

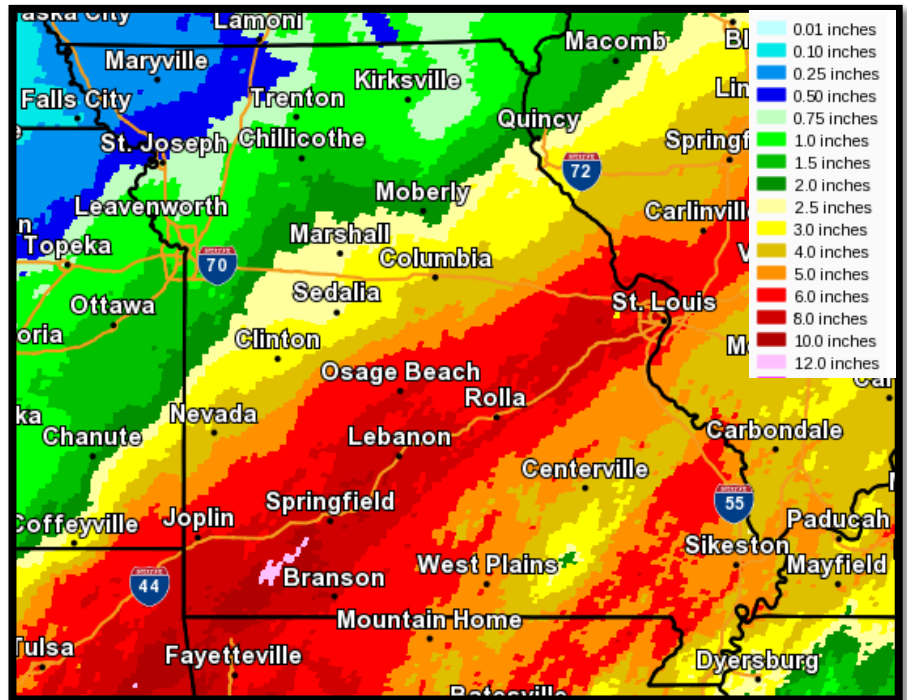
December 2015 Historic Heavy Rainfall and Flooding Event

Overview

A prolonged period of rainfall occurred from the early morning hours of December 26th to the evening of December 28th. The heaviest rainfall occurred in a 50 to 75 mile wide swath from southwest Missouri through the Greater St. Louis Metropolitan Area and into central Illinois. Storm total rainfall within this swath ranged from 6 to 12 inches, with lighter amounts extending both northwest and southeast. Some of the precipitation fell as a wintry mix of freezing rain, sleet and snow across northwest portions of the state during the event.

The heavy rainfall led to widespread life threatening flash flooding and historic river flooding along the Bourbeuse and Meramec Rivers. Three Interstates were closed due to river flooding. Interstate 70 was closed in St. Peters, Missouri and Pocahtonas, Illinois, Interstate 44 was closed in Valley Park and two locations west of Rolla, Missouri, and Interstate 55 was closed near Arnold, Missouri. This severely impacted travel and commerce across the center of the country. Unfortunately, there were six confirmed fatalities due to flash flooding and many business and homes were damaged or destroyed by this historic flooding event.

Storm Total Rainfall	
ST. LOUIS	9.18"
COLUMBIA	4.49"
JEFFERSON CITY	5.17"
CHESTERFIELD	7.85"
ST. CHARLES	8.04"
FARMINGTON	5.99"
QUINCY	2.58"
CAHOKIA	5.91"
BELLEVILLE/SCOTT	5.31"
PITTSFIELD	3.82"
SPARTA	5.53"
SALEM	3.05"



Storm Total Rainfall

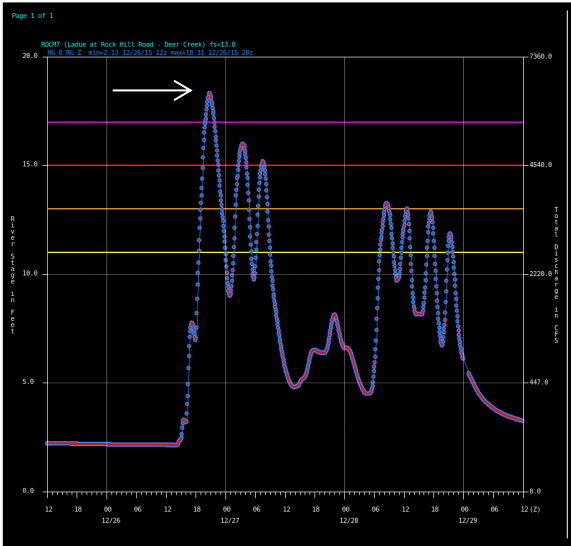
The following records were broken during this event:

St. Louis

- Wettest Year on Record 61.24" (Old Record 57.96" in 2008)
- Wettest December on Record 11.74" (Old Record 7.82" in 1982)
- December 26th Record Rainfall of 4.87"
- December 26th Rainfall of 4.87" set Daily Rainfall Record for December
- December 26th Rainfall was 3rd Wettest Day Ever Recorded in St. Louis History
- December 28th Record Rainfall of 2.59"

Flash Flooding

The first wave of heavy rain develop Saturday morning with embedded thunderstorms and incredible rainfall rates for December. Rainfall amounts of 3 to 5 inches were common in a 50 mile swath along a line from Springfield, Missouri through St. Charles, Missouri to Decatur, Illinois. The lack of vegetation and previous rainfall three days prior (above normal soil moisture) led to excessive runoff and flash flooding of low lying areas. Nearly every small creek and tributary under the heavy band of rainfall responded quickly to flood stage, sending water onto well traveled roads and into businesses and homes. For example, Deer Creek in Brentwood (St. Louis County, Missouri) rose nearly 11 feet in just 3 hours Saturday morning (hydrograph below) along with the Black Creek, sending water onto Manchester Blvd (photo below). Eight swift water rescues were performed as motorists became trapped in the rapidly rising water.



ROCM7 -Deer Creek Hydrograph in Brentwood



Manchester Blvd. in Brentwood (St. Louis County, Missouri)
Photo Courtesy of Post Dispatch



Multiple Water Rescues in Lake St. Louis
(St. Charles County, MO)



Storm Total Rainfall

In Northeast Missouri...

Ashburn	:	3.57"	DCP
Bowling Green	:	4.21"	COOP
Canton L/D20	:	2.58"	COOP
Cannon Dam	:	3.03"	COOP
Clarksville L/D24	:	4.47"	COOP
Edina	:	1.94"	COOP
Ewing	:	2.57"	DCP
Frankford	:	3.39"	DCP
Hannibal	:	3.51"	COOP
Madison	:	2.53"	DCP
Monroe City	:	3.36"	COOP
New London	:	2.87"	DCP
Novelty 1E	:	2.14"	MONET
Palmyra	:	3.80"	COCORAHS
Paris	:	3.13"	DCP
Perry	:	3.40"	DCP
Santa Fe	:	3.68"	DCP
Saverton L/D	:	4.00"	COOP
Shelbina	:	2.87"	COOP
Shelbyville	:	2.40"	COCORAHS
Steffenville	:	2.64"	COOP
Taylor 5 SW	:	3.03"	COCORAHS
Vandalia	:	4.08"	COOP

In Central Missouri...

Americus	:	6.73"	COCORAHS
Ashland	:	4.77"	COCORAHS
Auxvasse	:	4.19"	MONET
Brazito	:	6.97"	COCORAHS
California	:	5.19"	COOP
Columbia U OF M	:	3.93"	COOP
Centralia	:	3.43"	DCP
Freedom	:	8.35"	COOP
Fulton	:	4.30"	COCORAHS
High Hill	:	5.40"	COCORAHS
Holts Summit	:	4.98"	COCORAHS
Jefferson City	:	4.99"	COOP
Linn	:	7.28"	COCORAHS
Lupus	:	3.69"	COCORAHS
Mexico	:	3.72"	COCORAHS
Middleton	:	4.75"	COCORAHS
Montgomery City	:	6.42"	COCORAHS
St. Thomas	:	5.28"	DCP
Swiss	:	7.53"	COCORAHS
Wellsville	:	4.61"	COCORAHS
Williamsburg	:	3.94"	MONET

From our Saint Louis Metronet...

In East-Central Missouri...

Cedar Hill	:	6.99"	COCORAHS
De Soto	:	6.32"	COOP
Festus	:	5.74"	COOP
Grays Summit	:	9.49"	COCORAHS
Hermann	:	6.92"	COOP
House Springs	:	8.28"	COCORAHS
Imperial	:	6.47"	COCORAHS
Labadie	:	8.95"	DCP
Lyon	:	9.44"	COCORAHS
Moscow Mills	:	7.34"	MONET
New Haven	:	7.97"	DCP
Pacific	:	7.38"	DCP
Rosebud	:	9.62"	COOP
St. Clair	:	8.74"	COCORAHS
Sterling	:	5.45"	DCP
Troy 1 E	:	6.94"	COOP
Truxton 3 S	:	5.99"	COCORAHS
Union	:	9.00"	COCORAHS
Warrenton	:	8.86"	COCORAHS
Washington	:	9.80"	COOP
Winfield L/D25	:	6.92"	COOP

