Navigating the Complexities of Compliance



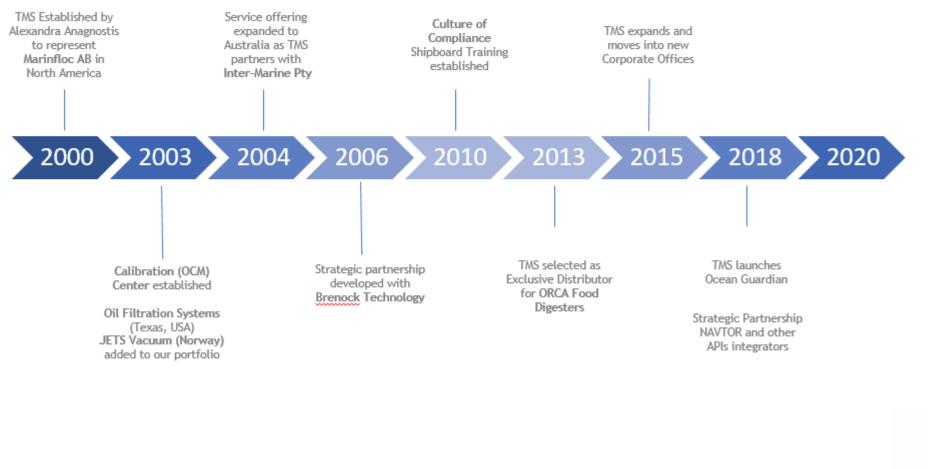






19-21 DE NOVIEMBRE DE 2019 | HOTEL INTERCONTINENTAL MIAMI, EEUU

Brief background on Total Marine Solutions





Description in brief

What does it do?

The basics – Integration of Environmental Rules, GIS Data, & Predictive Alerts

- Simple easy-to-use program for operators to access the latest environmental regulations based on the vessel's current location
- Integrated environmental operations planning

Additional features:

- Ability for clients to digitize their environmental policies
- Audible alerts requiring User acknowledgements
- Relay outputs to equipment controls
- Complete audit trails of User interaction, updates and system actions





