

**FY 2015 CHIEF OF NAVAL OPERATIONS (CNO) ENVIRONMENTAL AWARDS COMPETITION  
NATURAL RESOURCES MANAGEMENT - SMALL INSTALLATION  
AWARD ACHIEVEMENT PERIOD 1 OCTOBER 2013 – 30 SEPTEMBER 2015**

**INTRODUCTION**

***Installation Mission***

U.S. Naval Air Facility (NAF) Atsugi, Japan has a unique mission providing facilities, services and material that support over 3,000 active duty military personnel and over 100 aircraft of Carrier Air Wing FIVE (CVW-5), Helicopter Maritime Strike Squadron FIVE-ONE (HSM-51), and 32 tenant commands, including Commander, Fleet Air Forward, Commander Task Force SEVEN-TWO (CTF-72) and Fleet Readiness Center Western Pacific (FRCWP). NAF Atsugi is the only U.S. Navy air base to support the Navy's only forward-deployed carrier air wing and all of the associated aircraft. The U.S. Navy operates NAF Atsugi jointly with the Japan Maritime Self-Defense Force (JMSDF) and works daily to foster good relations and friendship with the host nation while serving to support the U.S. Navy's "Tip of the Sword," ensuring stability in the Western Pacific.

***Population and Acreage***

NAF Atsugi is host to over 9,000 military and civilian personnel and family members including 2,300 JMSDF and 1,200 Japanese civilians. The joint use arrangement with JMSDF provides unique international military cooperation and makes it an enjoyable place to work and live. NAF Atsugi resides on a total of 1,250 acres of land. NAF Atsugi also provides support for the Auxiliary Landing Field Kisarazu, and Iwo To.



***Setting***

NAF Atsugi is located in the most highly developed, urbanized, and industrialized portion of Japan, within 25 miles from the foot of world famous Mount Fuji in the heart of the Kanto Plain on the main island of Honshu, Japan. NAF Atsugi is also near the ancient capital city of Kamakura, the port of Yokohama, and the hot springs of Hakone. Tokyo, the largest city in the world, is located within 20 miles of NAF Atsugi. The neighboring cities in a 3-mile radius have a combined population of over 2 million people. U.S. Military installations Yokosuka, Yokota and Camp Zama are all within a 20-mile radius, allowing NAF Atsugi to work together with nearby installations to share available resources and experience. The Tade River, a major water source for agricultural irrigation, enters NAF Atsugi at the north end where the installation's two million gallon fuel farm is located and exits at the south end where the installation's more than one million gallon per day wastewater treatment plant is located.

***Significant Natural Features***

The primary special natural resources area on NAF Atsugi is along the Tade River basin. As with any river, hydric soils, floodplains, and rare species habitat, development possibilities are limited. The east side of the river is bordered by a golf course, which acts as a natural transition between the developed areas and the river and provides good habitat for several species of birds. Further, the golf course turf tends to improve the quality and reduce the quantity of surface water into the river.

Both banks of the Tade River basin, from the southern boundary of the installation to Halsey Avenue and the west bank of the basin north to the installation boundary, provides a relatively undisturbed habitat for birds and other wildlife, even though much of the river has been channelized. The west bank of the waterway area between Halsey Avenue and King Street provides good bird and wildlife habitat, but is minimally disturbed by human activity, including the existing jogging trail. The NAF Atsugi Nature Trail, located between King and Halsey Avenues on the west side of the Tade River, provides natural resource educational information such as botanical species identification along the designated path.

**BACKGROUND**

***Integrated Natural Resources Management Plan***

The Integrated Natural Resources Management Plan (INRMP) is the primary document and tool for managing natural resources on NAF Atsugi as a long term (10 to 20 years) planning document to guide the installation commander in the management of natural resources to support the installation mission, while protecting and enhancing installation resources for multiple use, sustainable yield, and biological integrity.

