
Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR)

Meeting 2016-1

February 25, 2016

Administrative Info

- **Meeting will be recorded**
- **Facilities**
- **Coffee / tea available in back of the room**
- **Telecon / GoToMeeting**
 - Dial-in 1-888-680-9581, passcode 535430#
 - GoToMeeting: <https://www1.gotomeeting.com/join/194615977>
- **Slides posted at:** <http://www.ofcm.gov/icmssr/meetings.htm>
 - **Please advise us of any sensitivities**

Opening Remarks

Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR)

*Dr. William Schulz
Federal Coordinator*

- **Welcome**
- **Introduction and Background**
- **Roll Call**

Recent Major Accomplishments

- Published Federal Meteorological Handbook No. 11 - Doppler Radar Meteorological Observations (WSR-88D) Part A - System Concepts, Responsibilities, and Procedures



- Planned and Conducted the Space Weather Enterprise Forum (SWEF) at the Hart Senate Office Bldg for over 200 government, academia, industry, and foreign attendees supporting implementation of the national Space Weather Strategy and Action Plan.

- Coordinated the upgrade of communication circuits and improved data exchange rates from 28Mbs to 400 Mbs among the five weather centers in the COPC network (557 WW, FNMOC, NAVO, NCEP, NSOF).



ICMSSR Leadership Proposal

- Each year ICMSSR Members will nominate a person to serve a 1-year term as the rotating ICMSSR Chair.
 - Nominations should be made prior to end of CY.
 - Chair will serve until the end of the CY.
 - Nominations need to be seconded and approved by voice vote of the ICMSSR members.
 - The rotating ICMSSR Chair will seek consensus and provide leadership for the ICMSSR.
- The Federal Coordinator will serve as permanent ICMSSR Vice-Chair to provide continuity of the Federal Weather Enterprise coordination effort.
- **2016 Call for nominations**

Today's Agenda

- **Opening Remarks**
 - *Dr. William Schulz, Federal Coordinator*
- **Action Item Review**
 - *Mr. Michael Bonadonna, Secretariat*
- **Institutional Survey on Weather Warnings, Watches, and Advisories:**
 - *Mr. Eli Jacks (NWS)*
- **Federal Coordinator's Perspective For OFCM Direction:**
 - *Dr. William Schulz, Federal Coordinator*
- **Proposed FCMSSR Charter**
 - *Dr. William Schulz, Federal Coordinator*
- **Open Discussion**
- **Wrap Up**

FCMSSR Action Items

AI #	Responsible Office	Text	Status	Due Date
2015-1.1	ICMSSR	ICMSSR will develop a concise framework to include a method for cost-benefit analytics which will help guide the acquisition of meteorological data and observing systems to include use of commercial and foreign sources.	Open	11/15/2015
2015-1.2	ICMSSR	Evaluate the status of MPAR and prepare options for developing a whole of government radar capability to meet terminal and long-range weather and surveillance operational requirements and research needs.	Open	11/15/2015
2015-1.3	ICMSSR	ICMSSR will provide a short list of issues, including a summary from the Pre-FCMSSR meeting (May 11, 2015) meeting, for FCMSSR consideration.	Closed	11/1/2015
2015-1.4	OFCM	OFCM will schedule the next FCMSSR meeting for Nov/Dec 2015 and propose dates for semiannual meetings during 2016.	Closed	10/1/2015

ICMSSR Action Item Review

AI #	Responsible Office	Text	Comment	Status	Due Date
2015-1.1	OFCM	Request OSTP USGEO program “develop a concise framework to include a method for cost-benefit analytics which will help guide the acquisition of meteorological data and observing systems to include use of commercial and foreign sources.” (FCMSSR AI 2015-1.1) and provide a status update at the next FCMSSR meeting scheduled in Nov/Dec 2015.	12/2: USGEO will brief their proposal up their chain to CENRS and at the next FCMSSR mtg. OFCM will discuss with VADM (Ret) Brown 2/22: USGEO taking no further action. Recommend ICMSSR establish a JAG to draft the framework.	Open	08/21/15
2015-1.2	OFCM	Task the Working Group for Multifunction Phased Array Radar (WG/MPAR) to “Evaluate the status of MPAR and prepare options for developing a whole of government radar capability to meet terminal and long-range weather and surveillance operational requirements and research needs.” (FCMSSR AI 2015-1.2) and provide a status update at the next FCMSSR meeting scheduled in Nov/Dec 2015.	11/30: Status will be updated at this next ICMSSR mtg.	Open	08/21/15
2015-1.6	OFCM	Update the Terms of Reference documents for all Committees, Working Groups and Joint Action Groups subordinate to the ICMSSR to include formalized engagement with OSTP.	11/18: Action deferred until the FCMSSR Charter is updated.	Open	08/10/16
2015-2.1a	ICMSSR	ICMSSR members will identify Subject Matter Experts within their agencies to provide information on the status of agency implementation of Open Geospatial Consortium (OGC) meteorological standards.	2/12: A small cadre from several agencies have been identified.	Closed (TBA)	12/31/15
2015-2.1b	OFCM	OFCM will collect and compile their input for presentation at the next ICMSSR meeting.	2/12: Status will be reported at this ICMSSR Mtg	Open	03/01/16

