

#### **NOAA FISHERIES** Office of Law

Enforcement

# Sources of Information for Vessel Owners, Locations and Authorizations

SEAFDEC MCS Workshop

David Pearl, Supervisory Investigative Analyst September 2024

# Sources of Vessel Ownership Data and Fishing Authorizations

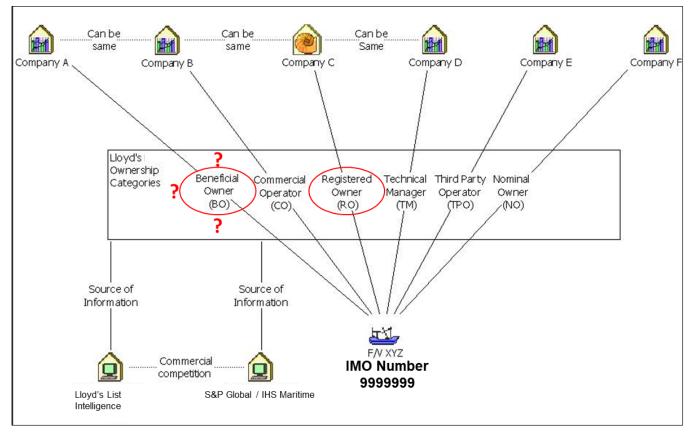
# **Beneficial Vessel Ownership**

- No one single database/tool can reliably pinpoint a vessel's beneficial owner
- There are multiple databases and sources of information that can offer leads for investigators to pursue
- Each vessel is like a unique puzzle that requires thorough research to piece together to determine its beneficial ownership





# **Vessel Ownership 101**



Commercially available ownership information can be out of date and lack context but essential <u>first step for further inquiry</u> – System is ripe for liability cover-ups





#### https://www.lloydslistintelligence.com/



#### Lloyd's List Intelligence Ownership Definitions :

1) Beneficial Owner: deemed to be the ultimate owning entity or representative thereof (either individual, company, group or organization). The Beneficial Owner may be the vessel's management company or the trading name of a group, both of which are generally perceived to represent the ultimate owners of the vessel.

2) Commercial Operator: either a subsidiary or division of the Beneficial Owner or the same as the Beneficial Owner. This is the in-house entity responsible for the commercial decisions concerning the employment of a ship, and how and where the ship is employed. The Commercial Operator is the direct beneficiary of the revenues from operating the ship, and may also be the entity that is responsible for purchasing bunkers and port services. A company heading a group of Registered Owners is regarded as the Commercial Operator of those ships.

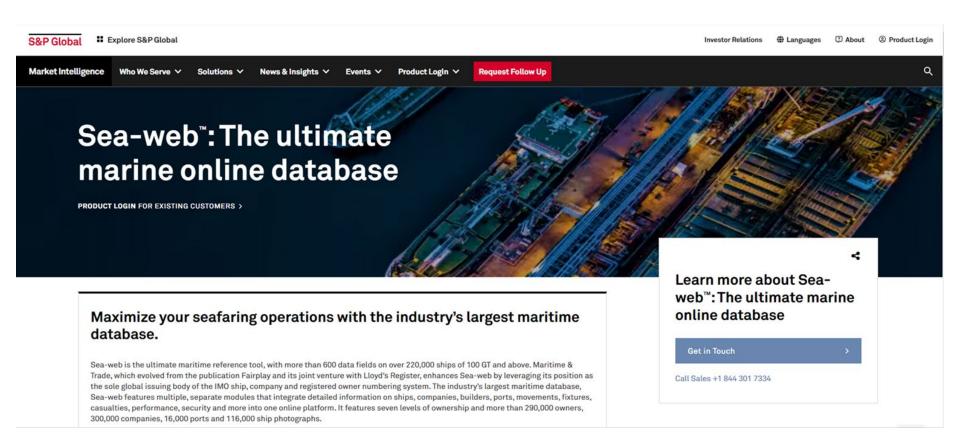
3) Registered Owner: the company or individual whom the ship's legal title of ownership has been registered. This is where "open registry", "paper", or "name-plate" companies are often involved, with ships being registered in a country whose tax on the profits of trading ships is low/absent or whose requirements concerning manning or maintenance might be more relaxed.

4) Technical Manager: the company responsible for the maintenance of the ship and the machinery, repairs, stores and spares, and - in many instances - crew. The Technical Manager can either be an in-house subsidiary or division of the Beneficial Owner, or a third party entity. It is often the case that the DOC Company is also the Technical Manager.

5) Third Party Operator: the company which undertakes control, management, operation or agency of a period chartered ship. The Third Party Operator includes period charters, pool operators, bareboat charters, and third party commercial managers. They have no known corporate relationship with the Beneficial Owner. Sometimes, however, pool companies are partly owned and/or managed by the beneficial owner of one or more vessels in their pool.

6) Nominal Owner: these are the finance organizations or mortgagees behind the purchase of a vessel such as banks or trust companies.





#### https://www.spglobal.com/marketintelligence/en/mi/products/sea-web-maritime-reference.html



#### S&P Global/IHS Maritime Ownership Definitions

IHS Maritime identifies the following roles in respect to a vessel's Ownership/Management. It should be noted that the same company may perform more than one role on a ship.

Document of Compliance (DOC) Company - The owner of the ship or any other organization or person such as the manager or bareboat charterer who has assumed the responsibility for the technical operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the ISM Code.

A documented company on both DOC and SMC Certificates issued by flag Administrations; but the information for which is also available from the Responsible Organizations, such as Classification Societies, who may undertake the audits. In most cases the DOC Company will be responsible for the Technical Management of the ship.

Registered Owner The legal title of ownership of the vessel that appears on the ship's registration documents. It may be an Owner/Manager or a wholly-owned subsidiary in a larger shipping group; or a bank or one-ship company vehicle set up by the bank; or of course, it may be a "brass-plate" company created on paper to legally own a ship and possibly to limit liability for the "real" owners and/or benefit from offshore tax laws. It may anyway be a legal-requirement of the flagstate with whom the ship is registered for the legal owner to be a company registered in that country.

Commercial Manager - The company designated by the shipowner or charterer to be responsible for the day to day commercial running of the ship and the best contact for the ship regarding commercial matters. Including post fixture responsibilities, such as laytime, demurrage, insurance and charter clauses. This company may be an owner related company, or a third-party manager, whose purpose is primarily the management of ships for their ship-owning clients.

In some circumstances a ship may be owned by a financial organization who has no operational involvement whatever. The lessee company, or one of its subsidiary companies, may be deemed to be the commercial manager of the ship.

Technical Manager - The company designated by the ship owner or operator or ship manager to be specifically responsible for the technical operation and technical superintendency of a ship. This company may also be responsible for purchases regarding the fleet, such as repairs, spares, re-engining, surveys, dry-docking, etc.

In the majority of cases the DOC Company will also be responsible for the Technical Management of the ship.

**Commercial Operator** - The company responsible for the commercial decisions concerning the employment of a ship and therefore who decides how and where that asset is employed. The direct beneficiary of the profits from the operations of the ship, this company may also be responsible for purchasing decisions on bunkers and port services. A medium to long-term time charterer is considered to be the commercial operator of the ship while a medium to long-term bareboat charterer may sometimes be considered to be the commercial operator of the ship. Companies heading operator pools are the commercial operators of the ships in the pool. In Shipping Circles the Commercial Operator may often be referred to as the Disponent Owner of the ship.

- In the absence of an authoritative source for the Operator of the ship, the Commercial Ship Manager will be used as a default until the identity of the Operator is substantiated.

Bareboat/Demise Charterer – The company identified on the charter-party who charters the ship on a bareboat or demise charter. In this the charterer assumes control over all operations, costs and responsibilities associated with the vessel for an agreed period of time. The charterer becomes or appoints the managers and may also have the right to sub-charter the vessel. In Time Charter Party agreements, the charterer may only assume responsibility for operations, routing and cargo, while technical, crewing etc. remain with the owner. In some circumstances, the Bareboat/Demise Charterer may be referred to as the Disponent Owner of the ship.

It is increasingly common for ships to be in parallel registry during the period of a bareboat charter. In this case, the ship is transferred by the bareboat charterer to a new operational flag, while the ownership of the ship (Registered Owner) continues under the original Registry. None of the legal or financial responsibilities of the Registered Owner are transferred to the bareboat charterer during the period of charter.

- In Demise Charter agreements, if negotiated at the beginning of charter agreement, the charterer may have the option to purchase the vessel at the end of the charter period.

Group Beneficial Owner – This is the parent company of the Registered Owner. It is the controlling interest behind its fleet and the ultimate beneficiary from the ownership. A Group Beneficial Owner may or may not directly own ships itself as a Registered Owner. It may be the Manager of its fleet, which is in turn owned by subsidiary companies. Its ships may also be managed by a 3rd party under contract.

In some circumstances a ship may be owned by a financial organization who has no operational involvement whatever. In Shipping Circles, the lessee company, which may also sometimes be referred to as the Disponent Owner, can also be the Group Beneficial Owner, Commercial Manager or Commercial Operator of the ship.

Group Operated Fleet – For companies identified as Group Beneficial Owners, IHS Maritime can identify the total operational fleet. This Group Operated Fleet includes all the ships in the fleet operated by the group, including both their owned vessels and chartered in ships.





