NOAA Climate Program

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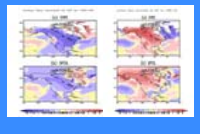
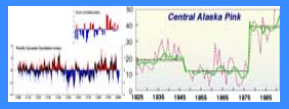
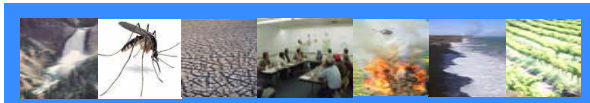
NOAA Climate Goal Strategy

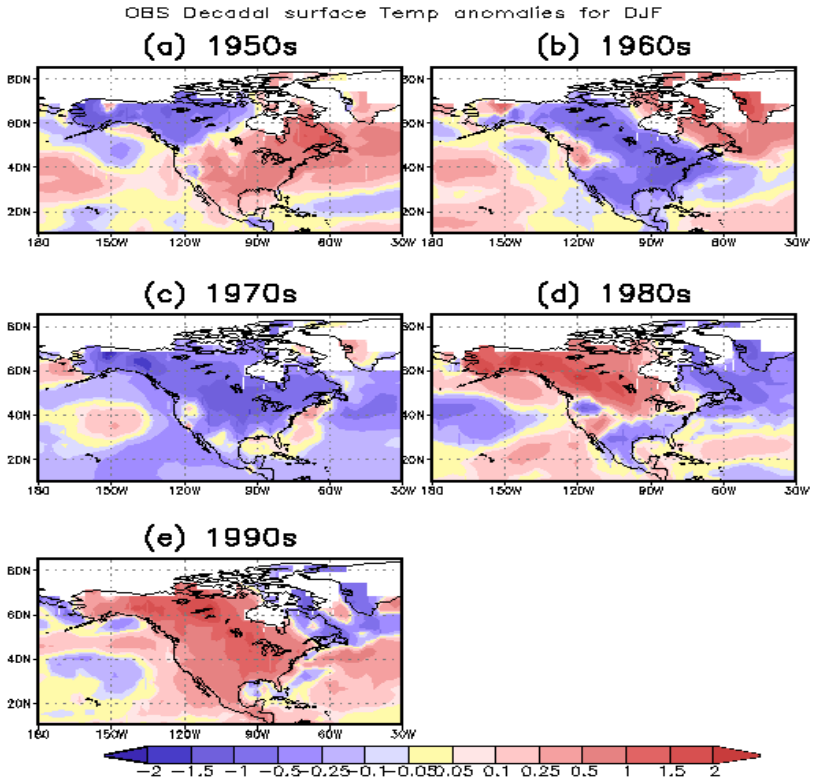
Understand climate variability and change to enhance society's ability to plan and respond

Program	Performance objective	
 **Observations and Analysis**	Describe and understand the state of the climate system through integrated observation, analysis, and data stewardship.	A Predictive understanding of the global climate system on time scales of weeks to decades with quantified uncertainties sufficient for making informed and reasoned decisions
Climate Predictions and Projections 	Improve climate predictive capability from weeks to decades, with an increased range of applicability for management and policy decisions.	
 **Climate Forcing**	Reduce uncertainty in climate projections through timely information on the forcing and feedbacks contributing to change in the Earth's climate.	Climate-sensitive sectors and the climate-literate public effectively incorporating NOAA's climate products into their Plans and decisions
Climate and Ecosystems 	Understand and predict the consequences of climate variability and change on marine ecosystems.	
 **Regional Decision Support**	Increase availability of climate products and services to enhance public and private sector decision making	

Observations and Analysis Program

Program Manager: Tom Karl NESDIS

- **Objective: Describe and understand the state of the climate system through integrated observations, analysis, and data management**



Wintertime Surface Temperature Anomalies (deg. C)

