



NOAA's Next Generation Strategic Plan and Arctic Vision & Strategy

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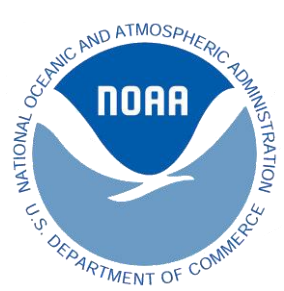
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NOAA Office of Program Planning and Integration

May 5th, 2010



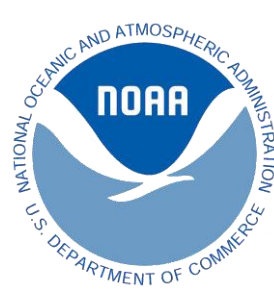
Outlines



- NGSP process updates
- Arctic Vision and Strategy
 - Q&A



Why have a Strategic Plan?



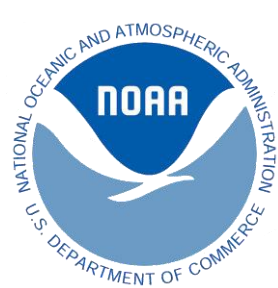
NOAA's "Next Generation Strategic Plan" will:

- Present the Administration's strategic priorities for NOAA, based on long-term trends and challenges facing NOAA and the nation
- Engage and respond to stakeholders and staff
- Frame NOAA's policy, programmatic, and investment decisions
- Establish the basis for monitoring and evaluating NOAA's performance
- Satisfy the requirements of the Government Performance and Results Act

NOAA has been consulting with stakeholders across the nation to understand trends, challenges, and needs related to NOAA's mission



The Strategic Plan is a Basis for...



Organizational alignment

- Responsive to changes and uncertainties in the external environment
- Clearly states and explains common organizational goals
- Frames investment choices
- Links planning to budgeting
- Establishes a means for measuring progress to plan
- Establishes discipline in the process and stability in the organization

Stakeholder engagement

- Provides a starting point for conversation and debate
- Generates agreement on challenges and opportunities
- Codifies shared priorities of NOAA stakeholders and leadership
- Facilitates how NOAA works with partners
- Details societal benefits and how NOAA will achieve them

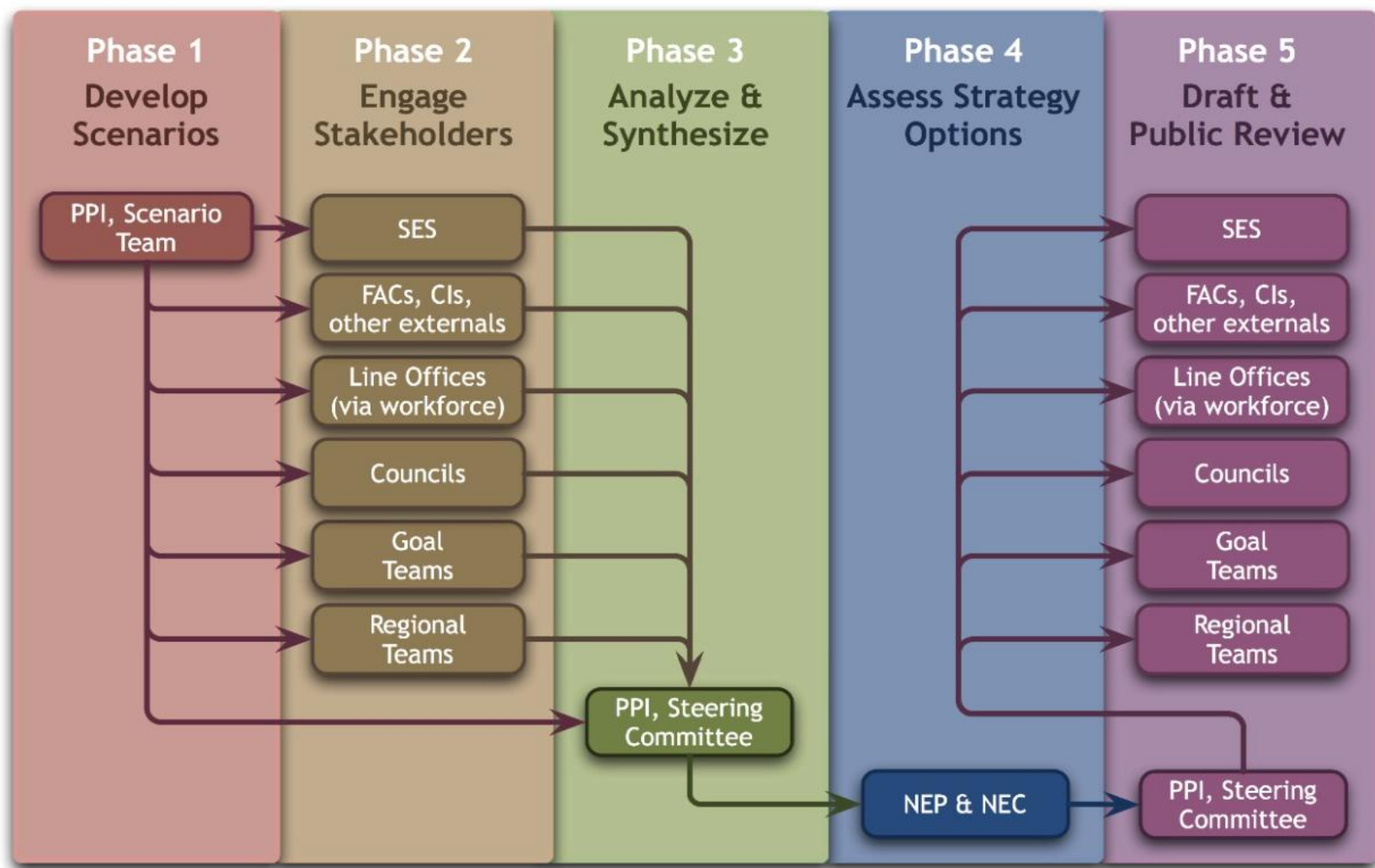
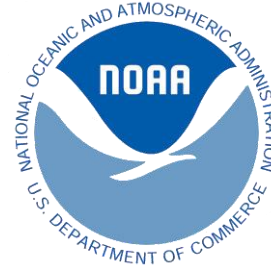


