

State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Aquatic Resources  
Honolulu, Hawaii 96813

June 27, 2014

Board of Land  
and Natural Resources  
Honolulu, Hawaii

Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Conservation and Management Permit to Dr. Kelly Gleason, National Oceanic and Atmospheric Administration, Papahānaumokuākea Marine National Monument, for Access to State Waters to Conduct Maritime Heritage Activities

The Division of Aquatic Resources (DAR) hereby submits a request for your authorization and approval for issuance of a Papahānaumokuākea Marine National Monument conservation and management permit to Dr. Kelly Gleason, National Oceanic and Atmospheric Administration, Papahānaumokuākea Marine National Monument, pursuant to § 187A-6, Hawaii Revised Statutes (HRS), chapter 13-60.5, Hawaii Administrative Rules (HAR), and all other applicable laws and regulations.

The conservation and management permit, as described below, would allow entry and management activities to occur in Papahānaumokuākea Marine National Monument (Monument), including the NWHI State Marine Refuge and the waters (0-3 nautical miles) surrounding the following sites:

- Nihoa Island
- Necker Island (Mokumanamana)
- French Frigate Shoals
- Gardner Pinnacles
- Maro Reef
- Laysan Island
- Lisianski Island, Neva Shoal
- Pearl and Hermes Atoll
- Kure Atoll State Wildlife Sanctuary

The activities covered under this permit would occur between August 1, 2014 and July 31, 2015.

The proposed activities are a renewal of work previously permitted and conducted in the Monument. New activities in this application include the use of a magnetometer or a diver tow board in remote sensing activities.

### INTENDED ACTIVITIES

The applicant proposes to conduct the following maritime heritage activities:

1. Conduct non-invasive individual wreck site assessment surveys;
2. Conduct non-invasive remote sensing (using a magnetometer) and/or snorkeler tow board surveys of high potential wreck sites;
3. Collect monitoring and site/environmental data;
4. Conduct fish and benthic habitat surveys; and
5. Collect still photography and video.

The first proposed activity, non-invasive individual wreck site assessment surveys, refers to activities that would provide the initiation of a site map, including baseline trilateration and measured sketching. During site assessments, the location and position of artifacts and features would be determined and recorded. A temporary fixed survey baseline would be established. The second proposed activity, remote sensing, would locate any anomalies and potential maritime heritage resources for subsequent site assessments. Either a magnetometer or a snorkeler using a tow board would be used in remote sensing surveys. The magnetometer has been used in 2010 and 2012 on maritime heritage projects in the Monument. In the third proposed activity, monitoring and collecting site/environmental data; slates, tapes, and the temporary deployment of baselines would be done to determine if artifacts or features have moved. All surveys would be non-invasive and include collecting data along transect lines. Fish and benthic habitat surveys would be done in conjunction with archeological surveys. Still photography and video would be incorporated into monitoring and site/environmental data and fish and benthic habitat surveys.

The activities proposed by the applicant directly support the Monument Management Plan's priority management need 3.1 – Understanding and Interpreting the NWHI (though action plan 3.1.4 – Maritime Heritage). These activities contribute to ongoing maritime heritage survey and inventory efforts within the Monument.

The activities described above may require the following regulated activities to occur in State waters:

- Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

### REVIEW PROCESS:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Pacific Islands NW Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since March 17, 2014, giving the public an

opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

**Comments received from the scientific community are summarized as follows:**

Scientific reviews support the acceptance of this application.

The following questions and comments were raised. Applicant responses are noted below.

1. On page 12 (Finding b) it is stated that the proposed project will have "minimal impacts on the resources". What types of minimal impacts do you anticipate and what plans are in place for mitigating these impacts?

*Maritime Heritage survey may require archaeologists to closely examine certain artifacts and features at sites to investigate specific identifying markings (makers marks, serial numbers, etc.). In some cases, archaeologists may gently move the artifact to more closely document markings that to help identify the site and its possible provenience. Measures to mitigate any impacts include the collection of photographs prior to any movement, so that original context is recorded and maintained after survey. All artifacts will remain "in situ."*

2. Regarding the proposed magnetometer: What is the average duration for each survey (i.e. less than an hour or a few hours?), and how often would it be deployed? How far behind the small boat will the instrument be towed and what type of line would be used for towing? Please provide the specifications for the magnetometer.

*Magnetometer survey for maritime heritage sites in PMNM has successfully taken place in 2003, 2010 and 2012 (survey reports are available upon request). Average duration of the survey is 4-6 hours, depending on weather and sea conditions. Track lines for the magnetometer are programmed into the computer, and the small boat navigates on those lines for the duration of the survey period. The magnetometer may need to be redeployed only if there is a transit involved or the survey moves to a new area. The instrument is typically towed approximately 50'-100' behind the small boat, with 1-2 spotters keeping an eye on the towfish at all times (it is typically marked with a float).*

*One of the principal cultural resource detection devices used in submerged cultural resources survey, as it is with most submerged historical site surveys, is a magnetometer. The magnetometer has long been a standard archeological survey instrument (Arnold and Weddle 1978; Breiner 1973; Arnold and Clausen 1975; Shope 1997) for shipwrecks due to their high amount of ferrous cultural material. For the proposed study, a Geometrics G882 cesium-vapor magnetometer has been chosen, and it currently possesses the highest rated sensitivity for commercial magnetometers.*

*A Geometrics G-882 cesium-vapor, marine magnetometer will be the primary instrument, with an additional G-882 magnetometer serving as a back-up unit. Data acquisition will use either Hypack 2012 or 2013, and all pre-planning of survey lines will be conducted in combination with ArcGIS and Hypack. Positional control will be maintained using differential GPS feeding real-time data into a field laptop that will serve as the hub for all data acquisition during survey. Using the SRC's newly developed magnetometer tool and script to process the raw magnetometer data in Arc GIS 10.1, data processing will be streamlined and visualizing the data will be available each night of survey. This will enable the team to quickly study the data for same-day interpretation, which maximizes the time allowed for diver visual investigation of anomalies.*

3. Regarding the proposed diver tow board surveys: How many divers would be towed at one time and what is the average duration for each survey? How far behind the small boat will divers be towed and what type of line would be used for towing? Please provide a copy of the NOAA NMFS tow boarding protocols.

*Snorkel towboarding has proven a highly effective method of maritime heritage survey in the Northwestern Hawaiian Islands for over 15 years. During snorkeler towboard surveys (all proposed towboard surveys will be conducted with snorkelers, rather than SCUBA divers), 2 snorkelers will be towed at a time, with 1-2 spotters on the boat watching the snorkelers at all times. Teams of 2 snorkel towboarders will survey for approximately 30 minutes, and then will swap out with another team of 2 snorkel towboarders. Snorkelers will be towed approximately 25 yards behind the boat, on towboards made with "blue steel" crab rope, hard lay, high strength, co-polymer fiber floating line. NOAA NMFS towboarding protocols attached to this email. Please note: NO SCUBA towboarding will take place, only snorkel towboarding will take place during maritime heritage survey.*

4. On page 13 of the application the applicant states "two weeks has been determined as the minimal time for the survey proposed..." but the applicant does not mention how many personnel will enter the refuge. Which of the listed personnel on pages 6 to 7 will need access to Midway Atoll National Wildlife Refuge and what is the proposed duration in the aquatic portion of the Refuge as well as on the terrestrial portion of the Refuge? The Midway Atoll National Wildlife Refuge remains closed at this time for public visitation and any new permitted use, and depending on the total amount of permitted personnel on this application, the permit application may not meet established permitting requirements.

*A two week remote sensing (magnetometer) survey at Midway Atoll was contingent upon grant funding from NOAA OER. To date, the grant funding has not been determined, so the two week survey will not take place in 2014. For the*

*proposed 2 week survey (which will not take place in 2014), all personnel listed were needed.*

5. Under the application *Summary Information, Description of Proposed Activities*, a two-week expedition to Midway Atoll (via charter plane) aimed primarily at survey and exploration is proposed. Does the applicant propose the applicant's agency will charter a special flight to Midway for this purpose, or is it proposed that travelers or their respective affiliates will they pay for seats on the FWS's chartered flight? How many personnel, and who, will utilize these flights? Will personnel fly into and from Midway or will some or all arrive and depart via vessel?

*As with question #4, the two week remote sensing survey at Midway Atoll was contingent upon NOAA OER grant funding. Funding for two chartered plane flights was written into the grant (for transport up to Midway, and transport back to Honolulu at the end of the project). Due to the fact that the grant has yet to be determined, the plane has not been chartered and this project is not feasible for 2014.*

6. If it is proposed that a group of 11 personnel will travel to/from Midway via aircraft and stay on the terrestrial portion of Midway, please describe the logistics to complete the expedition to Midway Atoll. How many personnel listed on page 13 (subsection e) do you anticipate will access Midway Atoll? Will any of the personnel require Refuge operation support such as lodging and meals at Midway, or will you be supported by these services from the NOAA vessel?

