



Exercise Update in Alaska

Alaskan Command
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ARCTIC EDGE (AE) 18

Overview

- Northern Command owned and Alaskan Command led exercise focused on our nation's homeland defense mission and support to the state of Alaska during manmade or natural disasters
- Occurs only in the even years; opposite to NORTHERN EDGE (odd years)
- Little to no exposure to coastal communities; no maritime vessels participating

Goals & Objectives

- Practice our plans
- Conduct community engagements
- Exercise tactics, techniques and procedures associated with our plans
- Arctic Operability; ID gaps & seams
- Leverage and support linked exercises, State of Alaska/National Guard, US Coast Guard, military service exercises

12-23 March 2018



Personnel Participation

From Lower 48; total approx. 550

- US Marine Corps – 400
- Special Operations Forces – 130
- US Navy – 7

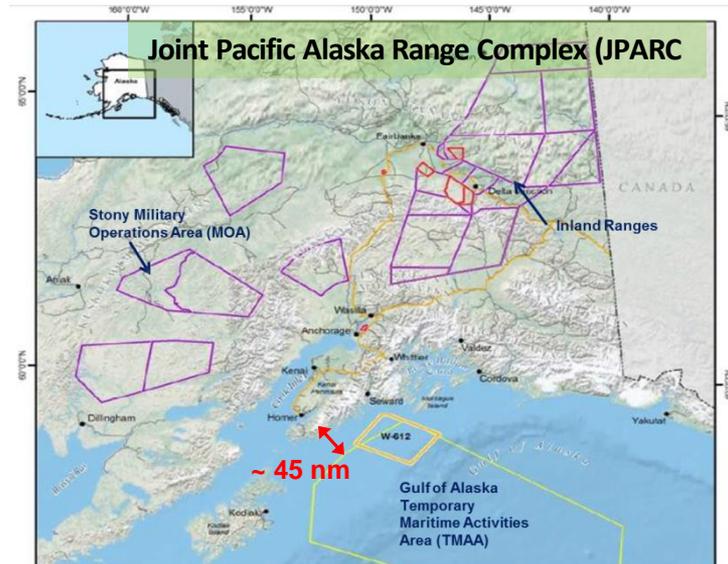
Resident in Alaska; approx. 450

- US Army Forces – 300
- Alaskan Command HQ – 65
- US Army Alaska HQ – 70



NORTHERN EDGE 17

- **U.S. Pacific Command owned; Alaskan Command led exercise focused primarily on the air portion of their homeland defense mission of the United States in the Pacific.**
 - **NORTHERN EDGE occurs every two years; opposite of ARCTIC EDGE**
 - **Limited to no exposure to Sitka or minimal to the other coastal communities in Alaska**
 - **NORTHERN EDGE 17, 1 – 12 May 17**
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- **Participants were able to practice joint interoperability**
 - **Navy, Air Force and Marine Corp aircraft flying together**
 - **Multiple Command and Control opportunities (Air Force and Navy Cruisers) took turns leading the scenarios**
 - **Alaskan-sized spaces and range infrastructure facilitated realistic, robust scenarios including vast distances modern military forces face**
 - **Over 1,700 take offs & 4,000+ flight hours during NE17**





NE17 Navy Maritime Goals and Activities Conducted

Navy activities occurred in the TMAA from 1-12 May 2017

• Ships

- 2 Navy surface combatant ships (Destroyers)
- 1 support/replenishment ship (fuel/food)
- 1 Coast Guard vessel
- 5 Contracted Alaskan fishing vessels
(to simulate opposition forces)

• Training objectives and activities

- Coordination and integration with joint forces
- Practice anti-submarine exercises with ships
(i.e., tracking simulated submarine)
- Practice in Visit, Board, Search, and Seizure (VBSS) techniques
- Aircraft combat maneuvering between land and maritime areas
- Small arms gunnery



USS Hopper (DDG 70)



USS O'Kane (DDG 77)



USNS Guadalupe (T-AE 200)



