

2010-2011 Winter Weather Events in Georgia

Steven Nelson
NWS Peachtree City, GA

December 10, 2013



Outline

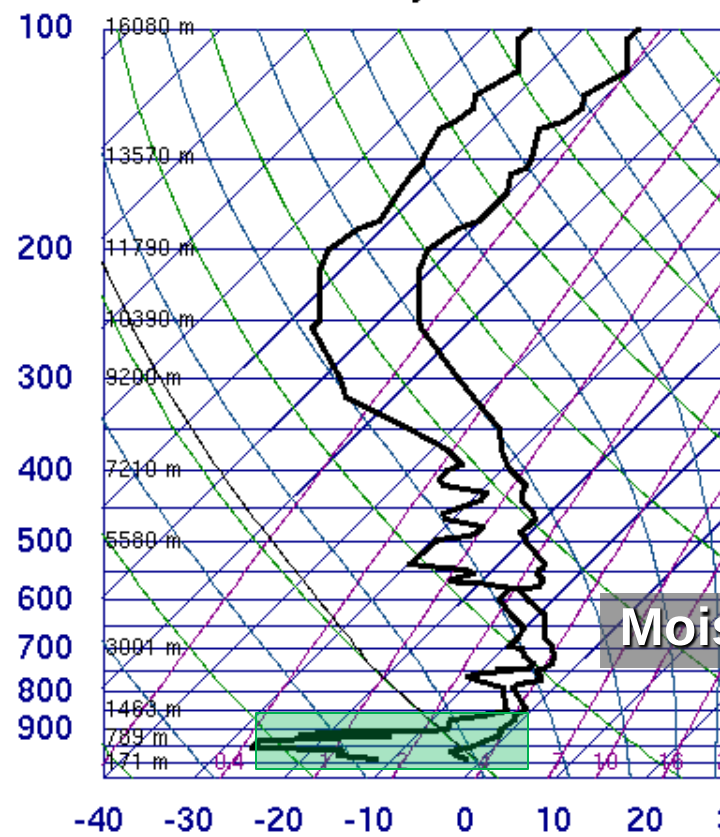
- 1. December 15, 2010 Ice Event**
- 2. January 9-10, 2011 Snow Event**
- 3. Forecast concerns**