#### REQUEST FOR IMO SHIP IDENTIFICATION NUMBER

IHS Maritime & Trade Sentinel House, 163 Brighton Road Coulsdon, Surrey CR5 2YH United Kingdom Tel: +44 01334 328300 Email: ship.imo@ihs.com

TO ENABLE UNIQUE IDENTIFICATION OF SHIPS FOR ASSIGNMENT OF AN IMO NUMBER IN ACCORDANCE WIT IMO RESOLUTION A.1078 (28), SOLAS XI 1/3 and 1/5, PLEASE COMPLETE THE FOLLOWING DETAILS IN CAPITAL	
Note: Shipbuilding details are essential to issue an IMO Ship Number for Newbuildings prior to completio	a

			Sender's Email*			
Company Name*		Contract Magena	in a line near			
unten eides societ		COMPANY REQUEST				
Current Class Societ			kW of Each Engine		umber of Propellers	-
Number of Main Eng	ines* M	lanufac turer*		Engine Model*	(	
	ered Owner† & / ing Fax, Telephone		(Includin	Manager† & A g Fax, Telephone,	ddress† Email & Website)	
or Oil Tankers	Othe	ship complies with regular er (please specify) ship is subject to CAS re			Yes No	
MARPOL requirer	nents The	ship complies with regula	tion 13F(3) (double	e-hull)	Yes No	
Ship Type			Fishing Vo	essel Gear-type		
Place of Build*				Hull Material*		
Sub-Contractor Hull			Sub-Contract	tor Hull Number	r	
shipbuilder*			Shipbuilde	r Hull Number*	•	
Keel Laying Date		Launch Date		Completion I	Date*:	
Moulded Depth*		Draught		1. and		
ength Overall*		Length B.P.		Beam		
Fonnage (69 Gross*	Yes	No Fishing No.+		Deadw eight		-
MMSI†		Official Number†	71	ag Registration	Date	
Flag*		Port of Registry†		Call Sign		-
				2		-
Former Name(s) Driginal Name*						

