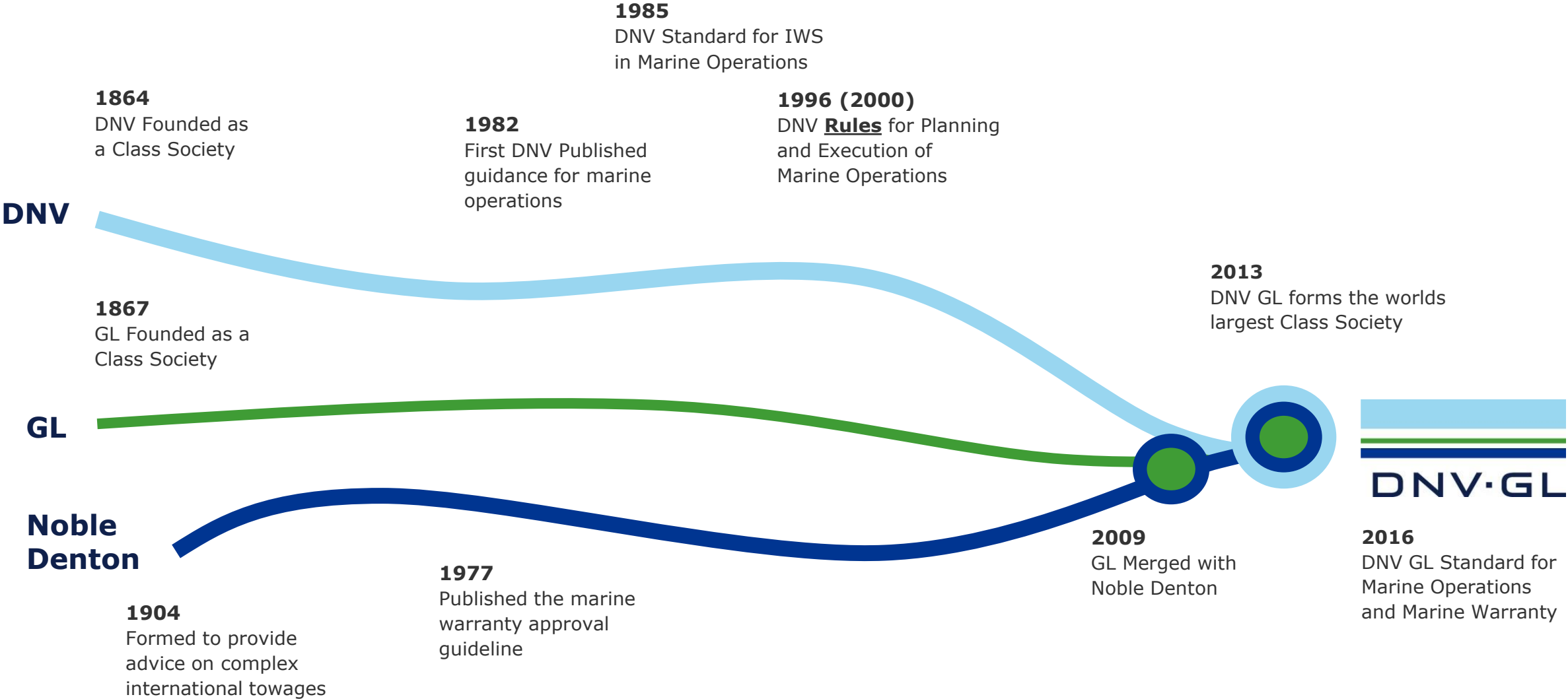


DNVGL's (Noble Denton) Port Vessel Assurance Service (PVAS) – Ensuring Technical due diligence in a ports tug supply