December 15, 2010 “Black Ice” Event



December 15, 2010 "Black Ice" Event

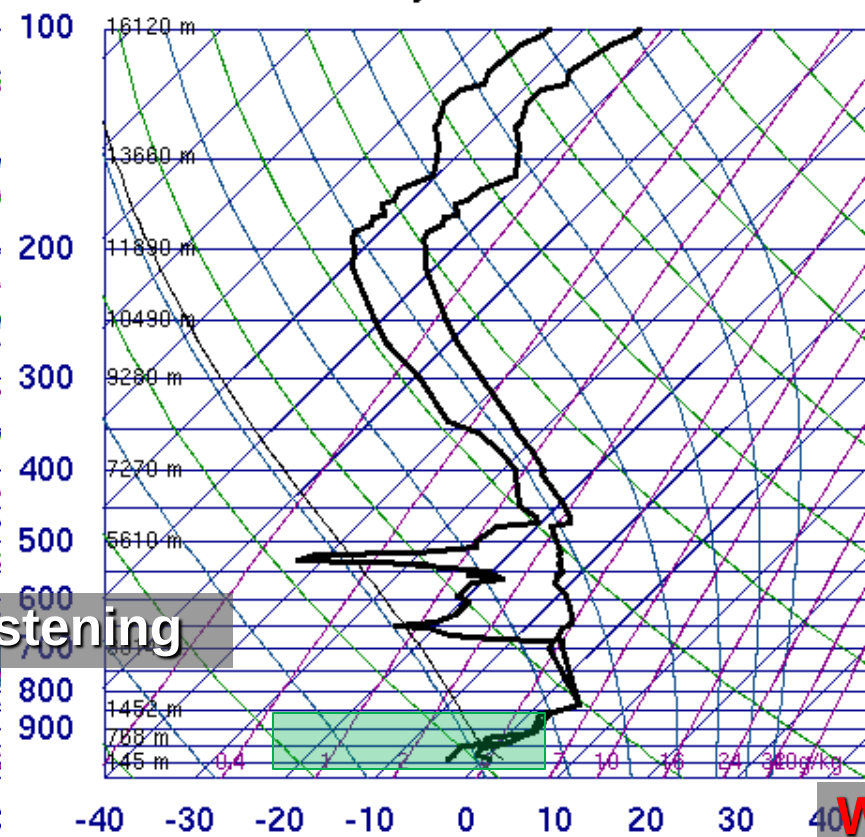
72215 FFC Peachtree City



12Z 15 Dec 2010

University of W00Z 16 Dec 2010

72215 FFC Peachtree City

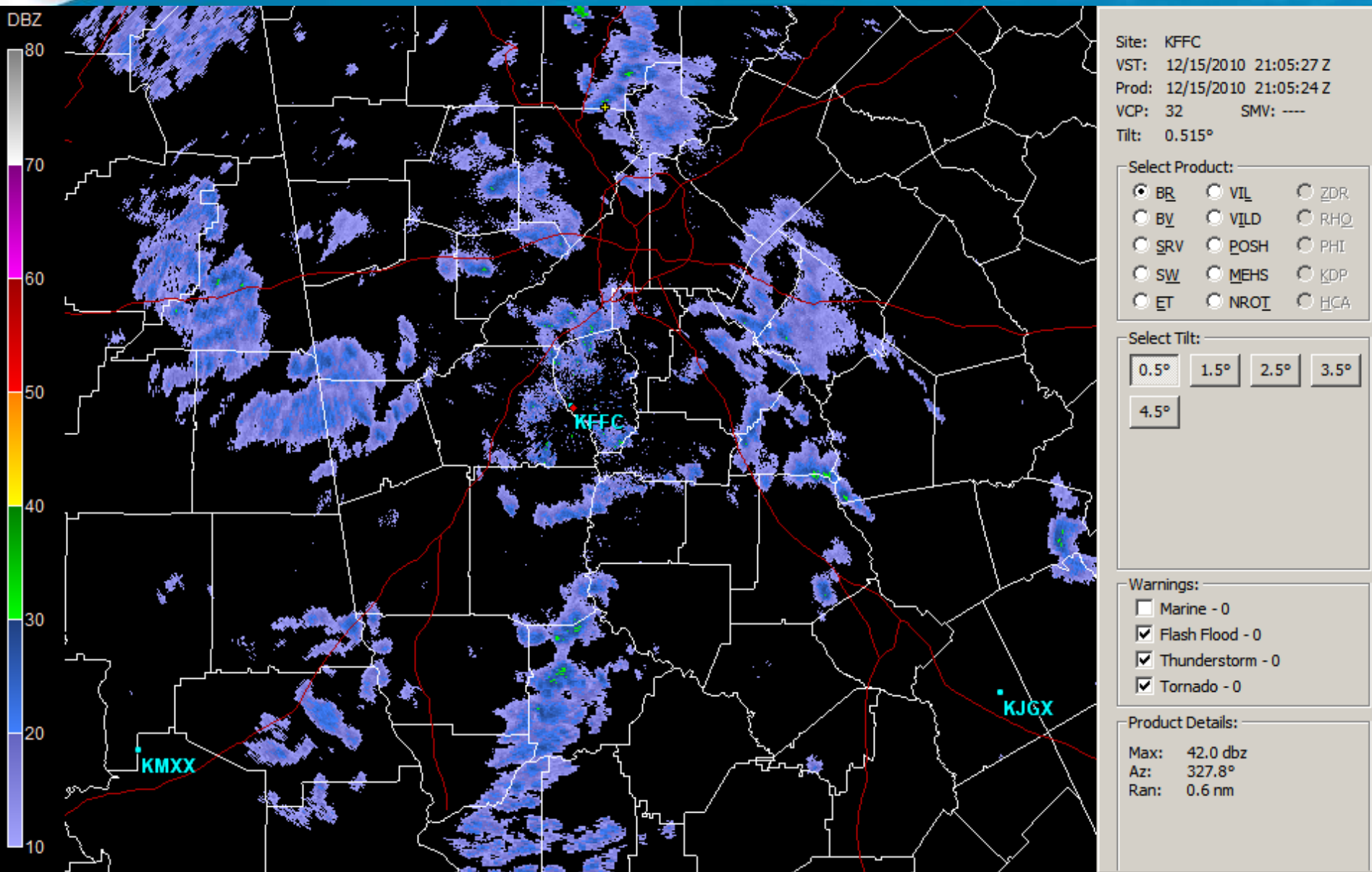


University of Wyoming

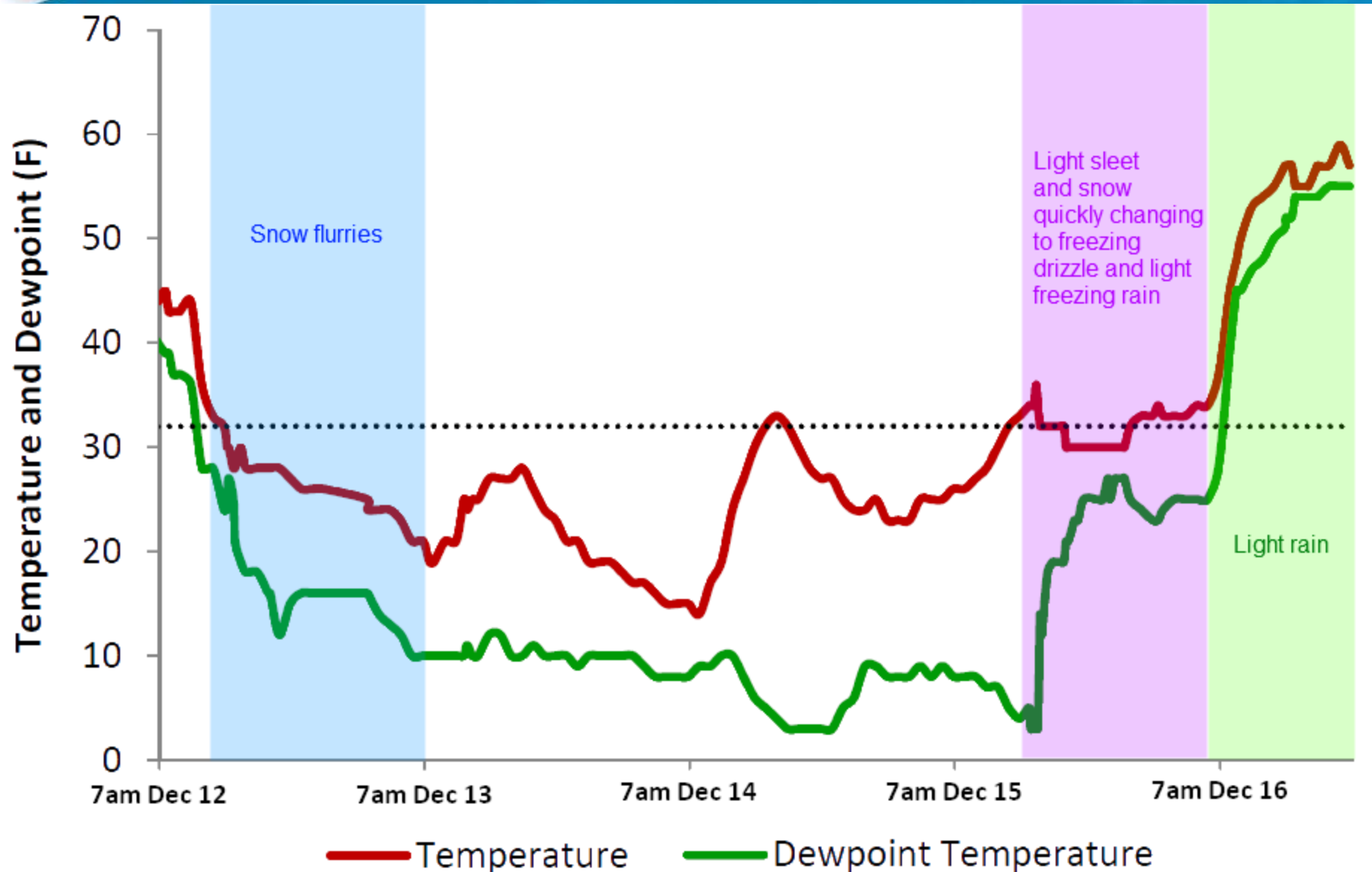
SLAT	33.36
SLON	-84.56
SELV	244.0
SHOW	9.15
LIFT	24.02
LFTV	24.14
SWET	196.9
KINX	20.60
CTOT	19.10
VTOT	19.10
TOTL	38.20
CAPE	0.00
CAPV	0.00
CINS	0.00
CINV	0.00
EQLV	-9999
EQTV	-9999
LFCT	-9999
LFCV	-9999
BRCH	0.00
BRCV	0.00
LCLT	269.2
LCLP	917.1
MLTH	276.0
MLMR	3.16
THCK	5465.
PWAT	18.20