*Small arms qualification
aboard Navy ship*



*VBSS team approaching
"opposition vessel"*



NE 17 Conclusions



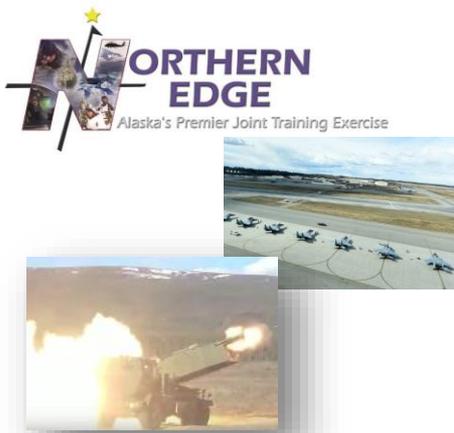
- Overall, analysis shows minimal exposure to individuals with no long term population level effects associated with NE17
- Environmental protection continues and integral part of NE with at-sea training using an extensive set of mitigation measures designed to minimize potential risk to marine life and environment



Back-Up Slides



NE17 Timeline and Economic Impact



NE17 AK-Wide Economic Impact

- Visiting personnel spending ~ \$12,400,000
- Contracts – \$7,900,000
- Base Support Wages – \$7,700,000

Total - over \$28,000,000

Dates & Participants

- Dates: 1-12 May 2017
- DoD:
 - 6,000+ personnel
 - > 160 aircraft
 - 2 Navy destroyers + 1 supply ship
- Non DoD:
 - USCG vessel, 5 civilian fishing boats
- Virtual participants from multiple US locations
- 26 test & experimentation initiatives
- Navy ship port visits to Homer & Juneau



Homer



Juneau



Environmental Planning

Supplemental EIS analyzes maximum levels of activity
Actual activity for NE17 considerably less (e.g. 12 days, no explosives used)

- ***July 2016: Released Final SEIS/SOEIS (Supplement to 2011 EIS)***
- ***April 2017: Navy issued Record of Decision (ROD) & NMFS issued final MMPA Permit and ESA Biological Opinion for TMAA activities from 2017-2022***
 - **Process included extensive public participation and formal Government-to-Government Consultation with Alaska Native Tribes**

Best Available Science showed impacts not significant under both alternatives considered

After carefully weighing of future strategic and operational requirements, and environmental consequences of the Proposed Action as well as comments received from government agencies, Alaska Native Tribes, and the public, the Navy elected to proceed with Alternative 1 of the SEIS

* ***Alternative 1***

- ***1 annual large-scale 21-day Carrier Strike Group (CSG) exercise between Apr–Oct***
- ***No sinking exercise***

(Alternative 2 not selected and included 2 annual CSG exercises, each occurring over a maximum time of 21 consecutive days each Apr–Oct; 1 sinking exercise per CSG exercise for total of 2 per year)



NE17 Navy Environmental Summary

- Navy **fully complied** with all mitigation measures/required procedures; events within scope of SEIS and NMFS permits
 - Only 12 days (vice maximum of 21 days in SEIS)
 - Minimum active SONAR use compared to SEIS level
 - No explosive ordnance used (i.e., no live bombs, missiles, or explosive 5-inch gun rounds)
- **No events (SONAR or ordnance) triggered procedural measures**
 - No marine mammals sighted within required mitigation zones, so no power down or shutdown of SONAR needed
 - 2,880 hours of shipboard lookout effort during 12 days
- **No indications or evidence of any environmental impacts**
- Navy not aware of **any interactions or conflicts** with other users of maritime environment (e.g. fishing, shipping, aircraft)
- **Reporting** – to be posted on Navy Marine Mammal Monitoring website
 - *Exercise Reporting*: Report required by NMFS submitted 31 August 2017
 - *Monitoring Reporting*: 3 passive acoustic monitoring devices deployed from Apr-Sep 2017; Analysis and report to NMFS publically available July 2018
<https://www.navy-marinespeciesmonitoring.us/>



Protective Mitigation Measures

Extensive mitigation measures developed in coordination with NMFS

- Implement mitigation zones for sonar and explosive activities
- Post qualified Lookouts
- Monitor mitigation zones before and during training
- Report monitoring results and training activities
- Coordinate with regulatory agencies stranding program
- Conduct offshore population surveys and other marine mammal monitoring research



