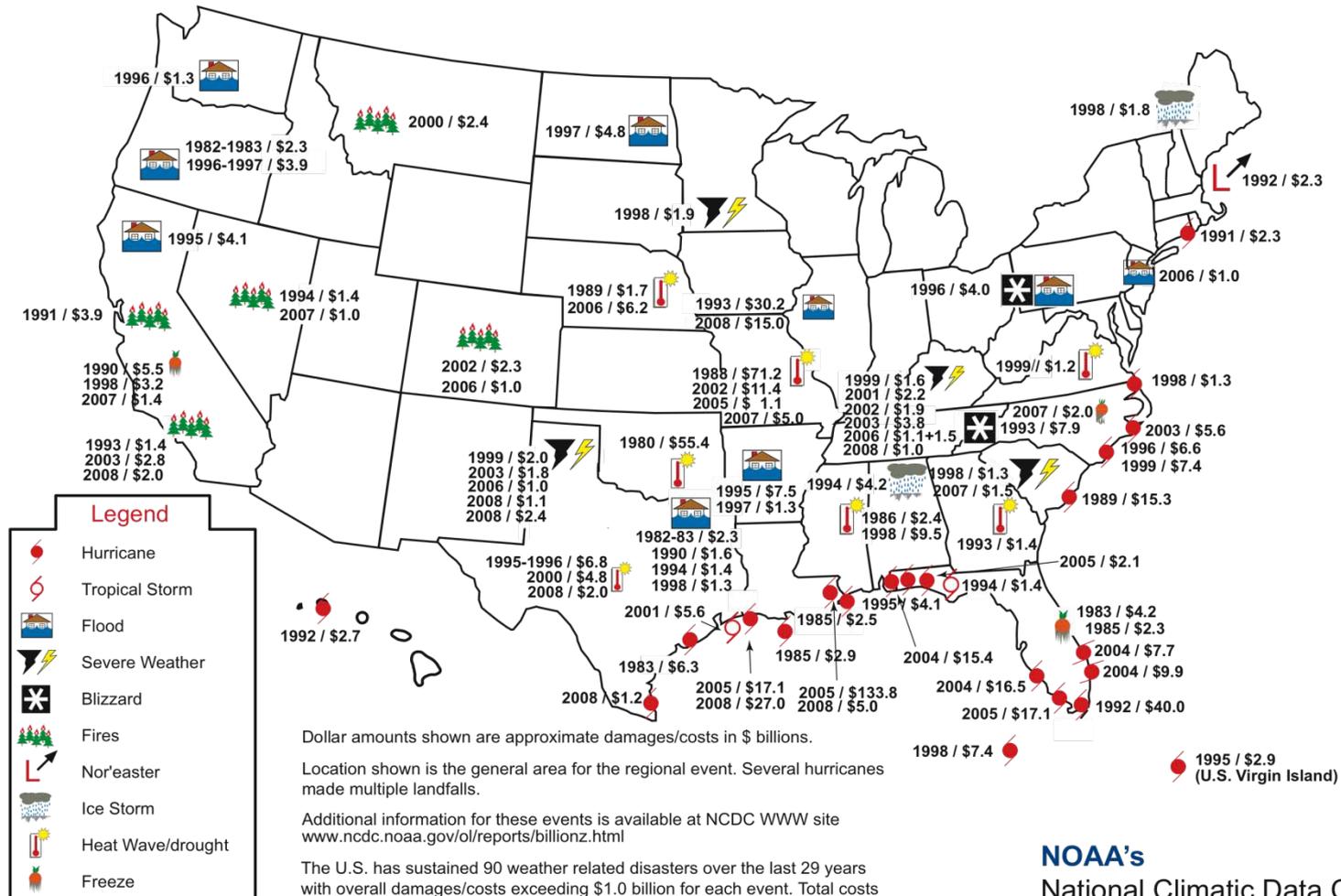
Annual Average Number of Tornadoes, 1953-2004



National Climatic Data Center

Weather Disasters

Billion Dollar Weather Disasters 1980 - 2008



Regional Climate Centers



Western Regional Climate Center

[Historical Climate Information](#)

Western U.S. Historical Summaries; Precipitation Maps; Station Inventories; Wind and Evaporation Data; Coastal Water Table; State Narratives; Station Descriptions; Anomalies.