# Foundation for S&P Global/IHS Maritime SeaWeb database



#### **Vessel Registration Application Example: United States**

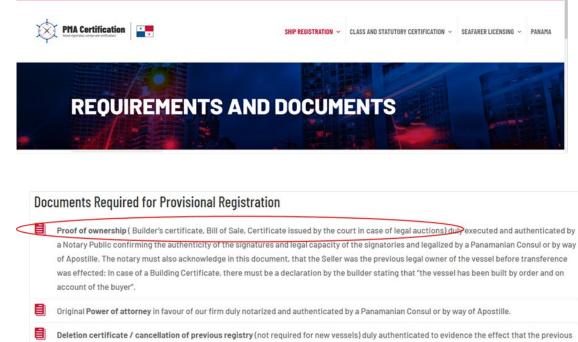
	Coast Guard Expres: 04/30/2023	One on More INDIVIDUALS	TRUST ARRANGEMENT (COMPLETE EQUITY/STOCK SECTION) (SEE SECTION M, ITEM 5 WHEN APPLYING FOR A FISHERY OR COASTWISE ENDORSEMENT)
	Expres: 04/30/2023 EXCHANGE, OR REPLACEMENT OF	I WE CERTIFY THAT ALL OWNERS OF THIS VESSEL ARE CITIZENS OF THE UNITED STATES	I (WE) CERTIFY THAT ALL TRUSTEES AND ALL BENEFICIARIES WITH AN ENFORCEABLE INTEREST IN THIS TRUST ARRANGEMENT
	ENTATION; REDOCUMENTATION	GOVERNMENT ENTITY (FERERAL, STATE, TERRITORY, POSSESSION OR SUBDIVISION)	ARE CITIZENS OF THE UNITED STATES, ELIGIBLE TO DOCUMENT VASELS WITH THE ENDORSEMENT(S) SOUGHT IN THEIR OWN
	DOCUMENTATION OR TO ANY CHANGES SOUGHT ON A CERTIFICATE OF	CORPORATION (SEE CTION M. ITEM 5 WHEN APPLYING FOR A FISHERY OR COASTWISE ENDORSEMENT	RIGHT.
DOCUMENTATION. OFFICIAL NUMBERS DESIGNATED ON THE BASI	S OF THIS APPLICATION ARE NOT TRANSFERABLE. ONLY A CURRENT	1. STATE OF INCORPORATION	EQUITY INTEREST OWNED BY PERSONS ELIGIBLE TO DOCUMENT VESSELS IN THEIR OWN RIGHT WITH THE ENDORSEMENT(S) SOUGHT IN
CERTIFICATE OF DOCUMENTATION IS VALID FOR VESSEL OPERATI		2 CITIZEN HIP OF CHEF EXECUTIVE OFFICER BY WHATEVER TITLE	ACCORDANCE WITH 46 CFR PART 67 (SUBPART C)
	R ALL APPLICATIONS	3. CITUENSHIP OF CHAIRMAN OF THE BOARD	LESS THAN 50% T5% OR MORE (AND, AT EACH TIER, IF APPLICABLE)
A. VESSEL NAME (REQUIRED)	B. OFFICIAL # (IF AWARDED)		50% OR MORE: STATE EXACT 75% OR MORE (AND, AT EACH TIER AND IN THE AGGREGATE (IF FISHERY), IF APPLICABLE
		4. NOMBER OF DIRECTORS NECESSARY TO CONSTITUTE A QUORUM	PERCENTAGE
CLICK ICON TO ATTACH LIST OF ADDITIONAL VESSEL(S)		5. NUMBER OF ALIEN DIRECTORS	OR
C. HULL ID # (IF ANY) D. IMO # (IF ANY)	E. HAILING PORT INCLUDING STATE (TO BE MARKED ON VESSEL)	PERCENTAGE OF STOCK OWNED BY U.S. CITIZENS ELIGIBLE TO DOCUMENT VESSELS IN THEIR OWN RIGHT, WITH THE ENDORSEMENT(S) SOUGHT ON THIS APPLICATION IN ACCORDANCE WITH 46 CFR PART 67 (SUBPART C)	VESSEL OWNED IN A TRUST ARRANGEMENT PURSUANT TO 46 USC 12111(c) (CROSS BORDER FINANCING) I (WE) CERTIFY THAT THE VESSEL IS OWNED IN A TRUST ARRANGEMENT THAT QUALIFIES FOR A REGISTRY ENDORSEMENT
F. NAME OF MANAGING OWNER	SOCIAL SECURITY OR TAX ID NUMBER (REQUIRED - 46 USC 12104):	LESS THAN 50% 75% OR MORE (AND, AT EACH TIER, # APPLICABLE)	ONLY PURSUANT TO PUBLIC LAW 104-324, SECT, 1136, ATTACHED IS AN AFFIDAVIT OF FACH TRUSTEE AND CITIZENSIP
	SSN TIN	50% OR MORE: STATE EXACT 75% OR MORE (AND, AT EACH TER AND IN THE AGGREGATE (# FISHERY), # APPLIAABLE)	EVIDENCE FOR THE CHARTERER AS REQUIRED UNDER THE STATUTE.
		PERCENTAGE	
E-MAL CORESS: TELEPHONE NUMBER:		LIMITED LIABILITY COMPANY (LLC): (COMPLETE EQUITY SECTION AND CHOOSE TYPE) (SEE SECTION M, ITEM 5 WHEN APPLYING FOR A FISHERY OR COASTWISE ENDORSEMENT).	CLICK ICON TO ATTACH LIST OF ALL TRUSTEES AND ALL BENEFICIARIES WITH AN ENFORCEABLE INTEREST/(REQUIRED)
PHYSICAL ADDRESS OF MANAGING OWNER (REQUIRED -	MAILING ADDRESS OF MANAGING OWNER (IF DIFFERENT THAN	FOR A FISHERT OR COASTWISE ENDORSEMENT).	M. I (WE) CERTIFY THAT: (MARK ALL THAT ARE APPLICABLE. ITEM 5. NOT REQUIRED FOR COASTWISE BOWATER ONLY, OIL SPILL, OR UNDER CHARTER ENDORSEMENTS.)
46 CFR 67.113)	PHYSICAL ADDRESS - E.G., P.O. BOX)	EQUITY INTEREST OWNED BY PERSONS ELIGIBLE TO DOCUMENT VESSELS IN THEIR OWN RIGHT WITH THE ENDORSEMENT SOUGHT IN ACCORDANCE WITH 46 CFR PART 67 (SUBPART C)	1. I AM (WE ARE) A CITIZEN(S) OF THE UNITED STATES AND LEGALLY AUTHORIZED TO EXECUTE THIS APPLICATION IN THE     CAPACITY SHOWN:
		LESS THAN 50% 75% OR MORE (AND, AT EACH TIER, IF APPLICABLE)	
		SON OR MORE: STATE EXACT 75% OR MORE (AND, AT EACH TIER AND IN THE AGGREGATE (IF FISHERY), IF APPLICABLE PERCENTAGE	IN ACCORDANCE WITH 46 CFR PART 67 (SUBPART I) THE VESSEL(S) TO WHICH THIS APPLICATION APPLIES;     (a)      (a) HAS (HAVE) BEEN MARKED OR      (HAUS) WILL BE MARKED;
N		1. MEMBER MANAGED LIMITED LIABILITY COMPANY	(b) WILL AT ALL TIMES REMAIN UNDER THE COMMAND OF A U.S. CITIZEN, UNLESS DOCUMENTED SOLELY WITH A RECREATIONAL ENDORSEMENT: WILL NOT BE OPERATED IN A TRADE NOT AUTHORIZED BY THE ENDORSEMENT(S) ON THE
H. NAME(S) OF OTHER OWNER(S)	SOCIAL SECURITY OR TAX ID NUMBER(S) OF OTHER OWNER(S)	I. MEMBER WAVAGED JIMITED CABLET COMPARY I (WE) CERTIFY THAT ALL MEMBERS OF THIS LIC ARE CITIZENS OF THE UNITED STATES ELIGIBLE TO DOCUMENT VESSELS WITH	CERTIFICATE(S) OF DOCUMENTATION. THE NAME(S) OF THE VESSEL(S) WILL NOT BE CHANGED WITHOUT APPROVAL FROM
	SSN TN	THE ENDORSEMENT(S) SOUGHT IN THEIR OWN RIGHT.	THE NATIONAL VESSEL DOCUMENTATION CENTER: AND I/WE) WILL PROMPTLY NOTIFY THE NATIONAL VESSEL DOCUMENTATION CENTER UPON A CHANGE IN ANY OF THE INFORMATION OR REPRESENTATIONS IN THIS APPLICATION.
		CLICK ICON TO ATTACH LIST OF ALL MEMBERS)(REQUIRED)	
1 CLICK ICON TO ATTACH LIST OF ADDITIONAL OWNER(S)		OR	3. HAS (HAVE) NOT OR HAS (HAVE) BEEN REBULT OR SUBSTANTIALLY ALTERED SINCE LAST DOCUMENTATION.
L PURPOSE OF APPLICATION		<ol> <li>LIMITED LIABILITY COMPANY NOT MANAGED BY MEMBERS AND NOT SIMILAR TO GENERAL PARTNERSHIP. PLEASE NOTE (A) &amp; (B) MUST BE CHECKED FOR FISHERY AND COASTWISE ENDORSEMENTS: NOT REQUIRED FOR COASTWISE</li> </ol>	4. THE VESSEL IS
1. EXCHANGE OF CERTIFICATE OF DOCUMENTATION.		OIL SPILL OR COASTWISE UNDER CHARTER ENDORSEMENTS.	NOT TITLED UNDER A STATE OR     TITLED UNDER THE LAWS OF
2. REPLACEMENT OF LOST, WRONGFULLY WITHHELD OR MUT		A. 1(WE) CERTIFY THAT ANY PERSON ELECTED TO MANAGE THE LLC OR WHO IS AUTHORIZED TO BIND THE LLC, AND ANY	
3. RE-INSTATEMENT OF CERTIFICATE OF DOCUMENTATION FO		PERSON WHO HOLDS A POSITION EQUIVALENT TO THE CHIEF EXECUTIVE OFFICER, BY WHATEVER TITLE, AND THE	THE FOLLOWING ITEM IS REQUIRED FOR COASTWISE AND/OR FISHERY ENDORSEMENTS; HOWEVER, IT IS NOT REQUIRED FOR COASTWISE BOWATER ONLY, OIL SPILL, OR UNDER CHARTER ENDORSEMENTS.
4. RETURN TO DOCUMENTATION FOLLOWING DELETION. VES	SEL NAME WHEN LAST DOCUMENTED	CHAIRMAN OF THE BOARD OF DIRECTORS IN A CORPORATION, AND ANY PERSONS AUTHORIZED TO ACT IN THEIR ABSENCE ARE CITIZENS OF THE UNITED STATES.	6. U.S. CONTROL CERTIFICATION. THERE IS NO CONTRACT OR UNDERSTANDING THAT PROVIDES MORE THAN 25% OF THE
5. APPLICATION FOR OFFICIAL NUMBER AND FIRST CERTIFICA	TE OF DOCUMENTATION. VESSEL	8. NON-CITIZENS DO NOT HAVE AUTHORITY WITHIN A MANAGEMENT GROUP, WHETHER THROUGH VETO POWER, COMBINED	VOTING POWER IN THE PARTNERSHIP, LIMITED LIABILITY COMPANY, CORPORATION, OR OTHER OWNING ENTITY EITHER
WAS BUILT AT	N	VOTING, OR OTHERWISE, TO EXERCISE CONTROL OVER THE LLC.	DIRECTLY OR INDIRECTLY ON BEHALF OF ANY PERSON NOT A CITIZEN OF THE UNITED STATES. BY NO MEANS WHATSOEVER IS CONTROL IN EXCESS OF 25% CONFERRED UPON OR PERMITTED TO BE EXERCISED BY A PERSON WHO IS
	TE, COUNTRY MONTHYEAR	STATE WHERE ORGANIZED	NOT A CITIZEN OF THE UNITED STATES.
IS UNDER CONSTRUCTION AT	AND IS SCHEDULED FOR COMPLETION IN	PAR MERSHIP (COMPLETE EQUITY SECTION AND CHOOSE TYPE) (SEE SECTION M, ITEM 5 WHEN APPLYING FOR FISHERY OR	POTENTIAL PENALTES FOR FALSE STATEMENTS OR REPRESENTATIONS BY OWNER OR REPRESENTATIVE: CIVIL MONETARY, VESSEL
HULL MATERIAL: WOOD STEEL FIB	ROUS REINFORCED PLASTIC ALUMINUM CONCRETE	COASTWISE ENDORSEMENT)	FORFEITURE (46 USC 12151), FINE AND/OR IMPRISONMENT (18 USC 1001)
OTHER (DESCRIBE)	APPROXIMATE LENGTH OF VESSEL	EQUITY ITEREST OWNED BY PERSONS ELIGIBLE TO DOCUMENT VESSELS IN THEIR OWN RIGHT WITH THE ENDORSEMENT SOLICITY IN	
PREVIOUS NAMES, NUMBERS, OR FOREIGN REGISTRATI	ONS OF VERSEL	ACCORDANCE WITH 46 CFR PART 67 (SUBPART C)	SIGNATURE DATE CAPACITY & G., OWNER, AGENT, TRUSTEE
		LESS THAN 50% 75% OR MORE (AND, AT EACH TIER, IF APPLICABLE)	GENERAL PARTNER, CORPORATE OFFICER, MEMBER)
J. ENDORSEMENTS FOR WHICH APPLICATION IS MADE		Style or more state exact 75% or more (and, at each tier and in the aggregate (if Fishery), if Applicable)	PRINTED OR TYPED NAME
RECREATIONAL COASTWISE - BOWATER	IS ONLY (CERTIFICATE ON FILE)	PERCENTAGE	APPLICATION FEES ARE NOT REFUNDABLE (46 CFR 67.500 (d)).
FISHERY COASTWISE - OIL SPILL	RESPONSE ONLY (LETTER OF QUALIFICATION ON FILE)	I. GENERAL PARTNERSHIP I (WE) CERTIFY DHAT ALL PARTNERS IN THIS PARTNERSHIP ARE CITIZENS OF THE UNITED STATES ELGIBLE TO DOCUMENT	PRIVACY ACT STATEMENT
	ARTER TO AN ENTITY QUALIFIED TO ENGAGE IN COASTWISE TRADE	VESSELS WITH THE ENDORSEMENT(S) SOUGHT IN THEIR OWN RIGHT.	PURSUANT TO \$ U.S.C. § 5524(E);), THIS PRIVACY ACT STATEMENT SERVES TO INFORM YOU OF WHY THE U.S. COAST GUARD (USCG) IS REQUESTING THE INFORMATION ON THIS FORM.
REGISTRY (COPY OF CHARTER ON	FILE)	2. LIMTED PARTNERS 8	AUTORITY & U.S. CHAPTERS 121, 125, 651 AND \$50501.
K. PRIMARY SERVICE & HORSEPOWER		I (WE) CERTIFY THAT ALL GENERAL PARTNERS IN THIS PARTNERSHIP ARE CITIZENS OF THE UNITED STATES, ELIGIBLE TO DOCUMENT VESSELS WITH THE ENDORSEMENT(S) SOUGHT IN THEIR OWN RIGHT.	PURPOSE: TO OBTAIN INFORMATION TO ESTABLISH THE ELIGIBILITY OF A VESSEL TO BE DOCUMENTED AS A "VESSEL OF THE UNITED STATES". ENGAGE IN A
HORSEPOWER OFFSHORE SUPP	LY VESSEL RECREATIONAL		PARTICULAR TRADE; AND/OR BECOME THE OBJECT OF A PREFERRED SHIP'S MORTGAGE. ROUTINE USES: AUTHORIZED USCG PERSONNEL WILL USE THIS INFORMATION TO DETERMINE CITIZENSHIP OF THE OWNER OF THE VESSEL FOR WHICH
COMMERCIAL FISHING BOAT	R FEWER) RESEARCH VESSEL	CLICK ICON TO ATTACH LIST OF ALL GENERAL PARTNERS/REGUIRED     CORPORATION QUALIFIED AND APPLYING UNDER 46 CFR 68.01 (BOWATERS)	APPLICATION FOR DOCUMENTATION IS MADE: AND DETERMINE ELICIBILITY OF THE VESSEL TO BE DOCUMENTED WITH THE TRADE ENDORSEMENT SOLICHT.
FISH PROCESSING VESSEL	RE THAN 6 ) SCHOOL SHIP	CORPORATION QUALIFIED AND APPLYING UNDER 48 CYR 58.01 (GOWATERS) I (WE) CERTIFY THAT THE CORPORTE STRUCTURE HAS NOT CHANGED SINCE ISSUANCE OF THE CERTIFICATE OF COMPLIANCE.	ANY EXTERNAL DISCLOSURES OF DATA WITHIN THIS RECORD WILL BE MADE IN ACCORDANCE WITH DHIS/USCG 2(3), MARINE INFORMATION FOR SAFETY AND LAW ENFORCEMENT, 74 FEDERAL REGISTER (FR) 30305, JUNE 25, 2009.
	GE (6 OR FEWER) TANK BARGE	VESSEL OWNED OR OPERATED BY NOT-FOR-PROFIT OIL RECOVERY COOPERATIVE	DISCLOSURE: FURNISHING THIS INFORMATION IS VOLUNTARY, HOWEVER, FAILURE TO PROVIDE THE INFORMATION REQUESTED MAY RESULT IN DENIAL OF THE APPLICATION FOR DOCUMENTATION, WHICH MAY PREVENT THE OWNER FROM OPERATING THE VESSELSS IN A SPECIFIED TRADE.
	GE (MORE THAN 6) TANK SHIP	I (WE) CERTIFY THAT THE INFORMATION ON FILE WITH REGARD TO COOPERATIVE AND ISSUANCE OF THE LETTER OF QUALIFICATION REMAINS UNCHANGED.	THE APPLICATION FOR DOCUMENTATION, WHICH MAY PREVENT THE OWNER FROM OPERATING THE VESSELIS) IN A SPECIFIED TRADE. AN AGENCY MAY NOT CONDUCT OR SPONSOR AND A PERSON IS NOT REQUIRED TO RESPOND TO A COLLECTION OF INFORMATION UNLESS IT DISPLAYS A
INDUSTRIAL VESSEL	TOWING VESSEL	DUNTURINE OR ASSOCIATION	VALID 048 CONTROL NUMBER.
MOBILE OFFSHORE DRILLING UNT	8	I (WE) CERTIFY THAT ALL MEMBERS OF THIS (JOINT VENTURE) (ASSOCIATION) ARE CITIZENS OF THE UNITED STATES, ELIGIBLE TO	THE COAST GUARD ESTIMATES THAT THE AVERAGE BURDEN FOR THIS FORM IS 30 MINUTES. YOU MAY SUBMIT ANY COMMENTS CONCERNING THE ACCURACY
		DOCUMENT VESSELS IN THEIR OWN RIGHT WITH THE ENDORSEMENT(S) SOUGHT.	OF THIS BURDEN ESTIMATE OR MAKE SUGGESTIONS FOR REDUCING THE BURDEN TO: U.S. COAST QUARD, NATIONAL VESSEL DOCUMENTATION CENTER, 192 TJ JACKSON DRIVE, FALLING WATERS, WEST VIRGINIA 25419, OR OFFICE OF MANAGEMENT AND BUDGET, PAPERWORK REDUCTION PROJECT (1925-0027).
OIL RECOVERY DUBLIC VESSEL		CLUCK ICON TO ATTACH LIST OF ALL JOINT VENTURERS/MEMBERS/(REQUIRED)	WASHINGTON, DC 20503.
CG-1258 (05/20) Pr	evious Edition Obsolete Page 2 of 4	CG-1258 (05/20) Page 3 of 4	CG-1258 (05/20) Page 4 of

