Skylight for Conservation Release Notes May 2023

Next generation insights for marine protection.
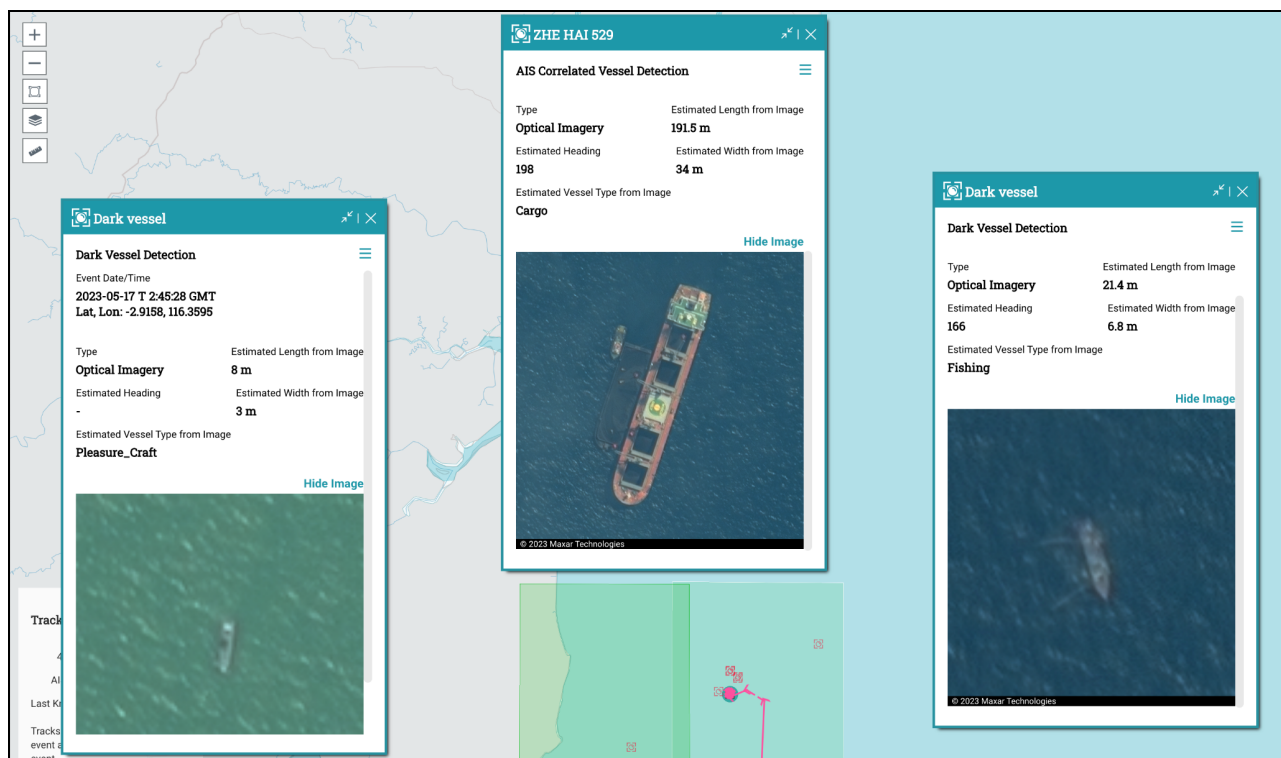
Summary

Commercial Data Online!

Skylight has established a new contract with Maxar to provide commercial data to Skylight users. These data are in addition to the publicly available data that are already being automatically ingested and displayed - such as Night Lights and Satellite Radar from Sentinel-1. Commercial data has benefits like covering areas and time periods that public data does not, but it must be ordered ahead of time.

