Capt. M. M. Saggi chaired the first session. The session speakers deliberated on whether the current teaching methods were sufficient in addressing changing scenarios towards more specialised shipboard operations. Capt. Tim Wilson of New Zealand Maritime School and Professor Stephen Cross of the Maritime Institute William Barentz, Terschelling, spoke on assessment techniques and ways to make them more effective in judging a student's competence.

Mr. Prashant Bhaskar of Australian Maritime College, Capt. A. D. Antao of Barber Ship Management, Kuala Lumpur and Mr. Bobby Oberoi Technical Marine Consultant addressed the mismatch between the required skill sets and the current knowledge and skills of officers on board and further went on to detail a more effective shore and on-boat training curriculum which would relate learning activities to competency standards.

Session II topics touched upon a variety of subjects with Capt. S. V. Sule of LBS CAMSAR comparing Aviation and Marine industry and highlighted that while we in the marine industry have held on to phobias of equipment malfunctions leading to disasters, the aviation industry had shed this baggage and moved on to placing reliance on electronic based systems. Capt. Stephen Cross introduced a modular competence based curriculum with its advantage over traditional based systems and Capt. Richard Teo of Seafood and Maritime Industries Training Ltd, Australia touched upon Training Centre quality systems and audits. The session was rounded off by Mr. Swapan Das Sarma of Teledata Marine Systems propounding the next generation e-learning systems and the Training Institute document manager.

The presentations by the various speaker brought about the realization that it might be appropriate to re-visit our current training methods, curriculum structure, syllabus and methods of assessment and certification.

The last session was a group discussion chaired by Capt. K Guha. The conference participants were split into eight working groups to tease out innovative proposals to address the shortage of competent manpower for the industry. These were then compiled into Statement of Outcomes given below.

A key element of the deliberations is that the shipping industry has not given adequate attention to the development of its human resources, particularly seafarers, and that there is greater need to treat education and training as an investment rather than as a cost. There is also greater need to focus on the weaknesses that lead to accidents.

This is the sixth year in which AMETIAP conferences and seminars are being held in India. As in previous years, the enthusiasm for developing quality MET was very evident, as also were the high levels of participation and preparedness to debate and find solutions to the serious issues associated with ensuring the supply of competent manpower to the modern shipping industry.

These conferences are contributing to the development of MET, particularly in India. It was a privilege and a pleasure to be involved.

**Statement of Outcomes**

We, the participants in the AMETIAP in India 2006 Conference “Maritime Education and Training in India: Meeting Future Challenges”, held in the Taj President Hotel, Mumbai, on 9 March:

Express the following outcomes and recommendations from each of the eight working group discussions:

1. Operational level officers
   - improve selection of recruits and recognize prior experience/learning
   - provide funding incentives to strive toward higher responsibilities
   - generate loyalty to employers and to seafaring as a career

Success of large manning companies are as a result of them generating a feeling of belongingness amongst the floating staff members. It has a lot to do with the way people in the Manning offices dealt with the floating staff providing support and assistance to the staff when they are in a problem situation, helping out the
families when their family member is away at sea and most of all listening to all the problems that the seafarer or his/her family might have. In most cases the people in the personnel department are not in a position to solve the seafarers/families problems, but just listening to them is more that half the battle won and they go off satisfied. It is the personal touch that needs to be applied each time, every time.

- email facilities should be provided as a rule to seafarers.
This would take away the loneliness of being away from the family for long periods of time.
- increase safe manning numbers as this would take care of fatigue related issues.
Pressure should be put on Flag States to ensure that proper analysis of ship's trading pattern, level of automation, work schedules are taken into account prior deciding on the safe manning levels for the ship.
- wage increase
As much as anyone would wish for substantial wage increase, it is not an option as this could result in Indian crew losing out on job opportunities to other nationalities.

2. Management level officers
- provide a more challenging ethos on board
- enable periodic secondment to shore-based positions
- increase polyvalent training and multi-tasking
- address under-valuation of roles, particularly of ship master and chief engineers
- improve turn-around time taken for examination.

Need to modify training and certification method. Training should be made modular with a credit system. Curriculum to be modernized with outdated topics deleted.
- Companies should look at long term planning by investing in manpower and in their periodic upgrading through training.

3. Conversion of ratings to officers
- identify ratings with a potential to undertake officer training
- increase recognition of prior experience
- increase commitment by employees to officer training for suitable ratings (bridging training for 6 months followed by examination)
- review rating selection criteria
- provide for seacitne on board as a cadet for 6 to 9 months.