*Referring to questions 4 and 5, the 11 personnel traveling to Midway Atoll via chartered plane was contingent upon NOAA OER grant funding. All maritime heritage activities in 2014 will take place off of the NOAA vessel Hi'ialakai and no refuge operational support (lodging and meals) will be needed.*

7. What is your expectation of small boat usage across/around Midway Atoll?

*All small boat usage at Midway Atoll in 2014 will be facilitated by the NOAA vessel Hi'ialakai.*

8. What is the role of the freelance journalist for a Conservation & Management permit activity? Currently, Midway Atoll National Wildlife Refuge is closed to public use, while the FWS would like to support environmental education, the FWS has had to recently deny access of other media sources who were interested in developing media outreach stories (e.g. new permitted activity not necessarily existing "Conservation and Management") due to flat and declining refuge budgets.

*The freelance journalist's participation was also contingent upon NOAA OER grant funding. Her role was to assist with education and outreach efforts relative*

*to the maritime heritage work taking place. As discussed earlier, without this funding in place, the freelance journalist will not be taking part in any 2014 activities.*

COMMENTS:

1. On page 10 of the application (Purpose/Need Section) the applicant states, “will conduct artifact recovery with all applicable standards”, whereas throughout the rest of the application recovering artifacts is never mentioned. Please confirm if you intend to collect artifacts. If so, please provide more details on what type and number of artifacts you are proposing to recover as well as details on recovery methods, storage, curation, and funding necessary for the recovery of the artifacts. If artifacts are proposed to be removed from the Midway Protection Area, consultation is required with the Manager of the Midway Atoll National Wildlife Refuge prior to artifact removal.

*No artifact recovery will take place in 2014.*

2. OHA looks forward to seeing further survey results for maritime heritage sites within Papahānaumokuākea.

*Noted.*

3. On page 4 of the application (Other information or background) the applicant states, “Additionally, it serves as an opportunity for progressive multidisciplinary invasive species survey in collaboration with PMNM’s resource protection program.” Please expand your statement for clarification.

*The two week Midway project (which will not happen in 2014 due to the fact that grant funding has not been determined), was to be conducted in collaboration with PMNM resource protection specialist Scott Godwin.*

*In order to achieve critical resource protection goals in the Monument, exploration for sunken aircraft sites sets up a unique opportunity to investigate and discover alien invasive species in tandem with submerged cultural resources sites utilizing original methods and creative techniques. Of the more than 400 species of marine alien species recorded in the Hawaiian Archipelago only about 10% are established in PMNM (Godwin, In Prep). These marine alien species established in the Monument are made up of 2 marine plants, 38 marine invertebrates and 3 fish. The established alien marine invertebrates outnumber the fish and plants but have had the least focus due to the cryptic nature of this faunal group. Many of the established alien marine invertebrates are found at Midway Atoll and any undiscovered species would most likely be found at this location. This is due to the great alteration of the habitats and exposure to marine alien species transport mechanisms; such as ships; which was a product of the historical military activities.*

*Many of the alien marine invertebrate species that become established are generally "biofouling" organisms that easily adapt to man-made substrates (wood, metal, concrete) in the marine environment. These anthropogenic substrates provide a habitat in which these organisms have a competitive edge over native species within the same environment. Midway Atoll is a prime example of this type of dynamic in both shoreline and submerged reef habitats. Stabilization of shorelines through sea walls and docks provide a foothold for new introductions in harbor environments but near-shore and offshore habitats can also be influenced by anthropogenic substrates. Historically, lagoon and reef habitats at former military bases have been altered by the intentional dumping of man-made debris but also the unintentional loss of equipment during training and active hostilities. These objects of maritime history can act as establishment and stepping stone points for marine alien species within habitats that would otherwise be difficult to invade for these biofouling species.*

*In order to manage marine alien species in an environment such as Midway Atoll, a hierarchical approach must address the problem at all stages of introduction from arrival to establishment and initiate management strategies ranging from prevention to eradication. Initial assessment of the variety of man-made and natural habitats is required to determine a baseline of the established marine alien invertebrates. Focused surveys have been conducted at sea wall, and dock habitats at Midway Atoll in 2010 and 2013 (Godwin, In Prep) and have proven to be establishment points for the biofouling species. There is a need to determine whether marine aliens have dispersed from these establishment points to man-made and natural habitats in close proximity. This can be answered by surveys within the lagoon habitats, which can be done in conjunction with the proposed maritime heritage surveys.*

4. Release of information to news or social media outlets relative to activity occurring within the boundaries of Hawaiian Islands and Midway Atoll National Wildlife Refuges, must be reviewed by the PMNM Communication Team before it is released or posted.

*Noted.*

5. Reports and findings documented within the refuge boundaries should be shared with refuge managers, especially if news from this activity becomes viral in order for the refuge managers to have accurate and current information from growing public interests.

*Noted.*

6. On page 2 the proposed activity period for this permit application is 5/1/2014 to 4/30/15. Throughout the permit application, the applicant only describes activity

for calendar 2014 and does not mention or describe any activity in calendar year 2015. Please clarify activities proposed for either or both calendar years.

*I am able to conduct my work as PMNM's maritime heritage coordinator opportunistically. In 2014, field work will take place during a 8/7-8/31 research cruise on the NOAA vessel Hi'ialakai. Additional opportunities may arise unexpectedly to conduct management and research activities in PMNM, so I have requested the maximum amount of time possible for permitted activities to allow for opportunistic work in PMNM.*

**Comments received from the Native Hawaiian community are summarized as follows:**

Cultural reviews support the acceptance of this application. No concerns were raised.

**Comments received from the public are summarized as follows:**

No comments were received from the public on this application.

**Additional reviews and permit history:**

Are there other relevant/necessary permits or environmental reviews that have or will be issued with regard to this project? (e.g. MMPA, ESA, EA) Yes  No

If so, please list or explain:

- The proposed activities are in compliance with the National Environmental Policy Act.
- Consultation has been initiated between NOAA and the State SHPO with respect to the National Historic Preservation Act. See Attachment (Letter from David Swatland to William J. Aila Jr dated June 4, 2014.) Based on the outcomes of this consultation, the applicant may have to adhere to additional permit conditions in order to comply with this Act.
- The National Marine Fisheries Service (NMFS) provided a letter of concurrence dated June 6, 2014 in regards to a Section 7 informal consultation pursuant to the Endangered Species Act of 1973 which analyzed the effects of conducting the proposed activities on protected species and monk seal within designated critical habitat See Attachment (Letter to David Swatland from Michael Tosatto dated June 6, 2014).
- The Department has made an exemption determination for this permit in accordance chapter 343, HRS, and Chapter 11-200, HAR. See Attachment ("DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR PAPA HANAUMOKU AKEA MARINE NATIONAL MONUMENT CONSERVATION AND MANAGEMENT PERMIT TO DR. KELLY GLEASON, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, PAPA HANAUMOKU AKEA MARINE

NATIONAL MONUMENT , FOR ACCESS TO STATE WATERS TO CONDUCT SHIPBOARD SUPPORT ACTIVITIES UNDER PERMIT PMNM-2014-017.”)

Has Applicant been granted a permit from the State in the past? Yes  No   
If so, please summarize past permits:

- The applicant was granted permits PMNM-2008-037, PMNM-2009-028, PMNM-2010-016, PMNM-2011-024, PMNM-2012-036, PMNM-2014-017, for similar activities in 2008, 2009, 2010, 2011, 2012, and 2014 respectively.
- In addition, similar work has been conducted under NWHI06R015 issued to Gregory Johnson in 2006.

Have there been any a) violations: Yes  No   
b) Late/incomplete post-activity reports: Yes  No

Are there any other relevant concerns from previous permits? Yes  No

#### STAFF OPINION

DAR staff is of the opinion that Applicant has properly demonstrated valid justifications for his application and should be allowed to enter the NWHI State waters and to conduct the activities therein as specified in the application with certain special instructions and conditions, which are in addition to the Papahānaumokuākea Marine National Monument Conservation and Management Permit General Conditions. All suggested special conditions have been vetted through the legal counsel of the Co-Trustee agencies (see Recommendation section).

#### MONUMENT MANAGEMENT BOARD OPINION

The MMB is of the opinion that the Applicant has met the findings of Presidential Proclamation 8031 and this activity may be conducted subject to completion of all compliance requirements. The MMB concurs with the special conditions recommended by DAR staff.

#### RECOMMENDATION

That the Board authorize and approve a Conservation and Management Permit to Dr. Kelly Gleason, National Oceanic and Atmospheric Administration, Papahānaumokuākea Marine National Monument, with the following special conditions:

1. Tenders and small vessels must be equipped with engines that meet EPA emissions requirements.
2. Refueling of tenders and all small vessels must be done at the support ships and outside the confines of lagoons or near-shore waters in the State Marine Refuge.

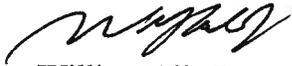
3. No fishing is allowed in State Waters except as authorized under State law for subsistence, traditional and customary practices by Native Hawaiians.
4. If there is any Hawaiian monk seal or any other protected species in the area when performing any permitted activity, the activity shall cease until the animal(s) depart the area.

