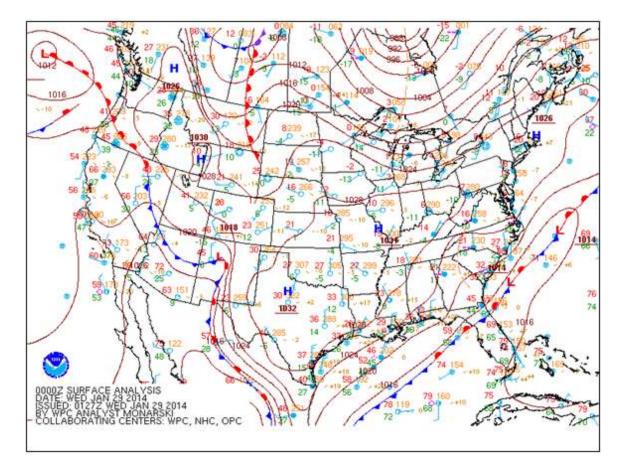
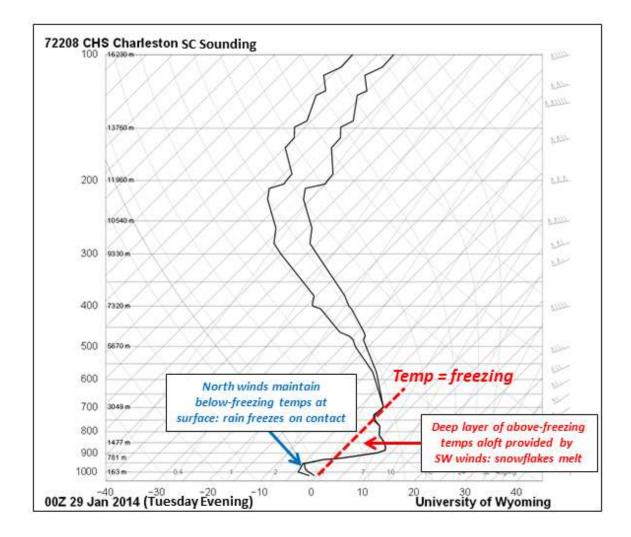
## The January 28-29, 2014 Southeast South Carolina and Southeast Georgia Winter Storm

## Meteorological Event Summary

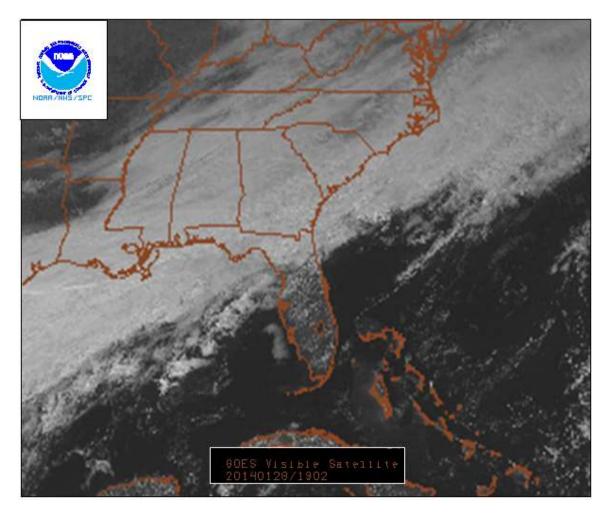
A strong but shallow arctic cold front pushed through the region early Tuesday, 1/28. By evening 1/28, a marked wedge regime prevailed, and northerly surface winds had pushed temps to around 32F at most areas north of I-16. However, a deep elevated layer as warm as +8C was sustained by strengthening southwest winds. As isentropic ascent and upper divergence developed, precipitable water increased to around 1 inch and a southwest to northeast band of precipitation blossomed over the region by late afternoon 1/28. Frontogenetical forcing and fairly weak static stability aloft contributed to convective elements which enhanced precipitation rates through the event. Due to the unique thermal environment, including the ageostrophic maintenance and expansion of low-level cold air, precipitation fell as freezing rain and sleet most of the evening of 1/28 and the early morning of 1/29 north of I-16; this precipitation briefly changed to snow from north to south late night into early Wednesday morning 1/29. Along and south of I-16, temperatures just above 32F persisted longer, and rain mixed with sleet prevailed through Tuesday evening 1/28; then, temperatures fell to around 32F, and freezing rain and sleet fell overnight into the daylight hours of Wednesday 1/29. Freezing rain persisted across far southern counties of coastal GA into Wednesday night as another weak wave of low pressure lifted northeast, and this wave even spread a bit of light freezing rain/freezing drizzle into coastal SC counties. Through Wednesday 1/29, storm total ice accretion amounts around 0.25 inch were common along/north of I-16, and a few inland locations reported as much as 0.75 to 1.00 inch of ice. Ice accumulation closed several bridges across the region, resulting in major travel impacts. Lesser amounts of glaze were reported at most locations south of I-16. Snow/sleet amounts totalled 1 inch or less, with the highest amounts inland where precipitation changed over to snow earliest on 1/29. All told, every location in the CWA received some freezing rain; this was a highly unusual scenario. Also, temperatures remained near or below freezing at many locations until Friday, 1/31, another highly unusual situation that prolonging travel impacts. As late as Friday, 1/31, melting resulted in ice falling from the towers of the Ravenel Bridge, damaging several vehicles - resulting in one non-life threatening injury - and prompting officials to close the bridge again until Friday evening.



