

# NOAA's REGIONAL CLIMATE SERVICES: R2S and the Interagency Arena

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# Rising Demand for Climate Information with Regional Perspectives



Sustainability of Marine  
Ecosystems



Coasts and Climate Resilience



Climate Impacts on  
Water Resources



Changes in Extremes of  
Weather and Climate



Agriculture



Energy



Health



Transportation

# R2S- Lingo on the role of services

User-driven, use-oriented, use-inspired, problem-focused

Information for decision-makers

Partnerships, collaboration, can't do it alone

Environmental Intelligence

Co-production of knowledge

Actionable Science

DSS



# NOAA's Contribution to a Federal Partnership

**NOAA commits to providing critical assets in science and service to a Federal partnership**

**Partnerships & Collaboration**



**Federal Response to the nation's climate challenges**

**NOAA's Assets**

## Information Delivery and Decision Support

*NOAA uses its national and regional infrastructure to deliver climate services today*

### Assessments of Climate Change and Impacts

*NOAA is a leader in national and regional climate impact assessments  
75% of Federal IPCC authors were from NOAA*

### Climate Change Research and Modeling

*International award winning models of the global climate*

### Climate Observations and Monitoring

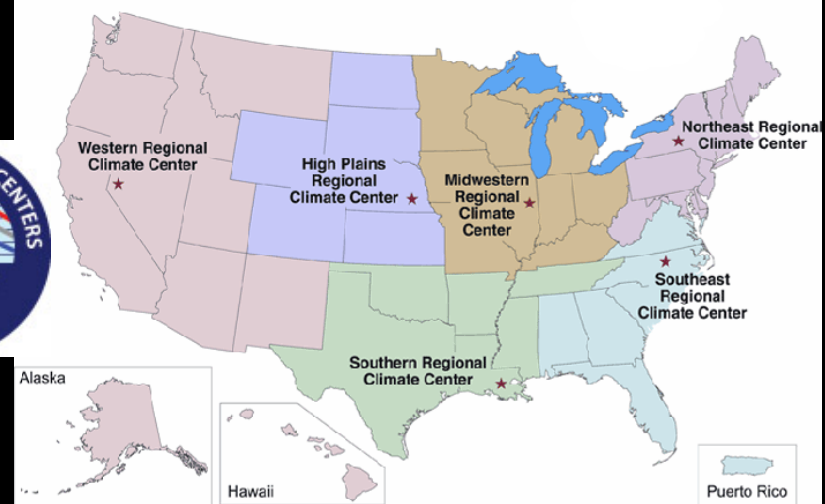
*NOAA operates observation and monitoring systems  
NOAA is mandated to monitor and provide access to climate data and information*



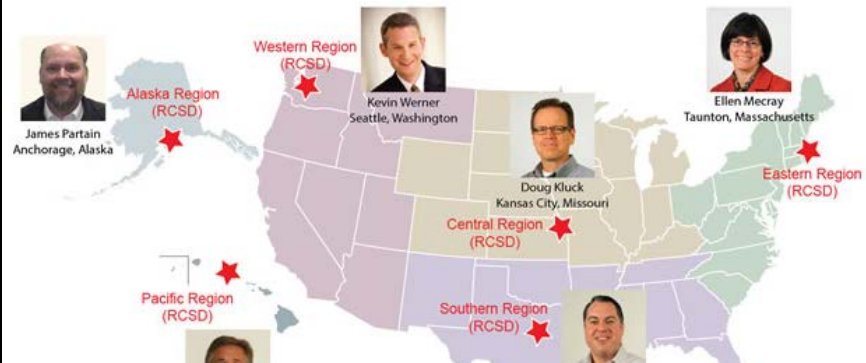
# NCEI's Information Services: Strengthen Networks

*Strengthen Networks for Developing and Delivering  
NCEI's Products and Services*

Regional Climate Centers  
State Climatologists  
NOAA- OAR, NWS, NOS, NMFS  
Federal  
State  
Academia  
NGOs  
Tribes