ICMSSR Action Item Review

AI #	Responsible Office	Text	Comment	Status	Due Date
2015-2.2a	ICMSSR	ICMSSR members provide their top four or five (prioritized) recommended topics from the list provided for the next FCMSSR meeting via email to OFCM. Recommendations should be based on topic readiness and relevance to the interagency partners.	2/12: Three agencies responded. OFCM will show the proposed FCMSSR agenda at this ICMSSR mtg for approval and action.	Closed (TBA)	12/31/15
2015-2.2b	OFCM	OFCM will compile the results, develop background papers on the consensus issues, and provide those papers to ICMSSR for review prior to development of the next FCMSSR meeting agenda.	2/12: Once the FCMSSR mtg agenda is approved by the ICMSSR, OFCM will draft background papers to support the meeting.	Open	01/31/16
2015-2.3	OFCM	Plan to conduct the next Space Weather Enterprise Forum in May 2017. Secure funding support from the ICMSSR agencies.		Open	03/31/16
2015-2.4	OFCM	OFCM will contact the NSTC US Global Change Research Program to ensure the FCMSSR Charter contains a statement to clarify the relationship.	1/25: Dr. Schulz visited OSTP and spoke with US GCRP. The FCMSSR Charter will be adjusted accordingly	Closed (TBA)	12/31/15
2015-2.5	OFCM	OFCM will draft and coordinate a new FCMSSR Charter, secure agency concurrence, General Counsel review, and forward the new charter to the FCMSSR for approval.		Open	05/27/16
2015-2.6	OFCM	The OFCM will present a proposal for the terms and responsibilities for the rotational ICMSSR chairman. The approved procedure will be included in the ICMSSR Terms of Reference when it is updated.	2/12: The proposal will be included in the FC presentation at the next ICMSSR mtg	Closed (TBA)	03/01/16

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NWS Hazards Simplification (“Haz Simp”) ***Project Update; Participation Opportunity***

Eli Jacks

**Chief, Forecast Services Division
NWS Analyze, Forecast and Support Office**

**Interdepartmental Committee for Meteorological
Services and Supporting Research**

February 25, 2016



Outline

- **The Current WWA System – What are the Issues?**
- **Feedback To Date:**
 - *Multi-disciplinary Focus Groups*
 - *Haz Simp Workshop*
- **Plan Forward:**
 - *Prototype Demonstration Series and Ideas for “Repair”*
 - *Institutional Survey and Case Study Analysis*
 - *How You Can Assist!*



NWS Strategic Outcome: A Weather-Ready Nation

- Becoming a Weather-Ready Nation is about building community resiliency in the face of increasing vulnerability to extreme weather, water & climate events

"Ready, Responsive, Resilient"

- REQUIRES NWS TO:

- Fully integrate our field structure to produce:
 - *Better forecasts and warnings*
 - *Consistent products and services*
 - *Actionable environmental intelligence*



- Address the “last mile” that connects forecast to critical national, state and location decisions
 - *Provide Impact-based Decision Support Services (IDSS)*
 - *Deliver through multiple and reliable dissemination pathways*
 - *Work with partners to gain needed response; includes embedding NWS in Emergency Operations Centers and incorporating Social Sciences*

The Intrinsic Value of Forecasts

“What is a Good Forecast? An Essay on the Nature of Goodness in Weather Forecasting”

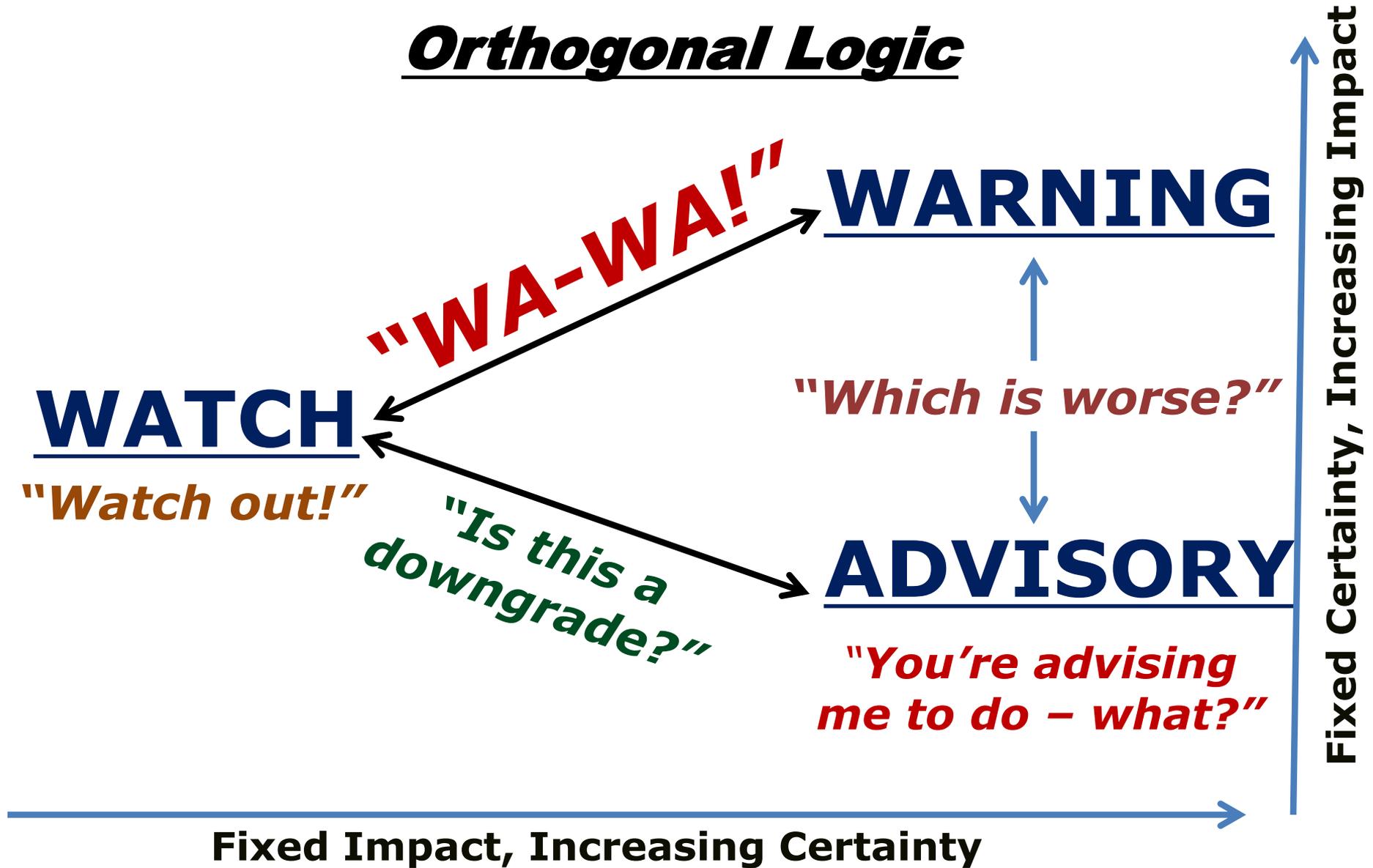
by Allan H. Murphy; Weather and Forecasting (June 1993)