Respectfully submitted,



Frazer McGilvray  
Administrator

APPROVED FOR SUBMITTAL



William Aila Jr.  
Chairperson

**Papahānaumokuākea Marine National Monument  
CONSERVATION AND MANAGEMENT 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](mailto: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:** Dr. Kelly Gleason

**Affiliation:** Papahānaumokuākea Marine National Monument

**Permit Category:** Conservation and Management

**Proposed Activity Dates:** 8/1/2014-7/31/2015

**Proposed Method of Entry (Vessel/Plane):** Vessel and Plane

**Proposed Locations:** Nihoa, Mokumanamana, Lisianski, Laysan, French Frigate Shoals, Pearl and Hermes Atoll, Midway Atoll, Kure Atoll, Maro Reef, Gardner Pinnacles

**Estimated number of individuals (including Applicant) to be covered under this permit:** 11  
**Estimated number of days in the Monument:** 50

**Description of proposed activities:** (complete these sentences):

a.) The proposed activity would...

This activity aims to achieve goals to manage, interpret and protect maritime heritage resources in PMNM. In 2014 work may include maritime heritage efforts during an annual research cruise, in addition to a two week expedition to Midway Atoll.

Annual PMNM maritime heritage resource management activities conducted during a cruise will fulfill Monument management activities including: 1) non-invasive wreck site assessment survey of selected maritime heritage sites and 2) continued monitoring of known shipwreck and sunken aircraft sites for the purposes of understanding impacts and changes to maritime heritage sites. The first activity is a detailed investigation of a single wreck or archaeological site and will assist in the creation and distribution of important outreach and education products related to maritime heritage sites that will aid in interpretation, protection and preservation of the significant site and the continued development of PMNM maritime heritage themed exhibits and other outreach products; the second activity will work to test archaeological, observational and ecologically based methods of interpreting and monitoring maritime heritage sites in the NWHL.

Activities to be conducted during a two week expedition to Midway Atoll (via charter plane) will focus primarily on survey and exploration including 3) ground truthing of selected dive targets

for potential shipwreck and sunken aircraft sites at Midway Atoll relative to the Battle of Midway; 4) exploration for new maritime heritage sites through non-invasive remote sensing survey (magnetometer) and/or snorkeler towboard survey of high potential wreck site areas and 5) the collection of high definition video and photographs for the development of 3D images of sunken aircraft sites at Midway Atoll. The third and fourth activities at Midway Atoll describe efforts towards broader searches for previously un-located and undiscovered resources and allows for identification and inventory of maritime heritage sites. The final activity to create 3D images will help to accomplish specific outreach objectives as described in the PMNM Maritime Heritage Research, Education and Management Plan.

b.) To accomplish this activity we would ....

This project is part of a continued effort to conduct maritime heritage management activities in the Monument including exploration for new sites that will contribute to the PMNM inventory (an ONMS annual Maritime Heritage performance measure requirement), and documentation and interpretation of known maritime heritage sites. Comprehensive non-invasive assessment surveys of previously located wreck sites allow managers to compile an inventory of critical and non-renewable maritime heritage resources. Of the possible 126 shipwreck and historic aircraft lost in the area, 21 have been confirmed by field investigation. To date, surveys of twelve of these 21 have been completed in the NWHI. Maritime heritage summaries of site surveys are available at <http://www.papahanaumokuakea.gov/maritime/welcome.html> and upon request to the Monument Maritime Heritage Coordinator. A simple low impact technique known as “baseline trilateration” is used to map wreck sites (see Methods).

Monitoring activities will be conducted in 2014 utilizing archaeological, observational, and environmental parameters. The annual assessment and monitoring of maritime heritage sites for change is an important component of long term protection. The 2009 and 2010 surveys conducted by Derek Smith on shipwreck sites in the Monument helped to establish an important baseline dataset to advance interdisciplinary monitoring efforts at maritime heritage sites in the NWHI. Efforts in 2012 by Susie Holst of NOAA's CRCP helped to develop parameters for monitoring activities that will help to inform the investigation of such issues as the effects of climate change on heritage sites.

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

2014 maritime heritage project data (site survey, outreach product development, exploration, and monitoring) will contribute to the management inventory for the PMNM, as well as provide the program invaluable material for ongoing education and outreach efforts. Monitoring work at maritime heritage sites in 2014 will assist managers in better understanding the interaction between these sunken sites and the ecosystem, as well as help to develop an understanding of their structural integrity. 2014's monitoring efforts at shipwreck sites will continue a project initiated in 2009 and will assist in better understanding the changes occurring at these sites. Certain data generated by the survey is sensitive and will be protected from unregulated public distribution as determined by the PMNM (also see NHPA section 304). Maritime heritage survey

will be conducted in compliance with the appropriate preservation regulations (National Historic Preservation Act, Archaeological Resources Protection Act, Antiquities Act, Sunken Military Craft Act et al) and satisfies federal and state mandates for heritage resource inventory of controlled waters.

**Other information or background:**

The 2014 maritime heritage survey is a multidisciplinary project including efforts to further inventory and assess shipwreck sites in the NWHI, and share these findings with the public in a responsible manner.

Currently, NOAA's Maritime Heritage Program is the only agency engaged in maritime heritage survey in the PMNM.

Over 60 shipwrecks have been reported lost in the PMNM, some dating back to 1805. Many of these wrecks may be important cultural or historical resources, capturing information about the maritime history of the region. Sites may furnish information about western seafaring, as well as Native Hawaiian seafaring, for many historic ships (such as whalers) recruited Native Hawaiians as skilled crew members. Due to the time required for careful site survey and the logistical constraints of research cruises, often only portions of the required mapping/survey work at each site can be completed during each season. Completed site assessments are the most effective heritage resource survey tool because they allow managers to fully understand the sites they are mandated to protect.

Survey work in 2014 will continue upon efforts initiated in 2002 with the first maritime heritage resource survey in the Northwestern Hawaiian Islands. Subsequent work continued in 2003, and then annually since 2005. The planned survey work to be conducted in 2014 will continue these efforts, focusing on non-invasive non-excavation data recording at selected heritage sites at Midway, Pearl and Hermes Atoll, Lisianski, and French Frigate Shoals. In addition, efforts in 2014 will focus on exploration and survey for Battle of Midway related resources in order to work towards completing the inventory of resources at Midway Atoll.

The Midway survey project will explore sunken aircraft associated with the Battle of Midway adding an important maritime heritage component to our understanding of the broader history of World War II in the Pacific. The material culture associated with this Battle is critical to understanding connections and making comparisons between Pacific regions, and better comprehending the Pacific Front of WWII. Sunken aircraft represent the tangible evidence of our nation's naval maritime and aviation legacy and hold potential for engaging the public as well as the application of cutting edge technology and multidisciplinary survey. This project proposes to investigate legacy magnetometer anomalies, collect and ground-truth additional magnetometry data, and make discoveries that enrich the maritime and aviation history of Midway Atoll. Additionally, it serves as an opportunity for progressive multidisciplinary invasive species survey in collaboration with PMNM's resource protection program and advanced 3D imagery documentation and analysis. The success of this project's exploration is increased through a

newly applied refined methodology of combined oral history research and remote sensing. Further, the multidisciplinary nature of the project is exemplary in the comprehensive nature of the research, from exploration to interpretation and dissemination, and inclusive of remote sensing, archaeological, and biological survey through advanced technologies.

Without an understanding of the resource base, without an accurate inventory of significant heritage material, maritime heritage resource management is impossible. Historic shipwrecks are subject to natural deterioration as well as intentional or inadvertent damage (dredging, looting, re-use). The first step in management is to create a resource inventory by confirming identification of sites. The next step is to conduct site assessment, characterizing the nature of the resource. Inventory and assessment are heritage preservation actions common to a number of federal and state programs. The 2014 research therefore supports cultural and historical management efforts on behalf of the different agencies of the Monument Management Board. This survey specifically addresses mandates for maritime heritage resource inventory as stated in the the PMNM Management Plan and PMNM Maritime Heritage Research, Education and Management Plan. 2014 work will also include significant education and outreach initiatives and a focus on exploration at Midway Atoll.

## **Section A - Applicant Information**

### **1. Applicant**

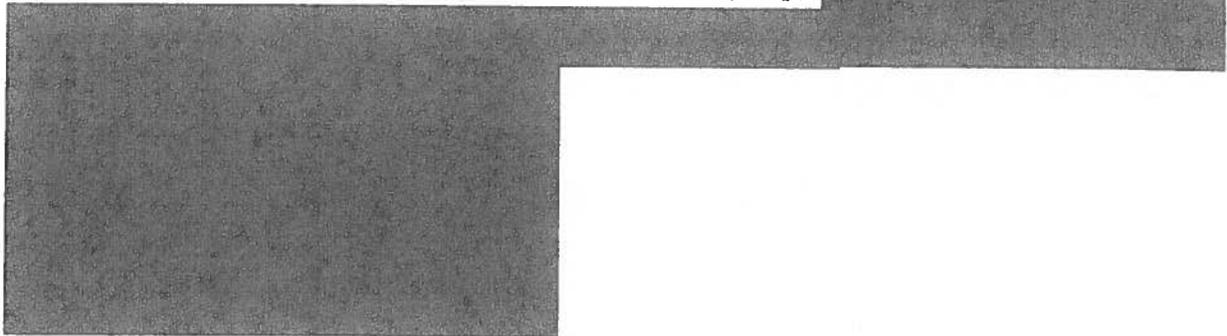
Name (last, first, middle initial): Gleason, Kelly, A.

