

RSRUK Overview in: The Management and Prevention of Dropped Objects

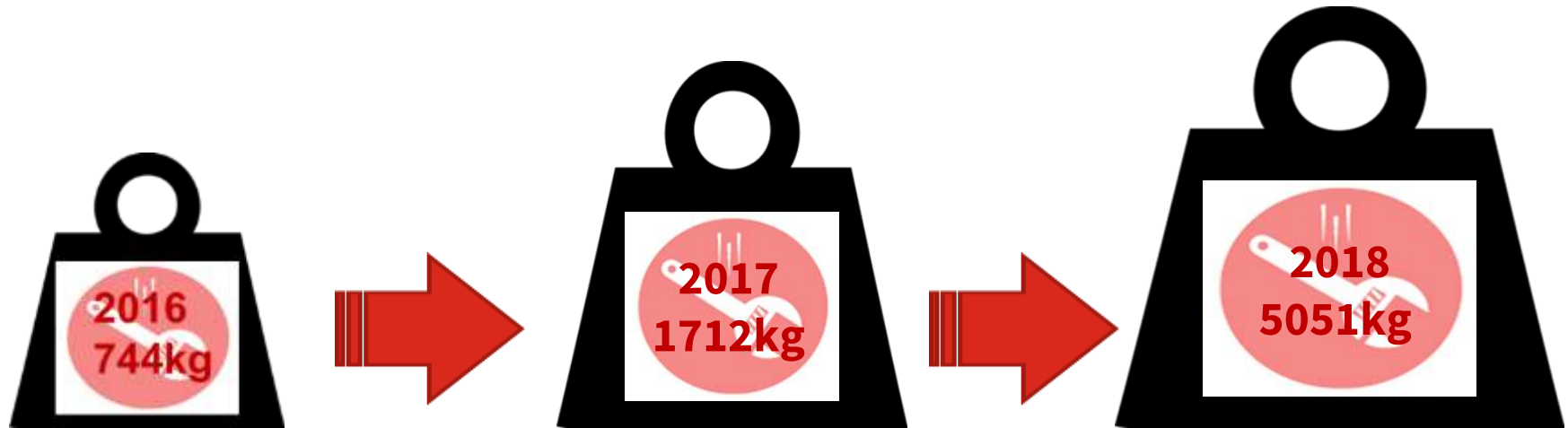
DROPS Online Forum - September 2019



DROPS

RSRUK Problem Statement

Dropped Objects are increasing – why?



**Was 2017 & 2018 just a bad years, and it will be ok?
Or
A worrying trend & needing decisive action?**

56 = Actual Dropped Objects in 2018



HPI & RIDDOR Reportable

RSRUK The Background

The Statistics



► 2017 & 2018 saw a concerning rise in the number of Dropped Objects across the business

- 69 & 56 recorded Dropped Objects respectively
- Increase of 968kg of Dropped objects from 2016
- 6 Reportable dropped objects incidents, of which;
- 3 were HPI Dropped Object Incidents in 2017 and 2018

► Recorded Causes 2017 / 18

Top 5 Causes of DOs	2017 Total	2018 YTD	Factor
Inadequate Securing	52	24	Condition Based
Failed Fixtures and Fittings	32	10	Condition Based
Inadequate Maintenance	30	9	Condition Based
Corrosion	20	13	Condition Based
Poor Hazard ID and RA	19	4	Training & Comp