**Warm air
overrunning
cold air**

December 15, 2010 Radar Images



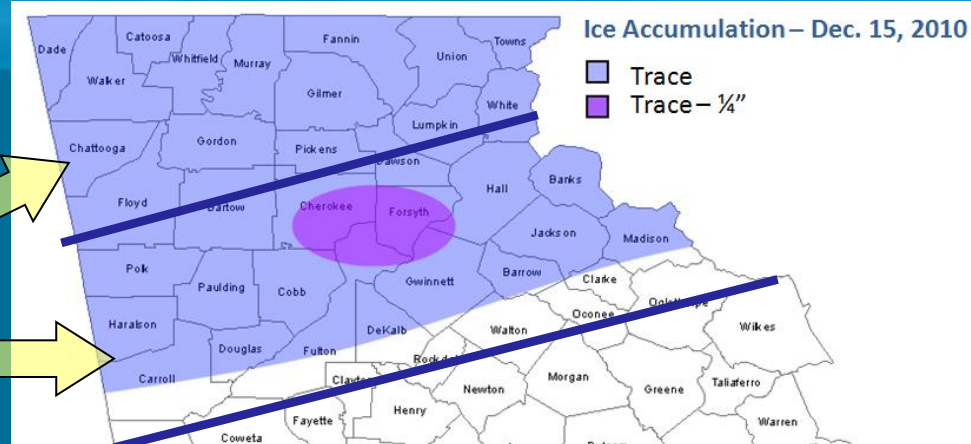
December 15, 2010 “Black Ice” Event



Forecast Issues

No advisory was issued but 9am forecast was on track:

- Light sleet or freezing rain likely
- Rain and sleet w/ freezing rain after sunset



FOUS22 KATL 150000

KATL GFS MOS GUIDANCE 12/15/2010 0000 UTC

DT	/DEC 15	/DEC 16	/DEC 17	/
HR	06 09 12 15 18 21 00 03 06 09 12 15 18 21 00 03 06 09 12 18 00			
X/N		36	33	54 43 56
TMP	22 20 19 28 34 35 33	33 33 35 37 42 50 54 51 50 47 46 44 52 50		
DPT	6 7 6 5 7 10 14	15 16 22 29 39 45 47 48 47 45 43 42 45 46		
CLD	FW FW SC OV FW FW OV OV OV OV OV OV OV SC OV OV OV OV BK OV			
WDR	31 32 33 32 27 23 19 17 17 16 18 20 21 23 22 24 27 30 32 33 01			
WSP	05 05 04 04 04 05 04 04 05 06 07 09 11 12 07 06 06 05 05 03 06			
P06		1 1 15 15 31 40 11 7 18 18 30		
P12		15 33 43 26 32		
Q06		0 0 0 0 0 1 0 0 0 0 0		
Q12		0 0 1 0 0		
T06		0/ 3 0/ 9 0/ 0 1/ 0 1/ 7 1/10 6/10 6/ 3 2/ 1 4/ 4		
T12		0/ 9 1/ 2 1/10 9/10 2/ 4		
POZ	3 3 2 7 12 15 23 29 29 22 9 1 1 1 1 2 1 1 2 1 2			
POS	95 97 99 93 88 22 24 20 19 20 0 0 1 0 0 0 0 0 1 0 0			
TYP	S S S S S R S Z Z R R R R R R R R R R R R R			
SNW		0 0		
CIG	8 8 8 8 7 6 6 6 6 6 5 4 2 3 2 2 1 2 2 3 2			
VIS	7 7 7 7 7 7 7 7 7 7 7 6 5 5 6 5 5 7 5 7 5			
OBV	N N N N N N N N N N N N BR BR BR BR BR HZ BR N BR			