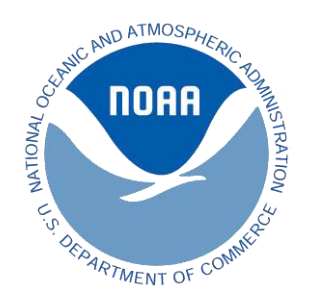
NGSP Design Criteria

- Communicates NOAA's mission and vision
- Describes the **functions** and **capabilities** (e.g., human capital management, acquisitions and grants, research and development, observations, modeling, etc.) that are required to meet NOAA's goals
- Establishes outcome-oriented **goals** and **objectives** that:
 - Reflect Administration policy priorities
 - Respond to long-term threats and opportunities in the external environment
 - Specify long-term societal benefits
 - Are SMART (specific, measureable, attainable, realistic, and time-bound)
 - Are feasible with respect to NOAA's existing and potential functions
 - Build upon progress achieved under current Strategic Plan



Current Status of NGSP Development: Phase 5





Eight regions, 21 stakeholder forums

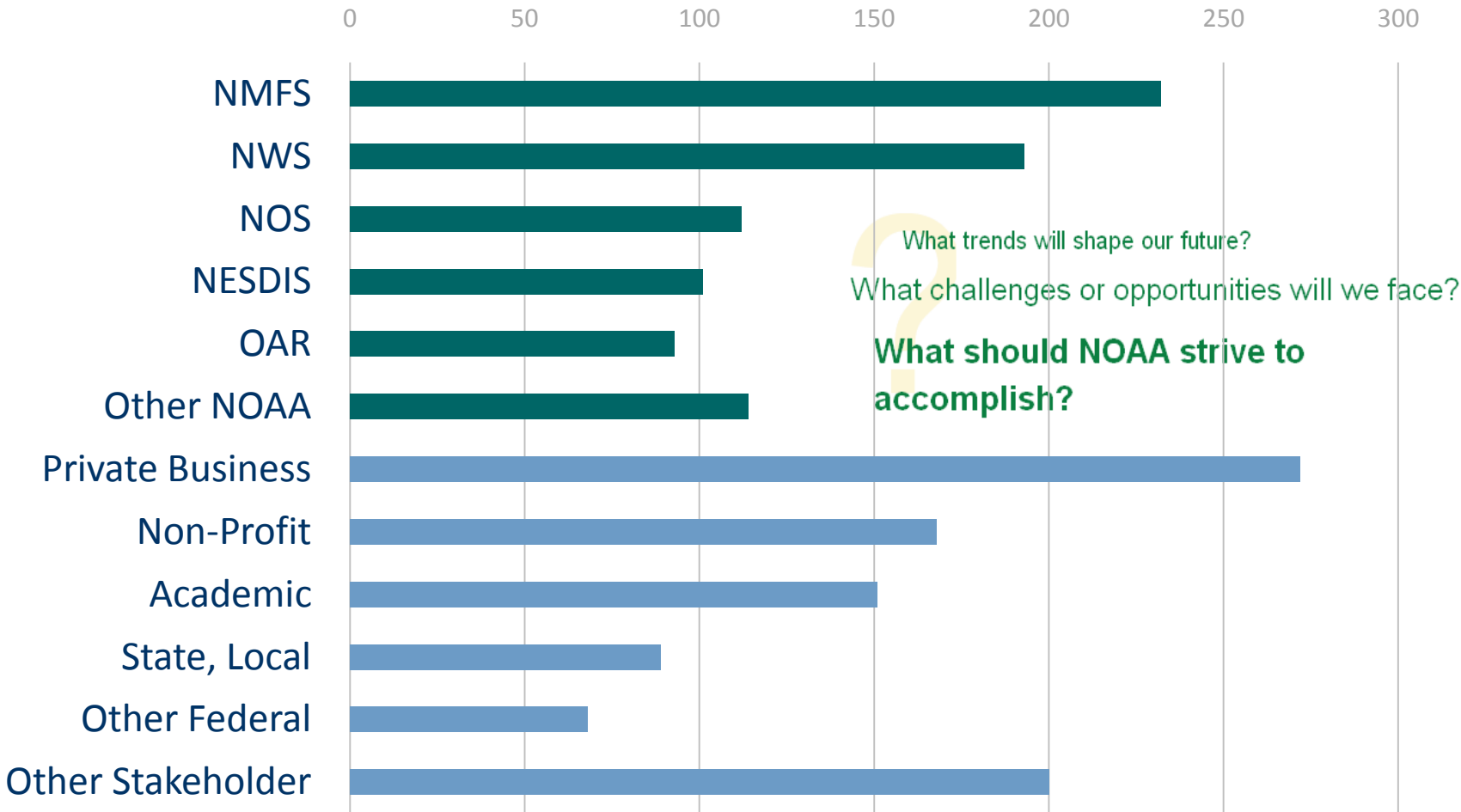


- Alaska
- Central
- Great Lakes
- Gulf of Mexico
- North Atlantic
- Pacific Islands
- Southeast & Caribbean
- Western

What trends will shape our future?
What challenges or opportunities will we face?
What should NOAA strive to accomplish?

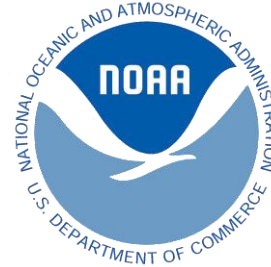


Over 1800 Responses Online





Stakeholder and Staff Input Shaped Development of NOAA Goals



Selection Criteria for NOAA Goals

Contri-
bution to
Society

Is it **RESPONSIVE** to Administration priorities and to needs identified by NOAA's staff and stakeholders?

Is it **ROBUST** across multiple scenarios of the future (i.e., different combinations of external forces with high uncertainty)?

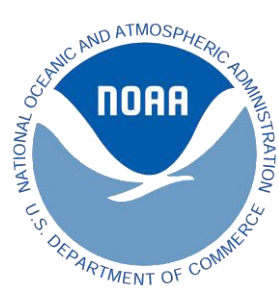
Fit to
NOAA

