

# **THE POSEIDON CHALLENGE**

**THE CONTRIBUTION OF MET, IAMU AND WMU**

**Presentation**

**by**

**Karl Laubstein**

**President**

**World Maritime University**

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## THE POSEIDON CHALLENGE: THE CONTRIBUTION OF MET, IAMU AND WMU

### 1. INTRODUCTION

- The purpose of my presentation is to explain what the education sector of the maritime transportation industry is doing to meet the Poseidon Challenge – the long-term commitment of INTERTANKO members to strive towards the goals of Zero Fatalities ... Zero Pollution ... and Zero Detentions. Put simply, what is the education sector doing to enhance maritime safety and marine environmental protection.
- In the limited time available to me I shall try to answer this question from my vantage point as, first, head of the World Maritime University (WMU), and, second, outgoing Chairman of the International Association of Maritime Universities (IAMU) headquartered in Tokyo. IAMU recently became an associate member of INTERTANKO.

### 2. MARITIME EDUCATION AND TRAINING (MET)

- The education sector of the maritime transportation industry is commonly labelled MET – maritime education & training. Worldwide, there are some 400 MET institutions, the bulk of which are located in so-called developing countries. MET institutions provide basic and/or advanced professional education and training for (a) seafarers (officers and ratings); and (b) shore-based personnel in maritime industry and administration.

- MET institutions can enhance maritime safety and marine environmental protection by:
  - (a) teaching necessary skills and knowledge on maritime safety and environmental protection requirements
  - (b) fostering greater awareness of, and sensitivity to, maritime safety and environmental protection
  - (c) conducting research on different aspects of maritime safety and environmental protection
- Are MET institutions doing this effectively? Is the MET sector effectively meeting the Poseidon Challenge?
- It must be noted at the outset that, historically, the MET sector has been quite parochial, reflecting individual countries' – or even individual MET institutions' - own educational systems and perceived needs of the training and education of their own national seafarers or other maritime professionals. There were no regional or global standards of MET, no formal mechanisms for international coordination and collaboration on MET standards, and, overall, the MET system lagged behind pedagogical and technological advancements in education generally.
- However, this situation has changed considerably since the late 1990's, largely in response to significant changes in three IMO instruments, namely, STCW, SOLAS and MARPOL. The changes were the following:

- (1) The revision of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers – STCW 95
  - (2) the addition of the International Management Code for the Safe Operation of Ships and Pollution Prevention – the ISM Code in SOLAS
  - (3) the addition of the International Ship & Port Facility Security Code – the ISPS Code in SOLAS and
  - (4) the lowering of operational discharge standards and introduction of double hull requirements for tankers in Annex I of MARPOL
- STCW95 mandated higher minimum standards for the competency of seafarers, thereby forcing the majority of MET institutions to upgrade their training programs, facilities and teaching staff. While STCW 95 led to improvements of seafarers' training in general, the ISM Code and the ISPS Code led to expanded and more focused training of both seafarers and shore-based maritime personnel on matters of maritime safety and security. While it is difficult to quantify progress in such a heterogeneous sector as MET, there has been definite progress in maritime education and training on maritime safety as well as marine environmental protection.

3. THE INTERNATIONAL ASSOCIATION OF MARITIME UNIVERSITIES (IAMU)

- The establishment of IAMU – the International Association of Maritime Universities – provides evidence of an emerging trend towards global standards in MET, with particular emphasis on increased MET standards regarding maritime safety, security and marine environmental protection.
- Established in 2000 with the support of the Nippon Foundation of Japan, the Association currently comprises some 50 leading MET institutions around the world. The basic objective of IAMU is threefold; to foster cooperation and collaboration among leading MET institutions world-wide; to promote and contribute to the development of increased global standards of MET (i.e., standards which are higher than the minimum standards of STCW95); and to sponsor research on issues such as maritime safety, security and environmental protection.
- Over the last 5-6 years IAMU has done the following which is of relevance to the Poseidon Challenge:
  - sponsored various research projects on maritime safety management systems at sea and ashore
  - conducted various international symposia on maritime safety and maritime security (for example, “Maritime Security and MET” was the theme of the 2005 annual assembly of IAMU which led to a publication of some 50 technical papers on this subject; last month IAMU conducted a seminar on this theme for the Japanese maritime administration and industry),

