

# December 31st – January 3rd Heavy Rainfall/Flooding and Snowfall

National Weather Service Charleston, WV

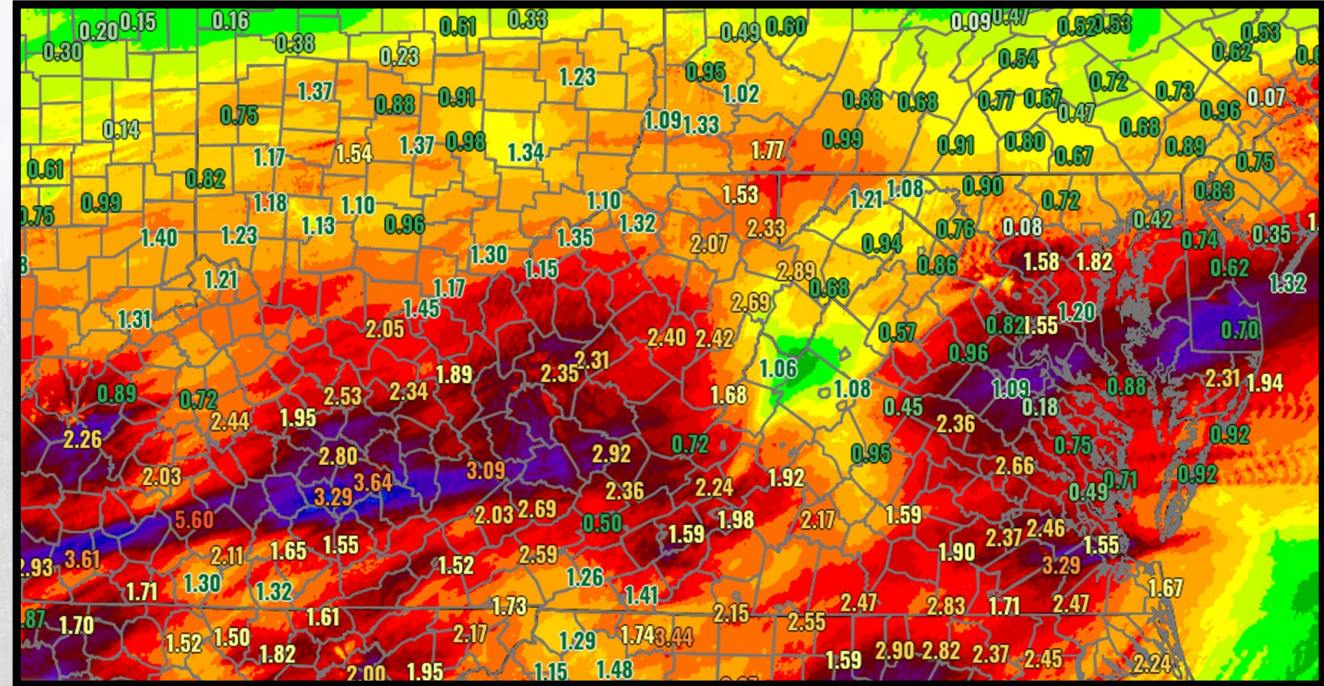
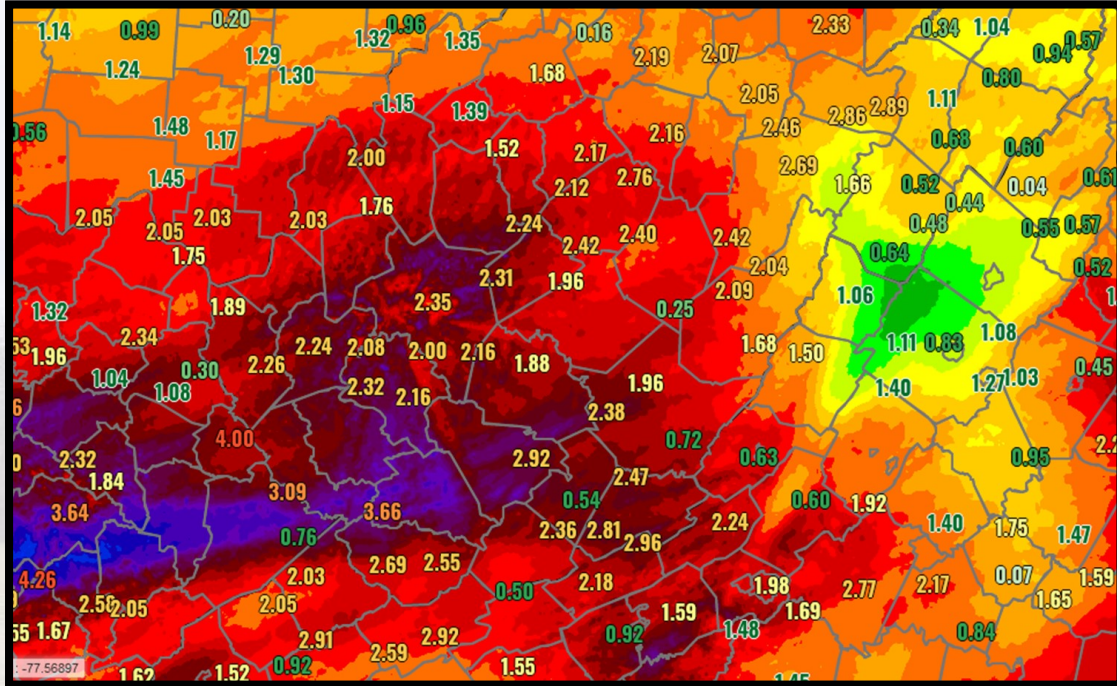