“First, it should be understood that forecasts possess no intrinsic value. They acquire value through their ability to influence the decisions made by users of the forecasts.”

“The traditional product-centric suite suffers from its limited ability to convey complete information, often encompasses too wide a threat window, and is subject to widely varied interpretation”

WWA: What Are The Issues?

Orthogonal Logic



WWA: What Are The Issues?

Product Proliferation & Confusion!



NWS Watch, Warning, Advisory Periodic Table

511 TO Tornado Warning	511 SV Severe Thunderstorm Warning	511 SV Severe Thunderstorm Statement	512 TO Tornado Watch	512 SV Severe Thunderstorm Watch	<p>NWS Directive (Prefix 10-1) (*WWA may be in multiple directives)</p> <p>513 WW Winter Weather Advisory</p> <p>← VTEC Phenomena or AWIPS ID ← VTEC Phenomena Full Name</p> <p>VTEC Significance → Advisory</p> <p>Background color according to http://www.weather.gov/uf/terms Text color is chosen to be most viewable</p> <p>Questions/Comments? andrew.ansorge@noaa.gov</p>										513 BZ Blizzard Warning	513 BZ Blizzard Watch	513 LE Lake Effect Snow Watch	513 LE Lake Effect Snow Advisory	513 LE Lake Effect Snow Warning	513 IS Ice Storm Warning	513 WC Wind Chill Watch	513 WC Wind Chill Advisory	513 WC Wind Chill Warning	513 ZR Freezing Rain Advisory
601 HU Hurricane Warning	601 HU Hurricane Watch	601 TS Tropical Storm Warning	601 TS Tropical Storm Watch	601 TY Typhoon Warning	601 TY Typhoon Watch	601 EW Extreme Wind Warning	601 HL Hurricane Local Statement	601 HL Tropical Storm Local Statement	601 HL Typhoon Local Statement	601 HL Tropical Depression Local Statement	922 FF Flash Flood Warning	922 FF Flash Flood Watch	922 FF Flash Flood Statement	513 WC Wind Chill Watch	513 WC Wind Chill Advisory	513 WC Wind Chill Warning	513 ZR Freezing Rain Advisory							
922 FL Flood Warning	922 FL Flood Advisory	922 FL Arroyo and Small Stream Flood Advisory	922 FL Small Stream Flood Advisory	922 FL Urban and Small Stream Flood Advisory	922 FL Flood Watch	922 FL Flood Statement	922 HY Hydrologic Advisory	922 ESF Hydrologic Outlook	320 CF Coastal Flood Warning	320 CF Coastal Flood Advisory	320 CF Coastal Flood Watch	320 CF Coastal Flood Statement	320 LS Lakeshore Flood Warning	320 LS Lakeshore Flood Advisory	320 LS Lakeshore Flood Watch	320 LS Lakeshore Flood Statement	320 RP Rip Current Statement							
320 SU High Surf Warning	320 SU High Surf Advisory	320 BH Beach Hazard Statement	315 MA Special Marine Warning	314 MW Marine Weather Statement	315 AF Aurora Warning	315 AF Aurora Advisory	315 BW Brisk Wind Advisory	315 FG Dense Fog Advisory	315 SM Dense Smoke Advisory	315 ZY Freezing Spray Advisory	315 GL Gale Warning	315 GL Gale Watch	315 SE Hazardous Seas Warning	315 SE Hazardous Seas Watch	315 UP Heavy Freezing Spray Warning	315 UP Heavy Freezing Spray Watch	315 HF Hurricane Force Wind Warning							
315 HF Hurricane Force Wind Watch	315 LO Low Water Advisory	315 SC Small Craft Advisory	315 SC Small Craft for Hazardous Seas Advisory	315 RB Small Craft for Rough Bar Advisory	315 SI Small Craft for Winds Advisory	315 SR Storm Warning	315 SR Storm Watch	701 TS Tsunami Warning	701 TS Tsunami Advisory	701 TS Tsunami Watch	401 FW Red Flag Warning	401 FW Fire Weather Watch	401 FW Fire Weather Warning	401 FW Fire Weather Statement	517 HWO Hazardous Weather Outlook	517 NOW Short Term Forecast	517 SPS Special Weather Statement	519 AQI Air Quality Alert						
515 AS Air Stagnation Advisory	515 DU Blowing Dust Warning	515 DU Blowing Dust Advisory	515 EH Excessive Heat Warning	515 EH Excessive Heat Watch	515 EC Extreme Cold Warning	515 EC Extreme Cold Watch	515 FZ Freeze Warning	515 FZ Freeze Watch	515 ZF Freezing Fog Advisory	515 FR Frost Advisory	515 HZ Hard Freeze Warning	515 HZ Hard Freeze Watch	515 HT Heat Advisory	515 HW High Wind Warning	515 HW High Wind Watch	515 LW Lake Wind Advisory	515 WI Wind Advisory							
518 AV Avalanche Warning	518 AV Avalanche Advisory	518 AV Avalanche Watch	518 TOE Telephone Outage	ADR Administrative Message	CAE Child Abduction Emergency	CDW Civil Danger Warning	CEM Civil Emergency Message	EQ Earthquake Warning	518 EVI Evacuation Immediate	518 FR Fire Warning	518 HM Hazardous Materials Warning	518 LEW Low Enforcement Warning	518 LAE Local Area Emergency	518 NUW Nuclear Power Plant Warning	518 RH Radiological Hazard Warning	518 SP Shelter in Place Warning	518 VO Volcano Warning							

