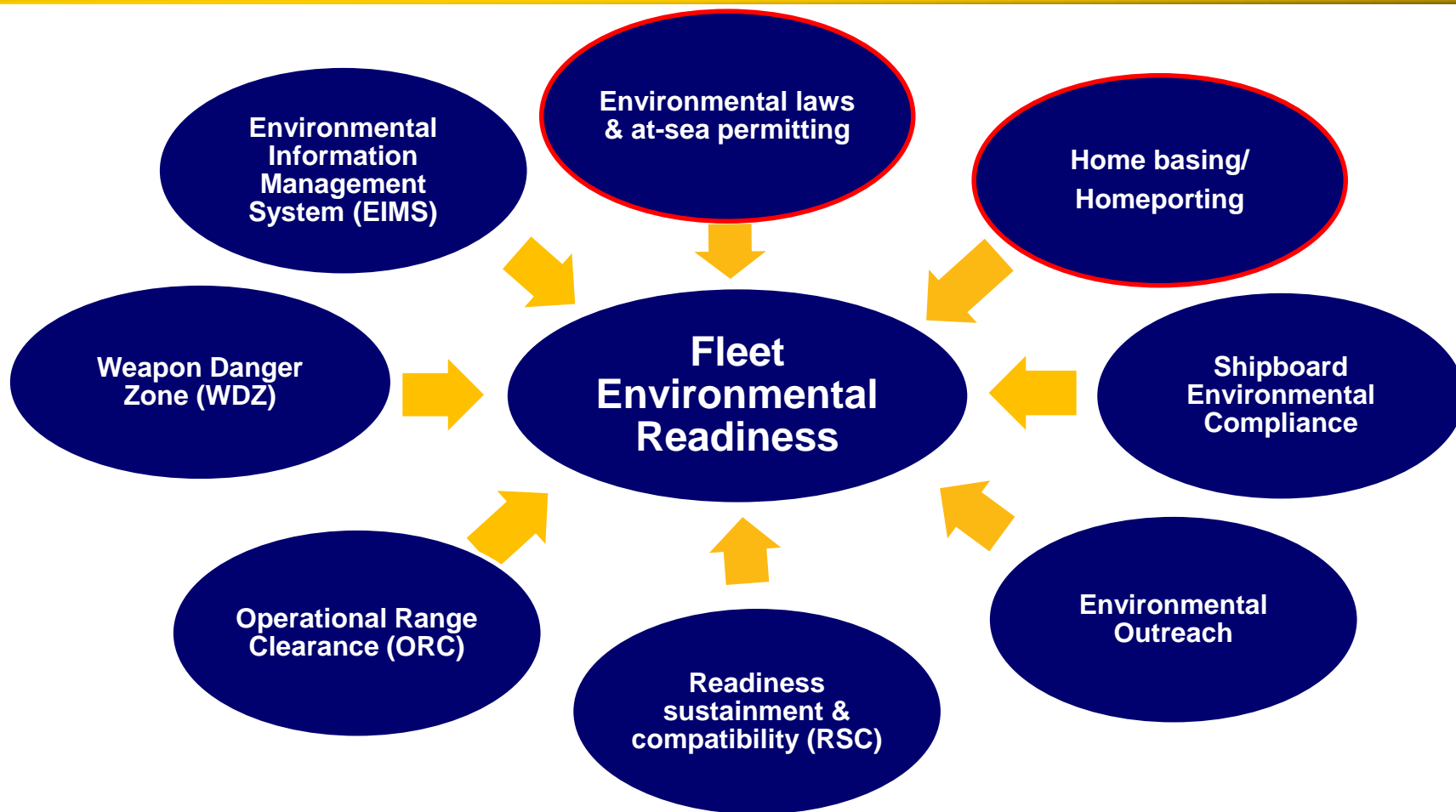




US Fleet Forces Environmental Readiness



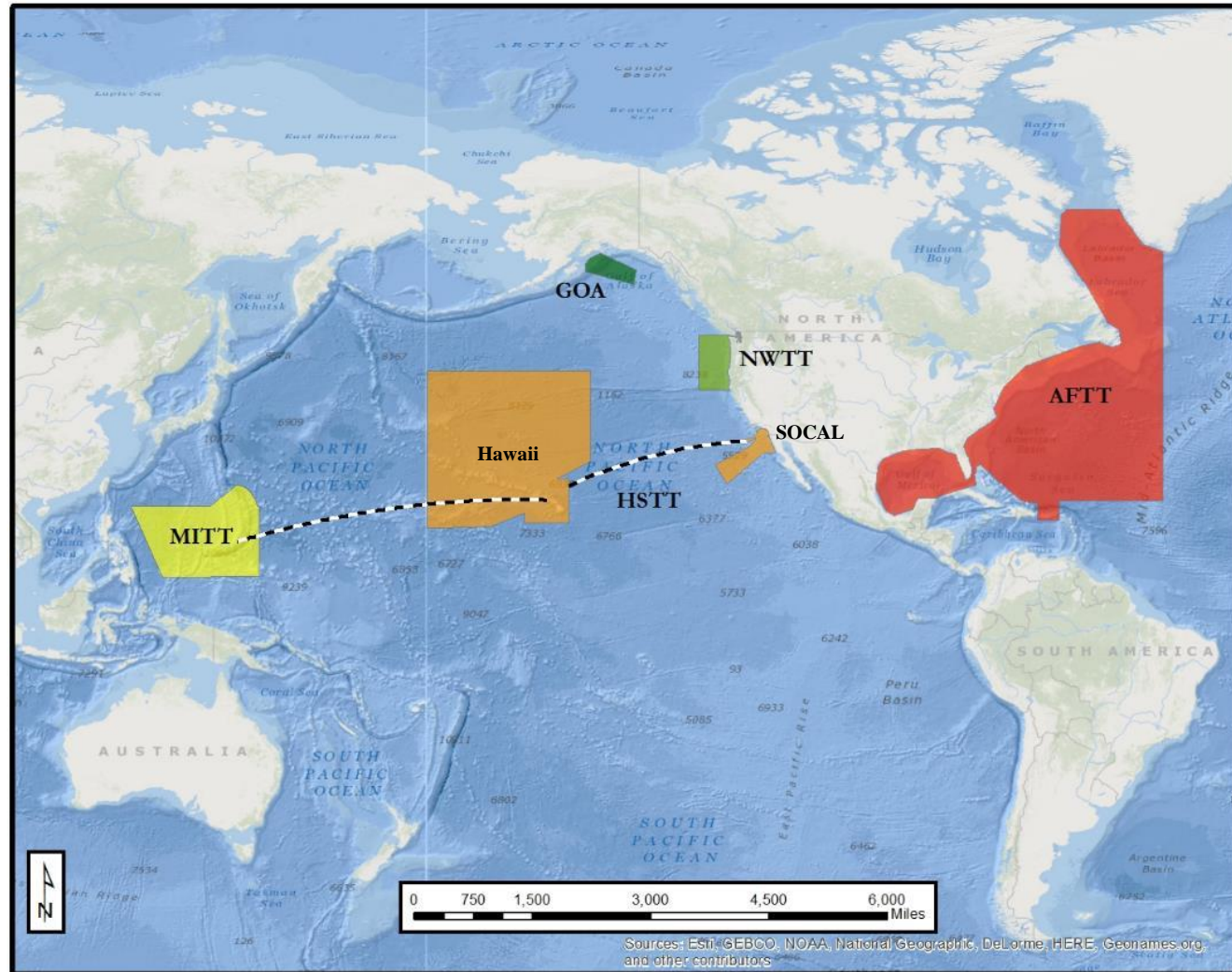
Fleet Environmental Readiness = Fleet Readiness

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At-Sea Environmental Permit Coverage Areas for USFF and PACFLT

- AFTT - Atlantic Fleet Training and Testing
- HSTT - Hawaii-SOCAL Training and Testing
- NWTT - Northwest Training and Testing
- MITT - Mariana Islands Training and Testing
- GOA - Gulf of Alaska