[WRCC Projects](#)

El Nino & La Nina; CEMP; WET; BLM RAWS; Yucca Mm; Current Weather Plots; NSOE; Snotel; CoCoRaHS; California Climate Data Archive; Photo Gallery; Webcam; WxCoder.

[Educational and Travel Pages](#)

Terms: More about Weather and Climate - for teachers and

[Current Observations, Forecasts and Monitoring](#)

Nat'l Weather Service Current and Past 24-hour Reports; Snotel; Climate Prediction Center Outlooks; Satellite and Radar Imagery; SPI, Anomalies; Divisional Climate Plots; ACIS; CoCoRaHS.

[More Climate Information](#)

Solar Radiation, Sunrise/Sunset Information (USNO); WGA data and information; Nat'l Climatic Data Center; Climate Prediction Center; CEFA; Nat'l Drought Mitigation Center.

[About the WRCC](#)

Staff Funding: Overview of WRCC: DRI Home Page

Welcome - High Plains Regional Clim...

High Plains Regional Climate Center

Home About Us Services Climate Networks Climate Products Publications

Welcome

Welcome to the High Plains Regional Climate Center.

Popular Links

- Catalog of Products and Services
- RCC Quarterly Newsletter
- Upcoming Regional Events
- Current Climate Summary Maps
- Station Search
- CLIMOD and Classic Online
- Historical Climate Data Summaries

Find nearby observation stations: Lincoln, NE submit

Current Climate Summary Maps Updated Daily - More Options

7-Day Total Precipitation View Map

Powered by ACIS

Share | Facebook | Twitter

Current Projects

- Nebraska Soil Moisture
- Wind Energy
- Evapotranspiration

HPRCC News Feed

SoyWater: An Irrigation Decision Aid for Nebraska Soybean Producers

A new UNL website offers soybean producers an easy-to-use decision aid for optimizing irrigation efficiency and energy use. ...More

Source/Author: UNL CropWatch 05/12/10

NOAA: Above-Normal Temperatures and Below-Normal Precipitation in April

NOAA's State of the Climate report shows the April 2010 average temperature for the contiguous United States was 54.3 degrees F, which is 2.3 degrees F above the long-term (1901-2000) average (14th warmest April on record). April's average precipitation was

Western Regional Climate Center:

<http://wrcc.dri.edu>

High Plains Regional Climate Center:

<http://www.hprcc.unl.edu/>

Colorado Climate Center

<http://ccc.atmos.colostate.edu>



Quick Links: [Home](#) | [General Information](#) | [Contact Us](#) | [Staff](#) | [AASC](#) | [High Plains RCC](#) | [Western RCC](#) | [Site Map](#) | [Search](#)

- Fort Collins Weather
- Climate of Colorado
- [Data Access](#)
- Requests for Data
- Presentations
- Drought Resources
- Major Weather Events
- Climate Magazine
- News Releases
- Publications
- Snow Booklet
- For Fun: Q & A
- NEW! Precipitation Monitoring Page
- NEW! Temperature Monitoring Page

• CoAgMet (Colorado Agricultural Meteorological Network)

• CoCoRaHS (Community Collaborative Rain, Hail and Snow Network)

• Private Access Area



Register for

Welcome to the Colorado Climate Center!



The climate of Colorado is fascinating in every way. Being located as a mid-latitude interior continental state (and having the highest average elevation in the United States), combined with complex topography, results in dramatic climate differences from place to place and from year to year. From the Great Plains of eastern Colorado to the high peaks of the Rockies and the Continental Divide, to the valleys, canyons and plateaus of western Colorado, the various climates are each very different.

This website is hosted and maintained by the Colorado Climate Center, which is part of the [Department of Atmospheric Science](#) at [Colorado State University](#). Several sources of climate data are featured, along with links to other resources. Please [contact us](#) if you have any questions or need additional assistance.

What's New

- You need Acrobat reader to view the links below.

