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## **DEVELOPMENT PROSPECTS OF MET: SHIPOWNERS' POINT OF VIEW**

### **ПЕРСПЕКТИВЫ РАЗВИТИЯ МОРСКОГО ОБРАЗОВАНИЯ И ОБУЧЕНИЯ: МНЕНИЕ СУДОВЛАДЕЛЬЦЕВ**

*Эта статья выражает мнение судовладельцев о перспективах развития морского образования и обучения в свете сегодняшнего динамичного развития и глобализации морской отрасли в целом на фоне глобального недостатка обученного персонала, террористических, военных и пиратских угроз, экономических вызовов. Это развитие, включающее внедрение новых компьютерных технологий, новых технологий перевозки грузов, требований международного и национальных законодательств, отраслевых требований, требований владельцев грузов, требований по защите окружающей среды, требует также новых подходов, техник и умений преподавания в морском образовании и обучении для обеспечения отрасли хорошо обученным, мотивированным персоналом для эксплуатации современных судов.*

*This article is reflecting ship owners' opinion about development prospects of maritime education and training in scope of today dynamic development and globalization of maritime industry in general with global lack of properly trained personnel, terroristic, military and piracy threats, economical challenges on the background. This development which includes implementation of new computer based technologies, new cargo transportation technologies, international and national legislation requirements, industry requirements, cargo owners' requirements, environmental protection requirements, require also new approaches, teaching technics and skills in maritime education and training to provide industry with well trained, motivated personnel to operate modern ships.*

#### **Introduction**

Author of this article Captain Aleksandrs Nadeznikovs is working as General Manager of “LAPA Ltd” International Crewing Agents and Training Center for 15 years and has waste experience in recruiting, deployment, training of seafarers, developing short courses on request for Training Center and Conference sessions. He holds Master-Mariner Certificate of Competence.

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### Short history of shipping development

Since very beginning when mankind started to use floating crafts to move on water surface for fishing, trading, military purpose a need for special marine skills appeared for ship handling, navigation, cargo handling. People always were curious – what is behind the horizon. The bigger ships were built, the longer distances they could sail, but for many centuries wood and sail were kings at sea. There was certain specialization of ships already in Roman Empire – Navy, Merchant, Fishing. Probably one of the first bulk carriers was transporting grain from Egypt to metropolis. The first very basic national maritime legislation started to develop (Rhodian Law).

The dynamic of development started to change in the mid of 19th Century when new ship building technologies were invaded – metal hull, steam engine, electricity. This development had also required new competences – Engineer, Electrical Engineer. Further development, specification of cargoes, quantity to be transported, new sea routes and areas of shipping, all around the year navigation, industrial development and sea shelf resources research and production, communication technologies, new international and national legislation increased number of qualifications and competences which seafarers have to comply with (See Fig. 1 Illustration)