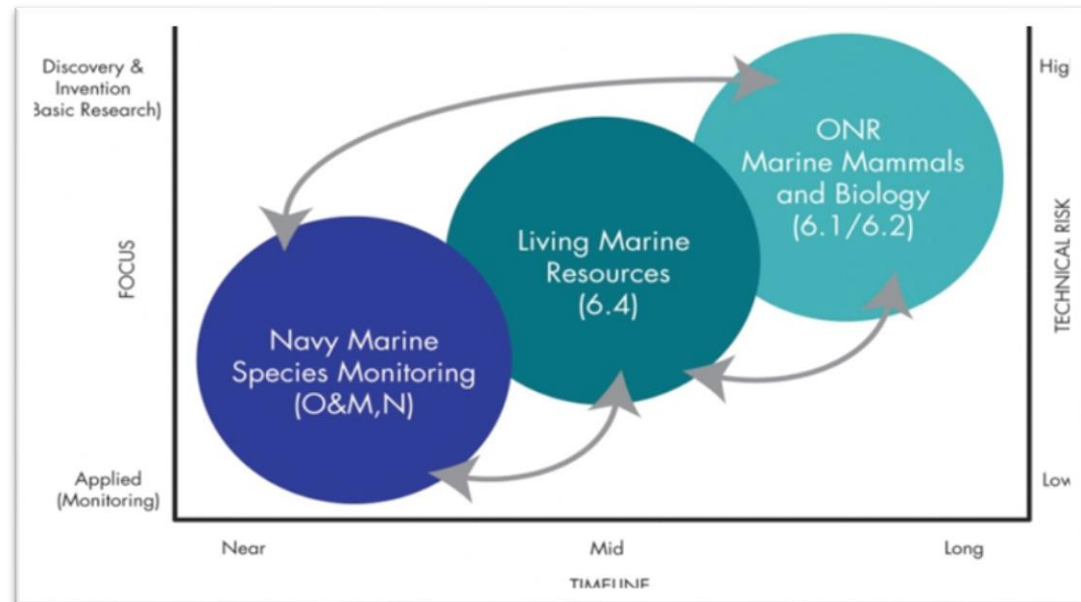


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Navy Marine Species Programs

- Office of Naval Research (ONR) Marine Mammals and Biology program supports 6.1 and 6.2 basic and applied research
- The Living Marine Resources (LMR) program supports 6.4 applied research
- Navy Marine Species Monitoring Program supports collection and analysis of scientific data in areas, or areas similar to, where Navy trains
 - Collect and analyze data regarding the occurrence, abundance, and baseline behavior of marine species in Navy training areas, as well as the effects and consequences of Navy activities on marine species
 - A requirement of the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) permits



There is coordination across all three programs



Marine Species Monitoring

- **Integrated Comprehensive Monitoring Program (ICMP)**
 - Guides Navy monitoring priorities as required by ESA/MMPA across Navy Range Complexes and Major Training Exercises
 - Co-managed and funded by USFF, PACFLT, NAVSEA, and NAVAIR
 - Coordinated with Office of Naval Research and Living Marine Resources programs
- **Strategic Planning Process**
 - Guides investment of resources to most efficiently address monitoring objectives
 - Steering committee uses standardized evaluation criteria to select projects
- **Primary focus areas:**
 - Baseline occurrence, habitat use, residency time, and behavior
 - Exposure to various types of stressors from training & testing activities
 - Behavioral response studies (responses of individuals to exposures)
 - Consequences to individuals and stocks/populations resulting from responses



Certain monitoring projects require Navy ship participation



Marine Species Monitoring Projects

- Behavioral Response Study
- Pinniped Tagging and Tracking in Southeast Virginia
- Behavioral Response of Humpback Whales to Vessel Traffic and Whale Catalog
- North Atlantic Right Whale Monitoring to include Tagging and Passive Acoustic Monitoring off Cape Hatteras, North Carolina
- Mid-Atlantic Continental Shelf Break Study
- Passive Acoustic Monitoring of Bryde's Whale in Gulf of Mexico
- Marine Mammal Monitoring (M3R) at Undersea Shallow Water Training Range (USWTR), Atlantic Undersea Test and Evaluation Center (AUTEC), Pacific Missile Range Facility (PMRF), and So-Cal Offshore Range (SCORE)