Title: Maritime Heritage Coordinator, Papahānaumokuākea Marine National Monument

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

Dr. Kelly Gleason

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



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

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

PMNM/NOAA/ONMS

### **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):**

- 1) Jason Raupp (research diver/maritime archaeologist)
- 2) Cathy Green (research diver/maritime archaeologist)
- 3) Bert Ho (research diver/maritime archaeologist)

- 4) Dave Conlin (research diver/maritime archaeologist)
- 5) Brett Seymour (research diver/underwater photographer)
- 6) Eve Conant (freelance journalist)
- 7) Brian Hauk (research diver/field operations)
- 8) Jason Leonard (research diver/field operations)
- 9) Scott Godwin (research diver/biologist)
- 10) Nick Tenney (maritime heritage field assistant)
- 10) TBD (research diver/maritime archaeologist)

**Section B: Project Information**

**5a. Project location(s):**

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

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

Location Description:

Special note: specific location (latitude/longitude) for historically significant heritage resources is sensitive data—not to be distributed publicly. Locations for 2014 maritime heritage work have been provided to the Monument Permit Coordinator.

**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 Monument's ongoing efforts to inventory, document, and protect its maritime heritage sites have been instrumental in opening a window into the NWHI's seafaring past, and they have contributed materially to a growing body of knowledge about humans' historical interaction with the sea. Research is a critical maritime heritage activity that is called out in the Monument Management Plan. In addition to fulfilling mandates for inventory of maritime heritage resources, field research provides the body of knowledge that supports education and outreach efforts.

Over 60 shipwrecks have been recorded in the NWHI, some dating back to 1805. Many of these wrecks are important heritage resources, capturing the maritime history of the region. Furthermore, state and federal preservation legislation mandate the surveying of historic shipwreck sites and the production of submerged cultural resource management plans for historically significant material. Due to time constraints in the NWHI, surveys of any sites can only be partially completed during any single season. The work to be conducted in 2014 will continue upon investigation from previous years, explore for new historic resource sites, and collect long term monitoring data at shipwreck sites.

The proposed work is part of the long term archaeological survey for maritime heritage resources in the Papahānaumokuākea Marine National Monument. Federal preservation initiatives mandate the inventory, assessment and protection of cultural, archaeological, and historical resources within federally managed waters. 2014 proposed survey features non-invasive recording techniques for the discovery, identification and assessment of submerged heritage resources as part of this mandate.

The purpose of the 2014 survey is to better understand the existing maritime heritage resources in the Monument. Inventory and site assessment are critical parts of resource management and ocean stewardship. The Maritime Heritage Survey team plans to

continue non-invasive survey of selected maritime heritage resource sites initiated in previous field seasons in the NWHI and attempt to identify unknown sites, and survey for new shipwreck and sunken aircraft sites. Additionally, the 2014 survey will continue efforts with multidisciplinary survey and monitoring of the shipwreck and sunken aircraft sites in the NWHI.

**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 activity will be conducted with adequate safeguards for the resources and ecological integrity of the Monument. This project is part of a continuing effort to identify, interpret and protect maritime heritage resources in the Papahānaumokuākea Marine National Monument. Proposed work will be led by PMNM maritime heritage program staff, who have been involved in maritime heritage research (archival as well as field) for over ten years. Methodology and research continues to improve annually as the team's experience grows. Proposed heritage work in the NWHI emphasizes a low-impact approach, to an extent consistent with the Monument's conservation goals and objectives. Section 106 NHPA compliance will be submitted to the State Historic Preservation Office and OHA for review. NEPA permit is pending for this activity.

All maritime heritage scientists will participate in a cultural briefing prior to entering the Monument. The team will respect all resources both natural and cultural. The primary permittee will consult with OHA and the Native Hawaiian Coordinator at the PMNM on cultural sensitivities, as well as the applicability of these activities to OHA and the Native Hawaiian Coordinator's efforts for the PMNM. No archaeological work will take place near any known native Hawaiian archaeological sites. If any native Hawaiian sites should be discovered, the proper experts will be notified and consulted immediately.

Plans to collaborate with Native Hawaiian Program staff at PMNM will allow for further understanding and interpretation of the cultural significance of the Monument.

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?

The proposed project will have minimal impact on the resources of the region. The research consists primarily of non-invasive visual surveys. This research is being conducted in concert with the priorities listed in the Maritime Heritage Action Plan of the Monument's Management Plan (inventory and assessment, as well as education and outreach) and the Monument's Maritime Heritage Research, Education and Management Plan. The strategies proposed are designed to increase our understanding of maritime heritage resources and foster effective and protective management in the Monument. This project will also include multidisciplinary and partnership efforts towards increasing stewardship and enhancement of Monument goals and resources. Additionally, this project will facilitate the Monument's effort to "bring the place to the people, rather than the people to the place" through outreach and education efforts that will share PMNM resources with a broad audience.

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.

There is no practicable alternative to conducting the activities in the Monument. Annual maritime heritage surveys are necessary to identify, document and protect the maritime heritage resources in the Papahānaumokuākea Marine National Monument. Additionally, these surveys contribute to education and outreach efforts regarding maritime heritage resources in the PMNM. These activities directly relate to activities in the Monument's management plan and the Monument's Maritime Heritage Research, Education and Management Plan.

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

The proposed activities have been identified as vital to the future management of the Monument and will have no adverse impact on the resources, qualities and ecological integrity of the Monument. Additionally, the opportunity to conduct important education and outreach activities through the development of a short film, exhibits, web presence, presentations and articles will assist in Monument's efforts to promote stewardship and protection of resources, both natural and cultural. This project will serve to continue ongoing efforts to develop a multi-dimensional approach to understanding these maritime heritage sites in the NWHI. Work to develop a monitoring program based upon multidisciplinary parameters will help to better understand if there are impacts up on maritime heritage sites from climate change and other natural events.

Prior work by PMNM maritime archaeologists have demonstrated the broad, long term value of maritime heritage work in the NWHI. Annual expeditions have resulted in documentary films, magazine, journal and newspaper articles, television news coverage, award winning museum exhibits and websites conveying the research and findings to the public.

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

A minimal amount of time will be spent at each location depending on weather and oceanographic conditions during research cruises. For the Midway survey, two weeks has been determined as the minimal time for the survey proposed with consideration for weather and maintenance issues.

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

Personnel included in this permit application have extensive experience conducting research in the Monument, and with all archaeological and ecological methods that will be utilized. This is a continuance of a multi-year project. All methods are primarily non-

invasive. PMNM Native Hawaiian staff, as well as OHA and cultural practitioners will be consulted in order to further avoid any potential impacts.

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 cruise and subsequent data analyses are supported by an allocation of (TBD) days at sea (as of the time of writing this permit application the OMAO fleet allocation plan for 2014 has not yet been finalized) aboard the NOAA ship HIIALAKAI from NOAA's Office of Marine and Aviation Operations, a line item in the budget of NOAA's Papahānaumokuākea Marine National Monument, and an allocation of funds from NOAA's Coral Reef Conservation Program to NOAA Pacific Islands Fisheries Science Center.

Funding for the exploratory survey at Midway Atoll will come from grant funding through NOAA OER and through partnership efforts with NPS/SRC, WHOI and AutoDesk.

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.

The research consists primarily of non-invasive surveys (both archaeological and ecological) and will always follow proper protocol (Conditions for the Custody and Care of Navy Historical Property, Annexed Rules of the UNESCO Convention on the Protection of Underwater Cultural Heritage) and undergo Section 106 and NEPA clearance. PMNM Native Hawaiian Program staff, OHA and cultural practitioners will be consulted in order to further avoid any potential impacts.

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

The NOAA research vessel Hi'ialakai has been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of the Presidential Proclamation 8031.

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

There are no other factors that would make the issuance of a permit for the activities inappropriate.

## **8. Procedures/Methods:**

### **Methods:**

Individual site assessment survey, remote sensing survey, still photography and video are primary objectives, and monitoring and site/environmental data are secondary objectives, of the proposed 2014 maritime heritage project. Where possible, survey locations are prioritized, providing flexible alternatives in case of rough weather, other mission priorities, etc. The following methods will be employed for each of the five proposed 2014 objectives:

#### **1) site assessment survey**

Baseline trilateration and measured sketching will provide data for the initiation of the site map. Trilateration and the creation of a site map consists of sketching major features and measuring distances between artifacts in reference to a fixed temporary baseline, and is a time-consuming task. Divers deploy a temporary baseline, replicating previous surveys by attaching the baseline to fixed stainless steel datums. Survey tapes, slates with mylar "paper," and pencils and then used to triangulate the position of all artifacts in reference to the fixed reference line. In addition, digital photography are used to document feature and artifact details, as well as record the survey process itself. Artifacts and features are temporarily tagged with numbers and photographed in-place. Also, hand-held metal detectors are used to confirm/eliminate the presence of iron within sediments or substrate, and limited hand fanning of loose sediments and limited sediment probing is used to record details of artifacts and site boundaries.

