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And  
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## Indiana State Climate Office

### Monthly Weather Report

**Feb 10, 2013**



<http://www.inclimate.org>

## January 2014 Climate Summary

### Month Summary

Unrelenting cold and snowfall this month had many Hoosiers anxious for spring. On January 6<sup>th</sup> many locations in Indiana failed to reach -10°F for their daily maximum temperature. Snowfall every 2 to 3 days kept highways slick and deadly. At least 11 weather related deaths were recorded in Indiana for January with most of these fatalities in multi-vehicle pileups on interstates. Difficult travel took a toll on the Indiana economy as many businesses were closed for more than one day this month.

The January state average temperature was 19.1°F, a frigid 6.9°F below normal. This ranks January 2014 in a tie with 1982 as the 8<sup>th</sup> coldest January on record in Indiana. The most recent colder Januarys came during the memorable three 1977-1979 winters. The 17.8°F January state average temperature in 1978 ranks as the 6<sup>th</sup> coldest on record while January 1979 was a bit colder at 17.5°F, good for 5<sup>th</sup> place. But January 1977 was brutally cold at 10.8°F, easily the coldest January since state records began in 1895. The day split in January 2014 was 20 days with below normal temperature, 9 days above normal, and 2 days at normal. The state average temperature was 10°F or more below normal on 13 days, 20°F or more below normal on 6 days, and 30°F or more below normal on 1 day. There were 3 days when the daily temperature was 10°F or more above normal. The highest temperature of the month was 56°F at Stendal and Tell City on January 27<sup>th</sup>. The coldest official temperature was -20°F on January 7<sup>th</sup> in Whitestown.

January state precipitation averaged 2.34 inches which is only 0.09 inch below normal. This places the month very near the middle of all January precipitation records. The driest January on record had a state average precipitation of 0.44 inch in 1981. In contrast the wettest January was in 1950 with 10.17 inches. Regionally January 2014 precipitation was 125% of normal in northern Indiana, right at normal in central areas, and 75% of normal in the south. Normal January precipitation varies between 1.9 and 3.1 inches north to south. The highest single day precipitation in the cooperative network this month was 2.00 inches on January 5<sup>th</sup> at Princeton. In the CoCoRaHS network the highest daily value was 2.06 inches on January 6<sup>th</sup> in Valparaiso. Widespread precipitation fell on about 15 days this month.

Snowfall varied markedly over short distances. In the Lake Michigan effect region January snow totals ranged from 20 to almost 50 inches! In extreme southwest Indiana less than an inch was received during the month. The highest January snowfall in the cooperative network was at Laporte with 49.2 inches. Among CoCoRaHS volunteers the greatest total was 42.9 inches in Leesburg. The largest single day snowfall in that network was 18.0 inches recorded on January 6<sup>th</sup>

at La Fontaine. Overall widespread snow fell on about 13 days this month. Snowfall maps are found at the end of each weekly narrative which follows.

Vehicle pileups on Indiana interstates due to slick roadways were constantly in the news. Details about the major traffic accidents and fatalities during the month are found in the weekly narratives which follow.

### **January 1<sup>st</sup> – 7<sup>th</sup>**

Winter released its fury on Indiana this week. Heavy snowfall followed by brutal cold not seen in 20 years brought most daily activities over the next two days to a standstill. News media latched on to the term “polar vortex” and its displacement southward from its normal location in explanation of this week’s extreme event. Travel restrictions were common around the state as road crews worked to dig out from heavy snows. Six deaths were attributed to the weather this week.

A stationary front was positioned over central Indiana on New Year’s Day. State average temperatures were a modest 3°F below normal. The next day a Canadian high pressure ridge dove south to Texas, splitting through the stationary front and dropping temperatures to 9°F below normal. The strong ridge moved overhead Indiana on January 3<sup>rd</sup>, forcing the cold front rapidly east into the Atlantic. Cold air poured into the state and temperatures tumbled to 20°F below normal.

The ridge moved quickly east. Behind the ridge and now enveloped into a warm air sector, Indiana temperatures soared 10°F higher each of the next two days to 3°F above normal by January 5<sup>th</sup>. The fury would now begin.

Heavy snow developed when moisture brought north by a storm in the southern states clashed with intensely cold polar air diving south from Canada. On January 6<sup>th</sup> the arctic front roared south from Montana into Texas and states eastward. The Indiana state temperature plunged to 30°F below normal that day and several towns registered a daily maximum temperature at less than -10°F, one of the coldest daily maximum temperatures recorded in their history. Temperatures remained below zero for 36 to 48 consecutive hours, from late January 5<sup>th</sup> into January 7<sup>th</sup>. Typically there are only about 10 days in the past 100 years when a city’s maximum temperature failed to rise above 0°F.

The ridge behind the front passed east of Indiana on January 7<sup>th</sup> but the state temperature only recovered a few degrees to end the week at 26°F below normal. The two strong cold fronts this week sacked the weekly average temperature, settling to nearly 14°F below normal. On all but one day this week temperatures were below normal. More typically this first week of the year daily maximum temperatures should range between 32°F in the northern tier of counties to 41°F in far southwest Indiana. Daily minimums normally vary between 18°F and 24°F north to south across the state.