## NOAA's Regional Climate Services Directors



# Regional Partnerships

Sector	Primary Fed Agency	Fed Plan	State Agency Lead	Regional Coordinating Group	Internat'l and Interstate
Coastal	NOAA	CZ 309s	CZ	NROC, MARCO (ROGs)	GOMC
Nat Resources	DOI	SWAPs	F&W	LCCs	
Forestry	USDA	Plan Guides	State foresters	Cli Hubs	
Health	CDC	BRACE	DOH	CoP, NE states	
Infrastructure	DOT/FH WA	TIPs	DOT	ICNet	
Emergency Mgmt	FEMA	HMPs, THIRA	EMA	NEMAC	IMEG
Environment	EPA	PPAs, PPDs	DEP, DEM	New!	
COORDINATION	NEFP, ECP		State Task Forces		

Climate Info Providers

# Climate Information Providers

Variables:

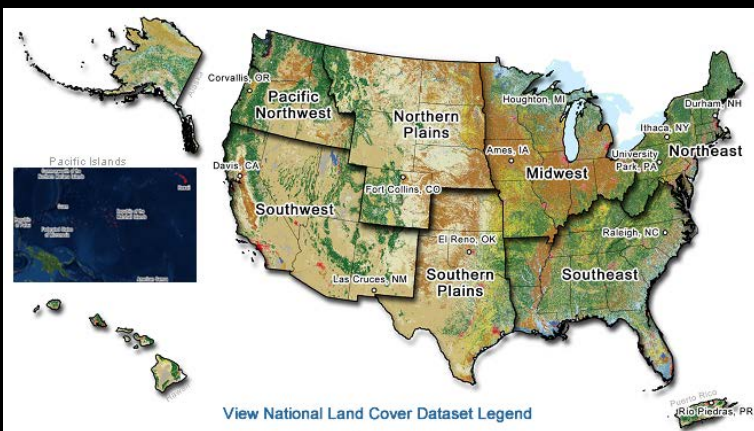
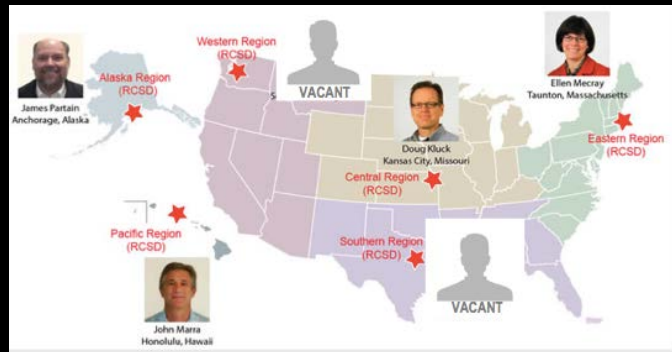
Geographic scale (international, national, regional, state, local)

Temporal coverage (historical or projected)

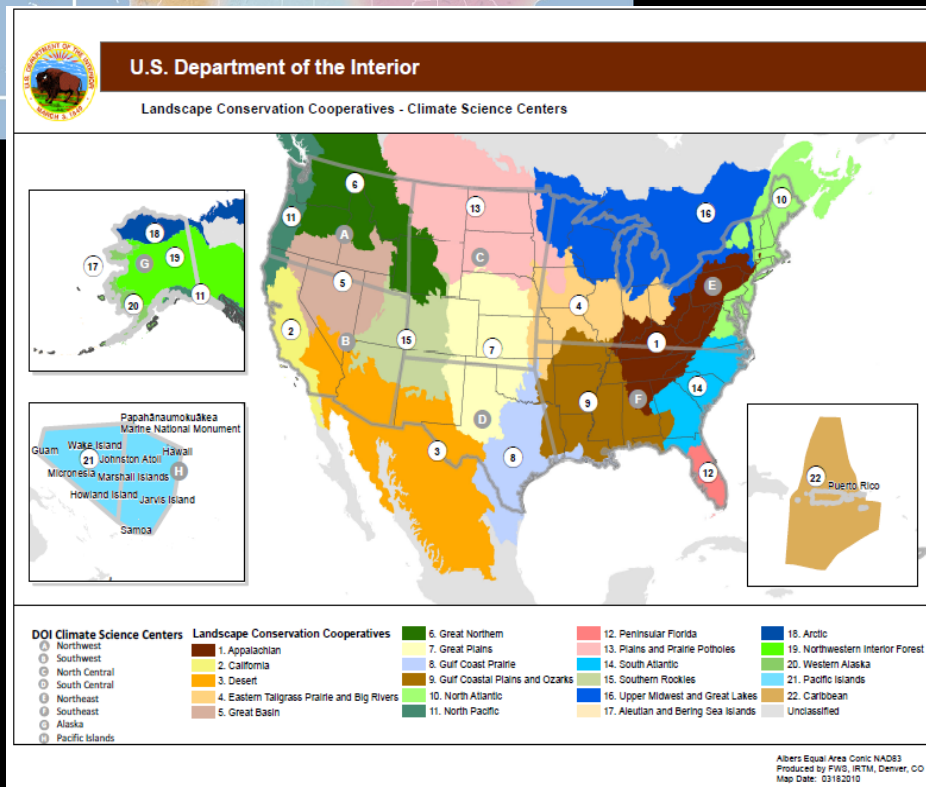
Research or operational information delivery