4. Transformation of naval and coastguard personnel to merchant navy
- identify gaps and develop bridging training, ashore and aboard. Recommend 24 M equivalent seacitne + 6 months structured shipboard training on merchant ships followed by competency exams as per current regulations.
- encourage personnel to make the transition

5. Conversion of Near Coastal Voyage, dredging, inland waters personnel to Foreign Going Certificates of Competency.
- address misconceptions that undervalue skills
- recognise common competencies and establish equivalence standards
- identify gaps and develop bridging training, ashore and aboard.
- shore based courses could include simulator and computer based training programs. On board training should be structured utilizing a Record Book, the officer sailing one rank lower during the training period.
- enable earning of credit points while working in coastal and inland waters

6. Attrition vis-à-vis induction of seagoing staff
- rationalize manning by reducing rating berths and increasing trainee berths
- improve selection procedures with more attention given to traits needed for seafaring
- address fatigue, stress, workload, criminalisation, alienation and other social issues
- remuneration to reflect responsibilities, tasks, and social constraints
- increase intake of trainees as attrition is bound to occur in large numbers as more opportunities presents on shore in a booming economic climate.

7. Specialisation (endorsement) of personnel for specific ship types
- provide range of type-specific induction training for Pre Sea
- make OTFC, CTF, GTFC as a combined course at Pre Sea Level
- Companies should rotate cadets every 6 months on different types of ships for gaining more ship specific knowledge.

8. Shortage of trainers
- promote MET as a rewarding shore-based career
- recruit motivated, academically inclined, good communicators, with ability to communicate with a variety of
IQ's
- enable gradual transition from sea to shore
- provide a structured career path and opportunities for professional development and for consultancy work.
- provide working conditions and remuneration to attract competent teachers
- identify the bright prospects from the floating staff and provide them training to become good educators.

Stress the benefits of networking MET institutions nationally, regionally and globally and the need to further encourage the growth of networking of MET institutions in India and the benefit it will bring to the provision of competent Indian seafarers to the national and global shipping industry;

Urge greater awareness by the shipping industry of the support needed for the provision and development of MET appropriate to ensuring the supply and retention of seafarers with the competence the industry needs for safe, efficient and clean operation;

Express heartfelt appreciation
* To the sponsors of the conference and its associated benefits
* To the speakers, both from within and from outside India, for the time taken and expense incurred through participation in the conference
* To the Directorate General of Shipping for its active involvement in the conference and in ensuring the development of MET in India
* To AMETIAP and the member institutions in Mumbai for organizing and conducting this very worthwhile conference.

Interview with Capt. Deboo

Are the current grading organizations qualified to grade maritime educational institutes?

The Association of Maritime Education and Training Institutions in Asia Pacific (AMETIAP), which was founded in '96, has grown at a steady pace over the years and today we have about 100 members all over the world. One of the most important objects of this organization is to promote the standard of maritime education around the world. Because even after STCW 95 and the white paper, we found that almost every country has come on the white list of IMO; though the standards of teaching and examination vary from country to country. AMETIAP's endeavour is to standardize the pattern of teaching and assessments around the world. To achieve this objective they have proceeded on two fronts. One is to facilitate networking between institutes. AMETIAP provides a forum by which an institute in India can speak with an institute in U.K., China or Philippines and share some common information. In this way each one would know of the developments taking place in the other institutes over the world and accordingly, build up its quality.

The second aspect which the organization is keenly looking at is the course content and standard of delivery. Currently we have been discussing in various forums about the grading of institutes, which is currently being done by organizations like CRISIL, ICRA, and CARE. But auditors from these organizations who come to audit the course mainly look at the institution's infrastructure, its financial status, the ratio of instructors to students, is the classroom well lighted and ventilated, etc. These auditors, however, do not have the technical qualification or know how to assess the course contents or the actual delivery of the course and the effectiveness of the training imparted. They cannot gauge whether the course being taught actually meets the DG's guidelines or the learning objectives of the course.

I believe that a person who doesn't have a technical background cannot fathom the teaching ability of the faculty. He can merely observe whether his diction is clear, whether he is forceful enough while speaking, whether he interacts with the participants, etc. He can only see the pedagogy of teaching. He cannot gauge the technical contents. So though his assessment comes up to a certain level, it does not complete the full audit as required. AMETIAP is working on a standard for delivery of courses. This may bring about a common teaching standard worldwide. Here the course content, the course teaching and the exercises would all be assessed in toto. This type of gradation would enable the institutes to achieve higher standards of education and training.

