

Managing the “Winter Blitz” of 2015



Joe DelliCarpini
NOAA/NWS Taunton, MA



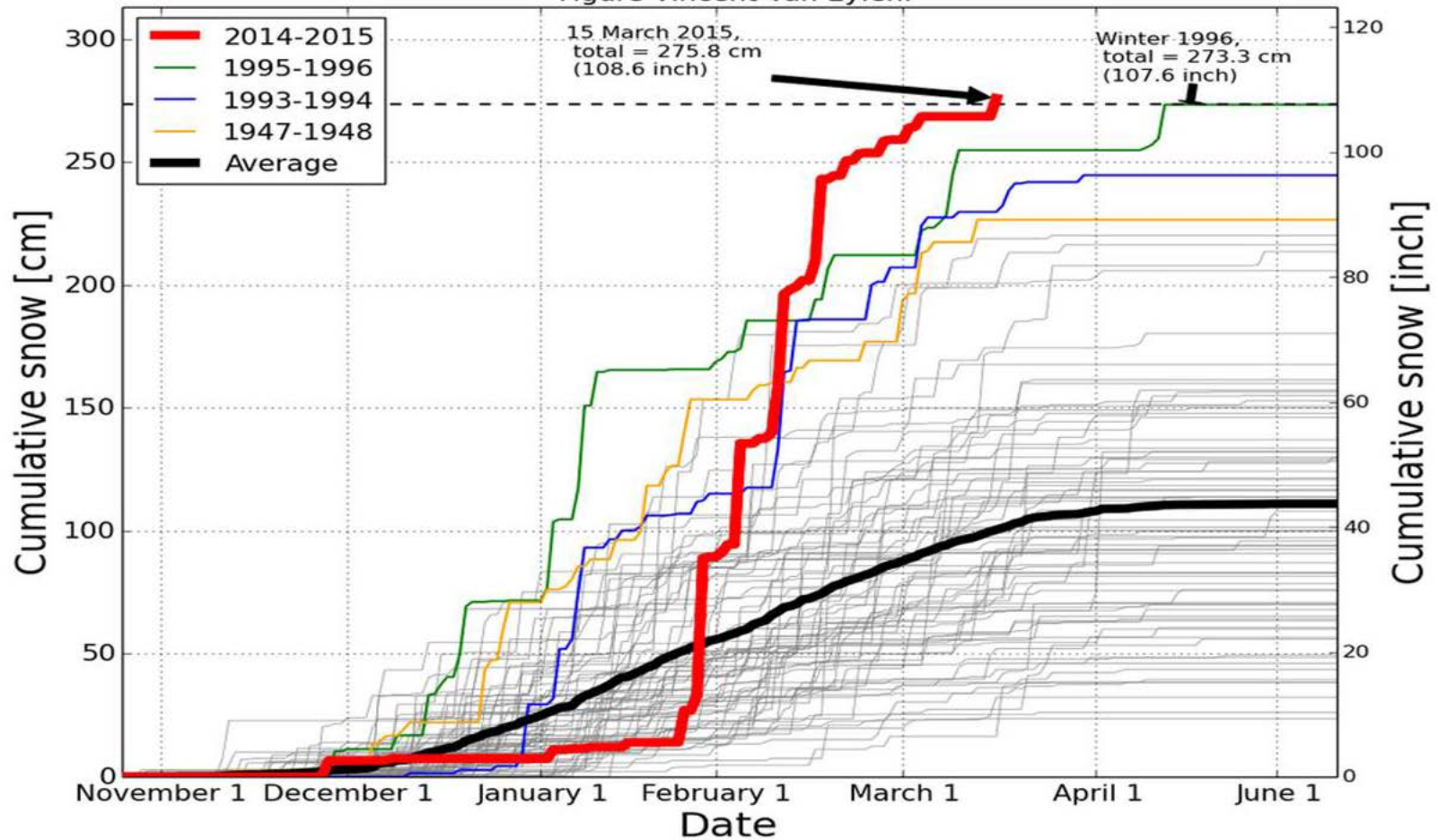
The “Winter Blitz” in Boston

- Four major storms in less than 20 days!
 - 22.1” January 26-27
 - 16.2” February 2
 - 23.1” February 7-9
 - 16.2” February 14-15
- 30 day snowfall record
 - 94.4” smashed record of 58.8”
- Seasonal snowfall record
 - 108.6” broke record of 107.6” set in 1995-96



The “Winter Blitz” in Boston

Cumulative snowfall in Boston per winter since 1938.
Data from NOAA (Boston Logan Station).
Figure Vincent Van Eylen.



What Didn't Happen...

- No fatalities and very few stranded drivers
- Businesses, schools, and roadways were not shut down for long

Bottom Line:

The message got out!