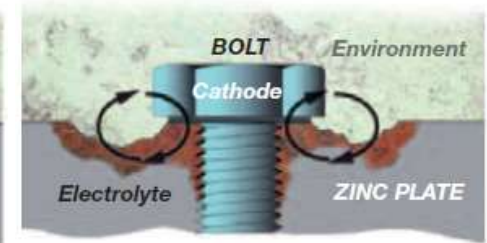
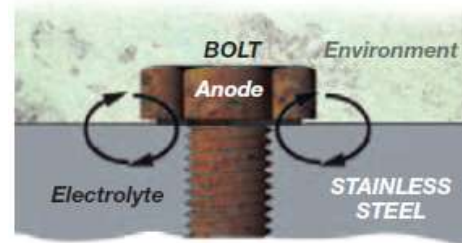
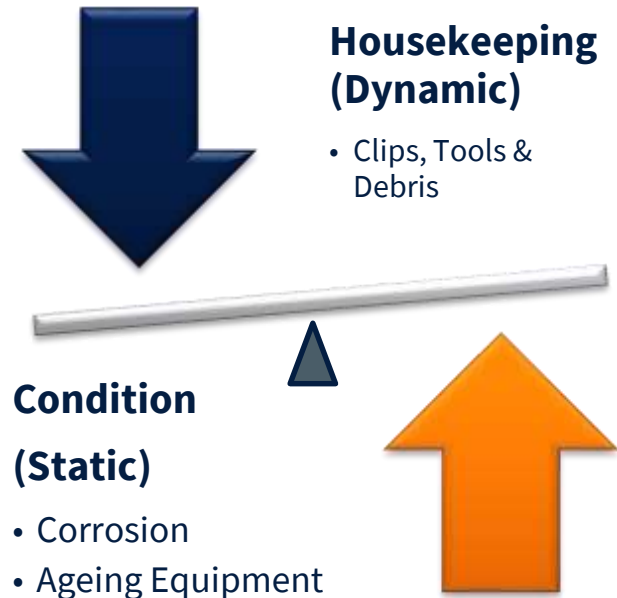
falling objects

We are seeing the same causes as we trend through 2018

The changing picture of DROPS

Condition V's Housekeeping

- ▶ We have historically been focused on Housekeeping aspects of PDOs
- ▶ The picture is changing, as our assets age
- ▶ Corrosion now also playing a part in the increase of Static Dropped Objects
- ▶ Highlighting the need to focus on;
 - the condition of fittings & fixtures and corrosion to metallic structures
 - With more robust inspection to provide assurance.



Questionnaire Findings

5 Key Observations

Observation 01

No standard or consistent process, for the management and prevention of Dropped Objects

Observation

What did we learn?

We needed a Multi-layered strategy for
The Management and Prevention of Dropped Objects

