Chasing Rainbows

ACHIEVING THE HOLY GRAIL OF IMPROVED FLEET PERFORMANCE, INCREASED FLEET UTILISATION AND REDUCED COSTS

Fleet Performance

- Extract the maximum value from expensive SIRE inspections
- Stop obsessing about the count of Observations as a meaningful risk measure

 Analyse the risks associated with the Inspector's words



SIRE Observations as a Primary KPI

Stage 1

Count of Inspector Observations Stage 2 Potential Risk Stage 3 Assessed Risk Stage 4 Final Risk



1. Count of Observations

- A quick but relatively basic measure of performance.
- Widely used in the Industry as a major KPI.
- Takes no account of the nature of the Observation
- Numerous Observations have serious financial implications



2. Potential Risk

- Used by oil companies
- Each SIRE VIQ question is pre-set with a potential risk score based on the topic and attendant risk possibilities.
- No account taken of the significance of the Observation



Setting Potential Risk Values to Each VIQ Question

4.2	Has the Master written his own Standing Orders and are Bridge Orders being completed and have the deck officers countersigned them as being read and understood.	J	1.5
4.3	Are deck log books and engine movement (bell) books correctly maintained and is an adequate record being kept of all the navigational activities, both at sea and under pilotage?]	1.5
4.4	Are the vessel's manoeuvring characteristics displayed on the bridge?	-]	0.5
4.5	Are procedures in place for the testing of bridge equipment before arrival and departure?	<u>]</u>	1.5
4.6	Are records maintained of fire and safety rounds being completed after each watch?	- J	0.5
4.7	Are checklists for pre-arrival, pre-departure, watch handover, pilot-master exchange and pilot card effectively completed?]	5
4.8	Does the operator provide guidance on minimum under keel clearance and squat?	J	5



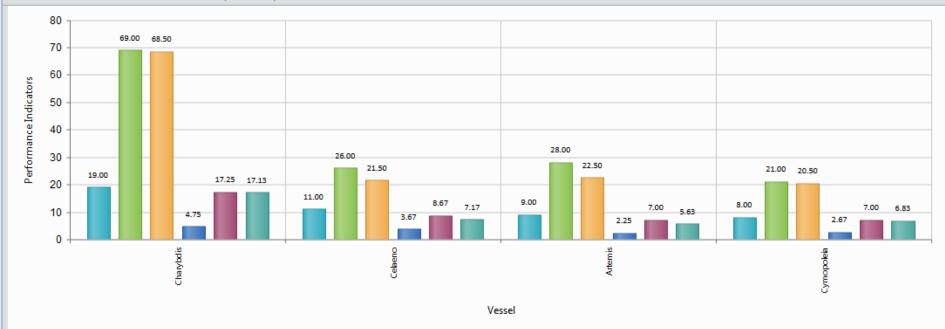
3. Assessing the Risk

- Observations reviewed and Potential Risk value adjusted - if appropriate - to reflect risk value proportional to the words of the Observation
 - A High Potential Risk question associated a trivial observation may justify a reduced Assessed Risk.
 - A Low Potential Risk question associated with a High Risk observation may justify a increased Assessed Risk



Risk Measures after Assessed Risk Values Applied

Vessel: Performance Indicators. DataSource: Inspection Reports. Time Period: 01 Jan 2015 to 31 Dec 2016



Total Observations Total Potential Risk Total Assessed Risk Average Observations Per Inspection Average Potential Risk Per Inspection



4. Final Risk

Manual adjustment takes into account the nature of the Observation, Root Cause, Corrective and Preventative actions, that sets the degree of risk that remains.



Home - Inspection Profile Inspector Tasks Observations	Approvals Costs	Officers (Inspection Date) Vessel 🔻	Officers 🔻
Observation Inspection: Hippocampi - 03 Dec 2015 Viq6 (All) Q5.59 Are the main deck, pump room, engine room and other fixed fire extinguishing systems, where fitted, in good order and are clear operating instructions posted? Inspector Observations: Fault alarm was found active on alarm panel for Water Mist local fire fighting system for engine room. (Chief Engineer reported that sensor located near incinerator was faulty and vessel was awaiting supply of requisitioned spares to rectify the fault.) Paint lockers and flammable liquid lockers shall be protected by an appropriate fire-extinguishing arrangement approved by the Administration. (SOLAS 1974 II-2/18.7 and SOLAS 2004 II-2/10.6.3.2) For ships constructed after 1st July 2002, paint lockers shall be	Assessment Preventable Non Conformity Risk Potential: Risk Assessed: Risk Final: ISM Code:	' ' ' ' ' 0 1 2 3 4 5 Select ISM Code	
	Work in Progress Lead: Remedial Action Contractor to repair on	Thomas Frank n arrival at Ulsan 19 Mar 2015	
	Target Closeout Date 2 Actual Closeout Date 1	9 Mar 2015	ाः eted 🔽