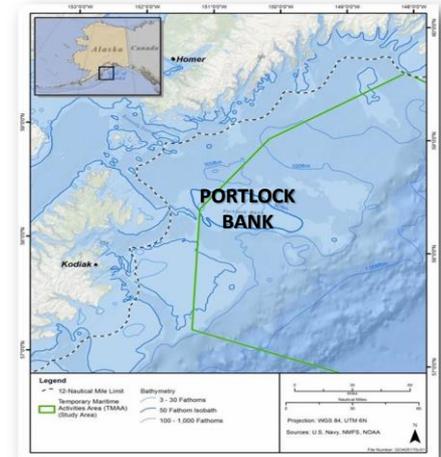
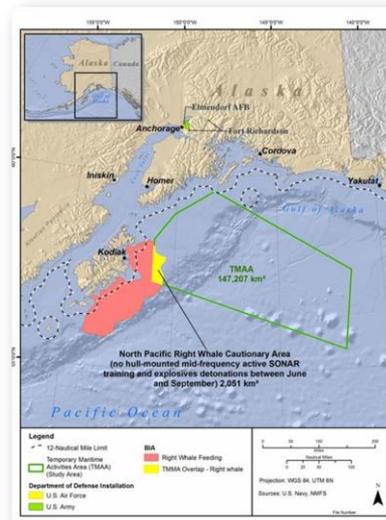
*****New Mitigations for NE17*****

North Pacific Right Whale Cautionary Area during feeding time (*Jun-Sep*) [below left]

- No surface ship hull mounted sonar
- No explosives

Portlock Bank [below right]

- No explosives use





NE17 Usage

SONAR – actual usage not publicly releasable but minimal amount of SONAR in NE17

Training Ordnance or Expended Materials	EIS Analysis (Alt 1 of Final SEIS)	NE15	NE17 (planned/actual)
Bombs	180	0	0/0
Missiles	33	0	0/0
Naval Gunshells (Various Types)	13,188	15 (inert)	100/28 (all inert / non-explosive)
Small Arms Rounds	5,700	2,100	3,500/2,500
Pyrotechnics	78	5 (flares)	5/5 (signal flares)
Targets	47	6 (floating targets)	6/6 (floating targets)
Sonobuoys	794 (40 explosive)	250 (no explosive)	0/0
Portable Undersea Training Range (PUTR)	7 (Anchors on Sea Floor)	0	0/0; not installed



Analysis of Impacts To Marine Species

FISH:

- TMAA has minimal overlap with fisheries management areas
- Mid-frequency active sonar not heard by most fish species including key commercial species (e.g. salmon, groundfish) 
- Only a few fish species able to hear sonar (e.g. herring) but not likely to be affected from sonar due to fish's inability to swim at ship speed *and* remain close to bow of ship *for hours* of exposure (no bow-riding fish schools)
- No fish mortality from sonar
- No explosives used in NE17 therefore no fish mortality from explosives



MARINE MAMMALS:

- Minimum exposure of marine mammals to limited sonar use which would not have significant impacts and below SEIS predictions*
- No mass strandings associated with Navy; no Navy ship strikes to marine mammals
- 9 years of Navy funded monitoring (2009-2017) shows higher likelihood of more marine mammal species offshore in summer-fall (Jul-Oct) compared to spring-early summer (May-Jun)



BIRDS: No impacts to birds from in-water activities; only 3 Navy surface ships in large TMAA ocean area with minimum to no in-air impacts (seabirds not usually associated with Navy ships)

OTHER: No fuel spills during 4 Navy ship refuelings at sea; Navy ships retain all plastics onboard; low amount of military expendable material in ocean

* SEIS marine mammal analysis addressed impacts between entire range from Apr to Oct with quantitative analysis (modeling) for large multi-ship exercise (≥3-5 sonar ships) over a 21 day period