I would like to highlight the fact that in the latest brochure the body is called as AMETIAP Global. AMETIAP, which has started from the Asia Pacific region, is now spreading its vision to be a global maritime training association and already institutions from Europe, US, are becoming its members. I believe that shortly it may need to shed its suffix Asia-Pacific to a more globe trotting name. Once it becomes global and has a good standing among all institutes around the world then it might also strive for a voice in IMO where currently bodies like IFSMA (International Federation of Ship Masters' Association), ISF (International Shipping Federation) have got an observer's seat in IMO. If this global body could get an observer's seat in IMO, it would have a much greater voice and backing behind it.

At present, so far as IMO is concerned there is no uniform world wide body concerned entirely with the upliftment of the maritime training institutions. AMETIAP portends to be the first such body which will have a global presence. As far as India is concerned AMETIAP has been holding conference every year for the last six years. At these conferences, which started in 2001 the focus has been to bring about something new in the training area that the local industry can learn from. That is why in this year's conference only two papers were from India. Most of them were from people from aboard and the theme was "effectiveness of training".

After STCW 95, the number of courses
that a seafarer has to undergo have increased. Over an above that every company worth its salt does value added training. The result is that on almost every holiday that a seafarer comes home, he attends some course or the other. What we now need to examine is whether all these courses have the desired results. Because, finally, the acid test is on board the ship. Do these courses help the seafarer to perform better? Will they enable the seafarer to save money for the ship owner? Will they help in improving the efficiency of the seafarers so that they are able to perform faster and better? How do we assess the effectiveness of this training? This was the focus for this year’s conference.

Does the govt. get any feedback from the seminar and put into practice the recommendations?

Many government officials attended this seminar, including Mr. Sahni. In fact we intend to take an appointment for a meeting with Mr. Sahni and DG officials with the Statement of Outcomes to see where we could assist to further improve the training programmes in our country. We also hope to arrive at some action plan which will not only increase our man power but also raise their quality level.

Training all over the world is changing. Harvard or Stanford universities provide modular type of training. In this, you take up a module and do projects on the module culminating in an assessment on the module. Once the module is over it is cleared for good and you get a credit system. You get points for it. After you have finished all the modules all your points are added and that is your gradation. You have to get minimum credits to pass in each of the modules plus an aggregate to pass in the overall. This type of curriculum helps in today’s environment which has become more specialized. Today there are no general cargo ships. You have oil tankers, products tankers, chemical tankers, LPG tankers, LNG tankers, container ships, refrigerated ships, bulk carriers, car carriers etc. Each ship has different construction, different features, different cargo handling equipment and specialized in its operations. That is the reason modular based training helps, because then you can have a set of standard modules plus a couple of specialized modules which could be chosen from a group of six for example. One has to move with the times and we may need to take some bold decisions regarding changing the syllabus. “If we are not part of the road-roller of change, then we will end up as part of the road.”

EDUCATION OR TRAINING

Education is overall development. It not only provides technical training but also helps him acquire the right attitude and develop his seafaring personality. It hones his leadership qualities, motivating him towards a career growth.

He also develops a sense of responsibility. That’s education. In training you only acquire technical knowledge and skills.

At the initial pre-sea stage I think education is more important because you want to build his officer-like qualities.

There is a saying “Long after the knowledge is forgotten what remains behind is education.” So if you do not practice a skill for a long time, the skill is lost. But education, which you get in the beginning, continues with you. That is the difference between education and training.

Many countries have gone ahead with vocational based training. This means you provide only technical training. Lathe skills, grinding machine skills etc are imparted to the seafarer and then he is sent on board. However, when something happens in which he has to think of an innovative way in which he can use his skill to fabricate a part which he may not be able to do it. This is because he has only learned this particular skill and his focus has become too narrow. So education of mechanics or engineering, the background or underpinning knowledge is important for him because then he is able to bring that into focus and use his skill and intellect to fabricate that part.

So in the initial stage, I feel that underpinning knowledge is important.

One of the points advocated in the group discussion was to look at how to overcome the shortage of manpower. May be we can look at training for the ratings to become officers because we have a shortage of officers and an excess of ratings. So why not make use of the ratings who have got that caliber, besides the command in English.

We can have some added training to bridge the gap between their current knowledge and what is expected for, say, an A.B. to become a 3rd officer. This has, however to be thought of as a long term process. For one has to find out where the gap in the training exists. One has to also realize that an engineer who has come aboard has had four years of engineering training which a fitter does not have. So how that period of four years is to be bridged in a short period of time, particularly in the engineering department, where electronics, thermodynamics, mechanics etc play a significant part is to be carefully reviewed and then decided upon.

How do you compare the AMETIAP conference with the LSM Manning and Training Conference?

LSM highlighted more on the Manning issues and threw up many questions. AMETIAP got down to serious business and came up with a lot of solutions. In my opinion the technical content of the papers delivered at AMETIAP was high. One thing that was not high when compared to the LSM was the delegates fee.