

Developing a Weather-Ready Nation

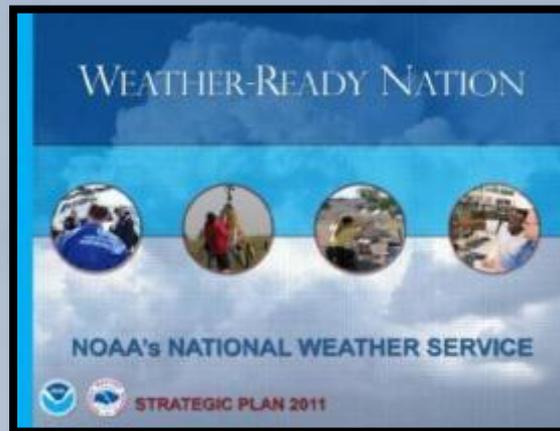
“Improving Weather Services by Providing Impact-Based Decision Support in an Urban Environment”



Baltimore/Washington
Weather Forecast Office

New NWS Strategic Plan

***Part of the NWS Initiative:
To build a “Weather-Ready Nation”***



Weather-Ready Nation



“A Nation that is prepared for and responds to hazardous weather events”

- **Improve Weather Decision Services**

- **High Impact Events: Threatening Lives & Livelihoods**

- Winter Storm / Flood / Severe Storm / Tornado / Hurricane / Heat / Wildfire

- **Demand Driven / Impact Based**

- Focused on Impact to Your Communities

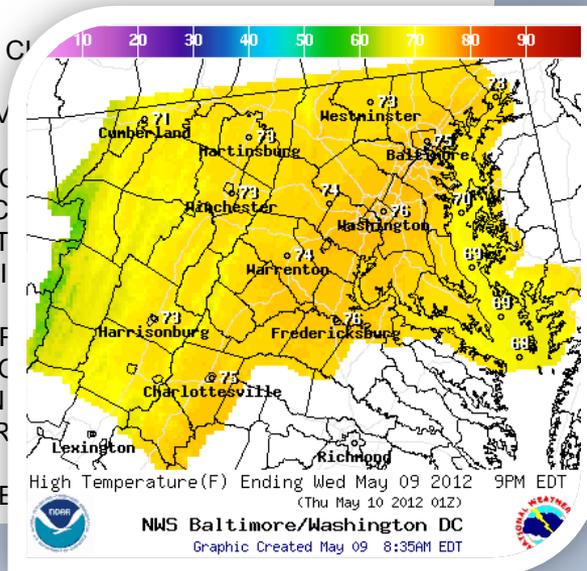


A New Direction

- Not Just Forecasts....

ZONE FORECAST PRODUCT
NATIONAL WEATHER SERVICE
BALTIMORE MD/WASHINGTON DC
805 AM EDT WED MAY 9 2012
DCZ001-VAZ054-091600-
DISTRICT OF COLUMBIA-ARLINGTON/
FALLS CHURCH/ALEXANDRIA- INCLUDING THE CITIES
OF...WASHINGTON...
ALEXANDRIA...FALLS CHURCH...
2012 ...

COASTAL FLOOD ADVISORY
THIS AFTERNOON...
...TODAY...CLOUDY. A CHANCE
OF RAIN IN THE MORNING... THEN A
CHANCE OF RAIN IN THE
AFTERNOON. HIGHS IN THE
MID 70S. WINDS 5 TO 10 MPH.
A CHANCE OF RAIN 30 PERCENT
IN THE MORNING. CLOUDY. A
CHANCE OF THUNDERSTORMS IN
THE AFTERNOON. SHOWERS AFTER
MIDNIGHT. NORTHWEST WINDS
5 TO 10 MPH. CHANCE OF RAIN



- ...Decision-Support Services



NWS Core Partners

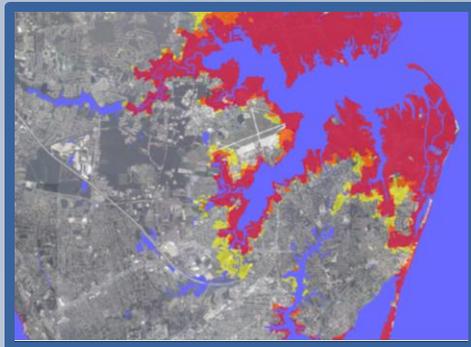
- **Emergency Management**
 - State / Region / Local
- **Other Government Agencies**
 - DOTs / Public Works
 - Public Health
- **Public Universities and Colleges**



