

# NWS Climate Services Program

*OFCM Climate Services Coordination Committee*

*November 29, 2016*

*Fiona Horsfall, Chief  
NWS Climate Services Branch*

# NWS Climate Services

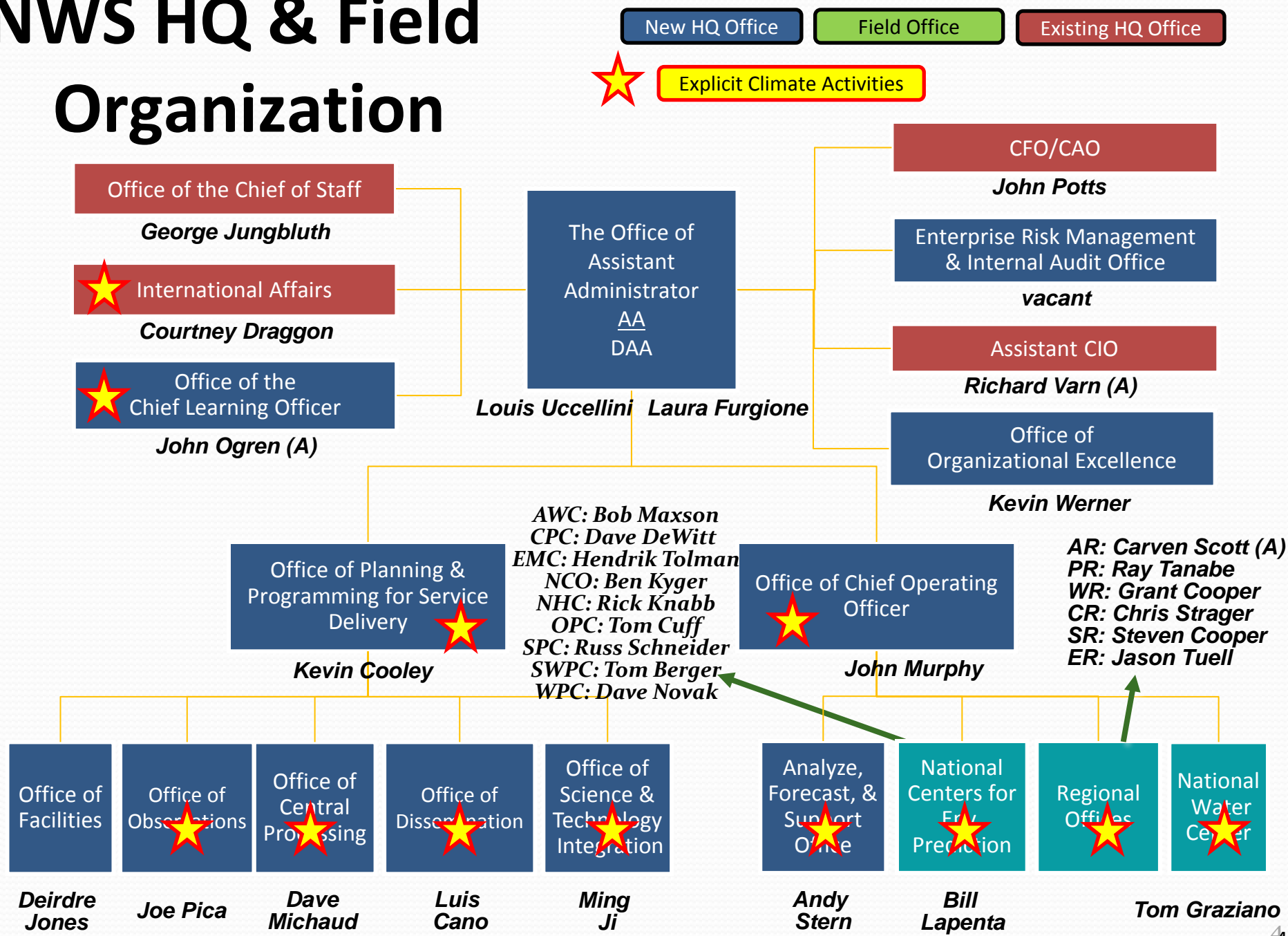
- National, regional, and local operational climate services
  - National – prediction, monitoring, and assessment of the state of the climate; modeling and applied research; partnerships
  - Regional – coordination and oversight of local programs; outreach; liaison to HQ; requirements; partnerships
  - Local – deliver products and service to users, outreach and education; local climate studies; partnerships