FOUS45 KATL 150000

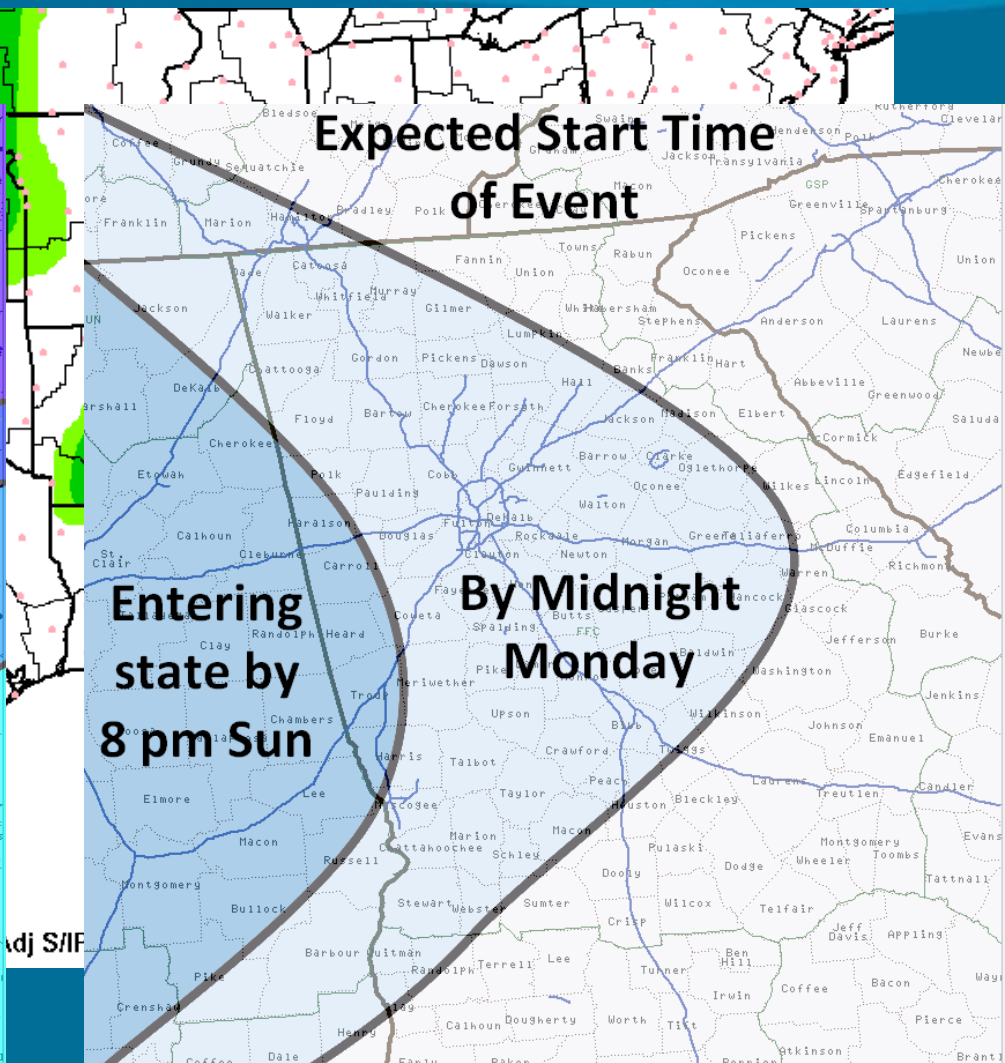
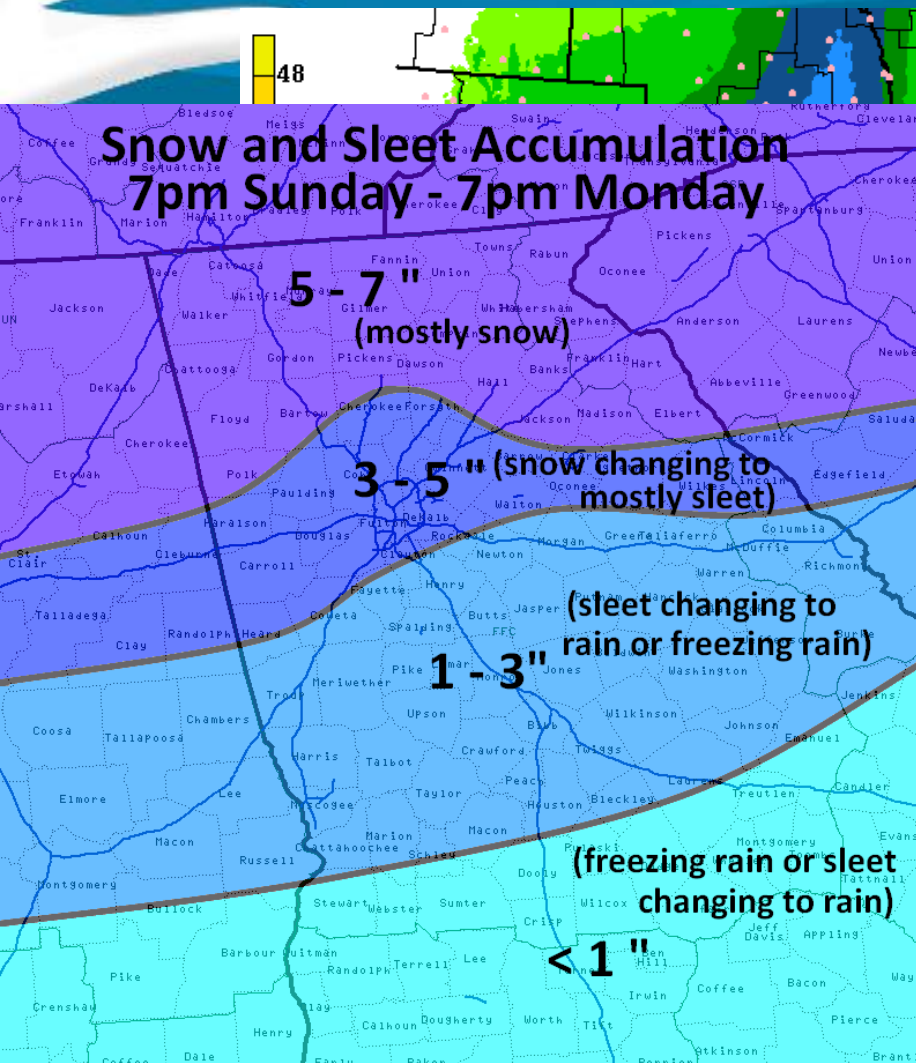
KATL NAM MOS GUIDANCE 12/15/2010 0000 UTC