Flag State vessel registration application documents are a great source of information to support investigations into beneficial ownership



### Vessel Registration Application Forms Example: Panama

f in HOME NEWS ABOUT US CONTACT US



- Deletion certificate / cancellation of previous registry (not required for new vessels) duly authenticated to evidence the effect that the previous registry has been cancelled or closed.
- Radio application forms, duly filled out.
- Technical certificates: International Tonnage Certificate, certificates issued by a recognized organization under the vessel's name and under the authority of the Panamanian Government.
- Upon presentation of the above documentation to the Shipping Bureau, registration of the respective Title of ownership (e.g. Bill of sale) and completion of various procedural steps, the Panama Maritime Auythority will issue Statutory Navigation Patente and Statutory Radio License valid for five (5) years.

#### **Documents Required for Provisional Registration**

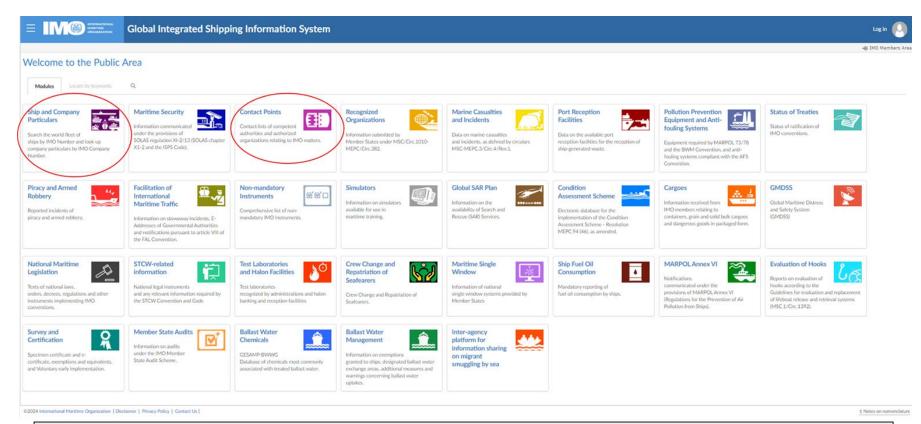
- Copy of a Power of attorney duly authenticated by a Notary Public and legalized (draft will be provided by our office upon your request)
- Completed application for registration (data in respect of technical description of the vessel)
- Payment of governmental fees; enrollment and first year annual taxes.
- Document of title (Builder's certificate, Bill of Sale, Certificate issued by the court in case of legal auctions)\*

#### Technical certificates:

Valid copy of the current Safety Management Certificate (SMC).



### **Finding National Contact Points for IMO related issues**



IMO's GISIS Contact Points module helpful for providing investigator's leads to reach out to for more information about a vessel's flag state registration; Ship and Company Particulars provides some ownership information

#### https://gisis.imo.org/Public/



# **Fishing Permit Example: United States**

						<ul> <li>W NATIONAL OCCANIC AND ATHO</li> </ul>	CANERUS ARRIVITATION	
					4 Back	eearch	<b>B</b>	
					Permis Home	NOAA Fish	eries Permits	DTPEARL9
NOAA HOS	WEATHER OCEAN FISHERIES CHARTING SATELLITES CLIMATE RESEARCH COASTS CAREERS		E WEATHER OCEAN PISHERE'S CHARTING SATELLITE'S CLIMATE RE	SEARCH COASTS CAREERS	Online Services Permit Information	Vessel Details		Back To Search I
10			AA FISHERIES SERVICE		Search issued Permits		VESSEL IDENTIFICATION	
	AA FISHERIES SERVICE				Permit Applications	Vessel Name	FRIESLAND	
	B BATIOBAL OCCASIC ADD ATROCPACEOL ADDIALOTRATION				Treak Application Status	USCG Document Number	1216624	
	seed.	4.868	seerch 📀		My Account	International Radio Call Sign	WDE6789	
		Parents Home	NOAA Fisheries Permits	OTPEARL991 Log-out		Vessel Registration Type	CG	
	NOAA Fisheries Permits Copin	Online Services	10000100000		My Permits	USCG Document Statue	VALID	
	Search and the second	Permit Information	Search Results		Edit Account information	USCG Number Issued Date	01/10/2024	
	Search Issued Permits	Search Issued Permits		200.7909.030203	Change Password	USCG Document Expiration Date	02/26/2025	
		Permit Applications	Permits Found: 4 Permits Found: 4	Date: 25.Aug-2024	Resources	IMO Number	9010953	
	This facility allows you to search for NOAA issued permits.	Track Application Status	Permittee Name: Not Specified		The Contractor Contractor	Halling Port City	LAS VEGAS	
1	Note: We are in the process of integrating permits from all regional offices so that they will be accessible through this web site. Until this process is complete, current search results are limited to the permit types displayed in the list below.	My Account	Vessel Name: Priesland		FAQ.	Halling Port State	NV NV	
-	process a company, commis search resource are animate to are permit types organized in the lacitation.	My Permits			Useful Links	making Port scate	100	
		Edit Account Information		VESSEL ID STATUS EXPIRATION DATE	Contect Information		VESSEL PHYSICAL PROPERTIES	
	Search Parameters	Change Password	FORESON EEZ CONTINUENCE EARD	S255 CURRENT	Technicel Support	Gross Tons - Registered	2437	
	NOTE:	Resources	SUITE 1A2 SAN DIEGO, CA			Processing Equipment	RSW AND BRINE	
	Any option with the word "ALL" in it requires a value for "Permittee Name" and/or "Vessel Name"	FAQ. Useful Links	82101 ETP-V FRIESLAND FISHING 2535 KETTNER CA 82101-	5269 CURRENT 12/31/2024	Adobe	Vessel maximum speed	16	
	Permittee Name:	Contact Information	-SW ETP VESSEL COMPANY LLC BLVD STE 1A2 1252		Reader	HOLD CAPACITY (WEIGHT)	2100	
	Vessel Name:	Technical Support	SAN DIEGO, GA KONST, KONST		Some online documents require	Shaft Horsepower (SHP)	4500	
	Issuing Office: - All Offices - V	and second	HERE'S AND FEMALE 2515 KETTLER CA 82554	1239 CURRENT 12/05/2028	Adabe Reader for viewing and printing. Please click on the	Length - Registered	255.3	
	Permit Program: - All Permits	Alone Reader	HIGH SEAS FISHING COMPANY LLC BLVD STE IA2 1252 COMPLIANCE ACT P150	de se construction de la constru	Image above to obtain or update	Breadth - Registered	47	
		Some prime documents require	SAN DIEGO, GA 92101-1052		this application as needed.	Depth - Registered	28.6	
	Tm not a robot	Adobe Reader for viewing and printing. Please plot on the	WOPPC FRIESLAND FISHING 2535 KETTNER CA 82101- WOPPC AREA COMPANY LLC BLVD STE 142 1252	5259 CURRENT 12/63/2928		Net Tonnage - Registered	731	
	wCAFTONA	Image above to obtain or update this application as needed.		and a second		Hull or Construction Material	STEEL	
	Pray Tana		5AN DEGO, CA 82101-1232			Propulsion	DIESEL REDUCTION	
	Search						YES	
						Self Propelled Indicator	TLS	
			Search Again				VESSEL EXTENDED ATTRIBUTES	
	search 2					Refrigeration/Product Storage	BRINE	
	Fisheren Service					VESSEL PHOTOGRAPH SUBMISSION METHOD	SENT ELECTRONICALLY VIA E-MAIL	
•	Tochesid Segont Factors Feedback Service Feedback		search -			DATE PHOTOGRAPH TAKEN	08/04/2023	
	Contact Information Form Search 💙 😈	12.0				VESSEL PHOTOGRAPH MARKINGS	WDE6789	
	Phage Policy About Us View View View View View View View View	Fisheries Permits	Fisheries Service	$\sim$		Hull Configuration	UNSPECIFIED	
	Deditor	System v PR 3.8.02	Technical Support Patientes Home Feedback	😒 資		Hull Yard City	KAOHSUNG	
		Convent Overfions - Useful Links	Contact Information Forms Search Privacy Policy About Us			Hull Yard Country	TAJWAN	
		2017.007	Information Duality Contact Us			Hull shape	UNSPECIFIED	
							VESSEL CHARACTERISTICS	
						Fishing Vessel Type	PURSE SEINER - TUNA	
						SINGLE SIDEBAND RADIO	YES	
						HAS AN INTERNATION RADIO CALL	YES	
						SIGN (IRCS)	165	
						Service Type	COMMERCIAL FISHING VESSEL	
						Trade endorsement	REGISTRY	
						Hall Province	UNITED STATES	
1		100	1.554				VESSEL CONTACT INFORMATION	
	State wassel fishing normit r	anarda	are enother good	0011500		VESSEL COMMUNICATION TYPE	EMAIL INMARIAT ADDRESS	
	State vessel fishing permit re	ecords	are another dood	Source		COMMUNICATION NUMBER	NAVIGATORFRIESLAND@GMAIL.COM	
9	State Second Second		good good			INMARSAT SERVICE	OTHER	
	fame allow to accordent to the	- 11 1	at a la sur afficient	a la tra la tra		OTHER INMARSAT SERVICE TYPE	VSAT	
1	formation to support investig	ations	nto peneticial owi	hershin			VESSEL FOREIGN FLAG INFORMATION	
1	ionnation to support investig	allonon		loronip		Effective date - Begin period	02/17/2005	
						Effective date - End period	05/09/2007	
						Previous Vessel Name	FRIESLAND	



