



The **Energy** and **Marine** Consultants.

THE ADDED VALUE OF THE MARINE WARRANTY SURVEYOR (MWS) IN THE OFFSHORE AND MARINE INDUSTRY

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Outline of Presentation

- Introduction to ABL
- Things that go Wrong
- Why did it happen
- What is MWS
- Role of MWS
- The added value of the MWS
- SOMWS
- Q&A

Introduction to ABL

- In April 2021 LOC merged into AqualisBraemar and became The ABL Group (AqualisBraemar LOC).
- AqualisBraemar LOC is the leading and largest independent marine, engineering and adjusting consultancy serving clients in the renewables, maritime, oil and gas and power sectors across the globe.
- ABL provides input to the Marine Warranty Advisory Panel, the Joint Rig Committee (JRC) and its code of practice and generic scopes for Warranty Surveyors.
- Our team now comprises over 900 professionally qualified personnel around the world.
- Our global footprint spans over 300 locations, including 67 offices across 39 countries, enabling us to provide more local expertise and a swifter response to wherever our client's assets are.
- ABL is well known by all major offshore operators, contractors, and the Insurance Market.

Introduction to ABL



Offices



Countries



Locations



People



* 900 full-time equivalent employees as of 31 July 2021

** ABL locate many staff strategically at maritime and offshore hubs to be able to serve clients locally

Additional note: the 39 countries number is driven by our offices, in terms of locations where we have surveyors etc we cover 71 countries, a truly global footprint



Introduction to ABL

Renewables



Maritime & Energy Underwriters / brokers



Oil and Gas



Introduction to ABL

Following the merger of AqualisBraemar and LOC, the ABL Group is now made of a number of leading companies in their sectors and fields.

Allowing us to deliver technical excellence in engineering and consultancy, loss prevention and loss management.



AqualisBraemar LOC

AqualisBraemar LOC is a leading global independent energy and marine consultant working in energy and oceans to de-risk and drive the energy transition across renewables, maritime and oil and gas sectors.



Offshore Wind Consultants (OWC)

Project development services, owner's engineering and technical due diligence to the offshore renewables industry.



John LeBourhis & Associates (JLA)

Rig moving, risk control services and surveying services, specialists in MODUs.



East Point Geo

Expert Geoconsulting organisation supporting all sectors; providing efficient client-focussed deliverables including data assurance, ground models and quantitative risk assessment.



Longitude Engineering

Independent engineering, design and analysis services for the marine, renewables, oil & gas, defence, and offshore infrastructure industries.



INNOSEA

Engineering advisory, verification, research & development, concept development and consultancy for marine renewable energy.



ABL Yachts

Superyacht surveyors and consultants.

Visit our website www.abl-group.com



Why do MWS exist?

Because operations can go wrong!

What can go wrong



Load out of offshore equipment, as it can be seen one equipment was already load.... Safely

What can go wrong

- Barge no longer safely moored
- Ramp at different angle

Possible causes:

- Trailers level
- Insufficient ballast pumps
- Strong current
- Moorings
- Poor location



What can go wrong



- 150 T transformer being tandem lift using ship's cranes into the ship hold
- Canada, winter, during ice conditions
- What happens as soon as you pick up a heavy load??
- Look the time: 10:55pm

What can go wrong



- Time: 11.06pm, 11 minutes after lift started

Possible causes:

- Ballast frozen
- Weight transfer not monitored
- Stability issues with crane head heights, and GM

This was not only a loss of high cost asset but also a tragic loss of humans life in the ship holds

What can go wrong



- Semi submersible with topside... just left the load-out port.
- Load-out by means of skidding

What can go wrong



What went wrong?

- Ballasting with multiple tanks during sailing away
- High free surface moment
- Very low vessel GM after loading

The vessel sunk into the shallow water just few miles away from the loading out quayside. Losses of assets and humans life

What can go wrong



Damage \$350 million

- Fire damage in the shipyard during refitting works

Causes:

- Poor monitoring system.
- Ship firefighting system under maintenance and out of order.
- Quayside firefighting system not working.
- The site was unattended with no CCTV operational cameras.
- Contingency plan (local fire brigade) not implements.



