



Safety Management On Research Vessels

If it wasn't Marine
Research, we'd know what
we are doing!!

OUR SERVICES

Provider of wide range of marine services with an ability to integrate

- Offshore
- Offshore Logistics
- Port and Terminal Services
- Cargo Transport
- Headquarters

Operating one of the largest fleets in the world would require:

Scalable operational model (across vessels, operations, and geographies)

- IT as an enabler
- One platform

Engaged organisation

- Empowered and passionate teams
- Data as a decision-maker

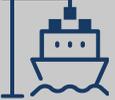




THE P&OML GLOBAL FOOTPRINT

P&OML has offices worldwide



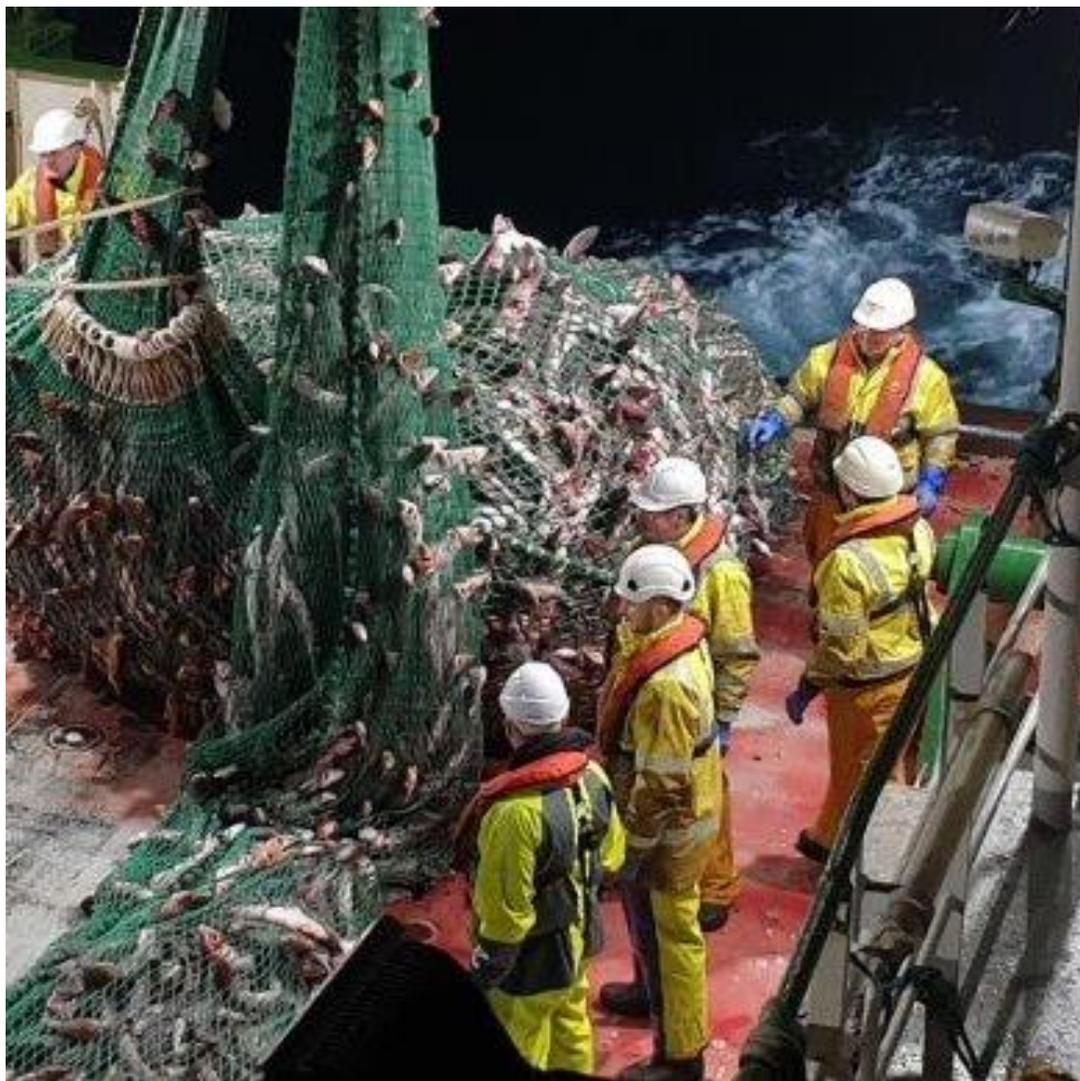
 A fleet of 400+ vessels

 185-year legacy born in 1837 in London, UK

 3000+ employees from 52 nationalities

P&O Maritime Logistics Corporate

- Company Standards
- ABS Nautical Systems (NSE)
 - Purchasing
 - HSEQ
 - Maintenance
- Self-Verification System
- Corporate Assurance Assessments / Visits
- Safety Bulletins
- Emergency Response
- HSSEQ Intranet



Fundamentals

ISM

ISPS

MLC

ISO 9001 (Quality)

ISO14001 (Environment)

ISO45001 (OHS)

Safety Management on Research Ships



Confined / Enclosed Space Checklist

Permit to Work No. 6528

Work to be done: *Work on R216*

Location: *Deck 0200*

Person in Charge: *John Smith*

Permit Issued: *12/01/23*

Time: *09:00*

Time Valid Until: *17:00*

Work Performer (Signature): *John Smith*

Date: *12/01/23*

Time: *09:00*

Gas Tests	Reading/Time	Reading/Time	Reading/Time	Reading/Time	Reading/Time	Job Completed	Yes	No
Flammable	0.2%	0.2%	0.2%	0.2%	0.2%	Area restored & safe		
Oxygen def.	20.9%	20.9%	20.9%	20.9%	20.9%	Suspended		

ACTIONS / EMERGENCY PROCEDURES - TO BE REVIEWED BY THE PERMIT TO WORK ISSUING AUTHORITY

- If an unforeseen hazard or difficulty develops, work to be stopped & space evacuated while situation is reassessed.
- If the ventilation fails, the space is to be evacuated immediately.
- If any person feels adversely affected, they give the pre-arranged signal to the person at the entrance and every person leaves the space immediately.