Foreign Vessel Flag Indicator

Previous Vessel Flag Country Name NETHERLANDS ANTILLES

#### **Finding National Contact Points for Fisheries Governance Issues**

Food and Agriculture Organization of the United Nations		Global Information Exchange System Agreement On Port State Measures			English 👻
🕅 GIES Webpage	National Contact	Points		Filter by country	Q Search
Overview	Country name	Authority name	Authority email		Phone number
[]+ Login	Switzerland	Federal Food Safety and Veterinary Office	iuu@blv.admin.ch		null@
NCP & DP	Thailand	Fisheries and Fleet Management Division, Department of Fisheries	thaipsm.investigation@g	mail.com , thaipsm@fisheries.go.th	66@621539351
Search	Timor-Leste	National Directorate of Inspection for Fisheries and Aquatic Resources	pamrodrigues@maf.gov.	u	670@78496100
Designated ports	Тодо	Direction des pêches et de l'aquaculture/Ministère de l'agriculture, de la production animale et halieutique	dpamaep_tg@yahoo.con	n	+228 90 00 60 11
Settings ∵∰: Theme	Tonga	Ministry of Fisheries	vailalam@yahoo.com		676@7401202
About GIES	Trinidad and Tobago	Fisheries Division, Ministry of Agriculture, Land and Fisheries	fisheriesmcs@gov.tt		1@868 625 9358
Legal Disclaimer	Türkiye	The Ministry of Agriculture and Forestry, The Directorate General of Fisheries and Aquaculture	esrafatma.denizci@tarim	orman.gov.tr	90@312 258 30 73
	Uganda	DIRECTORATE OF FISHERIES RESOURCES	edwardrukunya@yahoo.	com	256@772482599
	United Kingdom	UK Marine Management Organisation	UKIUUSLO@marinemana	agement.org.uk	+44 0 330 041 6585
	United States of America	National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Law Enforcement	NOAA.OLE.International@	anoaa.gov	+1 (301) 427-2300
	Uruguay	Dirección Nacional de Recursos Acuáticos	direcciongeneraldinara@	mgap.gub.uy	+598 92141354
	Vanuatu	Vanuatu	vupsm@vanuatu.gov.vu		678@7748506
	Viet Nam	Fisheries Surveillance Department (Ministry of Agriculture and Rural Development)	trangnhungicd@gmail.cc	om; nhungntt.htqt@mard.gov.vn	84@912153865
	Showing 13 results of 93				Page 5 of 5

FAO's GIES a good source for providing investigator's leads to reach out to for more information about a vessel's fishing authorizations/permits

#### https://psma-gies.fao.org/



### **RFMO Fishing Authorization Example: ICCAT**

/29/24, 11:47 AM			1	CCAt-CICT	A-CICCA				
AT000NAM000	96, HALIFA	AX							
									🔒 <u>Pri</u>
Reporting Flag :	Namibia	Current Flag :	Namibia	Registry	Number :	:	2021LB001		
IRCS :	V5IW	Length :	27,32	Type of	length :	1	LOA		
GRT :	93,18	Type of Tonnage :	GT	Internati	onal Reg N	o: (	8529533		
Type of IRN :	IMO	Vessel Type :	Longliner	Gear Tyj	pe:	I	Longlines (	not specifie	ed)
		Dates of Auti	norization (Flag	State)					
		Duite of Aut			From	То		Notifie	d
		Positive List (	LOA >= 20 m)		19/05/202		12/2024	02/07/2	-
		Tropical Catch			19/05/202		12/2024	02/07/2	
		SWO-S catch			19/05/202		12/2024	02/07/2	
		ALB-S catchir			19/05/202		12/2024	02/07/2	
City: Lu	outh Wolf Hold Ideritz amibia	dings (PTY) LTD			Address : Postal Code Telephone : E-Mail :		P.O.Bo 264 26463 Ilm@iv	202135	
Operator Details		lings (PTY) LTD			Address :		P.O.Bo	205	
	ideritz	angs (FTT) LTD			Postal Code		264	x 303,	
	amibia				Telephone :			202135	
Fax :	arr m0102				E-Mail :		Ilm@iv		
History Details (*) Vessel Details	>								
DateToHistory	ICCATNo	RegNo IRCS	VesName	FlagCode	VesCode	GearCode	LengthM	Tonnage	TonTy
14/07/2020 AT	000SEN0003	31 DAK1273 6WMF		SEN	LL	LL	23.8	93	GRT

Compete list of RFMOs found here: https://www.fao.org/fishery/en/organization/search

#### RFMO vessel authorization lists can also be a good source of information to support investigations into beneficial ownership



### Helpful RFMO IUU Fishing Vessel List Compilation

 Trygg Mat Tracking Combined IUU Vessel List (<u>http://www.tm-tracking.org/</u>)

**OAA FISHERIES** 

	U VESSE						4 🗖 🗖	
ABOUT SEARCH	CONTACT	DOWNLOAD	& NOTIFICATIONS	FAQ				
Enter current or his Search function wil			, registration number nation in any field	, etc.				
Search text		Reset Search			S	Search		
Show vessels currer	ntly on RFMO IUU	vessels list						
Show vessels previo	ously on RFMO IU	U vessels list						
Include Vessels listed b	oy:							
CCAMLR 🗹 IATTO	С 🔽 ІССАТ 🔽		NEAFC SEAFO	VCPFC	SPRFMO	GFCM	VPFC	
SIOFA CCSBT								
Select All Unselect	t All							
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## **Additional Sources of Vessel Specific Information**

- UN FAO Global Record (<u>https://www.fao.org/global-</u> record/information-system/en/)
  - Information on fishing vessel and their support vessels provided by official State authorities

#### • UN – FAO Fishing Vessel Finder

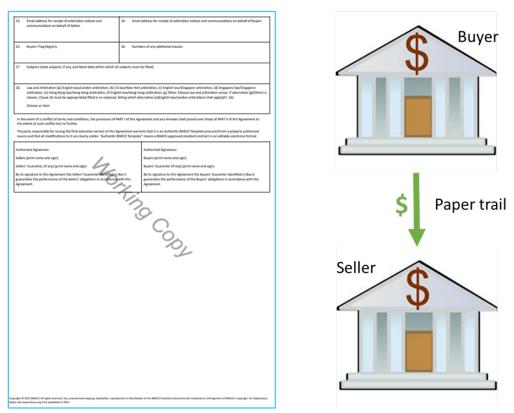
- (<u>https://www.fao.org/fishery/en/collection/fvf</u>)
- Large Database that pulls from open sources
- **Equasis**(<u>https://www.equasis.org/EquasisWeb/public/HomePage</u>)
  - Safety related information on ships and companies



# **Ship Sale and Purchase Documentation**

#### Example: Memorandum of Agreement for Ship Sale and Purchase

1.	Name of Vessel	2.	Date of Agreement
1	Sellers (name and address)	4	Buyers (name and address)
s.	Sellers' Guarantor (if any) (name and registered office address)	6.	Buyers' Guarantor (if any) (name and registered office address)
7.	Vessi detais () MO number: () GTNT: (3) Yeac; builder and glace of build: //	8.	Impection Select subclasse (6), 60) or 6(c). Chonse an Rem If subclasse (6) or 6(c) is applicable, invest place and date / date range of Vecsel Impection and Classification Society records impection as applicable:
9.	(v) Bareboat registry (F any): (v) Classification Society: (vi) Class notation:	2	
y. 11.	Purchase Price (amount and currency) Deposit Holder (name and address)	10.	Togeth score percentage of the Purchase Price) Setters' Account (name at bases, branch location and account details)
13.	Banking Days (places/countries) 54. E	arliest o	ane for giving Nonce of Read Offs 1 15. Carcelling Date
16.	Delivery place/range		
17.	Underwater Inspection/Drydock Inspection (state if Clause 8 or 9 shall apply) Choose an item	18.	Bunkers, Ols and Greases (1) Bunkers Choose an Item (2) Olis and Greases Choose an Item
19.	Documentary closing (state location or electronic method)	20.	Validity of classification certificates
21.	Notices to Sellers (name and contact details)	22.	Notices to Buyers (name and contact details)



Ship sale and purchase documentation is excellent source of information to support investigations into beneficial ownership – challenging to obtain



