



Pacific Islands Maritime Security Workshop National Maritime Intelligence-Integration Office Workshop Report

03-05 November 2020



Members of the Federated States of Micronesia's Maritime Wing of the National Police aboard the Pacific Patrol Boat Class-vessel FSS Palikir during cooperative operations with the U.S. Navy. (Photo courtesy U.S. Navy)



The U.S. Director of National Intelligence, in cooperation with the Chief of Naval Operations and the Commandant of the Coast Guard, created the National Maritime Intelligence-Integration Office (NMIO) in 2009 to advance governmental collaboration and unity of effort as outlined in the 9/11 Commission Report, the Intelligence Reform and Terrorism Prevention Act of 2004, and the National Strategy for Maritime Security. NMIO facilitates information sharing and collaboration across the Global Maritime Community of Interest, which consist of U.S. federal, state, local, tribal, and territorial governments; maritime industry; academia; and our international partners.

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Table of Contents

Acknowledgments.....	iii
Executive Summary	1
Background and Methodology.....	3
Workshop Outline.....	5
Project Concepts Overview.....	7
Project Concept 1.....	9
Project Concept 2.....	11
Project Concept 3.....	13
Project Concept 4.....	15
Project Concept 5.....	17
Project Concept 6.....	20
Project Concept 7.....	22
Project Concept 8.....	24
Project Concept 9.....	26
Appendix A Participants List.....	29
Appendix B Abbreviations / Acronyms.....	32

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We also thank the Waitt Foundation for their generous support of the 2019 precursor workshop; the longstanding involvement of the U.S. Embassies to the Republic of Palau and the Federated States of Micronesia (FSM) for providing critical insights and helping coordinate participation from our partner nations; and last but not least, our many partners in Palau and FSM for vital contributions to frank discussions about their capabilities and concerns in pursuit of our shared objectives.

Executive Summary

From 03-05 November 2020, Pew Charitable Trusts hosted, via a virtual platform, the Pacific Islands Maritime Security Workshop with the support of the National Maritime Intelligence-Integration Office (NMIO). This workshop focused on developing implementable project concepts to address priority maritime challenges of the Republic of Palau and the Federated States of Micronesia (FSM). To build interest in project execution and promote follow-on commitments, workshop hosts and participants engaged in three days of facilitated collaboration with regional, maritime, and capabilities experts; followed by intensive peer review of working group concepts. The resulting nine project concepts are appended and listed below. They mitigate gaps in Palauan and Micronesian responses those nations identified as their most pressing maritime challenges—illegal, unreported, and unregulated (IUU) fishing; maritime trafficking; and non-cooperative marine scientific research (MSR) vessels.

Group	Challenge	Project Concept
FSM-Focused Project Concepts		
1	IUU Fishing	MDA Survey and Cost Benefit Analysis
2	IUU Fishing	FSM Counter-IUU Fishing Task Force
3	IUU Fishing	Forum Fisheries Agency Information Sharing
4	Trafficking	FSM Train the Trainer - Gaining Value Through Data Sharing
Palau-Focused Project Concepts		
5	IUU Fishing	Mapping Fishing Fleets in Palau's Waters
6	IUU Fishing	Maritime Information Sharing - Pacific Island Countries
7	MSR Vessels	Marine Scientific Research Vessel Listing in SeaVision
8	IUU Fishing	Unmanned Aerial Systems to Detect IUU Fishing and Aid Search and Rescue (SAR) Operations
Regional / Combined Project Concept		
9	IUU Fishing	Memorandum of Understanding (MOU) to Improve Inter-island Information Sharing to Combat IUU Fishing

These project concepts can also be categorized by the approach they take towards mitigating the identified gap or barrier.

Project Concepts by Recommended Mitigation Approach	
Information Sharing	
6, 9	Creating new regional information sharing constructs
3, 7	Enhancing existing regional information sharing
2	Improving internal, whole-of-government coordination
Investigating Beneficial Ownership	
4, 5	Building capabilities to identify the beneficial owners and networked relations
Developing MDA Tools and Capabilities	
1, 8	Exploring MDA tools and capabilities

The focus on mitigation through information sharing, investigations into beneficial ownership, and capabilities development primarily demonstrates the participants' interest in the type of ideas they wanted to refine into a project concept. However, this clustering also indicates the types of approaches experts think are viable and valuable in improving the partner nations' abilities to respond to their

priority maritime challenges. Notably, in a survey conducted after the final presentations of the project concepts, workshop participants scored concepts focused on enhancing information sharing (project concepts 6, 7 and 9) as those with the greatest chance of success (see full poll in Project Concepts Overview section).

From the outset, the goal of this endeavor has been to catalyze meaningful outcomes for partners through the mitigation of gaps in what they determined were their priority maritime challenges, rather than simply develop ideas. In the weeks following the workshop, participants formed new project concept teams to continue the work of refining the concepts and identifying potential sponsors and implementers. NMIO will assist these project groups in their transition, facilitating conversations with stakeholders to determine those with the greatest chance of success based on partner buy-in, as well as opportunities to integrate with or bolster existing initiatives.

To view the current state of the project concepts and connect with a project concept team point of contact about potential support, feedback, or to join the team, visit
<https://nmio.ise.gov/Media-Publications/NMIO-Reports/>

Background

On behalf of the U.S. Maritime Domain Awareness (MDA) Executive Steering Committee (ESC) and Director of National Intelligence, NMIO regularly brings together a broad range of governmental and non-governmental stakeholders to work with partner nations to mitigate their maritime challenges through improved information-sharing and MDA. This workshop was rooted in the pledge made by NMIO and the Waitt Foundation at the 2018 Our Ocean Conference to leverage the shared interests of the marine conservation and maritime security communities to tackle common challenges through a coalition of committed stakeholders. Both governmental and non-governmental partners recognize the need for collaboration and that key resources and expertise for taking on mutual challenges do not reside in one sector alone.

From 03-05 November 2020, the Pew Charitable Trusts hosted the virtual Pacific Islands Maritime Security Workshop with the support of NMIO. This event built on the outcomes of a previous workshop held in September 2019¹ as part of an ongoing project to address the priority maritime challenges of the Republic of Palau and FSM by using Design Thinking methodology to understand and define the problems, generate potential solutions, and iteratively test the concepts through multiple rounds of critique and feedback.



Project Overview and Design Thinking steps

Sponsored by NMIO and the Blue Prosperity Coalition, the 2019 workshop in Auckland gathered representatives of the partner nations, as well as various other maritime security and marine conservation experts from the region, to identify gaps in the abilities of Palau and FSM to effectively tackle their self-identified priority maritime challenges—IUU fishing, maritime trafficking, and non-cooperative marine scientific research vessels. The workshop also generated ideas to mitigate these challenges, which were recorded in a Mitigation Idea Matrix and subsequently refined through engagement with the partner nations and maritime experts. The goal of the 2020 workshop was to further refine the mitigation ideas through iterative rounds of testing and feedback, turning them into implementable projects, and to draw in experts to support their execution through follow-on commitments.

¹ Workshop report available at <https://nmio.ise.gov/Media-Publications/NMIO-Reports/>

Participants for the second workshop’s live and “overnight” sessions—detailed in Appendix 2—included officials from Palau and FSM; U.S. personnel in-country at the Embassies and advisory staff; U.S. Government officials from a broad array of departments and agencies; various partner nations; and Non-governmental Organizations’ (NGO) maritime security, marine conservation, and regional experts.

Workshop Outline

In advance of the workshop, organizers asked participants to choose from the Mitigation Idea Matrix those ideas they wanted to work on. From this selection, participants were placed into small groups of 4-6 individuals, assigning each group a facilitator.

On the first day of the workshop, after introductory remarks, facilitators divided participants into their small groups and began by reviewing the mitigation idea they had chosen and gap it was meant to address, taking time to address any clarifying questions or suggestions for modifying the idea. After the group reached consensus on the concept for development, the groups used a project concept poster framework to develop a draft of the project concept. To close the day, each group presented its draft project concept poster to the workshop in plenary session while participants were encouraged to provide feedback and ask questions.

Following the conclusion of the first day's proceedings, the organizers uploaded the project concept posters to Pew's website and, as part of the attempts to mitigate the challenges posed by COVID-19 travel restrictions, invited those unable to join the live sessions to provide "overnight" feedback. Organizers specifically worked with the U.S. Embassies in FSM and Palau to connect to key partner nation stakeholders to provide ground truth perspectives on the feasibility and receptiveness to the proposed projects. The organizers then shared this overnight feedback with the small group facilitators in advance of the second day's sessions.

