

## **TMSA in Hong Kong**

*Our report from Tanker Operator's TMSA conference in Hong Kong on September 4<sup>th</sup>, 2006, with speakers from ASP Shipmanagement, Teekay, Wallem, Eurasia and Univan*

Tanker Operator held its fifth TMSA conference in Hong Kong on September 4<sup>th</sup> (following our conferences in Oslo, Rotterdam, Athens and Singapore), inviting experts from Anglo Eastern, ASP Shipmanagement, Teekay, Wallem, Eurasia and Univan to talk about what they have done with TMSA so far and where they see things going.

We learned that ExxonMobil has a computer system with information about tanker companies. Exxon feeds companies' TMSA reports into the computer system, which compares them with what Exxon was expecting. If they are too high or too low, the company can expect an audit.

Both Teekay and ASP Shipmanagement said they thought BP had progressed the most in making best use of TMSA. However it seems that Shell has moved away from it entirely, saying it was 'too vague' and should only be considered a management tool.

Not everybody is fans of TMSA. Plenty of people in the tanker industry still think TMSA will create endless checklists and paperwork but achieve very little in terms of tangible results, like management systems which have gone before it.

Most of the speakers at our conference took the opposite view – you can try to pull the wool over the oil majors, or lie to them, or do the minimum in order to 'comply' – but fundamentally, you will probably get found out, and in any case you will miss a big opportunity to really improve your business. It makes much better sense to do it properly.

Giampiero Soncini, CEO of maritime software company SpecTec, played devils advocate by presenting some of the normal complaints people have about TMSA - that it only affects a small proportion of the tanker market (ie tankers chartered to oil majors, and not every oil major at that) and does nothing to encourage new standards with the rest. Also, no-one has yet come up with a management system which is impossible to fool – why should TMSA be any different?

Dimitris Lyras, conference chairman, noted that he is seeing a trend in the companies which agree to speak at our TMSA conferences – they are companies who believe that whatever they produce as management quality is good enough for the rest of the world. "Companies who come here are confident that they are doing their best and that their best is worth considering by any prudent client be they oil companies or ship owners," said Mr Lyras.

The essence of TMSA, according to Mr Lyras, is making oil majors look good under scrutiny. We have seen the tough beating BP got after its oil leaks in Alaska – with the principal complaint being that it did not pig the pipes as often as it should have done in order to reduce costs.

Oil majors will come under the same detail of attack if a tanker they are chartering has an accident – they will need to demonstrate to the international media the level of efforts they have gone to, to make sure all their tankers are well managed and in good condition, and tanker companies they charter are trying to continuously improve. TMSA will provide this framework.

TMSA is getting more support than might be expected from the tanker industry, Mr Lyras said, being a voluntary scheme but driven by customer and market requirements. More compulsory regulation is the last thing most tanker companies want.

What TMSA does is give the high performing tanker companies, like the well-behaved children in a classroom, some recognition, and possibly even reward, for their efforts – which will in turn make it easier to identify, put pressure on, and motivate, the worse performing companies.

Every other market in the world you can think of has a market mechanism to motivate quality. Why should tanker operations be any different?

### **Captain Pradeep Chawla**

Captain Pradeep Chawla, director of quality assurance and training with Anglo Eastern, expressed his view that TMSA is oil majors "trying to lay down the standards expected from shore management".

"Our view is - TMSA is not about compliance, it is about commitment," he stressed. "The industry goes wrong in approaching schemes by aiming to 'comply' with them, without following the philosophies behind them."

"Eg ISM - yes we are doing it - but not in spirit," he said. "STCW - yes we are doing it - a bit cheating.

"If the industry starts with compliance, half of the battle is already lost. It's hard to go from compliance to commitment," he said.

Captain Chawla went through all the elements in TMSA and gave his view on them, highlighting the stumbling blocks.

"Element 1 - commitment from the highest level - this is no different to any other standard," he said. Commitment has to be visible to the staff. It's wallpaper otherwise. Commitment must not begin and end for oil major audits."

"Every CEO wants to run a good ship - the issue is - what steps are taken.

Accountability at every rank is important. You need to transfer the commitment to department heads and line managers," he said.

"Companies employ consultants to say what is wrong. But typically people in the company know what the problem more than an external consultant can tell you. Is the staff absorbing the feedback from the ships?"

On element 2 (Recruitment and Management of Shore-Based Personnel), Captain Chawla said that the availability of shore staff is much lower than it was 10 years ago. "I have met superintendents who have never been to sea," he said.

"One area TMSA does not address is continuous professional development," he commented. "Would we like to go to a doctor who hasn't learned anything new in 20 years?"

