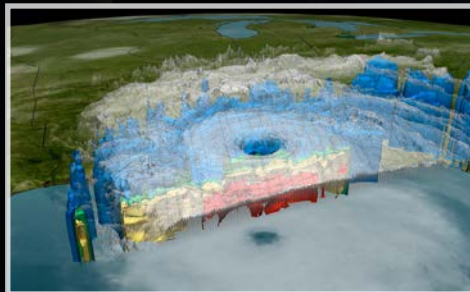
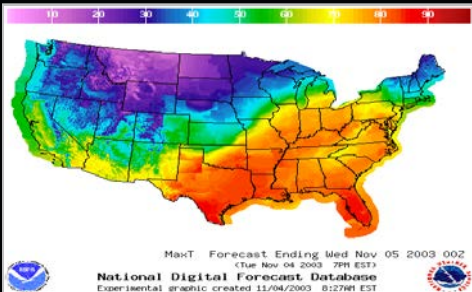
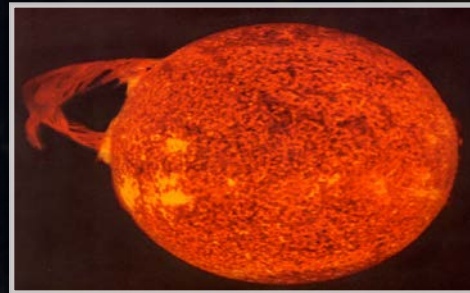
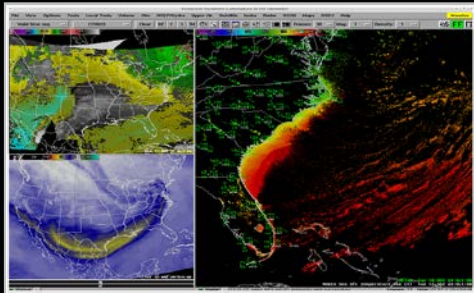