Alton L/D	:	10.78"	COOP
Arnold	:	7.18"	DCP
Belleville	:	5.57"	COCORAHS
Black Jack	:	8.94"	DCP
Centerville	:	5.87"	COCORAHS
Chesterfield	:	9.48"	COOP
Cottleville 1E MO	:	11.00"	COOP
Edwardsville 2W	:	9.03"	COOP
Eureka	:	7.85"	DCP
Harvester MO	:	10.95"	COOP
Lake Saint Louis MO	:	7.56"	COOP
O Fallon	:	8.79"	COOP
Oakville	:	7.16"	DCP
Pacific	:	7.38"	DCP
Pontoon Beach	:	8.57"	COCORAHS
Saint Charles MO	:	10.57"	COOP
Saint Peters MO	:	10.45"	COOP
STL Science Center	:	7.89"	COOP
Valley Park MO	:	9.34"	DCP
Washington Park	:	7.05"	COCORAHS
Weldon Spring NWS	:	10.37"	COOP
Winfield L/D	:	6.92"	COOP

Storm Total Rainfall Continued

In Southeast Missouri...

Annapolis	:	4.83"	DCP
Bixby	:	5.96"	DCP
Brickeys	:	4.91"	DCP
Carr Creek	:	4.17"	RAWS
Cooks Station	:	6.35"	MONET
Council Bluff	:	6.63"	RAWS
Cuba	:	8.34"	COCORAHS
Desloge	:	5.08"	DCP
Ellington	:	5.30"	COCORAHS
Farmington	:	6.26"	COCORAHS
Fredericktown	:	5.46"	DCP
Hawn State Park	:	5.30"	COOP
Irondale	:	6.81"	DCP
Jonhsons Shut-In SP	:	5.45"	DCP
Libertyville	:	5.29"	DCP
Pilot Knob	:	4.85"	DCP
Potosi 5SW	:	7.00"	COOP
Roselle	:	5.02"	DCP
Sainte Genevieve	:	5.77"	COOP
Steelville	:	6.85"	DCP
Sullivan	:	8.50"	DCP
Viburnum	:	5.83"	COOP
Weingarten	:	6.22"	COCORAHS

In Central Illinois...

Coffeen	:	8.53"	DCP
Greenville 2NE	:	8.50"	COOP
Hillsboro	:	8.07"	COOP
Hoffman	:	4.34"	DCP
Iuka 12SW	:	4.51"	COOP
Odin	:	4.88"	COCORAHS
Patoka	:	5.40"	COOP
Pierron	:	5.84"	DCP
Posey	:	4.49"	DCP
Ramsey	:	5.78"	DCP
Salem	:	5.28"	COOP
Vandalia	:	5.62"	DCP
Venedy Station	:	5.19"	DCP
Wenonah	:	6.98"	COCORAHS

In West-Central Illinois...

Florence	:	4.44"	DCP
La Grange L/D	:	3.15"	DCP
Meredosia	:	4.55"	DCP
Perry 6NW	:	4.10"	COOP
Pittsfield	:	4.88"	COOP
Quincy L/D21	:	2.79"	COOP
Ripley	:	3.05"	DCP
White Hall 1E	:	5.81"	COOP

In Southwest Illinois...

Albers	:	4.74"	COOP
Carlinville	:	7.42"	COCORAHS
Chester	:	6.06"	DCP
Fayetteville	:	4.20"	DCP
Freeburg	:	4.64"	DCP
Girard	:	6.22"	COCORAHS
Grafton	:	8.13"	DCP
Hardin	:	6.63"	DCP
Hecker	:	4.65"	DCP
Highland	:	5.95"	COOP
Jerseyville 2SW	:	6.89"	COOP
Kaskaskia L/D	:	4.07"	DCP
Mount Olive 1E	:	8.54"	COOP
Medora	:	7.14"	COOP
Nashville 4NE	:	5.71"	COOP
Okawville	:	5.76"	COCORAHS
Prairie Du Rocher	:	5.90"	COOP
Red Bud	:	5.78"	COOP
Royal Lakes	:	8.56"	COCORAHS
Sparta	:	6.74"	COCORAHS
Saint Libory	:	5.81"	COOP
Steeleville	:	6.71"	COOP
Worden	:	8.90"	COCORAHS

Please note that while the severe weather data presented in this event synopsis has been quality controlled, it is still considered unofficial. Official reports & statistics for severe weather events can be found in the **Storm Data** publication (<http://www.ncdc.noaa.gov/IPS/sd/sd.html>) or **Storm Events Database** (<http://www.ncdc.noaa.gov/stormevents/>), available from the National Centers for Environmental Information (NCEI) web page [formerly the National Climate Data Center (NCDC)].

More detailed tornado track information can be accessed using the National Weather Service Damage Assessment Toolkit for all tornadoes beginning in 2012. <https://apps.dat.noaa.gov/StormDamage/DamageViewer/>

Any questions regarding this event review should be address to w-lsx.webmaster@noaa.gov