Is it **DISTINCTIVE** to NOAA (i.e., benefits cannot be achieved without NOAA's leadership)?

Is it **FEASIBLE** to execute with current or potential capabilities (both internal and through partners)?



DRAFT Mission with Key Deliverables (Function-Oriented)



MISSION: SCIENCE, SERVICE, AND STEWARDSHIP

To understand and predict changes in weather, climate, oceans, and coasts,
To share that knowledge and information with others, and
To use it to manage natural marine resources

SCIENCE

NOAA creates the scientific knowledge that is necessary to understand the earth and socio-ecological systems

SERVICE

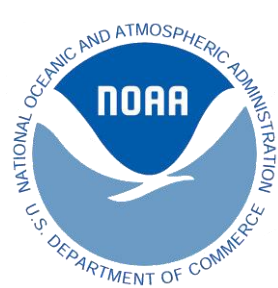
NOAA communicates this knowledge to save lives and property and create new value in the economy

STEWARDSHIP

NOAA uses this knowledge to preserve the natural environment and ensure sustainable resources



DRAFT Vision and Goals (Outcome-Oriented)



vision

RESILIENT ECOSYSTEMS

Thriving
communities
and economies
within
ecosystems
that are
resilient in the
face of change

goals

CLIMATE ADAPTATION AND MITIGATION

An informed society anticipating and responding to a changing climate and its impacts

WEATHER-READY NATION

Society prepares for and responds to weather-related events

SUSTAINABLE OCEAN ECOSYSTEMS

Marine fisheries, habitats, and biodiversity sustained within healthy, productive ecosystems

SUSTAINABLE COASTAL COMMUNITIES

Coastal and Great Lakes communities that are environmentally and economically sustainable

NOAA Strategy Summary

VISION: RESILIENT ECOSYSTEMS

Thriving communities and economies within ecosystems that are resilient in the face of change

