

**2020 Secretary of Navy Environmental Awards**  
**Environmental Quality – Individual/Team Category / Nomination Narrative**  
**Environmental Information Management System Program Team**

U.S. Fleet Forces Command (USFFC) nominates the Environmental Information Management System (EIMS) Program Team for the 2020 Secretary of Navy Environmental Quality - Team Award. The combined USFFC DoD civilian/Science Applications International Corporation (SAIC) contractor team support USFFC and U.S. Pacific Fleet (PACFLT) information technology (IT) mission requirements for the Fleet environmental, natural resources, range sustainment, and operational energy programs. The contractor Technical Service Center (TSC), based in North Charleston, SC, is responsible for developing, sustaining, and upgrading the capabilities and data of EIMS and associated applications. The Program Managers (PM) at USFFC Headquarters in Norfolk, VA, generate IT requirements, set priorities, and conduct the service provider role (e.g. contractual oversight, financial management, quality assurance).

**Position Descriptions.**

**Environmental Information Management System (EIMS) Program Team Members**

<b>Name</b>	<b>Organization</b>	<b>Title/Position/Duties</b>
Bryan Murphy	USFFC	EIMS PM/Contracting Officer’s Representative (COR)
Spencer Butts	USFFC	EIMS PM/COR
Sean Bazemore	SAIC	EIMS Project Lead
Daniel Sierra	SAIC	EIMS Project Lead
Gregory Thompson	USFFC	Protective Measures Assessment Protocol (PMAP) PM
Ryan Winz	USFFC	Operational Range Clearance (ORC) PM
Louie Partida	SAIC	Weapon Danger Zone (WDZ) PM
David Urbik	SAIC	EIMS/PMAP Data Working Integrated Process Team (WIPT) Lead
Jon Crain	NAVFAC Northwest	PACFLT Geographic Information System (GIS) Lead
Mark Lawrence	SAIC	EIMS Program Task Order Manager
Tod Hollis	SAIC	TSC Team Lead/Developer
Joshua Lapp	SAIC	TSC Senior Developer
Joe Maciera	SAIC	TSC Developer
Maurice Compton	SAIC	TSC Developer
David Wiggins	JSL Tech, Inc.	TSC Developer
Christopher Preslar	SAIC	TSC System Administrator
Beatrice Canter	SAIC	TSC GIS Analyst
Sara Campbell	SAIC	TSC Technical Writer/Training Specialist
Prayer Singleton	SAIC	TSC Help Desk and User Liaison

**Background.**

Environmental Information Management System (EIMS) is an enterprise geo-referenced information management system that provides multiple integrated tools, capabilities, and data through a single Navy-owned, USFFC-managed access point. EIMS supports USFFC and PACFLT environmental, natural resources, range sustainment, and operational energy programs in the following ways:

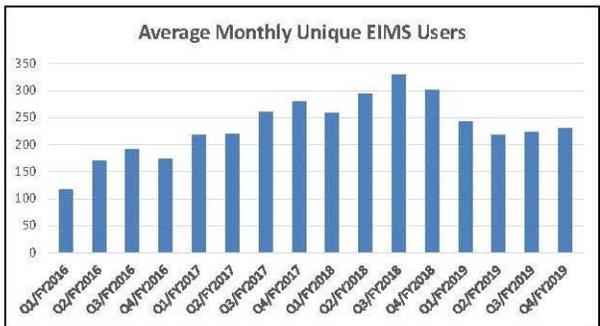
- Models and automates typical project administrative functions to enhance collaboration and facilitate document production;