Risk Measures and Corrective Actions

Assessment Preventable Non Conformity 		
 Risk Potential: Risk Assessed: Risk Final: 		
ISM Code:	Select ISM Code	•
		11. 11. 1
Work in Progress		
Lead:	Steve Gray	•
Remedial Action		
Target Closeout Date		
Actual Closeout Date		
	Completed	

- Preventable?
- Non-Conformity?
- Potential, Assessed and Final Risk
- ISM Code Reference
- Person Responsible
- Remedial actions
- Target Close-Out Date
- Actual Close-out Date
- All actions complete

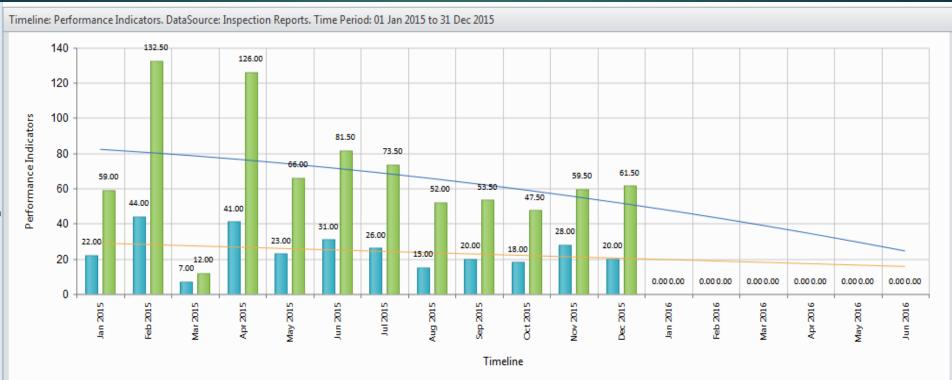


Show Me! Prove It!

 Performance and risks associated with Equipment, Operations and Personnel
 Demonstrating performance



2015 Timeline Performance. Total Obs & Assessed Risk for Fleet



Total Observations Total Assessed Risk Trend Of Total Observations Trend Of Total Assessed Risk



Reducing the Workload The SIRE On-Line Officers Matrix

	Offi Home	icer Manag • Officers M			Offic	cers Pl	anning	Officers Compliance						Demo Mo	de 👪	? 🖌
🗔 Ad	Sit	te map	IRE	1	leca	lulate	Service	Periods	t 🗔 Of	ficers Report	Import Officers	🕞 Export 🔻 🛛	🔜 Screen 🔻			
Enter Officer Name or Payroll Code																
Select	Edit	Vessel Name				Edit	Delete	Name	Payroll	Vessel Name	Rank	Nationality	Competency	Country	Admin	Certificate
	2	Unassigned				2		BRATISLAV FEARTEL	79332	Artemis	Master	Indian	Class 1	India	Yes	Oil
	2	Artemis				ø	2	SAID ZAMDERER	80222	Artemis	Chief Officer	Indian	Class 2	India	Yes	Oil
	2	Aurai				2		GUANG LIU	78798	Artemis	2nd Officer	Chinese	OOW	China	Yes	Oil
	2	Auxo		Ξ		J		YIN HANG	79706	Artemis	3rd Officer	Chinese	oow	China	Yes	Oil
	2	Benthesikyme				2		GAMAL PRETLY	78865	Artemis	Chief Engineer	Indian	Class 1	United Kingd	Yes	Oil
	2	Brizo				ø		KULDIP KHAM	79602	Artemis	1st Engineer	Indian	Class 1	Singapore	Yes	Oil
	2	Celaeno				2		AGNEL NOSCO	78825	Artemis	2nd Engineer	Indian	EOOW	India	Yes	Oil
	2	Ceto				Ì		GRAHAM JOHNSON	80534	Artemis	2nd Engineer	Filipino	EOOW	Philippines	Yes	Oil
	2	Charybdis		Ì		2		RAJESH ZHANAR	78846	Artemis	3rd Engineer	Chinese	EOOW	China	Yes	Oil



Managing and Maintaining Officers' Records of Experience

\square	Offi	icer Manager										
>	Home	• 🔻 Officers Manager		Offi	cers Pl	lanning	Officers Compliance					
🗔 Add	🔄 Add Officer 😰 Update SIRE 🔯 Recalulate Service Periods 🔄 Officers Chart 🔄 Officers Report 🔄 Import Officers 🎼 Export 🕶											
Select	Edit	Vessel Name			Edit	Delete	Name	Payroll	Vessel Name	Rank	Nationality	
		Unassigned	^				ABHAY MOHAN KAPOOR	79964		Master	Indian	
	2	Artemis			Ø		ABHISHEK THAKUR	79779		Master	Indian	
	2	Aurai					AMANDEEP SINGH RANGI	79740		Master	Indian	
	2	Auxo	Ш		J		ANIL KAMATH	80763		Master	Indian	
	2	Benthesikyme					DALIBOR CUCA	58847		Master	Montenegrin	
	2	Brizo			ø		GOKCEN OZKAN	81131		Master	Turkish	
	2	Celaeno			2		GRZEGORZ KUDZIN	46654		Master	Polish	
		Ceto	-	::	J		HARISH MANJESHWAR	78719		Master	Indian	
		Charvbdis			2		IGOR GORYACHKO	80454		Master	Georgian	