Facilitators began the second day of the workshop by reviewing the feedback from the prior day and overnight respondents. The groups then updated their project concepts before facilitators rotated their group's idea among other groups to present the revised concepts and garner additional feedback. Using this additional feedback, groups revised their concepts once more. The second day concluded with abbreviated group presentations to a plenary session and further feedback. Similar to the first day, organizers invited those unable to join the live sessions to provide overnight feedback on the updated project concept posters online.

On the last day of the workshop, the small groups conducted a final refinement of their project concepts using workshop participant feedback. As each group presented their updated project concepts, the audience asked questions and provided a final round of feedback.

Following the closing presentations, we polled participants asking for their views as to which of the presented project concepts has the greatest chance of success for implementation and gap mitigation within FSM and Palau, the results of which are found in the following section.

Additionally, we asked participants to choose at least one project concept they would like to stay engaged with in some capacity. In the weeks following the workshop, participants formed new project concept teams to continue the work of refining the concepts and identifying potential sponsors and implementers. NMIO will assist these project groups in their transition, facilitating conversations with

stakeholders to determine those with the greatest chance of success based on partner buy-in, as well as opportunities to integrate with or bolster existing initiatives.

From the outset, the goal of this endeavor has been to catalyze meaningful outcomes for partners through the mitigation of gaps in what they determined were their priority maritime challenges, rather than simply develop ideas. The impact of these collaborations and discussions has already led to high-level interest among a broad range of participants in supporting enhancements to our partners' MDA capabilities.

Project Concepts Overview

The project concepts produced by this workshop are appended and listed below.

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1	IUU Fishing	MDA Survey and Cost Benefit Analysis
2	IUU Fishing	FSM Counter-IUU Fishing Task Force
3	IUU Fishing	Forum Fisheries Agency Information Sharing
4	Trafficking	FSM Train the Trainer - Gaining Value Through Data Sharing
Palau-Focused Project Concepts		
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Regional / Combined Project Concept		
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These project concepts can also be categorized by the approach they take towards mitigating the identified gap or barrier.

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The focus on mitigating gaps through information-sharing, investigations into beneficial ownership, and capabilities development primarily demonstrates the participants' interest in the type of mitigation ideas they wanted to refine into a project concept. However, this clustering also indicates the types of approaches experts think are viable and valuable in improving the partner nations' abilities to respond to their priority maritime challenges.

On the final day of the workshop, participants voted as to which of the project concepts had the greatest chance of success for implementation and gap mitigation. The following numbers reflect the outcome of that vote. Notably, project concepts 6, 7 and 9 scored highest.

1. Which FSM project concept do you think has the greatest chance of success?

Group 1: MDA Cost Survey and Cost Benefit Analysis	12%
Group 2: FSM Counter-IUU Fishing Task Force	14%
Group 3: Forum Fisheries Agency (FFA) Information Sharing	7%
Group 4: FSM Train the Trainer - Gaining Value through Data Sharing	12%
Group 9: MOU to Improve Inter-island Information Sharing to Combat IUU Fishing	33%

2. Which Palau project concept do you think has the greatest chance of success?

Group 5: Mapping Fishing Fleets in Palau's Waters	12%
Group 6: Maritime Information Sharing - Pacific Island Countries	17%
Group 7: Marine Scientific Research Vessel Listing in SeaVision	24%
Group 8: Unmanned Aerial Systems to Detect IUU Fishing and Aid SAR Operations	10%
Group 9: MOU to Improve Inter-island Information Sharing to Combat IUU Fishing	12%

The format of the following project concept posters is standardized to allow for easier comparison. These posters, which remain works in progress, are a snapshot in the process of moving the mitigation ideas closer to viable project concepts that realistically address validated gaps and barriers. As you review these concepts, we invite you to consider supporting the initiative by connecting with a project concept team to find out the status of implementation, areas that require support, or simply to provide feedback. All groups advocated for sustained engagement with key stakeholders and championed further verification of the gaps and underlying assumptions as crucial to each project's success. Especially important will be continuous insights and buy-in from the ultimate beneficiaries in FSM and Palau, and others working in country.

Other themes highlighted across the concepts include the importance of designing region-wide approaches to counter the challenges whenever possible, and integrating with or using existing processes and capabilities, such as the Forum Fisheries Agency (FFA), SeaVision MDA platform, and Australian Maritime Surveillance Advisors (MSA). Participants recognized the need to avoid overwhelming the absorptive capacities of FSM and Palau, which face personnel limitations relative to the number of external partners and projects they would like to pursue.

In addition to the project elements outlined by the concept posters, each group recorded key feedback they received as part of the iterative critique process, along with project concept modifications they made during the Workshop.

Each group also addressed the impact of COVID-19 on the ability to implement their project. In doing so, they described the elements of the project that could be accomplished under continued pandemic restrictions and impacts, including restricted travel to the region, and those that would likely need to await the easing of these conditions.

To view the current state of the project concepts and connect with a project point of contact about potential support, feedback, or to join the team, visit

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Group 1: Federated States of Micronesia – IUU Fishing

Maritime Domain Awareness (MDA) Survey and Cost Benefit Analysis

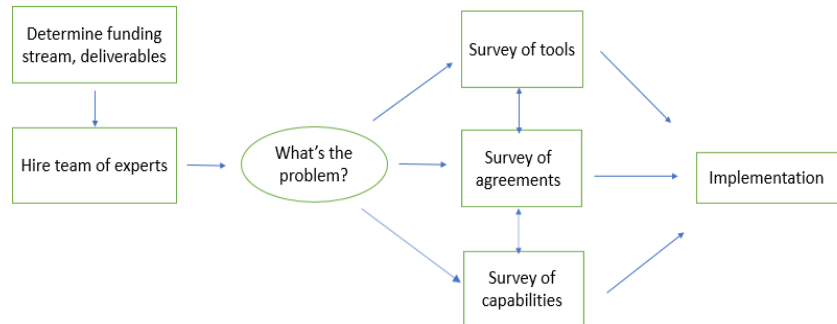
Key Stakeholders:

- Forum Fisheries Agency (FFA)
- Western Central Pacific Fisheries Commission (WCPFC)
- FSM Enforcement Agencies
- FSM National Oceanic Resource Management Authority (NORMA)
- FSM Port Authority
- FSM Transport & Communications Agency – Marine Division
- Enforcement Agencies in Neighboring Countries
- Quads / USCG
- INDOPACOM / COMPACFLT
- JIATF-W

Short Summary of the Concept

In order to enhance FSM's ability to monitor the high seas pockets (HSPs) for which FSM is assigned responsibility by the WCPFC, this project proposes the development of a survey and cost benefit analysis of different MDA technologies and information sharing mechanisms based on what is expected of FSM as a member of the WCPFC.

How Does it Work?



Features and Benefits:

- Access to new technologies
- Better MDA
- Will enhance Port State Measures Agreement information sharing
- Increased government revenue

Resources Required:

- Funding
- Personnel, Training, and Logistics
- Platforms Unmanned Aerial Vehicle (UAV), small maritime patrol aircraft)

Team Members:

- Greg Poling, CSIS
- Randy Bell, NAVWAR
- David Pearl, NOAA
- Tim White, Global Fishing Watch
- Cherie Prothro-Shea, The Waitt Foundation
- Gina Fiore, Pew Charitable Trusts

Project Timeline / Key Milestones:

- **Scoping (1-2 months):** Determine the problem set: what specific data is FSM looking for in the HSP – fishing vessels, reefers, transshipment, etc.
- **Planning (3-5 months):** In consultation with FSM, develop statement of work, explore whether previously done, determine funding source. Hire team of MDA experts.
- **Implementation 1 (6-12 months):** Third party experts conduct a survey of the current capabilities and responsibilities of each agency, including mapping existing sensor coverage. As part of survey, work with FSM to refine requirements (real time monitoring capability vs. pattern of life / historical data), assess capability and training needs of analysts, and consider equipment and capabilities of neighboring countries and regional bodies.
- **Implementation 2 (13-17 months)** The same team of experts surveys maritime information sharing agreements, including what FSM gets from partners / FFA, current regulatory restrictions on sharing, and the most efficient channels for information sharing.
- **Closeout:** Depending on whether funding exists for the CBA-recommended solution, this could be immediate or in the future.

How Do We Measure Success?

- Increased understanding of activities in the region, for example, increased number of correlated vessels in the area of interest; better information on vessel activity
- More coordination and information sharing between partners

How Might We Fail?