Observation

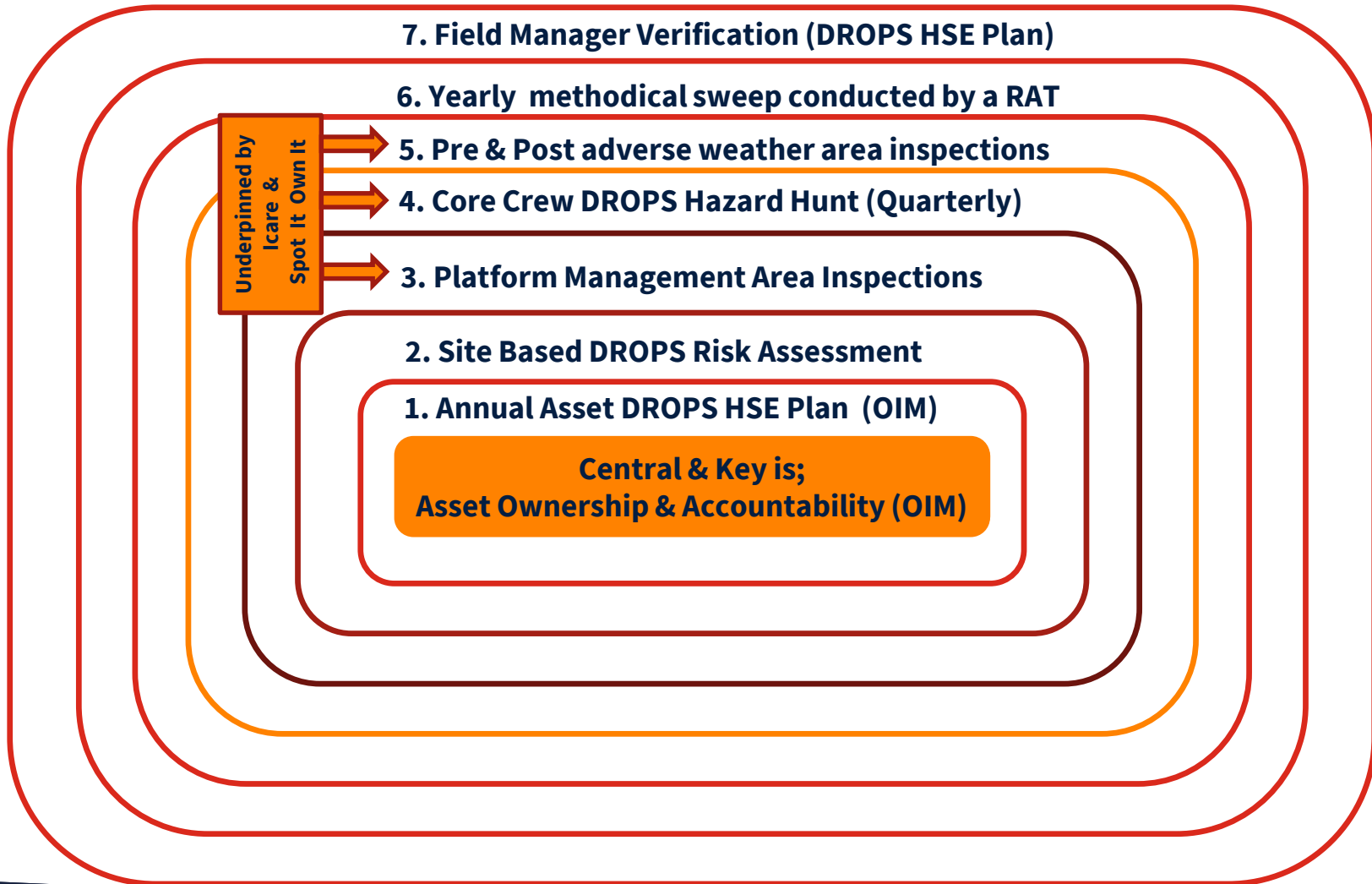
Observation 05

Process for measuring DROPS performance against future, plan against risk reduction, is inadequate

