Pacific Air Forces Regional Support Center
Natural Resource Program
WAKE ATOLL FISHERY SURVEYS
Wake Island Airfield
CESU 17-29

In accordance with Federal Acquisition Regulation (FAR) 7.503(e), projects for execution under this Cooperative Agreement (CA) by the U.S. Army Corps of Engineers (USACE) do not include any functions to be performed that are inherently governmental. This determination is made with the assessment that places emphasis on the degree to which conditions and facts restrict the discretionary authority, decision-making responsibility, or accountability of Government officials using Non-Federal Entity (NFE) services or work products.

In accordance with FAR 37.104, this CA shall not be used for performance of personal services. These tasks provided by the customer for execution under this CA by USACE do not include functions to be performed that are personal services.

Any modifications to Cooperative Agreement activities as outlined by this SOW must be channeled through the Grants Officer's Technical Representative (GOTR) and Grants Officer (GO) prior to NFE implementation.

NFE personnel shall also wear a distinctive NFE furnished security (ID) badge/lanyard readily identifying the individual as a NFE employee. The badge shall be worn in a conspicuous place at all times when performing work under the Cooperative Agreement including attendance at Government meetings and conferences that take place outside of the Government facility.

NFE personnel shall identify themselves as an NFE employee when answering or placing calls on a Government telephone and when leaving outgoing or incoming messages on voice mail. Use of acronyms in this identification is insufficient to meet this requirement.

All NFE email signatures shall identify them as such and will include their employer's name.

PERIOD OF PERFORMANCE: 18-months from date of award.

GOVERNMENT POCS:

1. USACE Omaha District POC: Ms. Sarah Miller PM, (402) 995-2625, sarah.miller@usace.army.mil
2. USACE Omaha District POC: Ms. Kali Evans, GOTR, (402) 995-2295, kali.l.evans@usace.army.mil
3. USACE Omaha District POC: Ms. Stephanie Rostermundt, Grants Officer, (402) 995-2083, stephanie.a.rostermundt@usace.army.mil

This scope of work addresses the following projects:

PROJECT NUMBER	TITLE	LOCATION
YGFZOS173456	WAKE ATOLL FISHERY SURVEYS	Wake Island Airfield (WIA)

1.0 Introduction

This SOW describes multiple deliverables and associated fishery survey tasks that will be created and conducted by the NFE. The field surveys shall be broken out over the course of two (2) weeks periods at WIA. The primary focus of surveys is to develop a baseline dataset for commonly caught target and non-target species fish which shall allow the 611 CES and its partnering agencies to monitor the impacts of recreational fishing on these selected stocks in future years. Target species is the term used to reference the subset of species the current island residents enjoy seeking for sport or consumption, while non target species are those species incidentally caught while seeking the targets. The NFE's target species assessment shall focus on the following species bonefish (*Albula* sp.), bluefin trevally (*Caranx melampgygus),* goatfish species (*Mullidae* sp.), and commonly eaten snapper species (*Lutjanidae* sp.). The non target species selected by the NFE to evaluate during this project shall include wrasse and parrotfish species, with an emphasis placed on humphead wrasse (*Cheilinus undulatus*), bumphead parrotfish (*Bolbometopon muricatum*); other species to include for evaluations shall be deemed as valuable representatives of other feeding guilds and selected by the NFE. The NFE's final proposed selection of target and non target species to evaluate shall be depicted within their work plan for USAF approval.

2.0 Objective

This SOW details the tasks which shall be implemented and accomplished during this period of performance. The NFE shall utilize funds from the USAF's Military Interdepartmental Purchase Request (MIPR) to execute a two week long investigation aimed at creating a baseline dataset which can be used in the future to understand if commonly encountered fish stocks, which are pursued by recreational fishers on the atoll, are impacted by recreational fishing or are not impacted by such human use. In 2017, the tripartite approved the Integrated Natural Resources Management Plan (INRMP) for Wake Atoll (and Kokee and Mt Kaala installations as well) and it serves as the installation planning guide for project implementation. Within this approved planning document the PRSC lists this project and its tasks under Objective FWM-4 (Employ a systematic approach to managing wildlife resources, using a process that includes inventory, monitoring, modeling, management and assessment) and Objective OR-2 (Implement a fishing permit system to track fishing pressure on Wake Atoll).

3.0 Tasks

In order to develop an understanding of how recreational fishing impacts commonly harvested stocks, the NFE will develop baseline data sets which will establish a starting point for future comparisons, when surveys are repeated. This project shall focus on both target and "non target" species or those species which may be caught when targeting the species identified within the 2017 INRMP. Prior to implementing work, the NFE shall obtain all permits required by the US Department of the Interior, Fish and Wildlife Service (USFWS), US Department of Commerce, Customs and Border Patrol (CBP), as well as the United States Coast Guard (USCG) in order to conduct these field activities and surveys at WIA and the waters surrounding the atoll.