"ICE STORM WARNING IS CANCELLED...FREEZING RAIN ADVISORY IN EFFECT UNTIL 6 PM SUNDAY" 16

Project Feedback

■ 2014 Focus Groups:

- *Four cities, Five constituent groups (including EMs)*
- *Finding: Spectrum of understanding, “Advisory” misunderstood*

■ 2015: Qualitative WWA Case Study Survey

- *Focus on WWA strengths, weaknesses*
- *Over 700 responses; analysis ongoing*

■ Upcoming - Institutional Survey:

- *Is WWA “institutionalized” in policy/law?*
- *If so, how does this influence change?*



Recurring Themes

Up Until Workshop

- WWA terms: A spectrum of understanding among those asked
- Support for a color and/or numbering scheme, and symbols
- “Advisory” is generally misunderstood; “Watch” and “Warning” are sometimes confused
- Support for an “Emergency” tier for “This one is different!”
- “Is there anything you can do quickly?”
- Results indicating a desire for “more change” are statistically significant, but are not generalizable across all populations

The Haz Simp Workshop

- Held Oct 27-29 at NWS Training Center in Kansas City, MO:
 - *115 attendees: NOAA/NWS staff, EMs, weather and climate industry, social scientists*
 - *Breakout group process critical to success*
 - *We asked for WWA language alternatives but got much more!*
 - *The Haz Simp team selected the three most promising prototypes from the Workshop for the 2016 Prototype Demonstration*



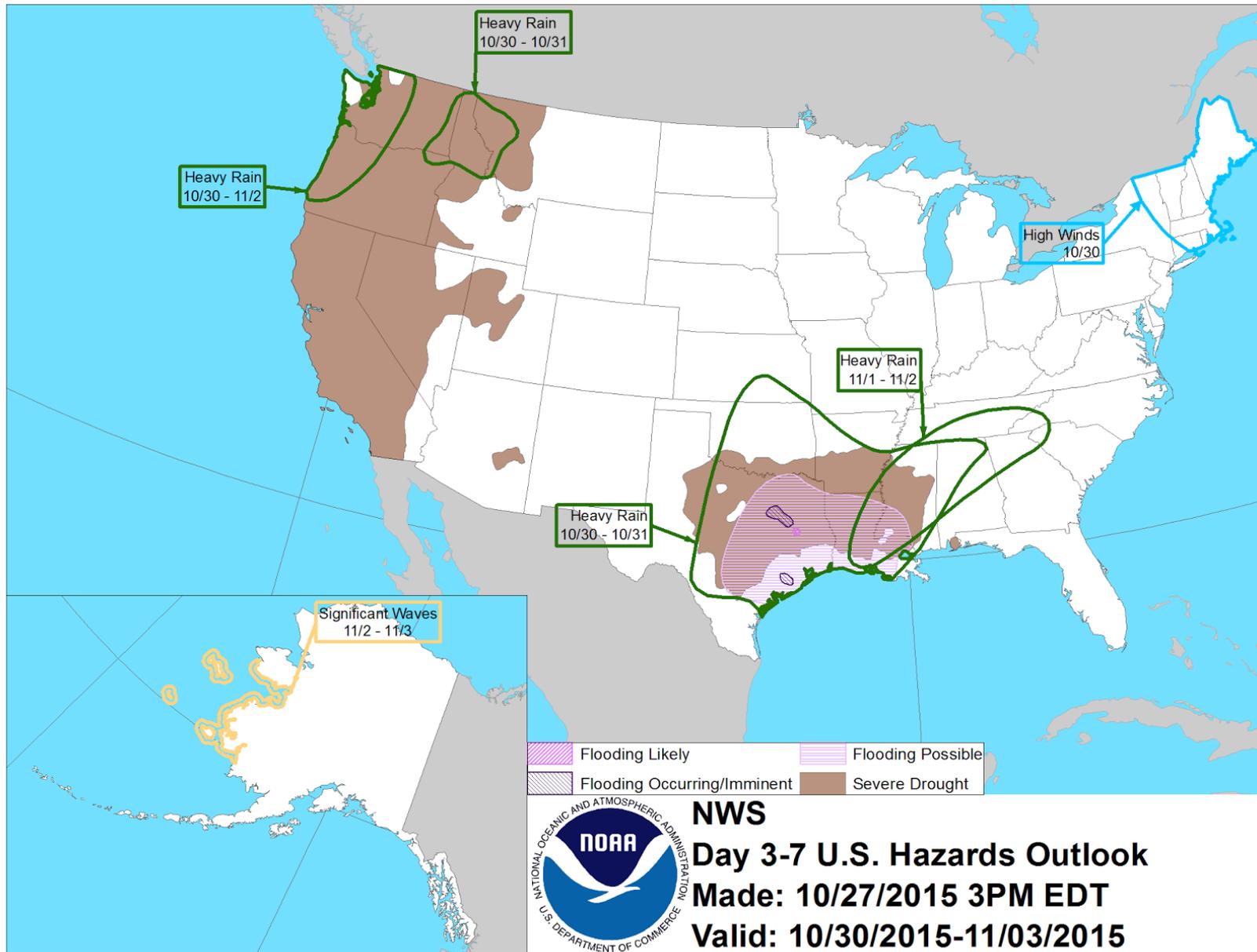
Workshop Feedback:

More of the Same!