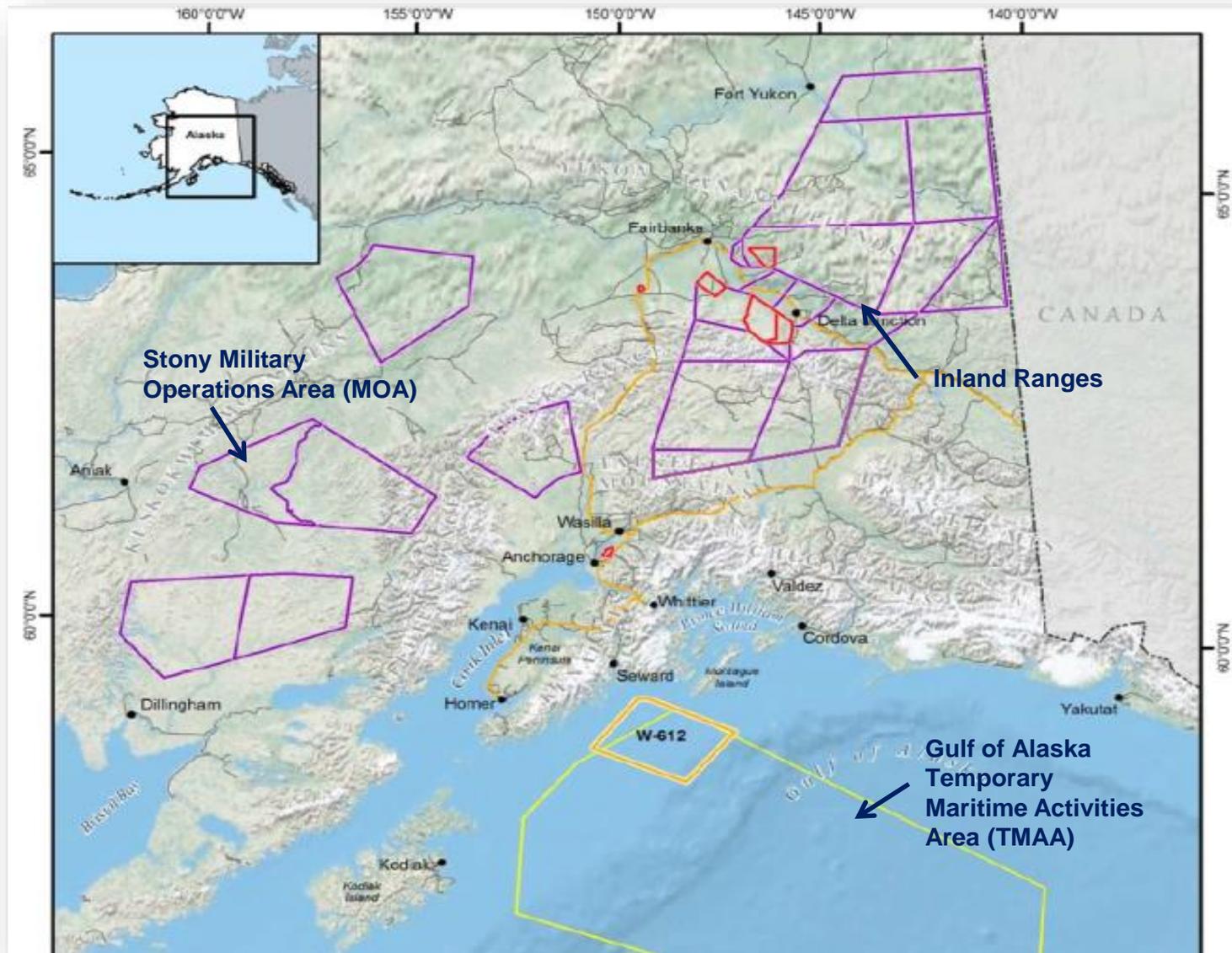
Way Ahead – NE19



- Planning for Northern Edge 2019 will begin with Initial Planning Conference (IPC) in Winter 2018**
 - Level of activity may fluctuate for each NE exercise but will remain within EIS levels and 2017-2022 MMPA permit limits**
 - Timing of NE19 and scope of activities being considered by USPACOM, ALCOM, and Navy**
 - Planning consideration include force availability, resource constraints and costs, weather considerations, and larger USPACOM Pacific-wide exercise calendar**
- Planned economic impact expected to be similar to NE17 (~\$28 Million)**
- Community and Tribal Outreach for NE19**
 - Leading up to NE19 ALCOM and Navy are committed to provide additional information and engage communities and Tribes as the planning process moves forward**