- In an emergency requiring entry into an unventilated space, or in the event of a rescue, full pre-venting BA checks and procedures are to be initiated before entry.
- If it is necessary to deviate from the agreed method of work, the space must be evacuated until a new method of work has been discussed and agreed.

Copies:
 White (original): Attach to Permit to Work - Work Performer
 Pink: To remain in Confined/Enclosed Space Checklist Book



Tool Box Talk

General Guidance:
 The P&O's revised Risk Management standard details the application of Toolbox talks (TBTs). TBTs should be carried out in advance of all operations and if required during operations and if there are any changes or incidents occurring. This form only needs to be completed for significant or complex operations especially new operations and deployments, simultaneous operations (SMOPs) or when there are new personnel involved. TBTs not being recorded in this format should be logged in a suitable manner by the lead person.

Ship/Site: *Colin Explorer* Date: *21/01/23* Time: *09:50*

Specific Task/Activity to be discussed:
Demb of Containers + R216

Task/Activity RA/SOP No.:

Ship/Site: *Colin Explorer* Customer/Other:

RA Reviewed SOP PTW Required No Yes No PTW No. *6920*

Consider the following:

Communications <input checked="" type="checkbox"/>	Lifting Operations <input checked="" type="checkbox"/>	Pressurised System <input checked="" type="checkbox"/>
Confined Space <input type="checkbox"/>	Machinery/Equipment <input checked="" type="checkbox"/>	Simultaneous Ops <input checked="" type="checkbox"/>
REACH/COSSH <input type="checkbox"/>	Manual Handling <input checked="" type="checkbox"/>	Workshop Ops <input type="checkbox"/>
Hot Work <input type="checkbox"/>	PPE <input checked="" type="checkbox"/>	Working at Height <input checked="" type="checkbox"/>
Isolations <input type="checkbox"/>	Pollution Risk <input checked="" type="checkbox"/>	Working near Water <input checked="" type="checkbox"/>