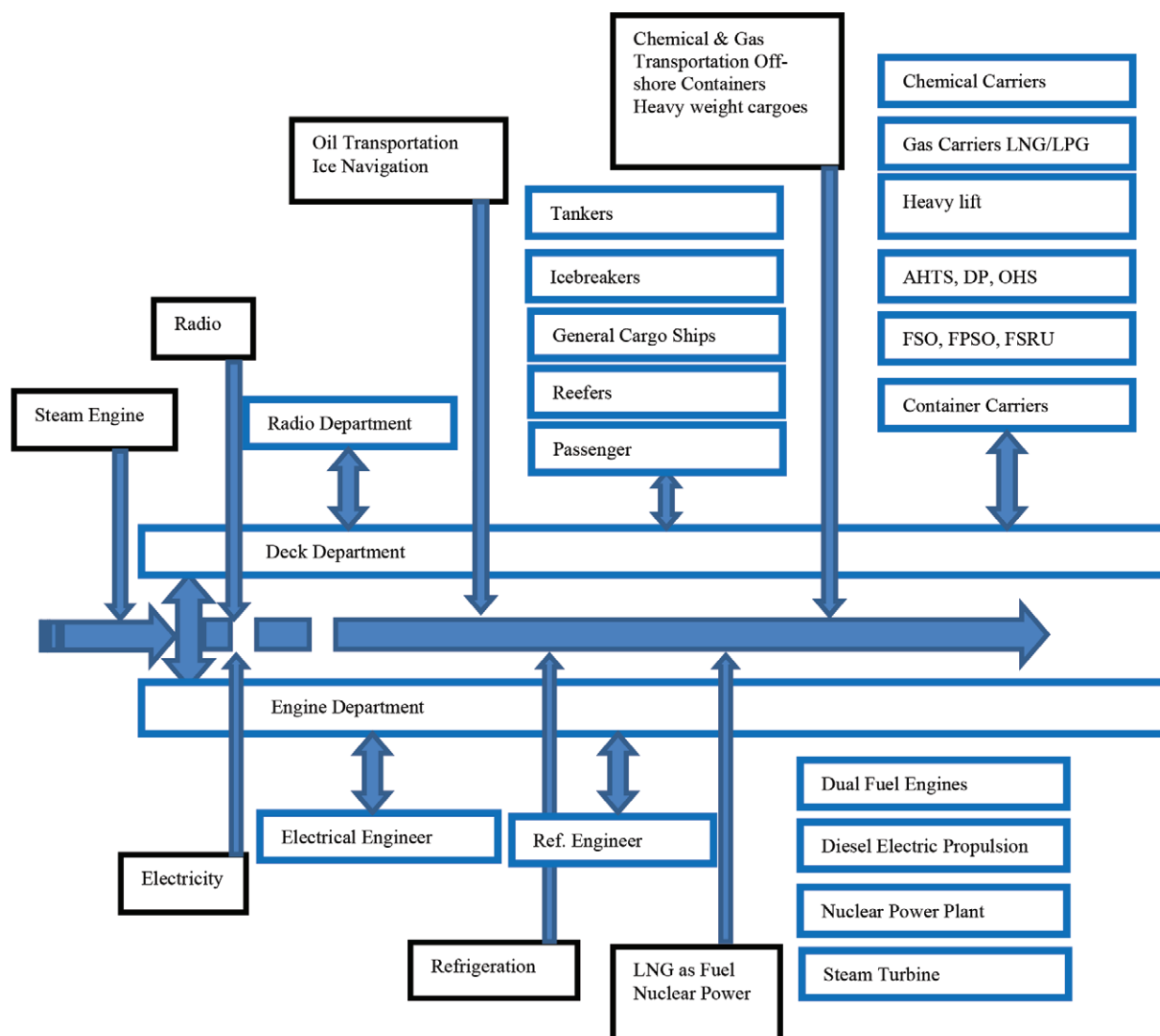


Fig. 1

The first Public International Maritime Organization which we know as IMO was founded in 1958, but it became influencing only in 1974. The IMO has prepared numerous international conventions concerning maritime safety including the International Convention for the Safety of Life at Sea (SOLAS), the Standards for Training, Certification, and Watchkeeping (STCW), the International Regulations for Preventing Collisions at Sea (Collision Regulations or COLREGS), Maritime Pollution Regulations (MARPOL), International Aeronautical and Maritime Search and Rescue Convention (IAMSAR) and others.

Nowadays this development goes even more rapidly. Computer based technologies are changing working conditions, relationship and communication. The great issue with environment protection, climate changes, natural and energy resources brings more requirements and legislative acts. Information technologies bring ship owners and ship managers to great exposure to Media and consequently to society, which require from them to be even more concerned regarding performance of their ships.

Implementation of ISPS Code demonstrated how fast international maritime legislation can be changed, but there are more in the years to come, including full implementation of Manila Amendments 2010. Ship Owners and Ship Managers operating tankers are under constant scrutiny of Oil Majors and CDI to comply with OCIMF requirements.

### **Expectations and demands in Maritime Industry nowadays**

Based on above mentioned we can say that Maritime Industry and consequently Ship Owners/ Operators have to meet and respond to following challenges:

#### **1. Response to advance and sophisticated shipping technologies.**

New equipment, appliances and technologies such as communication, ECDIS, dual fuel engines, ballast water treatment plant, sounding and control systems, pump systems, cooling systems, new type of fuel (LNG, Methanol), High Voltage equipment and others are coming and require new skills and familiarization training.

