

FY 2012 Atlantic Fleet Training and Testing (AFTT) Environmental Planning Team Narrative

Introduction

U.S. Fleet Forces Command (USFF) nominates the Navy team responsible for preparation of the Atlantic Fleet Training and Testing (AFTT) Draft Environmental Impact Statement/Overseas Environmental Impact Statement (DEIS/OEIS) for the FY12 CNO Environmental Planning Team Award. The AFTT DEIS/OEIS, released to the public on May 2012, is a key element of Phase II of the Navy's Tactical Training Theater Assessment and Planning (TAP) Program environmental planning effort.

Environmental laws and regulations applying to Navy training and testing activities at sea include the National Environmental Policy Act (NEPA), Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), and others. To ensure these environmental requirements were met to support necessary Fleet training, USFF completed six Environmental Impact Statements (EISs) and associated MMPA and ESA authorizations for training activities off the east coast and in the Gulf of Mexico in Phase I of the TAP Program (TAP I). The MMPA authorizations obtained for training through TAP I begin expiring in January 2014, and new permits are required to avoid interruptions in essential Fleet training. Thus, to ensure no gaps in environmental planning and permit coverage, USFF began environmental planning work for Phase II of the TAP program (Phase II) in 2009, soon after TAP I permits were received.

The AFTT DEIS/OEIS reassessed the environmental analysis of at-sea training and testing activities contained in six separate USFF EISs, plus NAVSEA's EIS for activities occurring at the Naval Surface Warfare Center Panama City, and consolidated these analyses into a single environmental planning document. Phase II documents are the first to include both training and SYSCOM research, development, testing, and evaluation (RDT&E) activities within one document. While the groundwork for the AFTT DEIS/OEIS was laid by TAP I, the AFTT effort presented a suite of new challenges and a level of complexity that was unprecedented in Navy environmental planning efforts, including:

- a 2.6 million square nautical mile action area 30% larger than what was covered by seven separate EISs in TAP I
- a ten-fold increase in acoustic sources covered (from ~30 to ~300)
- an approximate four times increase in activities covered, including the addition of RDT&E requirements from SYSCOMs
- the need to build greater flexibility into the permits to support on-going, evolving mission requirements.

Building on lessons learned from TAP I, USFF approached these challenges with a multifaceted strategy and developed sub-teams with wide-ranging expertise in naval operations, acoustics, modeling, marine mammal science, natural resources, and environmental and compliance planning to oversee different aspects of the project. These sub-teams assembled critical expertise from commands throughout the Navy and were essential to the successful production of the AFTT DEIS/OEIS and its accompanying regulatory compliance documentation, including the MMPA Letter of Authorization (LOA) application, two ESA consultation packages, an Essential

Fish Habitat assessment, and Coastal Zone Management Act consistency determinations for 18 states and two territories.

Background

The Navy's mission is to organize, train, equip, and maintain combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. The Navy fulfills this responsibility by establishing and executing training programs and ensuring naval forces have access to ranges, operating areas, and airspace needed to develop and maintain critical operational skills. The Navy's research and acquisition community builds and tests ships, aircraft, weapons, combat systems, sensors and related equipment, and conducts scientific research activities to achieve and maintain military readiness. These testing activities ensure naval forces are equipped with well-maintained systems that take advantage of the latest technological advances. While meeting this mission, the Navy is also required to comply with applicable laws and regulations associated with environmental planning and protection, including NEPA, MMPA, ESA, the Magnuson–Stevens Fishery Conservation and Management Act, and the Coastal Zone Management Act.

After the completion of TAP I environmental planning and permitting documents, USFF supported OPNAV's development of a concept of operations (CONOPS) for Phase II of worldwide environmental compliance efforts. OPNAV N45 signed out a "Concept of Operations for Phase II Environmental Planning for Navy Military Readiness and Scientific Research Activities At Sea" in August 2009 and released updated CONOPS in September 2010 and June 2012. The desired end state of the CONOPS is comprehensive environmental coverage of all applicable at-sea military readiness and scientific research activities to ensure continued Navy training, acquisition, and RDT&E.