# **Real World Example: F/V Mario 11**











S&P	Maritime Por	rtal									English 🔻	٨	0	GW
盘	Ships				Search by name, or IM	0 or MMSI number	Q Search	History 🖸 Refin	e Search			Ģ	Have Yo	ur Say
D)	MARIO 11 IMO 8529533 In Service/Comm	MMSI 663212000 nission & Daka	Callsign 6WI		tch	Deadweight 0 t Gros	ss Tonnage 93 Built 2002				Fishing	Vessel		Show O Locate
Ē	Owner & Reg	gistration ()											-	Print
لى ال	Ownership	Ownership History	Registration	)										Rel's
÷	Show e	extended history												Q Correct
5	Date	Name	Flag	Group Owner	Shipmanager	Operator	DOC Company	Registered Owner	Technical Manager	Bareboat Charterer	Price	Seq		
-25	2018-07						Unknown					00		
ΔΔ	2017-00		Senegal									00		
-	2011-00	MARIO 11										00		
۹	2011-00		Tanzania									94		
	2002-00								Unknown			00		

Global Marine Service Ltd

Global Marine Service Ltd

Unknown

Vanuatu

Originally Yuh Pao No. 11

Yuh Pao No. 11

2002-00

2002-00

2002-00

2002-00

2002-00

2002-00

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Global Marine Service Ltd

DPublic Area > Ship and Company Particulars > Ship details

Updated: 2024-08-27

#### Ship Particulars / IMO 8529533

MARIO 11

<ol> <li>Name:</li> </ol>	MARIO 11 (effective 2)	011)	<
	Yuh Pao No. 11 (effective 2)	002)	
IMO Number:	IMO 8529533		
I Flag:	Senegal	(effective 2017)	<
	United Republic of Tanzania	(effective 2011)	
	Vanuatu	(effective 2002)	
Call sign:	6WMR		
0 MMSI:	663212000		
Ship UN Sanction:	Not on list		
Owning/operating entity under UN Sanction:	Not on list		

#### Characteristics

Type:	Fishing Vessel (effective 2002)	0
Date of build:	2002	
Gross tonnage:	93	

#### Companies

<ol> <li>Registered owner:</li> </ol>	Global Marine Service Ltd	(effective 2002)	0
	IMO Company Number	5561618	
	Nationality of registration	Tanzania	
	Address	PO Box 4585, Zanzibar, Tanzania.	
	Company status	Active	

Information on ship and company particulars is made available under the terms of the Shipping Information Agreement between IHS Maritime and the IMO Secretariat.

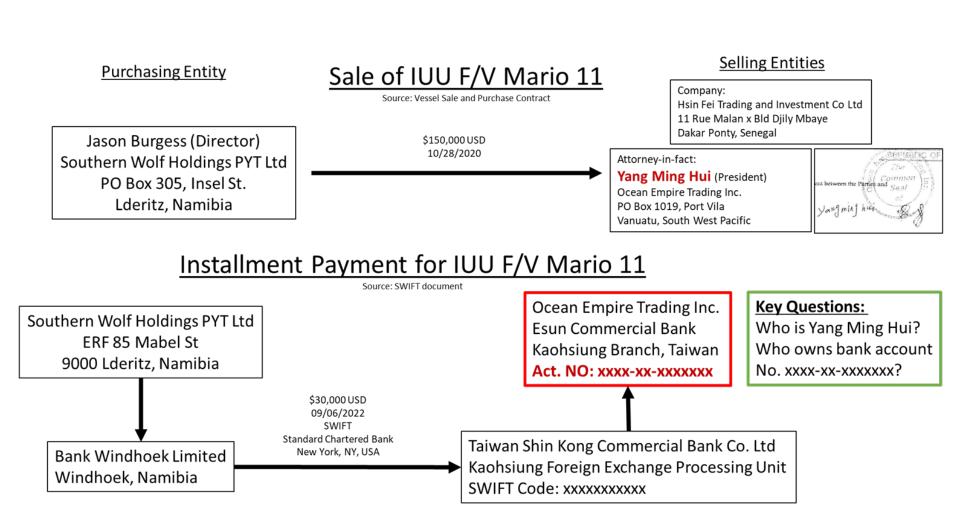
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# **Sources of non-VMS Vessel Locations**

# **Maritime Domain Awareness (MDA)**

≡ ⊗	ea	<b>)</b> 18	3101	z <b>n</b>	-	•	۵		B						<b>.</b> -	8.			() •	13:41 UTC
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15	87		560	450	823 EZUELA	31	43	56	562	3-4	NIGER	A	for	79 ETHIOPI	81 A	39	295	138	486	2 6
13	19	W	115	COLOMBIA	542	101	37	49 Republic	76	198	1048	31	T	ÌT	28	42	61	200	347	3298
13	233			PERÚ	52	182	234	51	17	125	144	120	12	144 NZANIA	101	45	52	109	8	1087
11	12		161	196	BOLIVIA	BRAZIL	207	54	22	66	44	ancola 25	ZAMBIA	18	79 67	41	142	30 20	17	37
23	8	D	143 maple of Cap	icorn	128	452	315 585	6 34	35 19	31 36	59 68	20 NAMIBIA 208	147	102	148	219	26 1 N D 6			Capricon 13
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	1			156 AR	466 GENTINA	253	13		TLANT		69	579	352	130	23	35	< ,	8	15	10 5
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Ξ¢	: <b>T</b>	>		88	18	Scotia Sea	~	1					4					4	Show Active	Filters
± ¥	T		~	±.				Lat: 36	5° 48' 33.4° N	Lon	: 109" 20' 09	9.4° W	Sources: Es	ri, TornTorn, G	armin, FAO, NO/	A, USGS, © C	OpenStreetMap	contributors,	and the GIS Use	Community

MDA Tool Example: SeaVision (USG)

Last 6 hours

More dots does not alway equal better MDA

Common MDA Data Layers:

- AIS (Anti-collision)
- SAR (Space Radar)
- Shore Radar
- EO (Space Photos)
- VIIRS (Night lights)
- RF (Radio Frequency)
- Sightings (human eyeball)



#### Automatic Identification System (AIS) Primary Function = Collision Avoidance No International Mandate for Fishing Vessels to Carry/Transmit