The INRMP is current and was updated in May 2015 based upon multiple surveys conducted in 2014. Plant, insect, fish, bird, reptile and amphibian surveys were completed and results were used to prepare the INRMP. In addition, an innovative focused nocturnal mammal survey was conducted using baited infrared cameras to capture the presence of wildlife over a one month period. The INRMP was approved in September 2015 and is currently being implemented using the installation's Environmental Management System (EMS). The most recent Natural Resource self-assessment was completed September 2015 as part of the EMS quarterly internal program review process.

There are two major INRMP goals. The first goal is to protect, manage, and enhance the natural resources of NAFA, while fulfilling the mission requirements. In particular, protect the natural areas along the Tade River. The second goal is to provide the organizational capacity, support, funding, and communication linkages necessary for effective strategic planning and INRMP implementation. Management strategies and specific actions have been taken to achieve the goals. Management strategies include the full incorporation of Natural Resources requirements in NAF Atsugi's EMS as discussed in the "Significant Accomplishments" section of this document. Specific action taken to achieve the goals include cross functional team meetings, coordination with foreign government and community partners and the submission of funding requests to the Budget Submitting Office for four projects listed in the INRMP including endangered species surveys, nature trail improvement, invasive species control and a wetlands management plan.

**Staff**

Mr. Stephan Lee is the Natural Resource Program Manager and the sole member of the Natural Resource Management (NRM) staff. He has a Master's Degree in Entomology with a focus in insect genetics. His graduate work focused on improving sterile insect release techniques to control fruit flies. Mr. Lee has over 20 years of experience working within the government in NRM from the regulatory side for the US Department of Agriculture and as a Subject Matter Expert for the Navy.

Cross functional teams (CFT) are utilized at NAF Atsugi and serve to improve the natural resources program. CFT members include the Natural Resource Program Manager, Pest Control Shop Supervisor, Production Officer, tenant command personnel, contract specialists, specification writers, Japanese government personnel, local farmers, and Facility Operations Specialists.

**EMS**

Innovative methods of EMS implementation to ensure compliance with Natural Resource Program requirements include use of the Compliance Tracker and the Preliminary Environmental Assessment Review (PEAR). Detailed discussions of both tools are included in the "Accomplishments" section of this document.

**SIGNIFICANT ACCOMPLISHMENTS**

NAF Atsugi has promoted natural resources stewardship through award-winning innovative management and survey practices and by partnering with local host nation government officials to identify and protect valuable natural resources for future generations.

**Local Government and Community Coordination to Save Honey Bees**

The Natural Resource Program Manager, Stephan Lee, received the USCS Innovative Employee of the Quarter (2015) NAVFAC FE for innovative Natural Resource conservation practices. He conserved valuable natural resources and strengthened NAF Atsugi's relationship with local government officials and the local community when he established an innovative method for pest control: relocating nuisance bee hives from on-base to a local farm at no cost to the government. Mr. Lee also advanced President Obama's strategy to promote the health of honey bees in accordance with the Presidential Memorandum dated 20 June 2014.



In August 2015, the NAF Atsugi Pest Control Shop Supervisor contacted Mr. Lee to inform him of a bee complaint. The shop supervisor stated that the bees were not an immediate threat to personnel, and the hive did not impede current work efforts. Mr. Lee

recommended trying to conserve the bees by pursuing hive relocation and worked with the colleagues to research relocation options. Ayase City government officials informed NAFA staff of their bee hive relocation program and provided contact information for a local beekeeper, a retired Japanese Maritime Self-Defense Force officer, who assessed the hive and successfully relocated hundreds of bees to his nearby farm. The farmer later reported that the relocation was a success when he confirmed the presence of the queen bee which remained in the hive throughout the relocation process.