DT	/DEC 15	/DEC 16	/DEC 17	/
HR	06 09 12 15 18 21 00 03 06 09 12 15 18 21 00 03 06 09 12 18 00			
X/N		38	33	51 46 55
TMP	25 24 23 28 34 37 34	33 33 34 35 41 48 51 50 50 49 48 47 52 48		
DPT	9 11 11 11 16 19 21	22 24 29 33 39 46 48 49 49 48 47 46 47 42		
CLD	SC OV OV OV OV OV OV OV OV OV OV OV OV OV OV OV OV OV OV			
WDR	32 32 33 34 25 21 19 16 15 15 16 20 21 23 21 21 23 31 34 31 35			
WSP	07 06 06 04 04 05 04 05 05 06 06 09 09 09 05 06 05 04 05 05 07			
P06		2 2 27 20 13 20 33 40 45 38 27		
P12		34 29 55 63 38		
Q06		0 0 0 0 0 0 1 1 1 1 0		
Q12		0 0 1 1 1		
T06		0/ 4 0/ 3 0/ 3 1/ 4 1/ 5 6/12 3/ 9 3/ 4 2/ 4 2/ 7		
T12		2/ 4 2/ 4 6/12 6/ 9 3/ 6		
SNW		0 0		
CIG	8 7 6 6 7 6 5 5 6 7 6 3 2 3 1 3 3 2 2 3 3			
VIS	7 7 7 7 7 7 7 7 7 7 7 5 5 5 3 2 1 2 4 5 5			
OBV	N N N N N N N N N N N N BR BR BR BR FG FG FG BR BR BR			