Skylight is taking requests for commercial data specifically for these purposes:

- Supporting fisheries operations and patrols where publicly provided data does not provide enough coverage.
- Providing ongoing monitoring of high-risk transshipment events occurring on AIS. Specifically, cued optical imagery after Skylight Standard Rendezvous events.
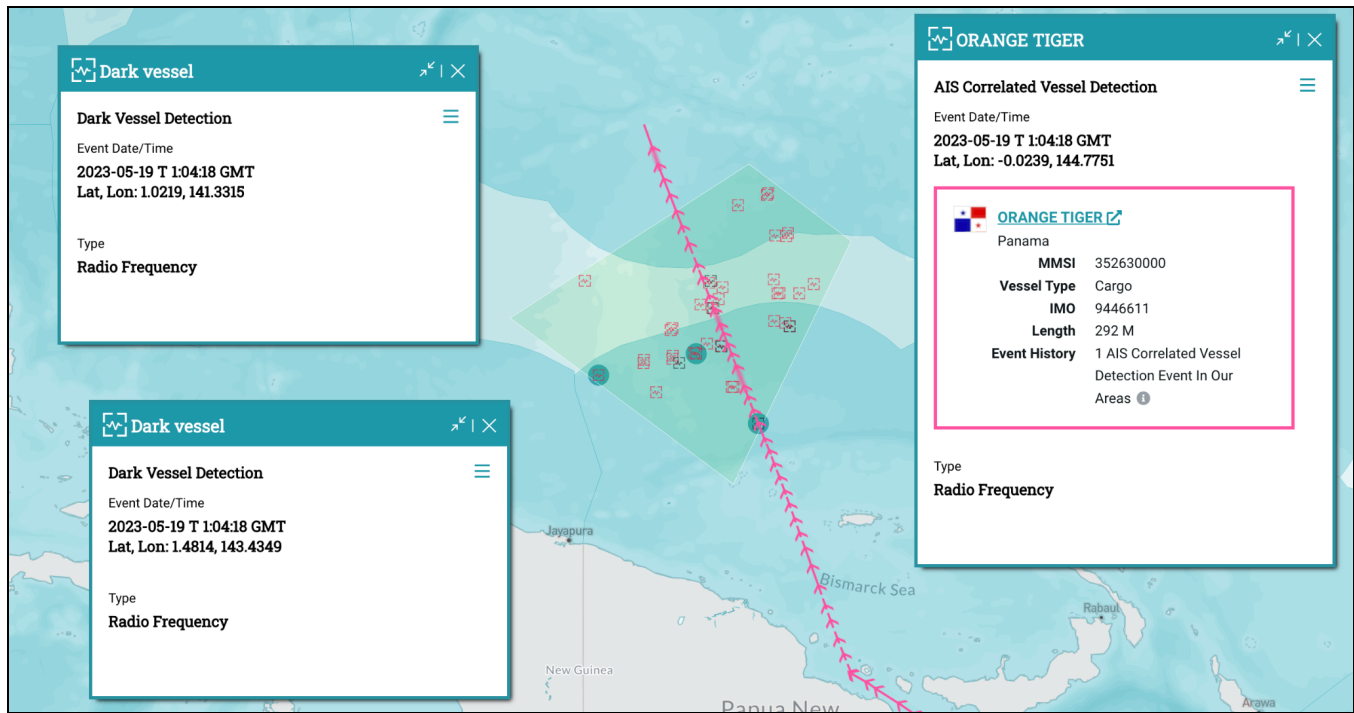
Below are the 3 types of commercial data from Maxar that Skylight can display.

High Resolution Optical Imagery

Maxar brings these data from WorldView-1,2,3 and GeoEye-1 satellites.