RSRUK Management & Prevention of Dropped Objects

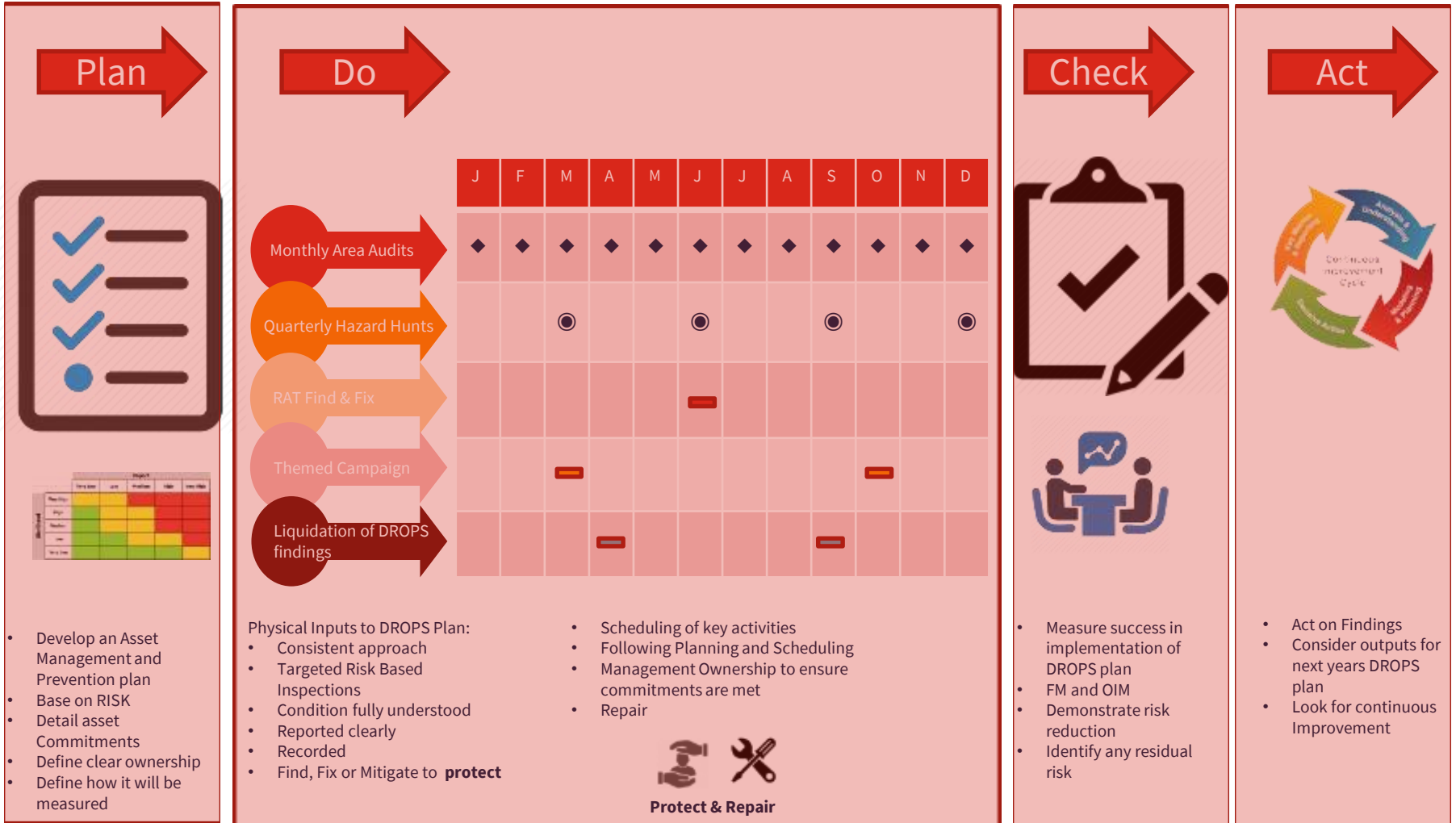


What the multi layered strategy looks like



Proposed Strategic Approach



Multi Layered Strategy



Annual DROPS HSE Plan

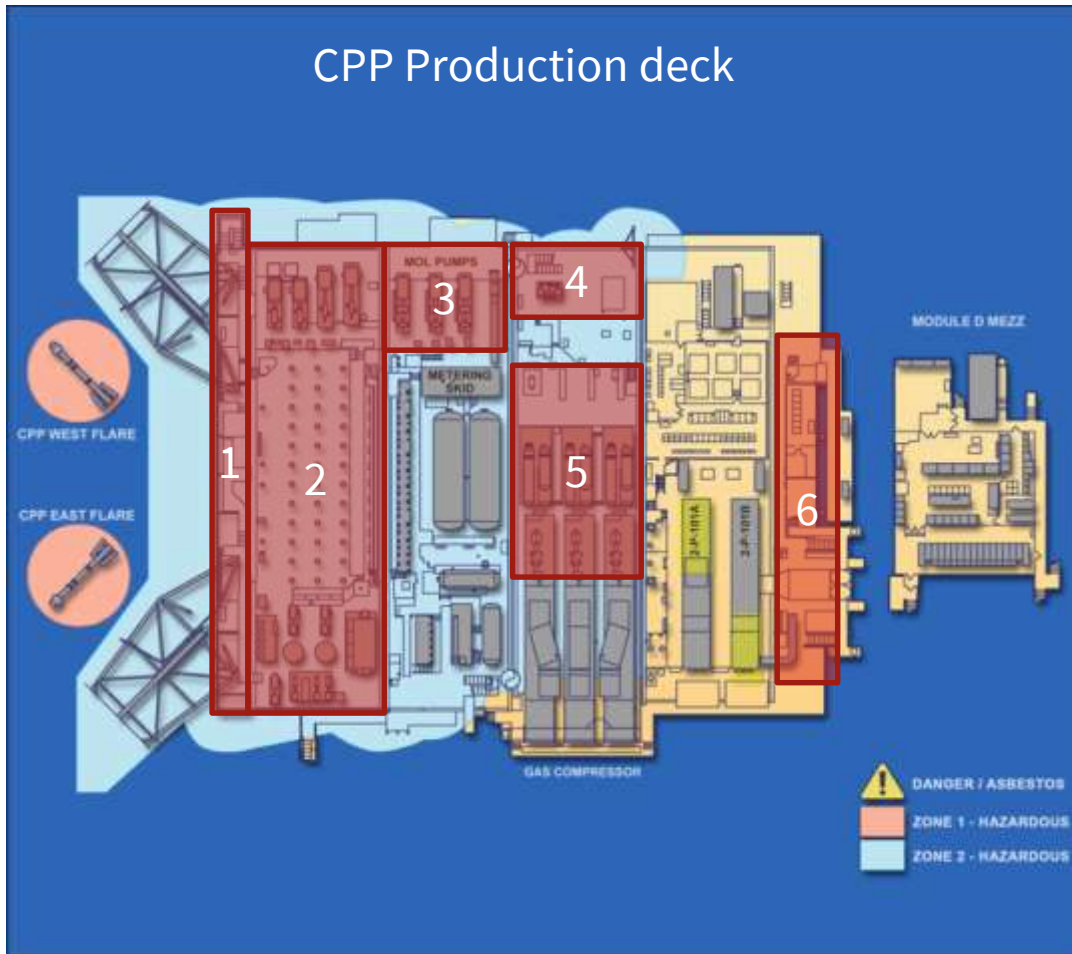
Plan - Proposed adoption of HSE template

- Proposing to include drops on HSE Plan
- Set out asset Commitments
- Clearly defined inputs
- Endorsed by asset senior management
- Owned Offshore by OIM
- Measurement metrics defined

2019 [asset] HSE IMPROVEMENT PLAN				REPSOL SINOPEC Resources UK												
	FOCUS AREA	SPECIFIC ACTIVITY/ACTION	RESPONSIBLE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
	TBC	TBC	TBC													
	TBC	TBC	TBC													
	TBC	TBC	TBC													
	TBC	TBC	TBC													
	TBC	TBC	TBC													
	TBC	TBC	TBC													
	TBC	TBC	TBC													
	TBC	TBC	TBC													
	PREVENTION AND MANAGEMENT OF DROPPED OBJECTS	Carry out monthly DROPS area inspections	HSE Advisor													
		Hold quarterly review of DROPS Plan and DROPS Database	OIM													
		Scheduled RRT Find & Fix surveys	OIM													
		Maintain asset DROPS Database	HSE Advisor													
		Hold Quarterly DROPS Hazard Hunts	HSE Advisor Led													
		Annual Verification of Dropped Objects Plan	OIM													

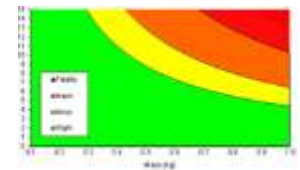
What are we up to Next?

