Socioeconomic Risks and Impacts of Northern Edge in the Gulf of Alaska

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Led by Eyak Preservation Council

Agenda

- Northern Edge
  - Overview
  - Current activities
  - Future plans
- Live-fire training events – Known v. Unknown Impacts
  - Habitat
  - Economic
  - Research Gaps
- Collaboration Opportunities

Northern Edge: Overview

PURPOSE: Replicates the most challenging Pacific theater scenarios

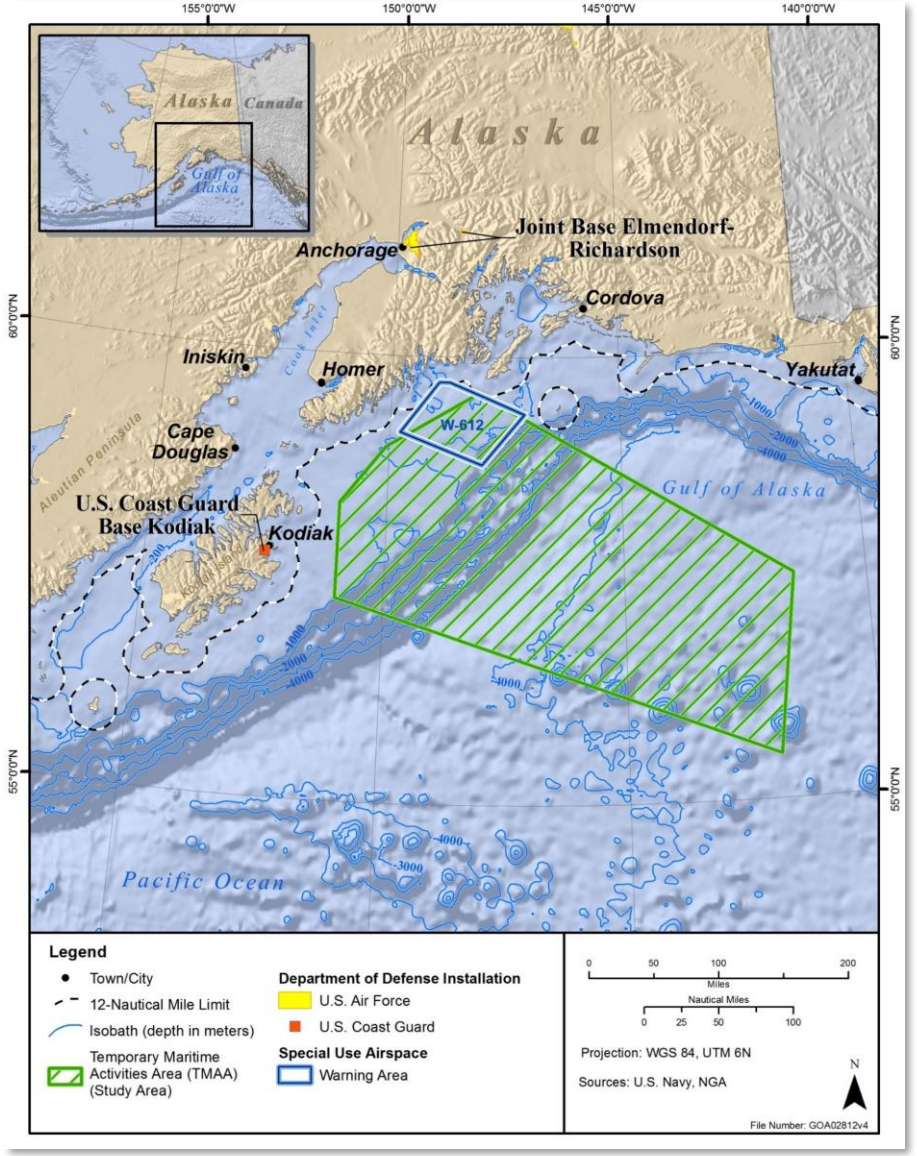
NEED: Requires Alaskan-sized spaces to simulate vast distances that modern military forces face

