

**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:** Allison Fundis, Chief Operating Officer

**Affiliation:** Ocean Exploration Trust

**Permit Category:** Research

**Proposed Activity Dates:**

July 15-August 8, 2022 (ship-based mapping + uncrewed vehicle mapping);

August 14-October 25, 2022 (ship-based mapping)

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

**Proposed Locations:** Deepwater (>100m) expanded area of PMNM; Shallow water (<100m) within original PMNM boundary; TBD offshore - Nihoa Island, Necker Island, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan Island.

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

*Up to 58 individuals over the course of 5 expedition legs*

**Estimated number of days in the Monument:**

*TBD, up to 69\**

(est) DATES port-to-port	EST DAYS IN PMNM UNDER THIS PERMIT REQUEST*	EXPEDITION	PENDING PERMIT APPLICATIONS
7/16-8/8	21	OET Mapping (NOAA OE, NOAA OCS)	Fundis, Mayer, Armstrong
8/8-8/13	0	port: Honolulu	
8/14-8/28	12	OET Mapping (NOAA OE) Nat Geo snorkeling (Nat Geo)	Fundis, Mayer, Armstrong Hoffman-Kunt & Miller
8/28-8/29	0	port: Honolulu	
8/30-9/13	12	OET Mapping (NOAA OE) Nat Geo SCUBA (Nat Geo)	Fundis, Mayer, Armstrong Nunez-Lendo & Leonardo
9/13-9/14	0	port: Honolulu	

<b>9/15-9/29</b>	<b>12</b>	<b>OET Mapping (NOAA OE)</b> Nat Geo SCUBA (Nat Geo)	<b>Fundis, Mayer, Armstrong</b> Agustines
9/29-9/30	0	port: Honolulu	
10/1-10/8	0	Nat Geo SCUBA (Nat Geo)	Hoffman-Kunt, Miller, Agustines
10/8-10/9	0	port: Honolulu	
<b>10/10-10/24</b>	<b>12</b>	<b>OET Mapping (NOAA OE)</b> Nat Geo SCUBA (Nat Geo)	<b>Fundis, Mayer, Armstrong</b> Dunnivant
<i>total</i>	69		

*\*The number of days Ocean Exploration Trust will map within PMNM is dependent on pending permits for other projects. If all projects Ocean Exploration Trust and National Geographic Society have submitted permit applications for are approved, the above schedule will be implemented. Should any of those permit applications not receive permit approvals, the OET-led mapping days in PMNM would be condensed into fewer cruises and result in fewer days within PMNM. The days requested under this permit application are highlighted in blue.*

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

a.) The proposed activity would...

*Conduct high-resolution mapping and seafloor characterization where such data does not currently exist within the Monument and continue Ocean Exploration Trust’s collaboration with PMNM and representatives of the Papahānamokuākea Cultural Working Group to address the need for expeditions conducted in Hawai‘i to reflect collaborative approaches inclusive of Hawaiian worldview.*

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

*Utilize the ship-based multibeam sonar and sub-bottom profiler to collect seafloor mapping data where such data does not already exist within the expanded and original boundaries of PMNM. This is the same system utilized on previous Nautilus expeditions to PMNM (2021, 2018). Additionally, we will deploy an uncrewed mapping vehicle equipped with an EM2040 (200-400kHz) multibeam sonar that will acquire similar data at depths between 5 and 500 meters depth and no closer to shore or fringing reef than 500 meters.*

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

*Providing PMNM with data that will contribute to a greater understanding of the structure of the seafloor within the boundaries of PMNM, which can ultimately inform future research and management needs. We will fill in gaps in existing seafloor mapping data and characterize benthic ecosystems, which is part of the National Ocean Mapping, Exploration, and Characterization (NOMECA) strategy. This project has applied science objectives that are also consistent with a number of other NOAA mission priorities. NOAA’s long-term Healthy Oceans goals requires students that will improve our understanding of marine ecosystems in order to*

*develop management measures to ensure sustainability in the face of both human and climate impacts. The findings from the project will have direct and immediate benefit to the Monument staff in informing their efforts to protect shallow and deepwater habitats within PMNM. Additionally, the acquired seafloor mapping data will be applied to NOAA nautical charts and will be made publicly available except as provided for in the National Historic Preservation Act.*

*This project will also provide continued education and outreach opportunities for PMNM and local communities. In 2021, Ocean Exploration Trust and representatives of the Papahānaumokuākea Native Hawaiian Cultural Working Group collaborated to begin to address the overdue need for expeditions to be conducted in Hawai‘i to reflect collaborative approaches inclusive of Hawaiian worldview. As a result, the 2021 PMNM expedition aboard Nautilus included co-developed outreach and education opportunities including: (1) Hawaiian naming of expeditions, (2) supporting storytelling through development of promotional video in Hawaiian highlighting Hawaiian worldviews ocean ocean exploration, (3) broadening outreach to the local Department of Education, charter, and kula kaiapuni networks, and (4) supporting live ship-to-shore broadcasts in Hawaiian and English, which included supporting a paid internship position for a Native Hawaiian student and a paid position for a Cultural Working Group representative to be on board for the expedition as a Hawaiian language correspondent and cultural liaison. Ocean Exploration Trust and PMNM collaborators continue to work together to build on this partnership to make more opportunities available for local students, educators, and researchers. This project will allow for this partnership to leverage additional expeditions within PMNM and provide opportunities for local students and educators.*

**Other information or background:**

*Ocean Exploration Trust is a Connecticut-based 501(c)(3) nonprofit that owns and operates exploration vessel (E/V) Nautilus and has experience conducting expeditions within PMNM (2018, 2021) in collaboration with NOAA Office of National Marine Sanctuaries and NOAA Ocean Exploration. The expeditions that will be covered under this permit would include support from NOAA Ocean Exploration, NOAA Office of Coast Survey, and National Geographic Society.*