Regional Group	Temporal coverage	Research or operational delivery
NOAA RCS (RCSD, RCC, and SC)	Historical context, present observations	Operational
NOAA RISAs	Historical and projected	Research, multi-sectoral
NOAA Cooperative Institutes	historical	Research, multi-sectoral
DOI/Climate Science Centers	Historical and projected	Research, primarily for natural resources
Others?		

# NOAA Compared to Other Agencies

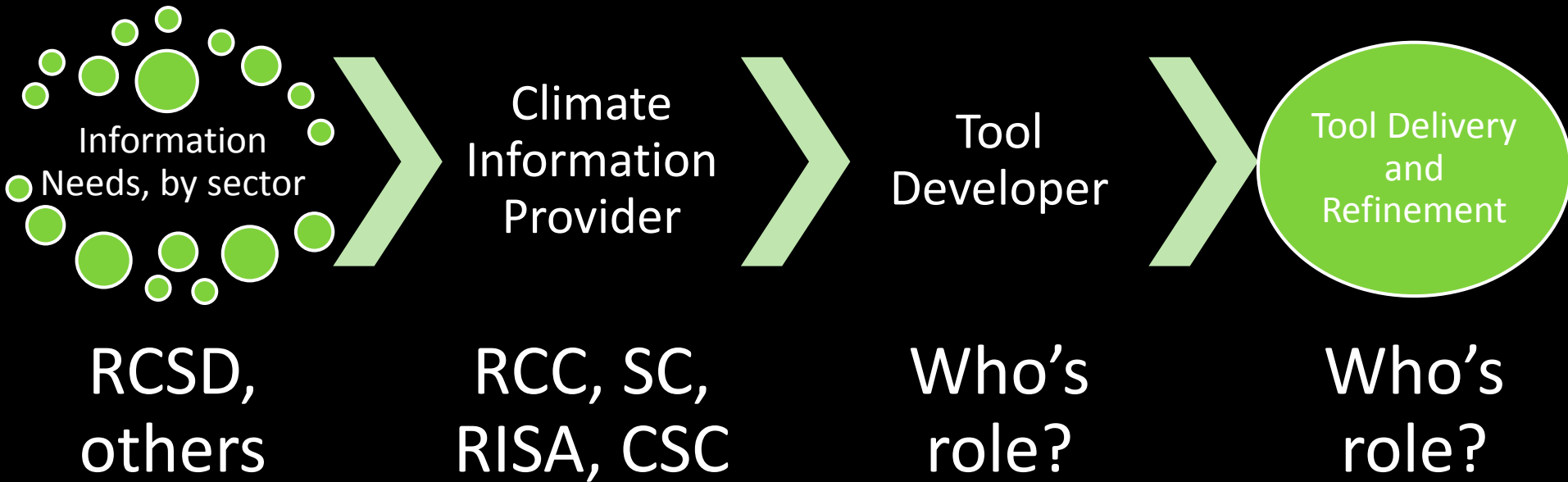


USDA Climate Hubs- 7/3





# The Continuum of Regional Climate Services Delivery



- Lessons from the Weather Enterprise, application to Climate Enterprise?
- NOAA Big Data Partnership, offer the data, sell the tools
- What about those that can't pay for the tools we've been discussing?