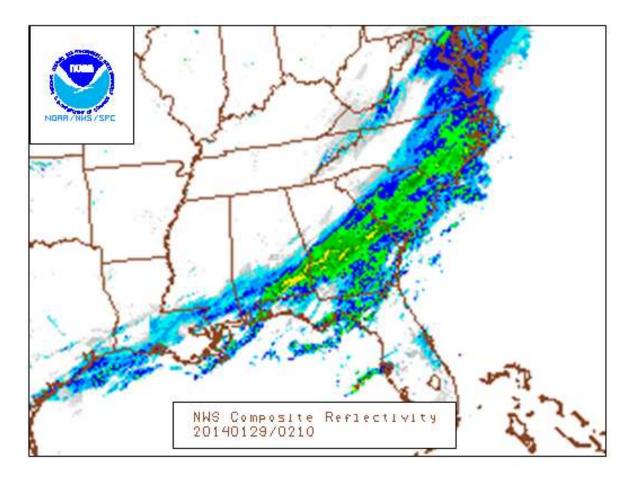
The WPC surface analysis for Wednesday evening, January 29, depicted a stationary front south and east of Georgia and South Carolina. Cold high pressure centered along the New England coast provided cold air to the region, and waves of low pressure tracked northeast along the stationary front, producing freezing rain, sleet and snow.



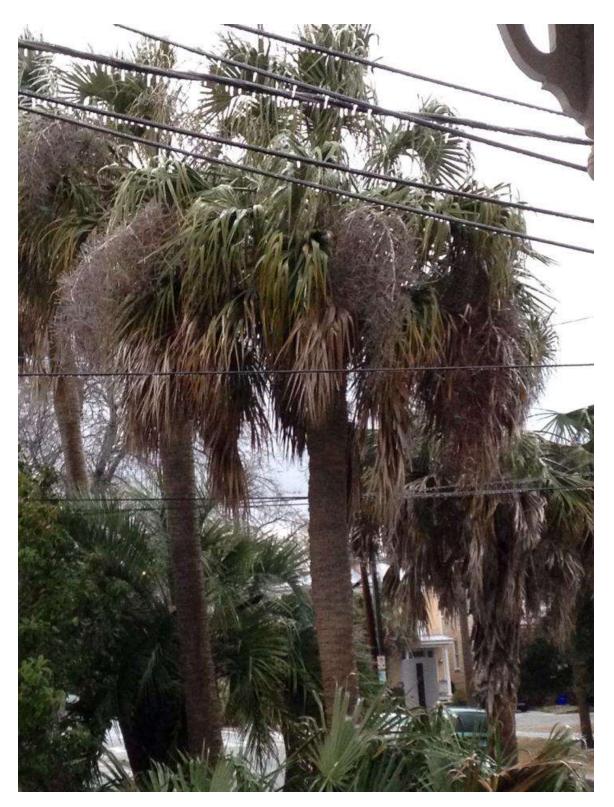
The Charleston SC upper air sounding from Wednesday evening illustrated a classic freezing rain profile.



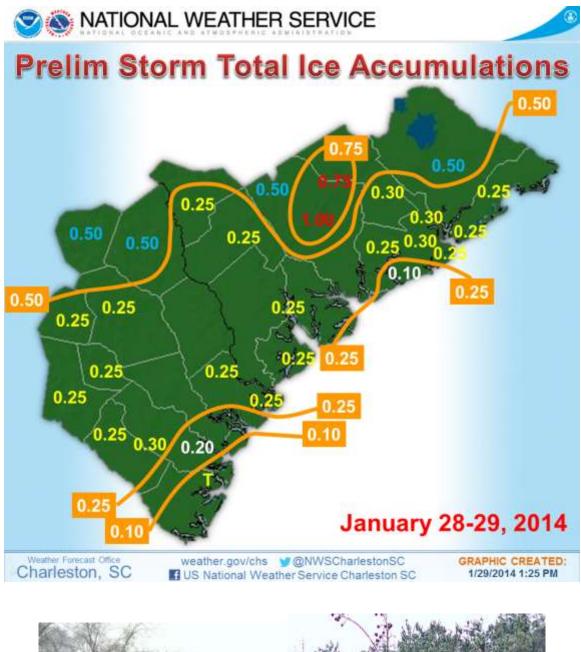
The visible satellite image from Wednesday afternoon showed an extensive, solid band of deep layered clouds which were producing precipitation across the region.



The regional radar from Wednesday evening depicted widespread precipitation over the Southeast. Across southern South Carolina and southeast Georgia, this precipitation was falling into below-freezing air at many locations, resulting in freezing rain and sleet.