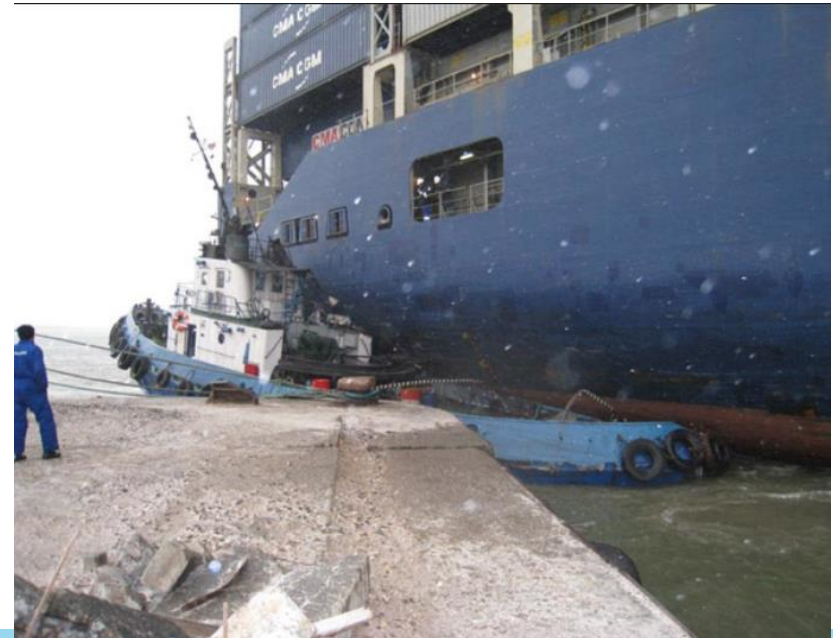
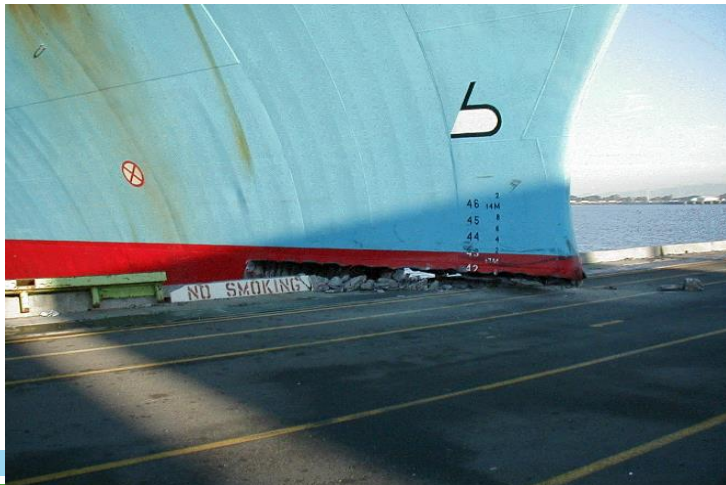


History of DNVGL – Marine Assurance Activities



Port Vessel Assurance Scheme (PVAS) –what is it? - what support does it bring to an ISPO accredited port?

- The PVAS is a robust port tug inspection programme.
- DNVGL intends to establish it as a major source of technical and operational information to pilot organisations prospective charterers and port authorities.
- The 3rd party PVAS report and certificate will clearly show the recommended operational limits (using a list of typical pilot orders) to safely use each “PVAS” surveyed tug operating within the port.
- PVAS is therefore a dedicated “Port centric tug” inspection programme .



Why do a PVAS survey? ...

- **We know**.. *"Several accidents have happened due to the fact that tug masters lacked sufficient experience with the tug under their command."* (Tug Master training - Nautical Institute 2010)
- **We know**.. *"Tugs are a costly investment and should be used in the most efficient way"* (N.I.2010)
- **ISPO** states...*"The pilot organization shall review the requirements related to the services. This shall be conducted prior to the organization's commitment to supply services to the customer and shall ensure that the organization has the ability to meet the defined requirements"* (Section 10A)
- **OVMSA(OCIMF)** states... Operators must have a " Vetting process that allows the Vessel Operator to determine the suitability for each proposed/identified vessel



The value to a Pilot management plan:

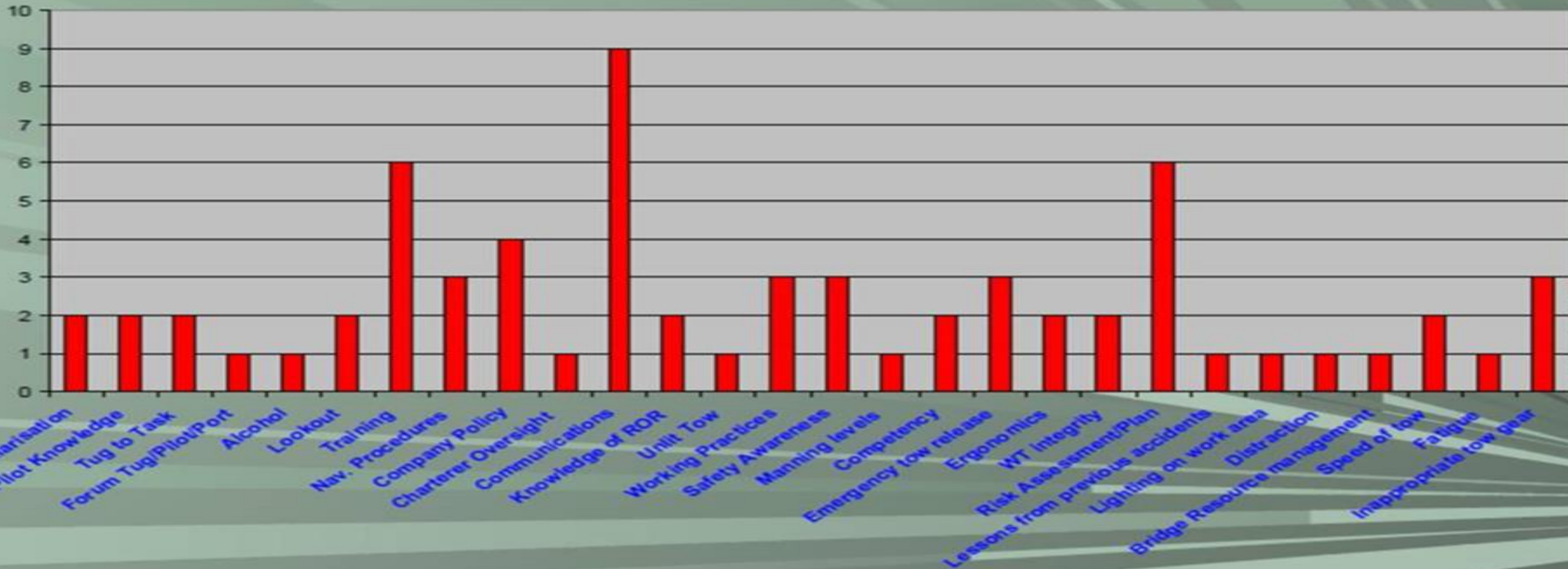
- PVAS **controls the risk** and provides documentation for the Port and Tug Owner to **demonstrate technical due diligence (when needed)** in delivering the ***“requirements related to its (Pilotage) services”*** as **required by ISPO**. This is achieved through a recorded “port operations” focussed and **impartial** assessment of the port’s tug supply.

Putting PVAS to work in the delivery of a pilotage service:

- In the past 12 months there have been 10 high profile port incidents involving tugs and pilots (G Captain reports)
- **For the Port Authority**, the PVAS report and certificate will be useful for proof of “technical due diligence” in the tug and operator selection process ...i.e. select suitable and well operated tugs that the port needs based on the shipping, water space and pilot recommendations.
- **For a Pilot**, a PVAS cert. is the medium to ask the question of the tug and the master...is the tug good to meet the pilots expectations.....are there any speed limitations the pilot should consider in the manoeuvre based on the PVAS listed tug limitations. .
- **For the tug master**....he can refer the pilot to the PVAS certificate as a neutral reference if he /she requires the pilot to reconsider the placing of the tug, or any manoeuvring limitations

– **THE PVAS assessment will continually strive to cover all the categories listed below in a focussed checklist and inspection guideline that will constantly be updated thereby controlling risk and, consequently, delivering a quality pilotage service (tug incidents compiled from the MAIB reports)**