- Not having a way to properly use data
- Not having an enforcement mechanism for violators

Group 1: Federated States of Micronesia – IUU Fishing

Feedback / Project Concept Modifications

- Transshipment may be higher priority in high seas pockets (HSP) than fishing.
- We need to help them plan the next five years; help FSM prepare for technology that is coming out in addition to what already exists.
- Ensure that the detection / identification capabilities are able to feed enforcement or deterrence action (near-real time enough to allow for enforcement capabilities to arrive on scene or discriminating enough in identification to allow for action to occur later—in port, internationally, etc.). FSM may not have the organic capabilities for quick at-sea enforcement in the HSP, so a focus on the capabilities that can provide legally admissible evidence or enforceable action through the Port State Measures Agreement (PSMA) or other enforcement actions ashore / internationally should be more heavily weighted. However, FSM would need to become a party to the PSMA to take full advantage.
- One MDA tool freely available for FSM is the U.S. SeaVision platform. FSM has also recently received now has two Puma Unmanned Aircraft Systems (UAS) and is awaiting opportunity to conduct training; however, these have a limited range.

Explanations of COVID-19 Impacts

- This project could start as deskwork but would have to transition to in-person work quickly to develop relationships with the analysts and other agency employees. Would also need to be on the ground to map sensors and survey technology.

Initial Gap

- NORMA receives additional WCPFC vessel track data via FFA up to 100NM beyond FSM's Exclusive Economic Zone (EEZ) for the HSP for which FSM has assigned responsibility, but FSM does not have access to MDA data further into those pockets.

Group 2: Federated States of Micronesia – IUU Fishing

FSM Counter-IUU Fishing Task Force

Key Stakeholders:

- National Oceanic Resource (NORMA)
- Department of Justice
- Department of Foreign Affairs
- Maritime Rep from each State
- NGOs
- Western and Central Pacific Fisheries Commission (WCPFC)
- Compact of Free Association National Fisheries Corp.
- Department of Resource & Development
- Forum Fisheries Agency (FFA)
- Environment Climate Change & Emergency Management (DECEM)
- International Port Security Program (IPS)

Features and Benefits:

- Holistically apply best practices and lessons learned to counter IUU fishing
- Ensure balance of ecosystem & nations ability to keep their MPAs safe and secure, etc.
- Speak with one voice when coordinating with other nations

Resources Required:

- Funding to support overhead cost.
- Potential sources: U.S. through Compact support, but would need replacement if no renewal at expiration in 2023; possibly through fish access agreements.

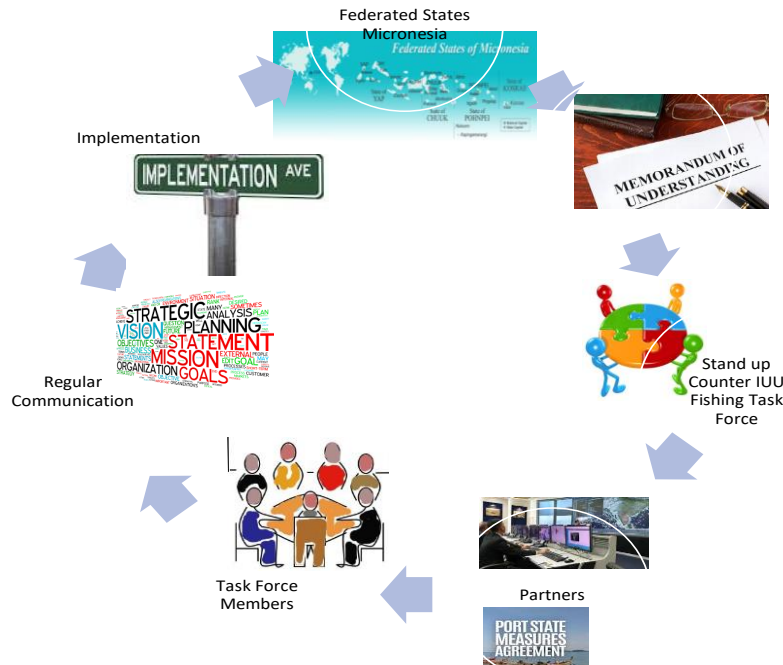
Team Members:

- Michelle Green, NMIO
- Susana Lee, USCG
- Sally Yozell, Stimson Center
- Rodger Garner, USAID
- Ute Zischka, Waitt Institute
- Lynn Pangelinan, U.S. Embassy

Short Summary of the Concept

To better coordinate counter-IUU fishing in the FSM EEZ among FSM jurisdictions and departments in a whole-of-government manner, this project proposes the creation of a nationally and state backed Counter-IUU Fishing Task Force. Coordination is especially difficult since the national constitution does not supersede the four state constitutions.

How Does it Work?



Project Timeline / Key Milestones:

- **Scoping** – Negotiate buy-in for MOU / Terms of Reference (TOR) / Non-Binding Agreement or Executive Order
- **Planning** – MOU signed to stand-up Counter-IUU Fishing Task Force

How Do We Measure Success?

- All four states and national government sign binding agreement to stand-up a Counter-IUU Fishing Task Force.
- Adoption of common maritime tracking systems and platform for coordinated patrols: all states patrol 12 NM out and national assets patrol 12 NM to EEZ line.
- Cost savings from common adoption or usage of monitoring, control, and surveillance technology.

How Might We Fail?

- Lack of whole-of-government buy-in, including across all four FSM states and jurisdictions
- Lack of resources if the Compacts of Free Association are not re-negotiated
- Unknown political will / receptivity
- Lack of government capacity

Group 2: Federated States of Micronesia – IUU Fishing

Feedback / Project Concept Modifications

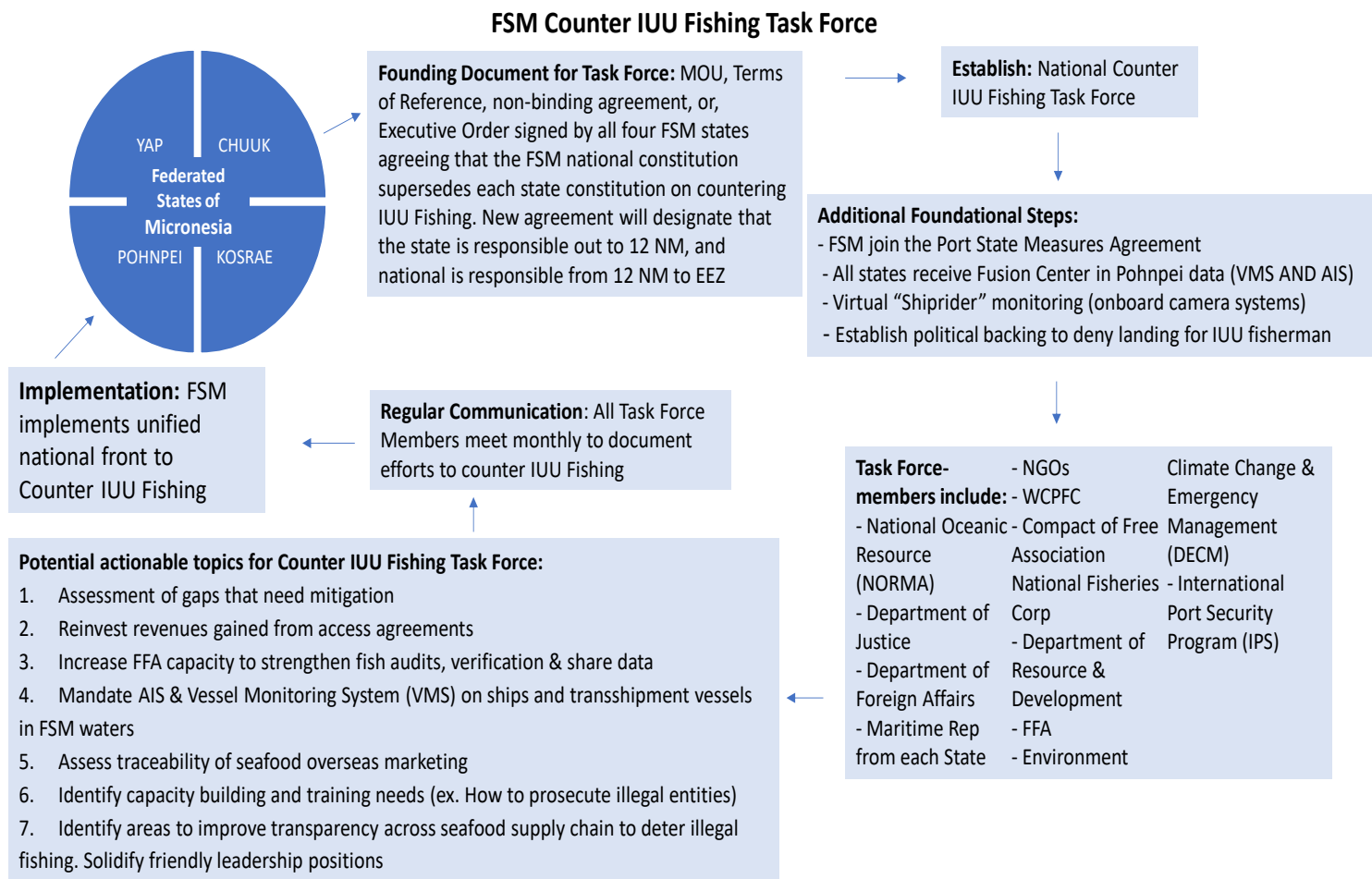
- Check the status of the FSM DOJ / NORMA working group to develop a revised set of protocols for enforcement and prosecution and determine how / if this task force can build off of that working group.