- Coordinates and integrates with joint forces
- Maritime activities include air defense, anti-surface and anti-submarine warfare. Activities include but are not limited to:
  - Joint interoperability tactics, techniques & procedures
  - Anti-submarine exercises by aircraft and ships (i.e., tracking “simulated” submarine)
  - Visit, Board, Search, and Seizure techniques
  - Aircraft combat maneuvering between land and maritime areas
  - Small arms gunnery

Source: USN Presentation to AKML, February 2017

Northern Edge: TMAA

- It is the size of West Virginia
- It is 12 miles from land, exempting it from the Clean Water Act
- It includes*:
  - State Marine Protected Area
  - NOAA Fisheries Protected Area
  - Seamount Protected Area
  - Slope Habitat Conservation Area
  - Essential Fish Habitat for all species of Salmon
  - Portlock Bank
  - Northern Pacific Right Whale Critical Habitat



* *Other area maps available at www.goaeis.com*

Source: SEIS

Northern Edge: 2017 plans

Scheduled for May 1 to 12, 2017

Requested Authorization*

- 360 Bombs
- 66 Missiles
- 26,376 Gunshells
- 11,400 Small Arms Rounds
- 156 Pyrotechnics
- 1,587 Sonobuoys
- 858 SINKEX Ordnance

* *List not inclusive*

Recent Presentations**

- 0 Bombs
- 0 Missiles
- 15 Gunshells
- 2,100 Small Arms Rounds
- 5 Signal Flares
- 1,200 Sonobuoys
- 0 SINKEX

** *Not legally beholden to these numbers*

Source: USN Presentation to AKML, February 2017

Supplemental Environmental Impact Statement

U.S. Navy presentations cite use of Best Available Science.

Their SEIS concluded that there is no need to review any additional material because no new material was applicable. This means that no new information regarding impacts has been considered since their original EIS, completed in 2010.

The following slides reference information from various sections of the SEIS.

Habitat Impact: Knowns

Impacts from training activities may include:

- Debris that may be ingested by fish, birds, and mammals
- Debris that may entangle fish, invertebrates, marine mammals, and marine vegetation
- Sunken debris may contribute to marine habitat degradation
- Additional debris may accumulate along shorelines

EIS focuses on black and grey water discharges and environmental stewardship.

Citations: U.S. Navy's update to their Operations Manual that governs Standard Operating Procedures, Mitigation, and Monitoring

Conclusions: "No new information on existing environmental conditions, including updated Navy regulations. However, this new information does not change the affected environment, which forms the environmental baseline of the water resources analysis."

Habitat Impact: Unknowns

Will Northern Edge:

- Modify the marine environment?
- Modify behavior of species therein and how?
- Shift designated ground fisheries to another area? (Figure 3.12-1)
- Cause species to display reduced fitness associated with water pollution?
- Cause entanglements from sonobuoys debris?
- Impacts on subsistence harvests? In what areas?
- Cause bioaccumulation of released pollutants in food web & fish?

Contaminants of Concern*:

- Chromium
- Lead
- Tungsten
- Nickel
- Cadmium
- Barium chromate
- Potassium perchlorate
- Chlorides
- Phosphorus
- Titanium compounds
- Lead oxide
- Barium chromate
- Potassium perchlorate
- Lead chromate
- Ammonium perchlorate
- Fulminate of mercury
- Potassium perchlorate
- Lead azide
- Cyanide