4 Pilot Project Objectives

1) Improve Information Flow

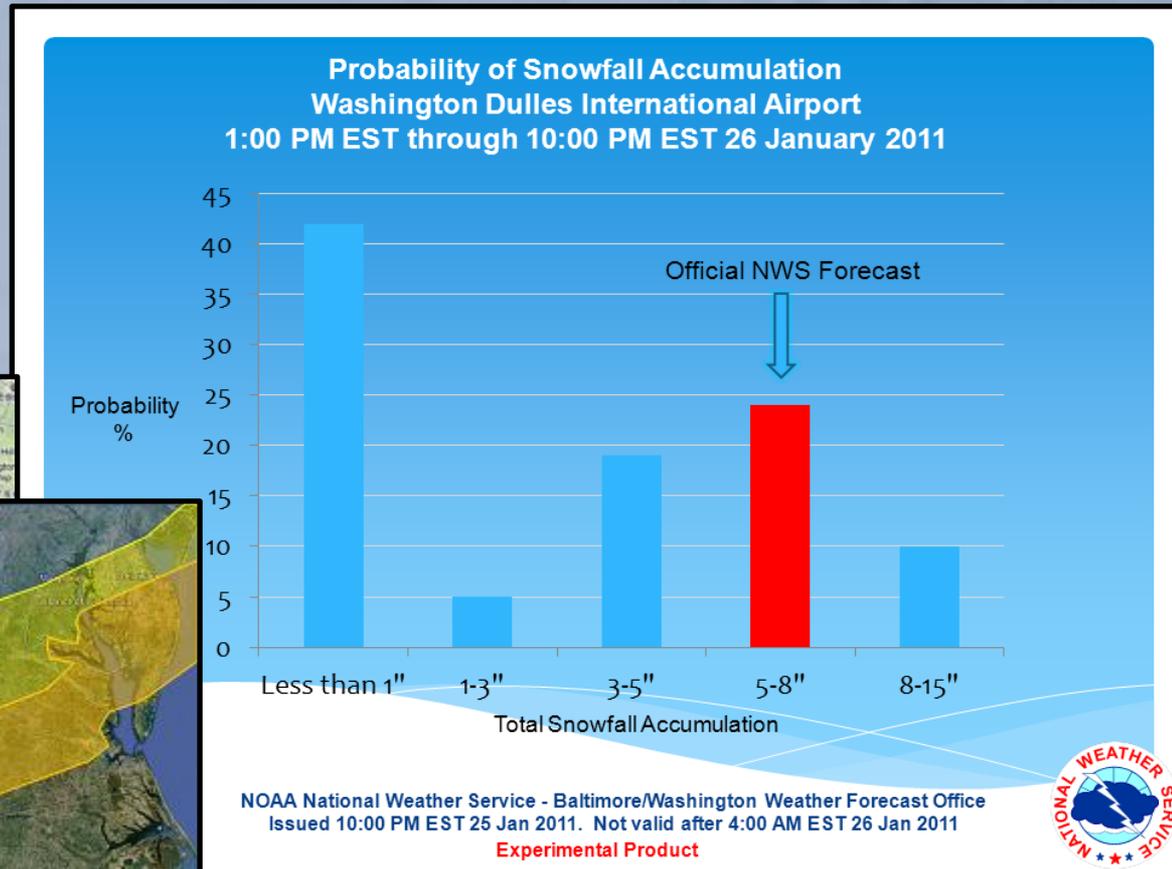
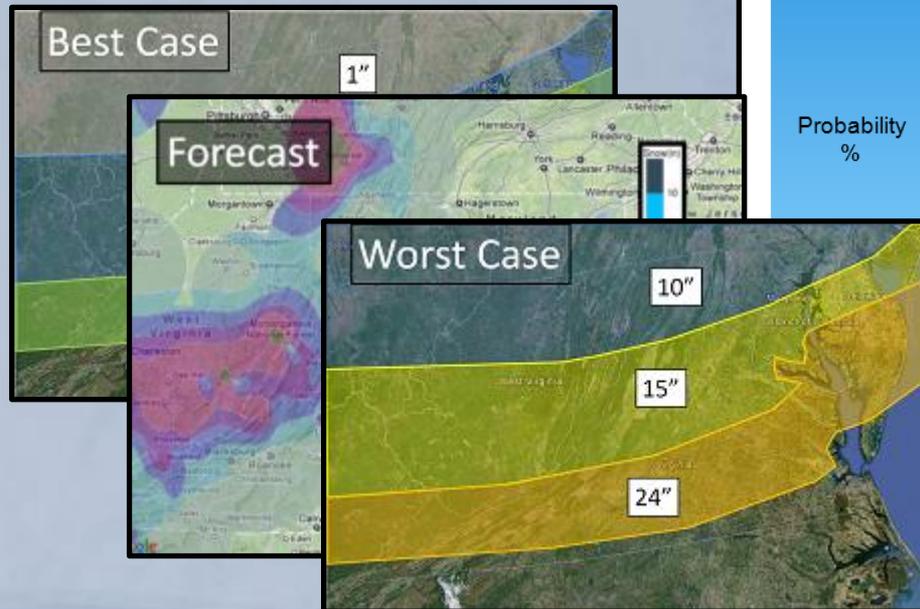
- On-Demand Briefings
- EOC / MACC Staffing
- Tidal Inundation
- **3 Emergency Response Specialist-Meteorologists**