#### **2. Response to fast changing international and national legislation.**

Recently adopted or in process requirements of MLC 2006, Marpol Ch.6, Manila Amendments 2010, Ballast Water Treatment, Garbage Management require additional training for all crew.

#### **3. Response to Clients requirements**

Compliance with OCIMF, TMSA, SIGTTO, SDI etc. requires higher level of competence of the crew and compliance with Matrix requirements.

#### **4. Response to multi functionality.**

Small ships, short crew brings another issue as personnel on board has combined duties to substitute absent positions such as electrical offices, gas engineer, reefer engineer, radio officer. Short deck and engine crew brings us to General Purpose Rating.

#### **5. Response to current environmental changes.**

Piracy, military action areas, refuge/ rebels, terrorist threat, CO<sub>2</sub>/SO<sub>xx</sub>/NO<sub>xx</sub> emission requires additional attention including interaction with media, where a special training is necessary.

#### **6. Response to maritime business globalization.**

Working conditions in multicultural multilingual environment, worldwide trade – different countries/ports/languages – English as working language. Requires special skills in leadership, intercultural relations etc.

#### **7. Response to company/ship specialization.**

Special requirements and skills, unique equipment, technologies, procedures, now-how demand more training.

#### **8. Response to intensity of traffic/trade.**

Excessive work load requires fatigue training, Bridge Simulator training, shorter contracts.

Most of the responses are implemented as to following scheme (See Fig. 2).

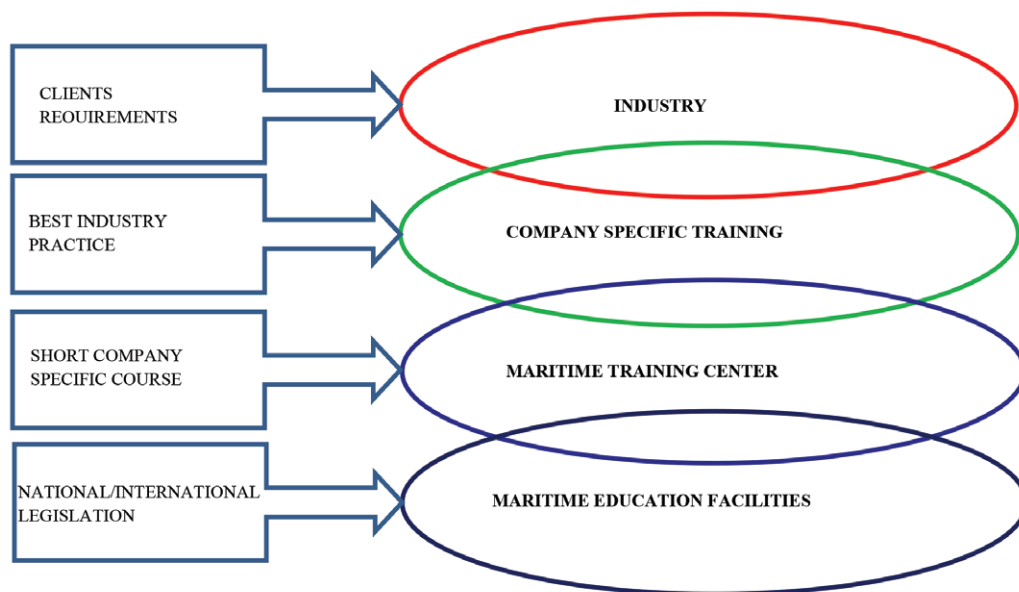


Fig. 2

### Process of compliance and crew selection

Taking in account all mentioned above the companies establish processes to comply with the best industry practices (See Fig. 3) to be competitive on the market. These processes usually are stated in Companies Quality Assurance System. Part of this process is also selection, recruitment and employment of new seafarers as candidates.

