ARCTIC

NOAA’s ARCTIC VISION and STRATEGY

NOAA Imperatives, Drivers, & Service Needs

David Kennedy
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NOAA’s Arctic Vision

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

• Building out from NOAA’s Arctic Vision and Strategy (released 2011)

• Provides detail on activities in 2014-2015
## National Strategy for the Arctic Region

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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
• NOAA’s Arctic Science program is focused on developing Arctic Observing Networks
  o Distributed Biological Observatory
  o International Arctic Systems for Observing the Atmosphere (IASOA)
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.
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 goals.

Five-year Strategy
- Encourage data sharing at multiple levels among providers and users
- Expand Arctic protection mechanisms
- Provide leadership and resources to support Arctic governance and science organizations
- Support development of effective SAON process
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 healthy, productive, and resilient ecosystems and communities.

Five-year Strategy
- Continue ongoing assessment programs on marine mammals, fish, and shellfish
- Expand existing programs
  - RUSALCA; Arctic EIS
  - NOAA’s ocean acidification program

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)*
We need observations!

- NOAA forecasts are critical to ALL stakeholders
- But the information needed for accurate forecasts is severely lacking
- To improve predictions, we need better observations
Next Steps

• Improve Arctic marine weather, storm surge, and sea ice forecast services by enhancing and integrating observations