

MPA NEWS



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Putting the 'P' in MPA: Update on the future of IUU fisheries enforcement, and how MPAs can now get involved

In Chile in September at the Fourth International MPA Congress, there was a side event on satellite-based surveillance of illegal fisheries. It was unique in that there were several Chilean naval officers in uniform in the audience. And the first speaker offered what was perhaps the most memorable line of the conference: "Are we at a point where we may finally put the 'P' in MPA?"

The event was hosted by [OceanMind](#), a UK-based organization working to increase the sustainability of fisheries worldwide through insights into vessel compliance. (OceanMind is part of the Satellite Applications Catapult, a UK government initiative to develop new applications for satellite technology.) By drawing from a multitude of data sources, OceanMind helps governments determine where fishing is occurring in their waters, and advises major fish buyers on which catches were legal and which ones likely were not. Chilean naval officers were at the side event because OceanMind worked with them to analyze compliance in Chile's MPAs.

MPA News [reported on OceanMind last year](#) when it was called Project Eyes on the Seas. That article discussed the state of the art at the time in satellite-based efforts to address illegal, unreported, and unregulated (IUU) fishing, including in MPAs. Since then, OceanMind and another main player in global fisheries awareness – [Global Fishing Watch](#) – have each applied their tools and expertise with more governments.*

Updates on OceanMind and Global Fishing Watch

Although Global Fishing Watch and OceanMind both use high-tech tools to track global fisheries compliance, there are distinctions between the two. Here is a brief primer, including how each has progressed in the past year:

Global Fishing Watch

- Primarily AIS-sourced data: Global Fishing Watch started as an initiative to put a global map of fishing vessel activity on the web in near real time. Originally a partnership of Google, SkyTruth, and Oceana, Global Fishing Watch is now an independent NGO that processes data from vessels' on-board Automatic Identification Systems (AIS), which identify each vessel and its position. A limitation of this approach is that vessels are able to turn off their AISs or hack them to show a different location, and any operator intent on fishing in a closed area would be incentivized to do that. However, Global Fishing Watch can detect such actions and highlight the behavior to appropriate authorities – having noted when and where AISs have been turned off or obviously mis-located, and flagging those vessels for further analysis. GFW has begun incorporating [other data sources](#), including data from Vessel Monitoring Systems (VMS): [Indonesia](#) released its VMS to be publicly visible in June 2017, and [Peru](#) signed an MoU in September to do the same.
- A crowdsourced approach: By putting fishing vessel locations on the web in near real time, and with free access, the fundamental concept of GFW is to crowdsource the observation of fishing vessel compliance. Ultimately GFW is driven to significantly improve transparency: this will drive self-correcting behavior and make those that do not comply stand out from those that do (e.g., upon return to port, a vessel that entered an MPA after taking itself off of AIS or VMS will be seen to have not complied, and can expect enhanced inspections.) GFW is now also partnering directly with governments, including [Indonesia](#), [Peru](#), and [Kiribati](#), to apply its systems and the governments' data to fisheries compliance in their national waters, including inside MPAs.

OceanMind

- Cumulative approach to data: OceanMind sources data from an array of sources – vessels' AIS and VMS, multiple satellite types (synthetic aperture radar, optical imaging, thermal imaging, visible infrared imaging), radio frequency detection, underwater acoustic sampling, and others. OceanMind then links these data to vessel registries and histories to identify which vessels were fishing where. Although each data source has its unique limitations (like the AIS limitations described above), OceanMind's strategy is to balance those limitations with the strengths of other sources.
- Hands-on approach: Rather than crowdsourcing fisheries awareness, OceanMind has a team of analysts who work directly with governments and the private sector, advising them on how to apply multiple data sources to analyze fishing activity and the supply chain. Currently OceanMind is partnering on compliance projects with the governments of [Chile](#), [Costa Rica](#), [Thailand](#), and the UK, as well as the Inter-American Tropical Tuna Commission and the [Seafood Task Force](#), an industry group of the world's largest fish retailers and processors.

Incidentally, both OceanMind and GFW contributed analyses to the investigation of a Chinese vessel that was caught in the Galápagos Marine Reserve in August 2017, containing thousands of illegally caught sharks in its hold. For OceanMind's analysis [click here](#). For GFW's analysis [click here](#).

Do you want OceanMind's help with compliance in your MPA?

OceanMind is already partnering with governments and organizations worldwide that are interested in monitoring assistance for their MPAs and fisheries compliance verification. The only requirements needed are available data sources to track vessels in the protected area (such as AIS, VMS, coastal radar, or other tracking systems), and that there is funding available to pay for OceanMind's costs.

"If there are tracking units on the vessels nearby [including vessels the size of pangas or lanchas], or if the threat is from a larger class of vessel, we'd be happy to talk with anybody who is interested from an MPA perspective," says Brad Soule, Chief Fisheries Analyst for OceanMind.

In terms of costs, the main one is for OceanMind analysts' time. Funding to this point has come from partners or direct customers, or from philanthropies, NGOs, or academic institutions that are supporting the various projects.

In cases where an MPA has a one-off question about, for example, what the best tracking system would be for their purposes, OceanMind is open to providing that guidance free of charge. "We'll always do our best to help people out," says Soule.

To contact OceanMind about compliance assistance, email Brad Soule at Brad.Soule@sa.catapult.org.uk

* **Editor's note:** This article features Global Fishing Watch, which is a not-for-profit organization, and OceanMind, which is in the process of becoming a not-for-profit organization. However, there are also commercial companies that are applying satellite-based analyses to fishing compliance worldwide, and which would be of similar use to MPAs. These include [DigitalGlobe](#) (mentioned in [an MPA News article last year](#)) and [Kongsberg Satellite Services](#), which is 75% owned by the Norwegian government. MPA News will report on such commercial services in upcoming issues.

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