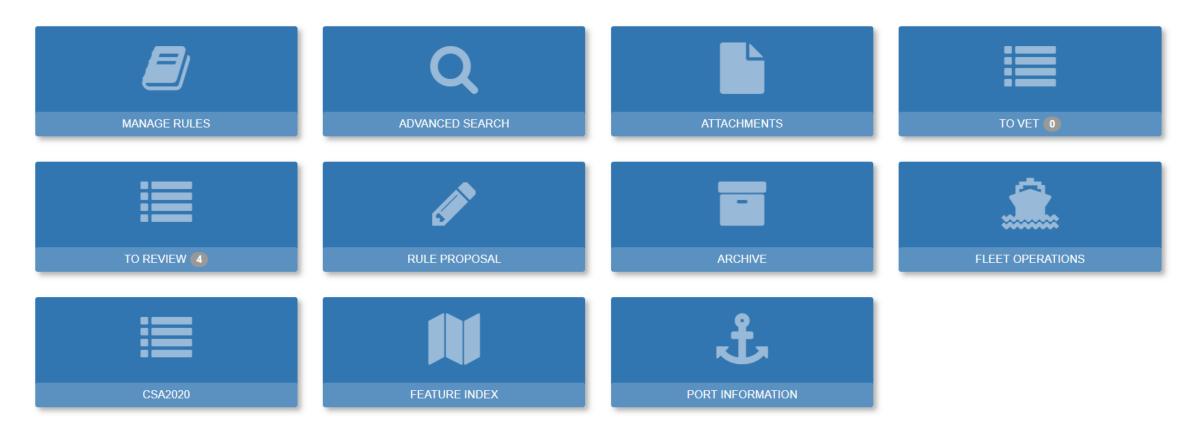
Improving upon Best Practices

Bahamas > 12 NM > 6 Knots > 3 NM > 6 Knots # 3527 # 8527 Region is designated a special kare per MAPCO. Viterefore, ground food whenever possible > 200 NM & > 2.000 depth if possible. (MG Ballast Water Convention) 4 Antigua & Barbuda > 12 NM > 6 Knots > 3 NM > 6 Knots # 3527 # 3527 # 3527 # 83527		В	E	F	G	Н	<u> </u>	J	
Country Untravel circly vator Invalid Gray va					_	Central An	nerica & Caribbe	an	
Antigua & Barbuda > 12 NM > 6 Knots > 3 NM > 6 Knots<			Untreated Black Water		Untreated Gray Water	Treated Gray Water	Food Waste	Ballast Water	Recrea Facili
4 0 03529 03527 03527 03527 Region is designated a special Area per MAPCU. Vi. therefore, ground food parts is the only discharge allowed. Per company allowed. Per co		Anguilla	> 12 NM > 6 Knots				Region is designated a Special Area per MARPOL V; therefore, ground food waste is the only discharge allowed. Per company	whenever possible > 200 NM & >2,000m depth. If above not practicable then > 50NM & >200m depth if possible. (IMO	> 3 NN
Barbados > 12 NM > 6 Knots > 3 NM > 6 Knots #3327 #3327 #3327 #327 <td< td=""><td>Anti</td><td>tigua & Barbuda</td><td>> 12 NM > 6 Knots</td><td></td><td></td><td></td><td>Region is designated a Special Area per MARPOL V; therefore, ground food waste is the only discharge allowed. Per company policy discharge allowed at</td><td>waters, conduct ballast water exchange whenever possible > 200 NM & >2,000m depth. If above not practicable then > 50NM & >200m depth if possible. (IMO</td><td>> 3 NN</td></td<>	Anti	tigua & Barbuda	> 12 NM > 6 Knots				Region is designated a Special Area per MARPOL V; therefore, ground food waste is the only discharge allowed. Per company policy discharge allowed at	waters, conduct ballast water exchange whenever possible > 200 NM & >2,000m depth. If above not practicable then > 50NM & >200m depth if possible. (IMO	> 3 NN
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Belize's Barrier Reef Complex or any island Belize's Barrier Reef Complex or any island' atoli claimed by the Government of Belize & >6 kts Belize's Barrier Reef Complex or any island' atoli claimed by the Government of Belize & >6 kts Berrier Reef Complex or Second Area per MARPO. V: therefore, ground food waste is the only discharge allowed. Per company policy discharge allowed at >12 NM & >6 kts. Complex or any island' atoli claimed by the Government of Belize & >6 kts Complex or any island' atoli claimed by the Government of Belize & >6 kts Region is designated a by the Government of Belize & Se kts Region is designated a by the Government of Belize & Se kts Complex or any island' atoli claimed by the Government of Belize & Se kts Region is designated a by the Government of Belize & Se kts Region is designated a by the Government of Belize & Se kts Region is designated a by the Government of Belize & Se kts Region is designated a by the Government of Belize & Se kts Region is designated a by the Government of Belize & Se kts Region is designated a by the Government of Belize & Se kts Region is designated a selve of the Sile so kts Region is designated a selve of the Sile so kts Region is designated a selve of the Sile country requirements & so kts A ship shall not including raw sewage, grey water, pulper wastes, photoprocessing fluids #2255 Must be ground so it is country requirements & so kts A ship shall not including raw sewage, grey water, pulper wastes, photoprocessing fluids #2255 No discharge of any ballast water within 12 Mor Bernuch a scept of the ship, environment, & so kts A ship shall not including raw sewage, grey water, pulper wastes, photoprocessing fluids #2255 No di		Barbados	> 12 NM > 6 Knots				Region is designated a Special Area per MARPOL V; therefore, ground food waste is the only discharge allowed. Per company	waters, conduct ballast water exchange whenever possible > 200 NM & >2,000m depth. If above not practicable then > 50NM & >200m depth if possible. (IMO	> 3 NN
Bermuda > 12 NM > 6 Knots Treated effluent shall not be discharged into Bermuda's territorial waters without the prior approval of the Department of Environmental Protection #2855 Outside 12 NM per country requirements & Outside 12 NM per country requirements & So Kts A ship shall not including raw sewage, grey water, pulper wastes, photoprocessing fluids Must be ground so it is capable of passing through Country requirements & capable of passing through To Kts A ship shall not including raw sewage, grey water, pulper wastes, photoprocessing fluids Must be ground so it is capable of passing through To miscreen, and ship must be > 12 NM & > 6 No discharge of any ballast water within 12 NM of Bermuda except to preserve the safety of the ship, environment, 8 #2855 #2855 #2855 Must be ground so it is country requirements & country requirements & capable of passing through To miscreen, and ship must be > 12 NM & > 6 No discharge of any ballast water within 12 NM of Bermuda except to preserve the safety of the ship, environment, 8 #2855 #2855 #2855 #2855 Must be ground so it is must be > 12 NM &> 6 No discharge of any ballast water within 12 NM of Bermuda except to preserve the safety of the ship, environment, 8		Belize	Belize's Barrier Reef Complex or any island/ atoll claimed by the Government of Belize &	Belize's Barrier Reef Complex or any island/ atoll claimed by the Government of Belize &	Belize's Barrier Reef Complex or any island/ atoll claimed by the Government of Belize &	Barrier Reef Complex or any island/ atoll claimed by the Government of	Region is designated a Special Area per MARPOL V; therefore, ground food waste is the only discharge allowed. Per company policy discharge allowed at	Outside 12 NM of Belize's Barrier Reef Complex or any island/ atoll claimed by the Government of Belize	Outsic Belize's Complex atoll cla Governmo
		Bermuda	> 12 NM > 6 Knots	be discharged into Bermuda's territorial waters without the prior approval of the Department of Environmental Protection	country requirements & >6 kts A ship shall not discharge liquid effluent, including raw sewage, grey water, pulper wastes, photoprocessing fluids	country requirements & >6 kts A ship shall not discharge liquid effluent, including raw sewage, grey water, pulper wastes, photoprocessing fluids	capable of passing through 25 mm screen, and ship must be > 12 NM & > 6 Knots as per Company		> 3 NN
British Virgin > 12 NM > 6 Knots > 3 NM > 6 Knots > 3 NM > 6 Knots > 3 NM > 6 Knots #2487 Wider Caribbean If deballasting planned in local waters	F	British Virain	> 12 NM > 6 Knots	> 3 NM > 6 Knots	> 3 NM > 6 Knots	> 3 NM > 6 Knots	#2487 Wider Caribbean	If deballasting planned in local waters,	> 3 NA