Climate of the 20th Century

Major features were

- **Warm 1950's and 1990's**
- **Cool 1960's and 1970's**

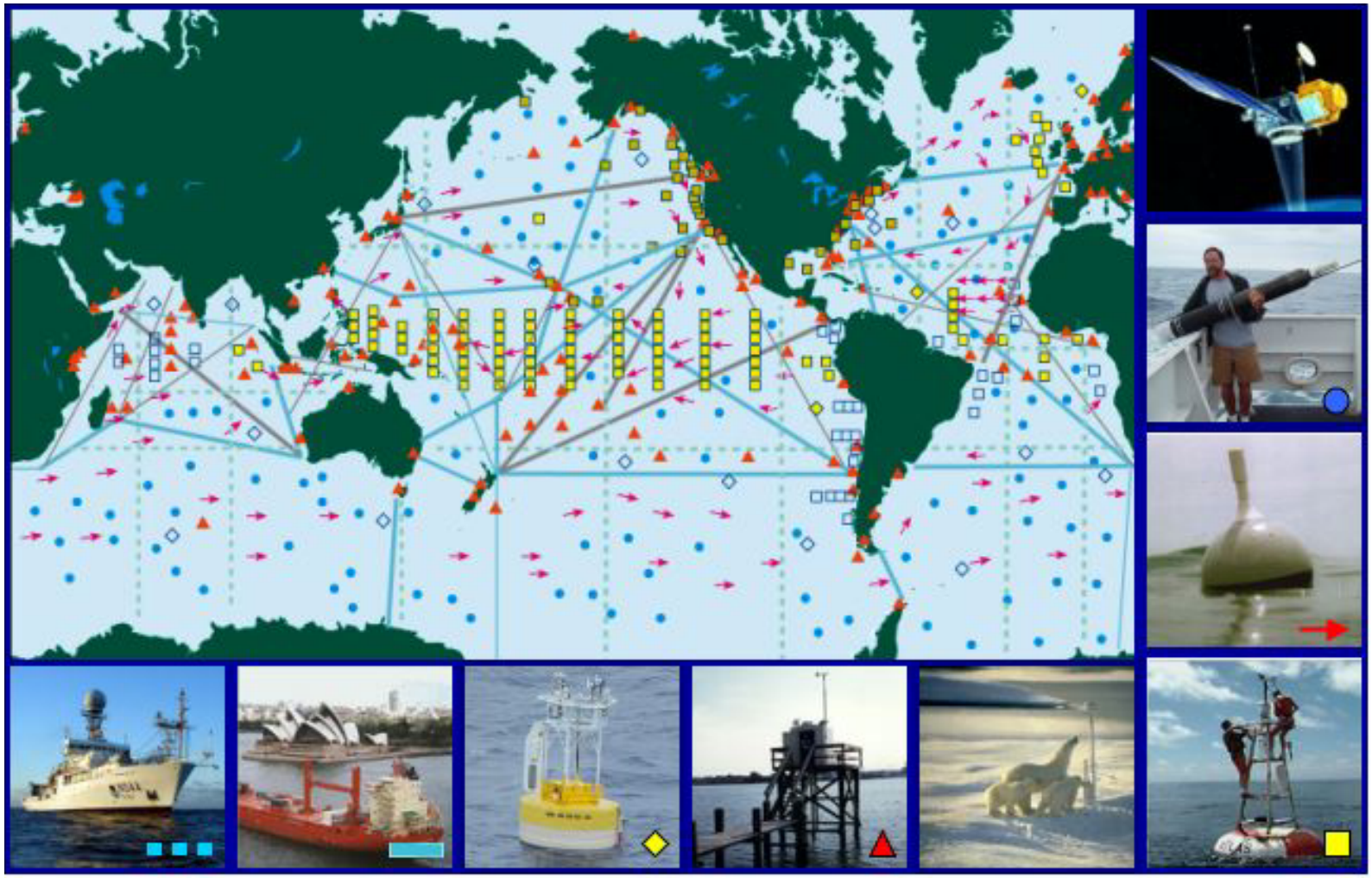
These resulted from

- **Natural climate variability**
- **Anthropogenic causes**
- **Volcanic and solar effects**