Radio Frequency (RF)

Maxar brings these data from Unseen Labs BRO satellites.
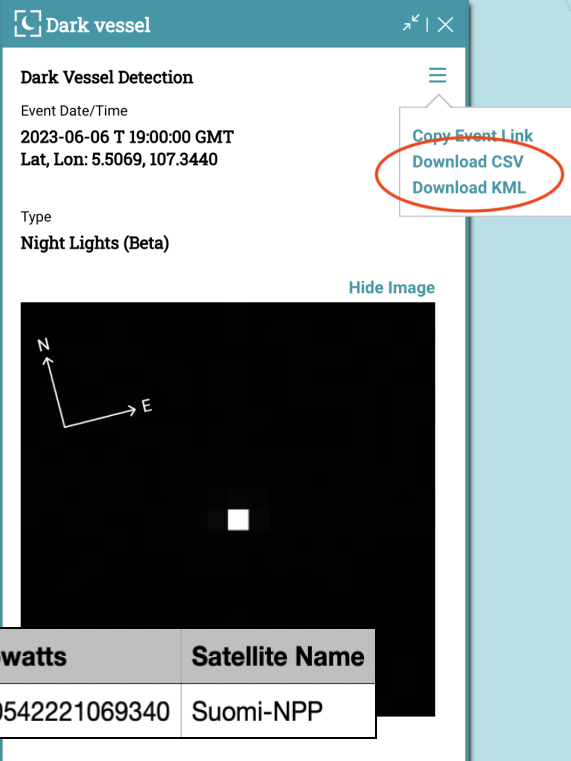
Satellite Radar

Maxar brings these data from TerraSAR-X and PAZ satellites.

View or Download More Information

Sometimes there is more information about vessel detections than what is provided in the interface (e.g. estimated vessel length in Satellite Radar, brightness in nanowatts for Night Lights).

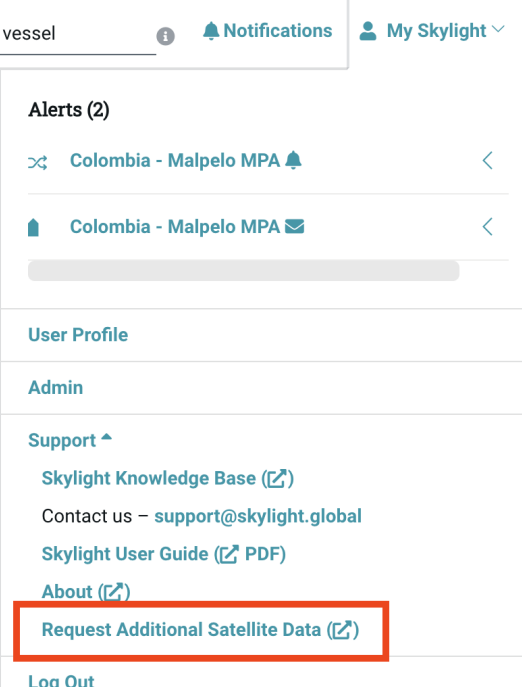You can access additional fields through downloading (**see right**) or through our API.

NOTE: Commercially collected data is <u>not</u> available through our API. It can only be downloaded through the interface.

Detection Type	Clear Sky Confidence	Moonlight Illumination	Nanowatts	Satellite Name
night_lights	0.15566295385360700	26.219999313354500	14.40542221069340	Suomi-NPP

How to Make A Request

In order to request these capabilities for your agency, please contact your Skylight representative or partner contact. More details are available here (**see right** for link in platform).
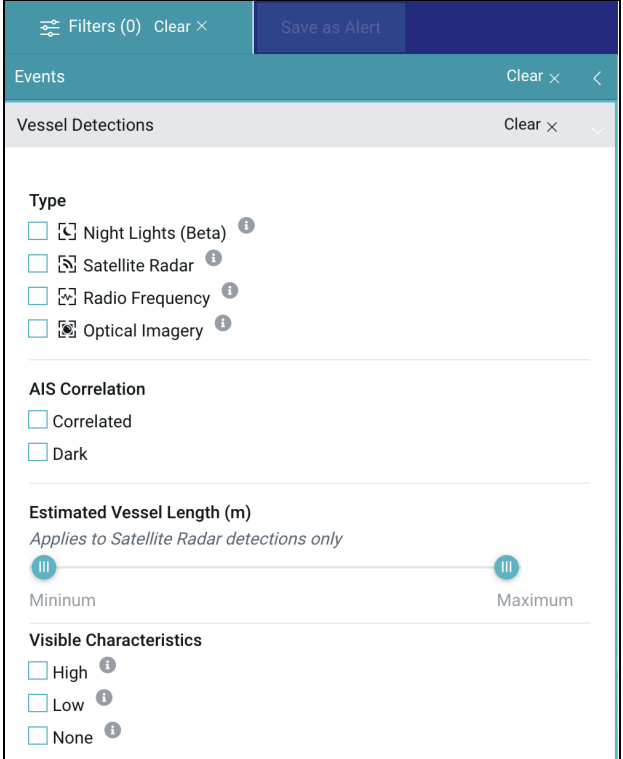
Expanded Filters