Photo courtesy of the National  
Weather Service Charleston, WV

# December 31st – January 2nd Heavy Rainfall/Flooding Overview

Waves of rain, moderate to heavy at times, affected the region over an extended period as a frontal boundary lingered across the area with waves of low pressure moving along it. Scattered showers initially moved in during the afternoon and evening hours of December 31st. Rainfall would then quickly increase in coverage and intensity during the early morning hours of January 1st, with widespread rain affecting the region by dawn. Precipitation would gradually lift northward throughout the day into northern portions of the Charleston NWS forecast area, before shifting back southeast across the region, with gusty winds at times, during the evening and into the early morning hours of January 2nd as a cold front swept through. Most rainfall would push east of the region by 5 AM January 2nd. Widespread rainfall totals of 1-3" were reported, with some isolated locations across Virginia and West Virginia having totals of 3-4". Rainfall of this magnitude led to numerous flood warnings being issued across the county warning area, with several creeks and rivers exceeding flood stage, along with numerous reports of water across roadways.

# Storm Total Rainfall – December 31 through January 2, 2022



Widespread rainfall totals of 1-3" were reported across the region, with some isolated locations across Virginia and West Virginia having totals of 3-4". On the left is a local perspective of rain totals, while on the right is a regional perspective.

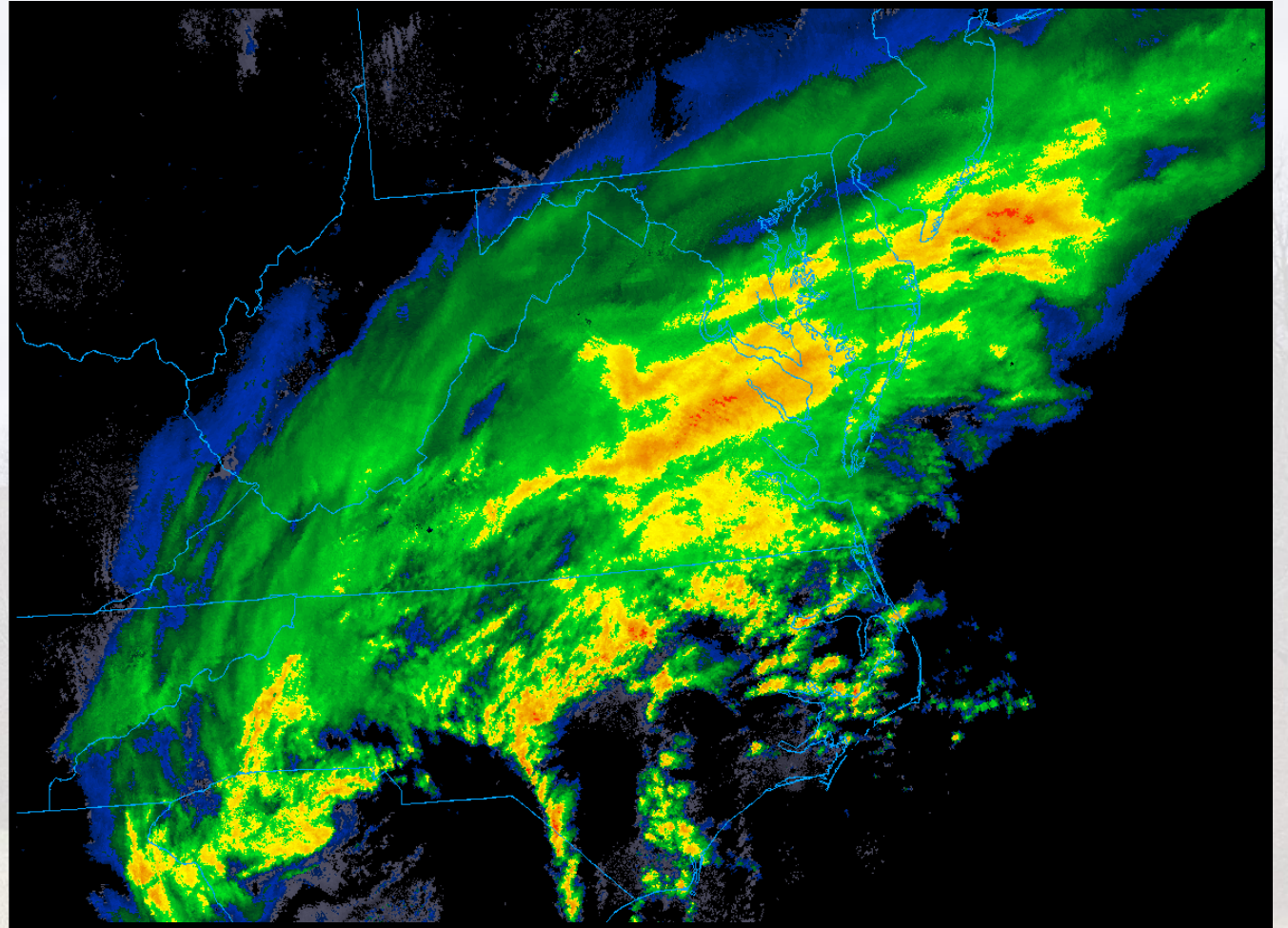
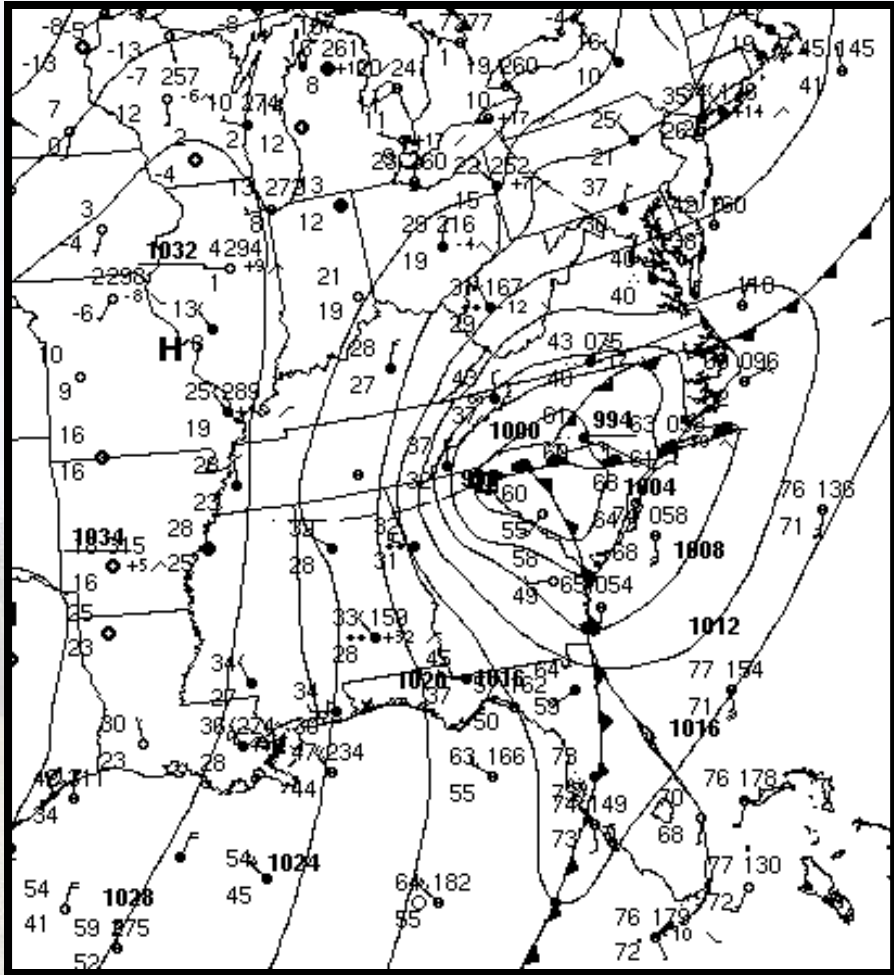