Permit to Work (PTW)

Permit to Work No. 6528

Work to be done: *Work on R216*

Location: *Deck 0200*

Person in Charge: *John Smith*

Permit Issued: *12/01/23*

Time: *09:00*

Time Valid Until: *17:00*

Work Performer (Signature): *John Smith*

Date: *12/01/23*

Time: *09:00*

Additional precautions for HOT WORK:

- Fire extinguishers in place
- Fire alarm tested, bridge/CR informed
- Work space ventilated during work
- Area covered off

Additional precautions for WORKING AHEAD:

- Work platform with securing points for ladders
- Whistles, radio, radio isolated / bridge informed
- Safety harness checked
- Tools secured

Additional precautions for MACHINERY OR EQUIPMENT:

- Equipment/Machinery isolation, i.e. electrical, mechanical, pneumatic
- Lock out procedures in place

Additional precautions for CRANE OPERATIONS:

- Crane suitable for the lift required and all relevant
- Communications arranged including emergency
- Equipment in good order
- Signals
- Crane and Operator verifies checked & cleared

Additional precautions for OTHER (insert as required):

Working - contractor checklist completed

Permit Class	Position	Name	Signature	Date/Time
Issuing Authority	C/O	J. WATSON	[Signature]	12/01/23 09:00
Responsible Person	PTW	J. SMITH	[Signature]	12/01/23 09:00
Permit Class	Position	Name	Signature	Date/Time
Issuing Authority	C/O	J. WATSON	[Signature]	12/01/23 09:00
Responsible Person	PTW	J. SMITH	[Signature]	12/01/23 09:00

Copies:
 White (original) - Work Performer
 Yellow - PTW Board
 Pink - to remain in Permit to Work Book

Our Values

How Do We Support Our Vision?



Take Care



Take Charge



Take 5



Stop Work

- 
- The background of the slide is a photograph of a research vessel at sea during sunset. The ship's white superstructure and various equipment are visible against the orange and yellow sky. The ocean is dark blue with some whitecaps. The text is overlaid on the right side of the image.
- What is different about safety management of Research vessels?
 - By its nature science, pushes technology and as a result creates new technical, operational and safety challenges to the delivery of successful surveys on board.



- Operation of CPT / Customer ROV/ 3rd party equipment not previously integrated and / or deployed.
- Bridging safety procedures and risk assessments with customers and 3rd parties.
- Accommodating inexperienced scientific crew. With differing Safety Cultures and Values.
- Operating in new environments / POLAR Research.