3.1 Task 1: Fisheries Survey Work Plan

The NFE shall develop a draft work plan within 60 days of the project award and prior to the deployment of field staff. The work plan will detail the methods used to collect each species identified within this SOW. Methods of collection shall be selected based on successful applications of collection in other tropical environments. The NFE is not limited by the SOW to any specific survey methods. This usage of a method or survey style used prior in similar instances, would garner confidence that the methods are not experimental, but rather based on success elsewhere, and for the same management goals or similar (tracking fish populations). If collection methods are used, they may include net, hook and line, traps, acoustic recorders, etc; a bias towards non-lethal capture methods shall be deployed if possible for each species. Historical data and reports from similar atolls documented in peer reviewed literature shall be referenced in order to validate methods and analysis chose for the project. A gantt chart depicting timing of project tasks and deliverable submission dates shall be portrayed within the work plan. All project team members, inclusive of logistic support and sub-NFEs shall be depicted within the work plan, alongside their respective role. The full names of each project participant shall be included. The NFE shall submit the draft and final versions of this sampling plan for approval to the 611 CES prior to deployment of field personnel. The NFE shall submit the work plan to the 611 CES within 90 calendar days of the project award. The 611 CES, will have 28 days to review and provide comments on the Draft Work Plan. These comments will be provided to the NFE in a comment matrix, which the NFE will respond to in the comment matrix and submit back to the 611 CES with the Final Work Plan. The 611 CES, Natural Resources Team will host a project kick off meeting to further discuss expectations, schedules, and deliverables. The draft work plan shall be defined as "Deliverable A", while the final work plan and associated populated comment matrix, deemed "Deliverable A1, and A2" respectively.

3.2 Task 2: Fish Surveys

The NFE shall collect the fish species identified in Section 1.0 in addition to the host of non target species NFE establishes within their work plan and deems representative of other feeding guilds. Methods used to accomplish this task shall be in accordance with the approved work plan.

A coast guard certified captain shall be required for outer reef sampling, along with one committed deckhand. The captain and deckhand shall have prior experience operating fishing vessels in the pelagic waters. The captain and deckhand shall complete safety briefings every

morning in order to acquaint the team with safety measures and emergency operations in the event of a potential accident.

The NFE shall be responsible for procuring supplies and getting them to WIA. The NFE is responsible to obtain rental vehicles, vehicle fuel, hotel, boat fuel, meals, flights, shipping, logistics support, and on island freezer usage. It is recommended that NFE utilizes a sub-NFE for on island transportation, vessel rental, tank fills, and shore-side labor if the NFE lacks such team members and logistical expertise. The government currently does not have a government owned vessel on WIA to support this project. The NFE shall arrange its own vessel support on its own or through a 2nd party if they lack logistical support and need it for data collection of species mentioned. The government does not mandate that vessels be used for this project, but NFE's are allowed to include such tool in their proposal and methodology. Please contact the GOV POC listed on Grants.gov for WIA POCs. The survey methods shall ensure that future biological surveys can compare data amongst years, thus replication and objectivity are important themes for the methods to encompass. A detailed description of the methods used to capture fish, index or census their population, and evaluate the health of the species communities shall be documented in a draft and final project report. The methods and analysis of choice, shall afford the 611th the ability to compare future years data against the data collected under this effort. The data generated from this effort shall be used to evaluate whether a non target group is experiencing a population decline or other form of impact due to fishing or other stressor. This theme should be considered during the development of each stage of the project so as to ensure the data streams can persist through the years.

All field survey work shall be accomplished during a 14 day stay on island. This time limitation shall be considered when evaluating how many species can be surveyed and the spatial distribution of sampling sites across the atoll's waters.