- Eliminate “**Advisory**”; consider rewording “Watch”
- Too many products – amalgamate!
- Consider using a single Warning headline, e.g.;
“The NWS has issued a Warning for (Heavy Snow, Flooding, High Wind)”
- Use action, risk and/or impact statements in place of WWA
 - *Be Aware, Get Prepared, Be Informed, Take Action*
- Use a 3-5 tier hierarchical scheme with color coding

Two Categories of Change

- **REPAIR**: WWA product changes that could be implemented via policy and/or minor software change
- **REVAMP**: An overhaul and/or revisualization of the hazard messaging paradigm that would require major policy and infrastructure changes



Workshop Case Study: Hazardous Weather Outlook

HAZARDOUS WEATHER OUTLOOK
NATIONAL WEATHER SERVICE FORT WORTH TX
408 AM CDT WED OCT 28 2015

TXZ091>095-100>107-115>123-129>135-141>148-156>162-174-175-290915-
MONTAGUE-COOKE-GRAYSON-FANNIN-LAMAR-YOUNG-JACK-WISE-DENTON-COLLIN-
HUNT-DELTA-HOPKINS-STEPHENS-PALO PINTO-PARKER-TARRANT-DALLAS-
ROCKWALL-KAUFMAN-VAN ZANDT-RAINS-EASTLAND-ERATH-HOOD-SOMERVELL-
JOHNSON-ELLIS-HENDERSON-COMANCHE-MILLS-HAMILTON-BOSQUE-HILL-NAVARRO-
FREESTONE-ANDERSON-LAMPASAS-CORYELL-BELL-MCLENNAN-FALLS-LIMESTONE-
LEON-MILAM-ROBERTSON-
408 AM CDT WED OCT 28 2015

THIS HAZARDOUS WEATHER OUTLOOK IS FOR NORTH CENTRAL TEXAS.

.DAY ONE...TODAY AND TONIGHT...
NO HAZARDOUS WEATHER IS EXPECTED AT THIS TIME.

.DAYS TWO THROUGH SEVEN...THURSDAY THROUGH TUESDAY.
THERE IS A CHANCE OF THUNDERSTORMS ACROSS ALL OF NORTH CENTRAL
TEXAS THURSDAY NIGHT THROUGH SATURDAY. THIS SYSTEM HAS THE
POTENTIAL TO PRODUCE HEAVY RAINFALL AND LOCALIZED FLASH FLOODING
ON FRIDAY AND FRIDAY NIGHT.

Workshop Case Study: Flash Flood Watch

945 PM CDT WED OCT 21 2015

...FLASH FLOOD WATCH REMAINS IN EFFECT FROM LATE THURSDAY NIGHT THROUGH LATE SATURDAY NIGHT... THE FLASH FLOOD WATCH CONTINUES FOR

* PORTIONS OF NORTH CENTRAL TEXAS AND NORTHEAST TEXAS... INCLUDING THE FOLLOWING IN NORTH ...CENTRAL TEXAS...BELL... BOSQUE...COLLIN...COMANCHE...COOKE...CORYELL...DALLAS... DENTON...EASTLAND...ELLIS...ERATH...FANNIN...GRAYSON... HAMILTON...HILL...HOOD...HUNT...JACK...JOHNSON...KAUFMAN... LAMPASAS...MCLENNAN...MILLS...MONTAGUE...NAVARRO...PALO PINTO...PARKER...ROCKWALL...SOMERVELL...STEPHENS...TARRANT... WISE AND YOUNG. IN NORTHEAST TEXAS...DELTA...HENDERSON... HOPKINS...LAMAR...RAINS AND VAN ZANDT.

* FROM LATE THURSDAY NIGHT THROUGH LATE SATURDAY NIGHT

* PROLONGED HEAVY RAINFALL

* FLASH FLOODING OF LOW LYING AREAS...SMALL CREEKS AND STREAMS AND POOR DRAINING STREETS AND ROADS.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A FLASH FLOOD WATCH MEANS THAT CONDITIONS ARE FAVORABLE FOR HEAVY RAIN WHICH MAY LEAD TO FLASH FLOODING. YOU SHOULD MONITOR THE LATEST FORECASTS FROM THE NATIONAL WEATHER SERVICE AND BE PREPARED TO TAKE ACTION SHOULD FLASH FLOOD WARNINGS BE ISSUED FOR YOUR AREA.

&&

Prototype One From Workshop

WARNING FOR FLOODING

NATIONAL WEATHER SERVICE FT WORTH TX
400 PM CDT FRI OCT 30 2015

<standard UGC / VTEC information here>

<standard county listing>

400 PM CDT FRI OCT 30 2015

...Widespread flooding is occurring in the warning area...

What: Flash Flooding

Where: Henderson County, TX

When: Until 7pm CDT

Actions: Do not enter or cross flowing water or water of unknown depth. Turn around...Don't Drown!

Impacts: Flash Flooding of low lying areas...small creeks and streams and poor drainage streets and roads. Law enforcement reporting multiple road closures, including some major routes.

Prototype Two From Workshop

CURRENT WWA	NEW HEADER	VERB/COLOR?	IMPACT
<i>Emergency</i>	Warning	Take Action	Widespread/Catastrophic
<i>Warning</i>		Take Action	Life-Threatening
<i>Advisory</i>		Take Action	Potentially Dangerous
<i>Watch</i>	Weather Hazards Outlook	Get Prepared	Higher Risk
<i>Outlook</i>		Be Aware	Lower Risk

Prototype Three From Workshop

Wednesday October 28

Be Aware: Flood

- **What:** Heavy rain of 3-5"; low areas, creeks, streams and low water crossings may flood.
- **Where:** Much of central Texas including the Dallas/Fort Worth Metro area.
- **When:** Thursday, October 29 - Sunday, November 1
- **Actions:** Monitor local media; NWS at weather.gov/fwd.
- **Additional Details:** at weather.gov/fwd/flood.