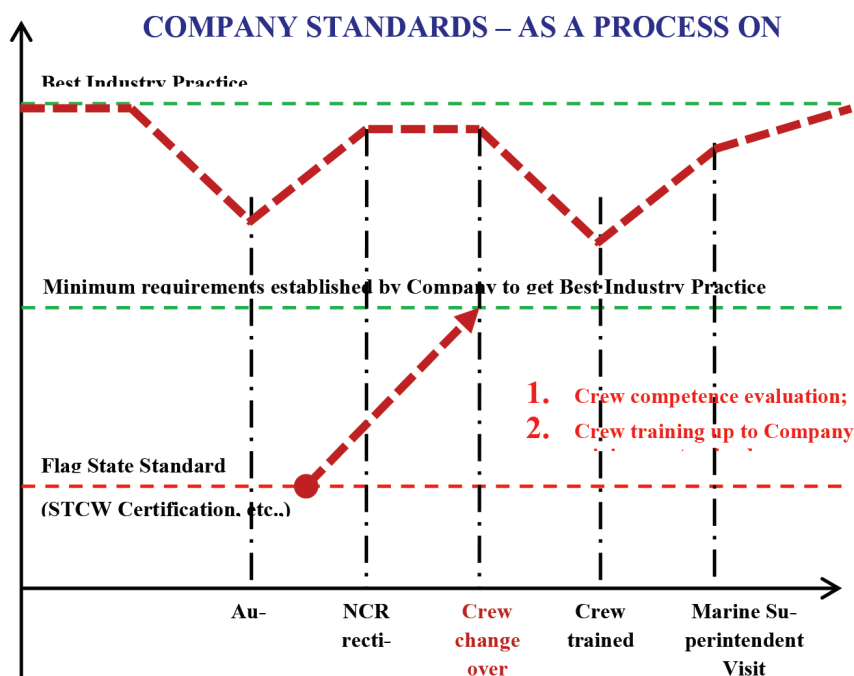


Fig. 3

Seafarer professional level basically consists from four following parts:

- Education
- Training
- Skills
- Attitude

The first two are the first level of recruitment – formal compliance with entry requirements and conventions, including interview and or professional tests.

The third one can be verified on simulators or on board during the first contract or overlapping. This is the second level of recruitment.

The fourth part can be assessed during the first contract or long term relationship with company. Alternative methods can be in deep interview or psychological tests.

In general it looks as following (See Fig. 4 and 5).