SAFETY ISSUES - MAIB INVESTIGATIONS /PEs INVOLVING TUGS 2005 - 2011



PVAS supports ISPO's requirement to "control risk":

- **UK Marine Safety Code states...***The use of harbour tugs is one of the principal and most direct means open to a harbour authority to control risk.*" (Section 5.25)
- **ISPO states...***The effectiveness of risk management activities should be regularly reviewed by utilizing suitable information collected by the pilot organization. This information can be determined by analyzing data such as inspections, audits, risk event and incident reporting.* (Part b)
- It is suggested that a lack of an effective operational assessment of a port's tug supply (technical due diligence) could be perceived as a breach of this duty to manage risk in the pilotage service

Technical “due diligence” is all about proving “fit for purpose”

- In the offshore industry, and in ocean tows , 3rd party Marine Warranty inspections of the support vessels **is all** about the 3rd party assessment of the condition and suitability (fit for purpose) of the tug ... as demanded by the underwriters .
- *Port incident investigations will be no different*high risk piloting, due to substandard tugs could be seen as a lack of quality in the pilotage service



Tug failure implications for the Port Authority - loss of the "Safe Port" tag and the compromising of an ISPO quality pilotage service

- For a safe port.....the classic definition of "safe port" requires that the ship is able to reach the port in safety, safely use the port at the relevant time, and also depart from it in safety. A failure to satisfy any one of these requirements will result in the port being unsafe (the EASTERN CITY) [1958] 2 Lloyd's Rep. 127)
- In an investigation existing "port procedures, may turn around, what appears to be an isolated act of unforeseeable negligence" (e.g. a sudden tug failure) , into part of a wider systemic failing by the port" (UK Defence Club – From eastern City to Ocean Victory - italics added)
- "The focus of unsafe "port claims" is very often on the systems in place for avoiding known physical dangers, as opposed to the physical dangers themselves. What this tends to result in, in practice, is a microscopic analysis of the port systems, after an incident" (UK Defence Club – From eastern City to Ocean Victory)

The legal gamble wrt pilot liability and extenuating circumstances:

- **Customary international pilotage law states** that **pure** Pilot error carries no liability and is therefore only applicable where NO extenuating circumstances in the supply of the pilot service can be found .
- **Legal firm Bowmans states** (2018 legal commentary) ... *“If the National Ports Authority is itself (or another employee is) negligent or contributes to the damage, then the exclusion should not apply.”*
- **ISPO states....***“The maritime pilot organization should have a comprehensive knowledge of the legal and regulatory requirements that apply to its activities and services”* (Part B Section 5).
- It is suggested, therefore, that the legal benefits in pilotage and port operations , of having independent verification regarding the supply of vetted and competent tugs, (the principal pilot support tool), should not be underestimated.

Using towage Contracts as a defence of tug service quality? – Risk of tug owners leaning on the “no liability clauses” ?

- **Note the commentary on the UK Towage Contract (commonly used in harbour tug contracts) regarding section 4...**

*“in an ordinary contract of towage the owner of the tug contracts that the tug shall be efficient for the purpose for which she is employed, and that her crew, tackle and equipment shall be equal to the work to be accomplished, in the weather and under the circumstances reasonably to be expected. There is a warranty implied in such a contract that at the outset the crew, tackle and equipment are equal to the work to be accomplished in circumstances reasonably to be expected, and there is an implied obligation that thereafter competence, skill and best endeavours shall be used in doing the work. The tugboat supplier is therefore obliged to provide a seaworthy tug, properly manned and equipped, and is required to carry out the towing operation with due care and skill. Indemnity provisions will **not apply** where **the tug owner fails to exercise***

*.....**due diligence**”* (Canadian Maritime Law Association)

The views of the UK Marine Accident Investigation board (MAIB) on tug supply “due diligence”

The UK **MAIB** now has ‘robust’ opinions on port tugs since MAIB the “Asterix” MAIB report .