NDIA System Engineering Conference

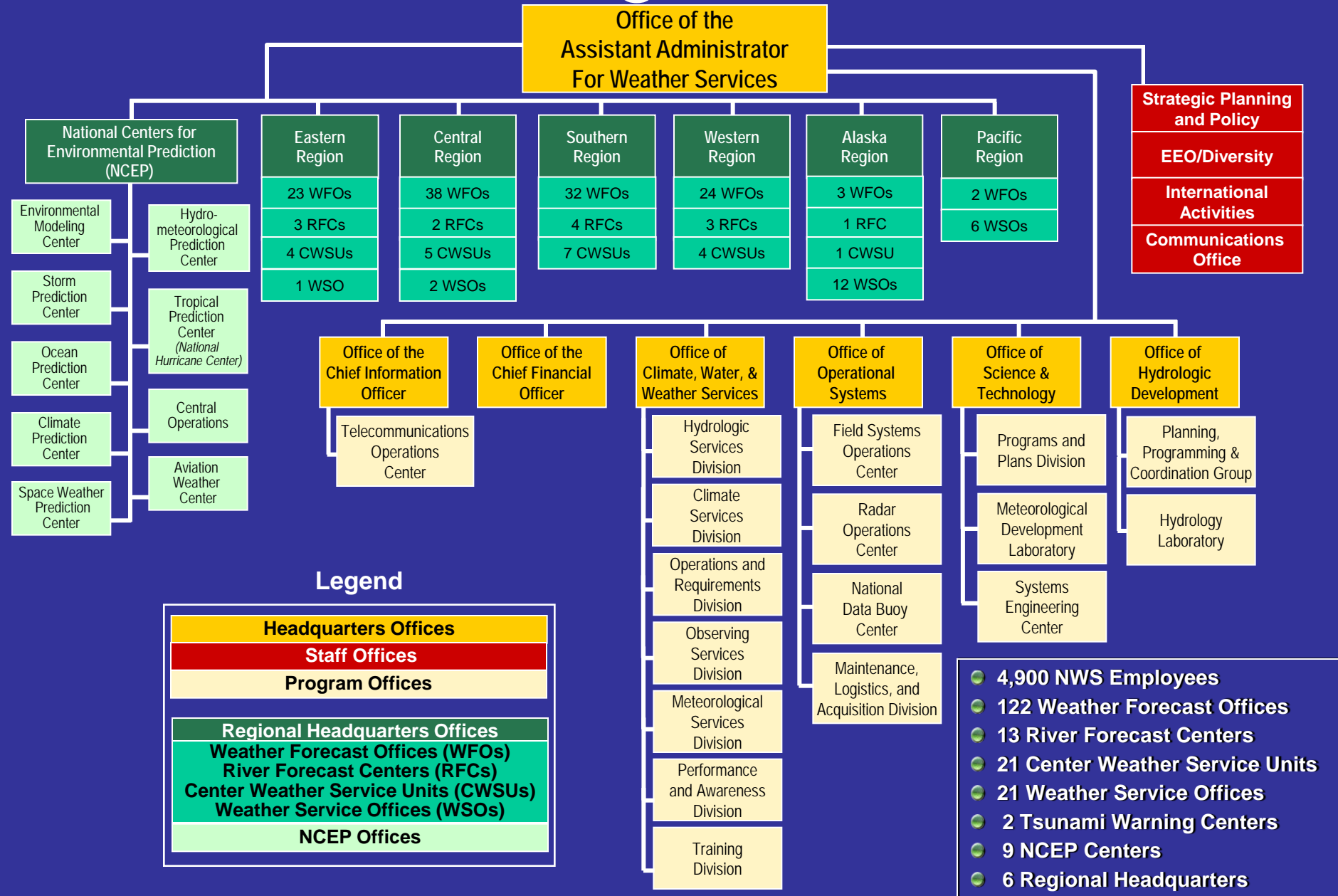
26 October 2015

Benjie Spencer
Chief Engineer, NOAA/National Weather Service

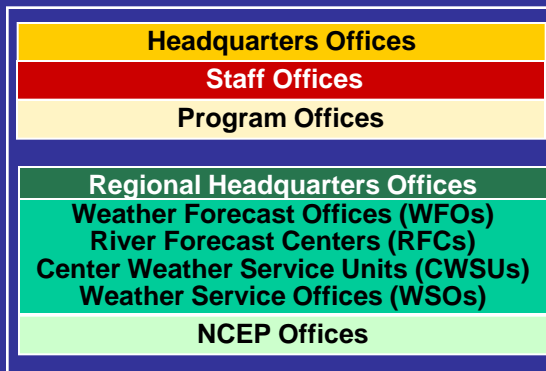
The National Weather Service of the Future: Building a Weather-Ready Nation