January 9-10, 2011 Snow Event

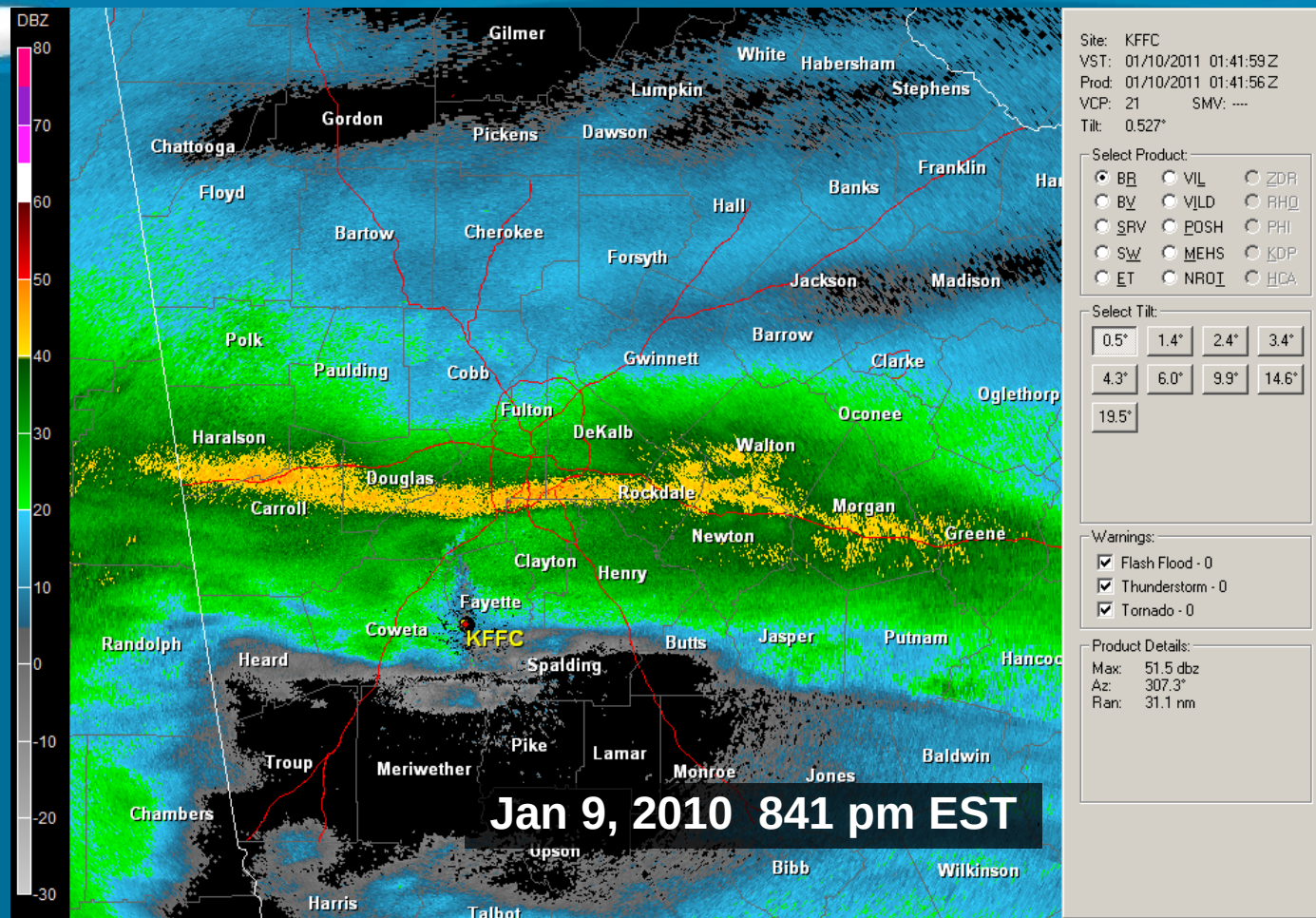


January 9-10, 2011 Snow Event



Forecast well in advance. **Good job!**

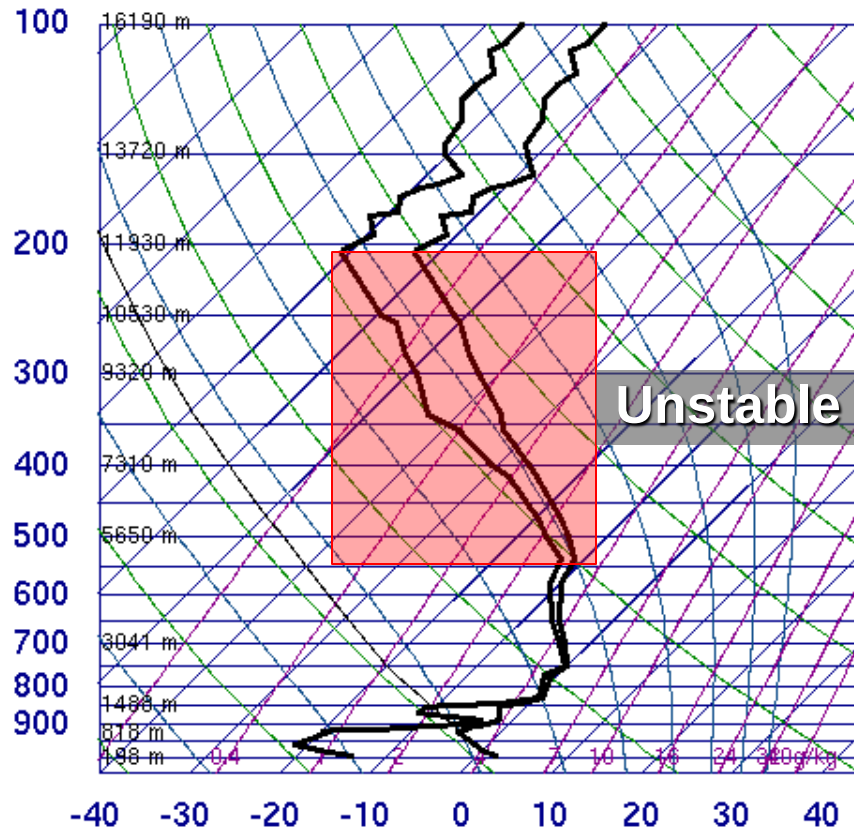
January 9-10, 2011 Radar loop



- CG lightning detected, numerous observations of thunder
- 2 inch/hour snow rates