<https://www.navymarinespeciesmonitoring.us/>



Behavioral Response Study (BRS)

- Objectives: Assess the behavioral response of beaked whales and pilot whales to mid-frequency active sonar (MFAS)
 - Methods: Controlled exposure experiments (CEE) using digital acoustic recording tag (DTAG), and satellite tags with both Navy sonar and simulated sources
 - Analyses: Focus on individual whales respond to MFAS exposure, in terms of:
 - (a) potential avoidance behavior; (b) potential changes in behavioral state; and (c) potential changes in social behavior
- Over 3 years, the project has deployed 85 tags and conducted 11 MFAS/simulated source CEEs



Results from US Navy BRS has been combined with results from the 3S project (BRS in Norwegian waters funded by international research consortium) to develop acoustic criteria and thresholds used in Navy planning documents



Pinniped Tagging and Tracking

- Objectives: Document habitat use, movement and haul-out patterns of seals in the Hampton Roads region of Chesapeake Bay and coastal Atlantic Ocean
- Methods: Photo ID, satellite-linked tagging
- Analysis: Focus on determining when seals migrate in and out of the region, and where they migrate to in the spring and summer

Tagging results:

- Feb 2018 - tagged 7 harbor seals; satellite data is available on Movebank.org
- Feb 2019 - no tags deployed; seals declared the winners
- Feb/March 2020 – tagged 2 seals





Home Basing/Homeporting (HB/HP)

- USFF N46 is the lead integrator for environmental compliance and completes all necessary environmental compliance documentation for proposed home basing and homeporting actions CONUS-wide
- Support Strategic Laydown and Dispersal Plan development and implementation
- Requirements via formal letter (typically from TYCOMs)
- Current projects:
 - Blue Angels platform transition
 - FFG (X)
 - MQ-25A Stingray
 - XLUUV/LUSV/MUSV
 - Columbia-class submarines

Current Project Locations





EIS for EA-18G Growler Operations at NAS Whidbey Island (Washington)

- Proposed Action
 - Expanding Growler operations at NAS Whidbey Island Complex: Ault Field and Outlying Landing Field (OLF) Coupeville
 - Additional 36 EA-18G aircraft, personnel, and facilities
 - Changing the distribution of Field Carrier Landing Practice (FCLP) operations between Ault Field (20%) and OLF Coupeville (80%)
- ESA Compliance
 - NMFS: Informal consultation on southern resident killer whale, humpback whale, green sturgeon, pacific eulachon, steelhead, salmon (Chinook, chum), rockfish (Boccaccio, canary, yellow-eye)
 - USFWS: concurred with NLAA determination on bull trout; formal consultation on marbled murrelet (initial BO in 2018, reinitiated BO in 2020)

Ongoing litigation associated with Growler



EA-18G Growler Operations ITS Reporting and Monitoring Requirements

- Annual report of Growler operations
 - Operations by flight type (e.g., FCLPs, ground-controlled arrivals), track, and season (Apr-Sep or Oct-Mar)
 - USFWS-provided tracking spreadsheet which calculates potential marbled murrelet exposures based on the operational data
 - Five-year rolling average/breeding season average
- Sound monitoring
 - Characterize in-air sound levels of Growler flight operations within 2 m of the water's surface
 - Draft Plan due 01 October 2020 for USFWS approval
 - Final report due 01 February 2026 that includes date and location of each overflight, estimated distance to the aircraft, type of flight operation, weather conditions, sound measurements, sound levels in dBA_{SEL} at the location, and calculation of the area ensonified to $92 \text{ dBA}_{\text{SEL}}$
 - *Aggregate* of results to determine if the area ensonified to $92 \text{ dBA}_{\text{SEL}}$ is greater than expected