Thursday October 29

Get Prepared: Flood

- **What:** Heavy rain of 4-6" forecast. Flooding of low areas, creeks, streams and low water crossings is anticipated. Roads may be closed due to flooding.
- **Where:** Much of central Texas including the Dallas/Fort Worth Metro area.
- **When:** early evening Friday, October 30 to early evening Saturday, October 31.
- **Actions:** Prepare to adjust travel plans. Stay away from rising rivers. Ranchers: move livestock out of floodplains.
- **Additional Details:** at weather.gov/fwd/flood.

Friday, October 30

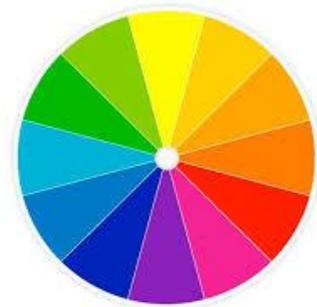
Take Action: Flood

- **What:** Flooding is imminent along Tuttle Creek, Trinity River, and in urban areas of the Dallas/Fort Worth metroplex. Roads may be impassible on the west side of Dallas. Interstates may flood especially interchanges.
- **Where:** South Central Dallas County, eastern Denton County, including Dallas, Fort Worth, Plano, Arlington.
- **When:** Now until 2 pm CDT Saturday, October 31.
- **Actions:** Motorists need to avoid west Dallas. Stay away from rising rivers and creeks. Turn Around, Don't Drown!.
- **Additional Details:** at weather.gov/fwd/flood.

2016 Prototype Testing

WWA Alternatives Using Real Cases!

- Develop scenarios for winter storms, flooding, non-precipitation hazards, marine, convection
- Survey each prototype demonstration via a new Haz Simp public webpage (widely advertised)
- Options to be prototyped:
 - *Replace Advisory only*
 - *Replace Watch and Advisory*
 - *Replace WWA terms entirely*



And Use Color!

2016 Institutionalization Survey



- The survey aims to assess the level of "institutionalization" of WWA products in the decision-making processes of partners via existing policy or law
 - *A variety of stakeholders to be contacted*
- This assessment is critical if there are to be changes to the current WWA messaging system
 - *NWS will need to coordinate with stakeholders to ensure a smooth transition to any new system*

Institutionalization Survey

Some Questions We Need Answered

- To what extent does your agency base decisions on NWS products such as “Watches,” “Warnings,” and “Advisories”?
- To what extent do you use NWS terms or forecast information in official policies or contracts?
- What would happen if NWS altered the structure of the Watch, Warning, Advisory system that it now currently uses?
- How difficult would it be to incorporate new terms or information into the current structure?
- How long would it take for you to change policies, if needed?

Rolling It All Together: *“Triangulating” the Data*

- The Focus Groups enabled us to gather input on user understanding & attitudes about the WWA system
- At the Haz Simp Workshop, attendees provided ideas for new language as alternatives to WWA (and other ideas as well)
- The Institutional Survey will assess how embedded WWA is within policy or law
- Over 700 Case Studies from NWS staff & partners to provide more feedback on WWA strengths and weaknesses



The Plan Forward

2016

Repairs

- Consider shortening the overall message
- Test a four-color optional WWA national/local map
- Use caps/font variations for key message elements
- Amalgamate products
- Standardize message bullets (what, where, when, actions)
- Increased geographical targeting for specific hazards

Revamp

- Conduct a prototype demonstration test which includes a variety of hazards for public comment
 - *2017: WWA vs Prototype*
- Institutionalization survey

The Plan Forward

2017 and Beyond



- Integrate data from all feedback; identify a prototype worthy of in-depth testing and analysis. Then:
 - *Conduct a Generalizable Public Survey*
 - *Go “under the hood” of prototype to examine viability and requirements (policy, software, dissemination policy)*
 - *Hazardous Weather Tested*
 - *Operations Proving Ground*

Institutionalization Survey

Phone Interview Opportunity

***Is WWA institutionalized
within your federal agency?***

If yes, please consider participating in a short phone call interview. To participate, please contact:

Dr. Gina Eosco

Risk Communication Specialist

Gina.Eosco@erg.com

Cell: (781)704-4458



ACKNOWLEDGEMENTS

NOAA: Jen Sprague, Andy Horvitz, Mike Bilder, Andrew Perring, Vankita Brown, Denna Geppi

Eastern Research Group: Gina Eosco, Linda Girardi, Sumayal Shrestha

And numerous others who are supporting this effort!

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OFCM Vision 2016-2017

Meeting 2016-1

*Bill Schulz
Federal Coordinator*

February 25, 2016

Approach

- A *Proposed* Way Ahead
- Presented for ICMSSR review and comment
- Combination snapshot, strategic vision, and near-term goals
- OFCM priorities will be those that are FCMSSR/ICMSSR approved or directed
- Outline:
 - Mission
 - Structure
 - Procedures
 - Priorities, Goals and Expected Outcomes

Mission

OFCM is a service organization.

Our customers are the agencies comprising the Federal Weather Enterprise (FWE).

Our main product is sustained coordination efforts on cross-agency issues.