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Office of the Federal Coordinator for Meteorology- Climate Services

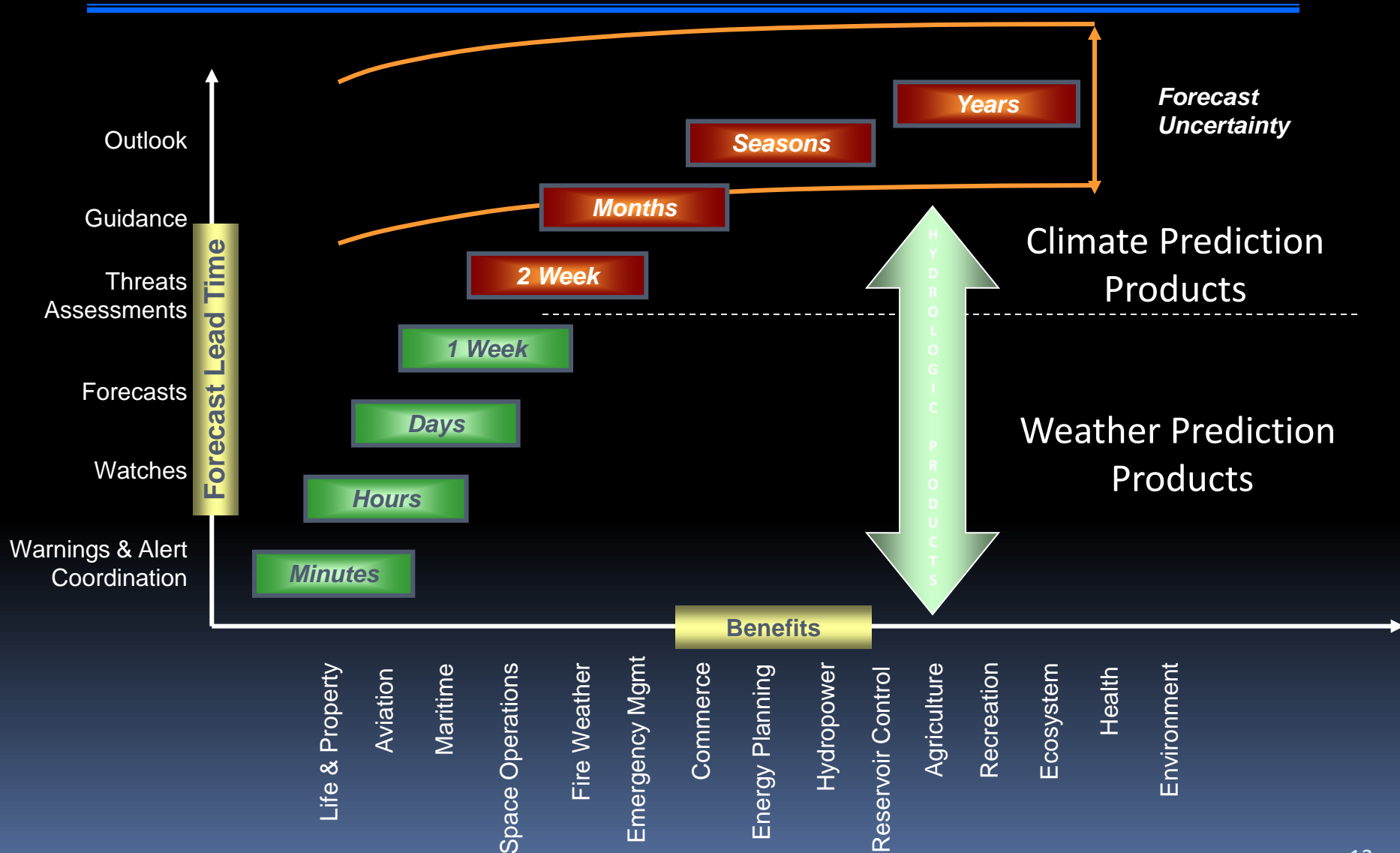
Silver Spring, MD



# BackUps



# NOAA Seamless Suite of Forecast Products Spanning Climate/Weather/Water





# Regional Climate Services

***The development and delivery of climate products and services that are on time and spatial scales needed most by decision-makers***