Media partners helped spread the word

Social Media explosion

8,900 new Twitter followers

18,000 new Facebook likes

EMs were proactive

Many businesses planned “telework” days for their employees, saving money!

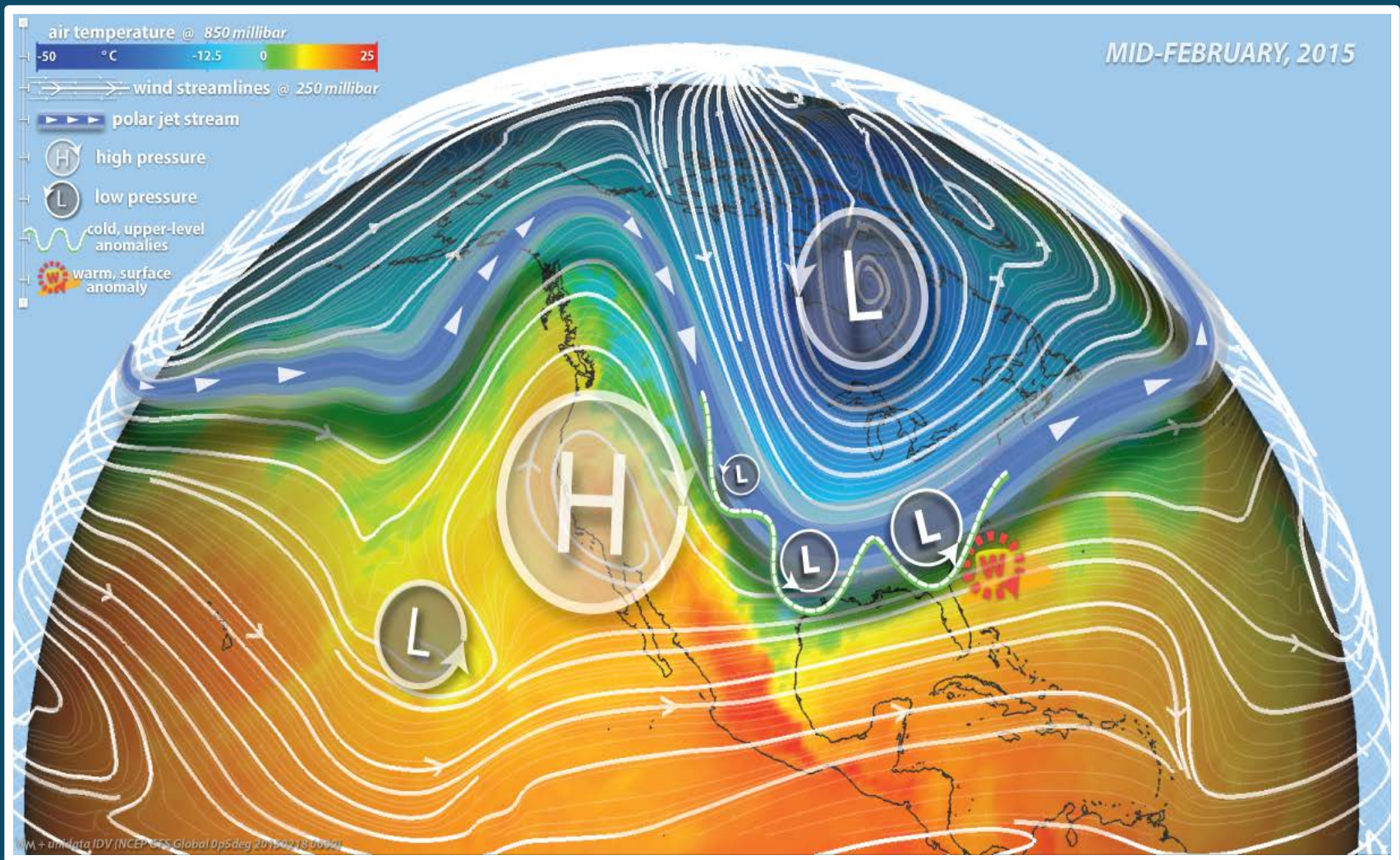


Challenges and Impacts

- Office provided continuous IDSS activities over the 6-week period
 - Over 180 EM briefings
 - Over 600 media interviews
 - Probabilistic snowfall forecasts
 - Not just snow! Wind, coastal flooding, extreme cold
- Staff had to balance life at work and home under stressful conditions
 - Getting to and from work, or staying at nearby hotel
 - Family and pet concerns