A3L
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What can go wrong



When the fire had finished
it looked like this



What had to be repaired
looked like this

What can go wrong



Damage \$ 75 millions

- Fire damage during shipyard fabrication works

Causes:

- Hot work system not followed up onsite
- No HSE personnel to monitoring activities
- No portable firefighting system available in close proximity
- No contingency plan

What can go wrong



Damage \$ 180 million

- New construction undocking / launching

Causes:

- Temporary opening left opened
- Flooding of the ship lower compartments
- No proper inspections carried out before launching the ship
- No contingency plan



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What can go wrong

Damages due to manoeuvrability issues in confined waters



What can go wrong

Damages due to severe weather – grounding around \$ 150 millions



What can go wrong



Damages due to lift

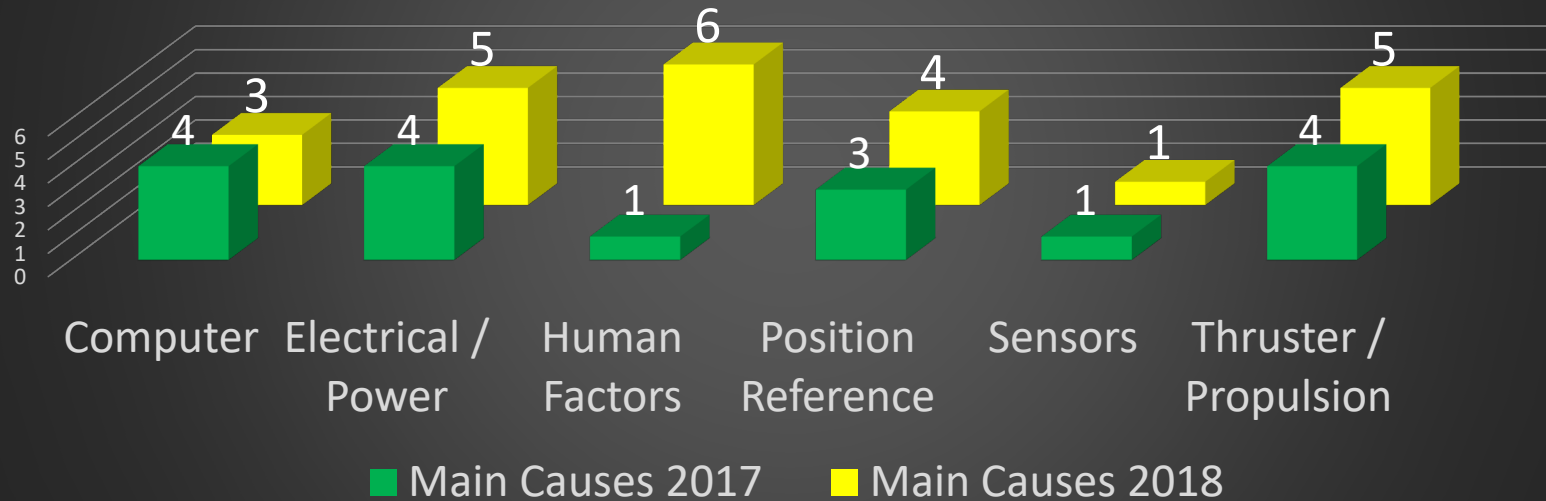
Crawler crane hit a module on the shipyard due to lack of visibility



