On-board training and experienced officers

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Abstract

The rapid increase in the number and tonnage of certain types of merchant vessels (VLCC, LNG, High-Speed Car Carrier, Mega-Containership and etc.) creates a vital problem for maritime safety by the lack of experienced crewmembers, and especially officers for such type of the vessels.

We have two kinds of inexperienced officers:
First – the experienced officers without experience on certain type of vessels (LNG Carrier for example).
Second – the junior officer, recently graduated from a maritime education and training institution. Good seagoing service cadets get on board the training ship.

But it is extremely costly for MET institutions to acquire and maintain own training ship for their cadets.
The next problem is – certain type of vessels require certain experience.
The STCW 78/95 convention requires both deck and engine cadets to have seagoing service with following requirements:
- deck cadets should get twelve months of seagoing practice
- and engineering cadets six months of seagoing service towards certification.

Cadets’ seagoing service should be “closely supervised and monitored by qualified officers aboard the ships in which the approved seagoing service is performed”. It is the company’s responsibility to organize such procedures (designate the training officer on board of the vessel) strictly to follow the STCW and ISM Requirements. Such procedures are vitally important to companies that have interest in cadets as future Company deck or engineer officers. Unfortunately this important responsibility is lost among the daily routine jobs of the crewmembers. As objective evidence of the seagoing service should be “The Approved Training Records Book (STCW Convention 78/95 Para II/1 for deck officer and Para III/1 engineer officer)”

Following this IAMU, decided to set “On board training” as the one of the Common Themes of the Integrated Working Group. This paper will present ONMA experience to solving these problems, agreements between MET...
institutions and Shipowner Companies, and the Cadet program as part of educational process.

**Keywords:** Seagoing Service, On-board Training, Training Officer, Training Record Book, Company's Responsibility, and Cadets Program.

1 Introduction

International STCW Convention 78/95, Chapter II Regulation II/1 “Mandatory minimum requirements for certification of officers in charge of a navigational watch on ship of 500 gross tonnage or more” section 2.2 requires: “have approved seagoing service of not less than one year as part of an approved training program which includes on-board training which meets the requirements of section A-II/1 of the STCW Code and is documented in an approved training record book”.

But neither Convention, nor any other regulatory document, explains how the practice should take place and where the border between getting real-life knowledge and “objective evidence” in the form of the certificate lies.

A Rapid increase in the number and tonnage of certain types of merchant vessels (VLCC, LNG, High-Speed Car Carrier, Mega-Containership and etc.) causes vital problems for maritime safety by the lack of the experienced crew members, and especially officers for such type of vessels.
2 Question’s dualism

We can divide the problem with inexperienced officers in two streams:

- Inexperienced officers with sufficient academician background
- Officers without experience of the work on certain types of the vessel
- Junior officer, just graduated from maritime Academy

1. Theoretical training courses on the shore
2. Familiarization trip

1. Training Record Books (STCW Requirements and ISF Recommendations)
2. Training Officer (from vessels senior officer on board)

First – the experienced officers without experience on certain types of vessels (LNG Carrier for example). For these officers - special training courses (STCW requirements for certain type of the vessel), short familiarization (refreshment) theoretical courses on shore and one familiarization trip on the new vessel will be enough; here you can see the procedure that was clear defined in ISM Code (Para 6.3, 6.4, 6.5).

Second – the junior officer, recently graduated from a maritime education and training institution. Good seagoing service cadets get on board of the training ship. But it is extremely costly for MET institutions to acquire and maintain their own training ship for their cadets. Third – certain type of vessels requires certain experience.

Convention STCW 78/95 requires both deck and engine cadets to have seagoing service with following requirement:
- deck cadets should get twelve months of seagoing practice

374
- and engineer cadets six months of seagoing service towards certification. Cadets' seagoing service should be "closely supervised and monitored by qualified officers aboard the ships in which the approved seagoing service is performed". And this is the company's responsibility to ensure such procedures (designate the training officer on board of the vessel) strictly follow the STCW and ISM Requirements. Such procedures are vitally important to companies that have an interest in cadets as future company deck or engine officers. Unfortunately this important responsibility is lost among daily routine jobs of the crewmembers.

Following this, the IAMU decided to set "On board training" as the one of the Common Theme of the Integrated Working Group. But unfortunately for some reasons it is only a decision for the moment.

Keeping in mind that it is quite difficult to organize OBT systems for officers without experience on certain type of vessels (LNG Carrier for example), we proposed the following OBT system for our cadets.

