FINDING OF NO SIGNIFICANT IMPACT

The Council on Environmental Quality (CEQ) Regulations state that the determination of significance using an analysis of effects requires examination of both context and intensity, and lists ten criteria for intensity (40 CFR 1508.27). In addition, the National Oceanic and Atmospheric Administration Administrative Order (NAO) 216-6 Section 6.01b. 1 - 11 provides eleven criteria, the same ten as the CEQ Regulations and one additional, for determining whether the impacts of a proposed action are significant. Each criterion is discussed below with respect to the proposed action and considered individually as well as in combination with the others.

1. Can the proposed action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect, even if the effect will be beneficial?

The beneficial impacts of the proposed amendment to research activities and support vessel operations are expected to outweigh the minimal adverse impacts associated with this action. Changes to the research activities include an expanded survey area inclusive of depth ranges from 200 – 700 m and federal waters offshore Mokumanamana; deployment of a lander with select instrumentation attached to record and store data for a period of one year (see Appendix 1 for details); and use of the R/V *Kilo Moana* as the support vessel platform for research activities. Originally proposed research analyzed in the October 2014 Environmental Assessment for Papahānaumokuākea Marine National Monument would continue to occur but is not analyzed within this document.

The research project would provide for a better understanding of the deep-sea biota within the Monument through collection and documentation of new records and new species and bathymetric habitat mapping. In addition this research would provide more insight into the impacts of trawling and the recovery potential for deep-sea coral and sponge bed communities. The research projects would utilize the AUV *Sentry* a maximum of 30 times (three dives would be conducted at 10 target sites) over the duration of one research cruise at 10 target locations, four of which are located within PMNM. Therefore 12 dives are planned to occur within the boundaries of PMNM. The AUV *Sentry* is the best available means to collect, survey, and map in deep water areas of the Monument. Thus, AUV operations play an integral role in supporting these projects which would benefit the management and subsequent resource protection of the Monument. The AUV *Sentry* is operated by well trained personnel who have knowledge of how to avoid impacts to the resources of the Monument. Therefore, there are no significant impacts expected from the operations of this AUV.

The R/V *Kilo Moana* is the transport research vessel that would carry all crew, and the AUV into the Monument. The R/V *Kilo Moana* would serve as the support vessel, field research laboratory and provide accommodations to all the researchers and respective crew for the duration of the cruise. Vessel anchoring has the potential to impact the ecosystem depending on many factors, such as the size of the ship and anchor system, weather conditions, and the location and vicinity of the anchorage relative to sensitive ecosystems. The R/V *Kilo Moana* would not drop anchor within the PMNM except in emergency situations. Even in emergency situations, efforts would be made to drop anchor in specially designated areas.

The R/V *Kilo Moana* would have completed all required inspections prior to departure for the Monument. These inspections include: hull, ballast water, tender and gear inspections, and rat

inspections. The R/V *Kilo Moana* would have its hull spot-cleaned to eliminate any invasive species, prior to departure for the Monument. The R/V *Kilo Moana* also has an approved Marine Sanitation Device (MSD) capable of treating black water, reusing treated effluent for toilet operations, and a holding tank for gray water. The R/V *Kilo Moana* would abide by all Monument discharge regulations and policies for all vessel discharge including treated MSD effluent and biodegradable solid waste associated with galley use. As a result of these precautionary measures, no significant adverse impacts are expected from vessel operations associated with this research

In summary, the Proposed Action will not result in a significant effect to the environment. Monument managers will benefit from increased knowledge (gained by the undertaking of the aforementioned research projects) about the deep water regions of the Monument; however, the benefits are not considered significant under NEPA.

2. Can the proposed action reasonably be expected to significantly affect public health or safety?

No negative impacts to public health or safety are associated with these activities, as the public will not be in the area of the activity. In addition, use of the R/V *Kilo Moana* would involve actions in which the vessels and their respective crew are routinely engaged with the inherent challenges involved (weather, deployment and retrieval of AUV, CTDs, and a current meter and data logger, etc.). The R/V *Kilo Moana's* captain and crew would follow all prescribed University of Hawaii protocols and procedures when necessary to the health and safety of all crewmembers and passengers onboard the vessel.