Explanations of COVID-19 Impacts

- Unable to meet in person.
- National priorities might be focused on COVID if outbreak occurs.

Initial Gap

- The FSM national constitution does not supersede state constitutions and coastal community sovereignty. Coordinating action among FSM jurisdictions and departments is challenging, and does not often occur in a whole-of-government manner.



Group 3: Federated States of Micronesia IUU Fishing

Forum Fisheries Agency Information Sharing

“More Data Fields Please”

Key Stakeholders:

- Forum Fisheries Agency (FFA) and all 17 Member Countries
- Western and Central Pacific Fisheries Commission (WCPFC)
- Pacific Quadrilateral Security Dialogue (QUADS)
- NGOs
- Vessel Tracking Entities
- University of California San Diego Scripps (UCSD Scripps)

Features and Benefits:

- Better targeting of potential violators – go after ships without a license to fish
- Law enforcement could compare VMS w/ logbooks
- Streamline targeting by all law enforcement entities in real-time

Resources Required:

- Funding
- Training and engagements
- Flexibility and patience
- Analytical capability
- Stakeholder buy-in
- Cooperation

Team Members:

- Rye Kim, USCG
- Kayla Nitzberg, U.S. ONI
- Take Tomson, NOAA
- Janelle Hangen, Pew

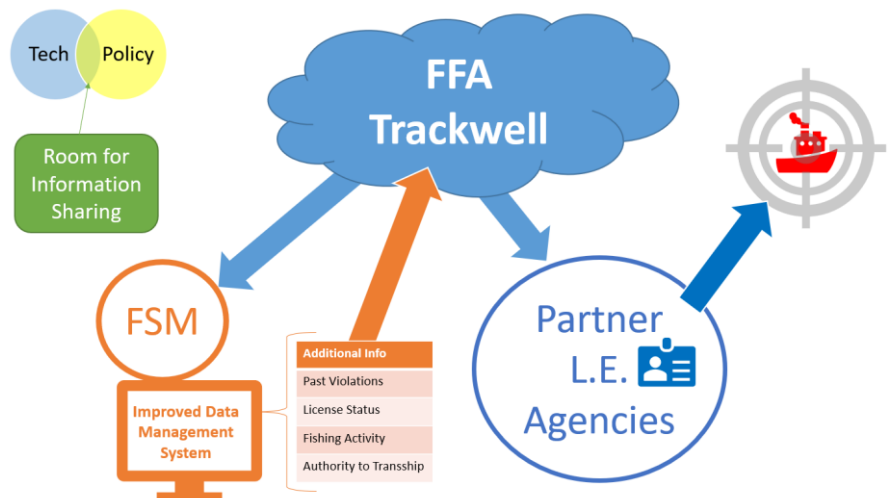
How Do We Measure Success?

- Whether additional VMS data points are being shared with enforcement and they can be more informed in real-time
- Whether targeting has been streamlined

Short Summary of the Concept

A lack of regional licenses and standard licensing practices limits mechanisms to share sovereign licensing data across FFA countries, Law Enforcement (LE) including FFA VMS, which does not provide information about vessel licensing status or activity to all stakeholders in real-time. This project will explore ways to encourage sharing of additional information (i.e., licensing status, fishing activity, authority or license to transship, past violations) and standardize member states' information management systems using FSM as a pilot project.

How Does it Work?



Project Timeline / Key Milestones:

- **Scoping:** Determine what is technologically possible with platforms already in use (what info is available, whether it is real-time). Scope with FFA to understand FFA VMS issue and why the information is not available, and with FSM fisheries by email / phone. (*Informed by scoping / barriers or challenges identified*)
 - **Planning:** Explore processing, exploiting, disseminating the data. Hold workshops with stakeholders, including topic-specific subgroups, if warranted.
 - **Implementation:** Draft MOU between FFA and Member countries on info that would be made available to stakeholders (e.g., partner law enforcement). Continue to fine tune concept.
- Note:** May want to start small with Palau instead?

How Might We Fail?

- FSM does not have, or is not able to share, the data (licensing, etc.) for the pilot
- Lag time is too long to makes data reliable
- Existing platforms are unable to handle the additional requirements

Feedback / Project Concept Modifications

- Illegal fishing by dark targets is not the issue, rather unreported and underreported fishing is. FFA data flag, state, vessel name, other info is not sent to FFA (e.g., licensing details), instead FFA has to communicate back to host nation country to find out about licensing.
- Developing an approach where this information is shared by default instead of by request would increase efficiency, but at the cost of sovereignty concerns that member states might not be willing to pay—they are very sensitive about the information they share.
- Proposing this would have to come from a member country at the FFA annual meeting, even getting on the calendar is tough.

Explanations of COVID-19 Impacts

- If key project milestones are delayed, the early emphasis post-scoping with development team will focus on relationship building with stakeholders.

Initial Gap

- Hard to determine if non-descript (i.e., non-blue boat) fishing boats are licensed. FFA VMS does not provide information about licensing status or the activity the vessel is engaged in. The lack of regional licenses and standard licensing practices limit mechanisms to share sovereign licensing data across FFA countries.

Group 4: Federated States of Micronesia – Maritime Trafficking

FSM Train the Trainer – Gaining Value Through Data Sharing

Key Stakeholders:

- FSM
- United States
- Australia
- Global Fishing Watch (GFW)
- NGOs
- INDOPACOM MDA Working Group
- Forum Fisheries Agency (FFA)

Features and Benefits:

- Provides analytic skills and data access
- Train the Trainer approach is self-sustaining
- Information exchange
- Identify trends and main threats

Resources Required:

- Funding to ensure program meets FSM's requirements for personnel training, program management, IT tools assets, and data access.
Potential sources: U.S. State Department, DoD Maritime Security Initiative, and Canada's Pacific Fisheries Intelligence Group possible sources
- Stakeholder buy-in
- Open source tools

Team Members:

- John Mittleman, U.S. NRL
- Everett Baxter, NOAA
- Anastasia Kirillas, INTERPOL
- Jacob Vcelik, NMIO

Short Summary of the Concept

In order to address FSM's challenge of determining beneficial owners / operators of maritime trafficking, this project proposes the development of a virtual "Train the Trainer" fellowship – tentatively designed and implemented by INTERPOL – geared towards building and propagating those skills and resources with FSM's maritime law enforcement stakeholders.

How Does it Work?

FSM Determining Beneficial Owners/Operators of Trafficking F2.3



Identify a current Task Unit that focuses on identifying resources to "Determine Beneficial Owners/Operators of Trafficking."



Identify virtual training solutions that promote information sharing best practices. Establish a "Train the Trainer" program. Trainers test their skill set within a lab framework. An iterative process promotes gaining insight from lessons learned.



Build information sharing capacity through Field Training Evaluation methodology.

Project Timeline / Key Milestones:

- **Scoping (2 months):** FSM is voted into INTERPOL. Obtain buy-in from FSM stakeholders and identify the FSM lead. Identify specific analytic needs / gaps and available FSM resources, including data access. Scope costs for training and any needed enduring resources.
- **Planning (3 months):** Work with FSM, INTERPOL, NGOs, and other partners to flesh out roadmap. Work with partners to source sponsorship of program.
- **Implementation (5 months):** Recruit candidates for first fellowship class. Hold first fellowship lab training, concurrently identify potential policy / procedure changes to support enhanced ability to perform analysis.
- **Close-out (3 months):** Trained FSM personnel conduct internal training, provide program feedback, and recommend whether additional fellowships needed.

How Do We Measure Success?

- Adequate number of trained personnel capable of conducting analysis and training others to same standards in a self-sustaining fashion.
- Model is copied by other regional partners.
- Program enhances regional information sharing and cooperation.