**List not inclusive*

GOA Ground Fish & Halibut Harvest

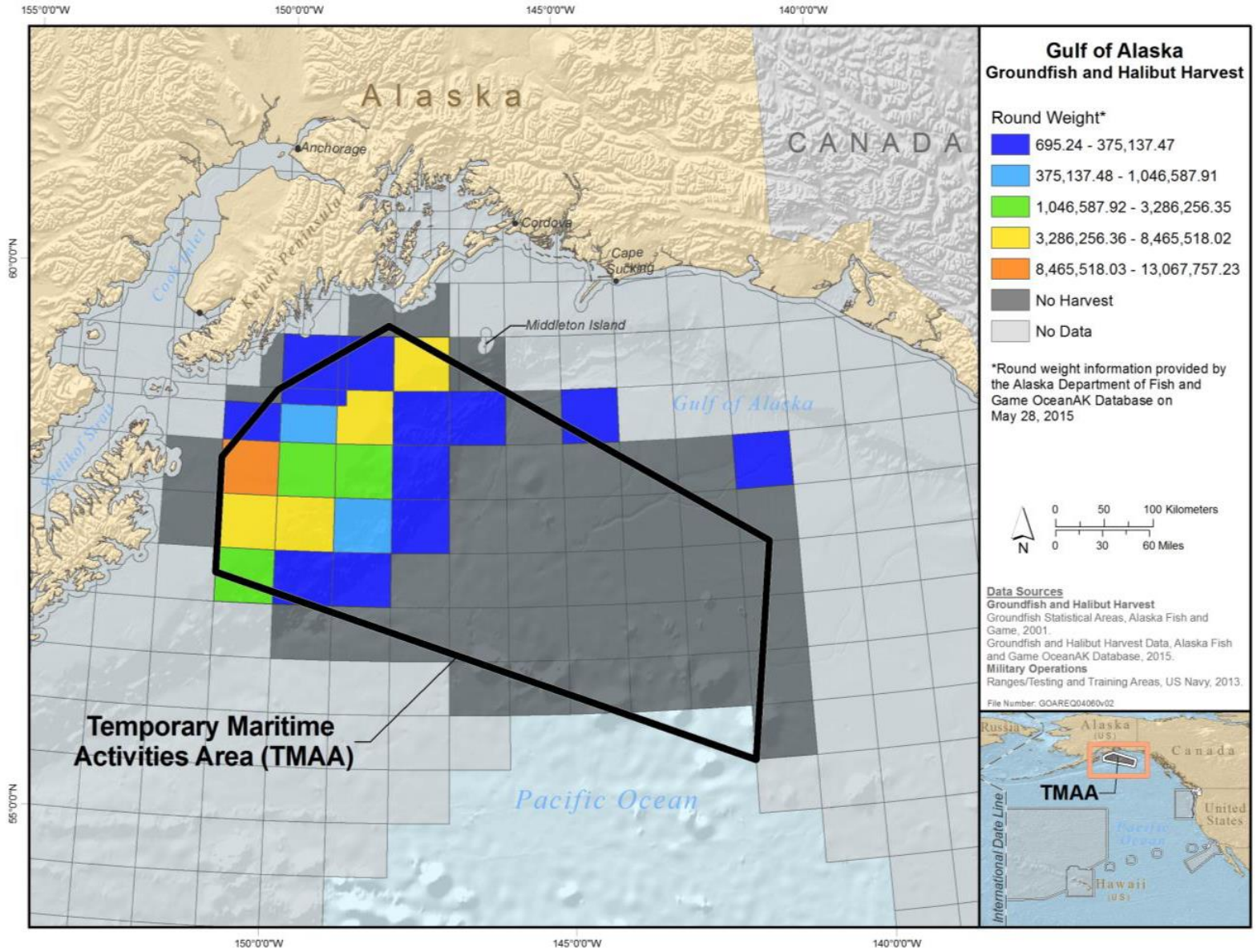


Figure 3.12-1, SEIS

Economic Livelihoods: Known Risks

FISHERIES

Impacts from training activities may include:

- Expended materials can also be mistaken as prey by a multitude of species, including salmon
- Direct physical injury, death or failure to reach the next developmental stage
- Disruption of habitat
- Exposure to chemical by-products
- Indirect effects on prey species and other components of the food web.

EIS analysis focuses on halibut, scallops, and crab. Chinook, Coho, Chum, Pink, and Sockeye salmon and steelhead that originate from Alaskan rivers are not listed under the ESA and thus are absent from analysis.

Citations: A review of recent literature and discussions with Alaskan Ocean Observing System, NOAA Fisheries, and ADFG, commercial fishing in the Study Area has not significantly changed since the Final EIS/OEIS.

Conclusions: "To date, the Navy has not been told of interference nor is there any scientific evidence that Navy training is accelerating any fluctuations or declines or otherwise, even in the most recent exercise in 2015, despite claims there would be prior to the event starting. The Navy is also aware of catch density and which areas are most utilized by fishermen in the GOA."