The first storm of the week dropped 5 to 7 inches of snow in a northwest to southeast band across central Indiana and in a few northeastern counties. Nearly all of the northern half of the state received at least 3 inches with up to an inch in the south. As the brutal cold arrived with the polar front a few days later snow piled up another 12 to 17 inches in northern Indiana with higher amounts near Lake Michigan. About 4 to 11 inches fell across central Indiana and generally less than 4 inches were added across the south. The CoCoRaHS heaviest single day snowfall reports of the week included 18.0 inches at La Fontaine, 16.7 inches in Columbia City, and 16.5 inches at

Leesburg. When amounts from both storms are combined the highest weekly snow totals come to 27.5 inches at Hobart, 26.3 inches in Porter, and 24.8 inches at Leesburg. Three Valparaiso volunteer observers had week totals of 26.0 inches, 24.4 inches, and 24.0 inches. The largest weekly water equivalents of all the snow tallied to 3.05 inches at Valparaiso, 2.39 inches in Schererville, and 2.30 inches at Fort Wayne. The state average weekly precipitation amounts are between 1.1 and 1.3 inch, which is about 210% of normal in the north, 230% of normal in central counties, and 140% of normal in southern Indiana.

The two snow events turned Indiana highways into a nightmare for drivers. On January 2<sup>nd</sup> the fast snowfall rate and drifting made it difficult for crews to keep roads clear. Many counties reported numerous accidents and slide offs on local roads and interstates. By mid-morning state police had responded to at least 100 crashes and slide offs around Indiana. Semi-trailers overturning on icy roads were especially problematic.

Travel during and after the second storm was much worse. On January 5<sup>th</sup> travel warnings were issued initially for 11 counties in northwest and west central Indiana followed by blizzard warnings in the hardest hit areas. Interstate 80/94 was closed. Interstate 65 was closed, reopened, then closed again that afternoon between Gary and Lafayette as officials said they didn't have enough resources to keep up with the drifting snow. While I-65 was closed state police rescued 95 slide off victims and assisted 57 other motorists. Stranded travelers were transported to Red Cross temporary shelters along the route. Motels were filled at both ends of the closure. By the end of the day nearly all 92 counties were under a travel warning.

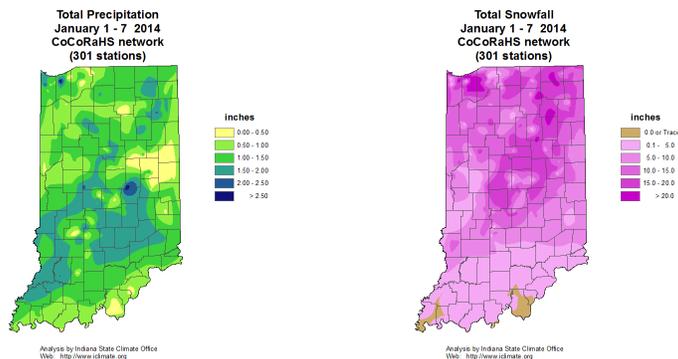
The snow was ending but arctic cold gripped Indiana on January 6<sup>th</sup>. Several towns set new records for their lowest daytime maximum temperature for the date, failing to reach -10°F. Wind chills as low as -46°F were common across Indiana. Nearly all businesses, schools, and health care facilities in the travel warning areas were closed. There were scarcely any traffic accidents due to the lack of traffic. This was evident at hospital emergency rooms which were unusually quiet with fewer patients than normal. Trains were shut down in northern Indiana due to all the snow and drifting. Road crews worked long hours to clear roads in bitter cold that caused diesel fuel to gel and snow removal equipment to break more easily. Losing that battle, road crews changed strategy and worked with county emergency management and the Indiana National Guard to focus on emergency transportation or to reach stranded travelers in rural areas rather than on clearing snowy roads. The extreme cold knocked out older furnaces and froze exposed pipes. Heating and plumbing companies reported a brisk business on January 5<sup>th</sup> and 6<sup>th</sup> with trips to many homes experiencing furnace breakdowns and frozen pipes. Statewide at least 25,000 homes and businesses were without power. Marion, Vigo, and Morgan counties seemed to be the hardest hit.

Interstate 65 was reopened on January 7<sup>th</sup> but drivers were warned they travelled at their own risk as road conditions were still poor. State highways and county roads remained impassible due to blowing and drifting snow and to abandoned semi-trucks and cars blocking routes. Road salt did not work well to melt ice covered roads to the pavement due to the frigid temperatures. Public transportation struggled to resume normal operations. Wind chill warnings remained after the roads were reopened to traffic. Yet there were few serious injuries during the snowstorm and arctic cold outbreak as most people stayed indoors. Some buildings and businesses remained closed on January 7<sup>th</sup>.

Life started to return to normal by January 8<sup>th</sup> and assessments of the storm impacts began. Governor Pence announced a state disaster emergency for 29 counties impacted by the storm. This action opened these counties to state assistance as needed. The counties included were: Clinton, Delaware, Elkhart, Fulton, Grant, Howard, Jasper, Kosciusko, Lagrange, Lake, Laporte, Madison, Marshall, Montgomery, Newton, Noble, Porter, Pulaski, Rush, St Joseph, Starke, Steuben, Sullivan, Tipton, Vermillion, Vigo, Wabash, White, and Whitley.