Ship crane ripped off the pedestal due to bad maintenance

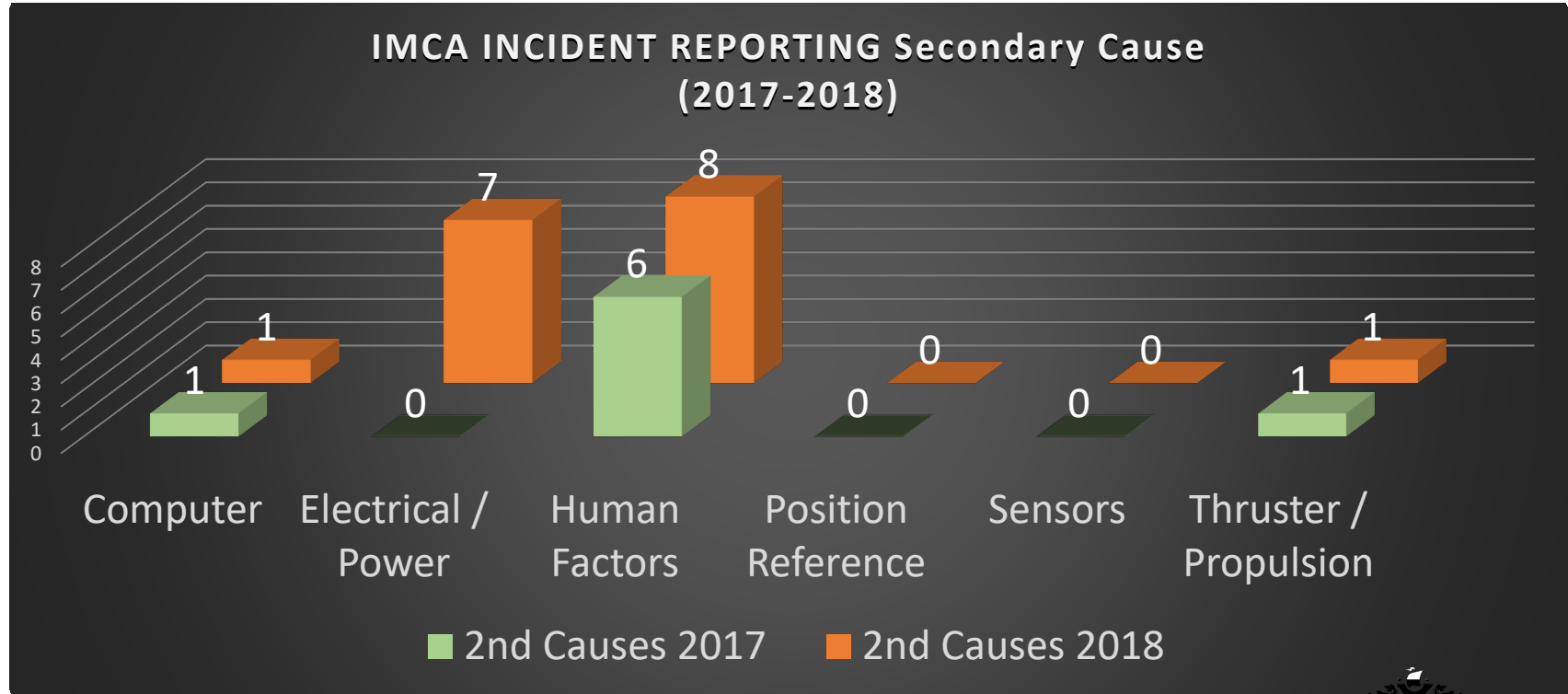
What can go wrong

IMCA INCIDENT REPORTING MAIN CAUSE (2017-2018)