Economic Livelihoods: Known Risks

MARINE MAMMAL ECOTOURISM

Impacts from training activities may include:

- A variety of impacts may result from exposure to sound-producing activities. More severe impacts that may have lasting consequences, such as: behavioral reactions, physiological stress, auditory fatigue, auditory masking, and direct trauma.
- Marine mammals have been documented ingesting marine debris from commercial and recreation sources, sometimes with fatal effects (Citations span 2010 to 2013)
- Level A Takes is 25 annually over five years; Level B Takes is 36,522 annually, totaling 182,610 over five years

EIS analysis focuses on commercial fishing and natural environment noise (e.g., earthquakes and waterfalls).

Citations: According to the Alaska Department of Commerce, there has been no quantifiable decrease in tourism as a result of Navy training and testing. Source: Ruby, S. Division Director, Alaska Department of Commerce, Community, and Economic Development (2013). *Information about possible impacts to tourism in Alaska from Navy activities in the region*. Personal communication via telephone to K. Randall, Hawaii-Pacific Regional Office Director, ManTech, Inc. Kapolei, HI.

Conclusions: "Several marine mammal species occurring in the Study Area are ESA-listed. These resources would be impacted by multiple ongoing and future actions. Explosive detonations and vessel strikes under the Proposed Action have the potential to disturb, injure, or kill marine mammals. No new information or circumstances are significant enough to warrant further cumulative impact review."

Economic Livelihoods: Known Risks

BIRDING ECOTOURISM

EIS analysis focused on the avoidance of roosting habitat. The U.S. Navy is largely exempt from researching the impacts Northern Edge could have on birds because of the Migratory Bird Treaty Act (MBTA). All activities that would take place under Northern Edge are within the MBTA definition of military readiness activities.

Citations: There is no new information that reveals new effects to listed bird species that were not previously considered.

Conclusion: Because the Proposed Action has not changed and there is no new information that would change the analysis conducted in support of the 2011 GOA Final EIS/OEIS, the Navy is not required to confer with the USFWS on the development and implementation of conservation measures to minimize or mitigate adverse effects to migratory birds that are not listed under the ESA.