- given the impending rapid expansion of the LNG fleet, IAMU is currently giving top priority, and devoting considerable resources, to the introduction of standards of training and certification of LNG seafarers. To date IAMU has sponsored various roundtables to raise awareness of the shortage of qualified LNG seafarers and the urgent need to introduce LNG seafarer competency standards such as those proposed by SIGTTO; and, second, to promote the accelerated build-up of dedicated LNG training capability at IAMU member institutions to meet the needs of the LNG fleet (e.g., at the Arab Academy for Science, Technology and Maritime Transport at Alexandria, Egypt)

#### 4. THE WORLD MARITIME UNIVERSITY (WMU)

- WMU was established by and is operating under the auspices of the International Maritime Organization (IMO). The University's mandate is to provide advanced maritime education and research to meet the needs of IMO and the international maritime community, with particular emphasis on maritime safety and marine environmental protection. It is funded by bilateral donations from a small number of countries and organizations, governments or organizations sending students to WMU, and income generated by WMU staff from research, consultancy and other commercial activities.
- WMU does not train seafarers but provides advanced professional education for shore-based maritime professionals in industry and government, including the managers and teachers of conventional MET institutions (i.e., we "train the trainers"). The service of WMU to IMO and the international maritime community consists of the following:-

- (1) A postgraduate program leading to MSc and PhD degrees for onshore maritime personnel. The degree programs focus on the following subject areas: maritime safety and security, international maritime and commercial law, marine environmental protection, shipping and port management, transport logistics, integrated coastal and ocean management, MET
  - (2) Non-degree short courses for practitioners from government and industry on critical current issues; these courses are delivered at different client locations around the world
  - (3) Research and consultancy program
- Since its establishment in 1983 WMU has educated some 2,400 maritime professionals from 147 countries in its postgraduate M.Sc. program; in addition, there have been some 1,500 participants in its non-degree short course on subjects such as port state control, the requirements of IMO instruments such as STCW95 and the ISM and ISPS codes. The postgraduate M.Sc. degree program is delivered at three locations: Malmö, Sweden and Shanghai and Dalian in China.
  - As indicated earlier, the basic reason for the establishment of WMU was to create an instrument for the propagation and enhancement of global standards of maritime safety and marine environmental protection. To the extent that WMU is successfully addressing these subjects in its academic program, it is of course contributing to meeting the Poseidon Challenge on an ongoing basis. Basically, it is producing a steadily increasing cadre and international network of highly qualified maritime professionals dealing with maritime safety and marine environmental protection at the national and international level. The growing research

and consultancy work by WMU on these subjects reinforces this contribution.

- The continuing commitment and contribution of WMU to the goals of the Poseidon Challenge is evidenced by further concrete initiatives over the last 2-4 years, for example
  - establishment of a Master of Science (M.Sc.) program in “Maritime Safety and Environmental Management” at Dalian, China for personnel of the China Maritime Safety Administration; this new WMU program is delivered at Dalian Maritime University (DMU)
  - establishment of two sponsored professorial Chairs in Marine Environmental Management: the Nippon Foundation Chair in Marine Environment Management and the Canadian Chair in Marine Environmental Protection
  - the subsequent expansion of the marine environmental portfolio of WMU (e.g. introduction of specialization in Marine Environmental & Ocean Management)
  - contract work for the Maritime Safety Committee of IMO on passenger vessel safety and design of IMO model course on marine accident and incident investigation
  - production of teaching materials for MET institutions on STCW95 and other IMO instruments
  - publication of a major study in “Places of Refuge for Ships in Distress”, based on contributions from a multinational team of WMU staff and international associates

- various international symposia and seminars on piracy and other issues of maritime security
- provision of short courses in maritime safety and environmental protection subjects to some 600 participants from maritime administrations and industry in different locations around the world
- participation by WMU in the BalticMaster project of the European Union, a multi-year project concerning the development of an integrated strategy on maritime safety and environmental protection in the Baltic Sea.

## 5. THE BOTTOM-LINE

- The World Maritime University and members of the International Association of Maritime Universities are committed to, and working towards, the achievement of the goals of the Poseidon Challenge of INTERTANKO. The MET sector can and must play its role in the chain of responsibility for the realization of this challenge to the maritime transportation sector.