The Phase II CONOPS designated USFF as the lead command for the AFTT effort to cover training and RDT&E activities off the east coast and in the Gulf of Mexico. The AFTT Environmental Planning Team, formed in 2009, was charged with providing environmental coverage for both USFF training and SYSCOM at-sea RDT&E activities in a single document. This resulted in a greater number and diversity of activities over a vastly larger geographic area than any previous Navy environmental compliance document.

The AFTT Environmental Planning Team developed an approach that was built around the following core principles - lessons learned in TAP I:

- Establish and maintain core expert teams.
- Achieve clarity on action proposals and requirements early.
- Adjust planning approach when it leads to a more rigorous analysis.
- Interface frequently with the regulator at different levels.
- Use a multi-dimensional QA/QC approach.
- Engage the public beyond traditional NEPA model when warranted.

Organization/Staffing and Challenges/Issues Faced

USFF, in coordination with PACFLT, is the unified voice for all Fleet training requirements and is responsible for organizing, manning, equipping, and training Navy units to conduct combat operations at and from the sea. As such, USFF oversees all unit level and integrated/coordinated

training for CTF-80 Carrier Strike Groups, Amphibious Readiness Groups and independent deployers. USFF centralized environmental planning responsibilities for all Atlantic Fleet training activities and training areas within the Environmental Readiness Division of its N46 Installation and Environment Directorate. USFF subordinate operational commands have no organic environmental planning capability. The Environmental Readiness Division maintains strong collaborative relationships with other USFF divisions and operational commands to fulfill its environmental planning mandate.

The scope of AFTT and the complexity of the issues required expertise in a wide range of areas, including naval operations, exercise planning, environmental planning and compliance, environmental law, marine biology, natural resources, acoustics analysis, information technology and Geographic Information Systems (GIS), public involvement, and program management. The AFTT Environmental Planning Team was initially led by John Van Name, USFF NEPA Program Manager, and then by Jene Nissen, USFF Acoustics Program Manager after John moved to a new position. The sub-teams organized to oversee different aspects of the project are briefly described below; primary team members and significant contributors are listed in Table 1.

Sub-Teams:

- (1) *Document Development.* Initially led by John Van Name, and later by Jene Nissen, this team was responsible for development of the DEIS/OEIS and associated regulatory documents, and assembling products from all other teams to ensure the DEIS accurately reflected the latest data and analyses. Individuals from NAVFAC LANT's Marine Resources and NEPA Environmental Planning sections provided critical leadership, management, and subject matter expertise during the course of the project. The team also worked closely with PACFLT to ensure that the AFTT documents were fully consistent with the companion Hawaii-Southern California Training and Testing (HSTT) DEIS/OEIS, which was released to the public simultaneously.
- (2) *Science.* Led by Jene Nissen, working closely with OPNAV N45, NUWC, SPAWAR, PACFLT, and NMFS, this team accomplished the challenging task of pulling together the best available science for use in the AFTT analyses. The team coordinated with NMFS to develop new acoustic effects criteria for marine mammals and sea turtles based on the latest scientific advancements. Working under the pressure of compressed timelines, the team was able to adapt schedules to meet critical deadlines despite delays typically experienced in developing cutting edge science. Additionally, the scientific team pioneered a method of accounting for mitigation effectiveness and animal behavioral avoidance in post-modeling analyses.
- (3) *Requirements Development.* The requirements development team led by USFF's John Van Name and Laura Busch, working closely with Spencer Butts and Randy Bevins, defined the operational requirements to be included in the AFTT proposed action. They met this challenge by developing a new "warrior review" process that provided a means of collecting accurate requirements data across commands, geographic areas, and training missions.
- (4) *Scenario Building and Modeling.* Initially led by Jene Nissen and later by USFF's Ron Filipowicz, working closely with NUWC Newport, this team provided acoustics analytical expertise for the complex at-sea modeling efforts necessary for the AFTT DEIS/OEIS. The leadership and knowledge provided by this team resulted in the following achievements: 1) compilation of a Navy-wide list of potential sound sources, 2) development of an innovative

methodology of grouping these sources into acoustic "bins," 3) improved statistical process and ability to model multiple concurrent sources, and 4) building of all sound-in-the-water scenarios (totaling in the multiple hundreds) for Fleet training and SYSCOM testing requirements. As with the work of other teams, these efforts were accomplished within compressed project milestones that were required to accommodate regulatory guidance and Navy policy delays. This effort was also coordinated in lockstep with PACFLT to ensure a consistent process that can be applied Navy-wide.