January 9-10, 2011 Convective Snow

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Unstable

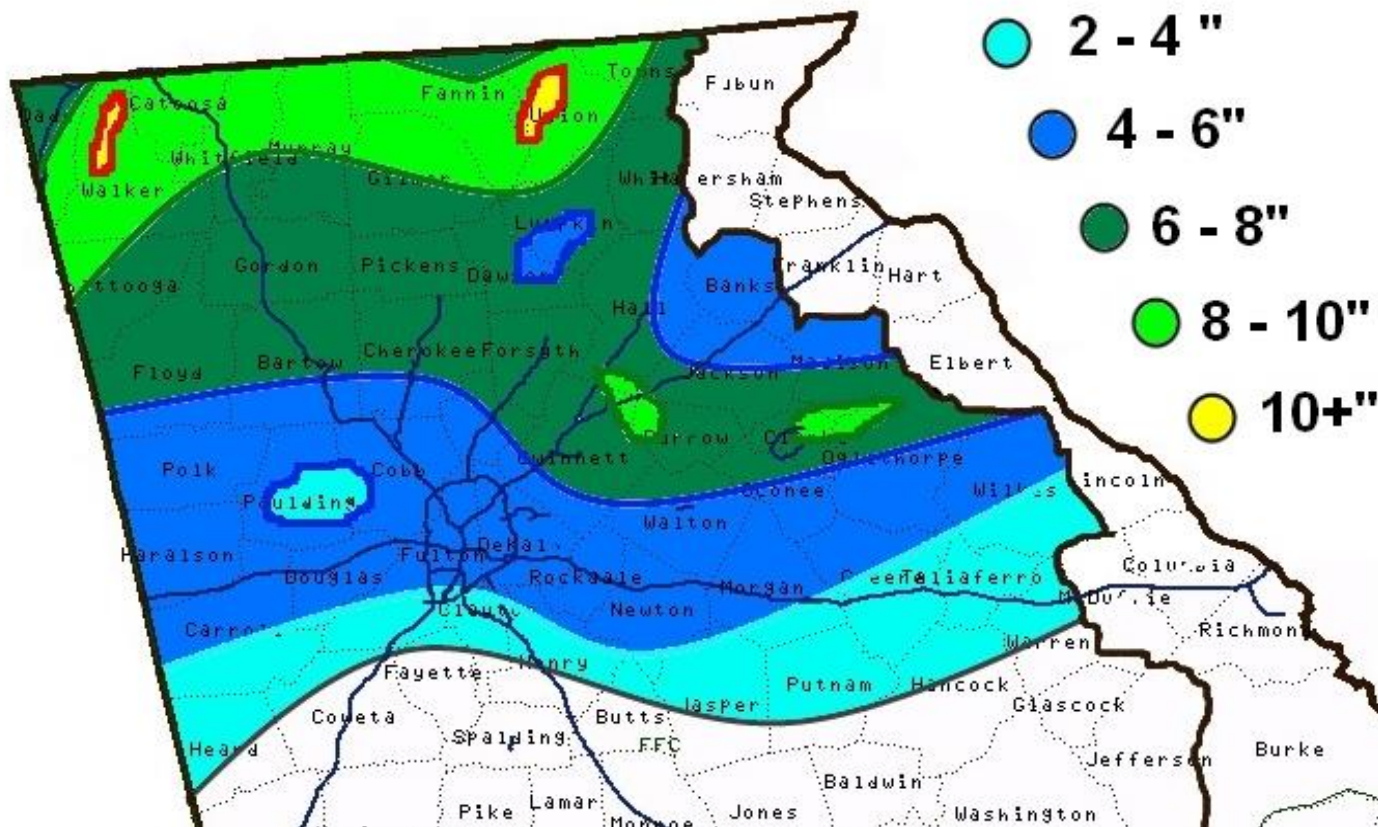
SLAT	33.36
SLON	-84.56
SELV	244.0
SHOW	21.76
LIFT	31.53
LFTV	31.85
SWET	77.99
KINX	2.30
CTOT	5.60
VTOT	11.60
TOTL	17.20
CAPE	0.00
CAPV	0.00
CINS	0.00
CINV	0.00
EQLV	-9999
EQTV	-9999
LFCT	-9999
LFCV	-9999
BRCH	0.00
BRCV	0.00
LCLT	250.6
LCLP	723.4
MLTH	274.9
MLMR	0.89
THCK	5452.
PWAT	17.56

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January 9-10, 2011 Snow Event

Snow and Sleet Accumulation 1/9-10/2011



- Snow amount forecast good
- Timing of snow onset and initial snow rate...could be better

Discussion

- Meteorological impacts $\neq$ societal impacts
 - A major snow event on a weekend (e.g. 3-6" on March 1, 2008) will have less impact than a thin coating of ice before rush hour on a weekday.
 - Timing errors of 3 hours or less can have considerable impact.
- NWS products and services constrained by policy and collaboration with neighboring offices
- Should warnings and services be based on meteorology, impact, a combination or something else?

Thoughts?



Steven.Nelson@noaa.gov