Observations and Analysis

Integrated Ocean Observation System: Global

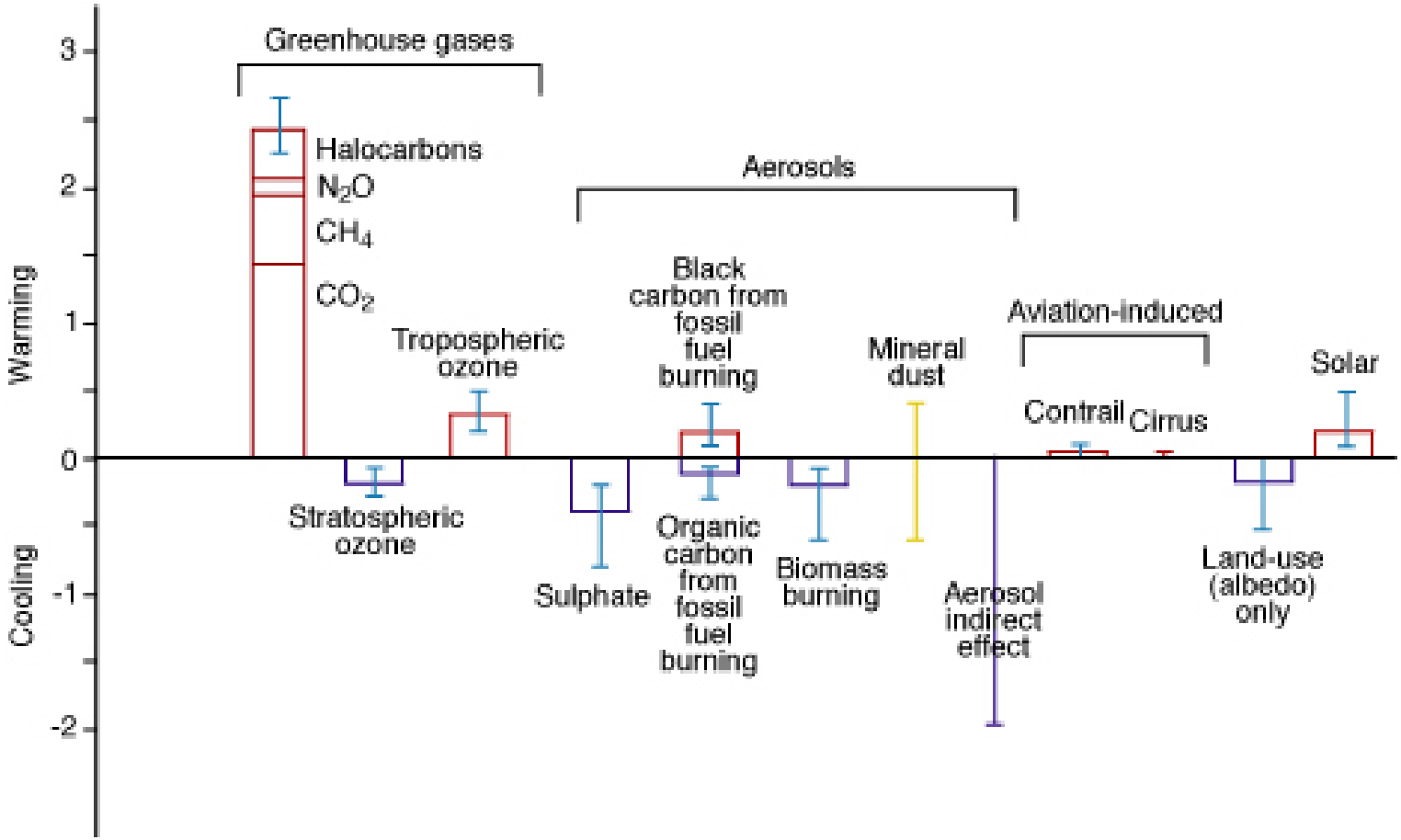
The global ocean component of the observing system is primarily focused on climate.



Climate Forcing Program

Program Manager: A.R. Ravishankara OAR

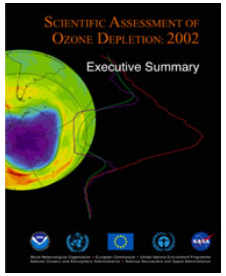
- **Objective: Reduce uncertainty in climate projection (i.e., *the forcing of climate by anthropogenic agents, now and in the future, [see below])* through timely information on the forcing and feedbacks contributing to changes in the Earth's climate.**



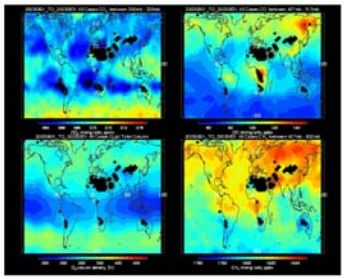
Climate Forcing

Products

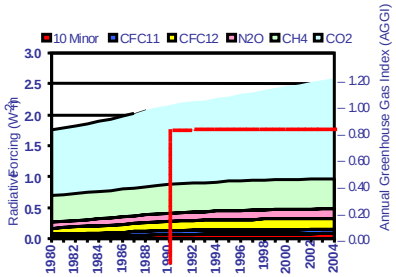
- **Future IPCC Assessment Reports**
- **WMO Ozone Assessment**
- **State of the Carbon Cycle Reports**
- **Trace Gas Map**
- **NOAA Annual Greenhouse Gas Index**
- **NOAA Ozone-depleting Gas index** *(under development)*