Mission (expanded)

- **Coordinate**
 - Facilitate the exchange of information, plans and concerns among the Federal Weather Enterprise to help the nation get the most out of the approximately \$5.3B spent annually on meteorological services and supporting research.
- **Advise**
 - Provide strategic and operational views of interagency federal weather efforts in order to support related decisions at high levels.
- **Plan**
 - Produce and maintain foundational meteorological documents including:
 - Federal Plan for Meteorological Services and Supporting Research
 - Federal Meteorological Handbooks
 - National Hurricane Operations Plan
 - Others as directed

Structure (resources)

- Personnel
 - Five science and technical FTE's, 1 full time contractor.
 - 3 science/technical FTE vacancies
 - 3 admin staff
 - 1 full time contractor, additional part-time hours
- Funding (non government salaries)
 - ~ \$400K annually
 - Bulk (~\$300K) from DoD, DoE
 - (Infrastructure and FTE salaries supplied by NOAA)
- Personnel goal: Fill 2 vacancies in FY2017, one in FY2018.
 - FY17
 - Physical Scientist: Modeling and Climate
 - Project Management Specialist: Publications and Reports Management
 - FY18
 - Physical Scientist: Deputy Director/Research Coordinator
- Funding goal: Expand the contributor pool

Structure (coordination)

Committee for Climate Monitoring and Services (INACTIVE)

Committee for Cooperative Research (INACTIVE)

Committee for Observing Systems and Services (INACTIVE)

Working Group for Multifunction Phased Array Radar

Working Group for Meteorological Codes

Committee for Space Weather (INACTIVE)

Working Group for the Space Weather Enterprise Forum

Committee for Aviation Research and Services (INACTIVE)

Working Group for Volcanic Ash

Committee for Operational Environmental Satellites

Satellite Telemetry Interagency Working Group

Committee for Operational Processing Centers

Working Group for Cooperative Support and Backup

Working Group for Observational Data

Other:

Working Group for Hurricane and Winter Storms Operations

Working Group for Wildland Fire Weather

Working Group for Interdepartmental Hurricane Conference

Working Group for Atmospheric Transport and Diffusion

Procedural Guidelines

- Coordination is a target-rich environment
- Engage where we can add value, not bureaucracy
- Value looks like:
 - Financial incentives
 - Complex problem solving
 - Political support
 - Professional development
 - Uncertainty reduction
 - Complying with legal/policy mandates

Procedural Guidelines - COORDINATING

- Engage on committees (ICMSSR and OSTP organizations)
- Maintain contacts with extra-government agencies (AMS, AGU, NAS, Academia)
- Look to engage on strategic issues-
 - Improving forecasts
 - Increasing utility of meteorological information
 - Ensuring continuity of observation quality and sources
 - Facilitating data exchange and availability
 - Supporting sustainability of the FWE

Procedural Guidelines - ADVISING

- On selected (directed) topics with long (years+) lead times, present a horizontal view of the often disparate elements of a complex issue involving multiple agencies. Address elements such as:
 - Technical obstacles
 - Procurement sequencing requirements
 - Timeline discrepancies
 - Research and development
 - Testing and Evaluation
 - Deployment
 - Maintenance and sustainability expectations
 - Notional concept of operations
 - Funding sources and availability/expiration/contingencies
 - Expected benefits or capabilities
 - Expected costs
- Present a high level preliminary overview; 9 to 18 months to complete depending on the issue
- Intended to provide executive/senior agency (including OMB) leadership with solid background; help to manage expectations and enable more informed strategic planning and budgeting
- Example issues: Follow-on sensor development, modeling coordination

Procedural Guidelines - PLANNING

The Office, in collaboration with experts from various agencies, authors the following:

- Federal Plan for Meteorological Services and Supporting Research
 - Fulfills PL 87-843 direction for preparation of an annual report showing the totality of government expenditures on meteorological services.
 - Under OMB delegation, OFCM collects budget data from agencies.
- Federal Meteorological Handbooks
 - Currently 5 in use (FMH 1,2,3,11 and 12)
 - Goal: updated as technology and procedural changes required.
- National Hurricane Operations Plan (Reviewed annually at TCORF)
- Additional plans and reports as required

Priorities from around the FWE

- From meetings over the last two months, several common interests emerge among the FWE agencies:
 - Multi-purpose radar CONOPS
 - FMH updates
 - Determining the economic value of forecast improvements
 - Access to (and interpretation of) world wide meteorological data
 - Space based sensor data sharing
 - Coordinated approaches to modeling

CY2016 Goals

- OFCM internal:
 - Improve OFCM web page
 - Hire into two of the three vacancies
 - Project management specialist (publications)
 - Physical Scientist; Numerical Modeling and Climate
 - Increase non-NOAA representation in office
- FWE issues:
 - Clear ICMSSR/FCMSSR action items
 - Update foundational documents
 - Convene radar CONOPS working group
 - Assume SWORM duties
 - Publish FMH update plan
 - Engage groups involved in unified modeling efforts (e.g. ESPC)

CY2017 Goals

- OFCM internal:
 - Hire into third vacancy (Deputy Director/Research Coordinator)
 - Identify additional non-NOAA funding sources

- FWE issues:
 - Publish radar CONOPS advisory document
 - Publish first analytic report (issue TBD)
 - Reactivate the Committee for Cooperative Research
 - Initiate study on economic value of forecast improvements

Metrics

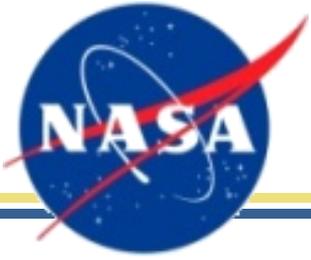
- Annual spending within the FWE vs. number of cooperative efforts and improvements
- Publication updates
- Reports issued
- Action items taken/completed at committee and working group meetings
- Web traffic
- Conference attendees (e.g. TCORF)

OFCM – Three things to end on:

- **Service Organization**
- **Cross-agency view**
- **Appreciative of ICMSSR prioritization guidance, personnel support, and funding**

ICMSSR Action Item 2015-2.2b

- Potential Issues sent to FCMSSR Chair on 12/2/2015
- Addressed at last FCMSSR Mtg
 - Observational Data sources, products, and standards
 - MPAR
 - Arctic issues and Climate Change
- Proposed for the next FCMSSR Mtg on April 19, 2016
 - Space Weather
 - Interagency Earth System Modeling and Prediction
- Issues for consideration at future FCMSSR meetings
 - Global/International collaboration
 - Requirements identification processes
 - Research priorities
 - Unified approach for national needs (R2O methodology)
 - Aviation Weather
 - Disaster preparedness planning: Risk identification, management, mitigation
 - Water Issues: Resource management, coastal /riverine flooding, drought
 - Climate Action Plan
 - Arctic Meteorological services and infrastructure
 - Meteorological support to a Pandemic Prediction Center
 - National Super Computer Initiative (ties to data assimilation and predictability)