Economic Livelihoods: Unknown Risks

WILL NORTHERN EDGE

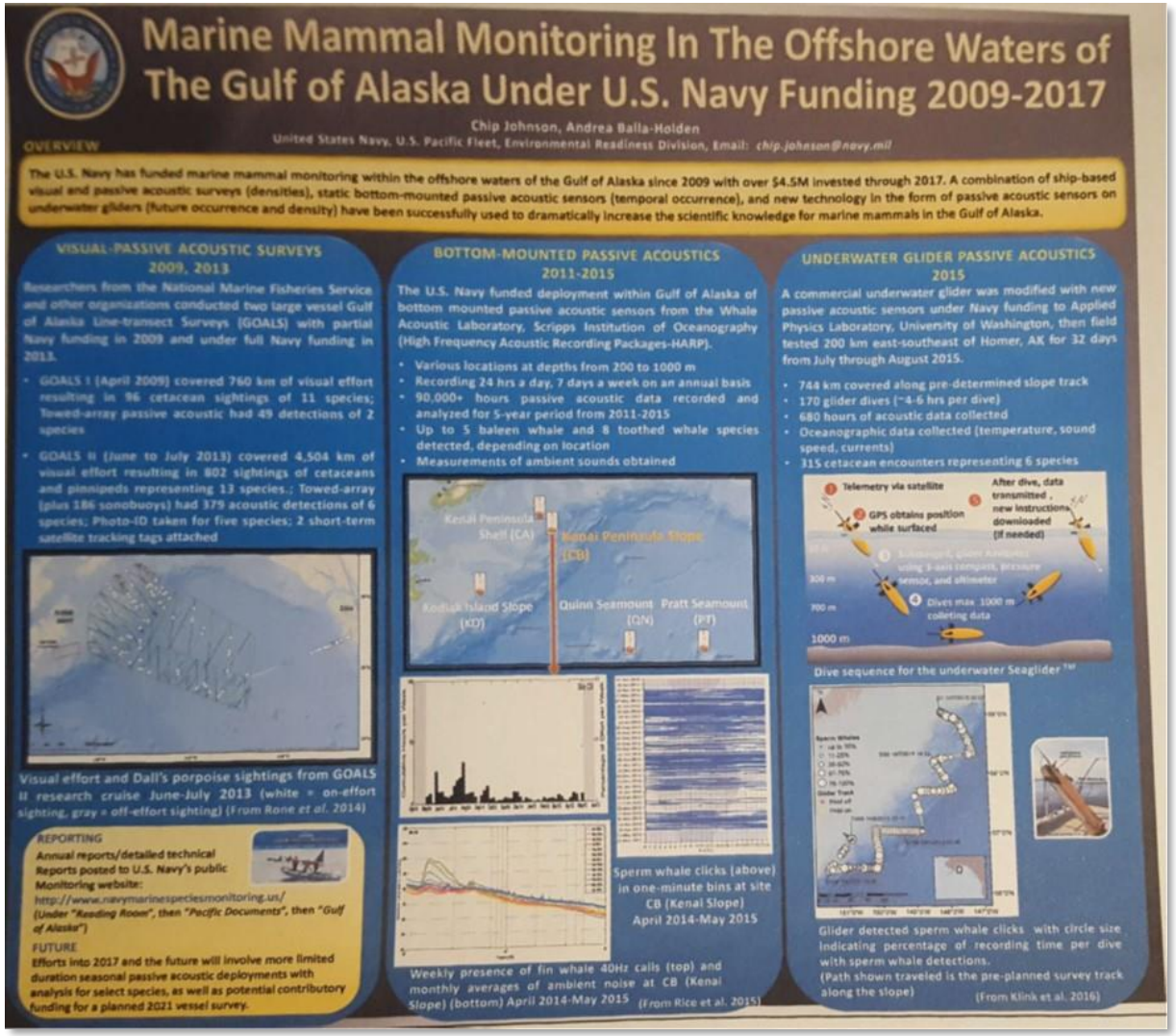
- Modify the marine environment?
- Modify behavior of species therein and how?
- Cause species to display reduced fitness associated with water pollution?
- Impacts on subsistence harvests? In what areas?
- Divert marine mammals away from nutrient rich waters?
- Cause bioaccumulation of released pollutants in food web?
- Impact salmon returns and other commercially valuable fish/ seafoods?
  - Biomass reductions from direct and indirect impacts (e.g., sonar and explosions)
  - Bioaccumulation of toxins
  - Risks to markets from perceived or recorded pollutants
  - Future management

Scientific Research Gaps

For example: SEIS Noise Cumulative Impacts Section contains citations from 1995 and 2002.

- What are the sources of best available science to evaluate cumulative environmental impacts?
- How can we calculate sustainable harvests with incomplete understanding of impacts from Military activities in GOA?
- What are the intrinsic values of culture and subsistence foods? How can we weigh these against dollars generated by other business sectors?
- What will be the loss of EFH as a result of trainings?
- What are the health impacts of contaminated or reduced fish stocks?
- What will be the cost of marine debris cleanup and scientific data for baseline and recovery?
- Will changing the time and location mitigate potential impacts?

U.S. Navy Poster at Symposiums



- $4.5 Million between 2009 and 2017
- Acoustic studies not cited in SEIS, despite location in TMAA
- Seeking funding for 2021 vessel study