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- Hosts authoritative Fleet geospatial and tabular data and documents to promote accurate analysis and reporting, and consistency across product lines;
- Protects Navy data in a secure environment;
- Provides authorized users with 24/7 access to necessary data and capabilities; and
- Hosts applications critical to Fleet training and range sustainment:
  - **Protective Measures Assessment Protocol (PMAP).** Informs unit commanders of required protective measures for specific at-sea training events to mitigate potential impacts to federally protected marine resources, thereby facilitating compliance with applicable permits and laws. Navy surface ships, submarines, and aircraft squadrons can access PMAP web-based and downloadable versions on either EIMS or EIMS-Classified (EIMS-C).
  - **Weapon Danger Zone (WDZ).** Models explosive danger zones surrounding aim-points on air-to-ground bombing ranges, calculating footprints from ordnance type, aircraft, run-in heading, surface composition, etc. WDZ resides on EIMS.
  - **Operational Range Clearance (ORC).** Supports clearance and disposition of munitions and target debris and unexploded ordnance (UXO) from Atlantic Fleet operational air-to-ground bombing ranges. The ORC application consists of hand-held field data collectors developed and maintained by the EIMS Team to support clearance and disposition processes, and supporting tools and databases on both EIMS and Data Collection and Scheduling Tool (DCAST), a PACFLT system, for planning, analysis, and reporting.

**Summary of Accomplishments.**

EIMS has become an indispensable component of Fleet readiness in its support of the USFFC and PACFLT environmental, natural resources, and range sustainment missions. Launched in 2002 as a simple GIS platform, the average monthly unique EIMS users stayed below 100 for



well over a decade. As the system accrued geospatial and tabular data analysis and document production capabilities, usership rapidly increased as the major USFFC and PACFLT environmental impact statement (EIS) projects adopted EIMS as their information management system of choice. The number of unique users, primarily from the Fleets, Systems Commands, Naval Facilities Engineering Command (NAVFAC) entities, installations, and project contractors, more than

tripled between FY16 and FY18, peaking at 337 in August 2018. Following completion of the three largest Fleet EISs in late FY18-19, average EIMS usage backed off somewhat, but remained at more than double its historic average. Specific team accomplishments:

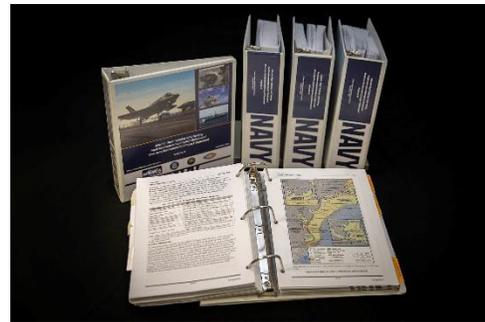
1. Facilitated the management, production, and on-time delivery of multiple voluminous environmental planning documents. A number of federal laws, including the National Environmental Policy Act (NEPA), Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), etc., govern the Fleets’ ability to train, test, and conduct sonar maintenance

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at-sea. Permits, Letters of Authorization, and the like bound the location and number of events. The analyses and conclusions that underpin Navy permits derive from large, comprehensive environmental planning documents. Their satisfactory on-time completion ensured that Fleet permits did not expire, which could have jeopardized Fleet training and testing at-sea. EIMS played a key role in facilitating the entire enterprise.

In response to customer feedback, the EIMS Team continuously refined the system's project management and document production capabilities, with results on full display during FY18-19. Environmental Impact Statements (EIS) often ran into thousands of pages, involved scores of stakeholders, and adhered to very tight timelines. EIMS supported the following:

- Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active (LFA) Sonar Operations EIS
- Hawaii-Southern California Training and Testing (HSTT) EIS
- F/A-18G Growler Homebasing EIS
- Atlantic Fleet Training and Testing (AFTT) EIS
- Northwest Training and Testing (NWTT) EIS
- Mariana Islands Training and Testing (MITT) EIS
- Gulf of Alaska (GOA) EIS
- Ice Exercise (ICEX) Environmental Assessment (EA)
- Small Unit Inland Training EA (SUITEA)
- V-22 Osprey Homebasing EA
- Advanced Helicopter Training System (AHTS) EA
- Fallon Range Training Complex (FRTC) Modernization EIS
- Arctic Expeditionary Capabilities Exercise (AECE) EA



Three EIMS features in particular facilitated this prodigious output:

- **Document Management (DM).** Presents secure file share sites for project-specific content to simplify collaboration between team members, and provides features that assist with document creation, such as version control, check-out/check-in, etc. A particularly useful DM feature enables Project Managers to control access into their sites, thereby providing security to in-work draft project documents and data, For Official Use Only (FOUO) documents, Attorney Work Products, etc. EIMS hosted 256 distinct DM projects and another 143 file-share only sites during FY18-19.
- **Geographic Information System (GIS) Portal.** Offers the same file share and access control capabilities for project-specific GIS data as DM Project Sites. GIS Project Sites provide GIS Subject Matter Experts (SME) access to the full suite of EIMS GIS software and tools. EIMS hosted 55 GIS projects during FY18-19, most tied to associated DM projects.
- **Document Commenting (DC).** Offers the same file share and access control capabilities as DM Project Sites. DC Project Sites facilitate efficient, expeditious document review by collecting and automatically sorting and compiling comment from multiple commenters. Project Managers control who can access and comment on a document, including non-DoD reviewers such as regulators (National Marine Fisheries Service, Environmental Protection Agency) and partners (National Aeronautics and Space Agency, National Oceanic and Atmospheric Administration), and for how long. A monthly average of 58 reviewers provided 2,644 comments on 137 documents during FY18-19. The monthly peak was 7,060

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comments on 222 documents, all accomplished with few glitches. For perspective, prior to the DC capability, Project Managers would need to email multiple drafts of enormous documents to all reviewers, then manually sort and compile hundreds of comments. Without these EIMS features, the Fleets would have had to pay their contractors far more for administrative and IT support to generate lower-quality documents on a longer timeline.

2. Developed the Fleet Environmental Planning Project Public Website. The EIMS Team developed the Navy’s first environmental planning project public website for the AFTT EIS that accomplished all of the following milestones:



- Fully complied with NEPA public notification requirements and all public website design and content policies and regulations;
- Fully vetted by Fleet and NAVFAC environmental planners; and
- Created a template framework that enabled expeditious webpage development for subsequent projects. The EIMS Team easily generated the ICEX, SUITEA, and V-22 EA websites based on the AFTT EIS model.

Prior to AFTT EIS, the Fleets paid the project contractors to develop and host project websites on contractor networks. This resulted in a variety of formats, few of which complied with all Navy public website guidance. The AFTT EIS website brought much-needed standardization and PM oversight. It worked flawlessly for 3,670 unique public views, collecting 79 comments submitted on-line.

In May 2019, USFFC migrated the Fleet NEPA Project Website from the EIMS Development Server into Armed Forces Public Information Management System (AFPIMS) on the enterprise DoD Public Web. The EIMS and AFPIMS Teams jointly created a data exchange mechanism that moved comments submitted by the general public seamlessly from the NEPA Project Website input screen to the EIMS database for processing and resolution. The comment collection pathway worked as advertised during its inaugural run on the AHTS EA project. The two development teams continue their collaboration to improve the Website’s efficiency and scalability in preparation for the next round of large Fleet environmental planning documents.

3. Developed field data collection tablets to support the USFFC Operational Range Clearance (ORC) Program. The EIMS Team programmed ruggedized hand-held tablets to model the end-to-end USFFC ORC process of routine clearance, processing, and disposal of range debris and spent munitions on Atlantic Fleet air-to-ground

bombing ranges. The tablets simplify clearance event planning, tie photos of UXO to Global Positioning System (GPS) coordinates, and track range debris from collection to sorting, processing, and disposal, including on-line transfer forms. At the end of each day, the tablets can electronically transfer their data into ORC databases for storage, analysis, and reporting. The tablets replace clipboards and paper, hand-held cameras and GPS devices, and sheaves of



paper transfer forms. Range personnel no longer need to transfer data from the forms to spreadsheets and file hard copies of transfer forms. In addition to these impressive gains in

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efficiency, the tablets facilitated more expeditious, effective range clearance by automatically tying photos to positions and offering data in instantly usable form without additional processing.

The USFFC ORC Program will use the ORC reporting capability in Data Collection and Scheduling Tool (DCAST), a PACFLT system with a mature ORC module, rather than duplicate that capability in EIMS. This is in keeping with the Navy’s interoperability policy that seeks to reduce the amount of redundant IT systems and data. The USFFC and PACFLT ORC Programs differ enough that EIMS will host some ORC planning, data storage, and analysis capability, but a common USFFC-PACFLT reporting capability will ensure standard data definitions and report formats across the Navy.