Six Indiana deaths have been attributed to the storm. Two occurred in Anderson. A young man was found in the snow on the afternoon of January 7<sup>th</sup>. An elderly man collapsed and died of heart trouble while shoveling snow on January 5<sup>th</sup>. In Indianapolis four deaths occurred. One man collapsed on January 5<sup>th</sup> while shoveling snow. The next day two elderly Indianapolis women fell outdoors and froze to death. Also on January 6<sup>th</sup> an Indianapolis man collapsed in the street and died.

Closed highways restricted travel and stopped all commercial deliveries. Suppliers couldn't get to manufacturing plants. An example of the impact on commercial distribution is the Fair Oaks Farm dairy operation. Operators there estimated a daily loss of a half million dollars in milk that had to be disposed down the drain because it could not be sent to markets in neighbor states. Also incoming trucks were left stranded in other states with no way to reach the farm in northwest Indiana. Business executives commented that the loss of consecutive production days is rare and probably only occurs once in 20 years. The deployment of 250 Indiana National Guard troops were estimated to cost the state \$59,000 by noon on January 6<sup>th</sup>. State police logged over 2,000 phone calls in 24 hours during the storm. Schools incurred expenses due to buses with frozen batteries and diesel fuel jelling. Cancelled sports events at some schools was revenue lost to the storm. No doubt there are many other economic losses that will be highlighted as assessments continue.



## January 8<sup>th</sup> – 14<sup>th</sup>

After the prior week of winter misery Indiana residents welcomed this new week of much warmer temperatures and much less snowfall. In the upper atmosphere the jet stream had resumed a more zonal flow pattern over Indiana which blocked new arctic air mass invasions, at least temporarily.

Yet early in the week there were unpleasant after effects of winter's blast a week ago as roadways were slow to melt off and the highway accident count continued to climb.

The week began with a state average temperature 15°F below normal, the coldest of the week. A weak cold front was entering Indiana but on January 9<sup>th</sup> stalled as a stationary front along the Ohio River. Indiana had dodged the brunt of this cold air push which headed east, allowing the state average temperature to rebound to 1°F below normal. A strong 3 day warm up was underway. The state temperature rose to 8°F above normal by January 10<sup>th</sup> with little movement of the stationary front.

Another cold front passed quickly through Indiana on January 11<sup>th</sup> but this ushered in a mild air mass which originated from the warmer Pacific Ocean rather than from arctic cold Canada. Indiana temperatures continued upward to 15°F above normal. As high pressure moved south and east of Indiana warm southwest winds sustained temperatures near this peak through January 13<sup>th</sup>. The third cold front of the week moved through the state on January 14<sup>th</sup>, lowering temperatures slightly to 9°F above normal to close out the week. Overall for the week the state temperature averaged 6°F above normal. Only 2 of the 7 days had below normal temperature! Usually for this second week of the year daily maximum temperatures should vary between 31°F and 41°F north to south across the state. Normal daily minimums should range from 17°F in far northern Indiana to 24°F in the southwest corner of the state.

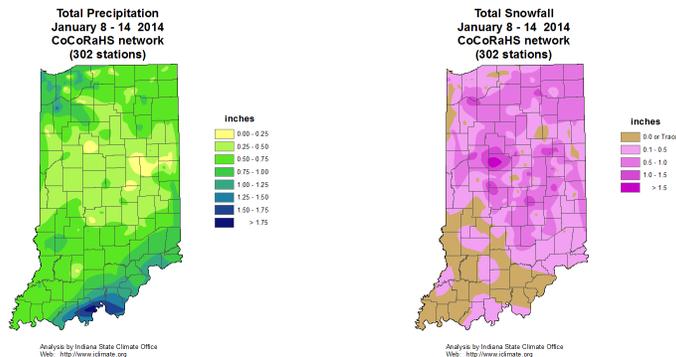
Precipitation early in the week fell as snow but transitioned into all rain during January 10<sup>th</sup> as air temperatures warmed to above normal. Up to an inch of snow was recorded on January 9<sup>th</sup> in northern Indiana. The next day up to 2 inches of snow fell in west central Indiana with lighter amounts elsewhere in northern and central Indiana. The largest daily snowfall amounts in the CoCoRaHS network were reported on January 10<sup>th</sup> and included 2.0 inches in Mulberry, 1.7 inch at New Castle, 1.6 inch at New Ross, and 1.5 inch in both Wheatfield and West Lafayette. The highest snow totals for the week were very similar to these numbers.

The rest of the week precipitation fell as rain. On January 11<sup>th</sup> state rainfall averaged near 0.5 inch with very light amounts the rest of the week. There were locally higher amounts reported that day. The CoCoRaHS observer in Leopold measured 1.53 inch. In northwest Indiana the Demotte volunteer noted 1.40 inch while Dyer had 1.12 inch and two Laporte observers had 1.12 and 1.11 inch. Precipitation includes the water content of melted snowfall and rainfall. Total precipitation for the week averaged near 0.6 inch in the northern part of the state, 0.5 inch in central areas, and 0.9 inch in the south. These amounts represent about 150% of normal in northern Indiana, 110% of normal in central, and 160% of normal in southern counties. Higher local weekly total precipitation numbers were noted at Leopold with 1.96 inch, at Demotte with 1.45 inch, and in Milltown with 1.41 inch.