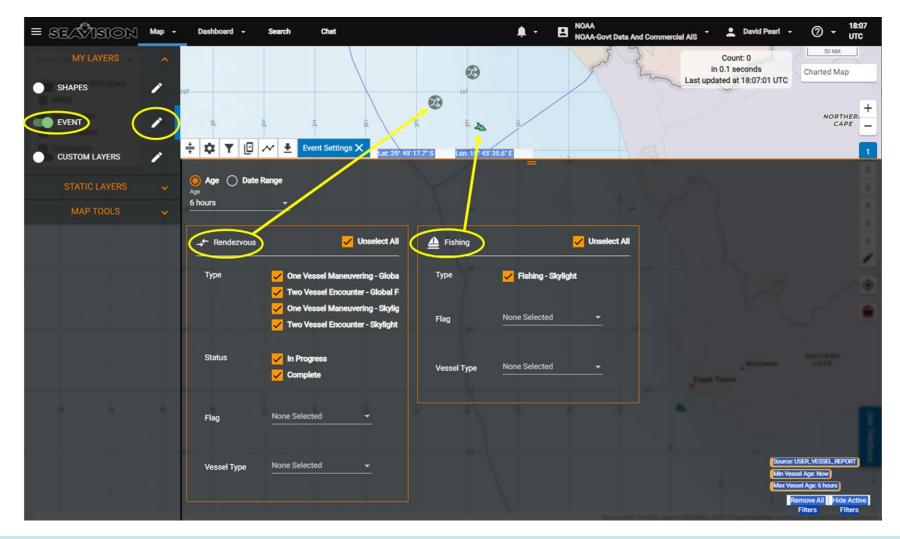
### **Global Fishing Watch**

# Skylight

# Both great free sources of AIS and associated analytics (plus other MDA data layers)

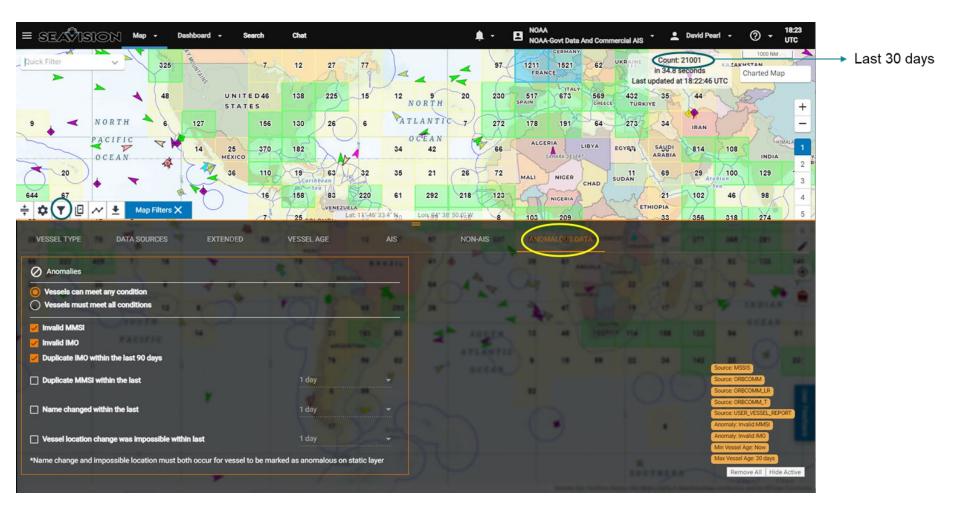


### Fishing and Rendezvous Events from Global Fishing Watch and Seavison Available in SeaVision



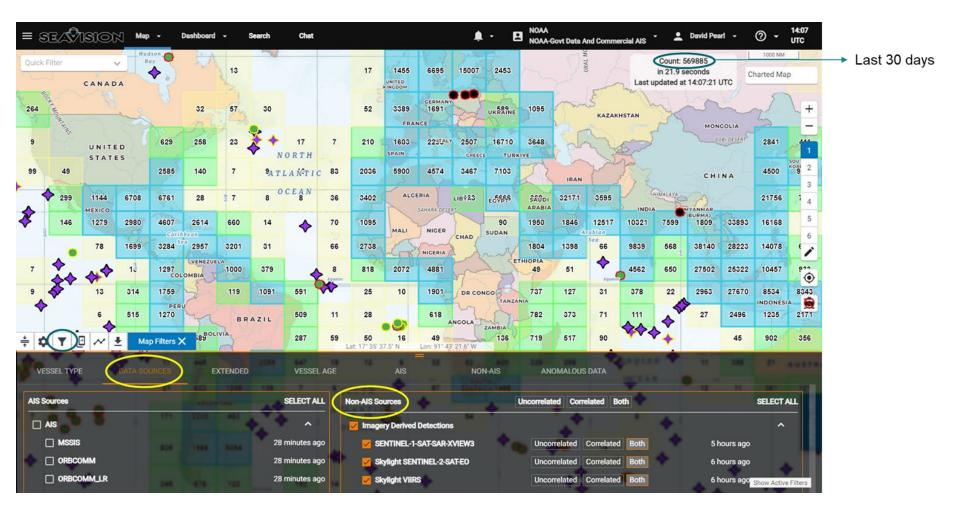


### **AIS Data Issues**





# Imagery from Satellites: SAR, EO, VIIRS





# **Electro Optical & VIIRS Examples**

Quick Filt	L1C_20240412T000609			المر ا		Λ	VNP02DI	NB_NRT.A2024095.13	<sup>8</sup> 12.002.20% ± <b>≓</b>	i	Count: 1564 n 0.2 seconds ated at 18:40	S (	Charted Map
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ime	итс	UTC	06:33			1	Time	2024 Apr 04 13:12:00 UTC	2024 Apr 04 13:16:1: UTC	2 04:12	/		
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osition	58° 20' 35" N, 167° 1' 54" E	58° 20' 33" N, 167° 1' 52" E	73 m			15	Position	59° 45' 35" N 170°	59° 45' 18" N, 170° 45' 51" E	633 m			
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lidth	— m	16 m	— m				Width	— m	9 m	— m		_	
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ENTINE	L-2-SAT-EO		64 tion	141         28           S2B_MSIL1C_202403231           Source: SENTINEL-2-SAT           Time: 2024 Mar 23 00:11           Age: 570h 30m 24s ago           Position: 59" 23' 22" N, 1           Heading:*	10:09 UTC o	- 60N	Radiance	e: 120.06		202 ration	5 t	5 44 Source Source Sour	44 SENTINEL-1-SAT-SJ XVIEW3 ORFELATED SENTIN BAT-SAR-XVIEW3 INTINEL-2-SAT-EO ORFELATED SENTIN SATEO
ENTINE	EL-2-SAT-EO Sentinel-2	AIS History Trail Name: Andromeda MMSI: 273378130 IMO Number: 900036 Flag: Russian Federal Vessel Type: 7-Cargo Length: 120m Beam: 16m	64 tion	141         28           S2B_MSIL1C_202403231           Source:           Sector           Time:         2024 Mar 23 00:11           Age:         570h 30m 24s ago           Position:         59" 23" 22" N, 1	NT-EO 10:09 UTC o		Attribut		AIS History Trail Name: Gorin MMSI: 273611130 IMO Number: 86613 Flag: Russian Feder Vessel Type: 30-Fis Length: 57m Beam: 9m	202 ration	5 t	5 44 Source C Source St Source C Source V	XVIEW3 ORRELATED SENTIN SAT-SAR-XVIEW3 ENTINEL-2-SAT-EO ORRELATED SENTIN SAT-EO



# Synthetic Aperture Radar (SAR) Examples

ime         04:39:38 UTC           ge         542h 18m 41s ago           osition         20° 39' 52° N, 158°           46' 47° W         46' 47° W           leading        °           /idth         m		d for <b>Delta</b> 01:49 01:49	20	•	validi	y to rule out it is posi		a for	xView3 - beta version. Image should be analyzed for validity to rule out it is possible land.
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osition         46' 47" W           leading        *           /idth         m			132	61	Position	19° 44' 3" N, 156° 12' 27" W	19° 44' 20" N, 156° 12' 22" W	524 m	w
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er an de Antoine Mar	History Trail Name: Sea Moon I MMSI: 367128430 IMO Number: 0 Flag: United States America Vessel Type: 30-Fis Length: 22m Beam: 6m	of				an she ay ar	History Trail Name: Emerald Princess MMSI: 310531000 IMO Number: 9333 Flag: Bermuda - Un Kingdom of Great Britain and Norther Ireland Vessel Type: 6- Passenger	i151 ited	Object Type: Fishing vessel     Signal       Platform: Sentinel-1A     Polarization: VV8VH       Predicted Length (m): 31     Processing Level: IW_GRDH_1S       Resolution: 20 meters     Scene Name:       S1A_IW_GRDH_1SDV_20240405T043938_20240405T044007.     Image: Start Time: 2024-04-05T04:39:38.789Z       Stop Time: 2024-04-05T04:39:38.789Z     Source: SENTINEL-1-SATSAT XVIEW3



# **Chat Feature**

NOAA	■ NOAA <sub>Community Channel</sub>	Search Chat Messages					
David Pearl	Mon Dec 1	6 2019					
Online	NOAA Marine Pollution Desk Monday, Dec 16, 2019, 1:05PM Paul Lee at Satellite Analysis Branch (Marine Pollution Desk) with NESDIS here!						
ti	Thu Apr 1	6 2020					
Chat Settings ^ Translation Settings	input format is needed to enter in the points to create the shape successfully in the API. have several (10-20 points).	aVision API tool and specific latitude and longitude points. However, we do not know what The boundary example in the API tutorial only includes a single corner point, but we will isted within our account? We are hoping to be able to add it to our map and set up alerts					
Disclaimer	Sat May 1	6 2020					
Cross Community Settings Chat with users across all communities Public mode enabled. Users from other communities may discover and contact you Chat Download Settings	Saturday, May 16, 2020, 7:41AM Hey Joseph, Brendan here from NCCOS Biogeography Branch. I was able to generate a shape polygon for Grays Reef NMS and other Sanctuaries by looking at the specific boundary coordinates of GIS .shp files in ArcPro. Under the My layers tab, make sure Shapes are on, then select the edit tool and draw a rough outline of the polygon. GR only has four points so it was fairly easy. Next, double click the new shape to open up shape properties. You will be able to edit the dimensions of your shape here and enter DMS lat/long coordinates. there is a settings function that allows you to change units including just displaying degrees, degrees/minutes or DMS, however it is not capable to change to decimal degrees. You can also add points to change your polygon from their if you need to be more accurate. The more complex sanctuary boundaries are tedious. Once you have your shape created you can use it in the rules, alerts, and warnings, but make sure you remember to turn on the shapes in order to see it on the map view.						
Export Chat History 🛓 Cross Community + David Pearl	para abrir las propiedades de la forma. Aquí podrás editar las dimensiones de tu forma configuración que te permite cambiar las unidades, incluida la visualización de grados,	s capas, asegúrese de que las formas estén activadas y, a continuación, seleccione la atro puntos, así que fue bastante fácil. A continuación, haga doble clic en la nueva forma e introducir las coordenadas de latitud y longitud del DMS. Hay una función de grados/minutos o DMS, pero no puede cambiar a grados decimales. También puedes preciso. Los límites más complejos del santuario son tediosos. Una vez que haya creado					
Community	Detundor 14 / 2020 7 / 414						
🖸 NOAA	Saturday, May 16, 2020, 7:44AM I am currently trying to add in kml, csv, and geoJSON files as well but have not had any I on here so that it will be easier to add boundary polygons. if anyone has run into this pro Joseph, I hope that answers your question and please reach out if you would like any mediate the second sec						
Persona	<ul> <li>Contraction of the state of the</li></ul>						
12 NOAA-Govt Data and Commercial AIS	Write a message	0					
Direct Messages +							



# **Rules/Alerts**

= SEANSION Mep +	Dashboard - Search Chat		NOAA NOAA-Govt Data And Commen	rcial AIS 👻 💄 David Pearl 👻 🕐 👻 UTC
<b>A</b>	Create New Rule			×
Active Rules (0)	1 Name Your Rule			C
My Rules Persona Commun	Choose How To Evaluate Your Conditions  Vessels must meet all conditions  Vessels can meet any condition and will	ill accumulate a score associated v	with the condition	VE AS LIST MAP RESULTS SETTINGS
	Set Up Your Conditions		<u>·</u> x	W DA VE C SP sults
Disabled Rules (1)	IDENTIFICATION CHARACTERISTICS	×		
Q. Filter by fule name or creator	MOVEMENT	~	ADD CONDITION	
My Rules Persona Commun		~		
No Data	DERIVED PROPERTIES LIST ANOMALIES	Every 12 Hours -		User Feedback
		SAVE YOUR RULE		