How Might We Fail?

- Delays in INTERPOL ascension.
- Funding gaps.
- Lack of institutional buy-in into or ownership of the training program.
- Difficulty in retaining trained trainers.
- Lack of access to the information required to perform the analysis.

Group 4: Federated States of Micronesia – Maritime Trafficking

Feedback / Project Concept Modifications

- FSM's Transnational Crime Unit could be a good place to build this skillset.
- Determine if pilot project should be managed by NGO.
- Identify potential groups FSM could join that provide funding and look at available case studies that address current FSM gaps.
- Without funding for database access, analysis based on open source only would be very basic.
- Analytic skillsets need to be included in human capital development plans to ensure continuity and retention.
- Examine opportunities to leverage SeaVision training.
- Center for Advanced Defense Studies (C4ADS) is working on a fisheries transparency tool, Triton, to provide beneficial ownership for fishing fleets online and planning a beta launch for later this year.

Explanations of COVID-19 Impacts

- Limited COVID-19 impact; an identified potential training gap includes face-to-face instruction. This may be mitigated by virtual training.

Initial Gap

- Determining beneficial owners / operators of trafficking.

Mapping Fishing Fleets in Palau's Waters

"Increasing Nation-State Accountability"

Key Stakeholders:

- Palau Government Agencies (Fisheries, Maritime Law Enforcement)
- Commercial fleets of Palau
- NGOs (C4ADS, Global Fishing Watch, Environmental Justice Fund, Green Peace, etc.)
- Journalists (Monga Bay, Undercurrent)
- Outlaw Ocean
- European Union

Features and Benefits:

- Increase transparency of activity in Palauan waters
- Focuses on modifying behavior
- Facilitates information sharing
- Calls out actors operating on non-market motives

Resources Required:

- Funding for project management
- Crew lists (track trend lines i.e., myship.com)
- Data from agencies and NGOs (i.e., Pacific Fusion Center; National Geographic)
- Publicly available information
- Stakeholder buy-in
- Enhanced bilateral / multilateral arrangements (i.e., MOUs)
- Operational resources and capacity building (Analyst / Enforcement Training)
- Translation / Interpretation platforms

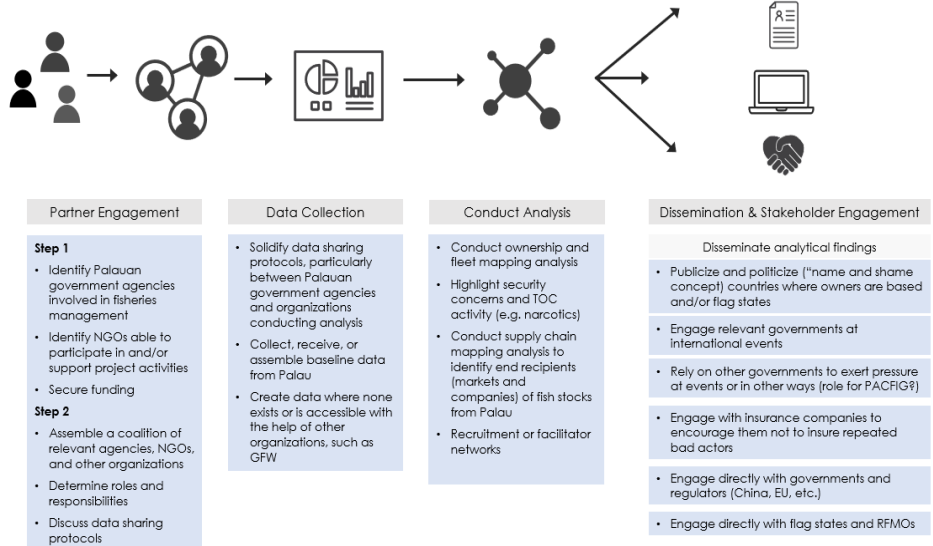
Team Members:

- Malak Hreiche, Canadian Department of Fisheries and Oceans
- Jay Benson, One Earth Future
- Mary Utermohlen, C4ADS
- Charles Lundy, FBI
- Katheryn Patterson, NOAA
- Martin Moore, U.S. Department of the Interior

Short Summary of the Concept

In order to give Palau tools to address the lack of cooperation from IUU fishing vessels' origin states, this project will expose / address the origin states' commercial actors engaged in IUU fishing activity within Palauan waters by both analyzing ownership and fleet networks associated with high risk vessels and mapping supply chains of main fish stocks from Palau.

How Does it Work?



Project Timeline / Key Milestones:

- **Scoping:** Identify Palau's needs / goals.
- **Planning:** Identify funding, data collection resources, and relevant existing partners. Build stakeholder engagement and communication plan. Identify communication strategy for releasing analysis.
- **Implementation:** Conduct analyst / enforcement training. Conduct ownership analysis and facilitator analysis. Engage with partners to determine dissemination strategies and remain coordinated Implementation.
- **Close-out:** Provide Palau the analysis and a period of time to engage the origin states and then publish and disseminate the analysis through journalist / media engagements, speaking engagements and high-level forums / virtual events.

How Do We Measure Success?

- Origin states take enforcement actions and accept ramifications (deregistered; fined)
- Decrease in IUU fishing vessels from identified origin states
- A collective message between Palau and NGO
- Level of awareness of the flag states involved after the project completion

How Might We Fail?

- Governments may not make information publicly available
- No ownership / flag registry data to follow up on
- Holding origin countries accountable
- Ineffective communication or coordination (internet access)
- In-person training
- Lack of technical expertise

Feedback / Project Concept Modifications

- Palau has little influence on its own. Analysis and / or post-analytic action should be a multilateral effort to address this internationally.
- Additional data sources include the Pacific Fusion Centre.
- Replaced the concept of “naming and shaming” with publicize / politicize / addressing in a manner to facilitate analysis through international events and regional fisheries management organizations (RFMOs).
- Analysis provided to Palau government as information before the NGO publishes the analysis. Focus on creating a collective message when publicized.
- Added recruitment and / or facilitator networks into the data analysis process. Those who provide the passports and visas are often a very good sources to monitor and report illicit activity.
- Some NGOs may not have much interest in pushing the Chinese if found to be the violators; they did not do much in the South China Sea with regards to reef destruction.
- Look at fleets from a business perspective and map out the entire business process to spot where the vulnerabilities are usually where the profit margins are lowest. If you look into Taiwanese fishing fleets, and track back, you will find organized crime. With Chinese fleets, there is always government involvement. To pressure origin states it is good to have a sense of where they are most vulnerable and whom you are trying to pressure. Determine if subsidies are involved—could be focal point for pressure (with the World Trade Organization, etc.). It will take a country with some influence to apply pressure to the top end.
- Ways to identify IUU fishing include AIS but that often only involves larger vessels. The VMS systems of the WCPFC and FFA do a reasonable job of mitigating this gap.
- The other actors are the blue boats or the ones that come from Vietnam or Indonesia involved in poaching activities. Due to the increased pressure of commercialized fishing, they are moving further eastward into Palauan waters. However, these vessels are detected by happenstance and rarely interdicted (in part due to a limited fuel budget). The amount of effort for an analysis such as this when may not be worth the investment if the ability to detect the vessels remains limited.
- Absorptive capacity issues: Palau can sometimes be exhausted with number of NGOs working there. Keep analysis government-to-government.
- Clarify if the project will focus on vessel landings in Palau, or fish caught in Palauan waters and landed elsewhere.
- The first thing needed is a comprehensive lists of vessels traffic in their EEZ via VMS / AIS. Determine periodicity of the list: how often do you intend to aggregate this? On a yearly basis as a conversation between flag states? This could be done on a monthly basis but this would require a lot of conversations. A quarterly basis could provide catalogs of vessel traffic entering Palauan waters denoted by flag state.

Group 5: Palau – IUU Fishing

- National Geographic Society will publish a paper in a few months on a network analysis of vessels fishing in the high seas, their beneficial ownership, and maps of fishing effort by company or by beneficial ownership of that company. This can be referenced against vessels operating in Palauan waters.
- The EU Commission's IUU fishing register carding process could be used as leverage towards origin states.
- For flag or origin states to take action AIS and VMS detection are not enough. Think about evidence collection to support enforcement.

Explanations of COVID-19 Impacts

- Will affect the ability to have in-nation capacity building training and face-to-face meetings.
- May affect funding priorities.

Initial Gap

- Vessels operated as part of a network or owned by a fishing company cannot always be targeted effectively due to the nation in which they are based. Origin countries often have financial or political incentives to ignore these entities' activities or lack incentives to pursue enforcement actions of their own. Companies that purchase unlicensed catch often do so without repercussion.