Dangerous road conditions persisted through the first few days of the week. The big thaw would soon begin but new snowfall would make roads icy for yet a few more days. On January 8<sup>th</sup> multiple crashes continued especially on the interstates as road salt began to melt the ice but the ice became slicker. Traffic increased as travel restrictions were lifted with temperatures above zero for the first time in nearly two days. It wasn't long before state police reported 3 semi-trailers had skidded into the median on I-65 near Lafayette. Other drivers were still trying to retrieve their vehicles stranded from a few days before.

As time passed since the January 5<sup>th</sup> storm most power outages had been resolved. Some rural schools remained closed for 5 days until all bus routes could be cleared, though being closed for an entire week was uncommon in past snow events. Hundreds of county schools had applied to the state for missed school day waivers.

Despite the massive snow melt Indiana rivers were able to handle the new surge in stream flow. Only minor flooding was reported on the state's major river watersheds.



## January 15<sup>th</sup> – 21<sup>st</sup>

The first week of this month was much too cold and the second week was warmer than normal. Temperatures this third week were both above and below normal, but coping with the weather certainly wasn't comfortable or easy. Six cold fronts passed through Indiana in just 7 days! The relentless parade of Alberta clipper systems with frequent snowfall caused almost daily multiple vehicle pileups on slick Indiana highways with deaths and injuries.

The week opened with a moderate state temperature at 1°F above normal. The cold front of the first in a series of fast clipper systems this week was barely through Indiana when warmer air ahead of a second clipper arrived on January 16<sup>th</sup>. This was a complex storm system with two cold fronts that crossed the state the next day, lowering temperatures to 6°F below normal.

The state temperature held rather steady into January 18<sup>th</sup> as southerly winds returned in advance of a third clipper already on the way. The cold front of this clipper and the next on January 20<sup>th</sup> tapped into warmer air from western states rather than an air mass in Canada. State temperatures responded by rising to normal by January 19<sup>th</sup> and to 5°F above normal the next day, the warmest day of the week. The cold front of the next clipper system raced through Indiana on January 21<sup>st</sup>, this time reconnecting to the arctic air of Canada. The state temperature plunged to 12°F below normal to end the week. Overall for the week the state temperature averaged 3°F below normal. Usually for this week in January daily maximum temperatures should range between 31°F in far northern Indiana to 41°F in the extreme southwest. Normal daily minimums should vary between 17°F and 24°F north to south across the state.

Snowfall totals this week were heaviest in the northeast half of the state with lighter amounts in southwest Indiana. The highest daily snowfall in the CoCoRaHS network was recorded on the morning of January 19<sup>th</sup> with 6.3 inches measured at Muncie, 5.6 inches in West Lafayette, and 5.5 inches noted at Atlanta and Yorktown. For the weekly total two Atlanta observers noted 14.5 inches and 12.2 inches, the largest total among CoCoRaHS observers. Some other high weekly totals were tallied in West Lafayette with 10.9 inches and at Muncie with 10.5 inches. The McCordsville volunteer had 9.8 inches for the week.

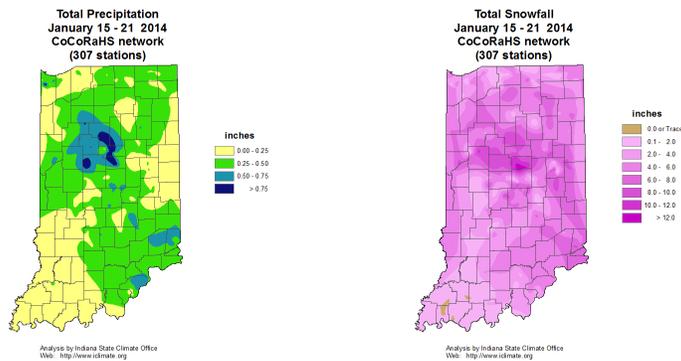
Precipitation data this week indicates the water content of the snow was drier than usual. Among the highest daily precipitation reports of January 19<sup>th</sup> were Kokomo with 0.55 inch, and 0.50 inch at both Indian Heights and Tipton. The largest precipitation totals for the week were 1.04 inch in Schererville, 0.79 inches at Burnettsville, and 0.71 inch in West Lafayette. The total at Aurora was 0.69 inch while 0.66 inch was collected at Shelbyville. Regional precipitation averaged near 0.3 inch across northern and central Indiana, and 0.2 inch in the south. These amounts equate to about 70% of normal in the northern two thirds of the state and 55% of normal in the south.