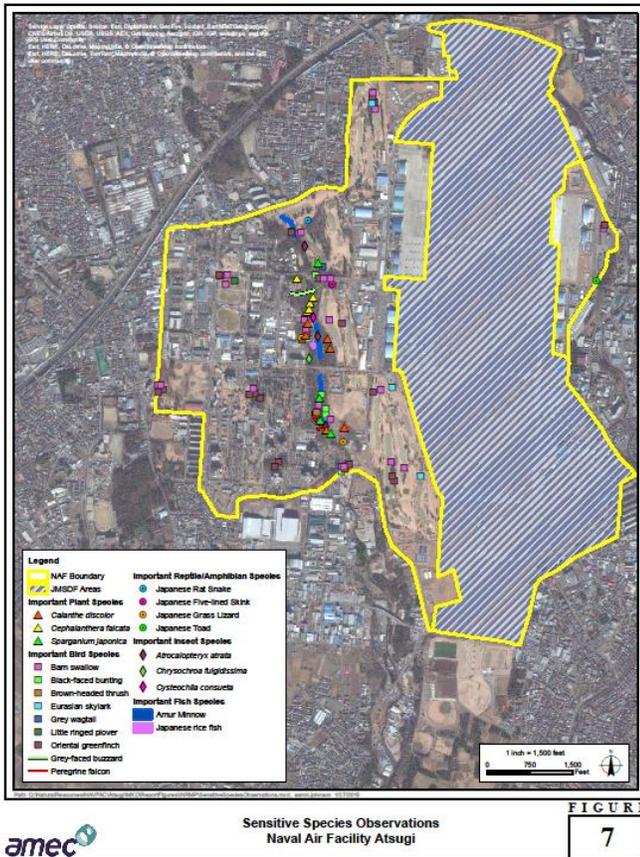
Per the Presidential Memorandum - Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators dated 20 June 2014, and the Department of the Defense (DoD) Memorandum of Understanding dated 23 October 2014 between DoD and the Pollinator Partnership, Navy installations are required to promote the conservation of pollinators such as honey bees. Honey bee populations have recently experienced significant reductions in population worldwide including Japan. The bee hive relocation effort eliminated the potential hazard without pesticides, conserved the honey bees, and demonstrated NAF Atsugi's commitment to the local community. Mr. Lee's efforts and leadership resulted in the establishment of a unique relationship with local government officials and the community and preparation of a NAF Atsugi Standard Operating Procedure for bee hive management.

**EMS Implementation**

NAF Atsugi has improved efficiencies and effectiveness through creative and award-winning innovations that leverage technology to meet natural resource program requirements. The Environmental Division developed a first-in-the Navy lifecycle Preliminary Environmental Assessment Review (PEAR) process and tool enabling the review of more than 50,000 environmental requirements for over 80 construction and service contracts in 2014 and 2015. Every construction, maintenance, and repair project goes through a rigorous NR review process for applicable NR requirements.

**First Navy Installation Worldwide to Perform Life Cycle Natural Resource Assessment for all Construction and Renovation Projects**

The PEAR process and tools, which received an Innovation Award from Naval Facilities Engineering Command Far East (NAVFAC FE), fully integrates EMS into project reviews preventing negative impacts on valuable natural resources prior to completion of design documents. The PEAR tool also ensures invasive species are not imported onto the installation. NAF Atsugi proactively modified management practices and procedures in anticipation of a future requirement - the revised 2015 ISO 14001. NAF Atsugi met the life cycle review requirement of the revised standard in Fiscal Year 2014 although the compliance period is from 2015 through 2025.



environmental requirements, create a record of review, and communicate to design engineers, contracts personnel, and senior leadership required actions to address actual or anticipated non-compliance issues. The process is accomplished efficiently by using a spreadsheet tool with the following key features:

- a hot button aspect assessment to identify potentially impacted environmental program areas,
- a hot button work phase selection to indicate the applicable project phases (preconstruction, construction, or O&M),
- contract mechanism dropdown menu to indicate which of 5 sets of specifications will be used to define work requirements,
- a database of standard contract clauses to address specific environmental requirements, and
- macros that link the database to the contract type, impacted program areas and deliverable

The review process includes a review of each of the factors listed above and an assessment of more than 600 requirements in a repeatable, record-creating way, that defines roles and responsibilities of personnel required to address the issues. Most importantly, this fully integrated EMS approach to a technically strong and comprehensive review process ensures compliance with requirements and reduces significant sources of waste, harmful discharges, and emissions without negatively impacting construction and contract schedules. Only a 2-day to 2-week turnaround time is required to complete the review, depending on the life-cycle considerations and project complexity.