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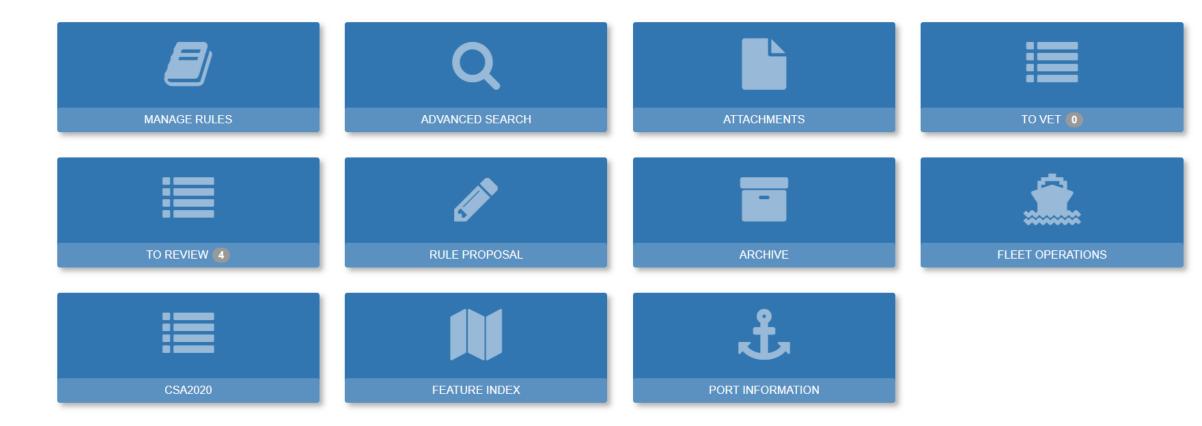
The Ocean Guardian team digitizes environmental regulations and maintains this database on our web-based port.



