

Papahānaumokuākea Marine National Monument
RESEARCH Permit Application

NOTE: *This Permit Application (and associated Instructions) are to propose activities to be conducted in the Papahānaumokuākea Marine National Monument. The Co-Trustees are required to determine that issuing the requested permit is compatible with the findings of Presidential Proclamation 8031. Within this Application, provide all information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Papahānaumokuākea Marine National Monument (Monument).*

ADDITIONAL IMPORTANT INFORMATION:

- Any or all of the information within this application may be posted to the Monument website informing the public on projects proposed to occur in the Monument.
- In addition to the permit application, the Applicant must either download the Monument Compliance Information Sheet from the Monument website OR request a hard copy from the Monument Permit Coordinator (contact information below). The Monument Compliance Information Sheet must be submitted to the Monument Permit Coordinator after initial application consultation.
- Issuance of a Monument permit is dependent upon the completion and review of the application and Compliance Information Sheet.

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED

Send Permit Applications to:

Papahānaumokuākea Marine National Monument Permit Coordinator

6600 Kalaniana'ole Hwy. # 300

Honolulu, HI 96825

nwhipermit@noaa.gov

PHONE: (808) 397-2660 FAX: (808) 397-2662

SUBMITTAL VIA ELECTRONIC MAIL IS PREFERRED BUT NOT REQUIRED. FOR ADDITIONAL SUBMITTAL INSTRUCTIONS, SEE THE LAST PAGE.

Papahānaumokuākea Marine National Monument Permit Application Cover Sheet

This Permit Application Cover Sheet is intended to provide summary information and status to the public on permit applications for activities proposed to be conducted in the Papahānaumokuākea Marine National Monument. While a permit application has been received, it has not been fully reviewed nor approved by the Monument Management Board to date. The Monument permit process also ensures that all environmental reviews are conducted prior to the issuance of a Monument permit.

Summary Information

Applicant Name: Randy K Rembold

Affiliation: Configuration Manager for U.S. CTBT Stations for the Office of the Secretary of Defense

Permit Category: Research

Proposed Activity Dates: 06/01/2012 - 06/01/2017

Proposed Method of Entry (Vessel/Plane): Plane

Proposed Locations: Sand Island Midway Atoll Bldg 140 as well as the concrete pad just outside the building for the satellite antennas

Estimated number of individuals (including Applicant) to be covered under this permit:

9

Estimated number of days in the Monument: 10-12 days/year

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...

continue operation of the Radionuclide Aerosol Sampler/Analyzer (RASA) for monitoring the Comprehensive Nuclear-Test Ban Treaty (CTBT). The original permit for the operation of this system is 2008-012.

b.) To accomplish this activity we would

continue to perform semi-annual preventative maintenance and repair activities on the RASA system. Preventative maintenance would be accomplished by a General Dynamics engineer traveling to the island. Repair activities would initially be attempted using on-island personnel through a contract with F&WS. If the system fault requires a solution beyond the scope of the on-island personnel, an engineer would be sent to resolve the issue.

c.) This activity would help the Monument by ...

monitoring the radioactive background for isotopes released by nuclear testing or accidents which could be used to alert monument personnel.

Other information or background: This is a follow on to the original permit 2008-012 which allowed for the installation and operation of the RASA.

Section A - Applicant Information

1. Applicant

Name (last, first, middle initial): Rembold, Randy K

Title: Configuration Manager for U.S. CTBT Stations
Senior Member of Technical Staff (SMTS)
Sandia National Laboratories

1a. Intended field Principal Investigator (See instructions for more information):

Laura Comes - General Dynamics Advanced Information Systems (GDAIS)

2. Mailing address (street/P.O. box, city, state, country, zip):

[REDACTED]

Phone:

[REDACTED]

Fax:

[REDACTED]

Email:

[REDACTED]

For students, major professor's name, telephone and email address:

3. Affiliation (institution/agency/organization directly related to the proposed project):

U.S. Department of Defense

4. Additional persons to be covered by permit. List all personnel roles and names (if known at time of application) here (e.g. John Doe, Research Diver; Jane Doe, Field Technician):

There are approximately eight engineers performing maintenance work on the radionuclide systems for GDAIS. Any of these engineers may be dispatched to work on the system on Midway Island. The eight engineers are listed below, however, as this is a 5 year permit personnel changes could occur. There are also 2 satellite antennas located on the concrete pad just outside the building for transmission of data to the International Data Centre (IDC). These global communications for the CTBT are contracted out. Work on these systems would

be done by personnel working for this contractor and are not known at this time. These personnel would be submitted to the monument for approval before traveling to work on the systems.