IMPACT TO SOCIETY, ECONOMY, ENVIRONMENT

goals

5-year objectives

climate adaptation, mitigation

improved scientific understanding
authoritative assessments
climate services support decisions
climate literacy

weather ready nation

reduced loss of life, disruption
improved water resource management
enhanced transportation efficiency, safety
improved health of humans, ecosystems
secure, reliable infrastructure

sustainable ocean ecosystems

recovered living marine resources
safe, sustainable seafood
healthy habitats
improved understanding of ecosystems

sustainable coastal communities

resilient coastal communities
ocean and coastal planning
safe, efficient marine transportation
water quality, human health
arctic access, resource management

Goal Objectives

- 5-year targets for Goals
- Domain-specific
- Outcome-oriented

MISSION: SCIENCE, SERVICE, STEWARDSHIP

To understand and predict changes in weather, climate, oceans, and coasts,
To share that knowledge and information with others, and
To use it to manage natural marine resources

ENTERPRISE ENGAGEMENT

environmental literacy, engagement
integrated, regional service delivery
international policy and partnerships

ENTERPRISE SCIENCE & TECHNOLOGY

a holistic understanding of systems
reliable, integrated earth observations
an earth-system modeling framework

ENTERPRISE ORGANIZATION

diverse capabilities, evolving workforce
a modern IT infrastructure
sound management of capital investments

Enterprise Objectives

- 5-year targets for Functions
- Cross-cutting
- Output-oriented



Long term Goal:

Sustainable Coastal communities

Coastal and Great lakes Communities that are environmentally and economically sustainable



- Resilient coastal communities that can adapt to the impacts of weather and climate change

- Comprehensive ocean and coastal planning and management

- Safe, efficient and environmentally sound marine transportation

- Improved coastal water quality and human health

- Safe, environmentally sound Arctic access and resource management

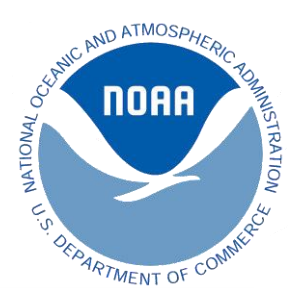


Next Steps

- NGSP document development
 - Version 3.0 for public review mid May
- Preparation for NGSP implementation
 - Based on goals and objectives, derive Program structure
 - Based on goals and objectives, derive NOAA Balanced Scorecard
- Planning Start from FY13
- Implications for execution and evaluation start from FY11.



NOAA's Arctic Vision and Strategy



- Background
- NOAA's Arctic Vision
- Guiding Principles
- Arctic Goals and Strategy
- Next Steps
- Discussion Questions



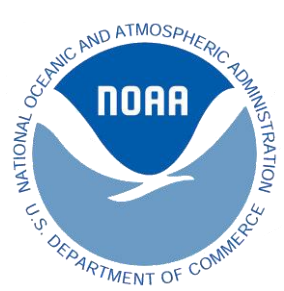


NOAA's Arctic Vision and Strategy



Background

- NOAA Strategic Plan for the Arctic
- Importance of an Arctic strategy for NOAA
- Need for coordination and collaboration between partners



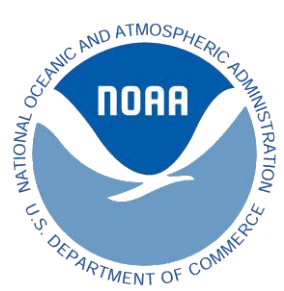
NOAA's Arctic Vision

- NOAA envisions an Arctic where:
 - Conservation, management, and use are based on sound science, and support healthy, productive, and resilient communities and ecosystems,
 - The global implications of Arctic change are better understood and predicted.



Guiding Principles

- Provide critical outcomes for other agencies and to support the National Ocean Policy
- Better understand the linkages between oceans and climate
- Advance the implementation of EBM and CMSP
- Concentrate action in the Bering, Chukchi, and Beaufort, but be global in scope
- Enable, inspire, and engage our stakeholders
- Incorporate the value of traditional and local knowledge
- Integrate education and outreach
- Incorporate new S&T developments
- Anticipate and respond to emerging issues



Arctic Goals

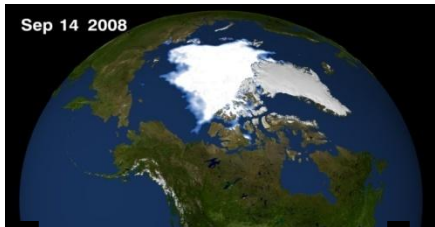
- Forecast Sea Ice
- Strengthen Foundational Science to Understand and Detect Arctic Climate and Ecosystem Changes
- Improve Weather and Water Forecasts and Warnings
- Enhance International and National Partnerships
- Improve Stewardship and Management of Ocean and Coastal Resources in the Arctic
- Advance Resilient and Healthy Arctic Communities and Economies