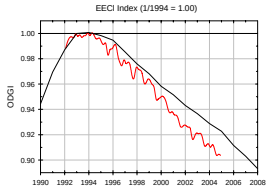
Assessments



Trace gas maps



Greenhouse gas index



Ozone-depleting gas index

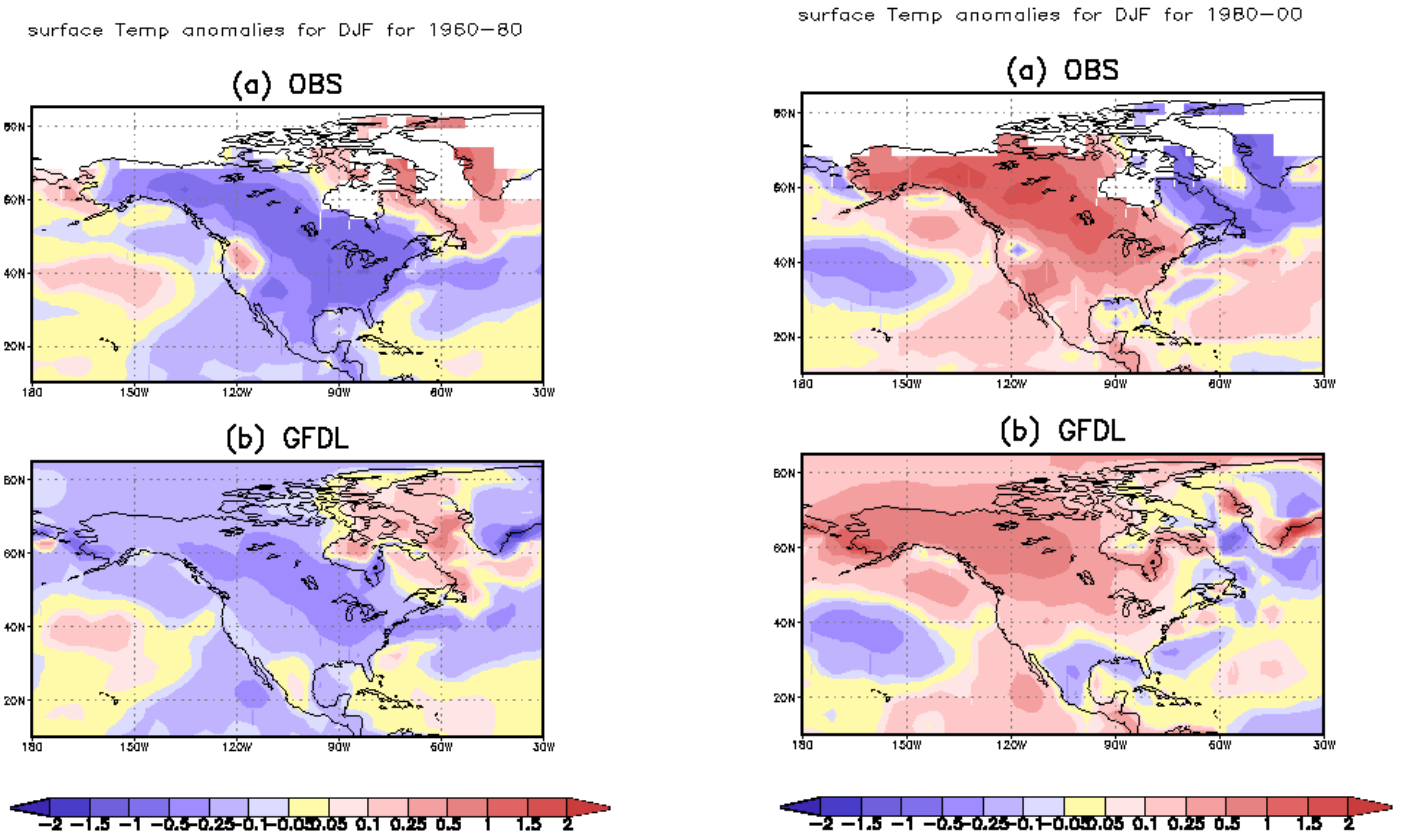
Predictions and Projections

Program Manager: Ants Leetmaa OAR

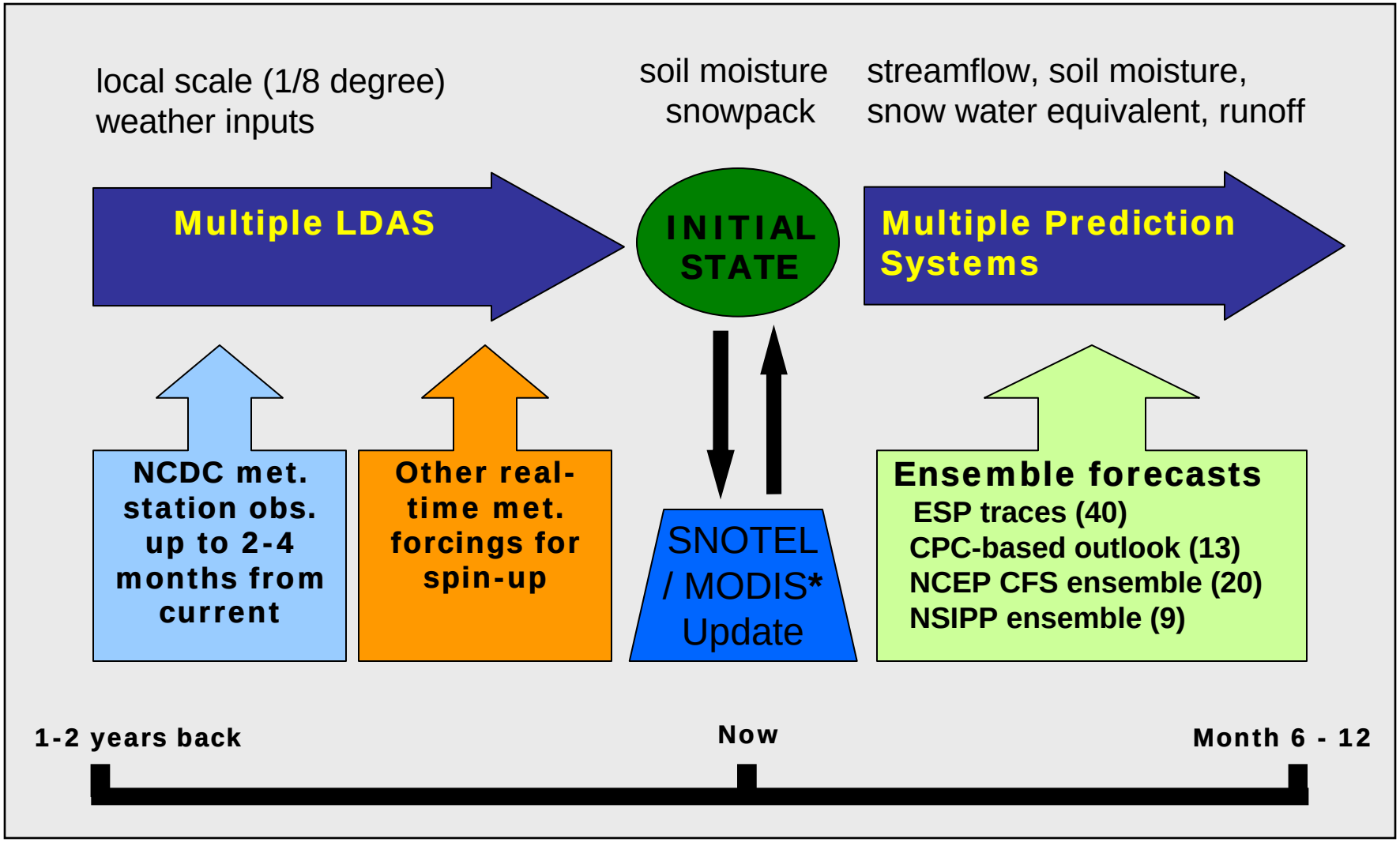
Objective: A predictive understanding of the global climate system on timescales of weeks to decades with quantified uncertainties sufficient for making informed decisions on issues related to drought, water resources, ecosystems, fisheries, health, energy, climate and extreme events

