

KCPW March

- Why does it get so blustery
- Why is it so confused -- snow storms in the AM, two hours later sunny, 60 by mid-afternoon
- What's up with the jetstream, La Nina, the sun, earth's rotation, that causes instability
- Is it our version of hurricane season or what?
- Then what happens to cause things to settle down, and by what time
- Weather's role in spring runoff
- Pattern of weather behavior into spring, then summer heat how far away

Why does it get so blustery

- During the spring, many cold fronts move through Salt Lake City.
- Why in Spring
 - Sun heats the layer where our weather happens and makes it unstable there is a lot of energy in the atmosphere
 - Northward projection of the jet stream into our area,
 - More zonal flow more active storms more frequently
 - Prefrontal days are the windiest with warm weather from the south
 - Winds - differences in air pressure.
 - Balloon analogy

Why so blustery

- Strongest cold fronts peak in may or june
- march, april into may is a wet period for SLC
- Winter
 - ridging

Why is it so confused -- snow storms in the AM, two hours later sunny, 60 by mid-afternoon

When storm systems move through weather changes quickly.

Temperature swings in Utah are very large. Cold at night and warm in the day.

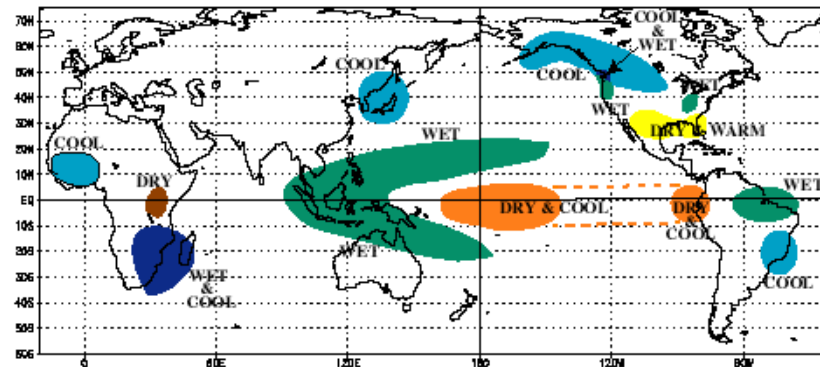
- The weather is not confused, we are. 😊
- Snow storm this time of year, don't need a shovel, it'll melt
- Sun has a big impact on us, since we are at high altitude
- Spring
 - Sun heats the layer where our weather happens and makes it unstable there is a lot of energy in the atmosphere
- Strongest cold fronts peak in May or June
 - Days right before the storm are the windiest with warm weather from the south
- Frequency of cold fronts March or April more often

jetstream, La Nina, the sun, earth's rotation, that causes storms

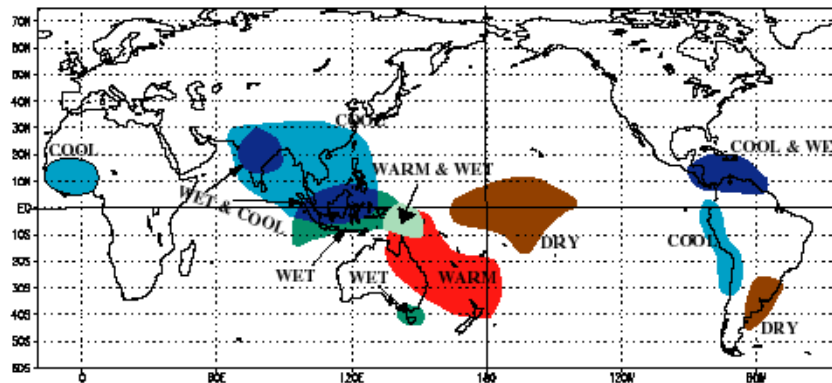
- Sun equator
 - Weather distribute the energy.
 - Add the earth spinning
 - continents mountains and oceans
- Jetstream- Contrasts in temperature lead to jets
 - two storm tracks
 - earth's tilt
 - heating gets moved.
 - They migrate north and south mid-june to late august no cold front.
- Clouds and storm formation – air lifted
 - two different airmasses coming together
 - Mountains can also lift air!
- La Nina – in full swing, but not statistically connected to our weather in Utah

La Niña-Related Global Temperature and Precipitation Patterns

COLDEPISODE RELATIONSHIPS DECEMBER - FEBRUARY



COLDEPISODE RELATIONSHIPS JUNE - AUGUST



Climate Prediction Center
NCEP

- NOAA Image and text

Is it our version of hurricane season or what?

- Types of storms we get are different than hurricanes. May or June you could get violent cold fronts. Outflows from thunderstorms also can make wind speeds fast.
- Winds:
 - August (thunderstorm season) and April are the windiest months in Utah.
 - March is tied for 4th place, but all of the months have about the same average wind speeds.
- Thunderstorms
 - August 8 days on average of thunderstorms whereas March only has 1

Settle down

- Then what happens to cause things to settle down, and by what time
- When the jet stream/storm track moves north for the summer. Early to mid june we have our last cold fronts. June 15-July 4th plan your weddings.
- July is usually hot and dry. In august we often get thunderstorms.

Weather's role in spring runoff

- Utah, two factors
 - Total snow pack depth
 - How quickly we warm up
- We are a little about average in Salt Lake in Utah counties for snowpack currently.
- We have substantial snowpack at mid and lower elevations. Some is melting off now with warmer temps.
- Flood Spring of 1983. Significant snowfall and rain and heat event
- Late wet snowfall and rapid warm up – serious runoff
- Want temperatures at high elevations to remain cool, while the lower slopes, periodic storms come through, gets warmer snow falls higher up.