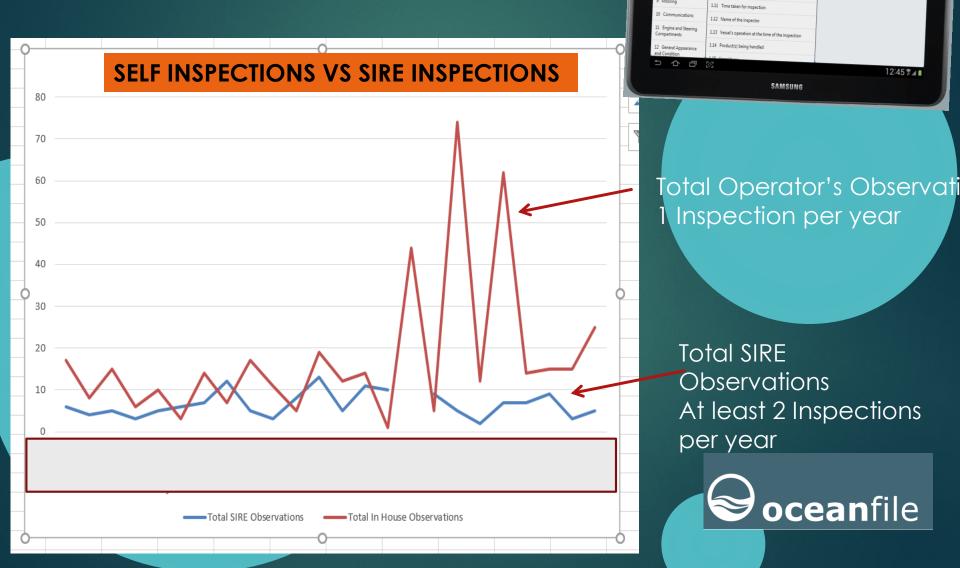


Meeting Oil Company Matrix Requirements

Officers Compliance	Officers Planning Officers Compliance		Demo M
	Export 🔻 🔲 Screen 👻		
Organisation	Officer compliance status for Chevron - Benthesikyme		Live Crew
• BP	Years in Rank		
Chevron Conoco Phillips (Gas)	The combined in-rank experience of the Master and Chief Officer must be at least 2.5 years actual sea-time on tankers	2.5 years	• 12.3 years
 Gazprom Koch 	The combined in-rank experience of the Chief Engineer and Second Engineer must be at least 2.5 years actual sea-time on tankers.	2.5 years	6.6 years
Marathon	Years on This Type of Tanker		
Petronas	Master shall not be less than 1 year experience this type of tanker (sea-service).	1 year	5.5 years
RasGas LNG	Chief Officer shall not be less than 1 year experience this ype of tanker (sea-service).	1 year	4.5 years
Repsol	Chief Engineer shall not be less than 1 year experience this type of tanker (sea-service).	1 year	10 years
Rightship	Second Engineer shall not be less than 1 year experience this type of tanker (sea-service).	1 year	1.6 years
 Shell 	Years on All Types of Tankers		
Sigtto LNG	The sea-going experience of the Master on 'any type of tanker' should be no less than 2.5		
• TMS	years.	2.5 years	5.5 years
	The sea-going experience of the Chief Engineer on 'any type of tanker' should be no less than 2.5 years.	2.5 years	11.3 years
	The sea-going experience of the Chief Officer should be no less than 2.5 years.	2.5 years	5.1 years
	The sea-going experience of the Second Engineer should be no less than 2.5 years.	2.5 years	1.6 years
	Remarks		



Tools that work! Self-Inspection Templates



1.1 Name of the use

1.5 Flag

1.6 Deadweight

Crew Manao

Safety Manag

Structural Conditi

8 Cargo and Ballast Systems - Petroleum

Mooring

Pollution Pre

Navigatio

(essel IMO Numb

1.7 Date the vessel was delivered

1.8 Name of the OCIMF inspecting or

1.10 Date and time the inspector departed the

1.9 Date and time the inspector br

1.3 Date the inspection was complete

the of the very

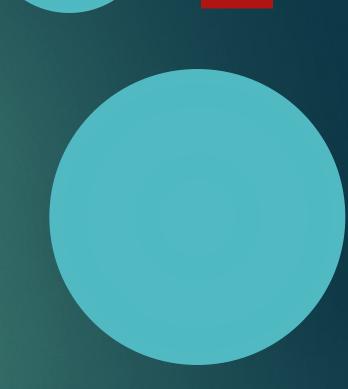
What is Next?

Import and Risk Assessment of PSC reports

- A consistent quantitative (as opposed to relative) measure of risk
- Cooperation with Classification Societies
- Engagement with other stakeholders to assist Operators to utilise the many data resources to drive excellence, deliver zero incidents and zero pollution
- Real tools to reduce the stress on seafarers



Oceanfile Marine Ltd 9 Quarantine Hill Wicklow Town Co. Wicklow Ireland



david.savage@oceanfile.com