- (5) *QA/QC*. Led by Laura Busch, the QA/QC team applied comprehensive QA/QC principles to ensure that AFTT products were of high technical quality, addressed all critical issues, and were understandable to the public. With NUWC Newport's support, the team used third party reviews to provide an outside perspective and to call upon expertise beyond that available within the Navy and contractor teams. The team also worked with PACFLT to develop an AFTT/HSTT Style Guide and ensure consistency between the two documents.
- (6) *Mitigation*. USFF's Todd Kraft, former Branch Head of the USFF Maritime Integration Coordinating Group, led the mitigation team in development of an innovative analytical and repeatable process for establishing the suite of mitigation to be proposed for implementation in the AFTT DEIS/OEIS. This approach utilized a rigorous process to determine both the effectiveness of potential mitigation at protecting animals and the practicability of implementation with respect to impacts on training/testing effectiveness. With respect to mitigation implementation, USFF's Greg Thompson led efforts to set the stage for an improved Protective Measures Assessment Protocol (PMAP) tool to support Fleet and SYSCOM implementation of AFTT mitigation.
- (7) *Outreach*. Led by Jene Nissen, with critical support from PACFLT to ensure consistency with HSTT, this team developed an innovative and proactive plan to enable accurate responses to queries, fully prepare the team and leadership for public meetings, and support outreach opportunities. In addition to scoping and public meetings held after release of the Notice of Intent the Notice of Availability respectively, multiple outreach meetings were held with Regional Fisheries Management Councils, North Atlantic Right Whale Southeast Implementation Team, Grays Reef National Marine Sanctuary Council, and various Non-Governmental Organizations in 2011 and 2012.

Table 1: AFTT Environmental Planning Team

Name	Title/Position/Organization	Discipline
Jene Nissen	Acoustics Program Manager/USFF	Acoustics/environmental management
John Van Name	Former NEPA Program Manager/USFF	Environmental planning/management
Laura Busch	Nat Res Manager/USFF	Environmental analysis
David MacDuffee	Nat Res Program Manager/USFF	Marine science/natural resource policy analysis
Hank Eacho	Environmental Ops Supports Branch Head/USFF	Environmental management
Ron Filipowicz	Acoustics Specialist/USFF	Acoustics/Fleet training
Todd Kraft	Former Maritime ICG Branch Head/USFF	Environmental planning
Greg Thompson	Environmental Engineer/USFF	Environmental planning
Capt Caren McCurdy	Environmental Counsel/ USFF	Legal
Spencer Butts	Range Complex Support Team/USFF	Fleet training
Will Harmon	Range Complex Support Team/SAIC	Fleet training
Randy Bevins	Range Complex Support Team/SAIC	Fleet training
Lesley Dobbins	AFTT EIS NTR/NAVFACLANT	Environmental planning
Nora Gluch	AFTT EIS NTR/NAVFACLANT	Environmental planning
Erin Swiader	Supv Marine Biologist/NAVFACLANT	Marine biology
Anu Kumar	Supv Marine Biologist/NAVFACLANT	Marine biology/acoustics