Observed

Model



Predictions and Projections



Seasonal Hydrologic Prediction & Monitoring System: A Multi-model Approach

Climate and Ecosystems Program

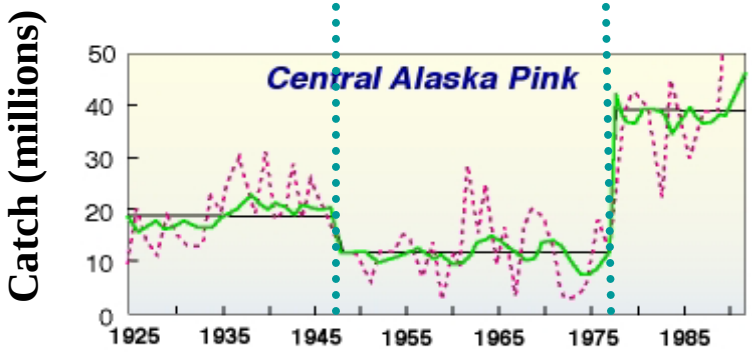
Program Manager: Kenric Osgood NMFS

Objective: Understand and predict the consequences of climate variability and change on marine ecosystems

North Pacific Climate Regimes and Ecosystem Productivity Program: Understanding and Forecasting ecosystem response to changing Climate in the North Pacific

Why: Alaska supplies about one half of seafood caught in US

Participants: NOAA Fisheries, NOAA Research



Regional Decision Support Program

Program Manager: Jim Laver NWS

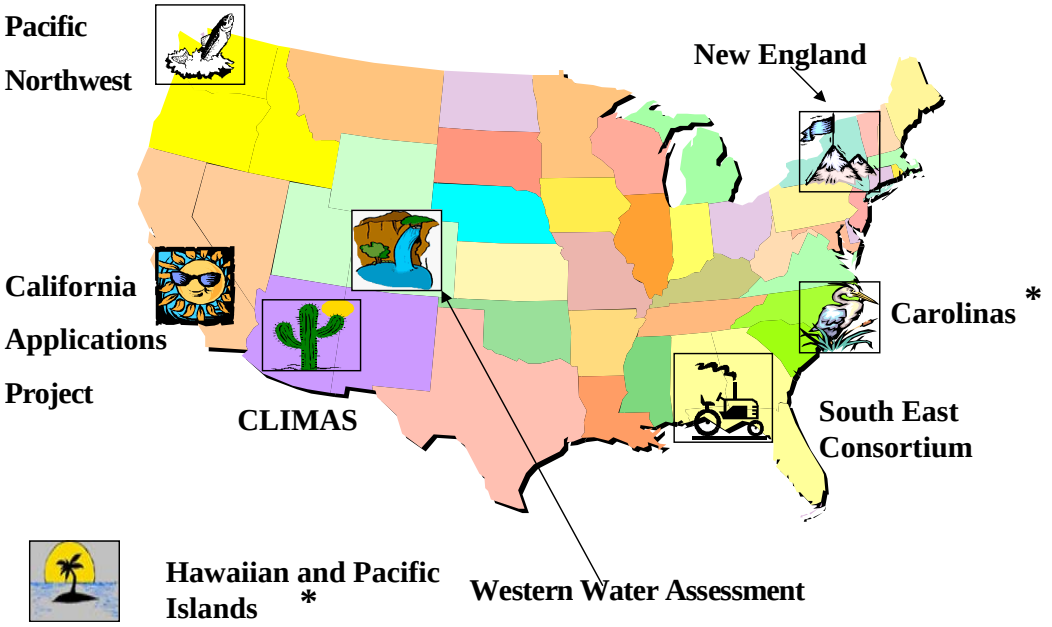
- **Objective: Increase number and use of climate products and services to enhance public and private sector decision making**

The Regional Integrated Science and Assessments (RISA) provide a direct connection between research and end users.

FY06 - ALASKA

RISA research is:

- User focused
- Interdisciplinary
- Place-based
- Considers multiple stressors
- Focuses on key regional issues
- Provides and assesses uses of climate information and products for regional decision support



NOAA Climate Program Competitive Research Programs

- **Observations and Analysis Program**
  - Climate Change Data and Detection Program (CCDD)
  - Climate Observations Program
- **Climate Forcing Program**
  - Atmospheric Climate and Climate Program (ACC)
  - Global Carbon Cycle Program Science (GCC)
- **Predictions and Projections Program**
  - Climate Prediction Program for the Americas (CPPA)
  - Climate Variability and Predictability Program (CVP)
  - Climate Dynamics and Experimental Prediction Program (CDEP)
- **Regional Decision Support Program**
  - Sectoral Application and Research Program (SARP)
  - Regional Integrated Science and Support Program (RISA)
  - NOAA Climate Transition Program (NCTP)
- **Climate & Ecosystems**