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
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 Keogh
Affiliation: Papahanaumokuakea Marine National Monument

Permit Category: Conservation and Management
Proposed Activity Dates: 7/25/2015-7/24/2016
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: 5
Estimated number of days in the Monument: 30

Description of proposed activities: (complete these sentences):

a.) The proposed activity would…
This activity aims to achive goals to manage, interpret and protect maritime heritage resources in PMNM. In 2015 work will include maritime heritage efforts during an annual research expedition. Maritime heritage will act as a "piggyback" mission on the annual, PMNM-led RAMP expedition.

Annual PMNM maritime heritage resource management activities conducted during the expedition 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.

Acitivites will also focus on survey and exploration for new maritime heritage sites including: 3) ground truthing of selected dive targets for potential shipwreck and sunken aircraft sites at Midway Atoll, 4) exploration for new maritime heritage sites through non-invasive remote sensing survey (magnetometer) and/or snorkeler towboard survey, and SCUBA and snorkeler suvery using scooters in high potential wreck site areas (at all islands and atolls listed on this permit), and 5) non-invasive terrestrial survey of Lisianski Island, Laysan and Kure Atoll for the

purposes of determining the feasibility of future archaeological survey of areas of propable shipwreck survivor camps.

Activities will also be conducted for the purpose of site identification, education and outreach relative to research objectives including 6) the video documentation of maritime heritage sites in order to create edited short videos about maritime heritage in PMNM and broadcast to shore based audiences, and share this very remote place with the public.

The first activity is a detailed investigation of a single wreck or archaeological site. It 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 sites. Additionally, this activity will assist in 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 NWHI.

The third and fourth activities describe efforts towards broader searches for previously un-located and undiscovered resources and allows for identification and inventory of maritime heritage sites. These activities are non-invasive underwater survey for new shipwreck and sunken aircraft sites. Ground truthing will only take place at Midway Atoll, and survey for new sites and continued survey of known sites will take place at all atolls listed on this permit application.

The fifth activity will assess the feasibility of an activity (survey and study of shipwreck survivor camps) that is described in the PMNM Maritime Heritage Research, Education and Management Plan that will add an important land dimension to the maritime heritage stories of Lisianski Island, Laysan and Kure Atoll. Archival research has shown these three islands (Kure, Lisianski and Laysan) to have had reported shipwreck survivor camps. To date, no field research has been conducted to survey or document these potential sites since a survey in 2002, and this project proposes a feasibility study for survey at the reported areas of these shipwreck survivor camps on land. All potential survey sites are at the highest level of ground within the island and no survey will take place near any grounds where protected species (monk seals or turtles) may haul out. This survey will avoid any areas where monk seals or turtles are resting or swimming nearby.

The final (6th) activity to develop short film pieces builds upon ongoing efforts to bring this very remote "place to the people" through the medium of film.

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, 22 have been confirmed by field investigation. To date, surveys of twelve of

these 22 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) in addition to extensive photo and video documentation of all sites.

Remote sensing survey (the fourth activity described), locates anomalies and potential maritime heritage resources for subsequent "ground-truth" site assessments. Data gathered from remote sensing work in 2010 and 2012 will be used for the purposes of mapping seafloor habitat in addition to survey for maritime heritage resources. Generally areas in the seaward vicinity of the reef crest are chosen for initial remote sensing survey due to the high potential for wreck remains in those areas. Specific reef crest zones are determined by historical records of wreck events. Alternatively, snorkeler tow boarding or SCUBA diving or snorkeling with a scooter may be used to locate potential heritage resource sites in a similar manner in the event that funding for magnetometer survey does not happen. (Magnetometer work is funding and personnel dependent). Snorkel towboarding has been a highly successful survey method in the NWHI to date. Scooter survey is a newer method that will allow divers to eliminate being tethered to the small boat, in hopes of improving safety and effectiveness of survey.

To date, minimal terrestrial survey has taken place primarily due to time constraints while on these expeditions. In 2015, the team will carefully examine the terrestrial environment for the feasibility of future archaeological surveys at Lisianski, Laysan and Kure Atll. With guidance from field camp staff, the team will look to add an interesting terrestrial dimension to the shipwreck survivor stories of the Northwestern Hawaiian Islands. All survey will be non-invasive and focus on developing low impact methods of gathering data from a ground survey. The team will run test survey lines with a metal detector and take photographs, video and create site maps.

Monitoring activities will be conducted in 2015 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 …

2015 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. Exploratory survey, specifically the terrestrial survey will assist in meeting goals and objectives describes in the

Monument's Maritime Heritage Research, Education and Management Plan. Monitoring work at maritime heritage sites in 2015 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. 2015's monitoring efforts at shipwreck sites will continue a project initiated in 2009 and will assist in better understanding the changes occuring 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 2015 maritime heritage survey is a multidiciplinary 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 PMNM.

Over 60 shipwrecks have been reported lost in 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, and determine appropriate action for protection and public outreach.

Survey work in 2015 will continue upon annual efforts initiated in 2002 with the first maritime heritage resource survey in the Northwestern Hawaiian Islands. Subsequent work continued in 2003, before becoming annual in 2005. The planned survey work to be conducted in 2015 will continue these efforts, and focusing on non-invasive data recording at selected heritage sites at Midway, Pearl and Hermes Atoll, Lisianski, Kure Atoll, Maro Reef, Laysan and French Frigate Shoals. Specifically, efforts in 2015 will follow up on work initiated in 2014 and focus on further exploration and survey for Battle of Midway related resources in order to work towards completing the inventory of resources at Midway Atoll, as well as the completion of the documentation of a mystery shipwreck site at Lisianski Island. Work at other atolls will focus upon the continued survey for new maritime heritage sites.

Midway survey will continue to 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 remaining magnetometer anomalies, potentially collect and ground-truth additional magnetometry data, survey for new sites utilizing scooters and/or towboarding survey and make discoveries that enrich the maritime and aviation history of Midway Atoll. 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.

Work at Lisanski Island will continue work that was incomplete during the 2014 field season due to time constraints in the field. This includes non-invasive, in situ documentation of a mystery shipwreck site discovered in 2010, exploration for several shipwreck sites lost around the Island, and the investigation of Lisianski Island for the future potential of non-invasive terrerstrial archaeological survey for remains of at least two shipwreck survivor camps reported there (whaling ships Holder Borden and Konohasset). Terrestrial survey in 2015 is important in order to determine the feasibiliy of planning for a more thorough future terrestrial survey of Lisianski Island in subsequent years.

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 2015 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. 2015 work will also include significant education and outreach initiatives and a focus on exploration at Midway Atoll and the connection between submerged and terrestrial sites at Lisianski and Kure Atoll.