ENVIRONMENTAL INTELLIGENCE FOR A CHANGING ARCTIC

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NOAA ARCTIC VISION AND STRATEGY
• Forecast sea ice
• Improve weather and water forecasts and warnings
• Strengthen foundational science to understand and detect Arctic climate and ecosystem changes
• Improve stewardship and management of ocean and coastal resources in the Arctic
• Advance resilient, healthy Arctic communities and economies
• Enhance international and national partnerships.

ARCTIC FISHERIES

2004

2012

U.S. ARCTIC VESSEL TRAFFIC

2025 U.S. Arctic Vessel Activity Projections for Bering Strait

Source: CMTS 10-Year Arctic Projection Record, January 2015

Increased ship-based tourism

SEA ICE FORECASTS and IMPACT-BASED DECISION SUPPORT GETTING FUEL TO NOME

May 27, 2011 - Shorefast failed to form

May 28 – Jan 2, 2012
Wind Rose Kotzebue

May 30, 2011 - Sea ice damages structures in Kotzebue, AK

BREAK UP AND MELT OUT DAMAGE
ALASKA COASTAL POPULATIONS VULNERABLE TO FLOODING AND EROSION

20 State disaster declarations due to coastal storms since 1978
4 presidential disaster declarations in just the last 10 years
Flood season: August-November

→ Alaska ceased participation in the Coastal Zone Management Program in July 2011
→ ~12% of AK communities do not participate in the National Flood Insurance Program

ARCTIC NAUTICAL CHARTING PLAN

ALASKA 2015 WILDFIRES

- Low spring snowpack
- Record warm spring
- Week of intense lightning

ALASKA 2015 WILDFIRES

301 fires on July 10, 2015 wildfires data Alaska Interagency Coordination Center

ARCTIC ERMA

NATIONAL ICE CENTER: INTEGRATION SUCCESS STORY

NOAA: BUILDING A SUSTAINED ARCTIC OBSERVING NETWORK