Downtown Charleston, SC





National Weather Service Office and Mount Pleasant SC

PUBLIC INFORMATION STATEMENT SPOTTER REPORTS NATIONAL WEATHER SERVICE CHARLESTON SC 638 AM EST WED JAN 29 2014

THE FOLLOWING ARE UNOFFICIAL OBSERVATIONS TAKEN BY AUTOMATED SURFACE OBSERVATION SYSTEMS /ASOS/...FIRE WEATHER REMOTE AUTOMATED WEATHER STATIONS /RAWS/...GEORGIA AUTOMATED MONITORING NETWORK STATIONS /GAEMN/...NOAA/S NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM OBSERVATIONS /NERR/...NATIONAL DATA BUOY CENTER LOCATIONS /NDBC/ AND OTHER QUALITY CONTROLLED SENSORS FROM ACROSS SOUTHEAST SOUTH CAROLINA

AND SOUTHEAST GEORGIA.

LOCATION	STORM TOTAL	TIME/DATE	COMMENTS	
	SNOWFALL	OF		
	/INCHES/	MEASUREMENT		

## GEORGIA

2 SSW MARLOW	Т	800	PM	1/28	AMATEUR RADIO
LIBERTY COUNTY 4 NW WALTHOURVILLE	Т	802	PM	1/28	AMATEUR RADIO
LONG COUNTY 5 W DONALD	Т	737	PM	1/28	AMATEUR RADIO
SCREVEN COUNTY SYLVANIA	Т	810	PM	1/28	AMATEUR RADIO
SOUTH CAROLINA					
ALLENDALE COUNTY 1 S SEIGLING	1.0	1150	PM	1/28	AMATEUR RADIO
CHARLESTON COUNTY 1 SSW BOONE HALL PLA	0.2	1008	PM	1/28	AMATEUR RADIO
COLLETON COUNTY 5 NW WALTERBORO	Т	757	PM	1/28	AMATEUR RADIO
DORCHESTER COUNTY 1 ENE DORCHESTER SUMMERVILLE 1 WNW LADSON GIVHANS 5 NNE INDIAN FIELD	0.5 0.2 0.2 0.1 T	853 1112	PM PM PM	1/28 1/28 1/28 1/28 1/28	TRAINED SPOTTER TRAINED SPOTTER AMATEUR RADIO
HAMPTON COUNTY 2 S BRUNSON	Т	807	PM	1/28	AMATEUR RADIO

**************************************						
LOCATION		ICE			OF	COMMENTS
/INCHES/		MEASUREMENT		MEN.I.		
GEORGIA						
BULLOCH COUNTY STATESBORO	•••	Т	654 1	PM	1/28	TRAINED SPOTTER
CHATHAM COUNTY 2 WNW SKIDAWAY THUNDERBOLT PORT WENTWORTH	ISLAN	Т	831 1	PM	1/28	EMERGENCY MNGR LAW ENFORCEMENT EMERGENCY MNGR
JENKINS COUNTY MILLEN	•••	Т	728 1	PM	1/28	911 CALL CENTER
LIBERTY COUNTY 18 N LUDOWICI		0.25	558 2	AM	1/29	AMATEUR RADIO
LONG COUNTY 4 NW DONALD		0.25	606 2	AM	1/29	AMATEUR RADIO
SCREVEN COUNTY SYLVANIA	•••	Т	730 1	PM	1/28	911 CALL CENTER
SOUTH CAROLINA						
ALLENDALE COUN ALLENDALE	ΤΥ	0.25	1155 1	PM	1/28	911 CALL CENTER
BERKELEY COUNT GOOSE CREEK 1 ENE CROWFIEL CAINHOY				PM	1/28	SOCIAL MEDIA AMATEUR RADIO BROADCAST MEDIA
CHARLESTON COU 3 SSW SHADOWMC 2 W MOUNT PLEA 2 SE CAINHOY AREA.	SS SANT		636 Z	AM		NWS EMPLOYEE BROADCAST MEDIA IN THE DUNES WEST
LADSON 2 S CHARLES TC 2 W DON HOLT E 1 ESE CHARLEST	RIDGE	0.10 0.10	456 2	PM AM	1/28 1/29	TRAINED SPOTTER AMATEUR RADIO PUBLIC NWS OFFICE
COLLETON COUNI ROUND O	Υ	0.10	851 1	PM	1/28	OFF OF MERRICK DRIVE.
DORCHESTER COU 3 N MIDDLETON 2 SE KNIGHTSVI	PLACE					SOCIAL MEDIA TRAINED SPOTTER

SUMMERVILLE	0.25	1145 PM	1/28	TRAINED SPOTTER
3 SSW LADSON	0.20	742 PM	1/28	PUBLIC
2 SSE SUMMERVILLE	0.10	838 PM	1/28	AMATEUR RADIO
3 S SUMMERVILLE	0.10	610 PM	1/28	TRAINED SPOTTER
1 ENE KNIGHTSVILLE	0.10	635 PM	1/28	AMATEUR RADIO
5 NNE INDIAN FIELD	Т	659 PM	1/28	SOCIAL MEDIA



Hanahan, SC