3.3 Task 3: Outreach and Education

While on island, the NFE shall schedule an all hands outreach event with the Islands community. Prior to arriving on the island, the NFE shall coordinate a date and time for such event with the islands Commander and (Base Operations Support) BOS contractor site manager. The NFE shall identify the date of the outreach event within their draft work plan schedule. The outreach event shall be catered towards those who intend to fish while living on the atoll, with an emphasis on reef and lagoon fishing practices. Mandatory attendance during weekends is not something the government can enforce the BOS contractor to perform, thus the NFE shall utilize voluntary language in all advertisements for this event and ensure the event falls on a non-work day for CFSI staff. The outreach event shall instruct attendees to perform the following: careful release, fish identification, safe hook removal, measuring techniques, how to populate the PRSC's recreational fishing survey forms, and a review of common scientific fish terms which appear on the creel survey forms. Prior to completion of the outreach event, the NFE shall log the names of all participants and depict such name attendance sheet within the draft project report. Pictures shall be taken by the NFE during the outreach event, in order to photo-document the event. Presentation material utilized during the event and the efficacy of such training shall be discussed within the Draft Project Report. In support of the outreach event, the NFE shall procure and disperse the following materials to those who attend the volunteer outreach event:

hats, long sleeve wicker UV shirts, and letters of educational certification recording their attendance. An estimate of approximately 75 attendees is appropriate for this event. A draft outreach event program depicting the outreach events composition, materials to be presented, instructors, and complete schedule shall be submitted alongside the draft work plan within 90 calendar days of award. The draft outreach event program shall be defined as "Deliverable B", while the final outreach event program and associated populated comment matrix, deemed "Deliverable B1, and B2" respectively. The 611 CES, will have 28 days to review and provide comments on the draft outreach event outline. The NFE shall submit a final outreach event program to the 611 CES within 14 calendar days of receiving comments from the government along with a populated and completed comment response matrix addressing each government comment.

3.4 Task 4: Kiosk

The INRMP signed in 2017 by the tripartite body (USFWS, USAF, State of Hawaii), possess an Operating Guidance document that details fishing restrictions within monument waters off the atoll. This guidance document was shaped during NOAA-USFWS-State of Hawaii INRMP review periods and a parallel public commenting period. The 13 April 2017 "Wake Island Operating Guidance" has been approved by PRSC leadership in 2017 and requires all fishers to submit completed Fishing logs prior to departing the island or on a 2 week interval, whichever comes first. The NFE shall develop an education kiosk that shall serve as a pick up and drop off point for fishers populated log sheets. The Kiosk materials shall be presented in Thai and English and all materials depicted in the kiosk shall cater to both languages. The NFE shall ensure that the INRMP's 13 April 2017 Wake Island Operating Guidance document is available at the kiosk and is presented in both Thai and English. The NFE shall translate the fishing log currently within the approved 2017 INRMP and ensure that at least 300 blank log forms in English and 300 blank log forms in Thai are left within the kiosk prior to departing the island. A drop box shall be a component of the kiosk. The NFE shall incorporate a video or computer screen and looping visual presentation into the Kiosk, but ensure that such presentations is presented in both Thai and English. The kiosk video content shall focus on applicable laws affecting the fishing program, the 13 April 2017 INRMP Fishing Guidance document and associated log sheet, and photos of commonly encountered species. The NFE shall submit a draft Kiosk plan and design drawing within 90 calendar days of award. The 611 CES, will have 28 days to review and provide comments on the draft submittal. The NFE shall submit a Final Kiosk plan and design drawings to the 611 CES within 14 calendar days of receiving comments from the government along with a populated and completed comment response matrix addressing each government comment. The draft kiosk plan and drawings shall be defined as "Deliverable C", while the final kiosk plan with design drawings and the separate populated comment matrix shall be defined as "Deliverable C1 and C2". The draft and final video footage intended for usage at the kiosk shall be submitted on DVD to the government using the schedule in Section 6 of this SOW for draft and final report submission timelines. The draft video footage shall be defined as "Deliverable D", while the final video footage and populated comment matrix defined as "Deliverable D1 and D2", respectively.

3.5 Task 5: Draft Project Report

All information gathered shall be analyzed to provide a quantitative assessment of the population status and condition of fish species. The NFE shall also integrate comparisons to other tropical locations so as to give the reader an understanding as to how the data collected at WIA does or does not differ from data collected elsewhere on similar species or the same species. The draft reports shall utilize the Journal of Wildlife Management format for article submissions. An Executive Summary shall also be created and submitted as part of the draft and final report. Recommendations for future teams who will sample fish populations in future years shall be included in the draft report. GIS generated maps shall be included in the report depicting locations of sampling.

Level of effort shall be quantified using time (hours) so as to give the reader an understanding of what level of effort yielding the sample sizes depicted in the report. The methods section of the draft report shall grant a reader the ability to track how the biologists collected their data in an unbiased fashion.

The NFE shall submit a draft project report no later than 14 months after the award date. The installation shall be granted 14 calendar days to provide the NFE with comments on their respective draft project report. The draft project report shall be deemed "Deliverable E".