On element 3 – (Recruitment and Management of Ship's Personnel), Capt. Chawla noted that the total number of ships is increasing rapidly.

"Wages for captains and chief engineers on LNG carriers is going up to as much as \$15,000 to \$20,000 per month, he said."The booming job market leads to an 'I don't care' attitude in seafarers."

Captain Chawla said he thought IMO's STCW (Standards of Training, Certification and Watchkeeping) had practically failed, due to poor vetting of the academies. "We still have a problem getting people to be practically competent," he said.

"You and I in the market place know exactly which establishment is doing well and which isn't. But that information didn't see the light of day on the STCW White List."

"People say, he's done the vessel resource management (VRM) course, and look what he's done. He's done every course, but he's not done what he's supposed to be doing. It's the attitude of not wanting to learn," he said.

Captain Chawla said he thought Element 4 - Reliability and Maintenance Standards was "one of the easier ones." However some companies are squeezing their budgets with maintenance, including shipping companies who signed long term commercial contracts several years ago, and are now having problems because of exorbitant crew and lube costs, he said.

Questions also need to be raised about the quality of inspection staff, he pointed out. Captain Chawla said he had heard about a lifeboat manufacturer unable to find ex-seafarers to do lifeboat inspections, and was employing 'ex shoe salesmen'. "They will be charging thousands of pounds to inspect lifeboats," he said.

On element 5 - Navigational Safety, Captain Chawla noted that the maximum cost due to a mistake by an engineer can be a few million dollars, whereas a navigation errors can destroy the ship. "We have an over reliance on electronic aids. People like a screen in front of them," he said. "That attitude continues when they become young officers."

Captain Chawla was cynical about bridge team management courses. "We have institutions who call anything and everything bridge team management. A lot of people don't know what it means," he said.

Captain Chawla raised concerns about the reliability of pilots. "People get promoted to pilot too quickly," he said.

On element 6 – Cargo and Ballast Operations / Mooring Operations, Captain Chawla said that deck offices do not study this very much. "I think there's a major training issue here," he said, "particularly with an influx of dry cargo people moving to the tanker industry."

Element 7, Management of Change, is the "most difficult part in my life," he said. "In an organisation with 1000 people - getting changes done is a major concern. Documenting changes is a requirement. People don't like the paperwork associated with it. Last year we had 19 ships in and out of management. This year we already have 11 or 12."

On element 8, Incident Analysis and Investigation, Captain Chawla noted that people need more training in root cause analysis. There is a tendency for people to blame surface issues rather than causal issues. "My experience - people say - that guy was stupid, he's' been told to be more careful," he said. "Very rarely do you get a lack of supervision, or lack of procedures cited as a root cause. It is still a struggle to arrange for reporting of near accidents. And watch out for creative reports."

"We started with 90 near miss reports a year, now we get 2,000. We get 10, 20 per cent increase a year," he said. "But there are a lot of reasons people don't report near misses. They think it will work against them."

The industry has a problem with its lack of sharing of accident statistics, he said. "For the last 10 years in Hong Kong I have tried to get co-operation on reporting to the IMO subcommittee. I have not succeeded."

"When there are accidents I don't see any reason for not sharing what went wrong. If MAIB is doing investigating it will be on the internet in 6 months time."

"I tried to do it with P+I and class. A software company was willing to do it for free - send software to a university for analysis. Then P+I lawyers stopped it. Does it matter if the accident happened on x or y ship? Let's get to the bottom of it."

Captain Chawla is unhappy about the focus oil companies put on lost time injuries. The emphasis should be on altering the behaviour which potentially leads to injuries, rather than whether or not an injury actually caused lost time. "For example a chief cook puts his fingers in a rotating dough machine to see the dough is done. It can happen - his hand gets caught in the machine and breaks it," he said.

"The industry focuses on lost time injuries, as though LTIs was a criminal act. The only thing you can tell is who is honestly reporting accidents," he said.

On the topic of risk assessment, (element 9), Captain Chawla said that the quality of risk assessment varying a great deal with seafarers from different parts of the world, because they have different perceptions of what a risk is. However the risk assessment element of TMSA is similar to ISM.

On the topic of environmental management (element 10), Captain Chawla said "I don't think most of us have a problem, we're ISO 14000 compliant. The problem is continuous improvement beyond regulatory compliance."

On the topic of emergency preparedness (element 11), the challenge is stopping safety drills from getting monotonous. "How many times can you do a drill with the same people?" he asked.

On Element 12 - measurement, analysis and improvement, Captain Chawla noted, "You need to find a torch bearer in senior management. You need someone to keep pushing the issues slowly and diplomatically.

