Illegal, Unreported, and Unregulated Fishing: Pilot Program

December 6, 2019

Fiscal Year 2019 Report to Congress

Homeland Security

United States Coast Guard

Foreword

December 6, 2019

I am pleased to present the following report, "Illegal, Unreported, and Unregulated Fishing: Pilot Program," which has been prepared by the U.S. Coast Guard.

Illegal, unreported, and unregulated fishing leads to billions of dollars in losses for the global fishing industry and is a source of financing for illicit activity such as piracy, drug trafficking, human trafficking, and slavery. The Fiscal Year 2019 Department of Homeland Security Appropriations Act (P.L. 116-6) requires the Coast Guard to provide a plan for a 1-year pilot program to address this issue.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Lucille Roybal-Allard
Chairwoman, House Appropriations Subcommittee on Homeland Security

The Honorable Chuck Fleischmann
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Shelley Moore Capito
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Jon Tester
Ranking Member, Senate Appropriations Subcommittee on Homeland Security.

I am happy to answer any further questions that you may have, or your staff may contact my Senate Liaison Office at (202) 224-2913 or House Liaison Office at (202) 225-4775.

Sincerely,

Karl L. Schultz
Admiral, U. S. Coast Guard
Commandant

Illegal, Unreported, and Unregulated Fishing: Pilot Program

Table of Contents

I. Legislative Language

This document responds to the language set forth in the Fiscal Year (FY) 2019 Department of Homeland Security Appropriations Act (P.L. 116-6), which states:

> Illegal, unreported, and unregulated (IUU) fishing leads to billions in losses for the global fishing industry and is a source of financing for illicit activity such as piracy, drug trafficking, human trafficking, and slavery. The Coast Guard is directed to submit a plan for a one-year pilot program to address this issue, not later than 120 days after the date of enactment of this Act, as described on pages 40 and 41 of House Report 115-948.

House Report 115-948, referenced above, states:

> The Committee is concerned that illegal, unreported, and unregulated (IUU) fishing accounts for billions in losses for the global fishing industry and about the ties that IUU fishing has with piracy, drug trafficking, human trafficking, and slavery. The Committee directs the USCG to submit a plan for a one-year pilot program, not later than the submission of the budget request for Fiscal Year 2020, for implementing an innovative and multi-technology system that facilitates increased monitoring capability; provides enforcement quality data and intelligence; and maximizes the real-time response of surface-based enforcement assets.

II. Discussion

IUU fishing activity is global in reach, and adversely affects coastal communities by distorting competition and by jeopardizing the economic survival of those whose livelihoods depend upon local fisheries. Actors engaged in IUU fishing often exploit the gaps between governance structures and operate in areas where there is little or no effective enforcement presence.

U.S. Coast Guard (USCG or Coast Guard) operations across the world's oceans, in partnership with remote Pacific Island Nations (PIN) in the Western Pacific Ocean and nations along the Atlantic West Coast of Africa, enhance the United States' deterrence efforts, thus promoting the optimal management and protection of vital living marine resources and their environments. To enhance the effectiveness and efficiency of enforcement operations, the Coast Guard will continue to bring the most capable technologies to the fight against IUU fishing.

Operational Pilot

1. In FY 2020, the Coast Guard will increase enforcement patrols across the Pacific in order to deter, detect, and disrupt IUU fishing. These patrols will bring National Security Cutters (NSC), the Coast Guard's most capable surface assets, with unmanned aircraft systems (UAS) capability to the highest threat IUU fishing areas to enforce the rule of law at sea and to identify illicit actors.

2. The Coast Guard also will conduct a second maritime domain awareness pilot project focusing on low-cost solutions associated with an unmanned maritime system, with the goal of eliminating previously identified shortfalls and maximizing the effectiveness of Coast Guard operations. Paired with the UAS on board NSCs, this capability will provide a formidable force package to counter IUU fishing operations.

3. The Coast Guard will endeavor to increase the number of shiprider bilateral agreements exercised in order to facilitate the enforcement of partner nation sovereignty in the region. Additionally, the Coast Guard will continue to support U.S. Government initiatives for training and capacity building that will strengthen the governance and criminal justice institutions in developing coastal states.