3.6 Task 6: Final Project Report

The NFE shall address the 611 CES comments and alter their project report within 14 calendar days of receipt of 611th CES comment and return a final project Report to the 611th CES, alongside a response to comment matrix displaying how each comment was addressed in the Final Project Report. The Project Report shall be defined as final, once accepted by the 611th CES. The final report shall be deemed "Deliverable E1", while the populated comment matrix deemed "Deliverable E2".

4.0 Supplies and Materials

All supplies and materials required to complete the tasks associated with this SOW must be purchased by the NFE. Shipping of any materials necessary for the project shall be done so at the cost of the NFE and will be done via barge or air cargo movements to Wake Island. The airlift CIC that will be obtained by the NFE will be utilized for air cargo shipping payments. The NFE shall coordinate with the WIA POC regarding logistics for shipping materials to Wake Island. Lodging and meal expenses are depicted on DoD's public websites accessible to NFEs - The Defense Travel Management Office website is located at www.defensetravel.dod.mil. The on-site sub-NFE is not permitted to charge above the max rates for hotel or billeting or meals.

Vehicle and vessel rentals on WIA if available are done through Base Operating Support (BOS) contractor, the government does not control these prices. The NFE is welcome to reach out to the BOS contractor for pricing information, which is what others have done in the past for similar projects. If this information cannot be obtained before the submission date, the NFE should make fair market value cost assumptions for proposal purposes.

5.0 Logistics

The 611 CES, Project Manager will support the NFE in securing approval to WIA provided that the NFE and all NFE staff have appropriate identification and documentation (i.e. government issued identification). All persons wishing to be granted access to Wake Island will obtain Entry Authorizations and Orders from the 611 CES. The NFE is responsible for filling out forms issued to them by the 611 CES Project Manager. All visitors to WIA shall fill out personal medical information forms to be housed by the contracted doctor or paramedic who serves as the islands medical support lead. A sub-NFE may be used for base access when traveling from the Air Mobility Terminal on Joint Base Pearl Harbor Hickam to Wake Atoll, as well as other logistical needs such as equipment staging, shipping, and vehicle rental when on island. There is a chartered rotator flight to WIA every 14-15 days to/from Joint Base Pearl Harbor Hickam. The Travel Management Office on Hickam can provide an estimated flight cost at 808-449-9973 or 808-449-6833 ; or via email to: HCKM.TMO@NAVY.MIL.

The 611 CES Project manager shall populate letter of introduction (LOI) for each NFE team member depicted on the Work plan roster.

6.0 Deliverables

Deliverable Title	Submission Schedule
-Draft Work Plan (deliverable A) **-Final Work Plan (deliverable A1)** **-Response to Comment Matrix (deliverable A2)**	**Deliverable A: Within 90 calendar days of Task Order award** **Deliverables A1, A2: Within 14 calendar days of receiving comments from the government**
- Draft Outreach Event Program (deliverable B) **- Final Outreach Event Program (deliverable B1)** **- Response to Comment Matrix (deliverable B2)**	**Deliverable B: Within 90 calendar days of Task Order award** **Deliverable B1, B2: Within 14 calendar days of receiving comments from the government**
- Draft Kiosk plan and design drawings (deliverable C) **- Final Kiosk plan and design drawings (deliverable C1)** **- Response to Comment Matrix (deliverable C2)**	**Deliverable C: Within 90 calendar days of Task Order award** **Deliverable C1, C2: Within 14 calendar days of receiving comments from the government**
- Draft Video Footage (deliverable D) **- Final Video Footage (deliverable D1)** **- Response to Comment Matrix (deliverable D2)**	**Deliverable D: No later than 14 months after the award date** **Deliverable D1, D2: Within 14 calendar days of receiving comments from the government**
- Draft Project Report (deliverable E) **- Final Project Report (deliverable E1)** **- Response to Comment Matrix (deliverable E2)**	**Deliverable E: No later than 14 months after award date** **Deliverables E1, E2: Within 14 calendar days of receiving comments from the government.**

7.0 Publications

All reports and data generated under this project are the property of the government and distribution by the NFE to any source, unless previously authorized by the 611th CES, is

prohibited. The NFE shall not make available to the news media or publicly disclose any data generated or reviewed under this project. When approached by the news media, the awardee shall refer them to the GO for response. Project reports and data generated under this project shall become the property of the government and distribution to any other source by the NFE is prohibited. In the event the NFE decides to publish findings which utilize field data from this project, the NFE agrees to share a draft version of the publication with the 611 CES project manager prior to submitting to a journal body. The 611th CES reserves the right to review the NFE's proposed publications and approve or deny publication of data collected subject to the provisions of the Freedom of Information Act (FOIA). As such all data produced as a result of project work is accessible to the public unless specifically exempted under FOIA due to personal privacy, national security, and/or law enforcement.