Papahānaumokuākea Marine National Monument
RESEARCH Permit Application

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

ADDITIONAL IMPORTANT INFORMATION:

- Any or all of the information within this application may be posted to the Monument website informing the public on projects proposed to occur in the Monument.

- In addition to the permit application, the Applicant must either download the Monument Compliance Information Sheet from the Monument website OR request a hard copy from the Monument Permit Coordinator (contact information below). The Monument Compliance Information Sheet must be submitted to the Monument Permit Coordinator after initial application consultation.

- Issuance of a Monument permit is dependent upon the completion and review of the application and Compliance Information Sheet.

INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED

Send Permit Applications to:
NOAA/Inouye Regional Center
NOS/ONMS/PMNM/Attn: Permit Coordinator
1845 Wasp Blvd, Building 176
Honolulu, HI 96818
nwhipermit@noaa.gov
PHONE: (808) 725-5800 FAX: (808) 455-3093

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: Russell E. Brainard, Ph.D.
Affiliation: National Oceanic and Atmospheric Administration (NOAA), Pacific Islands Fisheries Science CenterChief (PIFSC), Ecosystem Sciences Division (ESD), Coral Reef Ecosystem Program (CREP)

Permit Category: Research
Proposed Activity Dates: 30 August 2016 to 30 September 2016
Proposed Method of Entry (Vessel/Plane): Vessel
Proposed Locations: Shallow water reefs (<30m) of the Papahānaumokuākea Marine National Monument (Monument) including the reefs associated with: Kure Atoll, Pearl & Hermes Atoll, French Frigate Shoals, and Lisianski Island.

Estimated number of individuals (including Applicant) to be covered under this permit: 23

Estimated number of days in the Monument: 32

Description of proposed activities: (complete these sentences):
a.) The proposed activity would…
conduct reef assessment and monitoring activities throughout the islands and atolls of the Monument. These efforts would contribute to continuing research providing scientific information needed to support ecosystem approaches to the management of coral reef systems of the Monument and areas across the Pacific region. The primary focus of the multi-institutional team of scientists, led by NOAA Pacific Islands Fisheries Science Center's Coral Reef Ecosystem Program, would focus on implementing the Pacific Reef Assessment and Monitoring Program (RAMP).

b.) To accomplish this activity we would ....
use monitoring efforts including rapid ecological assessments of corals, macro-invertebrates, fish, and algae using multiple methods; towed-diver surveys of benthic composition and the abundance and distribution of ecologically and economically important macroinvertebrate taxa and large fish; and multi-platform oceanographic and water quality monitoring using shipboard surveys and moored instrument arrays.

c.) This activity would help the Monument by ...
the use of consistent interdisciplinary methods across this vast region allowing for an opportunity to perform biogeographic and ecological comparative analyses of diverse ecological, environmental, and oceanographic gradients. Patterns of variability of fish biomass, coral disease, diversity, demographics and other reef metrics are paramount to assessing an ecological system as unique and valuable as the one found in the Monument.

Other information or background:
CREP conducts integrated, multidisciplinary, ecosystem research, habitat mapping, and long-term monitoring of coral reef ecosystems throughout American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, the Hawaiian Archipelago and the Pacific Remote Island Areas. This work is part of the NOAA Coral Reef Conservation Program's (CRCP) broad-scale Pacific RAMP surveys. RAMP efforts focus on several priority research themes: 1) ocean and climate change; 2) benthic communities (with emphasis on hard corals); and 3) non-coral invertebrates; and 4) reef-associated fish communities. CREP's efforts under RAMP have involved extensive benthic habitat mapping, ecological and environmental assessment and monitoring, and applied research to support improved ecosystem-based management and conservation. Monitoring of ocean and climate change focuses on thermal structure and water chemistry and is achieved by means of sustained, remotely sensed and in situ observations of ocean temperature, autonomous discrete water sampling for analyses of carbonate chemistry, and distinct biological installations designed to provide integrated, ecosystem-wide response data (e.g., biodiversity, calcification, and bioerosion) in the context of climate change. Biological monitoring for benthic and fish communities is conducted at Rapid Ecological Assessment (REA) sites using a two-stage stratified random sampling design throughout shallow-water (0–30 m), hard-bottom coral reef habitats. The knowledge gained from these methods is shared with resource managers and various public stakeholders to improve decision-making for long-term conservation and management of coral reef resources.