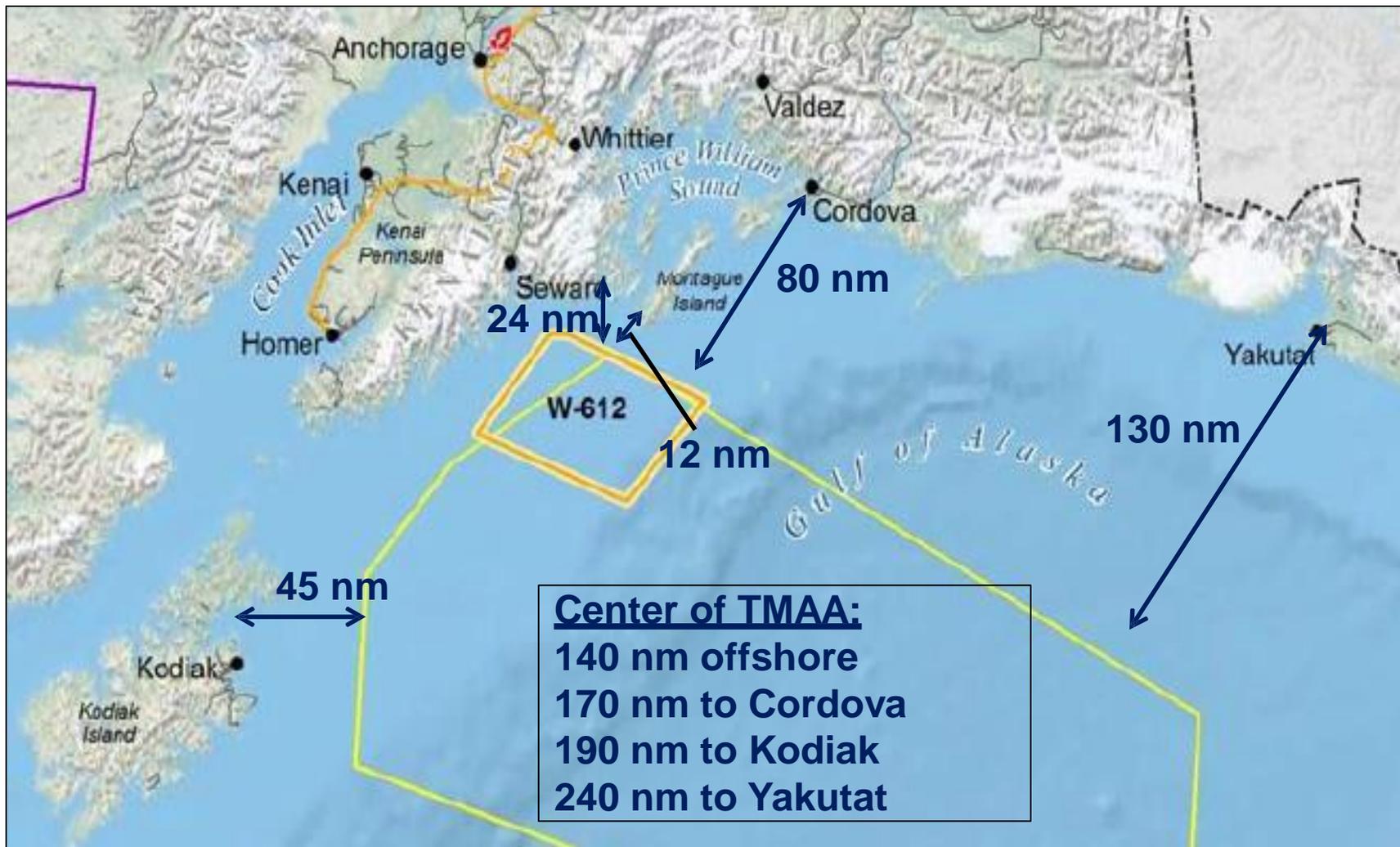


Joint Pacific Alaska Range Complex (JPARC)