Operational Pilot Background

The Coast Guard is the only U.S. federal law enforcement agency or military service with both the capability and authority to enforce fisheries regulations across the vast 4.5 million square miles of the U.S. exclusive economic zone (EEZ), on the high seas, and in partner nations' EEZs and territorial waters. Operations to prevent, detect, and suppress IUU fishing require persistent presence of capable enforcement assets and the right mix of authorities to deny vast ocean spaces to those in pursuit of illegal maritime endeavors.

The Coast Guard manages bilateral agreements with partner nations that share a common interest with the United States to protect the ocean and living marine resources. Coast Guard presence, combined with the authorities of partners, promotes regional stabilization, maritime stewardship, resource conservation, and safety by promoting the rule of law at sea. These agreements allow the Coast Guard to support partner nations' organic enforcement capabilities by training personnel and by providing operational platforms from which nations with limited resources may exert their sovereignty.

In addition to helping partner nations protect their sovereignty, Coast Guard operations include high seas boarding and inspections (HSBI) conducted under the authority of Regional Fishery Management Organizations (RFMO), the primary mechanism of fisheries management on the high seas. RFMOs are international regulatory bodies comprising countries with a common interest in the management of fisheries resources in a geographic area. The members may be coastal nations bordering the region or countries that have a fishing interest in the region. Existing and emerging RFMOs cover more than 95 percent of the world's oceans. RFMOs vary in their inclusion of HSBI regimes as part of the governing convention.

Operations to deter, detect, and disrupt IUU fishing place a significant resource burden on the Coast Guard. To help close the resource gap, the Coast Guard collaborated with the U.S. Navy (USN) and Indo-Pacific Command to enhance maritime domain awareness and to assist PINs in exercising sovereignty over their resources by merging Coast Guard authorities with Department of Defense resources through the Oceania Maritime Security Initiative (OMSI). Coast Guard Law Enforcement Detachments deployed onboard USN platforms transiting high-threat IUU fishing areas, along with embarked PIN shipriders, conduct boardings of opportunity along the USN asset's transit route. OMSI enables the Coast Guard and the USN to monitor and deter IUU fishing in the Western and Central Pacific and to provide a presence for maritime surveillance and security in the region. Similar operations are conducted with Africa Command to thwart IUU fishing along the coast of West Africa.

The Coast Guard supports a whole-of-government approach to improve governance, capacity building, anticorruption efforts, and criminal justice reforms in partner nations affected by IUU fishing. In addition to at-sea enforcement operations, the Coast Guard supports U.S. Agency for International Development, U.S. Department of State, and National Oceanic and Atmospheric Administration capacity-building efforts in partner nations by providing advice and technical support.

Detecting IUU fishing among legitimate fishing fleets is a significant operational challenge for the Coast Guard in the battle against IUU fishing. To maximize the efficiency and effectiveness of surface assets, the Coast Guard has tested and actively is employing cutting-edge technologies across all Coast Guard missions, including IUU fishing. These technologies include both UAS and commercial satellite maritime domain awareness systems.

UAS Technology Pilot

1. The Coast Guard is implementing an acquisition plan to outfit the remainder of the NSC fleet using the technical knowledge gained from the successful prototype of the ScanEagle

UAS. This system will operate under a contractor-owned, contractor-operated model with Insitu, Inc. personnel operating and maintaining the system while underway. This model is the same one that the USN currently is employing.

2. The Coast Guard seeks to expand the operational envelope of the traditionally cutter-based UAS to shoreside facilities. This initiative will provide Coast Guard operational commanders with flexible, tactical, and responsive intelligence, surveillance, and reconnaissance in support of law enforcement actions in their areas of responsibility.

UAS Background

In 2012, the Coast Guard transitioned to a more mature, off-the-shelf solution that provides immediate UAS coverage via the NSC. This direction spawned the Small UAS for NSC Nonmajor Acquisition program, which first was funded by Congress in 2015. In June 2016, the Coast Guard awarded its first contract for a cutter-based UAS to Insitu for the ScanEagle UAS. This highly flexible, tactical UAS is catapult-launched and wire-recovered, carries electro-optical and infrared sensors, and has the ability to stay aloft for more than 12 hours on a single gallon of fuel.