Typically, remote sensing survey methods are also employed in the vicinity when available to help determine site boundaries during individual site survey.

Equipment: Underwater slates  
Transect tapes  
Pencils  
Folding rulers  
Gear bags  
Open-circuit scuba  
Photo scales  
Plastic artifact tags  
Garmin GPS units and waterproof boxes  
Site buoy

2) remote sensing survey

Exploration for new maritime heritage sites requires the use of remote sensing tools to cover large areas of the seafloor in the limited time allotted during research expeditions. This is an important component of the complete inventory of maritime heritage resources in PMNM. Remote sensing survey locates anomalies and potential maritime heritage resources for subsequent site assessments. The surface vessel tows a remote magnetometer at approximately 4 knots/hour on linear parallel tracks at or near the surface for shallow zones, recording variations in the localized magnetic field (gamma). The data is processed shipboard. This work will build upon magnetometer work conducted in 2012. 2014 methodology for magnetometer work will not change from 2010 and 2012 work (reports from prior remote sensing survey work available upon request). Because magnetometer survey is dependent on partnerships in 2014 (with National Park Service, who conducted the remote sensing work in 2012), a second alternative, diver tow boarding has been identified for the purposes of exploration of large survey areas. Though not technically “remote sensing” (divers in the water doing

real-time visual survey), this method is sometimes used to supplement normal remote sensing. Diver survey is particularly helpful in shallow areas of extreme topographical variation. Any potential diver tow boarding operations during 2014 will be conducted only following established training provided by NOAA NMFS and along established NOAA NMFS tow boarding protocols for the NWHI. Diver will be towed at approximately 3 knots/hour.

Equipment: Marine Magnetics Explorer Mini Magnetometer  
Tow boards  
Laptop  
HyPack survey software  
Honda eu2000i generator or marine 12v batteries

### 3) Monitoring sites

Monitoring sites employs a small subset of the same methods used for initial site survey. Slates, tapes, and (if necessary) temporary re-deployment of the baseline are used to confirm possible movement of features or artifacts. Digital photography is used to generate comparative data on the condition of features and changes to the natural environment (sediment level, etc.). Utilizing environmental parameters generated through Smith's 2009-2010 surveys of maritime heritage sites in the Hawaiian Islands, data will be collected about environmental changes in the sites over time. All surveys will be non-invasive and include collecting data along transect lines. Data will include fish surveys and benthic habitat assessments. All surveys will be non-invasive and will not include any collections or deployment of instruments.

Equipment: Underwater slates  
Transect tapes  
Pencils  
Gear bags

Camera  
Site buoy

**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:

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?**

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

Currently, NOAA's Maritime Heritage Program is the only agency engaged in maritime heritage survey in the PMNM. 2014 project work includes collaboration with the National Park Service's Submerged Resources Center (NPS/SRC), East Carolina University, ONMS Northeast Region Staff, Flinders University in Australia, Woods Hole Oceanographic Institute (WHOI) and AutoDesk. In addition, work at Midway Atoll will be conducted in collaboration with the PMNM resource protection specialist.

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

Equipment: Underwater slates  
Transect tapes  
Pencils  
Folding rulers  
Gear bags  
Open-circuit scuba  
Photo scales  
Plastic artifact tags  
Garmin GPS units and waterproof boxes  
Site buoy  
Marine Magnetism Explorer Mini Magnetometer  
Towboards  
Wire brush, wooden scraper,  
Mesh bag and towels.

**13. List all Hazardous Materials you propose to take to and use within the Monument:**

N/A

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

N/A

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

Initial results will be reported in the Cruise Report. Site reports resulting from this cruise will be finalized by June 2015. Data from this project will consist of site and artifact inventory development, site maps, digital still images and digital video products. A summary descriptive project report (activity report) including abstract, major accomplishments, participants, activity log, results of work to date, and proposed schedule of final report will be completed by December 31, 2014. A final report including heritage background, site descriptions, methodology, results, project evaluation and recommendations for maritime heritage resource management will be completed by July 2015. Data and report from this proposal will be sufficient to provide presentations at annual maritime history and maritime archaeology symposiums (for example Society for Historical Archaeology, Society for Hawaiian Archaeology, Symposium on the Maritime Archaeology and History of Hawai'i and the Pacific), and presentations will be made available upon request. Preservation-related data from the 2014 field season will also contribute to heritage preservation material on the Monument's Maritime Heritage Program web page ([www.papahanaumokuakea.gov](http://www.papahanaumokuakea.gov)).

**16. List all Applicant's publications directly related to the proposed project:**

Gleason, K. (2014), A Monumental Distance: Education and Outreach from the Most Remote Archipelago on Earth. In D.A. Scott-Ireton (ed.), *Between the Devil and the Deep, When the Land Meets the Sea* (pp141-153). New York, NY: Springer Science and Business Media.

Wagner D, Toonen RJ, Papastamatiou YP, Kosaki RK, Gleason KA, McFall GB, Boland RC, & Pyle RL (2013). Mesophotic surveys of the Northwestern Hawaiian Islands with new records of black coral species. *Proceedings of the 2013 AAUS/ESDP Curaçao Joint International Scientific Diving Symposium*: 341-345.

Kosaki RK, Wagner D, Leonard JC, Hauk, BB & Gleason KA (2013). First report of the table coral *Acropora cytherea* (Scleractinia: Acroporidae) from O'ahu Island (Main Hawaiian Islands). *Bulletin of Marine Science* 89(3): 745-746.

Papahānaumokuākea Marine National Monument. 2011. Maritime Heritage Research, Education, and Management Plan: Papahānaumokuākea Marine National Monument. Honolulu, Hawai'i. 97 pages.

Wagner D, Papastamatiou YP, Kosaki RK, Gleason KA, McFall GB, Boland RC, Pyle RL & Toonen RJ (2011). New records of commercially valuable black corals (Cnidaria: Antipatharia) from the Northwestern Hawaiian Islands at mesophotic depths. *Pacific Science* 65: 249-255.

Delgado, J.P. and K. Gleason. Lighting Strikes Twice. *The Explorers Journal*. 89:1, Spring 2011.

Raupp, Jason and Kelly Gleason. Submerged whaling heritage in Papahānaumokuākea Marine National Monument. *Bulletin of the Australian Institute for Maritime Archaeology* (2010), 34: 66-74.

Kelly Gleason and Jason Raupp. Lost and Found In Papahānaumokuākea Marine National Monument: The Possible Wreck Site of the Nantucket Whaleship Two Brothers. *Historic Nantucket*, (Volume 60, No. 3) Fall 2010.

Gleason, K. 2010. Activity Report: Maritime Heritage Resources Survey HA-010-03. Submitted to National Oceanic and Atmospheric Administration/ Papahānaumokuākea Marine National Monument.

Wagner, Daniel, Yannis P. Papastamatiou, Randall K. Kosaki, Kelly A. Gleason, Greg B. McFall, Raymond C. Boland, Richard L. Pyle and Robert J. Toonen. New records of commercially valuable black corals (Cnidaria: Antipatharia) from the Northwestern Hawaiian Islands. *Pacific Science*, in press.

Gleason, K. 2009. Activity Report: Maritime Heritage Resources Survey HA-08-04. Submitted to National Oceanic and Atmospheric Administration/ Papahānaumokuākea Marine National Monument.

Gleason, Kelly. NHC Supports Saginaw Search. Pull Together, Naval Historical Foundation. (Volume 47, No. 2). Fall/Winter 2008/2009.

Gleason, K. 2008. Activity Report: Maritime Heritage Resources Survey HA-08-04. Submitted to National Oceanic and Atmospheric Administration/ Papahānaumokuākea Marine National Monument.

Waddell, J.E. (ed). 2005. The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2005. NOAA Technical Memorandum NOS NCCOS 11. NOAA/NCCOS Center for Coastal Monitoring and Assessment's Biogeography Team. Silver Spring, MD. .

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



## **Papahānaumokuākea Marine National Monument Compliance Information Sheet**

**1. Updated list of personnel to be covered by permit. List all personnel names and their roles here (e.g. John Doe, Diver; Jane Doe, Field Technician, Jerry Doe, Medical Assistant):**

1. Kelly Gleason (NOAA/ONMS/PMNM), Maritime Archaeologist/Diver
2. Jason Raupp (Flinders University), Maritime Archaeologist/Diver
3. Cathy Green (NOAA/ONMS), Maritime Archaeologist/Diver
4. Bert Ho (NPS/SRC), Maritime Archaeologist/Diver
5. Dave Conlin (NPS/SRC), Maritime Archaeologist/Diver
6. Brett Seymour (NPS/SRC), Underwater Photographer/Diver
7. Eve Conant (Freelance Journalist), Journalist/Education and Outreach
8. Brian Hauk (NOAA/ONMS/PMNM), Field Operations/Diver
9. Scott Godwin (NOAA/ONMS/PMNM), Biologist/Diver
10. Jason Leonard (NOAA/ONMS/PMNM), Field Operations/Diver
11. TBD, Maritime Archaeologist/Diver

**2. Specific Site Location(s): (Attach copies of specific collection locations):**

1. Nihoa
2. Mokumanamana
3. French Frigate Shoals
4. Laysan
5. Lisianski
6. Maro Reef
7. Gardner Pinnacles
8. Pearl and Hermes Atoll
9. Midway Atoll
10. Kure Atoll

**3. Other permits (list and attach documentation of all other related Federal or State permits):** State of Hawaii DLNR Section 106 Compliance (Pending)

**3a. For each of the permits listed, identify any permit violations or any permit that was suspended, amended, modified or revoked for cause. Explain the circumstances surrounding the violation or permit suspension, amendment, modification or revocation. None**

**4. Funding sources (Attach copies of your budget, specific to proposed activities under this permit and include funding sources. See instructions for more information):** N/A

**5. Time frame:**

Activity start: 08/01/2014

Activity completion: 7/31/2015

Dates actively inside the Monument:

From: 8/7/2014

To: 8/31/2014

Describe any limiting factors in declaring specific dates of the proposed activity at the time of application: Ship schedule changes (due to maintenance, etc.)