Value

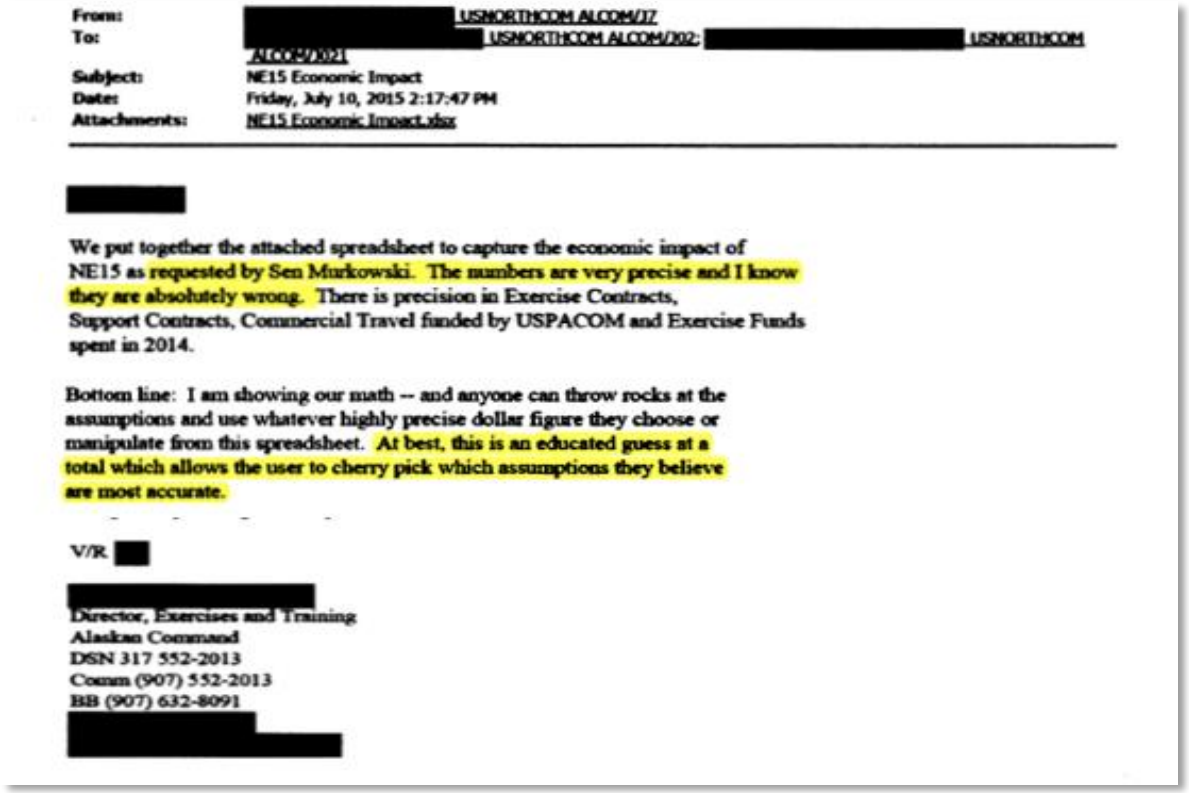
U.S. Navy's purported economic benefit from 2015 was $13 Million

In 2015, the Eyak Preservation Council submitted a Freedom of Information Act request and that showed:

- $12,263,556 to JBER and Fort Greely in Lodging reimbursements
- $74,532 was spent in Port calls.

"At best, this is an educated guess at a total which allows the user to cherry pick which assumptions they believe are most accurate."

-- Alaska Command to Northern Command in response to a request from Senator Murkowski



From: [redacted] USNORTHCOM ALCOM/J7
To: [redacted] USNORTHCOM ALCOM/J02; [redacted] USNORTHCOM ALCOM/J021
Subject: NE15 Economic Impact
Date: Friday, July 10, 2015 2:17:47 PM
Attachments: NE15 Economic Impact.xlsx

[redacted]

We put together the attached spreadsheet to capture the economic impact of NE15 as requested by Sen Murkowski. The numbers are very precise and I know they are absolutely wrong. There is precision in Exercise Contracts, Support Contracts, Commercial Travel funded by USPACOM and Exercise Funds spent in 2014.