# NWS Climate Services

- NWS HQ
  - Climate Services Branch within the Forecast Service Division
    - Program support; training; outreach; partnerships; national coordinator for regional and local climate services; cross-NOAA line office activities
  - Climate – one of 11 national service programs

**End-to-end approach to climate services: from observations to prediction to user outreach at national and local levels**

# NWS HQ & Field Organization



# NWS Climate Services Program Staff

- **HQ**
  - 6 FTEs (2 vacancies)
  - 1 Guest Worker
- **NCEP**
  - **Climate Prediction Center**
    - 42 FTEs
    - 29 contractors, 2 Cooperative Institute staff, 3 UCAR staff
  - **Environmental Modeling Center Climate Staff**
    - Mixture of 10 FTEs and contractors – leveraging others
  - **NCEP Central Operations**
    - .2 FTE
- **NWS Regions**
  - 6 FTEs (not all full time for climate)
- **NWS Field Offices**
  - ½ FTE per office (122 WFOs; 13 RFCs; 15 WSOs) = 75
- **Climate Observations**
  - 126 FTEs

**TOTAL ~ 300**

- 1 vacancy retained
- 1 vacancy reassigned to Water Resources as Hydro-climate position

# Resources Available

- **Training:**

<http://www.nws.noaa.gov/om/csd/index.php?section=training>

1. 30 hours online training – still available
2. Residence Training (3 courses - up from 2)

- **Tools – Local Climate Analysis Tool (LCAT)**

- Local impacts of climate variability and change, drought, beyond  $T_{avg}$  and  $P_{total}$
- Decision Support

- **Climate Services Seminar Series**

- **Factsheets on a variety of climate topics**

- **Outreach**



Training leveraged Climate Resilience Toolkit - CRT



# Climate Data Services

The Climate Services Branch is responsible for coordinating the various tools that are provided by NWS and our partners in order to provide

*Timely, continuous, reliable climate records*

With our partners at NCEI and Regional Climate Centers

- ✓ Data reporting tools
- ✓ Data management tools
- ✓ Data access tools
- ✓ ThreadEx Updates – starting work in partnership with NRCC to add 50 more sites



# Climate Prediction Center (CPC)

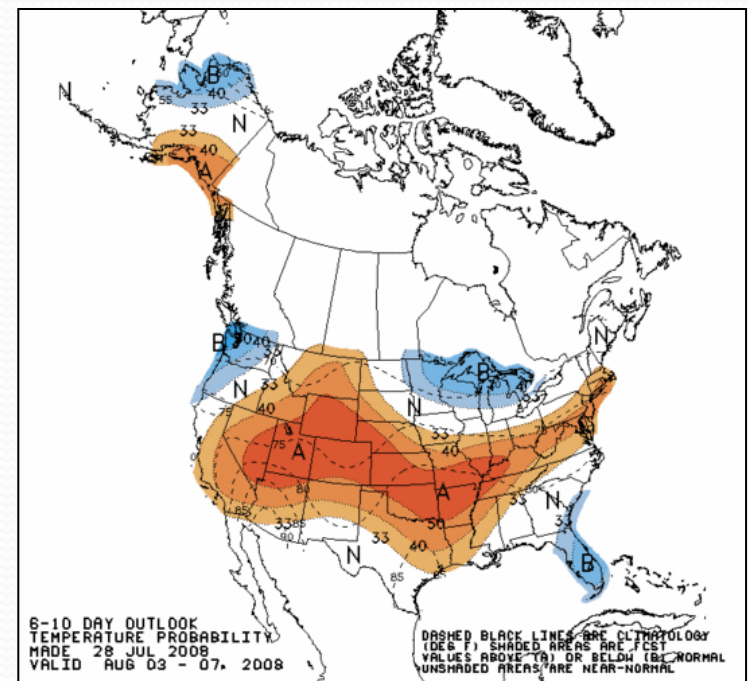
*Deliver real-time products and information that predict and describe climate variations on timescales from weeks to year(s) thereby promoting effective management of climate risk and a climate-resilient society.*