Personnel schedule in the Monument:

**6. Indicate (with attached documentation) what insurance policies, bonding coverage, and/or financial resources are in place to pay for or reimburse the Monument trustees for the necessary search and rescue, evacuation, and/or removal of any or all persons covered by the permit from the Monument:** N/A (Federal Government work)

**7. Check the appropriate box to indicate how personnel will enter the Monument:**

Vessel

Aircraft

Provide Vessel and Aircraft information: NOAA Vessel Hi'ialakai

**8. The certifications/inspections (below) must be completed prior to departure for vessels (and associated tenders) entering the Monument. Fill in scheduled date (attach documentation):**

X Rodent free, Date:

xTender vessel, Date:

x Ballast water, Date:

x Gear/equipment, Date:

x Hull inspection, Date:

**9. Vessel information (NOTE: if you are traveling aboard a National Oceanic and Atmospheric Administration vessel, skip this question):**

Vessel name:

Vessel owner:

Captain's name:

IMO#:

Vessel ID#:

Flag:

Vessel type:

Call sign:

Embarkation port:

Last port vessel will have been at prior to this embarkation:

Length:

Gross tonnage:

Total ballast water capacity volume (m3):

Total number of ballast water tanks on ship:

Total fuel capacity:

Total number of fuel tanks on ship:

Marine Sanitation Device:

Type:

Explain in detail how you will comply with the regulations regarding discharge in the Monument. Describe in detail. If applicable, attach schematics of the vessel's discharge and treatment systems:

Other fuel/hazardous materials to be carried on board and amounts:

Provide proof of a National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement-approved Vessel Monitoring System (VMS). Provide the name and contact information of the contractor responsible for installing the VMS system. Also describe VMS unit name and type:

VMS Email:

Inmarsat ID#:

\* Individuals MUST ENSURE that a type-approved VMS unit is installed and that its automatic position reports are being properly received by the NOAA OLE system prior to the issuance of a permit. To make sure your VMS is properly configured for the NOAA OLE system, please contact NOAA OLE at (808) 203-2503 or (808) 203-2500.

\* PERMITS WILL NOT BE ISSUED TO INDIVIDUALS ENTERING THE MONUMENT VIA VESSEL UNTIL NOAA OLE HAS CONTACTED THE MONUMENT PERMIT COORDINATOR WITH A 'POSITIVE CHECK' READING.

**10. Tender information:**

On what workboats (tenders) will personnel, gear and materials be transported within the Monument? List the number of tenders/skiffs aboard and specific types of motors:

### **Additional Information for Land Based Operations**

**11. Proposed movement of personnel, gear, materials, and, if applicable, samples:**  
N/A

**12. Room and board requirements on island:** N/A

**13. Work space needs:** N/A

**DID YOU INCLUDE THESE?**

- Map(s) or GPS point(s) of Project Location(s), if applicable
- Funding Proposal(s)
- Funding and Award Documentation, if already received
- Documentation of Insurance, if already received
- Documentation of Inspections
- Documentation of all required Federal and State Permits or applications for permits



NEIL ABERCROMBIE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

June 27, 2014

TO: Division of Aquatic Resources File

THROUGH: William J. Aila Jr., Chairperson

FROM: Frazer McGilvray  
Division of Aquatic Resources

A handwritten signature in black ink, appearing to be "F" with a flourish.

DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR PAPAĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT CONSERVATION AND MANAGEMENT PERMIT TO DR. KELLY GLEASON, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, PAPAĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT, FOR ACCESS TO STATE WATERS TO CONDUCT MARITIME HERITAGE ACTIVITIES UNDER PERMIT PMNM-2014-017

The following permitted activities are found to be exempted from preparation of an environmental assessment under the authority of Chapter 343, HRS and Chapter 11-200, HAR:

Project Title:

Papahānaumokuākea Marine National Monument Conservation and Management Permit to Dr. Kelly Gleason, National Oceanic and Atmospheric Administration, Papahānaumokuākea Marine National Monument, for Access to State Waters to Conduct Maritime Heritage Activities

Permit Number: PMNM-2014-017

Project Description:

The conservation and management permit application, as described below, would allow entry and activities to occur in Papahānaumokuākea Marine National Monument (Monument), including the NWHI State waters between May 1, 2014 through April 30, 2015.

In the proposed project, the applicant would conduct maritime archeological surveys through the use of SCUBA throughout the Monument. The purpose would be to gain a greater understanding of impacts and changes to maritime heritage sites. Proposed activities include non-invasive wreck site assessment surveys of selected maritime heritage sites and continue monitoring of known shipwreck and sunken aircraft sites. Continued monitoring of known sites would test archaeological, observational, and ecological-based methods of interpreting and monitoring heritage sites in the NWHI. Other activities include non-invasive fish surveys and benthic habitat assessments. All

WILLIAM J. AILA, JR.  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI  
FIRST DEPUTY

WILLIAM M. TAM  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING

FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

surveys are non-invasive and would not include any collections or deployment of instruments. Where possible, survey sites would be prioritized, providing flexible alternatives in case of weather, other mission, priorities, etc.

The activities proposed by the applicant directly support the Monument Management Plan's priority management need 3.1 – Understanding and Interpreting the NWHI (through action plan 3.1.4 - Maritime Heritage). This action plan calls for “strategies and activities for addressing maritime heritage resource and protection needs in the Monument” and includes strategies such as “studying and protecting maritime heritage resources begin(ing) with basic documentary research and field site surveys.” Activities to support this understanding such as the site assessments, remote sensing, and monitoring proposed to be carried out by the permittee, are also addressed in the Monument Management Plan Environmental Assessment (December 2008) which resulted in a FONSI, or a Finding of No Significant Impact. This EA recognizes that field operations rely on ships, and that providing transportation support has a beneficial effect on threatened and endangered species, marine mammals, and other Monument resources. (PMNM MMP Vol 2, p.26, 185, and 187).

Consulted Parties:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since March 17, 2014, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

Exemption Determination:

After reviewing HAR § 11-200-8, including the criteria used to determine significance under HAR § 11-200-12, DLNR has concluded that the activities under this permit would have minimal or no significant effect on the environment and that issuance of the permit is categorically exempt from the requirement to prepare an environmental assessment based on the following analysis:

1. All activities associated with this permit, including individual wreck site assessment surveys, remote sensing activities, collecting monitoring and site assessment data, and fish and benthic habitat surveys; have been evaluated as a single action. As a preliminary matter, multiple or phased actions, such as when a group of actions are part of a larger undertaking, or when an individual project is precedent to or represents a commitment to a larger project, must be grouped together and evaluated as a single action. HAR § 11-200-7. Since this permit involves an activity that is precedent to a later planned activity, i.e. the continuation of maritime heritage monitoring activities, the categorical exemption determination here will treat all planned activities as a single action.

2. The Exemption Class for Scientific Research with no Serious or Major Environmental Disturbance Appears to Apply. Chapter 343, HRS, and § 11-200-8, HAR, provide for a list of

classes of actions exempt from environmental assessment requirements. HAR §11-200-8.A.5. exempts the class of actions which involve “basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource.” The proposed activities appear to fall squarely under the exemption class #5, exempt item #2 as described under the division of Forestry and Wildlife exemption list published on June 12, 2008. This exemption class has been interpreted to include “inventory studies, new transect lines, photographing, and recording...” such as those to be supported by the proposed activities. It has also been interpreted to include use of the magnetometer and/or tow board for remote sensing. As discussed below, no significant disturbance to any environmental resource is anticipated in the sampling of Monument resources. Thus, so long as the below considerations are met, an exemption class should include the action now contemplated.

3. Cumulative Impacts of Actions in the Same Place and Impacts with Respect to the Potentially Particularly Sensitive Environment Will Not be Significant. Even where a categorical exemption appears to include a proposed action, the action cannot be declared exempt if “the cumulative impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment.” HAR § 11-200-8.B. To gauge whether a significant impact or effect is probable, an exempting agency must consider every phase of a proposed action, any expected primary and secondary consequences, the long-term and short-term effects of the action, the overall and cumulative effect of the action, and the sum effects of an action on the quality of the environment. HAR § 11-200-12. Examples of actions which commonly have a significant effect on the environment are listed under HAR § 11-200-12.