Get Information Early

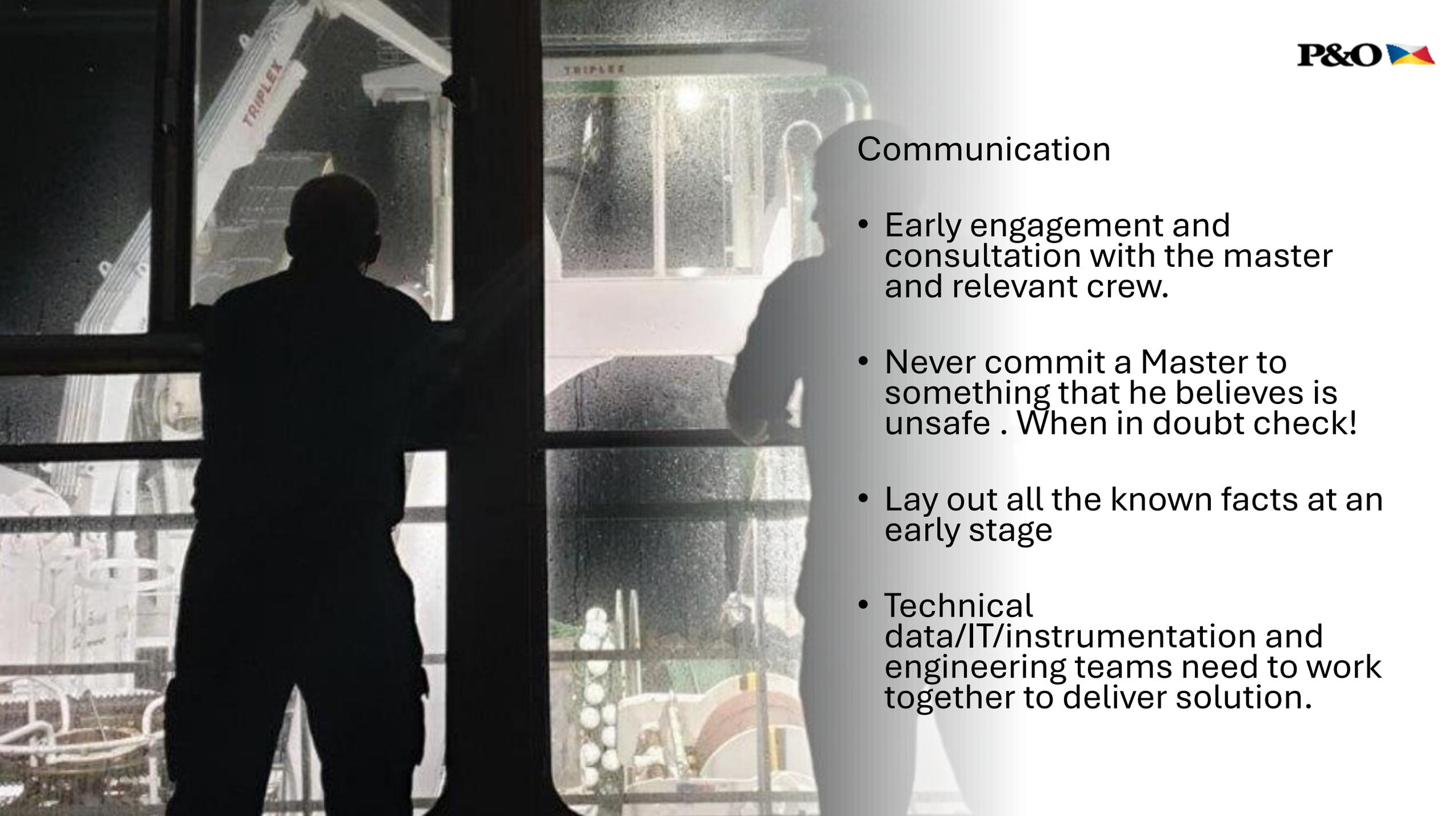
- Technical and physical information well in advance to avoid nasty surprises.
 - Power
 - IT
 - Data
- Dimensions and weights (in air and sea)
- Gases/Chemicals/Radiological



Get Information Early

- Identify operational requirements.
- Deployment methods etc
- Safety
- 3rd Party Risk Assessment and procedures to bridge.
- Are there any safety or operational roadblocks ?
- Can they be mitigated?
- Are there alternatives?



The background of the slide is a photograph of a ship's bridge, viewed from an elevated position. Two silhouetted figures are standing in the foreground, looking out over the bridge. The bridge is filled with various pieces of equipment, including a large radar display and a control console. The word 'TRIPLEX' is visible on the side of the bridge structure. The lighting is somewhat dim, suggesting an overcast day or a shaded area.

Communication

- Early engagement and consultation with the master and relevant crew.
- Never commit a Master to something that he believes is unsafe . When in doubt check!
- Lay out all the known facts at an early stage
- Technical data/IT/instrumentation and engineering teams need to work together to deliver solution.

Know your Stakeholders

- Vessel Owners
- Operators / including HSEQ
- Scientific Customer – so important to set expectations as early as possible
- Vessel Master
- Ship's Crew
- Technical Staff
 - Engineering
 - IT / Data management / instrumentation.
 - Logistics
- Legal
 - Flag / Class
- Underwriters
 - Hull& Machinery / P&I and scientific equipment.
- Fishing Industry / Public



Thank you, any questions?