Synoptic Setup



Courtesy: MIT Earth, Atmospheric, and Planetary Sciences Department

Winter Weather Operations Plan

Event Coordinator

Ensures tasks are completed efficiently

Decision Support Services Forecaster

Communicates critical information to agencies / partners

HMT

Briefings to the media/public, handles hundreds of storm reports

Event Forecaster

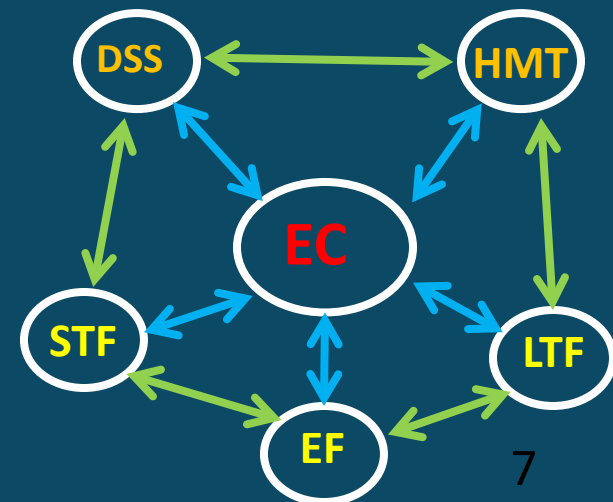
Responsible for the forecast periods specific to storm

Short Term Forecaster (0-36 hours)

Responsible for the forecast prior to the storm
Serves as EF when storm falls within short term

Long Term Forecaster (36 hours → Day 7)

All periods following the conclusion of the storm

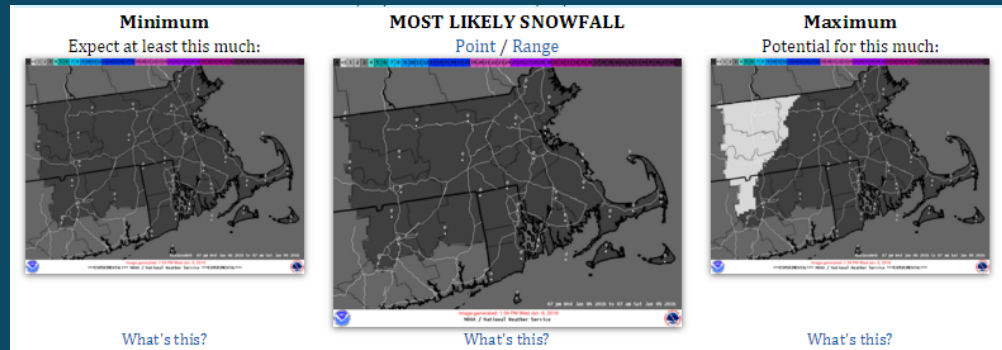


Decision Support Services Meteorologist

- **Primary contact for core partners**
 - Forecasters can concentrate on the grids
- **Staffed Monday through Friday**
 - Includes all forecasters and management
 - Staffed at other times as needed
- **Determines the “Impact” of the Day**
- **Briefings to affected entities**
 - NWSChat, phone and/or conference calls, E-mail briefings
- **Improved communication**
 - Builds trust between forecasters and EMs
 - Enhances personal relationships



Probabilistic Snowfall Forecasts



Ice Accumulation Potential 01/06/2016 0700PM to 01/09/2016 0700AM



Impacts	Amount Forecast
Icy Spots Expected Beware driving or walking on pavement. Some areas will be icy, some not.	Up to a Tenth
Widespread Icing Limit unnecessary travel. Any untreated paved surface will likely be glazed with ice. Scattered power outages possible.	Tenth to a Quarter Inch
Ice Storm Expected More widespread power outages. Downed trees. Extremely dangerous to walk or drive on untreated surfaces that will be ice covered.	Quarter Inch to a Half Inch
Severe Ice Storm Widespread power outages, possibly for an extended time. Many downed trees, and impassable roads expected.	Half Inch to an Inch
Devastating Ice Storm Long term power outages. Many downed trees over roads and power lines. Impassable roads from icing and downed trees. Recovery could take many days.	More Than an Inch