e Details - National			
Image: Back Image: Copy Rule Image: Delete Image: Override Status Update/Modify Rule			
Rule No	Change Log		
2144	Friday, February 08, 2019 11:19:39 AM - r	roulakis	See All Changes
Rule Name	Tuesday, March 20, 2018 2:13:56 PM - tm Status Updated - Status changed from OG	Isalex Ready to Deployed.	
Norway: Ballast water discharge - Treated ballast water	Monday, March 19, 2018 9:25:09 PM - rou		
Rule Description	Is Active Updated - Is Active changed from	True to False.	
Ballast Water Regulations Section 5 Ballast water Management Ships which are to discharge ballast water, and which have taken on board ballast water from areas outside	Monday, August 28, 2017 12:32:43 PM - r Rule Vetted	roulakis	
the region in point 1.1 of Annex 1, or from another area within the region than the area in which it is to be discharged, shall manage ballast water by employing exchange, treatment or delivery to reception facilities	Monday, August 28, 2017 12:32:43 PM - r Status Updated - Status changed from Edit	roulakis red to OG Ready.	
pursuant to this chapter. Section 7 Ballast water	Created	Created By	
Ballast water shall be treated with technology approved in accordance with the IMO Guidelines before it is	3/14/2017 1:40:30 PM	tmsanna	
discharged. Treated ballast water that is discharged, shall contain less than 10 viable organisms per cubic metre greater than or equal to 50 micrometres in minimum dimension, and less than 10 viable organisms per	Updated	Updated By	
millimetre less than 50 micrometres in minimum dimension and greater than or equal to 10 micrometres in	2/8/2019 10:17:54 AM	roulakis	
Rule Status	Effective On	Expires On	
Deployed	7/1/2010		
Detailed Category	Vetted Date	Vetted By	
Ballast Water 🔹	8/28/2017 11:32:43 AM	Stefanos Roulakis	
Simplified Category	Comments		
Ballast Water			
Valve			
Not associated with any valve			
Rule Active			
This rule is applicable for			
ships N/A V Tons.			
Flag State			•



	Administration Portal										
OCEAN GUARDIAN	┛ Rules 🗸	🔥 Ports 🗸	🏦 Fleet Ops 🗸	I Vetting	🕹 Updates 👻	\blacksquare Administration $ imes$	STMS Website	┛ Help			



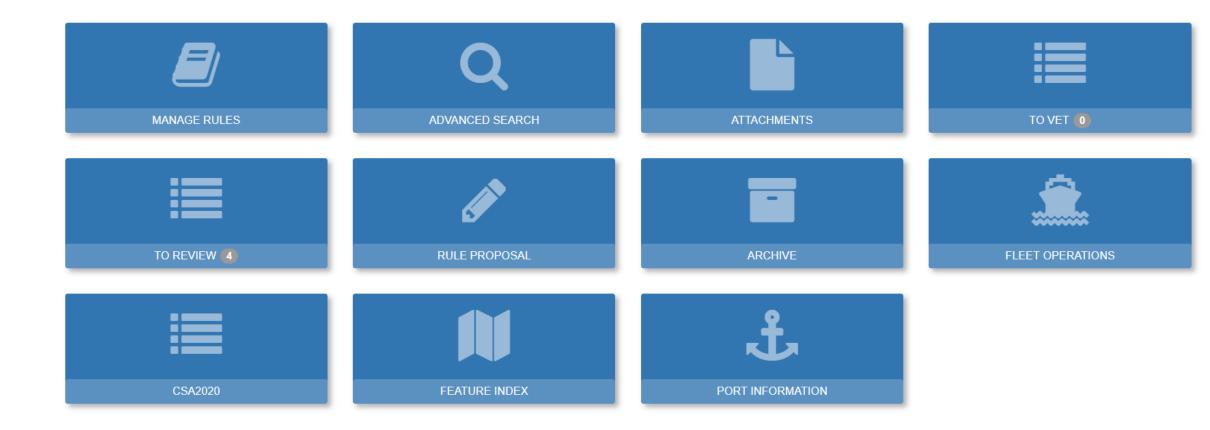




	Administr	ation Porta	al						
OCEAN GUARDIAN	■ Rules -	🔥 Ports -	🚊 Fleet Ops 🗸	≣ Vetting	🛃 Updates 👻	Administration -	TMS Website	E Help	L Hello tmsalex (TMS Admin) -