CPC Director: David DeWitt

Email: [david.dewitt@noaa.gov](mailto:david.dewitt@noaa.gov)

Phone: [\(301\) 683-3428](tel:(301)683-3428)

- Focus: weeks, months, seasons, years (i.e. **short term climate**)
- Integral to NWS Seamless Suite of Products
- Valuable resource for NOAA's efforts to deliver climate services
- Provides strong name recognition in international efforts

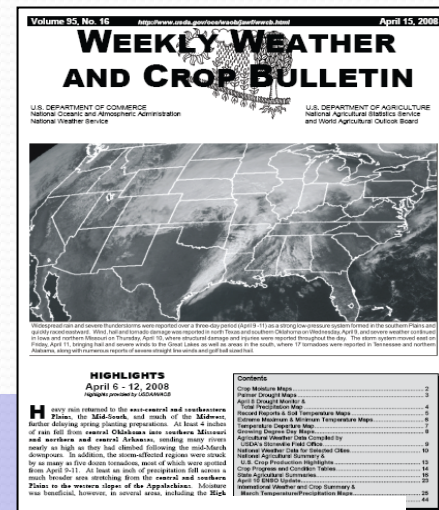




## Selected Other Climate Services at CPC

## Joint Agriculture Weather Facility

- ***USDA – DOC partnership***
- ***Weekly Weather and Crop Bulletin***
- ***Briefings & Weather Summaries on global weather and crop conditions***



## CPC International Desks

- ***African Desk***
- ***Monsoon Forecaster Training Desk***
- ***Activities***
  - **Training and Education**
  - **Partnerships**
  - **Products**

## Famine Early Warning System

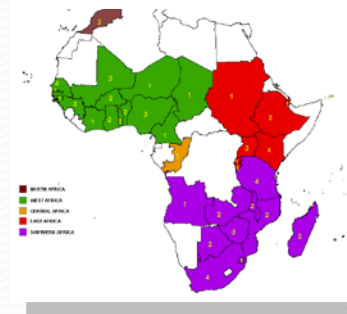
## Hazards Assessments (Africa, global tropics)

## Tropical Cyclone Monitoring

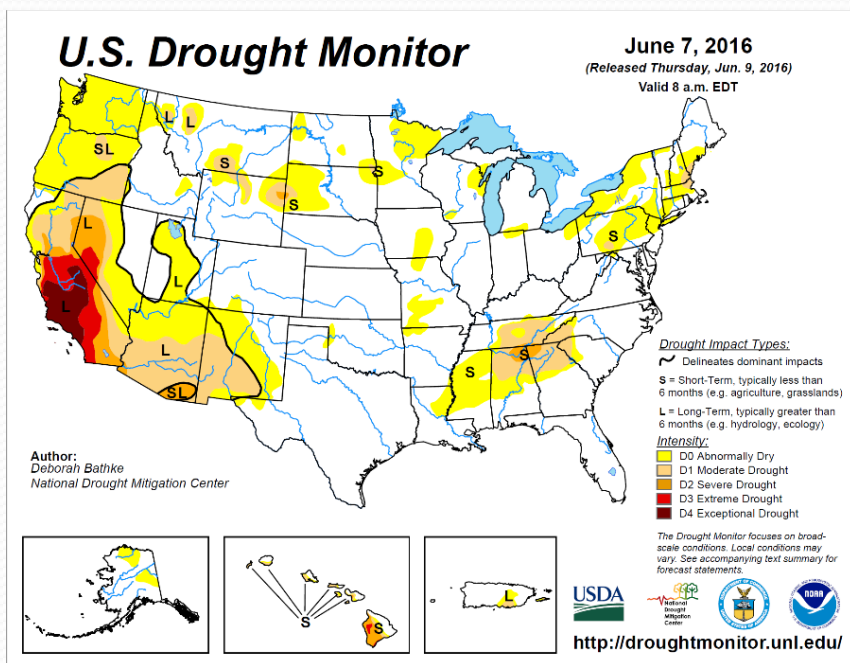
## Climate Test Bed

- ***To accelerate the transition of scientific advances from the climate research community to improved NOAA climate forecast products and services***