Asset / Site Plot Plan Risk Assessments



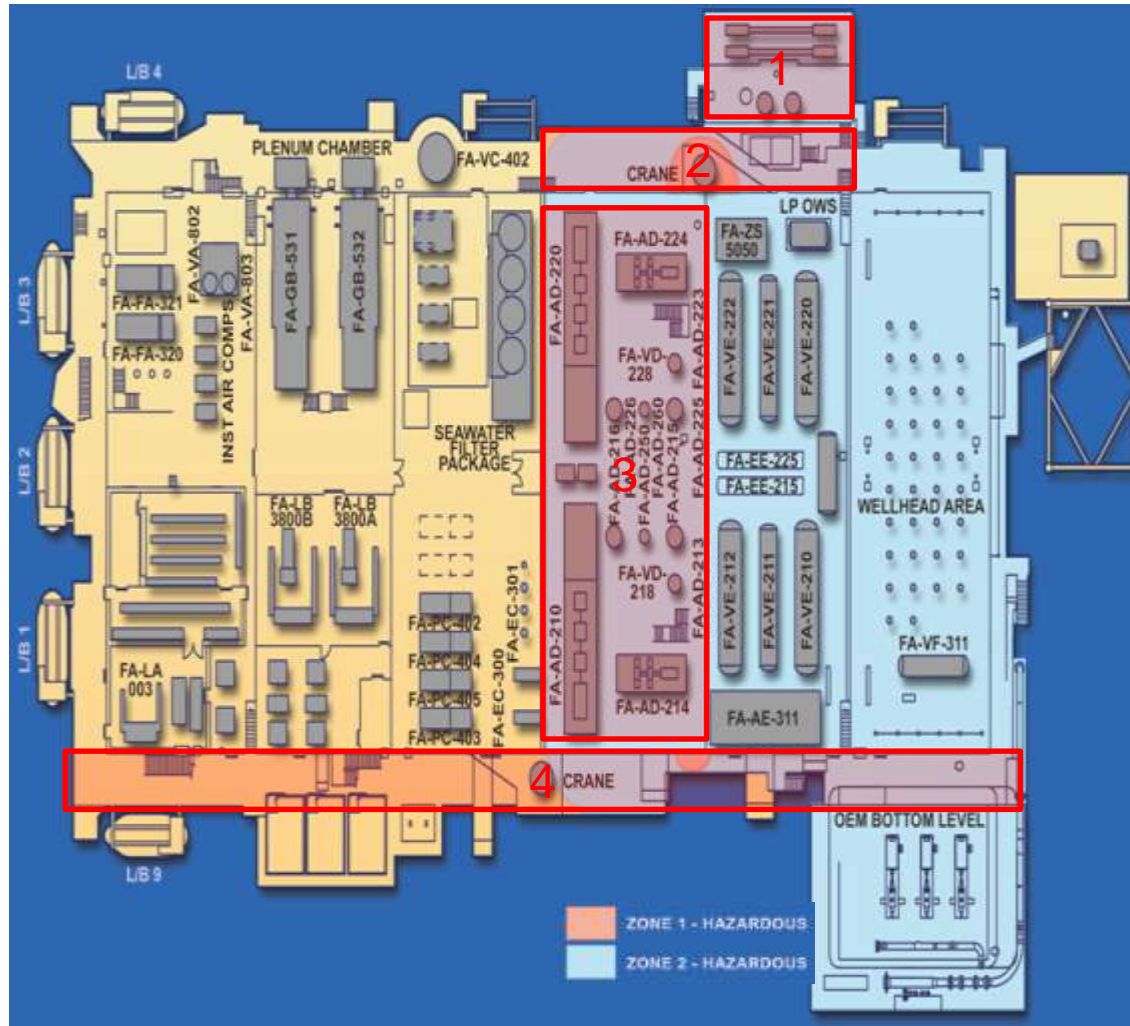
High Risk	
1	Heat shield
2	Cable tray and high level Dome lights
3	Cable tray
4	Cable tray
5	Cable Tray / Redundant Equipment
6	Cable Tray / Pipework

INJURY POTENTIAL				LIKELIHOOD OF FAILURE
LTI	W	FAT	X	
N	F	F	HIGH	HIGH
N	F	F	MEDIUM	
F	F	N	LOW	



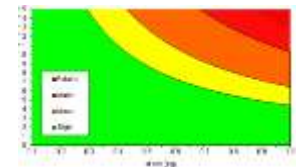
Asset / Site DROPS Risk Assessment

Fulmar PDO Area Zone 7 'Module Deck'



High Risk	
1	Decommissioned, not inspected or maintained.
2	M 4 & 5 wind walls poor condition
2	80% of equipment in module (redundant) no longer used and not inspected or maintained
4	Exposed location/prevaling wind. Corroded grating/cable tray/unistrut/ M 4 & 5 wind walls poor condition