Kim Joyner-Banty	Supv NEPA Planner/NAVFACLANT	Environmental planning
Mandy Shoemaker	Marine Resources Specialist/NAVFACLANT	Marine biology/acoustics
Scott Chappell	Marine Resources Specialist/NAVFACLANT	Marine biology
Carter Watterson	Marine Resources Specialist/NAVFACLANT	Marine biology
Sarah Rider	Marine Resources Specialist/NAVFACLANT	Marine biology
Joel Bell	Marine Resources Specialist/NAVFACLANT	Marine biology
Deanna Rees	Marine Resources Specialist/NAVFACLANT	Marine biology
Andrew DiMatteo	Marine Resources Specialist/NAVFACLANT	GIS
Jonathan Crain	Marine Resources Specialist/NAVFACLANT	GIS
Amberly Hall	Environmental Counsel/NAVFACLANT	Legal
Peter Hulton	Modeling Dept Supv/NUWC Newport	Modeling
Bert Neales	Modeling Lead/NUWC Newport	Mathematics
Amy Farak	Marine Resources Specialist/NUWC Newport	Marine biology/acoustics
Stephanie Watwood	Marine Resources Specialist/NUWC Newport	Marine biology/acoustics
Deborah Verderame	Environmental Planning Team Lead/NAVSEA	Environmental management
Susan Levitt	Environmental Planner/NAVSEA	Environmental planning/Natural resources
Tina Serbanos	Environmental Counsel/NAVSEA	Legal
Brandi Simpson	Natural Resources/NAVAIR	Environmental planning
Jennifer Paulk	Natural Resources/NAVAIR	Environmental planning
Keith Jenkins	Acoustics Analysis Lead/SPAWAR	Marine biology/acoustics
Sarah Kotecki	Acoustics Analysis/SPAWAR	Marine biology/acoustics
Amy Swiecichowski	Parsons	Environmental planning
Cheryl Quaine	Parsons	Environmental planning
Brian Dresser	Tetra Tech	Marine biology

Environmental Planning Summary

The objectives laid out for the AFTT Environmental Planning Team were extremely ambitious:

- Produce high quality environmental planning documents to support reissuance of all East Coast MMPA permits that support at-sea training and testing prior to their expiration and beginning in January 2014.
- Consolidate the suite of activities previously covered by seven EISs into a single EIS, and add new sources, expanded training requirements, and RDT&E activities.
- Develop the DEIS/OEIS to allow USFF greater flexibility to address evolving Fleet mission requirements.
- Update environmental analyses with the best available science and most current acoustic analysis methods to evaluate the potential effects of training and testing activities on the marine environment.

Outstanding and Unique Features

Coordination

- *USFF and SYSCOMs.* No prior major document had combined training and RDT&E requirements into a single proposed action, therefore the AFTT DEIS/OEIS required an unprecedented level of coordination and cooperation between the Fleet and SYSCOMs for success. SYSCOM representatives were integral members of the AFTT Environmental Planning Team and led their commands' efforts to identify requirements, review documents, participate in policy decisions, and shepherd issues through their chains of command. New working relationships were established between USFF and SYSCOMs at many levels during the AFTT process. Because of these new linkages between the commands, the team was able to identify a late-breaking emergent requirement, early introduction of the aircraft

component of the Littoral Combat Ship Mine Warfare module, and incorporate it into the DEIS/OEIS in time to provide the necessary coverage to meet the expected date for delivery to the Fleet. Prior to the AFTT effort, this would not have been possible.

- *USFF and PACFLT.* The AFTT Environmental Planning Team worked extensively with PACFLT to ensure consistency between the AFTT and HSTT documents, a difficult task with environmental planning efforts of this magnitude.
- *Chain of Command.* The scale and complexity of the AFTT DEIS/OEIS required a great deal of coordination among the Fleets, SYSCOMs, N45, and ASN. The Team's contributions were key to successful briefings to DASN(E), PDASN(E,I&E), ASN(E,I&E), and SECNAV to receive approval to forward the AFTT DEIS/OEIS to the Environmental Protection Agency (EPA) for Federal Register publication.

New Processes/Methodologies

The AFTT Environmental Planning Team developed and successfully applied pioneering new processes/methodologies in several areas of the project.