## Training Coverage in Africa

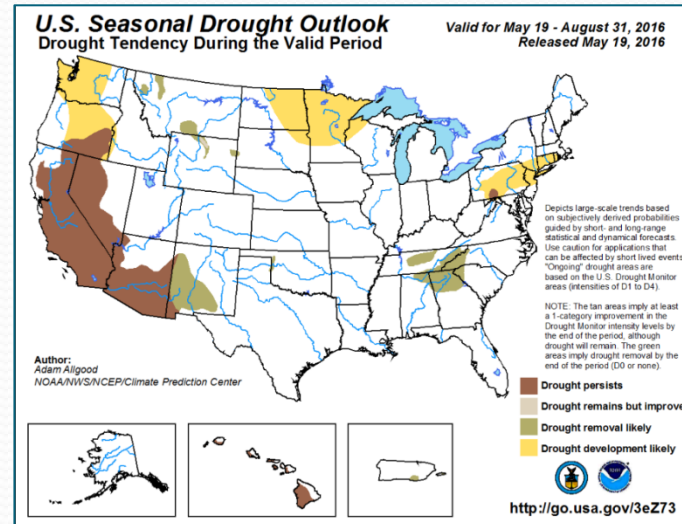
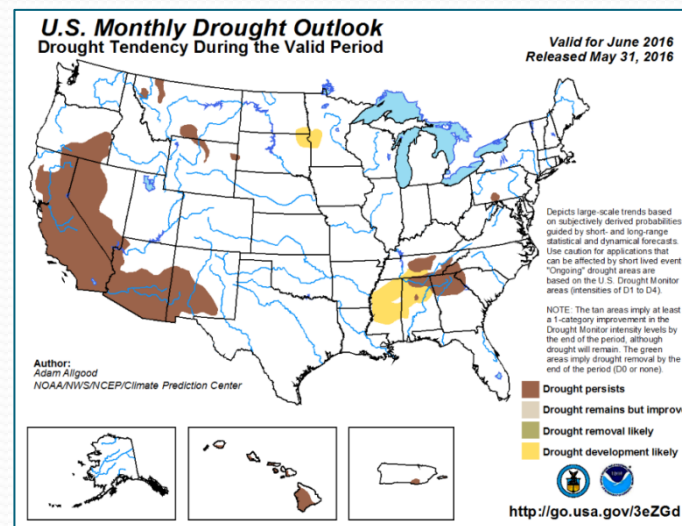


# CPC Drought Products



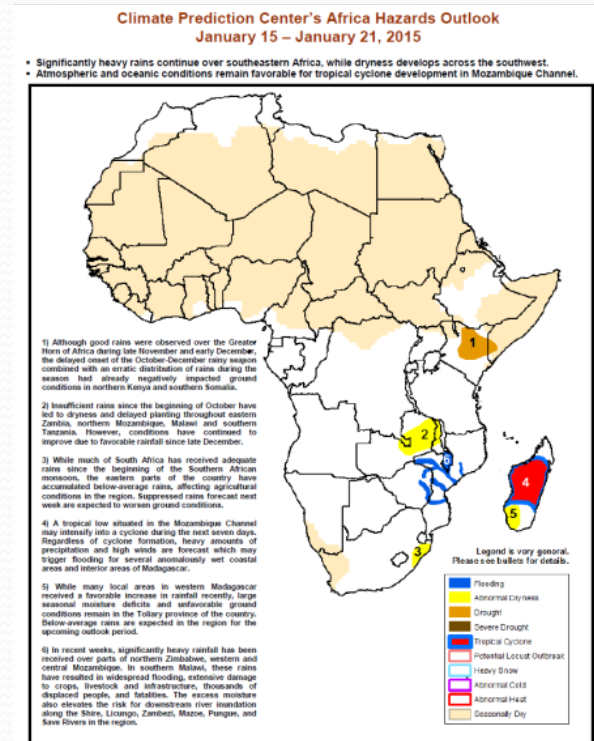
Joint product between:

- NDMC
- USDA
- NOAA - CPC, NCEI, RCCs



# Development Aid: NWS & USAID

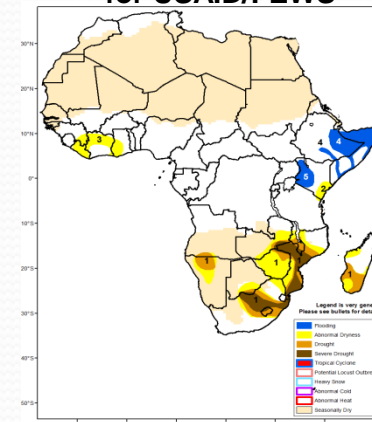
- CPC provides graphical outlooks for Africa, Central America, the Caribbean, and Central Asia highlighting areas that might be exposed to reduced crop production or livestock vulnerability due to flooding or drought.
- The outlooks are preliminary input to the Famine Early Warning System Network (FEWSNET) monthly food security outlooks.
- FEWSNET uses the information together with current climate forecasts and trends and other food security indicators to issue monthly food security outlooks. This information is provided to USAID for informed decisions in humanitarian response planning based on the level of food security threats.



# Linking Weather and Climate Services to Enable Health Decisions

- **Engaging health partners in Africa**
  - Exploring potential development of climate tools to support health forecasting and prediction in Africa through the Africa Desk
- **Pandemic Prediction and Forecasting Science and Technology Working Group**
  - Inter-agency coordination to accelerate the development of infectious disease outbreak prediction and forecasting capabilities
- **Integration of weather and climate data, health impacts, and messaging**
  - Developing tools for issuing heat warnings based on climatology
- ✓ **National Integrated Heat Health Information System in development with CDC**
  - Integrated system and clearinghouse of US agency resources to enhance knowledge of and improve resilience to extreme heat

Weekly Hazards Outlook  
for USAID/FEWS



Environment and  
Climate Change Canada



# NWS Regions

Alaska Region – Richard Thoman

907-458-3716

[richard.thoman@noaa.gov](mailto:richard.thoman@noaa.gov)

Central Region - Barb Mayes-Boustead (acting)

402-359-2394

[barbara.mayes@noaa.gov](mailto:barbara.mayes@noaa.gov)

Eastern Region - Chris Stachelski

631-244-0157

[christopher.stachelski@noaa.gov](mailto:christopher.stachelski@noaa.gov)

Pacific Region - Bill Ward

808-725-6010

[bill.ward@noaa.gov](mailto:bill.ward@noaa.gov)