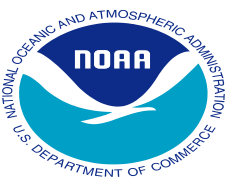
Previous NWS Organizational Structure



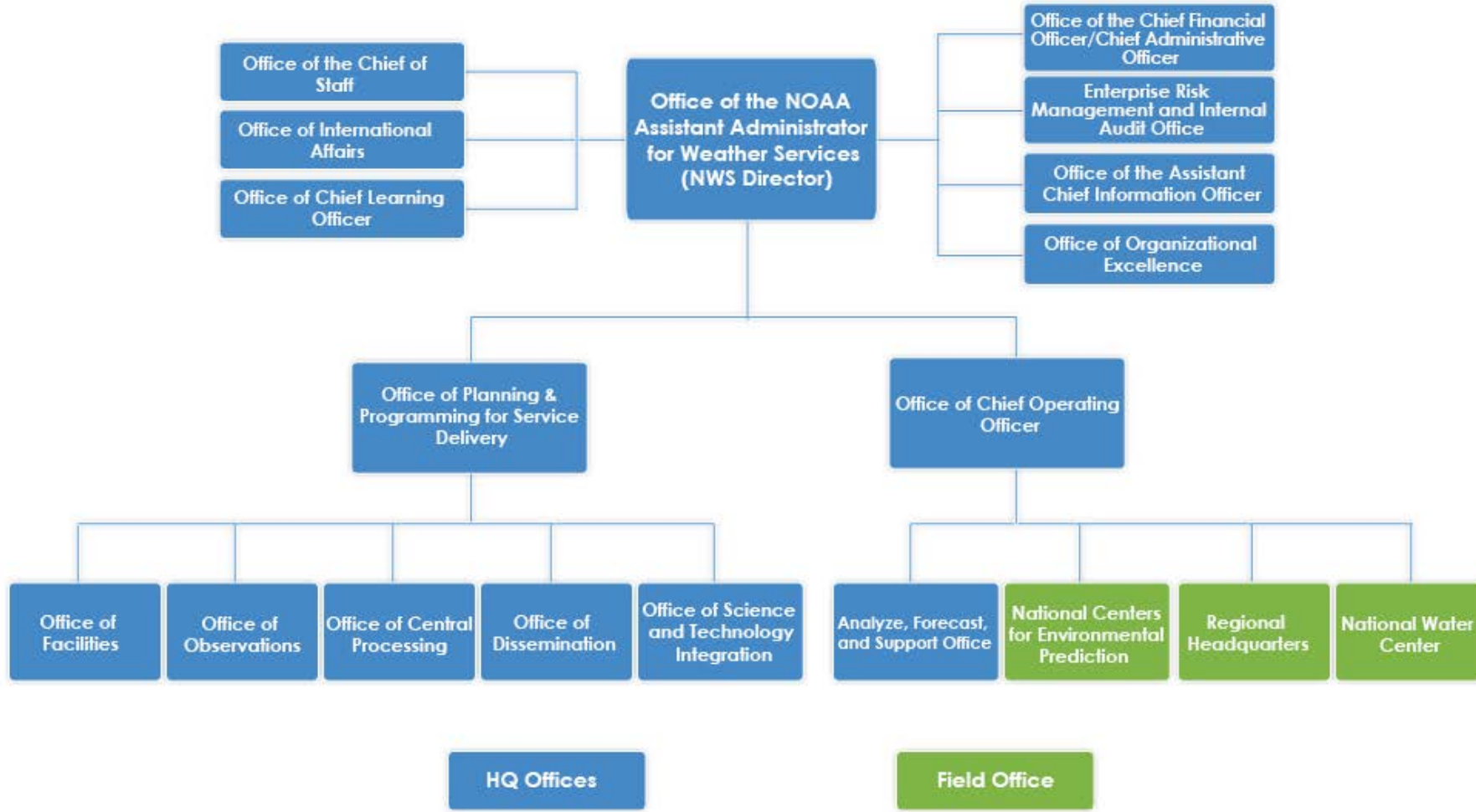
Legend



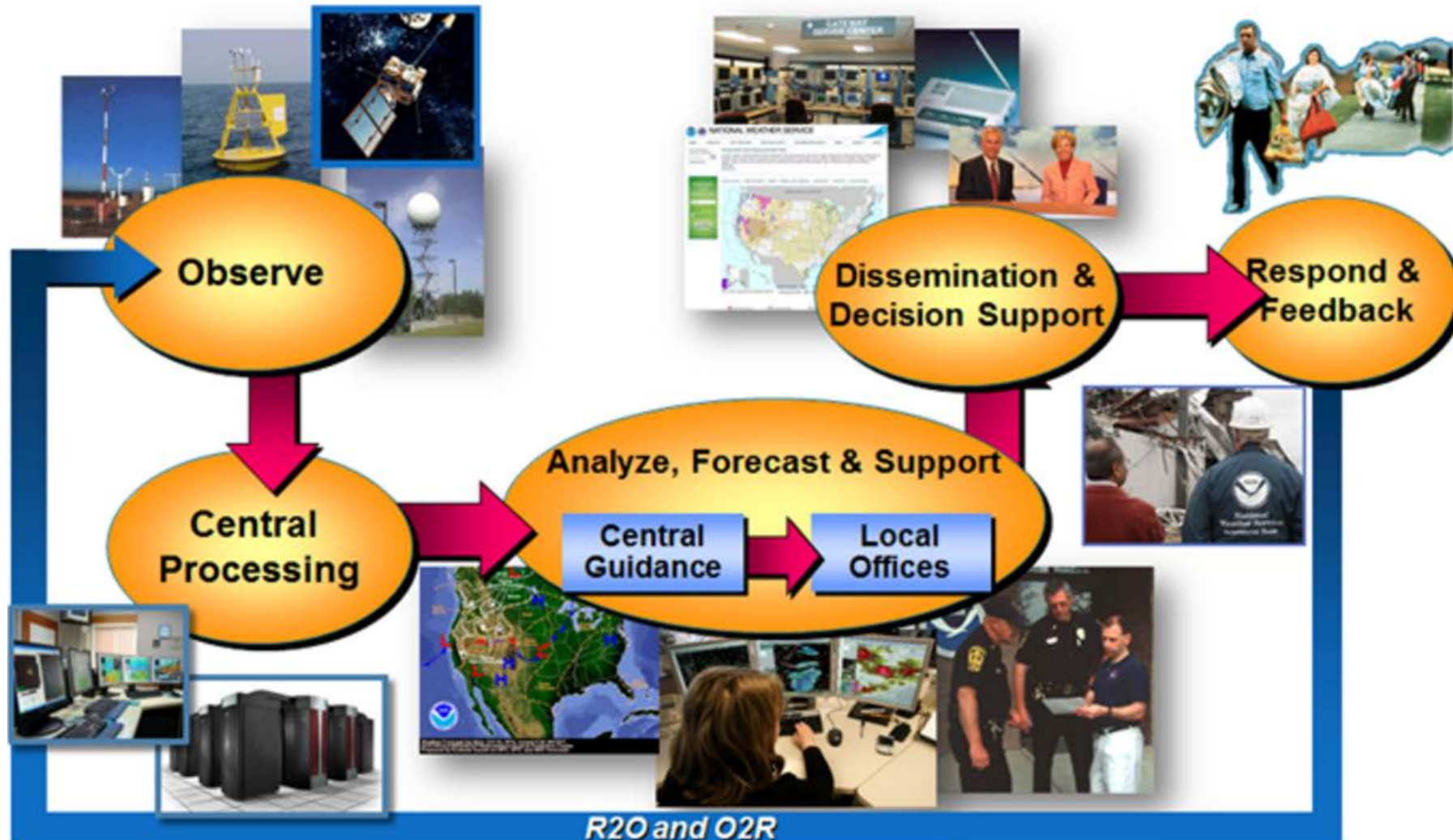
- 4,900 NWS Employees
- 122 Weather Forecast Offices
- 13 River Forecast Centers
- 21 Center Weather Service Units
- 21 Weather Service Offices
- 2 Tsunami Warning Centers
- 9 NCEP Centers
- 6 Regional Headquarters



New NWS Organizational Structure



Operational Flow





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

“Ready, Responsive, Resilient”

WRN

REQUIRES NWS TO:

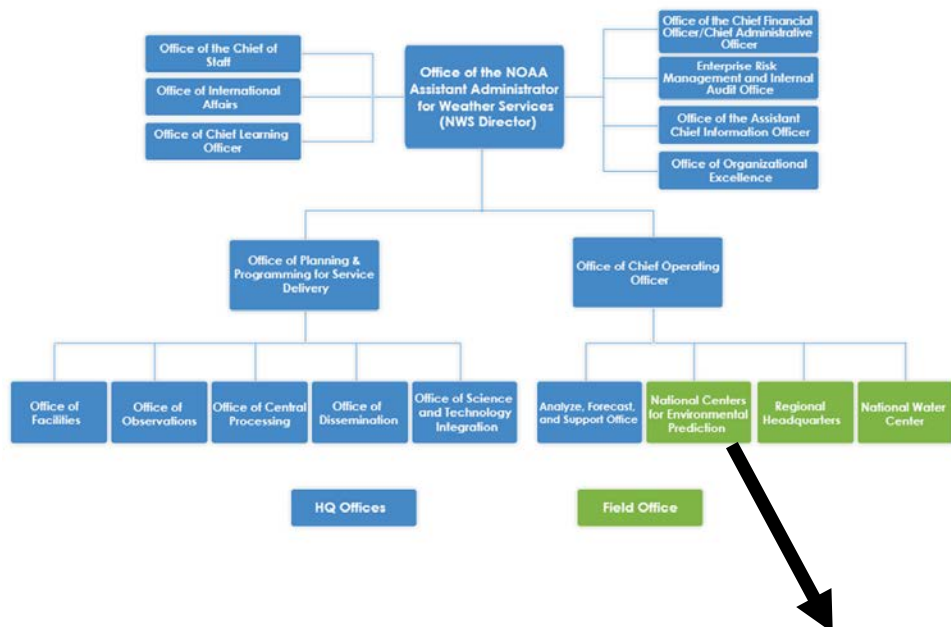
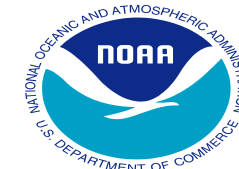
- Fully Integrate our Field Structure:
 - Better Forecasts and Warnings
 - Ensure Consistent Products and Services
- Provide Impact-based Decision Support Services (IDSS)
- Deliver through Multiple and Reliable Dissemination Pathways
- Work with Partners to ~~gain needed response~~; includes embedding NWS in Emergency Operations Centers

*We now have
Over 1200 WRN Ambassadors*

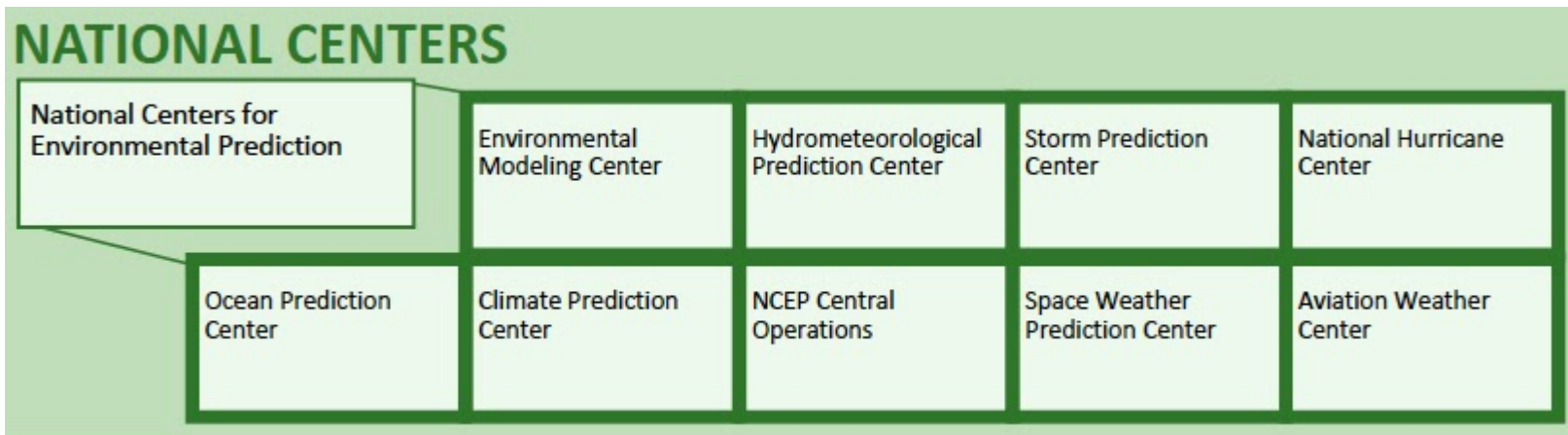
*Involves entire US Weather Enterprise WORKING TOGETHER
to achieve far-reaching national preparedness for weather events*