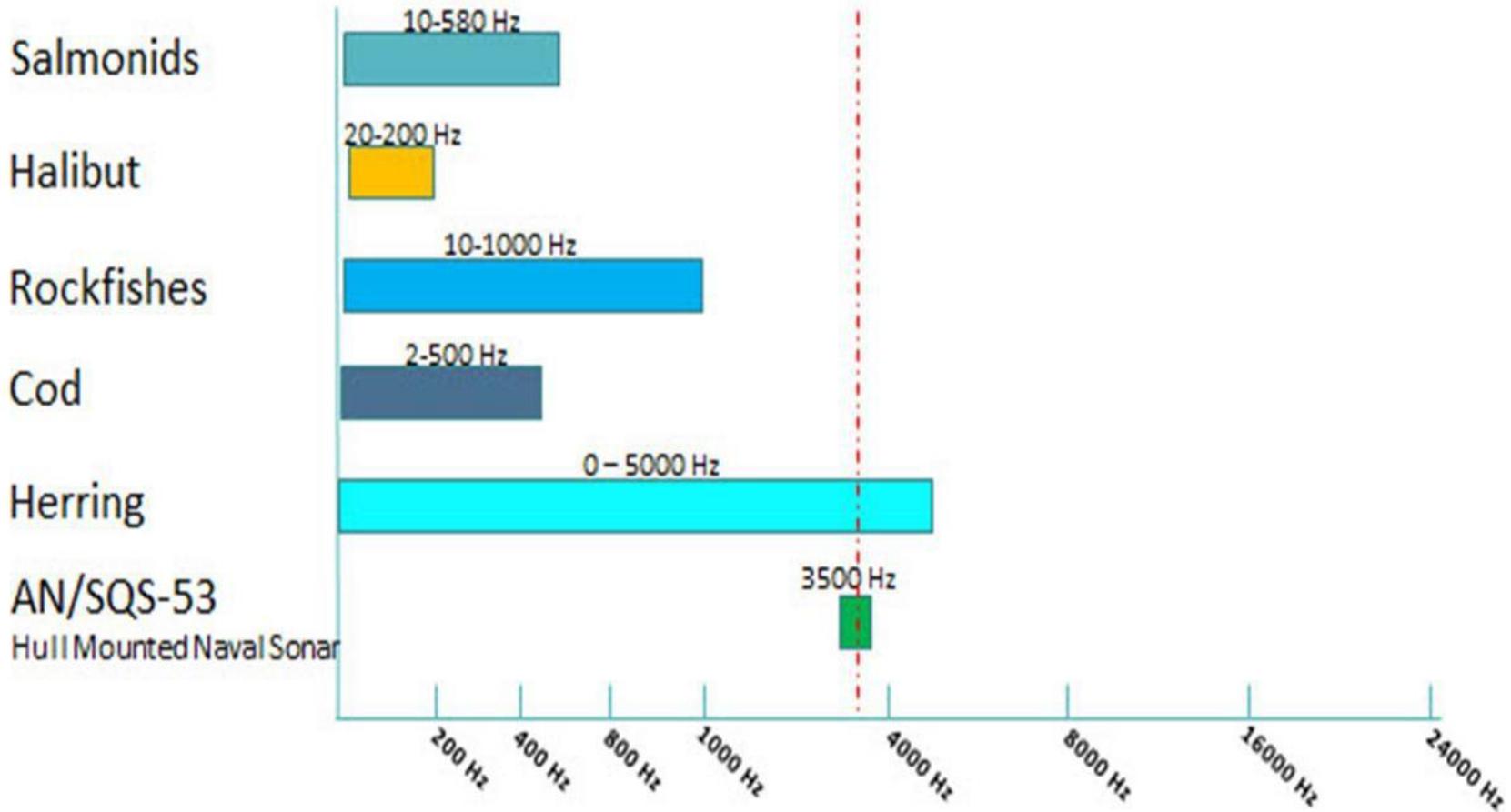


Proximity of Temporary Maritime Activities Area (TMAA) to Shore





Fish Hearing and Sonar



Sources: Astrup 1999; Astrup and Mohl 1993; Hawkins and Johnstone 1978; Jorgensen et al. 2003; Lovell et al. 2003; Mann et al. 2005; Popper 2008; and Popper and Carlson 1998.