Storms moving through Indiana every day or two meant highways were almost constantly slick despite the best attempts at ice and snow removal. Multiple vehicle accidents were nearly a daily occurrence. On January 16<sup>th</sup> police were kept busy with slide offs and property damage accidents, some with minor injuries to drivers. State police responded to 44 accidents and slide offs on Interstates 65 and 74. A major accident with moderate injuries involved 4 jackknifed semi-trailers and 3 passenger vehicles between Frankfort and Lebanon on I-65. A few minutes later a semi-trailer struck an Indiana trooper's car on I-74 while the officer was working a prior accident. A fatal accident closed I-70 about 30 miles east of Indianapolis. Another 20 miles to the east a semi-trailer rolled over requiring traffic to be rerouted. In western Indiana near Brazil a semi-trailer slammed into 5 vehicles stopped on I-70, injuring two drivers. In Vigo county 6 teenagers were hurt when their car slid through an intersection and hit another vehicle. Another accident nearby involved a school bus but there were no injuries. In Carroll county a school bus was rear ended by a pickup truck on a state highway but fortunately with no injuries.

On the afternoon of January 18<sup>th</sup> two semi-trailers caught fire as part of a 13 vehicle pileup in Tippecanoe county. Traffic was backed up for miles for 14 hours until the road was reopened early the next morning. Four people were injured in that pileup. In another incident on a snow-covered state highway in Carroll county a man died from injuries in a head-on collision with a car. A travel advisory was in effect at the time.

No snow fell on January 19<sup>th</sup> but high winds caused drifting of snow and slick roads the next day. Several counties reported many slide offs on area highways. A jackknifed semi-trailer closed I-65 for two hours in White county. The Indiana toll road temporarily banned some trucks due to the expected heavy snowfall and windy conditions.

On January 21<sup>st</sup> a 60 mile stretch of I-65 was closed between Columbus and Louisville KY due to dangerous road conditions. The highway was reopened later in the day. Meanwhile a band of lake effect snow caused whiteout conditions in Lake county where I-80/94 traffic came to a standstill. Eventually 31 counties issued travel advisories for the day.



## January 22<sup>nd</sup> – 31<sup>st</sup>

It was back to the deep freeze these last 10 days of January. State average temperatures were below normal, and at times far below normal, each day. Snowfall totals were heavy but water content light as precipitation came in below normal. Travel conditions remained poor as they have been throughout the month. A 30-vehicle pileup on I-94 killed 3 people on January 23<sup>rd</sup>.

The 10 day interval started very cold with the state temperature at 21°F below normal. An occluded front moved across the state on January 23<sup>rd</sup>, reinforcing the polar air in place and dropping the temperature to 26°F below normal, the coldest day of the week. High pressure in southern states helped rewarm Indiana over the next 3 days. Another cold front slipped through the state on January 25<sup>th</sup> but had little impact as a fast Alberta clipper system was right behind it. Warm air from this new system gradually replaced colder air at the ground and kept temperatures rising to just 2°F below normal by January 26<sup>th</sup>. Both the warm and cold fronts of the clipper moved through Indiana on January 27<sup>th</sup>.

Another round of the polar air invasion was underway. State temperatures sunk to 25°F below normal as a cold high pressure ridge moved overhead. The final temperature rebound of the month occurred over the last 3 days of January. The month closed with the state average temperature right at normal. The thermometer had swung wildly up and down over the 10 day interval but always on the cold side of normal. The 10 day average departure was 14°F below normal. Typical daily maximum temperatures in late January should range between 31°F and 42°F north to south across the state. Normal daily minimums vary between 18°F in far northern counties to 24°F in the extreme southwest.

Snowfall over the 10 days was very heavy near Lake Michigan with totals there running between 14 and 22 inches. Some of the highest totals included 22.3 inches in Granger, 17.5 inches at South Bend, and 15.8 inches in Trail Creek. The maximum single day amount recorded by CoCoRaHS observers included 7.0 inches at Merrillville, 6.0 inches at Warsaw and New Carlisle, with two Granger volunteers measuring 5.7 and 5.5 inches.

Generally in the northeast half of Indiana away from Lake Michigan 4 to 14 inches of snow accumulation was common with less than 4 inches elsewhere. Amounts trended lower moving south and west across the state. In far southwestern counties little or no snow fell.

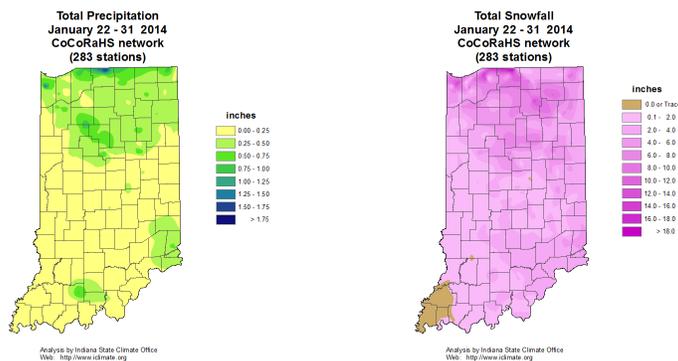
Water content of the snowfall over the 10 days was not exceptionally high. Some of the larger precipitation amounts were Granger with 1.85 inch, South Bend at 1.67 inch, Burnettsville with 0.96 inch, while Angola had 0.92 inch. Regional precipitation averages were just 0.4 inch in northern Indiana, 0.2 inch in central areas, and 0.1 inch across the south. These totals equate to about 70% of normal in the north, 20% in central, and 10% of normal in southern Indiana.