Maritime Information Sharing (MIS) – Pacific Island Countries (PICs)

“MIS for Compliance and Enforcement”

Key Stakeholders:

- Western and Central Pacific Fisheries Commission (WCPFC)
- Pacific QUAD
- Pacific Island Forum
- Forum Fisheries Agency (FFA) Secretariat and Member States
- FFA Fusion Centers
- Palau Marine Law Enforcement Maritime Ops Center (MOC)
- Palau Whole-of-Gov Participation
- U.S. Joint Region Marianas MDA Working Group
- United Nations, INTERPOL, International Maritime Org (IMO)
- Oceania Customs Org (OCO)
- Pacific Transnational Crime Coordination Centre (PTCCC)
- Transnational Crime Units (TCUs)
- International MCS Network
- Nippon Foundation

Features and Benefits:

- Predictive vs Reactive
- Identify network vs ships
- Maritime Common Picture
- Standardized MCS Reporting
- Improved MDA Partnerships

Resources Required:

- Funding for program management, regional survey, construct development and refinement, TTX, and supporting information sharing capabilities
- A legal framework for effective and efficient IUU fishing prosecution and information sharing

Team Members:

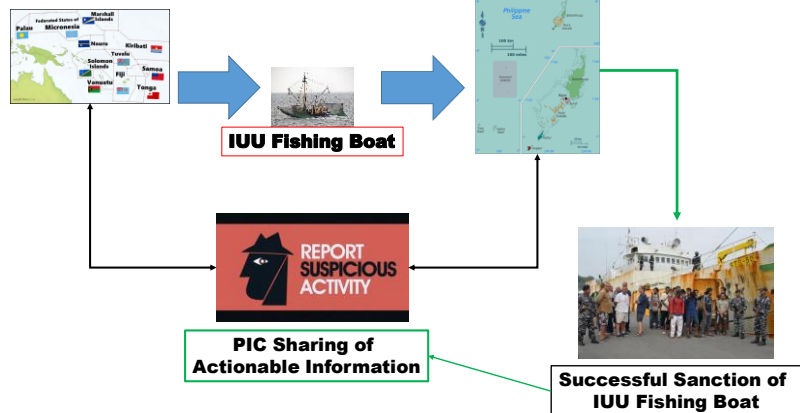
- Keith Wilkins, U.S. APCSS
- Grant Newsham, JFSS
- Charlie Lenway, NMIO
- Rick Piniero, US DOS
- John Sanford, NMIO

Short Summary of the Concept

To improve sharing of customs and crew data, this project proposes the creation of a maritime information sharing (MIS) framework for PICs within the FFA, piloted with Palau. The project will use a tabletop exercise (TTX) to identify repositories of maritime monitor, control and surveillance (MCS) data; current maritime partnerships and information sharing policies; and regional maritime operations / fusion centers that can inform PICs' indicators of illicit or suspicious maritime activity. Based on the results, it will propose augmenting MOUs / MOAs to support the sharing of customs, immigration, crew, and Vessel of Interest (VOI) data in a MIS framework.

How Does it Work?

Forum Fisheries Agency (FFA) COUNTRIES



Project Timeline / Key Milestones:

- **Scoping (4 months):** Socialize MIS-PIC with additional stakeholders (e.g., FFA, INTERPOL, IMCS Network) for final input, determine scope of initial release (i.e., just Palau, Freely Associated States, all FFA?)
- **Planning (2 months):** Pre-TTX regional assessment to identify current relevant maritime data, sharing procedures, stakeholders, and indicators. Develop draft MIS-PIC construct.
- **Implementation (3 months):** Conduct virtual TTX with Palau and regional stakeholders to test / validate MIS-PIC construct. Refine construct and identify most likely data sharing mechanism(s) (e.g., web portal, point to point).
- **Close-out (2 months):** Finalize MIS-PIC, conduct kick-off summary meeting, and initiate execution

How Do We Measure Success?

- Legal framework developed for IUU fishing prosecution / info sharing
- Increase in maritime illicit sanctions
- Decrease illicit maritime activity
- 100% participation by PIC
- MIS-PIC VOI Target Development

How Might We Fail?

- Lack of integration with existing regional resources
- Poor *quid pro quo* sharing
- Barriers due to citizen privacy
- Trans-national criminal corruption
- No legal framework developed for IUU fishing prosecution / info

Feedback / Project Concept Modifications

- Focus project on Palauan and FFA perspectives and complements their current efforts.
- Focus on strategic cooperation rather than strategic competition.
- Regional / local perception is that foreign money is pretty good; lack of alternative money sources to replace illicit activity
- Need to bring China to the table to discuss countering IUU fishing, not define them as the villain.
- Complicating factors for implementation include ensuring alignment with information sharing and privacy act laws, as well as corruption.

Explanations of COVID-19 Impacts

- Depending on timing of TTX would likely need to be virtual—can be difficult to ensure participation and connectivity
- Some key organizations do not have personnel in place or will rotate once restrictions lift. Plan for continuity of support and participation during these potential staffing changings and lack of in-nation representatives.

Original Gap

- Sharing of customs or crew data between Palau and Australia or other PICs can help identify suspicious activities.

Group 7: Palau – Marine Scientific Research Vessels

Research Vessel Management within the EEZ

“Finding Science Hiding on the Sea”

Key Stakeholders:

- Palau Govt.
 - Department of State
 - Marine Law Enforcement
 - Bureau of Marine Resources
 - Attorney General's office
- Joint Committee Meetings
- State Dept., U.S. Embassy
- INDOPACOM
 - USN, USCG

Features and Benefits:

- Supports a state's right to regulate and authorize marine science research
- Assists marine resource management
- Centralized data system, monitoring & tracking within EEZ
- Data shared across multiple countries; uniformity in data inputs
- Closer multilateral coordination
- Potentially low cost

Resources Required:

- Funding
- Training
- Support for Palauan legal analysis
- SeaVision access (GOTS) / Commercial Data
- Vessel List sharing between communities in SeaVision (programming concern)
- USG enforcement ability?
- Information sharing agreement?

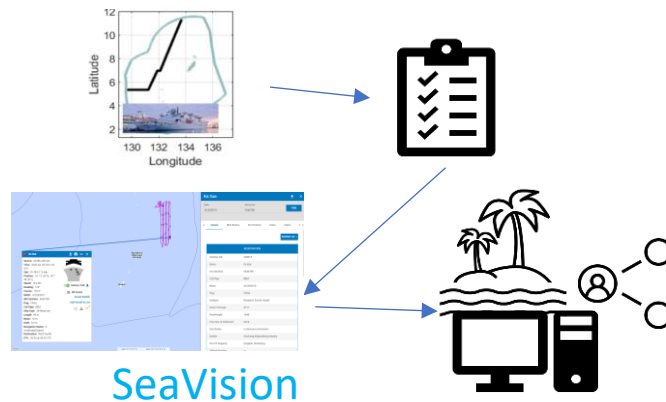
Team Members:

- Bill Morrissey, NMIO
- Daniel Karlson, NOAA
- Eric Terrill, UCSD Scripps
- Brion Thomas, USN
- Maria-Goreti Muavesi, IUCN
- Mike Mason, DoS

Short Summary of the Concept

To prevent non-cooperative Marine Scientific Research (MSR) vessels from conducting activities within Palau's EEZ, this project will streamline the process for requesting MSR vessel access to Palau's EEZ while developing an alert system. Specifically, this pilot will establish Palau / Compact of Free Association (COFA) policy & procedures; develop information indicators for non-cooperative activity, and explore SeaVision for information sharing about MSR vessel activity.

How Does it Work?



Project Timeline / Key Milestones:

- **Scoping:** Analyze and make recommendations regarding Palau's advanced consent requirements for MSR vessel access to the EEZ.
- **Planning:** Work with the U.S. to help establish a regulatory procedure for MSR vessel access under the U.N. Convention on the Law of the Sea. Work with SeaVision team to develop data indicators on MSR vessel activity.
- **Implementation:** Build an MSR list that can be shared through SeaVision and augmented by notification mechanism through existing MCS networks' regional alert channels. Support the adoption of SeaVision as a common platform through the PICs, including training on MSR analytic tools / indicators and listing procedures.
- **Close-out:** Program review. Explore expanding info-sharing coverage to South China Seas countries and long-range option of using manned aircraft overflights for photographic evidence gathering.

How Do We Measure Success?