STATION KEEPING INCIDENTS – MAIN

What can go wrong



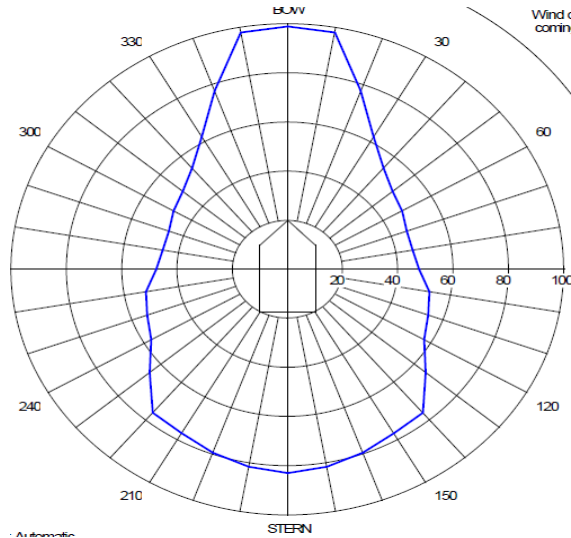
STATION KEEPING INCIDENTS – SECONDARY

Why did it happen

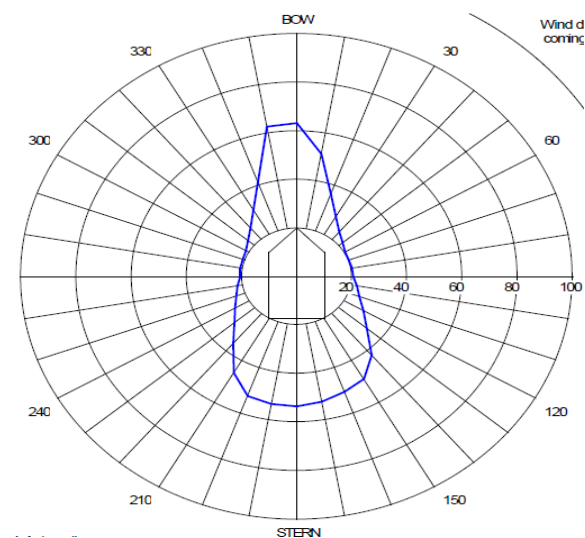
- Lack of management.
- Activities carried out outside of the approved procedure.
- Documented procedures not implement.
- Appropriate contingency plan not implemented.
- Production and safety not integrated.
- Sudden change in weather forecasts, or weather forecasting not considered.
- DP system failure, and worst case failure not considered (WCF).

Why did it happen

Damages due to DP failure



INTACT



POST FAILURE (WCF)

What is MWS

Definition of a Marine Insurance:

UK Marine Insurance Act 1906

A contract of marine insurance is a contract whereby the insurer undertakes to indemnify the assured, in manner and to the extent thereby agreed, against marine losses, that is to say, the losses incident to marine adventure.

What is MWS

Definition of a Marine Insurance Warranty:

Dictionary of Marine Insurance Terms and Clauses 1989

- *A marine insurance warranty is a promissory warranty by which the assured undertakes that some particular thing shall or shall not be done or that some condition shall be fulfilled, or whereby he affirms or negates the existence of a particular state of facts.*
- *The assured must comply literally with the terms of the warranty. Compliance in spirit is not acceptable. If the assured fails to comply with the terms of the warranty the insurer is discharged from all liability under the policy as from the date of breach of warranty, but without prejudice to insured losses occurring prior to such a date.*
- *A warranty may be “express” or “implied”. An express warranty is set out in the policy conditions. An implied warranty does not appear in the policy, but is implied to be therein by law.*



What is MWS

Definition of Marine Warrant Surveyor:

Marine Warranty Surveyors Code of Practice and Scope of Work (JR 2010/010)

The Marine Warranty Surveyor is an independent third party whose "fundamental objective is to make every reasonable effort to ensure that the risks associated with the warranted operations to which a Warranty Surveyor is appointed are reduced to an acceptable level in accordance with the best industry practices".