National Center for Environmental Protection

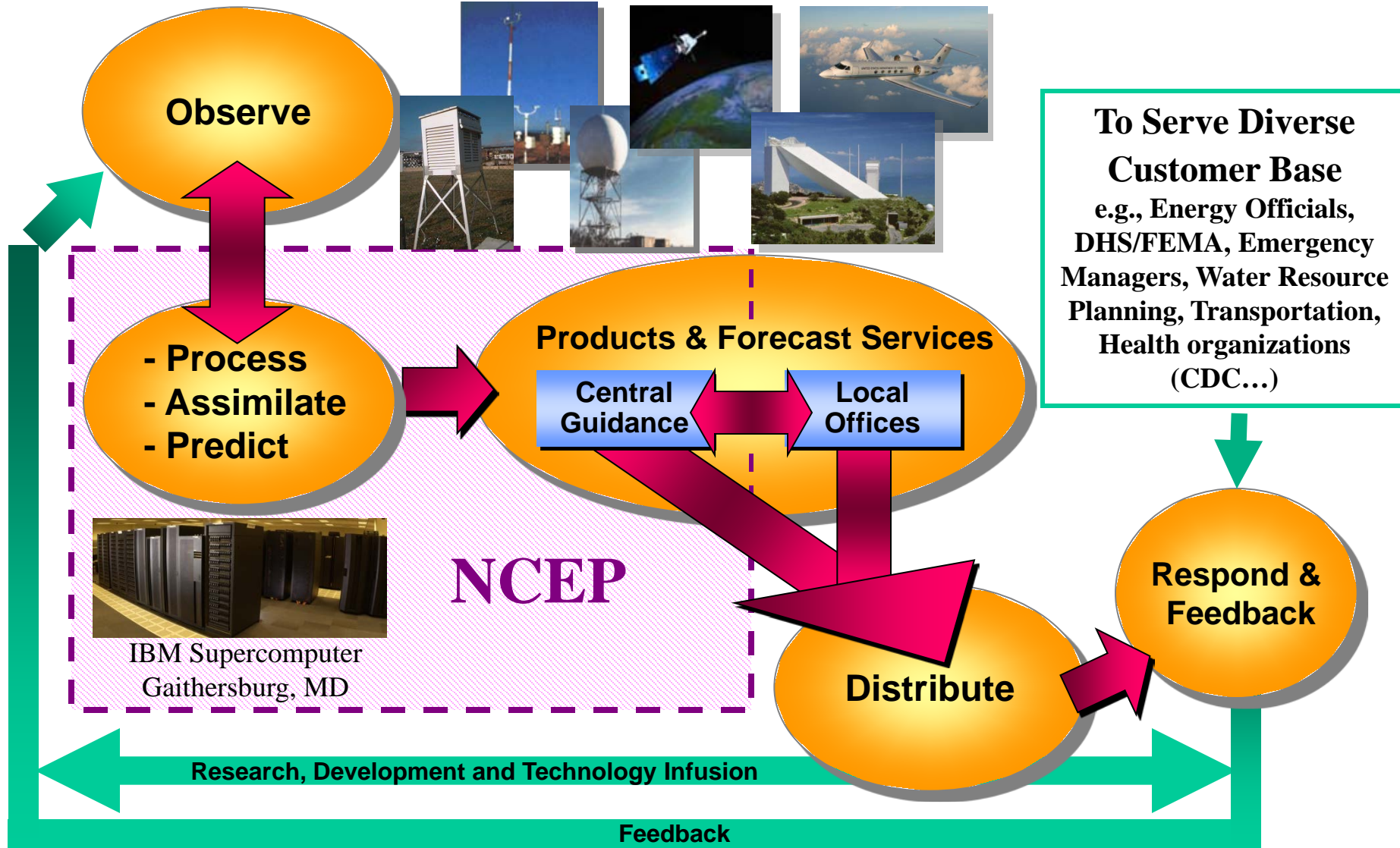


NCEP delivers national and global weather, water, climate and space weather guidance, forecasts, warnings and analyses to help save lives and protect property