# January 3rd Snowfall Overview

A wave of low pressure would quickly deepen during the morning of January 3rd as it moved northeastward into North Carolina, bringing precipitation back into the region throughout the early morning hours of January 3rd. An initial rain/snow mix over portions of the southern/central Charleston NWS forecast area would transition to snow, resulting in accumulations of up to 4.5" for portions of the region by late morning. Storm total snowfall amounts can be seen right.

...FINAL STORM TOTAL SNOWFALL REPORTS FOR THE JANUARY 2-3, 2022 SNOWSTORM...

Location	Amount	Time/Date	Elevation (ft.)
...Virginia...			
...Buchanan County...			
3 W Vansant	3.3 in	0800 AM 01/03	
Grundy	0.6 in	0700 AM 01/03	1178
...Dickenson County...			
2 W Clintwood	3.2 in	0730 AM 01/03	
Nora 4 SSE	2.9 in	0700 AM 01/04	2688
4 ESE Clintwood	2.0 in	0830 AM 01/03	
...West Virginia...			
...Boone County...			
2 N Madison	1.0 in	0706 AM 01/03	
Danville 1.8 WSW	0.8 in	0530 AM 01/03	926
...Kanawha County...			
Alum Creek 3.0 E	0.1 in	0600 AM 01/03	708
Charleston 2.6 W	0.1 in	0610 AM 01/03	954
...Logan County...			
Man	2.0 in	0700 AM 01/03	
3 S Switzer	0.3 in	0600 AM 01/03	
...McDowell County...			
2 NW Anawalt	2.0 in	0800 AM 01/03	
...Nicholas County...			
Mount Nebo	1.0 in	0700 AM 01/03	1950
Craigsville 0.6 NE	0.9 in	0700 AM 01/03	2239
Runa 0.1 W	0.5 in	0700 AM 01/03	2204
...Pocahontas County...			
Frost 3 NE	4.5 in	0625 AM 01/04	2905
Greenbank	3.5 in	0922 AM 01/03	
Bartow 1 S	2.2 in	0730 AM 01/03	3025
Snowshoe	2.0 in	0600 AM 01/03	4850
5 SSW Greenbank	2.0 in	1014 AM 01/03	
Marlinton	1.0 in	0921 AM 01/03	
Buckeye	0.8 in	0700 AM 01/04	2150
...Raleigh County...			
3 SSW Shady Spring	3.0 in	0930 AM 01/03	
Beckley Airport	2.8 in	1000 AM 01/03	2480
6 S Shady Spring	2.6 in	0730 AM 01/03	
3 S Shady Spring	2.5 in	0857 AM 01/03	
Cool Ridge 0.4 NE	2.5 in	0900 AM 01/03	2964
...Randolph County...			
9 S Harman	2.0 in	1016 AM 01/03	
Harman	1.0 in	1015 AM 01/03	
&&			



On the left is a surface analysis chart for January 3rd at 4 AM, while on the right is a composite radar mosaic from approximately 6 AM that same morning. Both images illustrate the snow event at peak impact to the local area.



**Thank You!**