INJURY POTENTIAL				LIKELIHOOD OF FAILURE
LTI	MI	FAT	X	
N	I	I	HIGH	HIGH
N	SI	I	MEDIUM	
I	SI	N	LOW	



Input - Stop Drop Strategy

I Care submission. (Spot It Own It)



Further emphasising asset / site ownership in this multi layered approach;

- ▶ **(3)** Platform Management area inspections (monthly) – Plot Plans / WMS areas
- ▶ **(4)** Core Crew Hazard Hunts (quarterly)
- ▶ **(5)** Implementing pre and post adverse weather inspection for changing condition
- ▶ Utilising Spot it Own it and iCare Observation cards.
- ▶ Offering input through workforce engagement with our employees and support contractors -

P1 Insulation
Major damage or missing insulation. Wet insulation and evidence of Corrosion Under Insulation (CUI) to substrate.

P1 Passive fire protection - structural
Significant breakdown of coating system. Unretained and disbonded material. Evidence of water ingress at passive fire protection / substrate interface.

P2 Coatings
Coating broken down with heavy scale. Loss of average support wall thickness with deflection in excess of 1/200th panel span. More than one grating clip missing / loose and loose. Average loss of thickness 45-50% or perforation of cross bar.

P1 Cable trays, ladders and Unistrut
Heavy corrosion or damage to equipment. Potential dropped object.

P1 Cladding
Excessive corrosion, holes and general breakdowns.

iCare Observation Card
Observation - Description
What did you observe?
What was the condition in regard to?
What was the location?
What was the date?
What was the time?
What was the weather?
What was the wind speed?
What was the visibility?
What was the temperature?
What was the humidity?
What was the pressure?
What was the oxygen level?
What was the noise level?
What was the vibration level?
What was the radiation level?
What was the electromagnetic interference level?
What was the static electricity level?
What was the lightning level?
What was the seismic level?
What was the fire level?
What was the explosion level?
What was the toxic level?
What was the corrosive level?
What was the flammable level?
What was the reactive level?
What was the unstable level?
What was the toxic level?
What was the corrosive level?
What was the flammable level?
What was the reactive level?
What was the unstable level?

RAT Find and Fix Input

Targeted execution of work

- Planned ring fenced RAT Find and Fix teams
- Supported by a container of mechanical equipment and restraints
- Focused inspection in highest areas of risk using Plot Plans
- Adopting use of technology and direct inputs to database
- Dashboard outputs and reports on status of Dropped Objects
- Measure safety, performance, value and ongoing competency