Arctic Goals

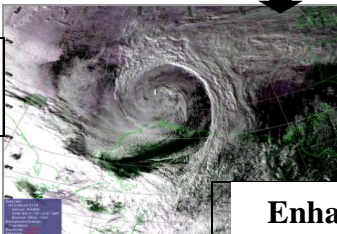


NOAA's Six Strategic Goals for the Arctic



Forecast sea ice loss

Improve weather and water forecasts



Detect and understand climate and ecosystem changes

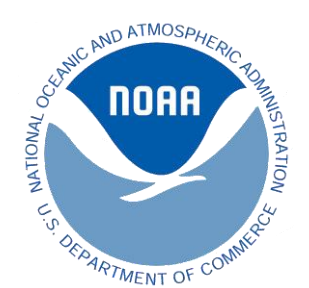
Enhance national and international partnerships



Advance resilient communities and economies



Improve management of ocean resources

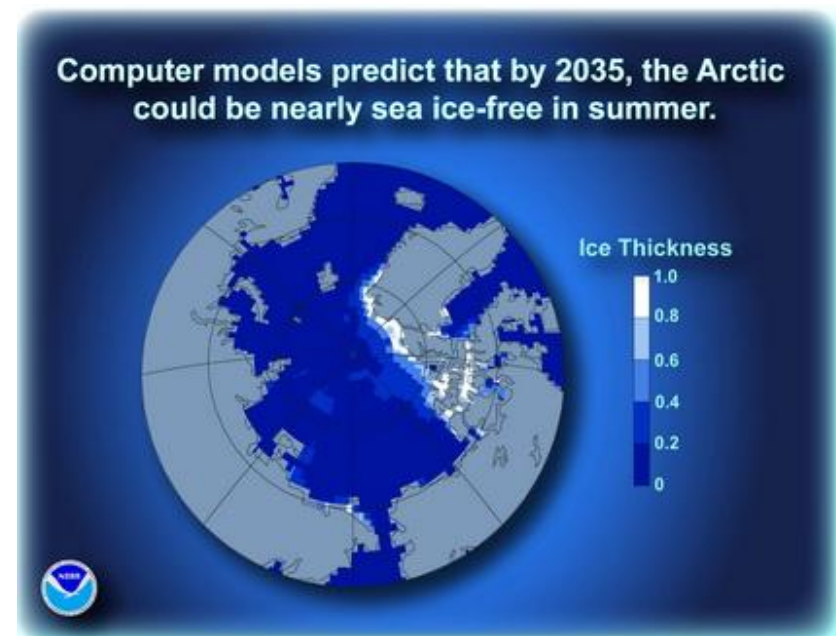


Goal 1: Forecast Sea Ice

Goal Statement - Accurate, quantitative, daily forecasts to decadal predictions of sea ice are provided to support safe operations and ecosystem stewardship.

Five-year Strategy

- Improve daily to weekly sea ice models and forecasts and new seasonal prediction services
- Multi-decadal sea ice projections
- Retrospective and prospective studies of the linkages between changes in Arctic sea ice and hemispheric weather and climate





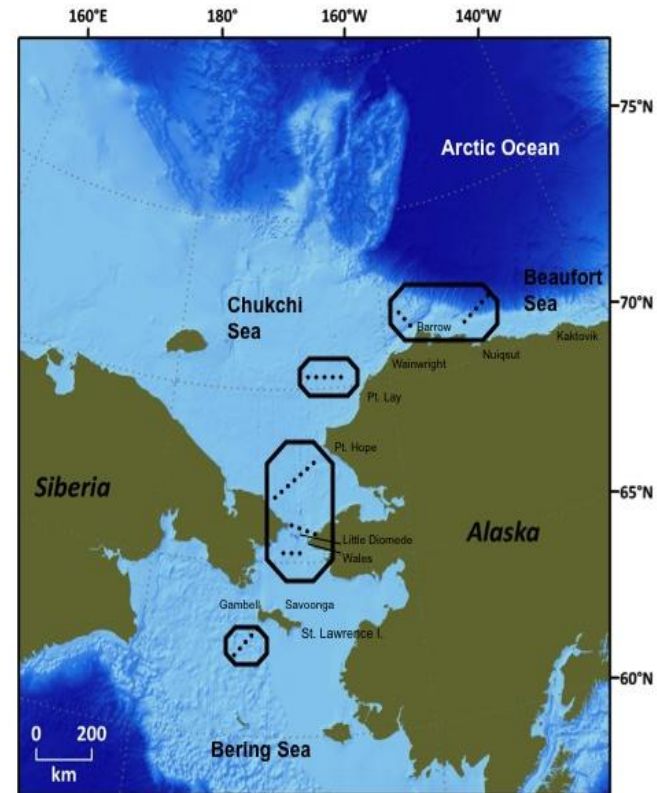
Goal 2: Strengthen Foundational Science to Understand and Detect Arctic Climate and Ecosystem Changes



Goal Statement - Improved baseline observations and understanding of Arctic climate and ecosystems reduces the uncertainty in assessing and predicting impacts caused by a changing Arctic.