Snow covered roads and whiteout conditions made travel treacherous as has been the case all this month. On January 23<sup>rd</sup> 3 people were killed on I-94 near Michigan City in a 30 vehicle pileup which included 15 semi-trucks. Some of the vehicles were sandwiched between the semi-trailers and caught fire. Twenty people were injured in this accident which was caused by sudden whiteout conditions when bands of snow blew inland off Lake Michigan. The interstate was closed overnight while the wreckage was cleared.

On January 25<sup>th</sup> a 7 vehicle pileup closed state road 43 for a few hours near Brookston in White county. Injuries were not reported.

Travel problems continued into the very last day of the month. On January 31<sup>st</sup> a large number of slide offs and accidents on Indiana interstates resulted in more traffic jams for drivers.

The frequent January snowfalls were proving expensive for local governments, several who have run out of road salt and must re-order with at least another full month of winter left to go. Overtime costs and use of outside contractors is also straining local snow removal budgets. Pipes that have repeatedly frozen and burst in public buildings will force some cities to decide whether to move to another location in town as water damage costs continue to add up. The escalating price and shortage of propane gas for home heating is a concern for individuals using this fuel source.



## January 2014

Region	Temperature	Temperature	
		Normal	Deviation
Northwest	15.2	23.0	-7.8
North Central	15.0	23.2	-8.2
Northeast	14.8	23.1	-8.3
West Central	18.5	25.1	-6.7
Central	18.5	25.3	-6.9
East Central	17.9	24.7	-6.8
Southwest	24.6	29.9	-5.3
South Central	24.0	29.9	-5.9
Southeast	22.2	29.1	-6.9
<b>State</b>	19.1	26.0	-6.9

Region	Precipitation	Precipitation		
		Normal	Deviation	Percent of Normal
Northwest	2.39	1.88	0.51	127
North Central	2.49	2.05	0.44	121
Northeast	2.48	1.98	0.49	125
West Central	2.14	2.28	-0.15	94
Central	2.41	2.34	0.06	103
East Central	2.33	2.29	0.04	102
Southwest	2.12	3.00	-0.88	71
South Central	2.47	3.10	-0.64	79
Southeast	2.30	3.00	-0.70	77
<b>State</b>	2.34	2.44	-0.09	96

## Winter so far (December and January)

<b>Region</b>	<b>Temperature</b>	<b>Temperature</b>	
		<b>Normal</b>	<b>Deviation</b>
Northwest	19.9	25.8	-5.9
North Central	20.2	25.9	-5.8
Northeast	20.5	25.9	-5.4
West Central	23.3	27.8	-4.5
Central	24.1	28.0	-3.9
East Central	23.8	27.4	-3.6
Southwest	28.7	32.2	-3.6
South Central	28.6	32.2	-3.6
Southeast	27.9	31.6	-3.6
<b>State</b>	24.1	28.6	-4.4

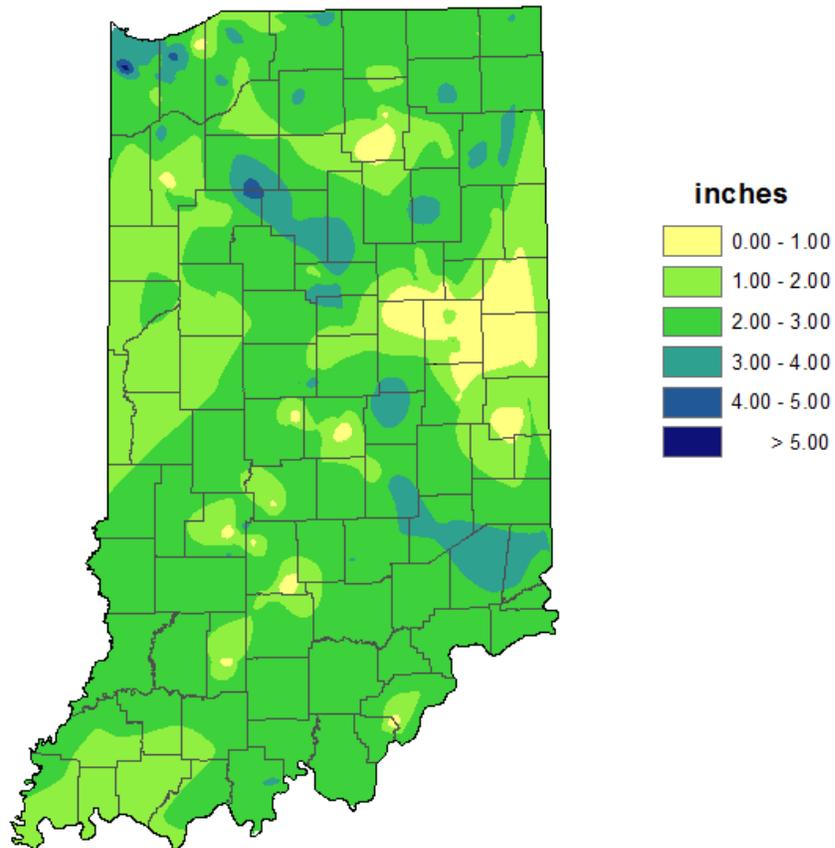
<b>Region</b>	<b>Precipitation</b>	<b>Precipitation</b>		
		<b>Normal</b>	<b>Deviation</b>	<b>Percent of Normal</b>
Northwest	4.63	4.53	0.10	102
North Central	5.14	4.84	0.30	106
Northeast	5.47	4.67	0.80	117
West Central	5.95	5.25	0.70	113
Central	7.37	5.33	2.05	138
East Central	7.43	5.16	2.27	144
Southwest	8.85	6.53	2.32	135
South Central	8.61	6.66	1.95	129
Southeast	7.52	6.41	1.11	117
<b>State</b>	6.82	5.49	1.33	124