"I keep a notebook of changes I'm looking for," he said.

The most important elements are element 1 (commitment), element 3 (crew shortage) and element 12 (analysis), he said.

"The pressure is keeping all these programs running all the time without losing track," he said. "For example, if seafarers' allotment to his wife does not reach her in time, there goes your motivation and he'll moan about 10 other things."

"My conclusion - TMSA will deliver results but on the long term. TMSA has a stronger chance than ISM of delivering changes, because it is commercially driven. But it will take time."

"It must be a motivation tool, not compliance or retribution stick. The quality system must be a living process at the core of the business."

On the issue of how oil companies use TMSA, Captain Chawla said he did not think oil companies would ever say, 'if you're not a 3 you're not going to get a charter'. He also did not think they would ever reduce the vetting inspections. "But they will have a better idea about the company and the ships," he said.

"They are all saying we want to try out TMSA - let's see. BP seems to be ahead in the steps in using TMSA to their advantage. But it all depends on which auditor you get.

On the issue of getting the most out of individuals, Captain Chawla said that it was important for people to know how they are going to be judged, what the expectations are. "The trick is to be able to bring the person back with your team, get that person mentally to play in the team," he said.

### **Matthew Hodkinson, ASP**

Matthew Hodkinson, group safety manager, with ASP Shipmanagement, Melbourne, said that the objectives with TMSA were to address imbalances in implementation of the ISM code, and provide tools to help companies develop improvement plans.

ASP found that it was at level three and four in lots of areas, but weak at the level one and two questions. But out of the 250 questions in TMSA, there were only 22 which it could not say yes to.

Areas ASP has had a special look at, after going through the TMSA document, include management and accountability, risk assessment, management of change and incident analysis.

"We left environment management because we felt we did not have control over that. We subsequently looked at it and decided there were things we could do," he said.

On the near miss reporting, ASP aims to get 10 near miss reports per vessel per month as an initial target. It uses a BP format form, with a spiral pad of forms which is provided to each crew member. The severity of the near miss is ranked from negligible to catastrophic. "Ships crews are very keen to use it," he said.

On the topic of lost time injuries, Mr Hodkinson said he agreed with Mr Chawla that data about lost time injuries is not particularly helpful. "They have come down to a level where they are essentially immeasurable," he said.

Mr Hodkinson showed a graph (see image) of seafarer stress levels during vessel unloading, showing that while the stress goes up and down, the seafarers' ability to handle the stress declines at an increasing rate, until eventually the stress is too much.

To help follow the TMSA guidelines, ASP decided to revamp its IT systems, including maintenance, ship shore reporting and accounting. It chose the STAR IPS software.

Whilst Shell decided to put administrative officers onboard its vessels, ASP decided to try to reduce the number of administrative tasks which need completing onboard.

"We want to meet safety demands and improve efficiency with improved maintenance and condition control; improved follow up of accidents and incidents; improved inventory control; management and control of the purchase order process; more precise ship-shore communication; and a single point of data entry onboard," he said.

ASP's customers have a secure client login to the software, and they can login to see accident reports, information about performance and safety.

"Perhaps the most important benefit from these systems is that it makes the seagoing staff and integral part of the management team," he said.

Mr Hodkinson talked about the company's experience so far with oil major audits.

BP disagreed with ASP's TMSA assessment on a number of sections, but for underscoring itself as well as overscoring. "On a few areas we marked ourselves high and BP tore us to bits. In other areas we marked ourselves low and BP said we were doing quite well," he said.

ExxonMobil is using TMSA as a format for auditing the companies. "This undermines the self in self assessment," he said.

Surprisingly, Shell does not use TMSA as an audit format. "They found it 'too vague' and they moved away," he said. "They consider it the owners' tool. "They've moved to 'management review - owners guidelines."

Mr Hodkinson thinks that ASP's strengths are risk assessment/management of change; planned maintenance systems; information maintenance systems; and environmental innovation.

The company is involved with a number of environmental projects, including reducing marine pests (ballast water and biofouling); reducing pollution; antifouling coatings; and a paint patch trials project.

It puts together management of change packs for new vessels, which manage the process closely of getting the crew familiarised with the new vessel. "We get the process right from day 1," he said.

ASP's crew retention rate dropped in 2006, he admitted. "At the moment our crew retention is 92 per cent," he said.

On Element 10: Environmental Management, ASP thought it was good at levels 3 and 4, but not so good at 1 and 2.

"We're pulling our training together," he said. "We've partnered with VideoTel to use their competency management tool."

Oil majors are not being very open in explaining how they use the TMSA score as part of the vessel screening process, he said.