NCEP's Role in NOAA's Seamless Suite of Products and Forecast Services



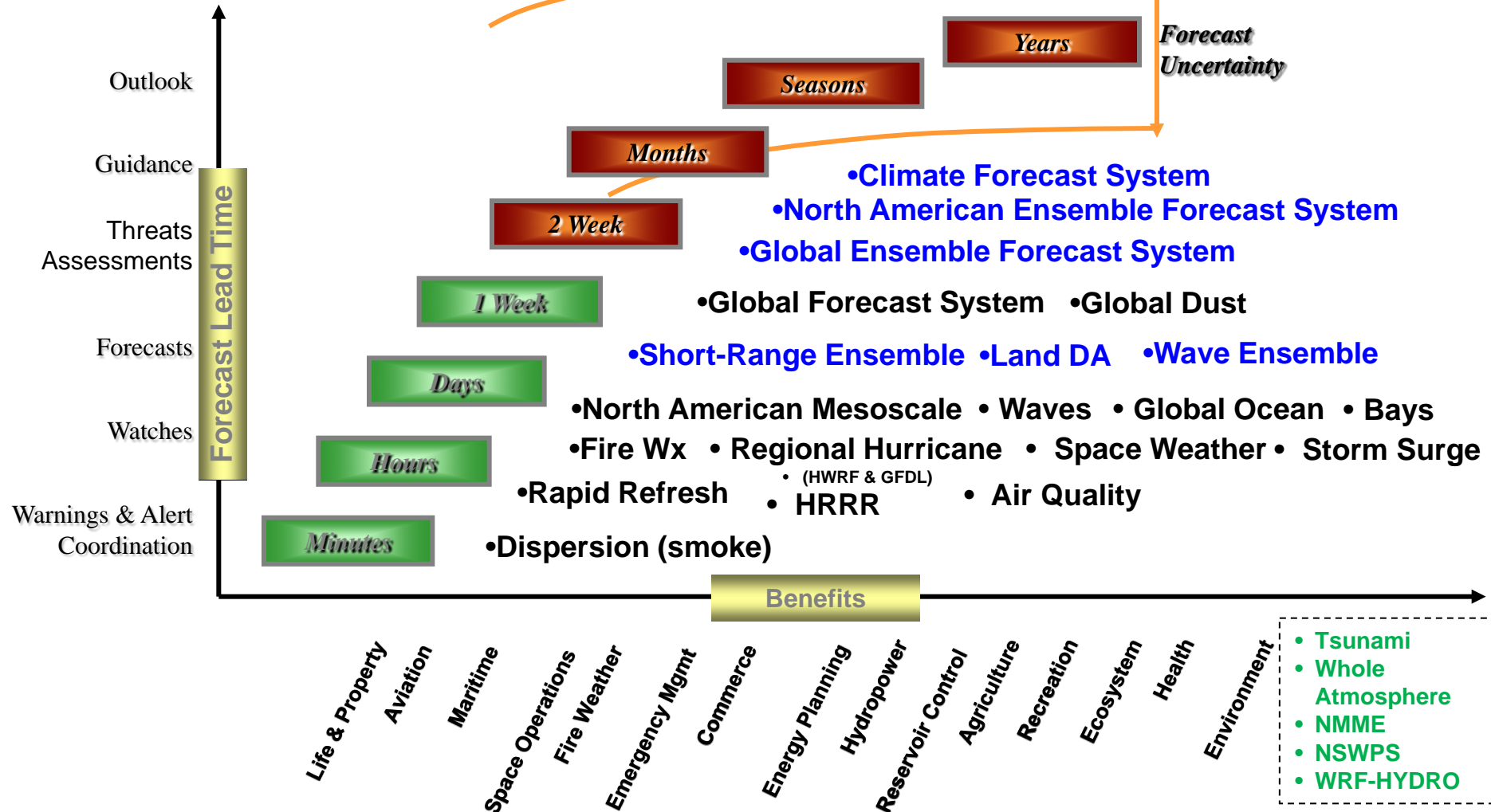
Prediction is now inherently linked to numerical models