General Dynamics Personnel

Daigle, Veronica, Hong, Rada M., Hosticka, Bouvard, Huber, Stephen H., Jr, Little, Shaun A., Shipman, George R., Tillstrand, Edward J., Wright, Matthew S.

Section B: Project Information

5a. Project location(s):

<input type="checkbox"/> Nihoa Island	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Necker Island (Mokumanamana)	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> French Frigate Shoals	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Gardner Pinnacles	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Maro Reef			
<input type="checkbox"/> Laysan Island	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Lisianski Island, Neva Shoal	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Pearl and Hermes Atoll	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input checked="" type="checkbox"/> Midway Atoll	<input checked="" type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Kure Atoll	<input type="checkbox"/> Land-based	<input type="checkbox"/> Shallow water	<input type="checkbox"/> Deep water
<input type="checkbox"/> Other			

Ocean Based

NOTE: There is a fee schedule for people visiting Midway Atoll National Wildlife Refuge via vessel and aircraft.

Location Description:

The Radionuclide Aerosol Sampler/Analyzer system is located on Sand Island in Building 140. The CTBT Global Communication Interface (GCI) satellite antennas are mounted to a concrete pad just SW of Building 140

5b. Check all applicable regulated activities proposed to be conducted in the Monument:

- Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource
- Drilling into, dredging, or otherwise altering the submerged lands other than by anchoring a vessel; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands
- Anchoring a vessel
- Deserting a vessel aground, at anchor, or adrift
- Discharging or depositing any material or matter into the Monument
- Touching coral, living or dead
- Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument
- Attracting any living Monument resource
- Sustenance fishing (Federal waters only, outside of Special Preservation Areas, Ecological Reserves and Special Management Areas)
- Subsistence fishing (State waters only)
- Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

6 Purpose/Need/Scope *State purpose of proposed activities:*

The RASA monitoring station was installed in 2007 for the purpose of monitoring the Comprehensive Nuclear-Test Ban Treaty (CTBT). The system is autonomous with data being transmitted off island on a daily basis and requires very little intervention. Travel to the island will only be to perform maintenance on the system.

7. Answer the Findings below by providing information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Monument:

The Findings are as follows:

a. How can the activity be conducted with adequate safeguards for the cultural, natural and historic resources and ecological integrity of the Monument?

The RASA system is installed inside Building 140 which was an existing building. The satellite antennas are mounted to a very large concrete pad just outside the building. Personnel will either be working inside the building or on the existing concrete pad, therefore there will be no impact on monument resources or ecological integrity. This building also houses the U.S. Geological Service (USGS) seismic collection equipment for earthquake monitoring. USGS is part of the U.S. Department of Interior

b. How will the activity be conducted in a manner compatible with the management direction of this proclamation, considering the extent to which the conduct of the activity may diminish or enhance Monument cultural, natural and historic resources, qualities, and ecological integrity, any indirect, secondary, or cumulative effects of the activity, and the duration of such effects? By installing the RASA system in an existing building there is very little impact on monument resources and no environmental or ecological impact. All damaged or unusable equipment will be removed from the island. The system has been on-island since 2008 with no impact on resources or ecological integrity of the monument.

c. Is there a practicable alternative to conducting the activity within the Monument? If not, explain why your activities must be conducted in the Monument.

When the U.S. signed the Comprehensive Nuclear-Test Ban Treaty (CTBT) in 1996, they agreed to the installation of monitoring stations at certain locations within U.S territories, including the Midway Atoll, for the purpose of monitoring the treaty. These locations are written into the treaty and cannot be changed.

d. How does the end value of the activity outweigh its adverse impacts on Monument cultural, natural and historic resources, qualities, and ecological integrity?

There are minimal impacts on the monument with this activity which allows the U.S. to fulfill its treaty obligations by monitoring for nuclear testing making the world safer.

e. Explain how the duration of the activity is no longer than necessary to achieve its stated purpose.