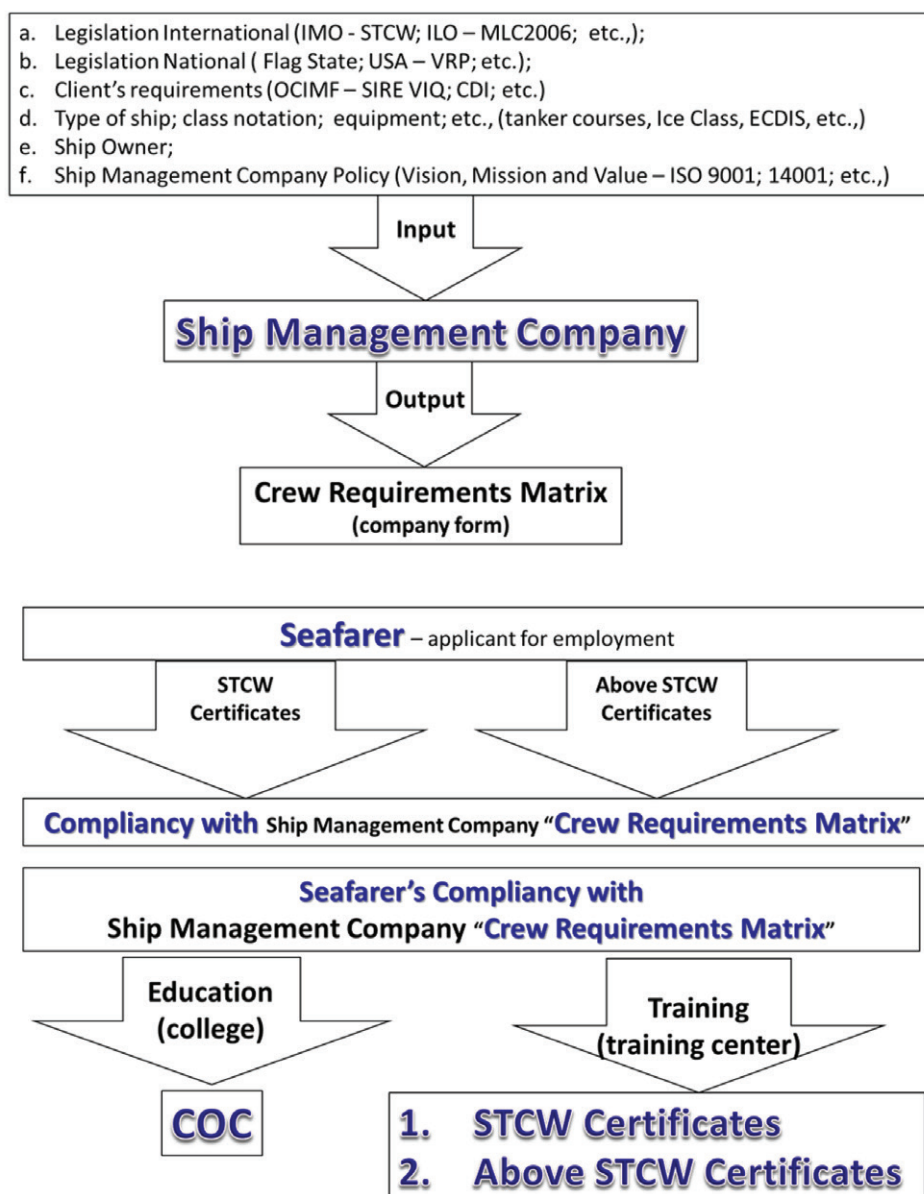


Fig. 4



Fig. 5



### **Ship Owners' opinion on development prospects of MET**

We believe there will be a strong cost focus from owners on the MET also in the future. Owners will also demand clearer evidence of improved skills and knowledge as a direct result of conducting the training. In addition we think there will be a greater need for refresher courses coupled with competence tests to ensure that the knowledge has been retained some period after the training program has been completed. This will present some unique challenges to the MET industry. Competence verification is best done by an independent third party that both the training institute and the Ship Owner can rely on, but this sort of service is not readily available at the moment. Having training that is company specific (both in terms of equipment and procedures) will also be crucial, to avoid divergence between the course material and the operational requirement onboard.

Our opinion on development prospects of MET can be expressed as following suggestions:

- Ensure a well-balanced MET which both includes modern technology and continuous care taking of the classical seafarer skills.

- More use of virtual simulators to keep costs low, but also make the simulation more company and vessel specific.

- MET as a whole should be timely organized with module/step based training enabling the seafarers' skills to grow over the years in support of a long term career.

- Flexibility in the MET courses (ref the comment on refreshment/new training).

- Practical cases for discussion should preferably be used to a large extent during the academy years.

- A modern pedagogical approach to learning should be focused (reflective learning) at all levels of MET. From a Ship Owner perspective the learning and training is not completed with a shore course.

- Thus, enabling and focusing the seafarer to bring knowledge from Classroom/shore courses onboard and yet further develop competence/learning (both individually and for sharing amongst the colleagues) is of great importance for proper “on the job training”.

- Actual learning and competence development at the course, and after (not a “tick in the box” training just to satisfy the requirements).

- To further develop a “reflective focus” of learning. One could, to a larger extent, combine the shore training and the work onboard. Some training ashore could be further improved with some tasks onboard (workbook?) up front or after the training.

In addition to that we suggest to focus on certain issues as:

- English language fluency – officers from countries where maritime education is run in English are having competitive advantage (India, Philippines, etc), stronger employment opportunities, brighter career chances.

- Psychological profiling – psychological wellness at sea is instrumental to safety and performance results. It is tough job to be out at sea and demands people who can withstand stress with strong mental health. The vast majority of incidents occurring at sea are often attributed to human error with variety of underlying problems.

- Development of soft and leadership skills. Historically, education of officers has been focused on occupational skills, while soft skills have been neglected. Modern maritime industry argues that, to ably steer a ships from A to B, officers also need cultural competence, emotional intelligence, social skills.

Another general note:

- The online training, where applicable, might be implemented by Training Center in addition to the existing format, provided the conditions for administration approval of such courses would be developed by the Flag State or Administration.

- The close contact with ship management companies and marine equipment manufacturers will be an advantage for Training Center for quick response to Shipping Industry demands to get properly trained crew.

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