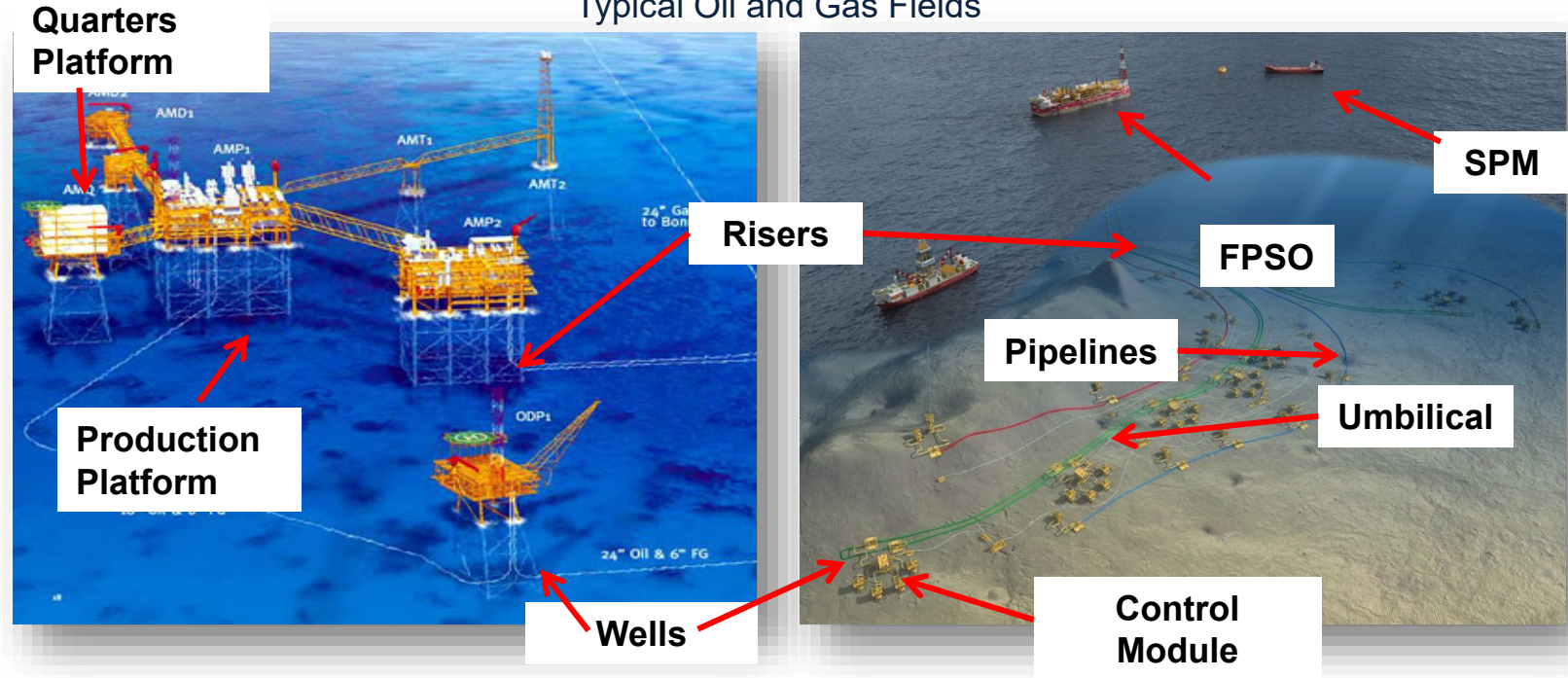
What is MWS

The requirement for a Marine Warranty Surveyor (MWS) comes about when:

- An assured has high value equipment which is subject to marine risk
- They seek insurance for that equipment, bearing in mind those risks
- The insurance underwriter seeks comfort that the risks to which it is exposed are in accordance with acceptable standards
- They write a warranty into the policy wording, requiring the approval of some or all the activities by a MWS
- The Warranty Surveyor will be selected by the underwriters from a short list of INDEPENDENT acceptable surveying houses, for appointment by the assured.