Heat how far away

Pattern of weather behavior into spring, then summer
heat how far away

Mid june with intermitted. Mid july peak temperatures
because of our interior location.

www.wrh.noaa.gov/slc

Record highs are in the 70s for this time of year
80s in April for records
May 90s are the record high

Variety of Temperatures

- Rock climbing in tank tops
- Pick your own weather
- Ski gear away with bikes coming out

SALT LAKE CITY NWSFO, UTAH (427598)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1948 to 12/31/2005

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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	37.5	43.3	52.4	61.5	72.1	82.9	92.6	90.3	79.5	65.8	49.9	38.7	63.9
Average Min. Temperature (F)	20.5	24.6	31.6	38.2	46.3	54.6	62.9	61.5	51.4	40.2	29.8	22.2	40.3
Average Total Precipitation (in.)	1.32	1.29	1.79	2.08	1.74	0.96	0.70	0.78	1.05	1.32	1.35	1.34	15.73
Average Total SnowFall (in.)	13.5	10.3	9.5	5.3	0.7	0.0	0.0	0.0	0.1	1.5	6.6	12.8	60.4
Average Snow Depth (in.)	2	2	0	0	0	0	0	0	0	0	0	1	0

Percent of possible observations for period of record.

Max. Temp.: 100% Min. Temp.: 100% Precipitation: 100% Snowfall: 100% Snow Depth: 100%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Greatest and Average Number of Days with Thunderstorms and Hail by Month

1928-present

Month	Thunderstorms			Hail		
	Average Days	Greatest Days	Year	Average Days	Greatest Days	Year
January	< 0.5	2	1987+	0	2	1969+
February	1	4	1936	0	2	1950
March	1	5	1958	0	2	1961
April	2	7	1930	1	3	1973+
May	5	13	1980	1	3	1998+
June	5	19	1967	1	4	1944
July	7	14	1985+	0	2	2001+
August	8	16	1952+	0	2	1991+
September	4	10	1937	0	2	1973
October	2	6	1983+	0	2	1945
November	0.5	3	1971+	0	1	1983+
December	< 0.5	3	1964	0	3	1964
Annual	37	57	1983+	3	13	1945

+ Also occurred in earlier years

JANUARY Normal Monthly Total: 1.37"	3.23	1993	.09	1961	JULY Normal Monthly Total: 0.72"
	3.14	1940	.17	1935	
	3.09	1996	.34	1948	
	2.87	1980	.39	1945	
	2.73	1953	.41	1966	
FEBRUARY Normal Monthly Total: 1.33"	4.89	1998	.12	1946	AUGUST Normal Monthly Total: 0.76"
	3.22	1936	.13	1988	
	2.84	1969	.27	1931	
	2.32	1968	.30	2002	
	2.25	2004+	.35	1990+	
MARCH Normal Monthly Total: 1.91"	3.67	1944	.14	1955	SEPTEMBER Normal Monthly Total: 1.33"
	3.56	1952	.20	1955	
	3.47	1978	.48	1934	
	3.44	1975	.56	1997	
APRIL Normal Monthly Total: 2.02"	4.90	1944	.45	1981+	OCTOBER Normal Monthly Total: 1.57"
	4.57	1974	.46	1989	
	4.55	1986	.59	1977	
	4.43	1984	.64	1985	
	3.86	1963	.65	1954	
MAY Normal Monthly Total: 2.09"	4.76	1977	T	1934	NOVEMBER Normal Monthly Total: 1.40"
	3.99	1993	.01	1940	
	3.68	1995+	.14	1972	
	3.39	1986	.18	1969	
	3.37	1957	.19	1929	
JUNE Normal Monthly Total: 0.77"	3.84	1998	T	1994	DECEMBER Normal Monthly Total: 1.23"
	2.93	1947	.01	1946+	
	2.83	1969	.03	1988	
	2.78	1944	.04	1958	
	2.73	1967+	.06	1978+	

Top 5 Snowiest, Top 5 Driest, and Normal Month

1928-present

MAX YEAR MIN YEAR

JANUARY Normal Monthly Total: 14.5"	50.3	1993	T	2003	JULY Normal Monthly Total: 0"
	45.0	1996	0.1	1961	
	32.3	1937	2.4	1938	
	20.4	1967	2.5	1925	
FEBRUARY Normal Monthly Total: 10.2"	27.9	1969	0.3	1957	AUGUST Normal Monthly Total: 0"
	27.5	1989	0.4	1988	
	22.6	1996	0.7	2002	
	20.9	1936	0.8	1953+	
MARCH Normal Monthly Total: 9.2"	41.9	1977	0	1993	SEPTEMBER Normal Monthly Total: 0.2"
	35.6	1952	T	1940+	
	33.5	1964	0.2	1992	
	30.8	1944	0.4	1959	
	25.3	1962	0.6	1955	
APRIL Normal Monthly Total: 5.7"	26.4	1974	0	2000+	OCTOBER Normal Monthly Total: 2.1"
	25.1	1984	T	1989+	
	23.6	1970	0.1	1994+	
	21.8	1955	0.2	1969	
	15.5	1958	0.3	1981	
MAY Normal Monthly Total: 0.7"	7.5	1975			NOVEMBER Normal Monthly Total: 7.9"
	5.3	1965+			
	5.0	1983			
	4.6	1978			
	2.9	1955			

National weather service climate averages

Wind Speed Average and Prevailing Direction

February 1930 - April 2003

Month	Average Speed (mph)	Prevailing Direction*
January	7.6	SE
February	8.2	SE
March	9.5	SE
April	9.7	SSE
May	9.4	SSE
June	9.4	SSE
July	9.5	SSE
August	9.7	SSE
September	9.1	SE
October	8.4	SE
November	8.1	SE
December	7.7	SE
Annual	8.9	SE

* Prevailing direction is the most frequent observed direction from which the wind blows during a specified time period.