Chance of Snow Accumulation Ranges

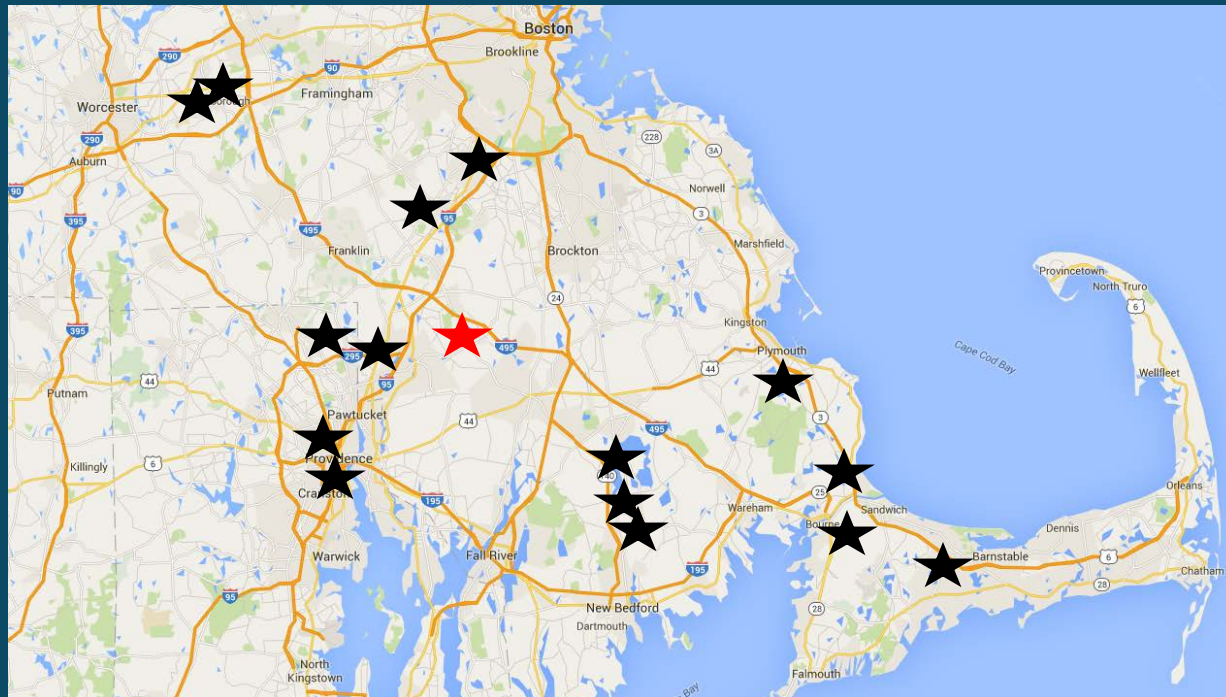
03/05/2013 1900 to 03/06/2013 2000 EST

County:

Location	Min	Likely	Max	0"	T-1"	1-2"	2-4"	4-8"	8-12"	12-18"	>18"
Frederick, MD	1	4-8	15	0%	9%	6%	17%	28%	21%	15%	4%
Fredericksburg, VA	9	8-12	22	0%	0%	0%	1%	4%	47%	21%	27%
Harrisonburg, VA	4	12-18	19	0%	6%	0%	4%	16%	25%	37%	12%
Staunton, VA	7	8-12	19	0%	0%	0%	1%	17%	38%	32%	12%
Frederick, MD	0	4-8	14	11%	11%	6%	11%	25%	20%	13%	3%
Hagerstown, MD	8	8-12	19	0%	0%	0%	1%	13%	46%	26%	14%
Harrisonburg, VA	14	12-18	28	0%	0%	0%	0%	1%	6%	49%	44%
Leonardtown, MD	0	1-2	5	39%	3%	24%	20%	13%	1%	0%	0%
Martinsburg, WV	10	8-12	24	0%	0%	0%	0%	4%	50%	13%	33%
National Mall, DC	1	4-8	17	0%	9%	5%	11%	30%	19%	19%	7%
Staunton, VA	9	12-18	22	0%	0%	1%	0%	7%	19%	42%	31%
Winchester, VA	13	12-18	29	0%	0%	0%	0%	0%	6%	56%	38%

Staff Issues

- Digging out multiple times
- Driving to and from the office
- Varying road conditions / snow banks



Staff Issues

- Long hours (or even days) at work
 - Fatigue from multiple storms
 - Making sure families/pets cared for
 - Roof loading and ice dams at home



Staff Issues

- “All Operations All The Time”
 - Training and program work put on hold
 - System maintenance put on hold
 - ASOS, WSR-88D, NWR, AWIPS II Builds
 - Outreach events canceled
 - Added administrative workload for multiple hotel stays



Managing the “Winter Blitz” of 2015

- Although rare, plan to handle extreme events
 - Consider 12-hour shifts for high-impact events
 - Develop Operations Plans for various scenarios
 - Don’t forget the Electronics staff and Admin staff!
- Integrate IDSS into your operations
 - *Consider starting a dedicated “IDSS Shift”*
 - User feedback on when to start briefings
 - Social Media
 - Probabilistic Snowfall Forecasts

Managing the “Winter Blitz” of 2015

- Have a plan at home too!

- Someone to help dig out?
- Child care / pet care?

- Driving to and from work

- When to go, delay, or stay put?
- Accommodations available at the office? Hotel nearby?
- Bring food/medications