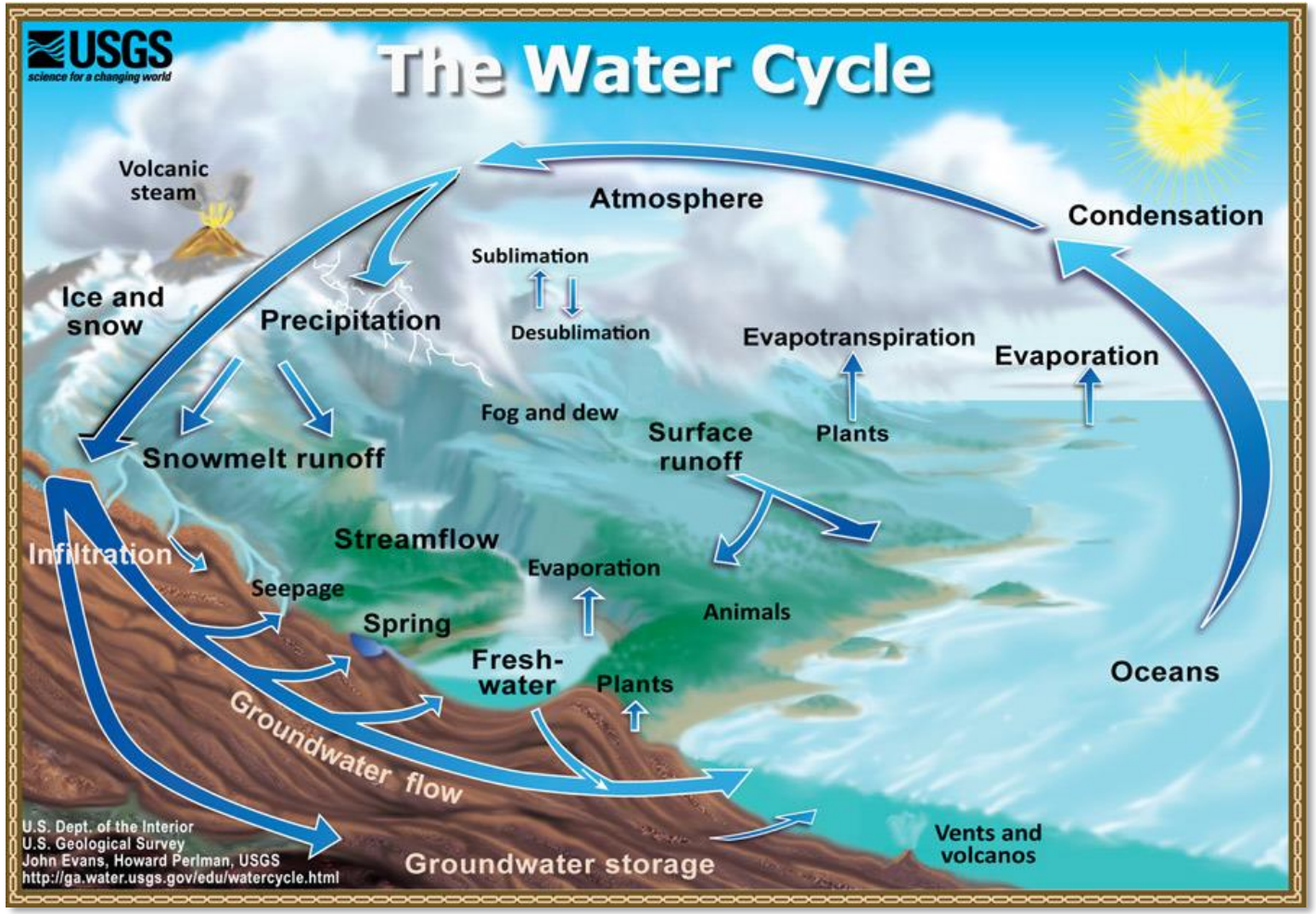
Bottom line: I am showing our math -- and anyone can throw rocks at the assumptions and use whatever highly precise dollar figure they choose or manipulate from this spreadsheet. At best, this is an educated guess at a total which allows the user to cherry pick which assumptions they believe are most accurate.

V/R [redacted]

[redacted]
Director, Exercises and Training
Alaskan Command
DSN 317 552-2013
Comm (907) 552-2013
BB (907) 632-8091
[redacted]

Kodiak **actual** fisheries' economic impact in 2015 was $137 Million

Value of Research



"We teach the water cycle to our kids. But as adults, we forget it's importance. You have to look from the top of the mountain to the bottom of the ocean to understand our nutrient base."

- Tonya Lee, Kodiak

Collaboration Opportunities:

The Eyak Preservation Council is drafting a potential mitigation and monitoring program that will leverage existing, updated and relevant data and actively engage leaders in their respective fields. Contact us for more details.

Thank you!

Summer is for Salmon

Led by Eyak Preservation Council of Cordova, Alaska

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