3 One sea - one ship.

There are 48 member institutions in the IAMU. There are eight IAMU member institutions on the Black Sea:

1. Novorosiysk Maritime Academy (NMA, Novorosiysk, Russia)
2. Batumi State Maritime Academy (BSMA, Batumi, Georgia)
3. Istanbul Technical University Maritime Faculty (ITUMF, Istanbul, Turkey)
4. Nicola Y. Vaptsarov Naval Academy (NVNA, Varna, Bulgaria)
5. Constantza Maritime University (CMU, Constantza, Romania)
6. Kyiv State Maritime Academy (KSMA, Kyiv, Ukraine)
7. Odessa State Maritime University (OSMU, Odessa, Ukraine)

But from this eight - only ONMA has its own training ship. This three mast sailing ship "Druzhba" with length overall - 108.6 m and total area of sails equal to 3000 sq.m. was built in 1987 in Poland. There are 24 four bed cabins, 4 two bed cabins and 1 three bed cabins on the “Druzhba”. Full accommodation facility is enough for 108 cadets.

<table>
<thead>
<tr>
<th>Owner</th>
<th>Odessa National Maritime Academy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port of registry</td>
<td>Port of registry Odessa, Ukraine</td>
</tr>
<tr>
<td>Class of ship</td>
<td>KM1F</td>
</tr>
<tr>
<td>Length overall</td>
<td>108.6 m (with the bowsprit)</td>
</tr>
<tr>
<td></td>
<td>Length of the hull 94.8m</td>
</tr>
<tr>
<td>Beam</td>
<td>14.0 m</td>
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375
<p>| | |</p>
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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Height to the upper deck</td>
<td>10.05 m</td>
</tr>
<tr>
<td>Height to the main (bulkheads) deck</td>
<td>7.815 m</td>
</tr>
<tr>
<td>Maximum average draft</td>
<td>6.37 m (in the sea water)</td>
</tr>
<tr>
<td>BRT</td>
<td>2384.85 t</td>
</tr>
<tr>
<td>NRT</td>
<td>335.37 t</td>
</tr>
<tr>
<td>Displacement</td>
<td>2946.0 t</td>
</tr>
<tr>
<td>Height of the foremast</td>
<td>49.5 m</td>
</tr>
<tr>
<td>Height of the mainmast</td>
<td>49.5 m</td>
</tr>
<tr>
<td>Height of the mizzen</td>
<td>46.5 m</td>
</tr>
<tr>
<td>Sail area</td>
<td>3015 sq m</td>
</tr>
<tr>
<td>Auxiliary engine</td>
<td>Cegielski – Sulzer type 8 AL 20/24 2 * 750 PS (552 kW)</td>
</tr>
<tr>
<td>Speed under power</td>
<td>economy speed: 9 knots maximum speed: 12 knots</td>
</tr>
<tr>
<td>Permanent crew</td>
<td>40 persons</td>
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Figure 2. Details of Sailing Training Ship – “DRUZHBA”

Only on a sailing vessel a future navigator might get a feeling whether he is on the right place or not and get initial familiarization with the chosen job. The training vessel allows a combination of real-life conditions at sea and training process under the surveillance of qualified and experienced academic staff. Not leaving Black Sea borders, STS “DRUZHBA” can provide on-board training for junior navigational cadets for 8 universities - IAMU members, i.e.: NMA, BSMA, ITUMF, NVNA, CMU, KSMA, OSMU and ONMA.

Using the STS “DRUZHBA” for these Black Sea region Universities makes it possible to avoid transportation expenses for cadets to rich the port of origin.

We think that such common activity of our Universities get a real tangible result of the IAMU IWG on OBT. We hope that our colleagues from Black Sea region support our idea and on the next AGA we can inform the Assembly about the first result.
4 On-board training program idea.

At present, IAMU combines and unites major leaders of worldwide maritime education and training (MET). Its main objective is to promote global maritime excellence. On-board training should be an integral part of MET. To achieve it, strong and continuous feedback regarding the improvement of current existing systems is vital. IAMU members should not only analyze and discuss the standards, but participate in their realization as well.
Research is based on the experience of countries with leading and historically prevalent MET’s. Following a split for 12 months of on-board training (as shown below) is the most effective way of gaining proper results:

<table>
<thead>
<tr>
<th>IAMU standards of on-board training for navigational cadets</th>
<th>STCW 78/95 Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4 months</strong> Sailing Training Ship (program of training)</td>
<td><strong>12 months</strong> seagoing experience, including on-board training</td>
</tr>
<tr>
<td><strong>4 months</strong> Training Vessel or training on merchant Vessel for small group cadets under supervision of the training officer from the Academy (program of training)</td>
<td></td>
</tr>
<tr>
<td><strong>4 months</strong> Certain type of the Vessel, training under supervision of the training officer from Shipping Company (program of training)</td>
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The main goal of the IAMU IWG on OBT is to develop IAMU standard program of on-board training based on criteria mentioned above.

5 Conclusion

In our opinion, the IAMU should consider and decide to start operating its own standards of cadets’ on-board training, mentioned above, on a level higher than those offered by STCW, being a minimum. IAMU member universities located in the Black Sea area should be directly involved in this activity realization and create a live networks of active IAMU members in Black Sea Region.
References