**First Navy Installation in Navy Region Japan to Maintain a Real Time Stoplight for All Environmental Programs**

Another innovative management tool used to ensure protection of NR is the Compliance Tracker tool (stoplight excerpt provided below) which also won an Innovation Award from the NAVFAC FE. Environmental program managers manage their programs using the Compliance Tracker tool developed by NAF Atsugi EV to assess and document compliance status with 900 requirements and develop and track plans of actions and milestones with responsibilities and required levels of effort. NAF Atsugi’s internal audit program includes EMS Manager completion of a detailed status review of each program’s compliance status with the program manager on a quarterly basis. The Environmental Division Director reviews Compliance Tracker data with EV staff, including the NR program manager and reports real time compliance status to the senior installation management (monthly) and Regional Environmental Coordinator (quarterly). Mission risk and level of effort are the primary factors considered during senior leadership meetings to prioritize work. Weekly cross functional team meetings with supported commands and other PWD staff are held to focus attention and resolve specific issues prioritized by senior leadership to be of significant importance. Impacts of the management tools and processes discussed herein were created to ensure that these program improvements extend well beyond the next fiscal year and after frequent personnel turnover.

**Compliance Tracker – Stoplight Summary**

JEGS 2012 Chapter	Program Area	Requirement	Non-compliance Fix Difficulty			Non-compliance Resolution Lead		
			Compliance Indicator (%)	Hard (%)	Medium (%)	Easy (%)	EV Division (%)	Others (e.g. NAF, Tenant, PWD) (%)
11	Pesticides	JEGS 2012	85	33	67	0	100	0
		OPNAV 5090.1D	100	0	0	0	0	0
		Military Directives, Instructions, Standards, and Handbooks	100	0	0	0	0	0
12	Historic and Cultural Resources	JEGS 2012	100	0	0	0	0	0
		OPNAV 5090.1D	100	0	0	0	0	0
12	Natural Resources	JEGS 2012	100	0	0	0	0	0
		OPNAV 5090.1D	100	0	0	0	0	0

100	100% compliance
60	60 >= % compliance < 100
60	<60% compliance

Not only is the Compliance Tracker used as a comprehensive environmental program management tool, but it also rolls up to a real-time stoplight summary of compliance with each of the applicable and individual requirements (including Japan Environmental Governing Standards (JEGS), OPNAV 5090.1D, and instructions) for each program area. With a quick glance, senior leadership can determine areas for NR program improvement and make informed risk-based decisions based on additional information provided on the stoplight and related to each noncompliance area. The tracker also provides:

- percent known compliance status (i.e., has compliance with the requirement been assessed),
- non-compliance fix difficulty (easy = minimal effort to resolve, medium = 1 to 5 days work required by program manager or practice owner, hard = significant amount of time required, e.g., contract action), and
- non-compliance resolution lead which integrates EMS requirements by identifying roles and responsibilities in a graphic visual manner.

The above Compliance Tracker Stoplight Summary excerpt shows that the NR program is in compliance with all applicable requirements. Additionally, an excerpt of four columns from the Compliance Tracker NR program spreadsheet is provided on the following page. The excerpt demonstrates the how closely the Compliance Tracker records detailed compliance status for each NR requirement.