Port Administration Search	Miami - United States - (Show on map 🌐								
Region										
All Regions	Port Information		😫 Save	Simplified View Global Rules Port Attachments Company Activation						
Country			rt Save							
All Countries		USMIA	^	Categories	Global					
Port	UN LOCODE			Air Emissions: Fuel Requirements	<u>A</u>					
Miami (United States)	Port Authority			Air Emissions: Incinerator	<u>A</u>					
Tags				Air Emissions: Other- See Detailed View	<u>A</u>					
	Name	Miami Dade County		Air Emissions: Ozone Depleting Substances	8					
	Address	1015 N. America Way, 2nd Floor, Miami, FL 33132		Ballast Water						
View Selected Port	Phone Number	305-371-7678		Ballast Water: Treated Ballast Water	<u> </u>					
Vetted By:	Email	JUK@miamidade.gov								
		https://www.miamidade.gov/portofmiami		Ballast Water: Untreated Ballast Water	8					
	Website	https://www.manicade.gov/portormann		Cargo	8					
	Port Tags			Cargo: Noxious Liquid Substances	8					
				Garbage	8					
TGM	Tags			Garbage: Animal Carcasses	8					
FLEET & CONSULTING SERVICES			•	Garbage: Cargo Residue	8					
				Garbage: Cleaning Agents & Additives/Deckwater Washing	A					
	Port Change Log			Garbage: Comminuted Food Waste	8					
				Garbage: Noncomminuted Food Waste	8					
			*	Garbage: Tank Washings	A					
				▶ Greywater	8					
				Greywater: Untreated Greywater	A					
				MISC: Burials at Sea	8					
				MISC: EGCS Washwater	A					
			Developed by							









19-21 DE NOVIEMBRE DE 2019 | HOTEL INTERCONTINENTAL MIAMI, EEUU



Administration Portal

🗧 Rules 👻 🖧 Ports 👻 🏯 Fleet Ops 👻 🗮 Vetting 🛛 📩 Updates 👻 🤷 Administration 👻 🌐 TMS Website 🛛 🗧 Help

💄 Hello tmsalex (TMS Admin) 👻

UCEAN GUANDIAN								
You are in zone(s)		Approachi		Distance	ETA	Categories	Global	Company
WIDER CARIBBEAN REGION	SA	BAHAMAS,	25 - 50 NM	0.45	13:40	Air Emissions: Fuel Requirements	4	\otimes
BAHAMAS, THE	12 - 25 NM	UNITED ST	25 - 50 NM	2.02	13:47	Air Emissions: Incinerator	4	
		UNITED ST	4-12 NM	12.12	14:34	Air Emissions: Ozone Depleting Substances	\otimes	
		NORTH AM	ECA	2.03	13:47	Ballast Water	\otimes	\otimes
		UNITED ST	Inland	29.1	15:53	Ballast Water: Other- See Detailed View		\otimes
		Port Evergla	Port	28.96	15:53	Cargo		\otimes
		UNITED ST	Baselines	26.06	15:39	Cargo: Noxious Liquid Substances		\otimes
		UNITED ST	12 - 25 NM	5.1	14:02) Garbage	\otimes	
Ship: Demo Vessel 🔹	Last Reported: 03-04-2019 ^{Lat:} 26° 08' 54" N	Lon: 79° 33 Lon: 79°		Course: 263°	Speed: 12.9kn	Garbage: Animal Carcasses	\otimes	
						Contraction Cargo Residue	<u>^</u>	8
+ Legend ▲		×	where we want			Garbage: Cleaning Agents & Additives/Deckwater Washing	\oslash	
100 - 200 NM		F	RV			Garbage: Comminuted Food Waste	<u>^</u>	4
50 - 100 NM 25 - 50 NM		æ				Garbage: Noncomminuted Food Waste	\otimes	8
▶ 12 - 25 NM ■ 4-12 NM		ST.				Greywater	<u>^</u>	\otimes
Baselines - 4 NM		¥ ((MISC: EGCS Washwater	4	
Port Inland						MISC: Other- See Detailed View	\otimes	
	<i>.</i>					Oil	\otimes	\otimes
PSSA NMS						Oil: Slops		\otimes
POLAR			\smile			Oil: Treated Bilge Water	<u>^</u>	
SW2						Sewage: Other- See Detailed View	<u>^</u>	
		8 (k)				Sewage: Treated Sewage	4	
			MT			Sewage: Untreated Sewage		\otimes
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			1920-1					
		~ {°			\mathbf{A}			
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1000 km		11B	2 2	755				