4 Pilot Project Objectives

2) Explain Range of Possibilities

- Best / Worst Case
- Probability



4 Pilot Project Objectives

3) Awareness of Societal Impacts Due to Hazardous Weather

- Develop a Societal Impact Catalog
- Include Impact Details in Warnings

4) Build a Weather Ready Nation

- Work with the Public & Weather Enterprise
- NWS: Government's Weather Source



ERS-Mets

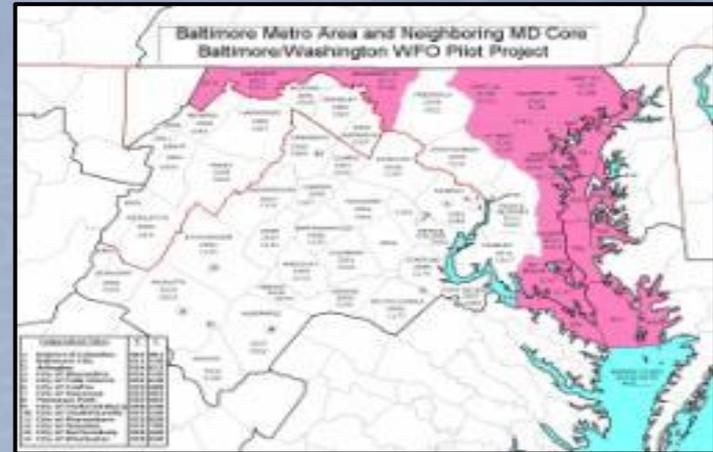
Steve Goldstein, DC Metro Area



- **Served with 4 NWS Forecast Offices**
 - Buffalo NY, San Diego CA, Reno NV & Sacramento, CA
- **IDSS Experience:**
 - Deployed as Incident Fire Meteorologist

ERS Mets

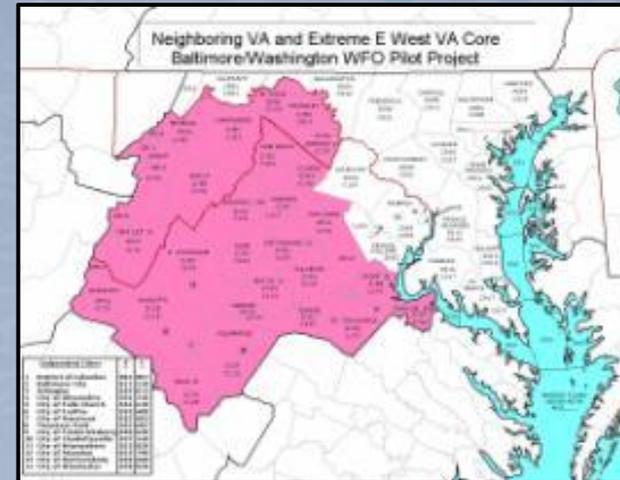
Ken Widelski, Maryland



- Served 3 NWS offices in Texas & New Mexico
- IDSS Experience:
 - Hurricane Ike (Texas)
 - Deepwater Horizon Oil Crisis (Gulf Coast)

ERS Mets

Kyle Struckmann, VA/WV



- Served with NWS Offices in New York, NY & Wakefield, VA
- IDSS Experience:
 - Macy's Parade & other New York City events
 - Aviation Forecasting in Northeastern U.S.

Next Steps

- **Orientation Meetings with Emergency Managers** *(ongoing)*
 - Continue to meet with key decision makers twice a year.
- **Document Key Information for Impacts Catalog**
- **Develop New Forecast Tools and Visuals**
- **Provide On-Site/Remote Forecasts As Needed**



Winter 2012-2013

- Collaborate with colleagues: HPC and MDL
- Gain feedback and develop 12 prototypes
- Prototypes delivered to core customers in the field for feedback
- Develop new set of core products both graphical and text
- Test products during the upcoming winter.



Prototypes

- Probabilistic in nature
- Better communicate range of possibilities
- Tailored toward local CWA
- Based on local impacts and decisions made by emergency managers.



Prototypes-Discussion

- Total snowfall accumulations with range of possibilities
- Winter P-Type probabilities
- Snow characteristics
- Peak timing and rates per hour
- Surface Low Track uncertainties
- Surface Low Track probabilities
- Thunder Snow Probabilities
- Critical Thresholds per customer county input
- Snow to liquid ratios
- Road temperatures and how much snow will accumulate on roads
- Categorize events on local scale (NESIS Cat 0-6)
- AWIPS point forecast for cities and thresholds



Contact Information

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