**Compliance Tracker – Natural Resources Program**

<b>C12. CHAPTER 12 NATURAL RESOURCES</b>	<b>In Compliance (Y or N)</b>	<b>Proof of Conformity/Compliance</b>	<b>Location of Record to Demonstrate Conformity</b>
C13.3.7. Installations shall ensure that personnel performing natural resource functions have the requisite expertise in the management of their discipline (i.e., endangered or threatened species, GoJ-protected species, wetlands, soil stabilization).	Y	Training records for Regional Biologist: MS Herpetology, many years of experience in Guam, CNMI and NAVFAC PAC (NR), and NAVFACFE; NAFA Biologist: MS Entomology, Years of experience at the University of Hawaii, year of experience with USDA, Both completed CECOS training for NR as well as other NR training	I:\DIVISION\ENVIR\EMS\Training
C13.3.8. Installations shall place emphasis on the maintenance and protection of habitats favorable to the reproduction and survival of indigenous flora and fauna.	Y	Internal Assessment Plan, INRMP, PEAR, EPP for projects	Building 150 Natural Resources Library
C13.3.9. Land and vegetative management activities will be consistent with current conservation and land use principles (e.g., ecosystem protection, biodiversity conservation, and mission-integrated land use).	Y	Internal Assessment Plan, INRMP, PEAR, EPP for projects	Building 150 Natural Resources Library
C13.3.10. Installations shall utilize protective vegetative cover or other standard soil erosion/sediment control practices to control dust, stabilize sites, and avoid silting of streams.	Y	Internal Assessment Plan, INRMP, PEAR, EPP for projects	Building 150 Natural Resources Library

The Compliance Tracker has been shared with colleagues, NAVFAC FE staff and is transferable and scalable. It could be added to compliance trackers of each installation in a Region, throughout the Navy, or DOD-wide to roll-up an accurate and comprehensive real-time posture of NR programs. The level of effort for staff to maintain the Compliance Tracker is not negligible but despite a high personnel vacancy rate it has enabled NAF Atsugi’s Environmental Division to maintain a high awareness of compliance status and risk.

Impacts of the management tools and processes discussed herein were created to ensure that these program improvements extend well beyond the next fiscal year and after frequent personnel turnover. The tools and processes will continue to endure despite frequent staff turnover because the processes are written, repeatable and trained in accordance with Environmental Management procedures.

***Innovative Nocturnal Mammal Survey Using Motion Detection Infrared Cameras***

NAVFAC FE biologists, Scott Vogt and Chiaki Kimura, employed innovative methods to survey nocturnal mammals. The biologists installed ten baited trail cameras in the forested habitats in the vicinity of the Tade River and the golf course. The survey duration was one month. The survey was successful in documenting the presence of 5 species of elusive mammals. These include tanuki (*Nyctereutes procyonoides*), North American raccoon (*Procyon lotor*), masked palm civet (*Paguma larvata*), feral cat (*Felis catus*) and a rat species (presumably *Rattus norvegicus*). All ten cameras recorded photos of tanukis and raccoons. Civets were recorded on six cameras, feral cats were recorded on seven cameras and rats were recorded on one camera close to the Tade River. Three invasive mammals were discovered and measures have been taken to control these invasive species. Plans are in place to implement this inexpensive, low-impact, low maintenance and low manpower survey method to monitor the efficacy of control measures to serve as an additional element of NAF Atsugi’s integrated pest management program.



Bushnell  
Masked palm civet (Hakubisin)

08-05-2014 02:27:24



Bushnell  
Raccoon

08-31-2014 01:18:46



Bushnell  
Tanuki

07-31-2014 23:26:08



Bushnell  
Tanuki

08-25-2014 04:36:12

***Extensive Biological Surveys***

HIES-PASCO Joint Venture was retained in 2014 to conduct general flora and fauna surveys of NAF Atsugi in support of the INRMP. The primary goal of this project was to provide updated baseline and supplemental data regarding plant, insect, fish, amphibian, reptile, and bird species at NAF Atsugi. A mammal survey was conducted separately and is discussed above. Particular attention was given to the detection of species listed as threatened, endangered, or national monument (TENM) species in the JEGS, and also to species identified as invasive in the JEGS.