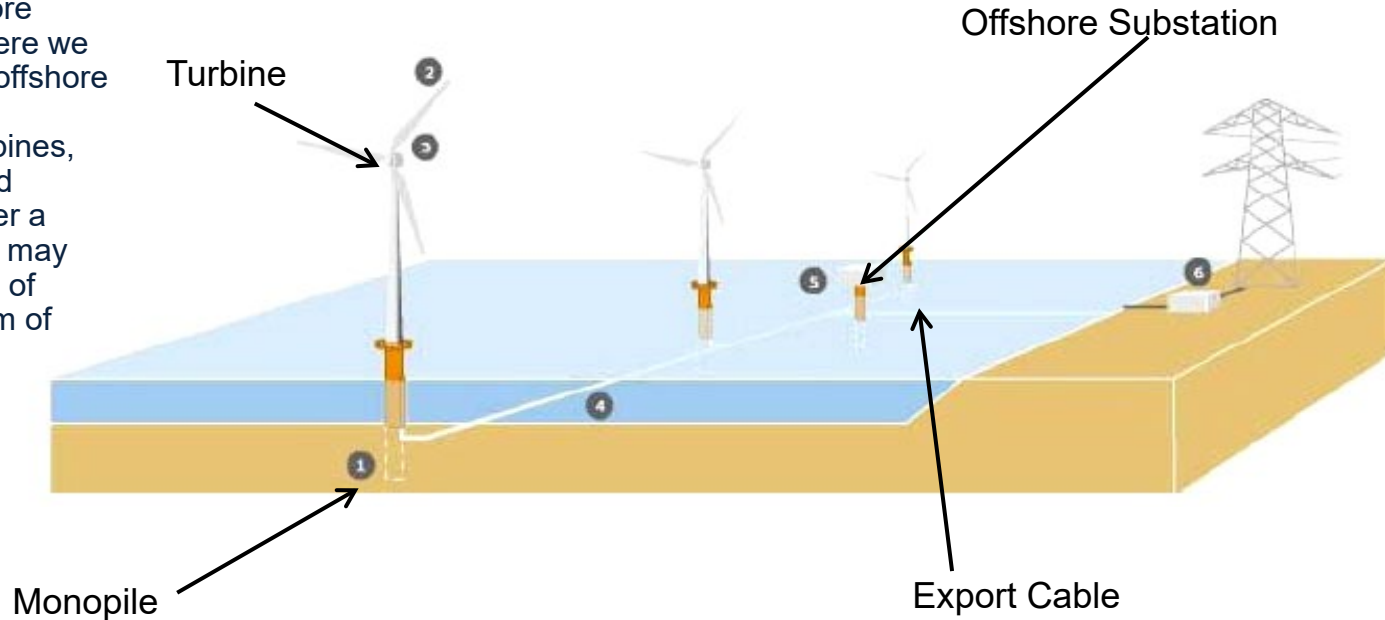
Typical Oil and Gas Fields



On the left we have a shallow water field with accommodation platforms, drill platforms, production platforms, wells, risers and pipelines. On the right is a deeper water field with subsea modules and an FPSO or Floating Production Storage Offloading unit and a single point mooring for offloading to a tanker. Items must all be transported from their worldwide manufacturing to sites and installed in the field. This is where MWS are involved

Typical Offshore Wind Farm

A rapidly growing sector is offshore renewables. Here we have a typical offshore wind farm with monopiles, turbines, substations and cables, however a large windfarm may have hundreds of turbines and km of cable.



The Platforms, pipelines, turbines and other items must all be transported from their worldwide manufacturing to sites and installed in the field. This is where MWS are involved



...of the previous offshore fields which one has the most severe risk that might lead to losses?

Role of MWS

The main role of the Marine Warranty Surveyor is to reduce the probability of losses to an acceptably low level, by:

- Application of appropriate standards.
- Checking designs, procedures, safety aspects and its limitation to ensure compliance with such standards.
- Inspecting readiness of equipment before an operation begin.
- Monitoring the operation and suitability of actual and forecasted weather conditions.

Role of MWS

...and

- To bind the Assureds into carrying out their projects in a particular way.
- To protect the Assured and the Underwriter's interests by ensuring that good industry practice and adequate procedures are followed, and preparations made before a critical marine operation starts.
- To provide independent 'verification' of procedures and design calculations.
- To help the operator achieve an incident free operation.
- Ensure that specific marine operations are performed to recognized codes & standards and within acceptable risk levels.
- Ensure that marine asset and yards are suitable for the work they are contracted to perform.
- Verify that satisfactory plans and procedures have been prepared for a given operation.
- Ensure that these plans are supported by suitable engineering calculations.
- Inspect and verify that any major equipment proposed for use during the operation is both suitable and certified for its intended purpose and is to be operated by appropriately qualified persons.
- Attend on site to ensure that the marine operations once commenced are performed in accordance with the approved procedures.
- Ensure that the work is carried out in compliance with the governing codes rules, regulations or project specifications in force.
- Etc.