Five-year Strategy

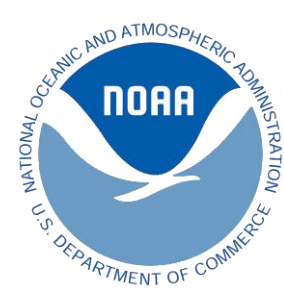
- Form the basis for a NOAA Arctic Change Detection System with
 - Enhanced and integrated set of environmental observations
 - Rapid organization, interpretation of this data in near realtime
 - Water level information and forecasts



Four possible regional locations of Distributed Biological Observatory transect lines and stations



Goal 3: Improve Weather and Water Forecasts and Warnings



Goal Statement - Advanced, accurate forecasts and warnings are provided to ensure society can prepare for and respond appropriately to weather-related routine and extreme events.

Five-year Strategy

- Improve Arctic marine weather, sea ice and storm forecast services.
- Protect northern and western Alaska coastal communities from storm surge, inundation, and erosion hazards.

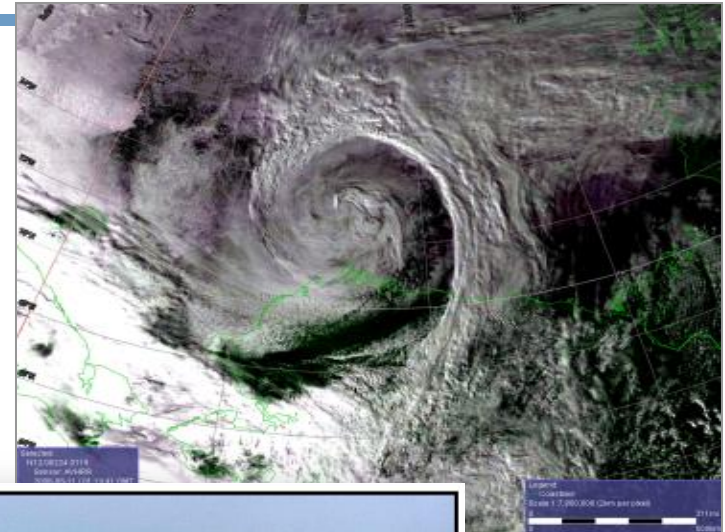
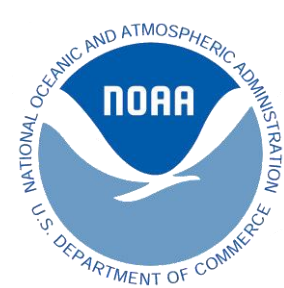


Photo 10: Shoreline erosion during coastal storm in Shismaref. (Credit: Tony Weyiouanna)



Goal 4: Enhance International and National Partnerships



Goal Statement: National and international partners are engaged to promote cooperation and sharing of data, observational platforms, and intellectual resources to enable more rapid and comprehensive attainment of NOAA's Arctic science and ecosystem-based management goals.

Five-year Strategy

- Sharing data at multiple levels
- Expand Arctic protection mechanisms
- Provide leadership and resources to support Arctic governance and science organizations
- Support development of effective SAON process



Launch of rosette during 2009 RUSALCA expedition

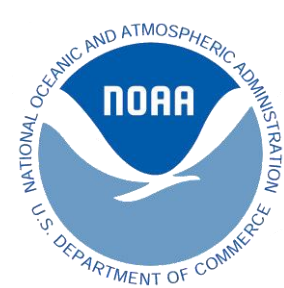


ARCTIC COUNCIL





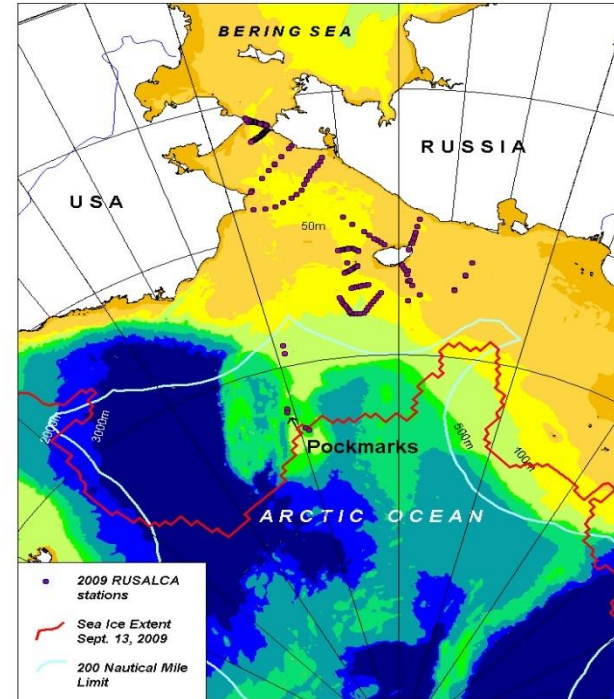
Goal 5: Improve Stewardship and Management of Ocean and Coastal Resources in the Arctic