These surveys were particularly important, because there had not been a biological survey conducted on NAF Atsugi since 1995, and these recent biological surveys were more comprehensive and rigorous. Relying on outdated biological data is not prudent, because any decisions based on outdated data can lead to wrong conclusions and actions. The biological landscape may change over time and wildlife policies may also change over time. Regular surveys are necessary to identify those changes and determine if conservation efforts or invasive species control are required or working. A recent bird survey identified what appears to be a non-resident JEGS protected species, a peregrine falcon. This record will keep any future ornithologists on alert when they conduct bird surveys on NAF Atsugi. During the 1995 bird survey, it appears that peregrine falcons were not observed on NAF Atsugi, but the fact that these falcons could visit NAF Atsugi was mentioned. The comprehensiveness and rigorousness of the recent biological surveys also identified a number of Government of Japan (GOJ) special-status species of regional concern including plants, fish, insects, amphibians, reptiles, and birds. In addition to species requiring protection, the recent surveys identified invasive species that require control.

Important species identified during the extensive biological surveys are listed below:

*Plants*

Red List IV Special Status (Japanese National Level):

- Snowrose (*Serissa japonica*)
- Sickle-shaped leaf cephalanthera (*Cephalanthera falcata*)
- Different colored calanthe (*Calanthe discolor*)
- *Cinnamomum (sieboldii) okinawense*
- Bur Reed (*Sparganium japonicum*)

Kanagawa Prefecture Red Data Special Status (State level equivalent):

- Evergreen azalea (*Rhododendron indicum*)

*Animals*

JEGS Listed Species:

- Peregrine falcon (*Falco peregrinus*)

Red List IV Special Status (Japanese National Level):

- Japanese Rice Fish- (*Oryzias latipes*)
- Grey-faced Buzzard (*Butastur indicus*)

Kanagawa Red Data Special Status (State level equivalent):

- Broad-winged damselfly (*Calopteryx atrata*)
- Jewel beetle (*Chrysochroa fulgidissima*)
- Lace bug (*Cysteochila consueta*)
- Amur minnow (*Rhynchocypris lagowskii steindachneri*)
- Japanese toad (*Bufo japonicus formosus*)
- Japanese rat snake (*Elaphe climacophora*)
- Japanese five-lined skink (*Plestiodon finitimus*)
- Eurasian skylark (*Alauda arvensis*)-Decreasing
- Barn swallow (*Hirundo rustica*)-Decreasing
- Oriental greenfinch (*Chloris sinica*) –Decreasing



Japanese Rice Fish



Sickle-Shaped Leaf Cephalanthera

***Integration of INRMP and Integrated Pest Management Plan (IPMP)***

On NAF Atsugi, NAVFAC FE Pest Control plays a large role in controlling invasive species and protecting habitat and native species. The NAF Atsugi INRMP and Integrated Pest Management Program (IPMP) are maintained by the same person who acts as the NR program manager and IPMP coordinator. This person ensures that the INRMP and IPMP are cross-referenced when a pest is an invasive species or if a prospective pest is a potential natural resource that needs to be protected. Additionally this person ensures any pesticides used are appropriate for natural areas. Most importantly, this person also ensures the INRMP and IPMP both comply with applicable regulations and are effective in carrying out their purpose while complementing each other. An example would be honey bees that can be a potential sting hazard, but are recognized as an important pollinator by Japan, the DoD, and the public. The INRMP reflects this fact and this is mirrored in the IPMP. However, the IPMP also includes additional details about addressing honey bees as a pest in a manner to recognize their conservation importance as a pollinator while not ignoring their potential threat as a potential sting hazard. This information is conveyed in a customized pest management sheet for honey bees that calls out the Japanese honey bee (*Apis cerana japonica*) and its conservation importance as well as responsibilities, control methods, and other pertinent information. If new pests with natural resource importance need to be addressed, an ad hoc cross functional team that generally consists of members from Environmental Division, Facilities Management Division, and Production Division will be convened to discuss appropriate conservation and control measures.