4. Greatly expanded Protective Measures Assessment Protocol (PMAP) world-wide coverage area. The Navy designed its at-sea regulatory compliance strategy for current operations around PMAP, a USFFC-managed application hosted on EIMS and EIMS-C. PACFLT and USFFC ships, submarines, and aviation units used PMAP a monthly average of 625 times during FY18-19. Disruption of PMAP availability would immediately compromise the Navy’s ability to train and test at-sea in compliance with its permits, raising the risk of regulatory enjoinder and litigative injunction.



The EIMS Team launched PMAP in 2004 to provide Fleet units training at-sea with general protective measures to mitigate risk to marine resources in typical CONUS, Hawaii, Mariana Islands, and Japan littoral training areas. Since then, a series of Fleet environmental planning documents and permits increased the comprehensiveness and fidelity of the data underlying PMAP. The EIMS Team prepared six new versions of PMAP during FY18-19 to incorporate the avalanche of permit revisions from the Training and Testing EISs, including the geospatial data and associated protective measures covering vast new expanses of the globe:



- Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active (LFA) Sonar operating areas in the Western Pacific and Indian Oceans; and
- 6th Fleet operating areas in the North Atlantic and Arctic Oceans and Mediterranean Sea. PMAP’s increased reach facilitates the Navy’s ability to comply with the world-wide application of MMPA and ESA permits, and identifies the location of sensitive marine resources for deployed Fleet

units, reducing the risk of inadvertent harm and an international incident.

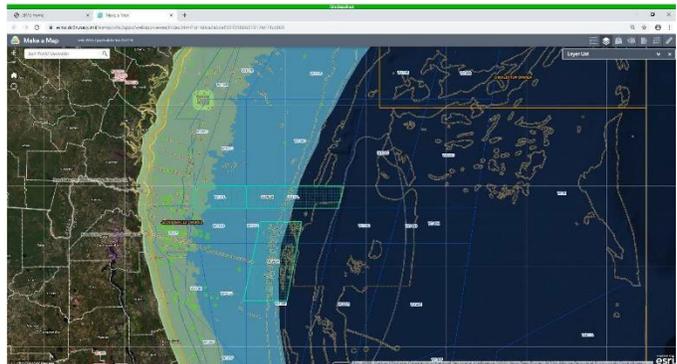
5. Developed webpages aimed at the deckplates. While most EIMS capabilities focus on at-sea compliance and range sustainment, the EIMS Team developed webpages to assist sailors on ships, submarines, and aircraft squadrons to comply with environmental laws, policies, and regulations that most directly impact them.

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***Afloat Compliance Webpage.*** Ships and submarines must comply with multiple afloat waste management regulations and policies, such as Uniform National Discharge Standards, Afloat Regulated (Foreign) Garbage Guidance, Ocean Dumping, Afloat Oil Spill Response, etc. To aid in these endeavors, the Navy offers training courses, solid waste management equipment, and includes Environmental Protection in Board of Inspection and Survey (INSURV) inspections. The EIMS Afloat Compliance Webpage, with 3,663 visits since its launch in September 2017 through FY19, gathered relevant references, training videos and course schedules, points of contact, award guidance, port environmental manuals, etc. into a single convenient webpage.

***Operational Energy/Fleet Energy Manager Program Webpage.*** Similarly, the EIMS Team developed the Operational Energy (OE) Webpage to assist Fleet units comply with the Navy OE Program. It includes relevant references, training videos and briefs, points of contact, award guidance, OE management software and manuals, etc. The OE Webpage has had 1,423 visits to its Home Page since its inception in March 2018 through FY19.

6. Upgraded EIMS GIS capability with a GIS portal. The EIMS Team consolidated its disparate GIS capabilities into the GIS Portal that greatly improved the ability of GIS practitioners to search, access, share, create, and collaborate on GIS projects. The Portal provides centralized access to geospatial Common Operating Picture (COP), data deliverables, map viewers, cloud applications, document repository, and external data sources. The Make a Map tool provides the ability to change the basemap and add layers from the EIMS data repository or from outside organizations. The overall effect is an EIMS GIS capability that is friendly to beginner GIS users and provides intermediate and advanced GIS users with quick ways to search, visualize, and integrate data.