Southern Region - Victor Murphy

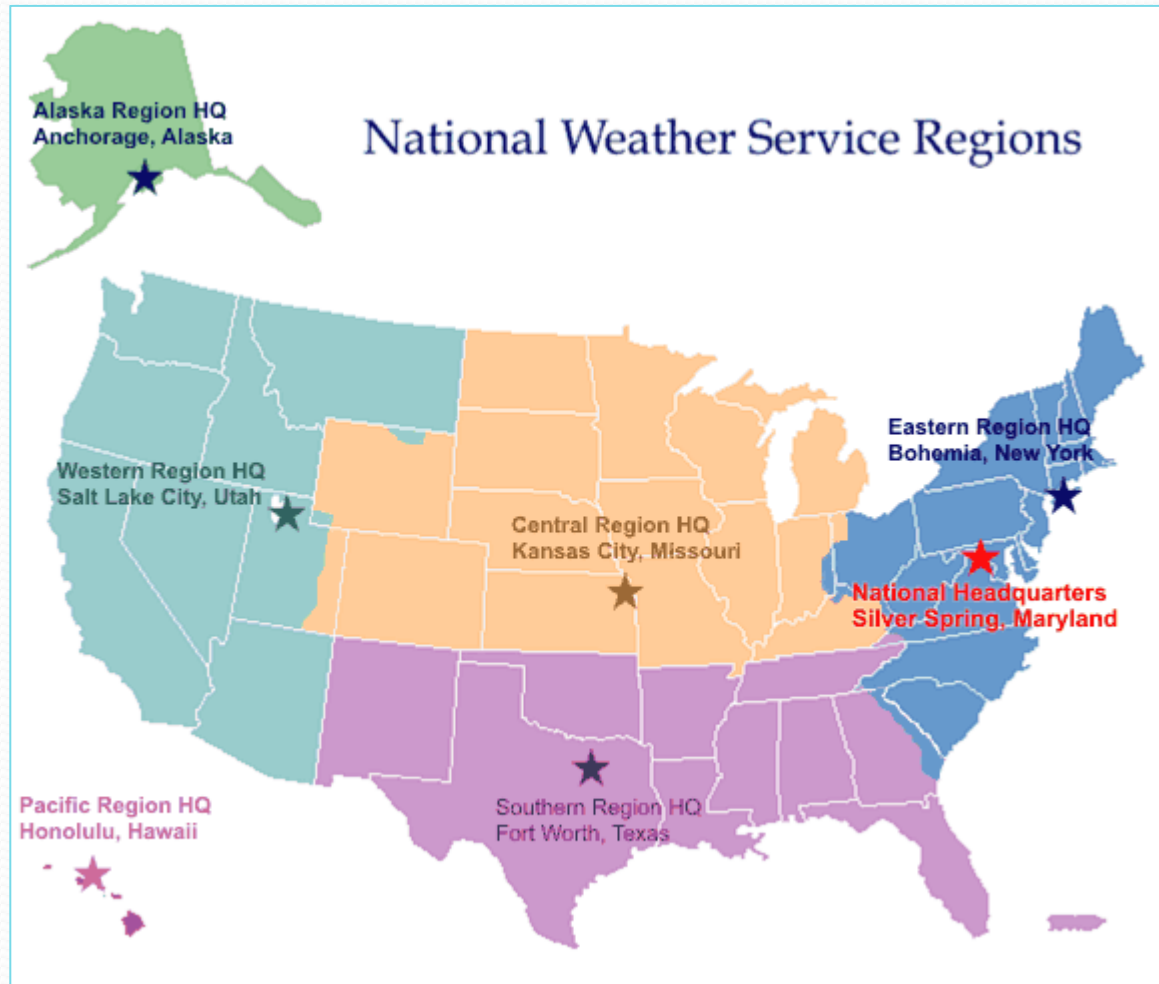
817-978-1100 x130

[victor.murphy@noaa.gov](mailto:victor.murphy@noaa.gov)

Western Region – Andrea Bair

801-524-5137 ext. 285

[andrea.bair@noaa.gov](mailto:andrea.bair@noaa.gov)



**Regional Operations Centers (ROCs)**



# Local Office Examples of Climate Services

- NWS forecasters use knowledge of potential El Niño impacts in their coverage areas
- Numerous media calls on relationship between ENSO and temperatures/precipitation, especially as El Niño coverage ramps up from CPC
- Numerous requests for local drought data and info
- Local studies address the local impacts to respond to customer request
  - Ongoing decision support services to U.S. Army Corps of Engineers – use local studies and outlooks to help in planning for potential for warm/cold or wet/dry conditions and guide their water release decisions (Omaha)



# Climate Prediction Applications Science Workshop – CPASW 2017

- Anchorage, AK – May 2-4, 2017
- In partnership with Alaska Center for Climate Assessment and Policy (NOAA RISA); University of Alaska Fairbanks; other NOAA offices; DOI Alaska Climate Science Center; Alaska Ocean Observing System (AOOS); others
- **Themes**
  - Understanding decision maker requirements
  - Weather extremes in the context of climate
  - Arctic issues

<https://accap.uaf.edu/cpasw>

# Climate Prediction Applications Science Workshops

- Meeting Goals:
  - Identify new climate prediction applications research,
  - “Build community” by promoting interactions between integrated climate-sensitive research and service communities,
  - Assess impacts of climate forecasts on environmental-societal interactions,
  - Provide feedback to producers of climate products on user requirements.

<http://www.nws.noaa.gov/om/csd/index.php?section=meetings>

# Other Federal Partnerships

- Interagency Arctic Research Policy Committee (IARPC) and their federal agencies - on science and technology to support NWS Operations in the Arctic
- Navy on NOAA-Navy collaboration in the Arctic

# Moving Forward

- More coordinated approach to consistent and comprehensive climate-related information to stakeholders
- More agency support and recognition of coordination at the regional and local levels
- Co-development of regional climate services to provide consistent and comprehensive information