## 2014 Annual (same as January)

Region	Temperature		
	Temperature	Normal	Deviation
Northwest	15.2	23.0	-7.8
North Central	15.0	23.2	-8.2
Northeast	14.8	23.1	-8.3
West Central	18.5	25.1	-6.7
Central	18.5	25.3	-6.9
East Central	17.9	24.7	-6.8
Southwest	24.6	29.9	-5.3
South Central	24.0	29.9	-5.9
Southeast	22.2	29.1	-6.9
<b>State</b>	19.1	26.0	-6.9

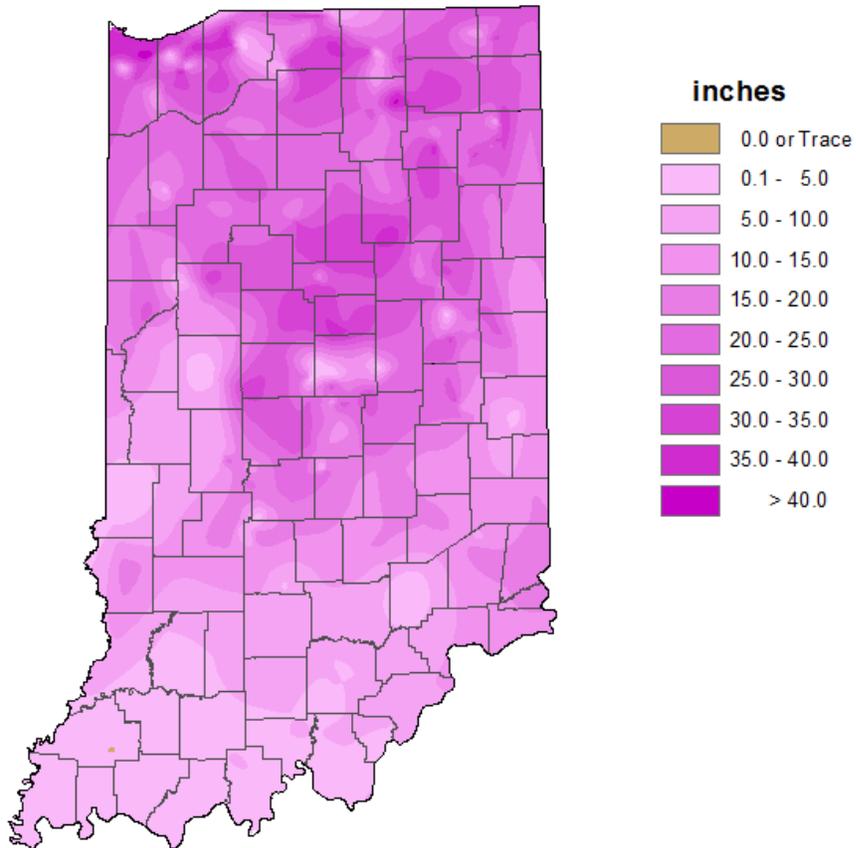
Region	Precipitation			
	Precipitation	Normal	Deviation	Percent of Normal
Northwest	2.39	1.88	0.51	127
North Central	2.49	2.05	0.44	121
Northeast	2.48	1.98	0.49	125
West Central	2.14	2.28	-0.15	94
Central	2.41	2.34	0.06	103
East Central	2.33	2.29	0.04	102
Southwest	2.12	3.00	-0.88	71
South Central	2.47	3.10	-0.64	79
Southeast	2.30	3.00	-0.70	77
<b>State</b>	2.34	2.44	-0.09	96