- *Requirements Development.* Requirements development for the AFTT DEIS/OEIS was a daunting task. TAP I documents were staggered over a period of several years and focused on individual range complexes, or as in the case of the AFAST and USWTR EISs, a particular type of training. For AFTT, however, current and future requirements were needed for all types of training and RDT&E activities for the entire east coast and Gulf of Mexico. To meet this challenge, the team designed the "warrior review process." Through this new process, the team coordinated across eight Navy primary mission area (PMAR) communities to develop warrior requirements and developed activity descriptions that are consistent between USFF and PACFLT to assist regulators and the public in understanding Navy activities. With the new process, the team not only had a tool for gathering the extensive operational data required to support the DEIS/OEIS, but the accuracy of requirements and connectivity with the acquisition community was improved.
- *Source Binning.* The team developed an innovative methodology of grouping sources analyzed in the AFTT DEIS/OEIS into acoustic "bins" that allow the Navy to combine the evaluation of multiple sound sources with similar characteristics. In doing so, over 300 sources/ordnance types were condensed into approximately 80 bins. The binning approach allows the Navy to avoid having to conduct additional analysis for new or modified future sources that fall within the analyzed "bins." This approach builds in automatic efficiencies that ultimately saves valuable resources resulting in considerable cost savings. This flexibility is critical as for the foreseeable future, our operating environment will be defined by four predominate characteristics: (1) decreasing resources, (2) increasing operational demands, (3) evolving capabilities, and (4) emerging threats. Since the details of future training evolutions cannot always be accurately predicted, the binning approach provides a greater capacity to cover new and changing requirements while ensuring that the potential environmental impacts have been thoroughly considered.
- *Mitigation Analysis.* The analytical approach to mitigation developed for the AFTT DEIS/OEIS is ground-breaking. The team developed a standard process (the Mitigation Analysis Process, or MAP) for assessing the training impacts, scientific efficacy, and policy implications of proposed mitigation measures. The MAP provided a clear, repeatable, and defensible method of systematically analyzing all reasonable mitigation measures. The MAP process ensured that only effective mitigation measures that will not adversely affect

- training were proposed for implementation in the DEIS/OEIS. The team coordinated the MAP with PACFLT, SYSCOMS and OPNAV staffs to reach concurrence on the process.
- *Mitigation Effectiveness.* The team developed a quantifiable method of accounting for mitigation effectiveness in post-modeling analyses, something that had not been done previously in any NEPA document for Navy training. Applying a reasonable methodology to modeling outputs to account for effectiveness of mitigation has significantly reduced unnecessarily conservative estimates of marine mammal takes from Navy training and testing activities, thus improving overall accuracy.
 - *Mitigation Implementation.* The Fleet's Protective Measures Assessment Protocol (PMAP) will be used to communicate and implement the mitigations included in AFTT. This will require the current PMAP to be "retooled" to accommodate the extensive changes since TAP 1, which include new training and testing events, adjustments to the study area and special geographic areas, and revised mitigation measures. The team prepared a new Operational Capabilities and Requirements document to guide the development of an improved PMAP tool that will support AFTT mitigations. Now planned for use by the SYSCOMs in addition to the Fleets, this new version, currently in development as PMAP 2.0, will be available for use Navy-wide and is scheduled for release when AFTT is completed.

Accomplishments

The ambitious objectives laid out for the AFTT Environmental Planning Team were achieved in full. High quality, defensible, and groundbreaking environmental planning documents were produced within established timelines under tight constraints; this included the AFTT DEIS/OEIS released in May 2012 and all associated permitting/consultation efforts. The AFTT Environmental Planning Team was able to build flexibility into these documents that will allow for coverage of new and evolving mission requirements. Extensive coordination with SYSCOMs resulted in the coverage of RDT&E requirements in the substantially larger AFTT action area as well.

Not only was the team able to rise to the challenge of preparing high quality environmental planning documents, but they were also able to develop significant improvement in the process for analyzing Navy's at sea activities. Innovations in requirements development, source binning, mitigation analysis, mitigation effectiveness, and mitigation implementation will improve future environmental planning efforts throughout the Navy.

The definitive goal of the AFTT Environmental Planning Team's efforts was to provide support to the warfighter and to sustain military readiness. As a direct result of this team's work, the Draft AFTT EIS/OEIS and related regulatory documents were produced on schedule to support timely issuance of regulatory permits so that critical warfighter training will not be interrupted. In addition, comprehensive coverage has been provided for previously uncovered (and thus, vulnerable) training and RDT&E activities that had been previously addressed on a case-by-case basis. Although a daunting task, consolidating all of these Navy activities together in a single planning document save resources and allows for clearer communication with regulators and the public, which in turn may build greater trust and support for the Navy's mission.