The activities would be a continuation of work previously conducted by this applicant and others, which involved monitoring and evaluation activities to characterize maritime heritage resources. Permits have been issued for this work to this applicant every year from 2009 to 2012, under another applicant in 2006, and it likely that future requests for permits will be received to continue this work. No deleterious impacts resulted from similar previous activities. With this in mind, significant cumulative impacts are not anticipated as a result of this activity, and numerous safeguards further ensure that the potentially sensitive environment of the project area will not be significantly affected. All activities would be conducted in a manner compatible with the management direction of the Monument Proclamation in that the activities do not diminish monument resources, qualities, and ecological integrity, or have any indirect, secondary, cultural, or cumulative effects. The joint permit review process did not reveal any anticipated indirect or cumulative impacts, nor did it raise any cultural concerns, that would occur as a result of these activities.

Table 1: Concurrent projects aboard NOAA Ship HI'IALAKAI

Permit	Purpose and scope	Location
PMNM-2014-005 Ellis-Simon	This permit allows the NOAA Ship HI'IALAKAI entry into the Monument. Personnel aboard the	All locations

HI'IALAKAI (approved)	vessel would be permitted under separate permits	
PMNM-2014-014 Meyer (proposed)	This proposed action would be to conduct top predator research consisting of fishing for various shark and fish species.	French Frigate Shoals, Pearl and Hermes, Midway
PMNM-2014-012 Couch (proposed)	This proposed action would be to conduct coral health and community structure assessment surveys in the NWHI.	All locations
PMNM-2014-025 Donahue (proposed)	This proposed action would be to characterize <i>Pocillopora meandrina</i> (POME) colony fish and invertebrate communities.	All locations
PMNM-2014-018 Godwin (proposed)	This proposed action would be conduct Pacific Reef Assessment and Monitoring Program.	All locations

Table 2: Concurrent projects about NOAA ship SETTE

<b>Permit</b>	<b>Purpose and scope</b>	<b>Location</b>
PMNM-2014-005 Koes SETTE (approved)	This permit allows the NOAA SETTE entry into the Monument. Personnel aboard the vessel would be permitted under separate permits	All locations
PMNM-2014-001 Co-Trustee (approved)	This permit allows monk seal field camp operations with activities from June - September 2014.	French Frigate Shoals, Lisianski Island, Pearl and Hermes Atoll, Midway Atoll, Kure Atoll

Since no significant cumulative impacts or significant impacts with respect to any particularly sensitive aspect of the project area are anticipated, the categorical exemptions identified above should remain applicable.

June 27, 2014

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4. Overall Impacts will Probably be Minimal and Insignificant Any foreseeable impacts from the proposed activity will probably be minimal, and further mitigated by general and specific conditions attached to the permit. Specifically, all conservation and management activities covered by this permit will be carried out with strict safeguards for the natural, historic, and cultural resources of the Monument as required by Presidential Proclamation 8031, other applicable law and agency policies and standard operating procedures.

Conclusion. Upon consideration of the permit to be approved by the Board of Land and Natural Resources, the potential effects of the above listed project as provided by Chapter 343, HRS and Chapter 11-200 HAR, have been determined to be of probable minimal or no significant effect on the environment and exempt from the preparation of an environmental assessment.

\_\_\_\_\_  
William J. Aila Jr.  
Chairperson, Board of Land and Natural Resources

\_\_\_\_\_  
Date

ITEM F-1c





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE

Papahānaumokuākea Marine National Monument  
NOAA/ Inouye Regional Center  
NOS/ONMS/PMNM  
1845 Wasp Blvd. Building 176  
Honolulu, HI 96818

Mr. William J. Aila, Jr., Hawai'i State Historic Preservation Officer (SHPO) c/o  
Mr. Alan Downer, Administrator for State Historic Preservation Division  
State Historic Preservation Division  
Department of Land and Natural Resources  
Kakuihewa Building  
601 Kamokila Blvd., Suite 555  
Kapolei, Hawai'i 96707  
Ph: (808) 692-8015

JUN 04 2014

Transmission via facsimile to (808) 692-8020

Dear Mr. Aila:

The purpose of this letter is to initiate coordination and consultation pursuant to Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470f, and implementing regulations 36 C.F.R. Part 800 (2008). The National Oceanic and Atmospheric Administration (NOAA), Office of National Marine Sanctuaries (ONMS), Papahānaumokuākea Marine National Monument (PMNM or Monument) is currently processing a Conservation and Management permit application from NOAA ONMS PMNM Maritime Archeologist Dr. Kelly Gleason (PMNM-2014-017). The proposed activities include non-invasive surveying, documentation, and monitoring of known submerged shipwreck sites and potential maritime heritage sites (PMNM-2014-017) within the Special Preservation Areas at Nihoa Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Lisianski Island, and Pearl and Hermes Atoll, and the Midway Atoll Special Management Area in the Monument. No adverse impacts are anticipated. Subject to permit approval, the Monument would implement several Best Management Practices to follow while working around each maritime heritage site. A description of all applicable Best Management Practices is included herein.

The Proposed Action

The proposed activities for Dr. Gleason's application are explained in detail below:

- I. Maritime heritage conservation and management activities  
(Attachment 1 – Gleason permit application number PMNM-2014-017)

Dr. Kelly Gleason (applicant) proposes to conduct maritime heritage management activities in the Monument including site assessment surveys and continued site monitoring, remote sensing, and in situ still photography and digital video. Proposed methods and procedures for the site inventory, documentation, and remote sensing are discussed below:

Site assessment surveys and continued site monitoring activities include the utilization of baseline trilateration and measured sketching methods to measure distances between artifacts and generate a site map. Divers would deploy a temporary baseline, replicating previous surveys by attaching the baseline to fixed stainless steel datums. Digital video and digital photography would be used to document feature and artifact details, as well as record the entire survey process. Artifacts



and features would be temporarily tagged with numbers and photographed in-place. All photographs would include a scale for visual reference. Site locations and boundaries would be determined by extensive diver/snorkel surveys and using hand-held metal detectors to confirm the presence of iron in the vicinity of the artifact area.

Non-invasive remote sensing surveys to locate anomalies and potential maritime heritage resources for subsequent site assessments involve the utilization of a towed magnetometer. A remote magnetometer would be towed via surface vessel on linear parallel tracks at or near the ocean surface within marine areas to record variations in the localized magnetic field. The data would be processed and analyzed for potential anomalies that indicate additional potential maritime heritage sites.

Vessel support operations for the activity would be provided by NOAA Ship HI'IALAKAI (separately permitted under permit no. PMNM-2014-005). Also, SCUBA operations would be conducted off small vessels launched from HI'IALAKAI. The activities are non-invasive and would occur during a research cruise aboard NOAA Ship HI'IALAKAI in August 2014. The applicant is expected to continue conducting maritime heritage activities in the Monument through 2019.

No adverse impacts are anticipated. Subject to permit approval, the applicant would be required to abide by a suite of Best Management Practices while conducting the aforementioned activities within PMNM around shipwreck sites. These practices include:

1. Documentation of artifacts in accordance with the "Secretary of Interior's Standards and Guidelines for Archeological Documentation" (Attachment 2);
2. Immediate cessation of work and notification provided to the State Historic Preservation Office and Office of Hawaiian Affairs should any cultural artifacts be discovered during the proposed activities;
3. Conducting all activities to avoid disturbance to wildlife, and no negative impact to shipwreck or other historic sites;
4. Participation in a mandatory pre-access briefing.

#### Area of Potential Effect (APE)

The proposed action consists of activities to be conducted within marine areas of the Midway Atoll Special Management Area and the following Special Preservation Areas: Nihoa, Mokumanamana, French Frigate Shoals, Laysan Island, Lisianski Island, Pearl and Hermes Atoll, Kure Atoll.

#### Determination

No adverse impacts are anticipated, as the proposed action consists of non-invasive surveying, documentation, monitoring, and journalistic activities. This determination was made pursuant to 16 U.S.C. 470h-4(a) by an Agency archaeologist. NOAA will re-initiate consultation with the State Historic Preservation Division (SHPD) and other interested parties should the circumstances represented in this consultation substantially change. The Monument requests your concurrence with this determination within 30 days of receipt of this letter.

A description of the proposed activities (with enclosures) and a request for comment within 30 days was also delivered to the following: Office of Hawaiian Affairs; Hui Mālama I Na Kūpuna 'O Hawai'i Nei; Ms. Wilma Holi, lineal descendant; the University of Hawai'i Kamakakūokalani Center for Hawaiian Studies; and Dr. Kekuewa Kikiloi, Chair of the Papahānaumokuākea Native Hawaiian Cultural Working Group. If the State Historic Preservation Division knows of any other interested parties we should include in the process, please inform us so we may consult as appropriate.

Please send any comments or direct inquiries to: Justin Rivera, Policy and Permit Specialist for the Office of National Marine Sanctuaries, Papahānaumokuākea Marine National Monument at the address above (telephone (808) 725-5831, electronic mail Justin.Rivera@noaa.gov).