Seamless Suite of Operational Numerical Guidance Systems

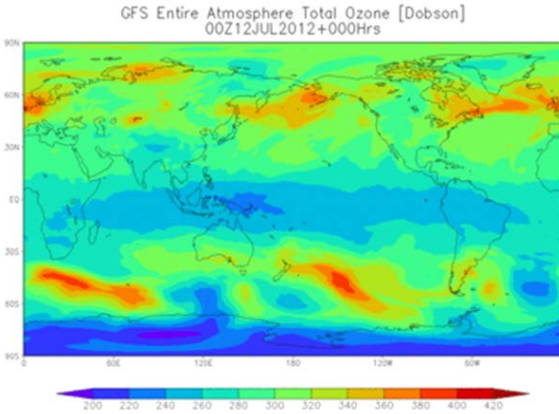
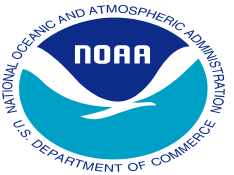


Spanning Weather and Climate



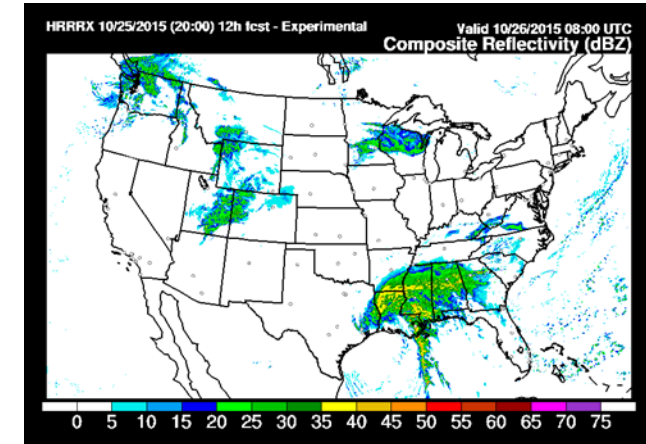


NCEP Reaches Out to UCACN



University Center for Atmospheric Research Community Advisory Committee for NCEP (UCACN) Modeling Advisory Committee (UMAC)

Outcome: a set of recommendations that will be used to build a strategy to evolve the NPS (NMMB Preprocessing System) over the next 5-10 years



High resolution rapid refresh (HRRR)
High Resolution Windows (HiRESW)
Rapid Refresh (RAP)
North American Mesoscale (NAM) and associated nests
Short Range Ensemble Forecast System (SREF)
Global Forecast System (GFS)
Global Ensemble Forecast System (GEFS)
North American Ensemble Forecast System (NAEFS)
Climate Forecast System (CFS) and Reforecasts
Hurricane Weather Research and Forecast (HWRF)
GFDL Regional Hurricane Model (GFDL-HFM)

Air Quality for Surface Ozone (CMAQ)
Air Quality--Dispersion (HYSPLIT)
Hydrology (HEFS,AHPS, CHPS)
North American Land Data Assimilation System (NLDA5)
Real Time Ocean Forecast System (RTOFS)
Coastal Ocean and Bays (NOS-OFS)
Tropical and Extratropical Storm Surge (ETTS; PSURGE; SLOSH; ESTOFS)
Global Waves (WW3)
Global Wave Ensemble (GWENS)
Great Lakes Waves (GLCFS)
Space Weather: Solar Flare (WSA-Enlil)

THANK YOU!



National Weather Service