Visits to the island will be limited to an engineer visiting the station one week twice a year for preventative maintenance. Repairs will first be attempted using on-island personnel but if needed, an engineer would travel to the island. This should also require no more than 1 week.

f. Provide information demonstrating that you are qualified to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

Randy Rembold is an engineer for Sandia National Laboratories who serves as the Configuration Manager for all U.S. stations that are a part of the Comprehensive Nuclear-Test Ban Treaty (CTBT). He has been working with F&WS since 2006 on CTBT related issues. General Dynamics Advanced Information Systems (GD-AIS) has been operating the RASA systems for the U.S. for over 10 years and are considered experts. While on the island they receive training and abide by all Monument rules. They have been working on the Midway RASA system since 2008 with no impacts resulting from their conduct.

g. Provide information demonstrating that you have adequate financial resources available to conduct and complete the activity and mitigate any potential impacts resulting from its conduct. This activity is approved by the U.S. State Department and managed by the Department of Defense

h. Explain how your methods and procedures are appropriate to achieve the proposed activity's goals in relation to their impacts to Monument cultural, natural and historic resources, qualities, and ecological integrity.

All activities are completed within the guidelines given to us by Monument personnel. The system is located within an existing bldg which we share with the U.S. Geological Services. We have been on island since 2008 with no impact.

i. Has your vessel has been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of Presidential Proclamation 8031?

N/A

j. Demonstrate that there are no other factors that would make the issuance of a permit for the activity inappropriate.

The RASA system has been operating on the Monument successfully and without incident since 2008

8. Procedures/Methods:

The RASA system autonomously operates on a continuous basis, collecting and analyzing data and transmitting the results to the International Data Center (IDC) and to the U.S. operator General Dynamics Advance Information Systems (GD_AIS). As per an agreement with the F&WS, local personnel have been trained to assist with operations on an as needed basis such as boxing up filter samples. Twice a year GD_AIS personnel will travel to the island to perform preventative maintenance. If there are any issues that arise with the system that local personnel cannot resolve with the assistance of GD_AIS, an engineer would travel to the

island for repairs. All filters on which the data is collected and all excess equipment will shipped off island.

NOTE: If land or marine archeological activities are involved, contact the Monument Permit Coordinator at the address on the general application form before proceeding, as a customized application will be needed. For more information, contact the Monument office on the first page of this application.

9a. Collection of specimens - collecting activities (would apply to any activity): organisms or objects (List of species, if applicable, attach additional sheets if necessary):

Common name:
N/A

Scientific name:

& size of specimens:

Collection location:

Whole Organism Partial Organism

9b. What will be done with the specimens after the project has ended?

9c. Will the organisms be kept alive after collection? Yes No

• General site/location for collections:

• Is it an open or closed system? Open Closed

• Is there an outfall? Yes No

- Will these organisms be housed with other organisms? If so, what are the other organisms?
- Will organisms be released?

10. If applicable, how will the collected samples or specimens be transported out of the Monument?

The filter paper on which the sample is collected is typically shipped off island in a cardboard box on F&WS flights returning to Honolulu on an as space is available basis.

11. Describe collaborative activities to share samples, reduce duplicative sampling, or duplicative research:

The data from this system is sent to the International Data Centre where it is shared with other countries

12a. List all specialized gear and materials to be used in this activity:

Although the RASA system does contain some commercial equipment, the system was designed by and manufactured for the U.S. government specifically for the purpose of monitoring for nuclear testing.

12b. List all Hazardous Materials you propose to take to and use within the Monument:

There are no hazardous materials associated with the operation of the RASA system

13. Describe any fixed installations and instrumentation proposed to be set in the Monument:

The RASA system is installed in Building 140 on Sand Island, Midway Atoll with two satellite antennas mounted to the concrete pad outside the building

14. Provide a time line for sample analysis, data analysis, write-up and publication of information:

Partial spectrums are sent to the International Data Centre every two hours with a full spectrum being sent daily.

15. List all Applicants' publications directly related to the proposed project:

There are no publications associated with this permit

With knowledge of the penalties for false or incomplete statements, as provided by 18 U.S.C. 1001, and for perjury, as provided by 18 U.S.C. 1621, I hereby certify to the best of my abilities under penalty of perjury of that the information I have provided on this application form is true and correct. I agree that the Co-Trustees may post this application in its entirety on the Internet. I understand that the Co-Trustees will consider deleting all information that I have identified as “confidential” prior to posting the application.

Signature

Date

**SEND ONE SIGNED APPLICATION VIA MAIL TO THE MONUMENT OFFICE
BELOW:**

Papahānaumokuākea Marine National Monument Permit Coordinator
6600 Kalaniana'ole Hwy. # 300
Honolulu, HI 96825
FAX: (808) 397-2662

DID YOU INCLUDE THESE?

- Applicant CV/Resume/Biography
- Intended field Principal Investigator CV/Resume/Biography
- Electronic and Hard Copy of Application with Signature
- Statement of information you wish to be kept confidential
- Material Safety Data Sheets for Hazardous Materials