**Total Precipitation  
January 2014  
CoCoRaHS network  
(299 stations)**



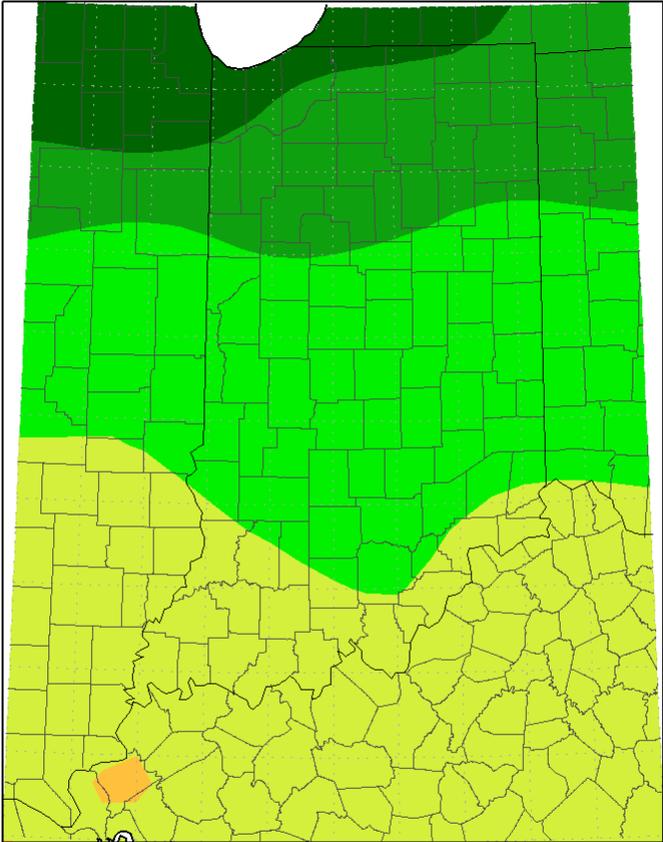
Analysis by Indiana State Climate Office  
Web: <http://www.iclimate.org>

**Total Snowfall  
January 2014  
CoCoRaHS network  
(299 stations)**

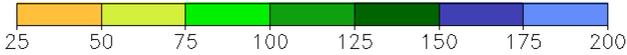


Analysis by Indiana State Climate Office  
Web: <http://www.iclimate.org>

Accumulated Precipitation: Percent of Mean  
January 1, 2014 to January 31, 2014

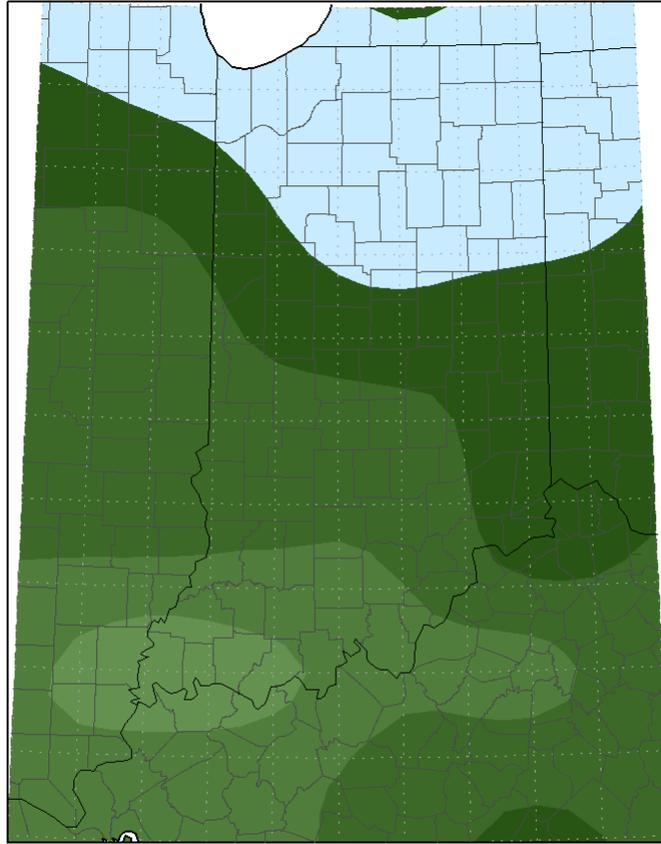


Mean period is 1981-2010.



Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
Generated at: 2/10/2014 9:20:36 AM CST

Average Temperature (°F): Departure from Mean  
January 1, 2014 to January 31, 2014



Mean period is 1981-2010.



Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
Generated at: 2/10/2014 9:22:44 AM CST

## *Drought Summary from the U.S. Drought Monitor*

Below is a drought summary for the state of Indiana from the U.S. Drought Monitor. Areas in white are not experiencing any drought. Yellow areas are abnormally dry, but not considered a drought. Drought begins when the moisture levels become more severe, with beige, orange, red, and brown indicating increasing levels of drought (moderate, severe, extreme, and exceptional, respectively). The table below indicates what percentage of the state is drought free, and how much of the state is in drought by degree of severity (D1 - D4 category).

Indiana

**Drought Severity**

D0 - Abnormally Dry

D2 Drought - Severe

D4 Drought - Exceptional

D1 Drought - Moderate

D3 Drought - Extreme

**Statistics type:**  Traditional (D0-D4, D1-D4, etc.)  Categorical (D0, D1, etc.)

### Percent Area in U.S. Drought Monitor Categories

Week	Nothing	D0-D4	D1-D4	D2-D4	D3-D4	D4
2/4/2014	100.00	0.00	0.00	0.00	0.00	0.00
1/28/2014	100.00	0.00	0.00	0.00	0.00	0.00
1/21/2014	100.00	0.00	0.00	0.00	0.00	0.00
1/14/2014	100.00	0.00	0.00	0.00	0.00	0.00
1/7/2014	100.00	0.00	0.00	0.00	0.00	0.00

*January 7<sup>th</sup> Drought Summary*



*January 14<sup>th</sup> Drought Summary*



*January 21<sup>st</sup> Drought Summary*



*January 28<sup>th</sup> Drought Summary*