"We understand Exxon, Chevron and Shell feed the TMSA number into their vetting matrix," he said. "But we have some concerns about the integrity of the system. Do they boil everything down to a number, eg 3.2? I would like some transparency about how the oil majors use that."

### **Patrick Slesinger**

Patrick Slesinger, Director and Chief Information Officer with Wallem Group, emphasized the importance of approaching TMSA thoroughly - as opposed to trying to 'comply'.

Many tanker companies are under competitive pressures to achieve a certain score. But if they just focus on the score, they are not going to get improvement, he said. "We need to make sure compliance doesn't get in the way of the need to change."

"It is about cultural change and continuous improvement. We're talking about ways of doing business and different reporting standards. Best practice is not a paper exercise," he said.

Companies which just aim to comply with TMSA, but don't use it as a tool to improve their company's operations, will just increase their costs, he pointed out. Do it properly, and you should get immediate internal value.

An example of how you can cause problems for yourself by taking a compliance attitude is the planned maintenance systems, which many tanker companies implemented poorly, in a rush and on the cheap, he said.

A common trick was to copy the maintenance database from one vessel to another, rather than put together a database for each specific vessel, with the data becoming less relevant and accurate with each copy.

Because of this many companies have poor parts data in their planned maintenance databases, and because of this they were not able to use part numbers from their maintenance databases in their electronic purchasing system, which would have saved a lot of trouble. "We as an industry lost the ability to use this data source for e-procurement," he said.

Mr Slesinger emphasized that a good tanker company can quickly lose favour with an oil company, and its 'approved' status, if it is caught lying on its TMSA submission. Those who are not 'approved' could possibly be less disadvantaged should anomalies be found in their TMSA reporting.

Mr Slesinger emphasized the importance of keeping the data which is used to generate the TMSA score. "We have to be able to re-use the information for process improvement," he said.

Mr Slesinger was critical of how some key performance indicators have been used in the industry. For example there are numerous ways to report lost time injuries, for example if someone has an injury immediately before they go on leave, does it get counted? "People could say 'he wasn't supposed to be working next week anyway, it's not a LTI.'

We're going to see a spiral of self-defeating matrices," he said.

Mr Slesinger stressed that when putting a management system together, you need to incorporate systems for gathering the data as part of people's normal work process. Collection and collation of reporting data should not be a separate exercise carried out just before the reports are to be produced.

Mr Slesinger emphasized the importance of having a sensible IT strategy behind your TMSA plan. "If you're going to develop a business strategy without an IT strategy, you have a business strategy you can't implement," he said. "Companies not having IT policies and strategies is a serious issue."

"You need IT because you have people in different places. You have to connect them so that they work better and solve problems as a team across geographical boundaries," he said.

Mr Slesinger emphasized the importance of making sure people feel buy into the system, rather than seeing it as another pointless initiative from head office.

Mr Slesinger said he had spoken to Able Seamen when he participated in a STCW training course at a non Wallem training facility, and was staggered to find that many of them thought what they said on the vessel didn't mean anything. "They thought if they reported something to shore it wouldn't be taken seriously," he said.

"Our greatest individual to drive change is the able seaman and the bosun. We have to make them feel they are empowered," he said. "We have individuals on the vessels."

Mr Slesinger said that close communications between the ship and shore are important, but this does not imply that you need an always on connection. "We need to be sensible about how we transmit the information, and what information is required where and when. But most importantly "Why?" he said.

Training is very important. "People need to be assessed against the learning objectives of the company," he said. "They have to understand that learning is a key objective."

Finally, "TMSA is an opportunity to spend a lot of money, but he who spends the most does not necessarily win," he said.

## **Dinesh Pradhan**

Dinesh Pradhan, marine operations manager, Teekay Shipping Singapore, provided a shipowners' view of TMSA, which he said would contrast with the shipmanagers' perspective presented by Captain Chawla.

"TMSA offers a framework for assessment of a ship operator's management system," he said.

Mr Pradhan said that Teekay did not have to make any major changes to its system as a result of TMSA.

Teekay's in-house safety management system has 20 elements to it, and complies with ISM, ISO9001, ISO 14001 and OHSAS (Occupational Health and Safety) rules.

Teekay did its first gap analysis in June 2004, when OCIMF first announced it was going to implement TMSA. "We did not comply with all the KPIs," he said.

“We had to do more focus on management of change, health and hygiene, benchmarking environmental performance, extent of incidents, investigation training.

“Even today we are working on complying with all KPIs. Everybody knows you can’t reach level four in one or two years.”

Mr Pradhan stressed that the aim is not to comply with all of the KPIs, but to show improvement.