- **“Condemnation to the tug operator for lack of training, not monitoring the tugs operations effectively, weakness in the communications, and crews being inexperienced with emergency release mechanism.** (MAIB REPORT NO 10/2016)
- **Condemnation to Associated British Ports Southampton** with regard to its assessment of towage operations within the port”, and
- **Clear instructions to the National Workboat Association** with regard to *taking account the findings of the investigation report in its ongoing development of guidance on towing operations.* (MAIB REPORT NO 10/2016)

*Further statutory backing for effective due diligence in pilotage and associated tug services :

- **The Shipowners P&I Club** states on tug operations (Section 6) *“A structured and recorded system of an appropriate size to the operation not only improves safety, and protects the employees but also protects the owner/operator. It is difficult to comply with accepted good practice if no (3rd party vetted) SMS system is in place.*
- **POSMS** states ...The courts in Australia are tending to take a very harsh view of safety management systems based on methodologies backed by experts but contrary to common sense.
(Pilot organisations safety management 2015 conference - Sydney)
- **POSMS** also states.... Only a (3rd party) SMS underpinned by **a ‘due diligence’** approach can provide a credible legal defence against negligence after an accident (2015 conference)
- **The ATSB** states (Doc 282) ... *“ISPO, takes a systematic approach to reducing risk and the guidelines and that a pilot organisation **is responsible** for the systematic management of all the safety risks associated with day-to-day pilotage operations and for reducing them to a level that is as low as reasonably practicable*

The Process of entering a port tug into the PVAS scheme.

- **INITIAL SURVEY**

- Once an application to join is received, the initial survey will be performed in accordance with DNVGL's PVAS Surveys template. These surveys thoroughly assess the tug as a port tug. The PVAS Project Manager will issue and register a PVAS certificate categorising the recommended principal port activities that the tug is capable of, and enclose a completed report form.

- **2.0 YEARLY RENEWALS**

At the 2.0 anniversary of the last PVAS survey, the towing vessel should be re-surveyed

- **ANNUAL REVALIDATION**

The years between surveys involve a desktop annual revalidation only, whereby the operator completes a form and informs DNVGL (PVAS desk) if there are any changes to report since the last survey.

Example of PVAS Certificate (front page)

NOBLE DENTON MARINE SERVICES PORT VESSEL ASSURANCE CERTIFICATE		Certificate No: <hr/> Date of issue: <hr/>
Particulars of vessel:		
Name of vessel: _		
IMO Number:		
Operator:		
Built at:		
Cont. BHP:		
Country of registry:		
Year built:		
Approved bollard pull:		
Maximum bollard pull:		
Particulars of survey:		
Date of survey:		
Next annual revalidation:		
Date of interim survey:		
Valid until:		
This is to certify:		
that the above named vessel has been entered into the DNV GL Noble Denton marine services Port Vessel Assurance Scheme and is of the type:		
<p>Conventional Tug - single propeller and rudder with / without bow / stern thruster</p> <p>Azimuth Stern Tug (ASD) with / without bow / stern thruster</p> <p>"Z" Type Tugs (2 nozzles amidships) with / without bow / stern thruster</p> <p>Tractor Tug (Schneider / Schottel) with / without bow / stern thruster</p>		
<i>Please delete one of the above as applicable</i>		
And the tug has the manoeuvring capability of :		
<p>A) Connect centre lead fwd.</p> <p>B) Connect bow shoulder</p> <p>C) Connect stern quarter</p> <p>D) Connect centre lead aft.</p> <p>E) Trail astern</p> <p>F) Indirect tow</p> <p>G) "Push/pull"</p> <p>H) "hip" tow (lash up)</p> <p>I) Tow from bow/stern</p> <p>J) Push from bow/stern</p>		

Conclusion

- An **inability** to satisfy the onus of proof that sufficient and competent tugs were used to assist the pilot to deliver a vessel safely to and from a berth in a port incident , can have high stakes implications for the port, pilot or tug owner
- PVAS is a 3rd party pilotage support tool "health check and will critically demonstrate **technical due diligence in a ports tug supply** when you need it most.
- PVAS supports the **ISPO** requirement that the pilot management system is expected to control risk in the pilotage service.



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