NE17 Marine Mammal Monitoring

Apr 2017 through Sep 2017



Typical HARP configuration (top)
and example deployment (bottom)
(Pictures from Scripps Institution of
Oceanography)

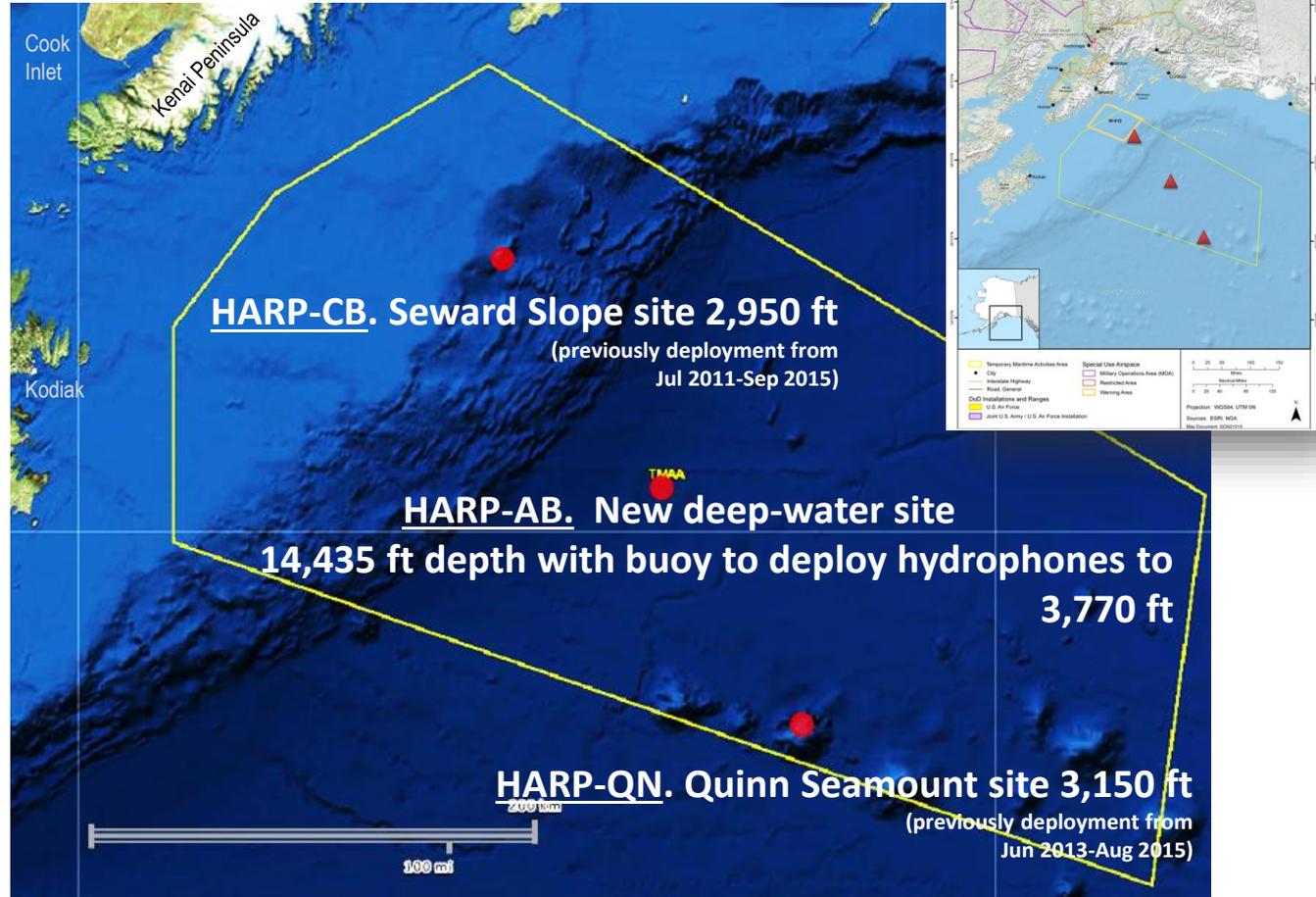


Figure 1. GOA TMAA HARP Deployment Locations (26-30 Apr 2017)