7. Improved Program Management Processes. The EIMS Team maintained full 24/7 availability for EIMS and associated systems and applications during FY18-19:

- No unscheduled system downtime for EIMS and EIMS-C with only an average of three hours each month for scheduled maintenance.
- No full system outages for lapses in cybersecurity or accreditation. The EIMS Team quickly handled minor cybersecurity issues with minimum operational disruption.
- PMAP maintained 100% availability to Fleet units. Recently, the Navy Authorizing Official threatened to disconnect the data center that hosts EIMS and associated applications for allowing the data center's accreditation to lapse. The EIMS Team quickly made a contingency plan that would have maintained seamless uninterrupted PMAP access for Fleet units. Fortunately, the issue resolved itself, but the EIMS Team was ready.

Several specific FY18-19 accomplishments:

- Transitioned accreditation to Risk Management Framework (RMF). The mandated transition of all Navy IT systems from DoD Information Assurance Certification and

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Accreditation Process (DIACAP) to RMF proved extremely challenging. The EIMS Team successfully implemented RMF for EIMS, EIMS-C, and PMAP; completed reaccreditation for EIMS, and is on track to complete reaccreditation for EIMS-C and PMAP in early 2020.

- Revised the Fleet Project Electronic Information Guidance Document. This document is an appendix to Fleet environmental, natural resources, and range sustainment project contracts. It outlines contractual requirements for use of EIMS and the Fleet NEPA Project Website; defines geospatial data deliverable specifications; and provides references and links to aid in complying with guidelines and specifications. Previous versions dealt more narrowly with GIS specifications, but Fleet service providers and contractors were both confused about Fleet expectations regarding use of EIMS. The Guidance Document will provide greater clarity and ensure that project data will be published into EIMS more quickly and accurately.
- Improved the EIMS Help and Feedback Log sections. The EIMS Team updated the User Support section to a compliant, better operating platform. Also, in response to the loss of the Defense Collaboration System (DCS) for interactive EIMS User training, the EIMS Team produced a series of training videos to cover the gap until recently regaining use of DCS.

**Conclusion.** Improvements in EIMS capabilities and datasets in the past several years have transformed it into the information management system of choice for Fleet environmental, natural resources, range sustainment, and operational energy projects. EIMS's dramatic increase in usership provides evidence of the user community's confidence in the system. In FY18-19, USFFC and PACFLT produced an extraordinary output of environmental planning documents, an effort heavily dependent on EIMS. However, EIMS Team accomplishments go well beyond simply maintaining consistently high availability and compliant cybersecurity posture on the status quo. The Team also demonstrated technical savvy and innovation in designing and implementing solutions to Fleet requirements. The new ORC field data collectors and the NEPA Project Website both involve active data exchanges with external systems to accomplish their objectives without duplicating available capabilities. The PMAP expansion and new Afloat Compliance and Operational Energy webpages provided expeditious solutions to emergent Fleet requirements. The upgraded GIS Portal and other improved program management initiatives demonstrate continuous process improvement.

The EIMS Team already has a full slate of projects underway or in planning to ensure EIMS will continue to exceed Fleet expectations beyond the achievement period. The team is improving EIMS training and testing activity database information management capabilities to better support the next phase of Fleet training and testing EISs. This will include a direct data exchange between EIMS and Navy Acoustic Exposure Model (NAEMO). The team will also work with Naval Undersea Warfare Center (NUWC) Newport to migrate the Sonar Positional Reporting Tool (SPORTS) into EIMS-C to consolidate Fleet data collection for permit reporting. Also in-work is a NEPA Permitting Dashboard to assist Project Managers keep their projects on-track and report up the chain of command.

For years of consistently outstanding performance in supporting the Fleets to accomplish their environmental and range sustainment missions, the EIMS Team deserves the recognition of the 2020 Secretary of Navy Environmental Quality – Team Award.