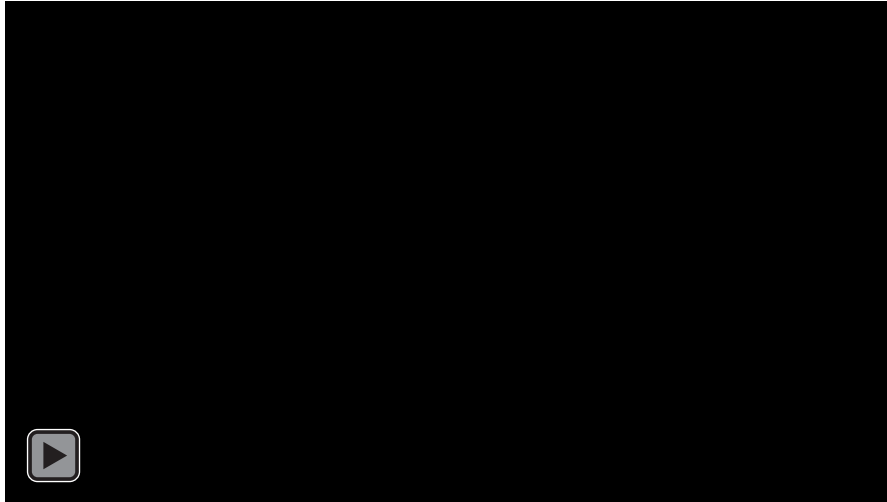
The added value of the MWS

- Involve MWS early – The earlier MWS is involved the more he/she can contribute (design basis, better understanding of the risk leading to more informed decisions).
- Provide sufficient time for the document review & comments process (bringing a multi disciplined approach, skills and experience to the review process)
- Attendances at HAZIDS / HIRAS – These are often the best place for the MWS to 'flag' inadequate procedures or poor assumptions
- The Warranty Surveyor has had the benefit of attending many projects at their critical stages. He is therefore well placed to bring the benefit of that experience to the project.
- Projects frequently gain added value from the consultancy advice provided by the Marine Warranty Surveyor.
- An experienced and well informed MWS will assist the project in operating within the agreed procedures and to achieve successful and safe operations.

SOMWS

- Underwriters through the London Joint Rig Committee requested that the panel of MWS companies pursue accreditation of individual marine warranty surveyors to provide a layer of competency assurance.
- To meet the Underwriters requirement the Society of Offshore Marine Warranty Surveyors (SOMWS) was created.
- SOMWS is a Company Limited by Guarantee under UK law with a Board of Directors, bylaws, committees and accredits Marine Warranty Surveyors.
- The Group is a not-for-profit professional body.
- The establishment of SOMWS was partially based on the work of the Marine Warranty Surveyor Advisory Panel to London's Joint Rig Committee.
- The existing Marine Warranty Surveyor Advisory Panel agreed that the industry needed a technical forum where MWS could share ideas, lessons learned and improve the industry.
- Forum for the sharing and development of best practices across the industry.
- Ultimately the attending surveyor will be required by underwriters to be a certified SOMWS surveyor.
- The SOMWS was formed in 2017 to be the international organisation for all concerned with warranting of marine operations, by providing professional leadership, upholding standards, and developing and sharing knowledge based upon integrity and quality.
- www.somws.org

....and remember what can go wrong



- Big is not necessary difficult.
- Small is not necessary easy.
- High and/or innovating technology is not necessarily safer.
- A low value object that was not designed to operate properly can lead to damage of high value asset.

The MWS exists to avoid **losses of human life** and accidents that may lead to **losses of high-cost assets**.

Thank you

it's
Q&A
TIME!



