ThayerMahan
Sea beyond

Case Study:

Use of Acoustic Monitoring In the Fight Against Illegal Fishing

www.thayermahan.com | 860-785-9994

1: Background

Illegal Fishing and Processing is a global problem that seemed impossible to detect, monitor and stop… until now.

Illegal fishing is a major threat to the sustainability of the world's fisheries. A recent study by the PEW Charitable Trust reports that as much as 20 percent of all wild marine fish are caught illegally. As the world's largest importer of seafood – more than 5.3 billion pounds worth $18B annually – the United States has a special responsibility to help protect the world's ocean food supply.

The desire to address the problem of illegal, unreported and unregulated (IUU) fishing products is there… but the money, assets and ships needed to act has been sorely lacking.

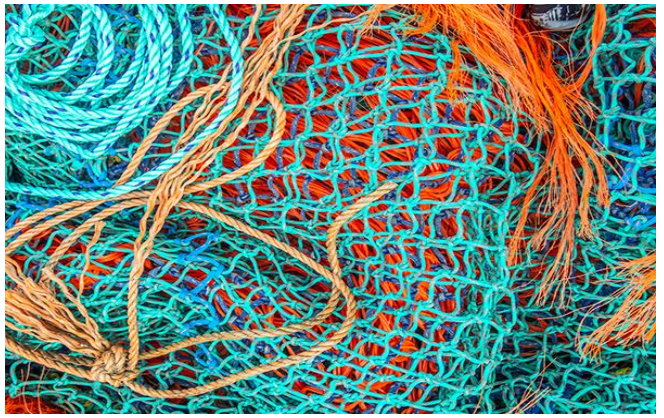
2. Impact

With a global dependency on the ocean as a primary food source, their protection is of paramount importance.

In many maritime regions of the world – particularly in the coastal waters of developing countries – illegal fishing has become a significant contributor to the depletion of fish stocks. Marine populations are under constant threat from intensive illegal harvesting, along with unreported and unregulated (IUU) fishing. Pirate fishing is difficult to monitor, detect and estimate.

Researchers have undertaken the painstaking process of collating data from various fisheries control agencies around the world, estimates from experts, trade figures and the findings of independent research expeditions.

Estimates range from 11 to 26 million tons – equal to 14 to 33 percent of the world's total legal catch.



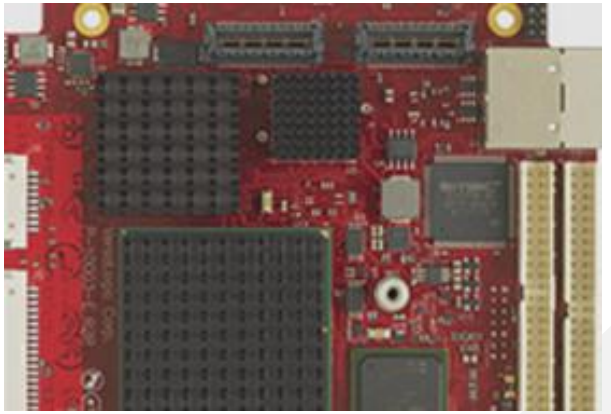
3. Technological Advances

Advances in maritime autonomy and acoustics is changing the game.

Until recently, methods for detecting illegal fishing vessels, illegal processing ships, marine mammal migrations and fish schools have been extremely limited. Additionally, the willingness to invest in this seaborne data mining exercise has been insufficient.

The sheer size of the ocean presents a challenge that can ONLY be addressed by unmanned, autonomous, long-dwell platforms and sensors. Fortunately, ThayerMahan now has the systems, infrastructure and expertise to tackle this national security dilemma.

Advances in low power electronics, energy harvesting/autonomous platforms, acoustic and signal processing have made the problem far more manageable, affordable and achievable. The integration of these technologies on the ThayerMahan *Outpost* surveillance system make it the perfect platform to detect, track, report and help prosecute fishing pirates.

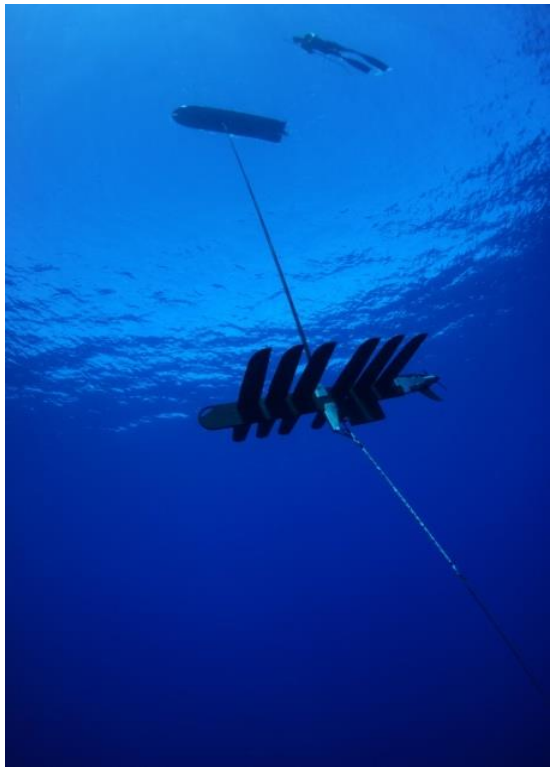


4. Leading the Way

Outpost and similarly configured autonomous sonar technologies can be deployed to better understand our vital fishing areas.

ThayerMahan provides customized acoustic surveillance systems capable of staying on station for long periods of time and ultimately detect, report, classify and monitor illegal fishing activity across the world's oceans. Providing turnkey Search-As-A-Service data mining and intelligence curation services is a critical first step in eradicating this threat and meeting the challenge of protecting the world's ocean-based food supply.

Learn more at ThayerMahan.com/Systems/Outpost.



About ThayerMahan

ThayerMahan provides innovative systems and expertise, connected by a global data platform, to help to protect our nation and its vital interests.

We design, manufacture, and (when desired by our customers) operate systems to collect acoustic, electronic information on the world's oceans. These systems expand coverage for government and industry partners to protect borders, natural resources, and undersea infrastructure—and do so at extremely low cost compared traditional monitoring assets.

For more information, please visit us online or call:

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