- Behavioral definitions
- Established alert criteria
- Increased / Improved vessel detection
- Elimination of unsanctioned research
- Coordinated messaging against actors engaged in questionable marine research

How Might We Fail?

- Delays in establishing legal processes
- Requires consistent engagement with multiple government agencies
- Lack of training / sustainment in Palau
- Needs to tie to enforcement for impacts

Feedback / Project Concept Modifications

- Certain countries may refuse to share their scientific data and / or deny that they are conducting research.
- By establishing a process for countries to apply for MSR vessels, this project could provide a mechanism for Palau to quickly engage those countries to whom they have not issued diplomatic notes permitting authorized research activities. Under COFA, the United States may be able to provide assistance with enforcement, similar to what is done for counter-IUU fishing shiprider agreements.
- Unmanaged Research Vessels increasingly conduct activities within a country's EEZ and do not make port calls – ensure this development is factored into approach for handling MSR activity requests.

Explanations of COVID-19 Impacts

- Limited COVID-19 impact; much of the development and implementation can be done remotely.

Initial Gap

- Scale of the challenge is unknown. PICs have not shared information about uncooperative MSR vessels with each other, whether due to a lack of occurrence, detection, or known interest – therefore the scale of the problem is unknown.

Group 8: Palau – IUU Fishing

Surveilling the Seas

“Unmanned Aerial Systems to Detect IUU Fishing and Aid SAR Operations”

Key Stakeholders:

- Palau: Division of Marine Law Enforcement (DMLE); National Marine Sanctuary (NMS) Managers, Palau Int. Coral Reef Center (PICRC)
- US: DOD, INDOPACOM, Joint Region Marianas, State, USCG
- Academia: UCSD Scripps
- NGOs: Pew, OceanMind, Global Fishing Watch

Features and Benefits:

- Decreases response time between designation of Vessel of Interest (VOI) and visual assessment
- Maximizes current assets
- Reduces number of MLE staff required to assess VOI (e.g., COVID social distancing, staff costs)
- Low-profile / non-intrusive vehicle

Resources Required:

- UAS – vertical takeoff
- Angaur facilities
 - small launch site
 - storage facilities
- Start up Funding
- Technical support
- Training (operations and analysis)

How Do We Measure Success?

- Integration into MLE concept of operations
- Number of VOI detections within CFZ and protected areas correlated with visual identifications / assessments
- Use of identification / assessments for follow-on action (interdiction, enforcement action, public pressure, etc.)

Short Summary of the Concept

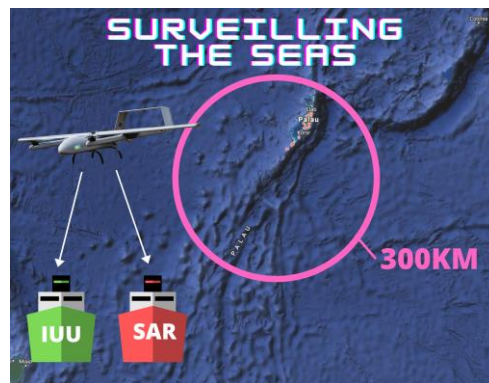
To address Palau’s gaps in persistent and short-notice marine patrol capabilities, this project would build out Unmanned Aerial System (UAS) resources for spot assessment and routine patrol within Palau’s EEZ. This would aid in IUU fishing and Search and Rescue (SAR) operations.

How Does it Work?

Based at new or existing joint-use sites on Angaur, the southernmost island of the main island group, for optimal coverage in the Commercial Fishing Zone (CFZ) and Southwest Islands, the project will use a rapidly deployable, commercial off the shelf (COTS) system. UAS / UAV ranges would need to be > 300 km. Puma UAS is planned for DMLE December 2020, but range is limited to 2.5 hr / 60 km range. Flights will be queued off:

- Analytics supplied by operational partners (NGOs, Academia)
- Active vessels within EEZ (local fishers)
- Foreign government partners (e.g., US, JPN, PI, FSM, IDN)

Multi-year tail-on capability development



Project Timeline / Key Milestones:

- **Scoping (3 months):** Assess possible UAV capabilities and associated needs. Meet with Palau partners to solicit input and determine level of support.
- **Planning (12 months):** Develop white paper, solicit funds among partners, identify and pursue acquisition path to acquire capability.
- **Implementation 1 (12 months):** Deploy capability to Palau, train and integrate with Department of Marine Law Enforcement.
- **Implementation 2 (3 months):** Conduct capability demonstration.
- **Close-out:** Full operational capability achieved.

Team Members:

- Rae McKinney, Pew
- Natalie Tellwright, OceanMind
- Travis Schramek, UCSD Scripps
- Juan Mayorga, Pristine Seas
- Faith MacDonald, NMIO

How Might We Fail?

- No funds to pay for it
- Too costly to sustain project’s longevity (e.g., UAV maintenance, capacity building)
- Weaknesses in legislative frameworks

Feedback / Project Concept Modifications

- Palau's priority is to improve overall MDA, with a focus on increasing visibility on dark targets.
- While there has been a reported decrease / disappearance of "blue boats", they are still a potential target.
- Need to determine the owner / operator of the UAS. Aside from funding the equipment and upkeep, need personnel based in Angaur to conduct operations. Flying from the airport in Airai would impact the ability to reach remote areas, but it could be supported by existing personnel and budgets.

Explanations of COVID-19 Impacts

- COVID impacts limited in Spring 2021 due to accessibility in online meeting platforms.
- In the short-term, company demonstrations could be limited due to quarantine requirements and associated costs.

Initial Gap

- Limited analysis of blue boat fishing. Lack of analysis of blue boat movement patterns; whether illicit activity in general is seasonal.

Group 9: Federated States of Micronesia and Palau – IUU Fishing

MOU to Improve Inter-Island Information Sharing to Combat IUU Fishing

Key Stakeholders:

- Palau, Federated States of Micronesia (FSM), and Republic of the Marshall Islands (RMI)
- Forum Fisheries Agency (FFA) Secretariat
- South Pacific Community
- Distant water fishing nations
- NGOs

Features and Benefits:

- Better information sharing between countries
- Reduced IUU fishing
- Can be used to support and demonstrate effectiveness of in-port vice at-sea enforcement

Resources

Required:

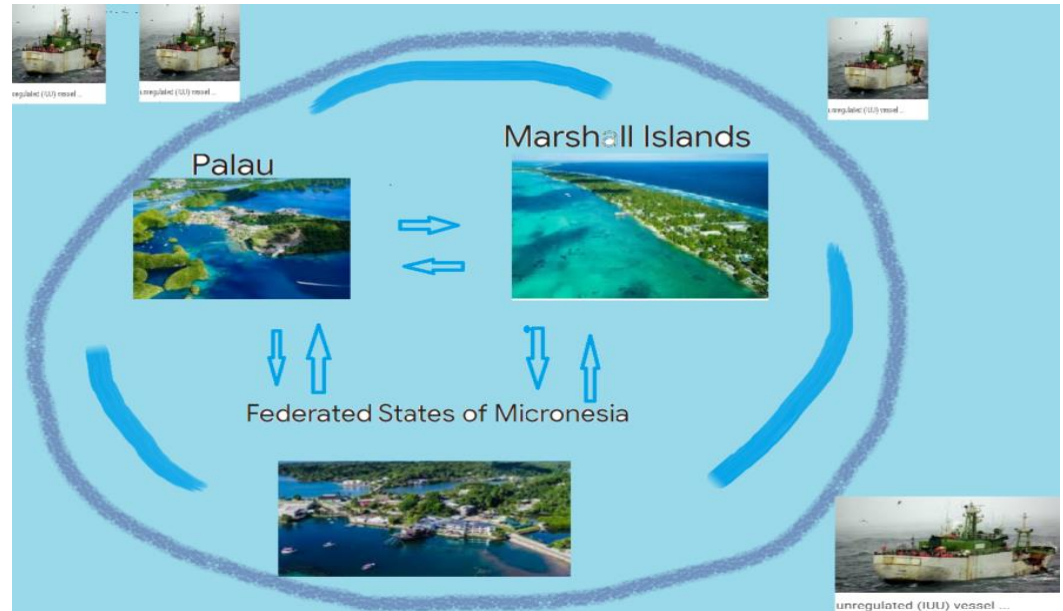
- Funding to procure consultant to perform regulatory review
- Workshop to negotiate MOU text
- Funding to close any equipment shortfalls identified

Team Members:

- Max Kupchik, USAID
- Whit Saumweber, CSIS
- Kristin Westphal, U.S. Embassy
- John Gaylord, Palau
- Xiao Recio-Blanco, ELI
- Jason Philibotte, NOAA
- Esther Wozniak, Pew

Short Summary of the Concept

In order to improve information sharing between Palau, FSM, and RMI, especially on suspected IUU fishing incidents and vessels, this project proposes an information-sharing MOU between these nations that includes coverage of the notification of suspected IUU fishing activity.