The company HR department asks individuals to set their own one year and five year goals, and work out what training they need to meet it.

Teekay does comprehensive shipboard and shore surveys, with annual reviews and a follow up halfway through the year.

“It is very important how you interpret what oil majors require,” he said. “It’s no use running around going oh dear, we don’t comply with this.

Mr Pradhan presented his thoughts on all of the elements in TMSA.

On level 1 (management, leadership and accountability), he commented “The commitment has to be from the top, and the audit has to be visible,” he said. “The key driver is communication.”

“The CEO has a quarterly meeting, and sends a video to every office and ship.”

“Sometimes he comes to Singapore and spends from 7am to 8pm visiting the ships. He visits 6 ships in 13 hours. He sits with senior officers, then meets all the crew separately.”

“One of our principles is that safety and environment will not be compromised for any commercial gain.”

On element 3 (recruitment and management of sea staff), Mr Pradhan acknowledged that finding competent staff and keeping them is a problem. “There are auctions going on all the time,” he said. “We have to expand our horizons.”

On element 4 (reliability and maintenance standards), Mr Pradhan said owning the ship from when it leaves the yard makes a great deal of difference. “If you own the ship from day 1 and track everything it’s going to help a lot,” he said.

Teekay has developed a ‘structural integrity management system’ (SIMS), which manages the condition of the ship structure over its lifetime, avoiding the situation when you suddenly discover in the 15 year survey that you have to spend a lot of money renewing steel in the ballast tanks.

On element 5 (navigation safety), Mr Pradhan stressed there can be “over reliance on electronic aids,” he said. The company had a scheme ‘back to basics’, teaching seafarers how to manage without them.

“Its not that we don’t want electronic aids - all ships under 10 years old have an ECDIS,” he said. “We want offices to use it but we don’t want them to forget the basic skills.”

On element 7 (management of change), “there is just one thing I want to say – please make it simple,” he said. “We have a very complex management system. Ian Hunter [head of ExxonMobil’s chartering arm International Marine Transportation and one of the architects of TMSA] gave a presentation about management of change - he made it very simple,” he said.

On element 8 (incident analysis and investigation), Mr Pradhan noted that one of the biggest problems was getting down to the root cause. “What you get in the office is a 3rd mate’s view about what’s happening,” he said.

There have been a few pieces of root cause analysis software developed for other industries, but none which worked well for ships, he said. Teekay developed its own Online Root Cause Analysis software called ORCA.

The near miss reports are analysed to try to spot any trends.

Teekay has paid a lot of attention to element 10 (environmental management). "We are trying to improve oil record book entries," he said. "We have environmental safety offices (ESOs) who sail on a ship for 2 weeks."

"When the ship comes out of the yard they give you an oil water separator - but probably the cheapest they can find," he said. "We are looking at new types of separators which are better ones - eg. Centrifugal ones."

On element 11 (emergency preparedness), Teekay does regular drilling with smoke machines, he said.

On element 12 (measurement analysis), Teekay puts tools together to measure how well the company is getting on.

Teekay has a scheme called 'Toolbox for Operational Risk Analysis' (TORA) which looks at where the risks are and shows where the company needs to focus.

The company has aimed to reduce the captain's paperwork burden, doing everything it can to do work onshore wherever possible, he said.

### **Capt Padhi, Eurasia**

CAPT. N. Padhi, Senior Manager, Eurasia, said that the company put together an in-house guide about TMSA in June 2004.

"Our tanker fleet is meeting stage 2 in its entirety," he said. "We're not meeting 1 KPI in stage 3, and 5 in stage 4. We're doing fairly well."

"We have courses on risk assessment and incident investigation in our Mumbai training centre," he said.

"The main concern is the retention of quality people onboard," he said.

"We have 3 levels of checks for the ship staff. There is a self check, made by the ship staff; a cross check, made by the vessel superintendent; and an external check, made by the company loss prevention, safety and quality department."

"Rotating ship staff - through office is a regular feature with Eurasia," he said.

Eurasia is considering applying TMSA guidelines to other vessels it looks after, including bulk carriers and container ships.

"The biggest advantage of TMSA is the experience you share in audits," he said. "You can learn about best practice in the industry."

### **Capt AM Nasir, Univan**

Captain A M Nasir, safety and quality manager with Univan, spoke about elements 7 and 8, management change and incident analysis / investigation.

It is quite a lot to expect chief engineers to understand risk assessment, he said. "Chief engineers have to perform, there is so much burden on them," he said. "Everybody wants an immediate reaction or a response in 10 minutes."

Univan uses iORA document control system, which manages information about defects, including from vessel inspection reports, port state control and audits inspection, holding all of the documents in one place.