

Presentation to
IUMI HULL WORKSHOP
Operational errors, why they happen and what
owners can do to minimise them

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The Standard



Human error or collective management failure

- a single error made by an individual should never be allowed to cause an accident
- do owners set the tone for what happens on board?



Growth Pains

- the world fleet is getting bigger:

2006 exceeded 1 billion gt, 42,872 ships over 300 gt, 1,914 new ships and 73.4 million gt, an 6.9% increase over 2005

- tonnage has doubled since 1997



Growth Pains

- ships are getting bigger and more complex but they are operated by smaller (number) crews who do not necessarily receive sufficient training and there are more ships



Small Accidents – Large Claims

- collisions
 - simple things like failure to take early and positive action, failure to keep a radar watch or failure to reduce speed feature in the majority of collision cases



Small Accidents – Large Claims

- pollution
it comes as no surprise that the majority of major pollution incidents occur because of failure in command and control or because valves are left open rather than equipment failure



Small Accidents – Large Claims

- injuries
as an estimate 50% of injuries are caused by the injured person and a further 25% by a colleague



Small Accidents – Large Claims

- engine damage
 - generators
 - failure to properly maintain bottom end bearings
 - slow speed engines - using poor quality fuel
 - boilers
 - failure to test and treat water sufficiently to prevent corrosion and scale



Small Accidents – Large Claims

- examples
 - escape of oil into a ballast tank followed by an explosion and loss of a VLCC
 - use of second-hand steering pumps caused catastrophic failure of steering equipment
 - hot work without proper safety checks caused loss of a passenger ferry



Small Accidents – Large Claims

- examples

- cleaning a live switchboard with an uninsulated paintbrush caused major electrical failure and complete loss of power
- a water leak from a flanged pipe dripped on a small LPG carrier's inner bottom and almost lost the ship
- failure to properly test fuel oil and to segregate before use has led to countless engine failures



What is human error?

It is characterised by lack of attention, lack of training, failure to follow procedures and risk taking, but what is it?



How do we deal with human error?

The traditional approach is to open a person's eyes to the consequences of failure and to screen, educate, train, supervise and drill.



Seafarer training

- certificates of competency do not necessarily mean the holder can do the job
- experience or education based training schemes
- application is learnt on board not at college...know your onions
- are certificate schemes keeping up with technology?
- are junior officers promoted too quickly?



Role of the Crew Manager

- delegation of full manning responsibilities to a crewing agency without thorough vetting is likely to produce disappointing results
- checking qualifications and experience records alone is no longer sufficient to guarantee competence
- careful blending of nationalities essential



Yesterday and today – employment

- man and boy, father and son
- company culture tattooed on the back of their eyeballs
- companies very paternalistic
- Companies would train their own people and pay for college attendance



Sea staff employment

- loyalty to the manning agent or the shipowner?
- looking for rapid promotion?
- looking for a job ashore?



Yesterday and today – traditional skills

- technology has made the job easier. Ships and machinery are easier to operate, navigation a piece of cake
- traditional skills relied very heavily on individual knowledge, experience and the need to exercise sound personal judgement
- in replacing traditional skills with technology, have we lost something?



Accidents cost more

- not just the cost of an incident but pollution fines, for example, can reach \$10 million
- ships may not be less safe today than yesterday but the cost of failure gives rise to a zero tolerance policy on accidents
- technology may be giving a false sense of security



ISM – Still causing concern

- excessive emphasis on paper.
- ISM systems do not necessarily manage safety
- the code is flawed because it does not promote a risk-based approach to safety
- confusion with the role of the superintendent
- industry needs to move on



Safety schemes

- seamen cheat when recording LTA's, rest periods, filling in familiarity checklists, when making routine checks
- seamen need to understand that safety schemes are not for show



Safety schemes

- owners need to provide experienced based training to compliment gaps in the certificate process
- owners need to set benchmarks to monitor operational performance and to review management procedures



Where do we go from here?

- is it to be a race to the bottom or to the top?
- many owners are returning to traditional practices by directly employing their officers



What can owners do?

- directly employ officers of Class 1,2 and 3
- aggressively recruit cadets
- Set up own recruitment offices in recruiting centres
- aggressively audit manning agents if used
- actively evaluate sea staff competence and training needs



What can owners do?

- have a policy of educating sea staff through regular office visits and briefing sessions
- encourage a sense of responsibility on board with positive support from ashore - bonding
- review certificate training provided by nautical colleges with a view to complimenting any gaps



What can owners do?

- have a clearly defined promotion policy and procedures
- accept that seafarers will leave for other companies or want a shore job



A life at sea

Is it going to be like this?



15 3'94





A life at sea

Or like this?

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