National Earth System Prediction Capability (National ESPC)

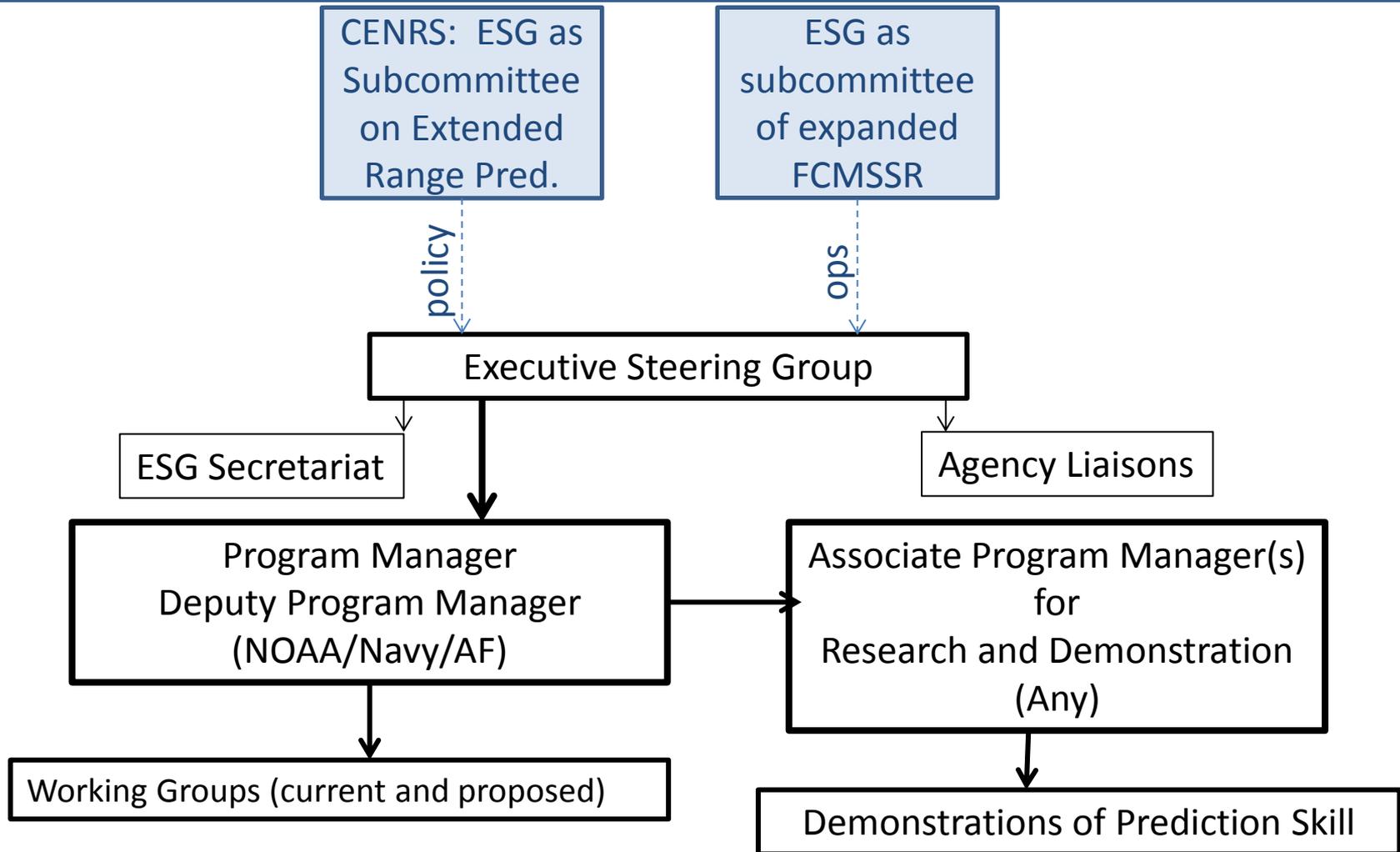
Jessie Carman – NOAA/OAR
Fred Toepfer – NOAA/NWS

Potential Organizational Connections

Recommendations

1. Implement ESG as CENRS Subcommittee for Extended Range Environmental Prediction
 - To formalize policy guidance only—no change to governance
2. Implement ESG as subcommittee of FCMSSR for operational coordination
 - Retain policy chain to CENRS
3. Expand/redefine role of FCMSSR
 - Coordinate Environmental Prediction, not just weather
4. Implement NESPC program office as a function of OFCM
 - Only following redefinition of roles/responsibilities of Federal Coordinator
5. If not 4, then leave NESPC program office independent of OFCM and reporting to ESG.

Proposed National ESPC Organizational Chart



Today's Agenda

- **Opening Remarks**
 - *Dr. William Schulz, Federal Coordinator*
- **Administrative Info and Action Item Review**
 - *Mr. Michael Bonadonna, Secretariat*
- **Institutional Survey on Weather Warnings, Watches, and Advisories:**
 - *Mr. Eli Jacks (NWS)*
- **Federal Coordinator's Perspective For OFCM Direction:**
 - *Dr. William Schulz, Federal Coordinator*
- **Proposed FCMSSR Charter**
 - *Dr. William Schulz, Federal Coordinator*
- **Open Discussion**
- **Wrap Up**

Action Item Review / Next Meeting

The Secretariat will document any action items taken during the meeting and schedule the next meeting in coordination with the cochairs.

Wrap Up