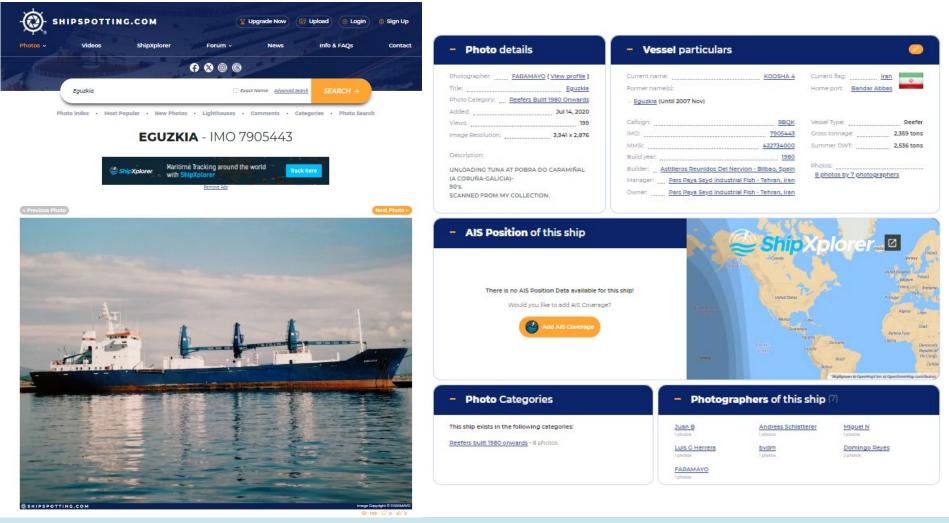
# **Examples: Commercial MDA Tools**





# **Vessel Hobbyist Site Example**

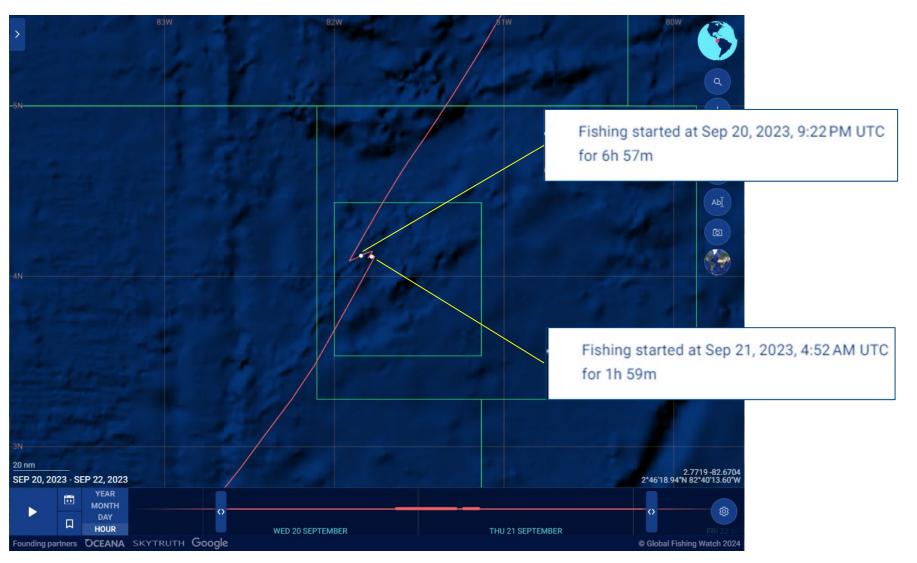
### ShipSpotting.com (<u>https://www.shipspotting.com/</u>)



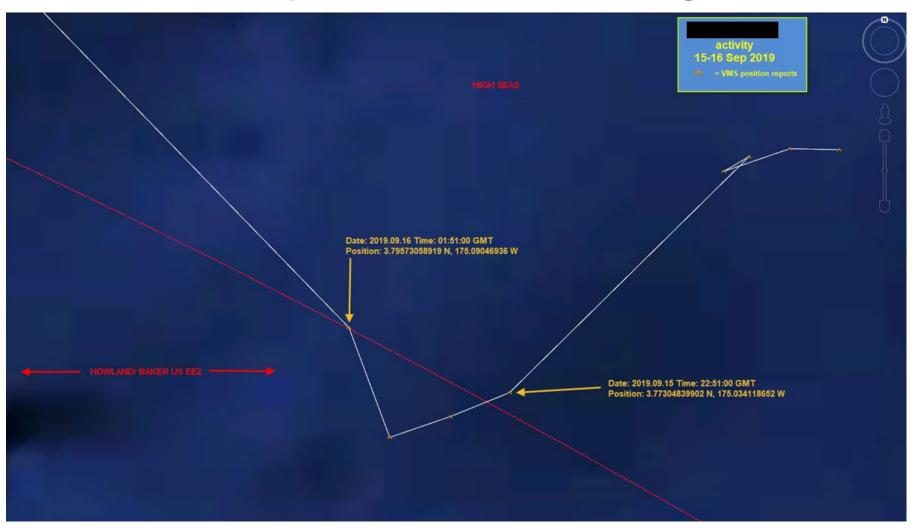


# **Real World Example: AIS Track in Sanctuary**

(Longline Fishing Vessel)

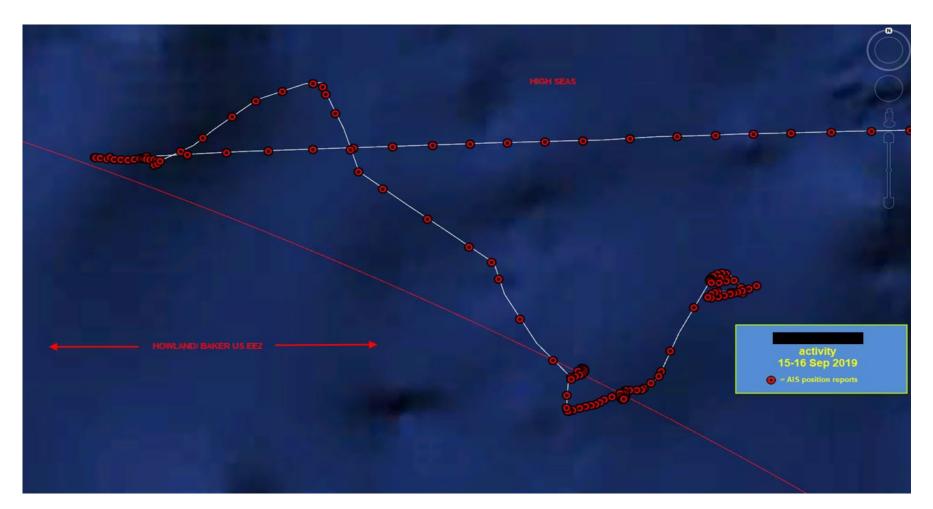






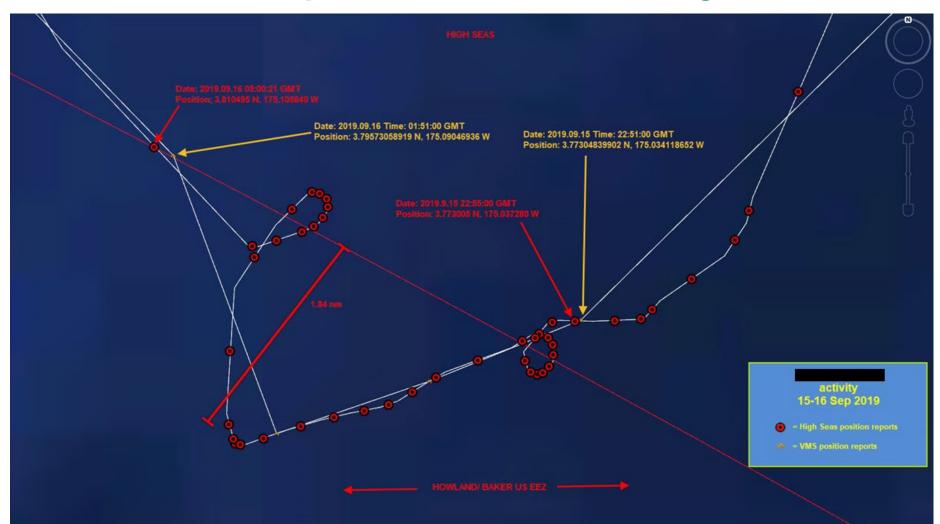
#### VMS data layer = 1st red flag





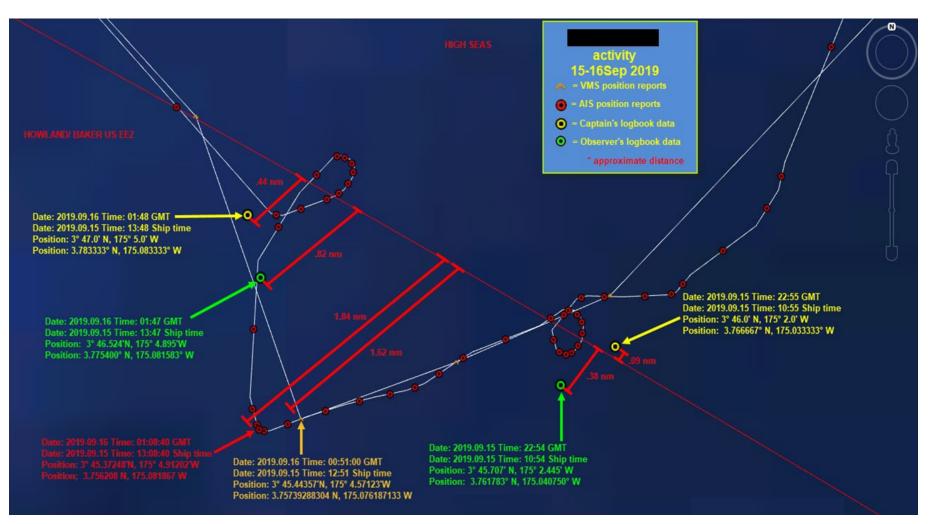
#### AIS data layer = 2nd red flag





#### VMS + AIS data layers = Big **RED** Flag: Further investigation needed!





#### MDA data + Strong Investigation + Legal Framework = \$\$\$ Fine



# **Summary: Vessel Information Sources**

- No single "magic" source
  - Need to check information from multiple sources
  - Need to combine information to reveal new insights
- Intellectual rigor
  - Need to consider factors that contribute to false impressions (alternative hypothesis)
- Need for information sharing
  - Between partner countries
  - Between different agencies within countries



**The End** 



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