Current Fort Collins Weather

60°F as of 11:00 AM on May 10, 2010

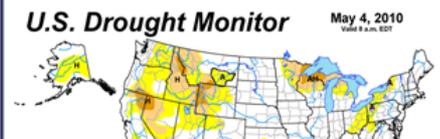
Relative Humidity: 28.1%
Dew Point: 27.0°F
Pressure: 24.65 inches
Wind: From the W at 10.0 mph

[Graphs](#) | [Recent Measurements](#)

Latest Colorado Climate Center News

- Presentations from the March 12th, 2010 Evapotranspiration Workshop in Fort Collins, CO [here](#).
- Explore the NEW Climate Trends Website [here](#).
- December, 2009: [CoCoRaHS](#) reaches all 50 States! Click [here](#) to read more.
- May, 2009: State Climatologist testifies before House Committee on Science and Technology. See Nolan's testimony [here](#).

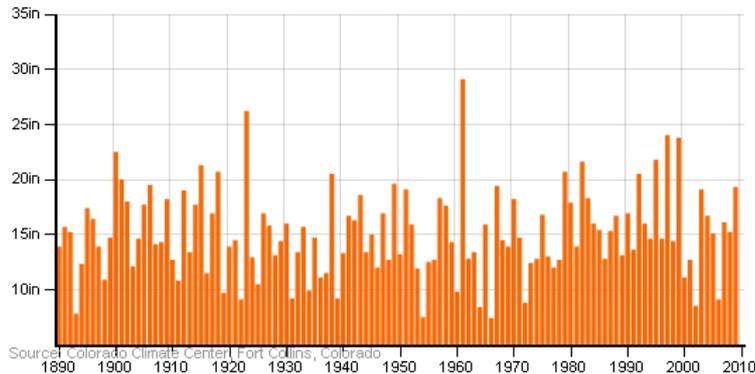
Drought Monitor



Climate Trends Website

- Long-term climate stations in Colorado
- Online access to monthly data and customizable graphics

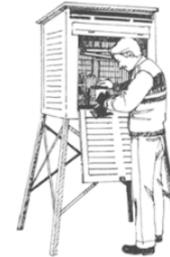
Total Annual Water Year Precipitation • 1889-2010
Fort Collins • Station 53005



Welcome to the Colorado Climate Trends Website

[Climate Trends](#) | [Station Map](#) | [Station Info](#) | [Data Access](#) | [Links + Resources](#) | [About](#)

Climate Trends of Colorado



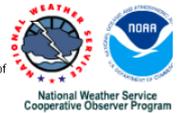
Welcome! The climate of Colorado is a valued natural resource affecting our lives and livelihoods. By nature, climate is variable. No two years are ever exactly alike. Instrumental observations of our climate dating back to the late 1800s give a sense of our average climate, typical variations, extremes and long-term trends. ([description of historic weather observations in Colorado](#)) Tracking temperatures and precipitation through history reveal seasonal patterns, cold and warm periods, and episodes of drought and abundant water.

Today there is great interest in climate change. If our state is warming, these data will show it. This Website lets you view, graph and download historic temperature and precipitation data for selected weather stations in Colorado having the longest and most consistent historical data. Historic consistency is critical for accurately assessing climate trends. There have been hundreds of weather stations operated in Colorado since the 1890s, but very few have data that are complete and consistent. Even the best stations selected for this site are imperfect.

For each station shown here, a description of the history of the station is

National Weather Service Co-op Program

Weather observations in Colorado using thermometers and rain gauges date back to the late 1800s. Some of the earliest weather stations were established in the largest cities during the 1870s by the U.S. Signal Service. In the 1880s Colorado formed a "State Weather Service" and began setting up more basic weather stations in smaller towns and rural areas. By 1890, the first nationwide civilian weather service was formed with the U.S. Department of Agriculture. State networks, such as Colorado's were combined to form a single nationwide volunteer weather observing network. This same network continues today managed by the National Weather Service. What began as a few dozen stations in the



<http://climatetrends.colostate.edu>

Drought Webinars

- Weekly summary of drought conditions for the Upper Colorado River Basin
- Updates on current conditions
 - Precipitation
 - Snowpack/SWE
 - River flows
 - Reservoir levels
 - Weather forecast
- Power Point and summary provided on our

Web site:

http://ccc.atmos.colostate.edu/drought_webinar.php