3. Can the proposed action reasonably be expected to result in significant impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

The PMNM contains one of the healthiest coral reef ecosystems in the world. However, the proposed action is to be conducted well away from coral reef habitats; the proposed activities would be conducted in deep water (200-700 m), outside of the NWHI Hawai‘i State Marine Refuge. The AUV would not land on or touch the seafloor and would, to the maximum extent possible, drop all ballast in areas of sandy substrate and away from sensitive areas known to contain deep-sea coral colonies. The lander would be deployed, to the extent possible, on a sandy bottom so as not to disturb coral reef habitat. The R/V *Kilo Moana* would anchor only in emergency situations away from sensitive locations and would comply with all Monument discharge regulations and policies.

4. Are the proposed action's effects on the quality of the human environment likely to be highly controversial?

None of the effects on the quality of the human environment are controversial. AUV and vessel operations have been ongoing in the NWHI and in other locations with no controversy or adverse impacts on the environment. The environmental assessment initially prepared for this research was posted on the Monument website (http://papahanaumokuakea.gov/) for public comment for fifteen days starting on October 7, 2014. No comments were received.

5. Are the proposed action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The procedures, methods, and mitigation measures that are used in the existing research are accepted standard operating procedures in the scientific community and proven to be effective with minimal adverse impact to wildlife or individuals. Therefore, the effects of this action have a low degree of uncertainty or unknown risk.

6. Can the proposed action reasonably be expected to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

Research, conservation and management activities similar to the ones described in this proposed action are ongoing in the PMNM. This action does not constitute a new precedent in any way. In addition, all Monument permit applications are evaluated on a case-by-case basis and all environmental considerations are taken into account at the time of each evaluation. Issuance of a Monument permit in no way constitutes a decision in principle about a future consideration.

7. Is the proposed action related to other actions that when considered together will have individually insignificant but cumulatively significant impacts?

The proposed research activities, when considered together with other actions, will not have individually insignificant but cumulatively significant impacts. All other vessels entering the PMNM require a permit and as a condition of such permit would be required to adhere to Monument regulations and policies. Therefore, no significant adverse cumulative impact is anticipated.

8. Can the proposed action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?

The proposed action will not adversely affect areas listed in or eligible for listing in the National Register of Historic Places, or cause loss or destruction of significant scientific, cultural or historic places. Implementation of the proposed action will have no effect on archaeological, social, or cultural resources, as all research will be conducted in the deeper ocean where few, if any shipwrecks or downed planes would be found or affected.

9. Can the proposed action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?

On August 18, 2015, PMNM initiated an informal consultation with NMFS Pacific Islands Regional Office (PIRO) on the proposed action – procedures which included operation of R/V *Kilo Moana*, expansion of target depth ranges to 200 – 700 m and addition of surveys in federal waters around Mokumanamana within the expanded depth range, and deployment of a lander for a period of one year. In the analysis, NMFS PIRO concurred with the determination by ONMS PMNM that the proposed action may affect, but is not likely to adversely affect ESA-listed marine species or designated critical habitat. NMFS' concurrence was received on August 27, 2015 and was 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).

Although six species of cetaceans listed under the Endangered Species Act (ESA) are in the Western Pacific Ocean, no reported or observed adverse interactions with the R/V *Kilo Moana* or AUV *Sentry* have been observed or reported in the past and no future adverse interactions are anticipated. Therefore, no impact to listed species of cetaceans is expected. The same is expected for the remaining seventeen species protected under the Marine Mammal Protection Act. All research, conservation and management activities and vessel operations would temporarily cease, should the researchers encounter any endangered species, including the Hawaiian monk seal.

10. Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?

The proposed action does not threaten a violation of federal, state, or local law requirements imposed for the protection of the environment. The captain of the R/V *Kilo Moana* and FSU researchers and affiliates would operate with all necessary and required permits and approvals from Federal, state, and local agencies.

11. Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

Mitigation measures to prevent the spread of invasive species to the PMNM, including marine algae *Hypnea musciformis* as recommended by Dr. Isabella Abbott of the University of Hawai‘i Department Of Botany, will be continually implemented, making it unlikely that any invasive species would be introduced into the Monument. These measures include hull inspection and cleaning of the R/V *Kilo Moana*, disinfection of all scientific collecting equipment, and wipe down of all the subs with Simple Green™ after each dive.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Supplemental Environmental Assessment prepared for the Proposed Action, it is hereby determined that the Proposed Action will not significantly impact the quality of the human environment as described above and in the supporting Supplemental Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an environmental impact statement for this action is not necessary.

9/15/2015

John Armor
Acting Director
Office of National Marine Sanctuaries
National Oceanic and Atmospheric Administration

Date