Goal Statement - Conservation, stewardship, management, and use of ocean and coastal resources are based on sound science, and support U.S. economic growth and resilient and viable ecosystems and communities.

Five-year Strategy

- Continue ongoing assessment programs on marine mammals, fish, and shellfish
- Expand two existing programs
 - BASIS and RUSALCA
 - NOAA's ocean acidification program



RUSALCA 2009 stations, bathymetry in meters

K. Crane
NOAA

RUSALCA Ecosystem stations taken in 2009 from the Bering Strait north to 77°N on the Chukchi Plateau.



Goal 6: Advance Resilient and Healthy Arctic Communities and Economies



Goal Statement - Resilient and healthy Arctic communities and economies through improved geospatial infrastructure, safe navigation, oil spill response readiness, and climate change adaptation strategies.

Five-year Strategy

- Overhaul the Arctic Geospatial Framework
- Deliver scientific support for Arctic pollution response
- Survey and map Arctic waters and shoreline
- Support coastal communities with adaptive strategies and planning tools

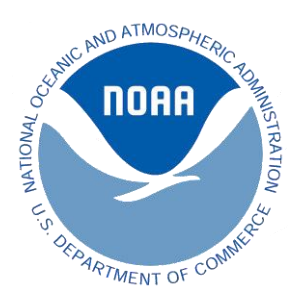


Photo 9: Home falling over eroded bank in Shishmaref. (Credit: Tony Weyiouanna)



Next Steps

- NOAA's Arctic Vision and Strategy will be published in the Federal Register May 10th, 2010.
- Coordinate across NOAA, collaborate with our partners
- Develop and implement 5-year Arctic Action Plan
- We'd like to hear from you.

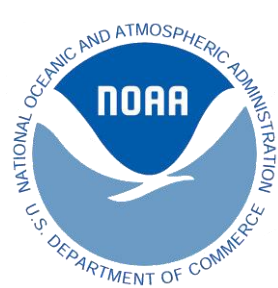


Discussion

- Which outcomes in this strategy are critical for your agency to succeed in fulfilling their responsibilities?
- What is it that NOAA can provide in terms of specific services to support your efforts?
- Where are the areas that we can collaborate to achieve our mutual goals?



Contact NOAA's Arctic Tiger Team



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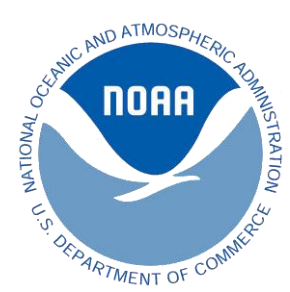
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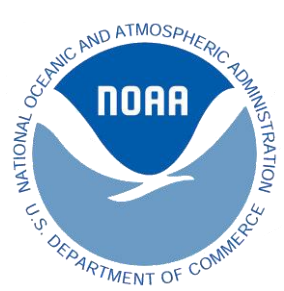
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Backup Slides



NOAA's Navigation Services



NOAA's Navigation Services:

- Nautical charts
- Seafloor surveys
- Tides, currents, water levels
- PORTS®
- Sea level trends
- Ocean observations
- Marine forecasts
- Accurate positioning
- Geospatial framework
- Marine debris/hazards
- Natural disaster response
- Oil / Hazardous spill response

Ocean and Coastal Mapping Integration Act:

- Signed into law March 2009
- Creates an Interagency Committee on Ocean and Coastal Mapping
- NOAA working to advance coordination of mapping, both within the agency and with Federal and State partners



NGSP STRATEGIC OBJECTIVE (VERSION 2.0) SAFE, EFFICIENT AND ENVIRONMENTALLY SOUND MARINE TRANSPORTATION

Major activities:

- Deliver a consistent set of maritime information and decision support services to increase economic potential of trade through U.S. ports and waterways
- Reduce the risk of incidents.
- Provide information products to support operational decisions on our oceans and coasts,
- provide emergency response services to save lives and protect the coastal environment.



MTS objective in NGSP cont'



Areas of impacts in the next 5 Years:

- Fewer maritime incidents in US waters
- Increased capacity in the MTS that can be safely exploited for economic gain;
- Fully developed coastal geospatial framework for maritime and other applications; and
- Reduced backlog
- Increased preparedness and response to maritime incidents and emergencies.