Project Timeline / Key Milestones:

- **Scoping:** Regulatory review to address any policy gaps within these countries; establish criteria for evidence to be used across boundaries for prosecution. Examine transparency / privacy laws – facilitate discussions with countries who already developed programs. Review existing information-sharing procedures and agreements between the nations as well as structures like FFA and South Pacific Community (SPC); lessons learned from Coral Triangle Initiative and Fish-I Africa.
- **Planning:** Identify capability gaps in local enforcement's abilities to support the information sharing arrangement (communication, storage, etc.). Identify tools to mitigate the gaps and operationalize the MOU, such as FFA VMS, SeaVision, Global Fishing Watch, drones, and other technologies.
- **Implementation:** Develop a broad cooperation agreement focused on the Compact States, including a topline agreement and supporting capacity building. As part of agreement, standardize methodology. Determine how neighboring countries coordinate in real time when vessels are suspected of IUU fishing.
- **Close-out:** Create a standard procedure to alert neighboring countries of potential IUU vessels.

How Do We Measure Success?

- MOU signed
- Capacity development
- Increased enforcement
- Successful prosecution
- VOIs detected in one EEZ are shared with other participants before arrival

How Might We Fail?

- Delays due to text negotiations for the MOU
- Lack of capacity for implementation
- There might not be regulatory alignment
- Conflicting data licensing agreements
- Potential to impact existing partnerships with fishing fleets

Group 9: Federated States of Micronesia and Palau – IUU Fishing

Additional MOU Considerations

- Our MOU will leverage near real-time communication mechanisms and build on current cooperation between these countries. By standardizing communication, the points of contact will have a clear path of action and be incentivized to act. Worth having more than one person as the point of contact to ensure project longevity
- Potential elements of the MOU include:
 - o Vessel risk indicators (yellow, orange, red).
 - o Agreeing to include data-sharing clauses in support of the MOU as part of future data licensing agreements.
 - o Allowing countries to determine which identified IUU fishing vessels they want to address according to resources available.
 - o MOU can help standardize criteria for admissibility of data in court from various data sources (AIS, VMS, boarding and inspection notes); consider supporting with a workshop.

Feedback / Project Concept Modifications

- Ensure this does not simply add another layer of bureaucracy for partner organizations.
- Ensure the Compact States lead the work because it encourages neighboring States to cooperate, but leverage connections between U.S. and Australian advisors in the nations.
- Determine if there is regulatory alignment and whether any licensing agreements conflict.
- The Palau MOC is sharing VOI information with FFA. UCSD Scripps has been instrumental in getting the MOC stood up, though it is still early stages.
- Bi-monthly U.S.-FSM and U.S.-Palau MDA Working Groups (conference calls) provide a forum to discuss topics of mutual interest and stay abreast of what each country is working on, but are not a real-time / near real-time robust method of cooperation.
- Palau engages bilaterally with FSM through an annual maritime law enforcement operation, Operation Pailug.
- Palau's MOC produces a monthly report; can explore sharing it with RMI / FSM, with the added benefit of it acting as spur to create something similar.
- The MOC has reached out to FSM in the past, regarding vessels of interest that have passed from Palau's EEZ into FSM's EEZ but unknown whether the information was useful.
- The Palau MOC will be working with SeaDragon in 2021 for aerial vessel detection / identification. The first preparatory step was vetting the idea with the Attorney General to see how we could utilize the information to assist with prosecution. Those consultations also included questions about evidence handling and storage.
- Explore alignment with FFA efforts to focus on counter-IUU fishing.
- Explore ways to tie information sharing to decision-making processes at community level for co-management.

Group 9: Federated States of Micronesia and Palau – IUU Fishing

Explanations of COVID-19 Impacts

- 2021 will focus on research work that forms the foundation for the MOU.
- 2022 will be the target for convening the workshops to create the MOU.

Initial Gap

- FSM: Cultural, legal, and classification issues can hinder information sharing among agencies and with other stakeholders.
- Palau: Not standard practice and limited ability to notify neighbors in timely manner of blue boats / suspected IUU fishing vessels in Palauan waters.

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Abbreviations / Acronyms

AG	Attorney General
AIS	Automatic Identification System
APCSS	U.S. Asia Pacific Center for Security Studies
BBNJ	Biodiversity Beyond National Jurisdiction
C4ADS	Center for Advanced Defense Studies
CBA	Cost-Benefit Analysis
CFZ	Commercial Fishing Zone
COFA	Compact of Free Association
COMPACFLT	U.S. Commander, Pacific Fleet
COP	Common Operating Picture
COTS	Commercial Off-The-Shelf
CSIS	Center for Strategic and International Studies
DECEM	FSM Department of Environment, Climate Change, and Emergency Management
DMLE	Division of Military Law Enforcement
DNI	U.S. Director of National Intelligence
DOS	U.S. Department of State
EEZ	Exclusive Economic Zone
ELI	Environmental Law Institute
ESC	Executive Steering Committee
FAS	Freely Associated States
FFA	Forum Fisheries Agency
FBI	U.S. Federal Bureau of Investigation
FSM	Federated States of Micronesia
GFW	Global Fishing Watch
GMCOI	Global Maritime Community of Interest
GOTS	Government Off-the-Shelf
HSP	High Seas Pocket
IGO	Intergovernmental Organization
IMCS	International Monitoring, Control, and Surveillance Network
IMO	International Maritime Organization
IPS	International Port Security Program
INDOPACOM	U.S. Indo-Pacific Command
ITOC	Integrated Targeting and Operations Centre
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported, and Unregulated
JFSS	Japan Forum for Strategic Studies
JIATF-W	U.S. Joint Interagency Task Force - West
MCMSC	Marine Conservation and Maritime Security Coalition
MCS	Monitoring, Control, Surveillance
MDA	Maritime Domain Awareness
MIS	Maritime Information Sharing
MOA	Memorandum of Agreement
MOC	Maritime Operations Center
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MSR	Marine Scientific Research
MSSIS	Maritime Safety and Security Information System

NAVWAR	U.S. Naval Information Warfare Systems Command
NGO	Non-Governmental Organization
NMIO	National Maritime Intelligence-Integration Office
NOAA	U.S. National Oceanic and Atmospheric Administration
NORMA	FSM's National Oceanic Resource Management Authority
NRL	U.S. Naval Research Laboratory
OCO	Oceania Customs Organization
PIC	Pacific Island Country
PNMS	Palau National Marine Sanctuary
PSMA	Port State Measures Agreement
PTCCC	Pacific Transnational Crime Coordination Centre
PTCN	Pacific Transnational Crime Network
RFMO	Regional Fisheries Management Organization
RMI	Republic of the Marshall Islands
SAR	Search and Rescue
SOP	Standard Operating Procedure
SPC	South Pacific Community
TCU	Transnational Crime Unit
TF	Task Force
TOR	Terms of Reference
TTX	Table Top Exercise
UAV	Unmanned Aerial Vehicle
UAS	Unmanned Aerial System
UCSD	University of California - San Diego
USAID	U.S. Agency for International Development
USCG	United States Coast Guard
USN	U.S. Navy
VMS	Vessel Management System
VOI	Vessel of Interest



U.S. Coast Guard and Palauan National Police personnel, operating under a bilateral shiprider agreement, converse with the crew of a fishing vessel in the Palau EEZ as other members of the boarding team review the fishermen's passports and identification. (Photo courtesy U.S. Coast Guard)

On back cover: Coming into port, Pohnpei, Federated States of Micronesia. (Photo courtesy U.S. Navy)



This report summarizes presentations at the Pacific Islands Maritime Security Workshop as interpreted by Scott Cheney-Peters, Public-Private Partnerships and International Policy Advisor – Indo-Pacific, National Maritime Intelligence-Integration Office, Office of the Director of National Intelligence, Suitland, MD, (scott.d.cheney-peter@navy.mil). The views expressed in this document reflect those of Workshop participants and do not necessarily reflect the views of the United States Government. On behalf of the U.S. Maritime Domain Awareness Executive Steering Committee, and the Director of National Intelligence, NMIO regularly brings together a broad range of governmental and non-governmental stakeholders to work with partner nations to mitigate their maritime challenges through improved information-sharing and MDA. Inclusion in this report of a project concept does not constitute endorsement by NMIO or the U.S. Government.