Development and Delivery: requires an end-to-end system that links research, modeling and assessment activities to product and services development, along with delivery systems and capacity building to help users incorporate new knowledge into their decision making.

Products and Services: climate information and decision support tools that expand one's understanding of risk and impacts and promote identification of adaptation and mitigation options

Time and spatial scales: climate impacts are felt closest to home. Users need timely, place-based information on climate risks and impacts in order to make informed decisions.

Decision-makers: users of climate information representing all public and private sectors of activity. These are our climate stakeholders.

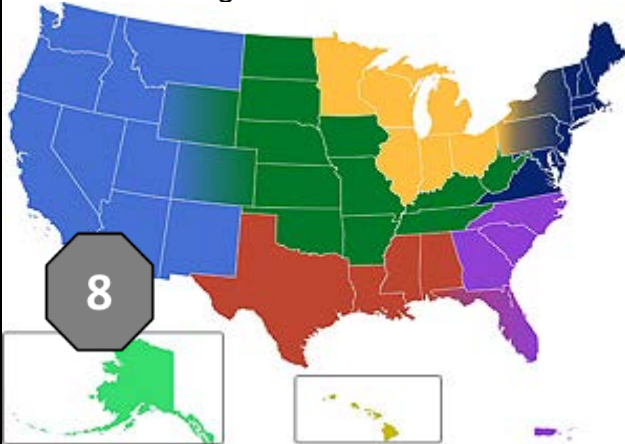
# Key Services

*Generate, transmit, transform, translate*

- **Monitoring** – value add, trends, anomalies
- **Data** – instrumentation, collection, database
- **Prediction** – interpretation, place/sector based
- **Outreach** – informing decisions, accessibility
- **Education** – capacity building for understanding
- **Research** – applied, useable
- **Networks** – awareness, linkages, sharing

# NOAA Regionally Integrative Programs

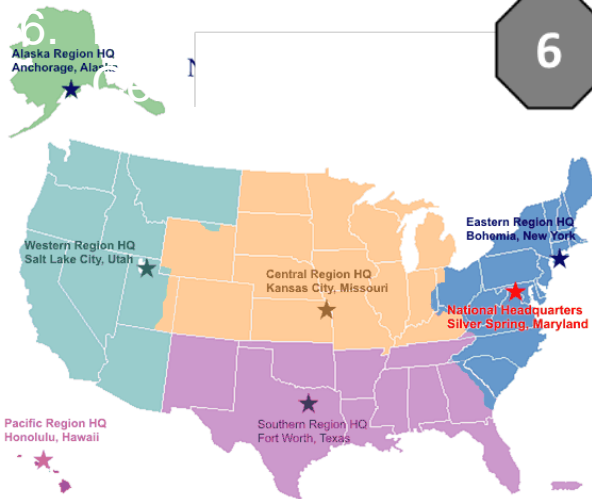
## NOAA Regional Collaboration Teams



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Caribbean

## National Weather



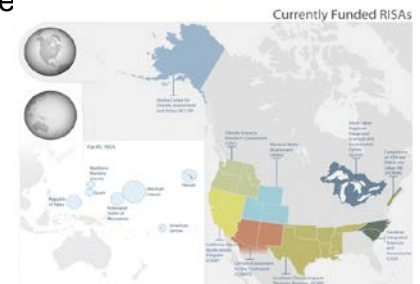
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## Office of Atmospheric Research

Climate Program Office  
Regional Integrated Sciences & Asse

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## National Ocean Service Integrated Ocean Observing System



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7. Southeast & Caribbean Region