Key Changes from Prior Strategic Plan



- Long-term vision and goals frame 5-year objectives
- Outcome-oriented mission goals
 - Increased emphasis on service component of climate goal
 - Regional-scale assessments and decision support
 - Science as service: research advancements integral to service capacity
 - Weather more comprehensive and linked to other goals
 - Ecosystems goal unbundled into ocean and coastal dimensions
 - “Ecosystem thinking” a cross-cutting principle; ecosystem dimensions to all four goals
 - Ocean goal focuses on direct regulatory and management functions
 - Coastal goal focuses on community / ecosystem resilience; subsumes primary transportation components
- Sub-goals and cross-cutting priorities replaced with enterprise objectives

Week	PPI	Leadership	Staff, Stakeholders	DoC
01-05 Feb		U/S, DUS direction: NGSP v 1.0	Limited Internal NOAA Review: Draft 1.0	
08-12 Feb		FY'11 Budget Rollout		
15-19 Feb				
22-26 Feb		NEP (26 Feb): NGSP v 1.0		DoC drafting FY '10-15 Strategic Plan
01-05 Mar	Steering Committee meeting (02 Mar)			
08-12 Mar				
15-19 Mar	NGSP v 2.0 (for SAB review)			
22-26 Mar			SAB	DoC Strategy Retreat (23 Mar)
29-02 Apr				DoC drafting FY '10-15 Strategic Plan
05-09 Apr		DUS pre-brief (07 Apr): NGSP v 2.0		
12-16 Apr		U/S pre-brief (13 Apr): NGSP v 2.0		
19-23 Apr		NEC (21 Apr): NGSP v 2.0	RC Science Workshop	
26-30 Apr				
03-07 May	NGSP v 3.0 (for broad review)			
10-14 May		U/S, DUS clearance: NGSP v 3.0		
17-21 May			Broad internal and public review: NGSP v 3.0	
24-28 May				
31-04 June			SES Summit	Revised DoC Strategic Plan
07-11 June				
14-18 June				
21-25 June	NGSP v 4.0 (final)			
28-02 July				



Long-Term Goal: Climate Adaptation and Mitigation



Climate Adaptation and Mitigation

An informed society anticipating and responding to a changing climate and its impacts

- Improved scientific understanding of the causes and effects of climate variability and change
- Authoritative Assessments of the state of the climate, the likely impacts of climate change, and Needs for future climate science and services
- Climate services that support mitigation and adaption efforts and the integration of climate risks into decision-making processes
- A climate-literate public that understands its vulnerabilities to a changing climate and makes informed decisions



Long-Term Goal: Weather-Ready Nation



Weather-Ready Nation

Society prepares for and responds to weather-related events

- Reduced loss of life and disruption from high-impact events
- Improved water resource management
- Improved transportation efficiency and safety
- Improved health of humans and their ecosystems
- Secure, reliable infrastructure for energy, communications, and agriculture



Long-Term Goal: Sustainable Ocean Ecosystems



Sustainable Ocean Ecosystems

Marine Fisheries, Habitats, and biodiversity sustained within healthy and productive ecosystems

- Recovered, rebuilt and sustained living marine resources
- Safe and sustainable seafood for healthy, growing populations
- Healthy habitats that sustain thriving marine resources and communities
- Improved understanding of ecosystems for resource management decisions, particularly within a changing climate



Long-Term Goal: Sustainable Coastal Communities

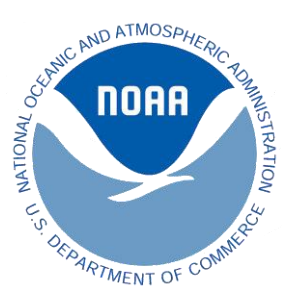


Sustainable Coastal Communities: Coastal and Great lakes Communities that are environmentally and economically sustainable

- Resilient coastal communities that can adapt to the impacts of weather and climate change
- Comprehensive ocean and coastal planning and management
- Safe, efficient and environmentally sound marine transportation
- Improved coastal water quality and human health
- Safe, environmentally sound Arctic access and resource management



NOAA's Enterprise Objectives



NOAA's Science Enterprise

- A holistic understanding of oceanic and atmospheric systems
- Reliable, accurate, and integrated earth observations
- An integrated environmental modeling framework

NOAA's Engagement Enterprise

- Improve the public's ability to make informed environmental decisions
- Integrated services meeting the evolving demands of regional stakeholders
- NOAA is the international source for definitive oceanic, coastal and atmospheric science, services and stewardship



NOAA's Enterprise Objectives



NOAA's Organizational Enterprise

- Diverse and constantly evolving capabilities in NOAA's workforce
- A modern IT infrastructure for a scientific and social enterprise
- Sound, life-cycle management of capital investments