Onsite use of
Tablet, entering
directly into
database



RAT Find and Fix

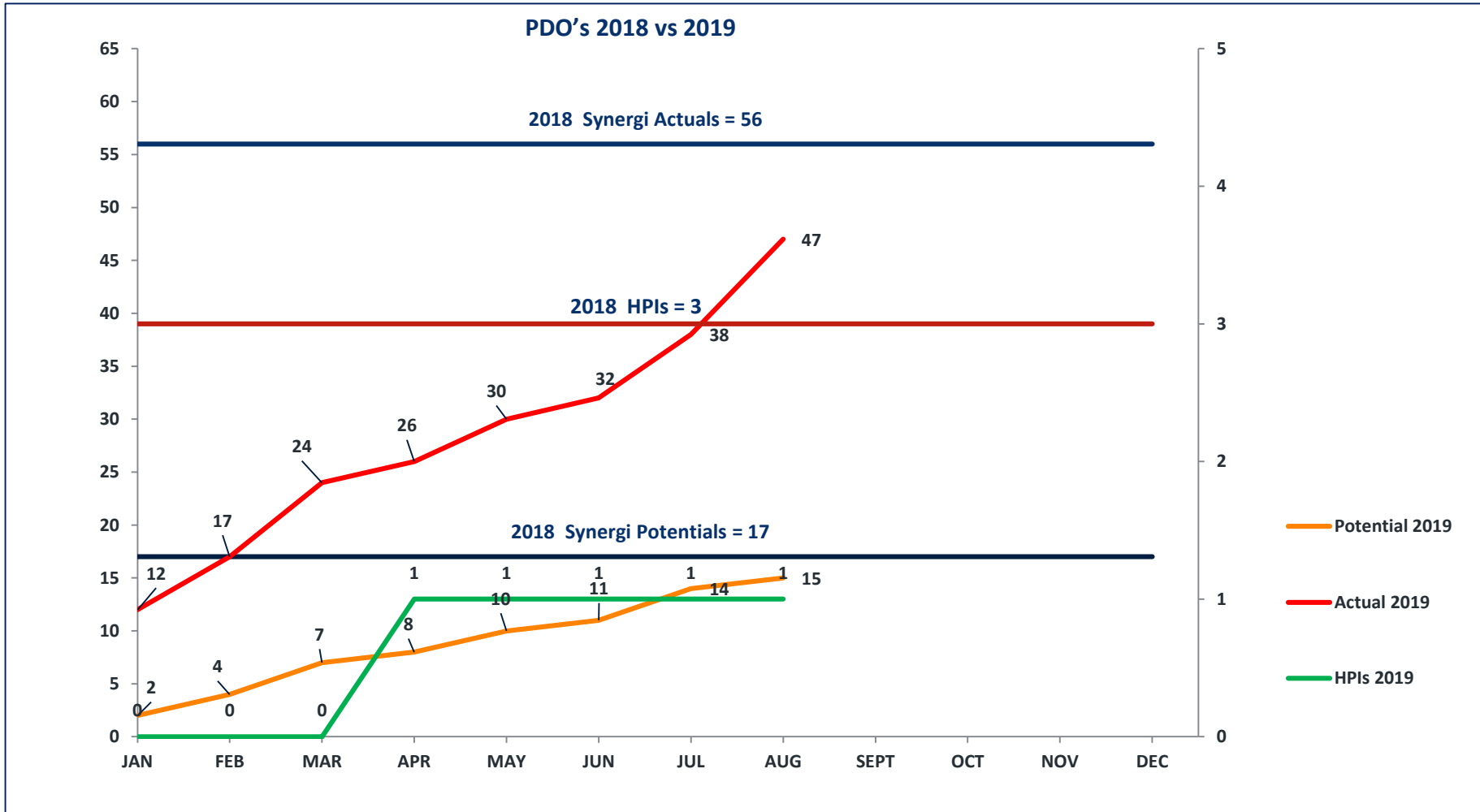
Removal V's Mitigation

- ▶ First option is the removal of PDOs
- ▶ Where PDO cannot be removed (time or equipment) we will mitigate
- ▶ Risk Assess the level of mitigation applied when scheduling follow up work
- ▶ Examples of mitigation on our assets / sites



Where are we?

DROPS Performance YTD: As of 31st August 2019



2019 RAT Campaigns – DROPS statistics

RSRUK DROPS FIGURES 2019 (Jan-Aug)

Assets Visited in 2019 (Jan - Aug)	No of P1s Found	No of P1s Removed	No of P1s Remaining (mitigated)	Total PDOs Found (P1/2/3)	Total Removed (P1/2/3)	Total Remaining & mitigated (P1/2/3)
Piper	65	53	12	129	96	33
AUK	20	18	2	99	78	21
Tartan (topsides)	39	38	1	125	90	35
Tartan (Drilling)	6	5	1	18	8	10
Clyde	51	41	10	76	57	19
Fulmar	21	10	11	72	36	36
Flotta	33	26	7	149	115	34
Claymore	45	45	0	107	82	25
Totals	280	236	44	775	562	213



1291

- Total SIOI cards raised in Q2 and Q3

645

- Of the total had immediate remedial work carried out

531

- of 1291 were associated with PDOs

383

- Of 531 PDO SIOI were removed / rectified



Where could we have been?

PDO's 2018 vs 2019