Sincerely,



David Swatland  
Acting Superintendent  
Papahānaumokuākea  
Marine National Monument

cc: **U.S. Fish and Wildlife Service, Hawaiian & Pacific Islands National Wildlife Refuge Complex,  
Refuge and Monument Supervisor – Barry Stieglitz;  
State Historic Preservation Division, Department of Land and Natural Resources,  
Archaeological Branch Chief and Deputy SHPO – Ms. Theresa K. Donham;  
NOAA - National Marine Fisheries Service, Pacific Islands Regional Office – Samantha Brooke;  
State of Hawai'i, Department of Land and Natural Resources,  
Division of Aquatic Resources Administrator – Frazer McGilvray**

Enc:

1. **Permit application number PMNM-2014-017, submitted by Dr. Kelly Gleason**
2. **Secretary of Interior's Standards and Guidelines for Archeological Documentation**





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Pacific Islands Regional Office  
1845 Wasp Blvd., Bldg 176  
Honolulu, Hawaii 96818  
(808) 725-5000 • Fax: (808) 973-2941

**JUN 06 2014**

David Swatland  
Acting Superintendent  
Papahānaumokuākea Marine National Monument  
Office of National Marine Sanctuaries  
6600 Kalanianaʻole Hwy, Suite 300  
Honolulu, HI 96825

Dear Mr. Swatland:

This letter responds to your May 22, 2014 Request for Consultation regarding issuance of a permit to applicant Donahue to conduct coral reef research, surveys, and video monitoring within the Papahānaumokuākea Marine National Monument, and the issuance of up to five research permits over the next five years to applicant Gleason to conduct tow-board surveys and magnetometer deployments to search for and document new maritime archeological sites (PMNM 2014). You have requested our concurrence under Section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. §1531 et seq.), with your determination that the proposed action may affect but is not likely to adversely affect green, hawksbill, leatherback, olive ridley, and north Pacific loggerhead sea turtles; humpback whales, blue whales, fin whales, sei whales, sperm whales, north Pacific right whales, and Hawaiian monk seals.

**Proposed Action/Action Area:** The proposed activity is described in your request for consultation and the associated biological evaluation (PMNM 2014) and further clarified via email exchange (NMFS and PMNM 2014). In summary, the proposed action consists of issuing a 2014 permit to applicant Donahue to conduct underwater surveys and video recording to describe cryptic species living in coral colonies within the Papahānaumokuākea Marine National Monument. Activities will take place in shallow water (30 to 100 feet) and consist of swimming, snorkeling, and SCUBA, visual surveys and photography/videography of coral colonies, and sample collection from fish and invertebrates. Video recording stations would include two GoPro cameras mounted to an adjustable tripod stabilized by three-pound weights attached to each tripod foot. A surface buoy will be tethered to the tripod with 20 feet of scope (slack line) at each depth deployment to avoid wave action toppling over the station. Target deployment depths would be 30 to 80 feet and camera stations would be deployed for 30 to 60 minutes. Only one video station would be



deployed at any given time and the total time of deployment over the entire research period would not exceed 16 hours (in increments of one hour or less).

Additional but separate activities included in the consultation request include the issuance of up to five permits over the next five years (2014 – 2018) to applicant Gleason to conduct tow board and magnetometer surveys to search for new maritime archeological sites within the Monument. Tow-board surveys will consist of two snorkelers towed 75 feet behind the boat at speeds of up to 4 miles per hour. Over a five year period, it is estimated that the applicant would conduct approximately 500 hours of tow-board surveys. In addition, magnetometer surveys would consist of towing a passive magnetometer approximately 50 feet behind the boat at speeds up to 4 miles per hour. Over a five year period, it is estimated that the applicant would conduct approximately 500 hours of magnetometer surveys. The action area includes all nearshore marine areas within PMNM.

**Species That May Be Affected:** PMNM determined that the proposed action may affect but is not likely to adversely affect Hawaiian monk seals (*Monachus schauinslandi*), green sea turtles (*Chelonia mydas*), hawksbill sea turtles (*Eretmochelys imbricata*), the north Pacific distinct population segment of loggerhead sea turtles (*Caretta caretta*), olive ridley sea turtles (*Lepidochelys olivacea*), leatherback sea turtles (*Dermochelys coriacea*), humpback whales (*Megaptera novaeangliae*), sperm whales (*Physeter macrocephalus*), fin whales (*Balaenoptera physalus*), blue whales (*Balaenoptera musculus*), sei whales (*Balaenoptera borealis*), and north Pacific right whales (*Eubalaena japonica*). Detailed information about the biology, habitat, and conservation status of sea turtles can be found in their recovery plans and other sources at <http://www.nmfs.noaa.gov/pr/species/turtles/>. The same can be found for Hawaiian monk seals and cetaceans at <http://www.nmfs.noaa.gov/pr/species/mammals/>.

**Critical Habitat:** The proposed action would take place within designated monk seal critical habitat. Critical habitat was designated under the ESA for the Hawaiian monk seal on April 30, 1986 and revised on May 26, 1988. Designated critical habitat includes all beach areas, lagoon waters, and ocean waters out to a depth of 20 fathoms around Kure Atoll; Midway Islands (except Sand Island), Pearl and Hermes Reef, Lisianski Island, Laysan Island, Gardner Pinnacles, French Frigate Shoals, Necker Island, Maro Reef, and Nihoa Island. On June 2, 2011, NMFS proposed revising critical habitat for monk seals by extending the current designation out to the 500 meter depth contour and including Sand Island at Midway Island but this proposal is not yet final.

**Analysis of Effects:** In order to determine that a proposed action is not likely to adversely affect listed species, NMFS must find that the effects of the proposed action are expected to be insignificant, discountable, or beneficial as defined in the joint USFWS-NMFS Endangered Species Consultation Handbook: (1) insignificant effects relate to the size of the impact and should never reach the scale where take occurs; (2) discountable effects are those that are extremely unlikely to occur; and (3) beneficial effects are positive effects without any adverse

effects (USFWS & NMFS 1998). This standard, as well as consideration of the probable duration, frequency, and severity of potential interactions between the marine listed species and the proposed action, were applied during the analysis of effects on ESA-listed marine species as described in the PMNM initiation request and supplemental emails. PMNM determined that the potential for temporary disturbance of protected species is insignificant and potential for entanglement, vessel collisions, and impacts to monk seal critical habitat is discountable for both applicants' proposed activities. PMNM addressed all of these stressors in the consultation request and supplemental materials providing mitigation measures, best management practices, and impact analyses to justify your determinations (PMNM 2014; NMFS and PMNM 2014). Therefore, based on the description of the proposed action, the described Best Management Practices, the effects analyses provided by PMNM, and the best information available to describe the behaviors and biological needs of the species considered here, NMFS agrees that the proposed action would result in insignificant impacts, or the likelihood of impacts would be discountable, for ESA-listed green, hawksbill, leatherback, olive ridley, and north Pacific loggerhead sea turtles; humpback whales, blue whales, fin whales, sei whales, sperm whales, north Pacific right whales, and Hawaiian monk seals.

**Conclusion:** NMFS concurs with your determination that the proposed action may affect, but is not likely to adversely affect ESA-listed marine species or designated critical habitat. Our concurrence is based on the finding that the effects of the proposed action are expected to be insignificant, discountable, or beneficial as defined in the joint USFWS-NMFS Endangered Species Consultation Handbook (USFWS & NMFS 1998) and summarized at the beginning of the Analysis of Effects section above. This concludes your consultation responsibilities under the ESA for species under NMFS's jurisdiction. However, this consultation focused solely on compliance with the ESA. Additional compliance review that may be required of NMFS for this action (such as assessing impacts on Essential Fish Habitat) would be completed by NMFS Habitat Conservation Division in separate communication, if applicable.

ESA Consultation must be reinitiated if: 1) a take occurs; 2) new information reveals effects of the action that may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the identified action is subsequently modified in a manner causing effects to listed species or designated critical habitat not previously considered; or 4) a new species is listed or critical habitat designated that may be affected by the identified action.

If you have further questions please contact Kim Maison on my staff at (808) 725-5143. Thank you for working with NMFS to protect our nation's living marine resources.

Sincerely,



Michael D. Tosatto  
Regional Administrator

cc: Justin Rivera, Papahanaumokuakea Marine National Monument  
Aaron Nadig, ESA Section 7 Program, USFWS, Honolulu

NMFS File No.: PIR-2014-9485  
PIRO Reference No.: I-PI-14-1184-LVA

#### Literature Cited

Papahanaumokuakea Marine National Monument (PMNM). 2014. Request for Informal Consultation. Letter from David Swatland to Alecia VanAtta dated May 22, 2014 and attachments.

NMFS and PMNM. 2014. Email correspondence regarding consultation for two research permits (Gleason and Donahue). Communication between K. Maison and J. Rivera dated May 28, 2014.

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[http://www.nmfs.noaa.gov/pr/pdfs/laws/esa\\_section7\\_handbook.pdf](http://www.nmfs.noaa.gov/pr/pdfs/laws/esa_section7_handbook.pdf)