Given that Skylight has so many types of Vessel Detection data now, we have expanded filters to help sort through detections.

Type helps sort through the type of detection data being provided. Each type can include a combination of satellites and public/commercial sources.

Estimated Vessel Length helps filter down the results of satellite radar detections on the screen. For example, you can use this slider to identify groups of smaller vessels which are potential fishing fleets.

AIS Correlation helps filter detections that have been correlated with a nearby AIS transmission.

Visible Characteristics helps sort through the quality of images to expect.

Visible Characteristics Category	Meaning	Vessel Detection Types that fall into this category
High	These data sources can locate small vessels, potentially identify the vessel type of medium and large vessels, and identify some large vessels fully (e.g. by their superstructure).	Commercially provided high-resolution Optical Imagery.
Medium	These data sources can only locate medium sized vessels and possibly identify the vessel type of large vessels.	Publicly and commercially provided Satellite Radar data.
None	These data sources determine vessel presence only, no idea of type or size.	Publicly provided Night Lights data and commercially provided Radio Frequency data.

Vessel Data from Global Fishing Watch Directly Visible in Skylight

Vessel Information

AIS ⌄

Unknown
Taiwan

MMSI	416556000
IMO	
Call Sign	
Vessel Type	
Length	
Width	
Tonnage	
Last POC	KAO-HSIUNG, Taiwan (Non-PSMA)

Global Fishing Watch ⌄

TO YU NO.2
Taiwan

MMSI	416556000
IMO	8431097
Call Sign	BI2433
Gear Type	drifting_longlines
Owner	TO YU OCEAN ENTERPRISE
Owner Nationality	TWN
Owner Source	RESEARCH-PAPER
Length	56.3 m
Tonnage	711.8 gt
Engine Power	1044.4 kw
Identity Source	IATTC, IMO, OPRT, RESEARCH-PAPER, WCPFC

Now when looking up information about commercial fishing and support vessels, you will be able to see data from Global Fishing Watch (GFW) on the same page. GFW synthesizes more than 30 public vessel registries each month to develop a comprehensive database of known vessel information.

This is particularly helpful in cases where a vessel is missing its vessel type in AIS, but there is additional information in registry sources aggregated through GFW's efforts **(see left).**

It is possible for there to be multiple records in Global Fishing Watch matching the same vessel **(see below)**. Skylight uses a combination of MMSI, Name and IMO to look for matches in the GFW database. When there are multiple records, there will be a page button to scroll between records.

Global Fishing Watch ⌄

LU PENG YUAN YU 088
China

MMSI	412000000
IMO	8775704
Call Sign	BZSG3
Gear Type	squid_jigger
Owner	
Owner Nationality	
Owner Source	
Length	69.9 m
Tonnage	1408 gt
Engine Power	2100 kw
Identity Source	GFW-REVIEW, IMO, NPFC, SPRFMO

Multiple GFW Records   ‹   1   2   ›

NOTE: Global Fishing Watch data is not provided through the Skylight API. It must be accessed through our interface, downloads from the interface, or directly from GFW.