The Coast Guard collaborated with Insitu on several occasions for both cutter- and land-based demonstrations. Insitu first demonstrated ScanEagle aboard Coast Guard Cutter (CGC) STRATTON in August 2012 and again aboard CGC BERTHOLF in May 2013. The latter demonstration was accomplished as part of a Joint Interagency Task Force South counternarcotics deployment and was the first time that an NSC was deployed with a complete suite of organic manned and unmanned aviation assets.

The Coast Guard conducted multiple shore-based UAS testing events; the first event was out of Borinquen, Puerto Rico. The second and most recent shore-based proof-of-concept was conducted in Port Mansfield, Texas, in April 2019 and primarily targeted IUU fishing activity of Mexican fishing vessels violating the U.S. EEZ. The ScanEagle UAS played a critical role in the detection of two small boats within the South American area of responsibility and supported one Coast Guard interdiction of a vessel violating U.S. sovereignty.

Maritime Domain Awareness System Pilot

The Coast Guard currently is partnering with the Maritime Intelligence Fusion Center Pacific and Global Fishing Watch to determine the feasibility of a land-based, long-range UAS with unclassified/law enforcement sensor packages in the zone affected by IUU fishing in the central Pacific to enhance maritime domain awareness (MDA). The goal for this equipment would be a UAS with a 1-day to 1-week range while operating in typical Pacific Transit Zone weather conditions. Technology requirements for this system would include the need to detect, identify, track, and coordinate the potential intercept of typical targets of interest and satellite controls for beyond line-of-sight operations. Currently, the Coast Guard's Research and Development Center is developing an analysis of alternatives and anticipates a technology demonstration by the end of calendar year 2019.

MDA Background

In December 2017, the Coast Guard conducted a 10-day trial of a commercial MDA system during a fishery enforcement patrol on the high seas of the Pacific Ocean and in the U.S. EEZ surrounding Guam and the Northern Mariana Islands. The objective was to determine the viability of commercial technologies in support of an operational law enforcement asset on patrol. The product's most compelling feature was the capacity to use satellite imagery to account visually for vessels fishing in remote fishing grounds. This capability provided the opportunity to validate other electronic monitoring systems and provided valuable targeting information to enforcement assets without costly flights or patrols. The system also automatically identified and flagged behavior in accordance with parameters set by system engineers. For example, it was able to identify multiple speed changes of fishing vessels, a typical standard fishing practice. It also identified when two vessels were alongside each other, an indicator of possible illicit transfer of materials.

The commercial system was not without drawbacks. The products were not available on demand and were often 12-24 hours late. This delay made it more difficult and time-consuming to correlate the tracks with real-time electronic monitoring systems. This shortcoming may be overcome with additional planning in future trials of the MDA pilot program.

III. Conclusion

The world's oceans are a part of the global commons and require a global approach toward their conservation and management. Those who employ IUU fishing will continue to leverage the distance of our vast oceans against regulatory bodies. Without the constant application of innovation and supporting resources of the same, combatting IUU fishing will continue to challenge the growing need for food security and to increase the scarcity of marine resources. The Coast Guard, in collaboration with other U.S. federal agencies, nongovernmental organizations, industry, and international partners, remains dedicated to confronting IUU fishing activities to preserve the long-term strategic and economic viability of the world's marine resources.

Appendix: Abbreviations

Abbreviation	Definition
CGC	Coast Guard Cutter
EEZ	Exclusive Economic Zone
FY	Fiscal Year
HSBI	High Seas Boarding and Inspection
IUU	Illegal, Unreported, and Unregulated
MDA	Maritime Domain Awareness
NSC	National Security Cutter
OMSI	Oceania Maritime Security Initiative
PIN	Pacific Island Nation
RFMO	Regional Fishery Management Organization
UAS	Unmanned Aircraft System
USCG	U.S. Coast Guard
USN	U.S. Navy