Administration Portal

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👤 Hello tmsalex (TMS Admin) 👻

You are in zone(s)											
WIDER CARIBBEAN REGION SA		BAHAMAS,	25 - 50 NM	0.45	13:40		Air Emissions: Fuel Requi	irements	<u>.</u>	\odot	
BAHAMAS, THE	12 - 25 NM	UNITED ST	25 - 50 NM	2.02	13:47		Air Emissions: Incinerator		<u> </u>		
		UNITED ST	4-12 NM	12.12	14:34		Air Emissions: Ozone Dep	pleting Substances	\otimes		
		NORTH AM	ECA	2.03	13:47		Ballast Water		\bigotimes	\otimes	
		UNITED ST	Inland	29.1	15:53	Ð	Ballast Water: Other- See	Detailed View		\otimes	
Rule Details					A		Cargo			\otimes	
		_					Cargo: Noxious Liquid Su	bstances		\otimes	
Rule ID: 39	54		Docu	imentatio	n		Garbage		\bigotimes		
Den National	lational							Regulation		Warning Level	
Garbage	Garbage			Filename: Bahamas-National-			International	MARPOL: General Prohibition on Discharge of Garbage into the Sea		\otimes	
Bahamas: MARPO	DL Annex V: Prevention of Pollu	tion		Requirements-Rev9.pdf		Internat	International	MARPOL: Mixed Garbage			
*Bahama National F	by Garbage *Bahama National Requirements* 5.5.1 General Annex V applies to all ships, including private yachts. Vetted on: Fri Oct 27 2017 14:06:03 GMT-0400 (Eastern Daylight Time)			Title: Bahamas Na			National	Bahamas: MARPOL Annex V: Prevention of Pollution by Garbage		<u> </u>	
				Page Number:				Garbage: Animal Carcasses			
									4	\otimes	
			52 of 79, Part 5.5.1 Notes: A reference source for Bahamas Recognised				Garbage: Cleaning Agent	s & Additives/Deckwater Washing	\oslash		
Submit Feedback		A refere					Garbage: Comminuted Fo	pod Waste	4	<u>.</u>	
				Organisations, Bahamas Approved Nautical Inspectors, ship-owners, companies, Masters,				d Food Waste	\bigotimes	\otimes	
		officers	officers and crew.				Greywater		4	\otimes	
						•	MISC: EGCS Washwater		4		
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The Ocean Guardian Database





Rich with Features

Environmental Operations Planning

Brings voyage planning and environmental operations together to simplify compliance and enhance workflow efficiencies.

Discharge Guidance

The at-a-glance simplicity helps operators immediately understand what can and cannot be discharged.



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Easy to Integrate

Easily integrates with existing onboard systems and operations.

Configurab

Configurable & Customizable

User interface is easily configurable to meet company and operator needs.

Fleet Operations

Fleet wide visibility in real-time, enhancing operations, workflow and capacity shore side and on the vessel.

Rules Portal

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Client accessible rules portal can be customized to include company or vessel specific guidance.





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