

# MET System in Ukraine

**M.V. Miyusov & D.S. Zhukov**

*Odessa National Maritime Academy, Odessa, Ukraine*

**ABSTRACT:** It is believed that Ukraine is one of the largest seafarers' suppliers to the world maritime fleet. The vast and diverse system of waterways and lakes in addition to the tradition of seafaring and maritime history which dates back more than 200 years create the necessary basis for the government which considers it more important to provide graduates with the full education rather than merely to produce 'vocational' specialists. Moreover Ukraine has already made some major steps on the road to Euro integration having taken part in the Bologna process. Therefore it's not surprising that on 15 January 2005 a new resolution of the Cabinet of Ministers of Ukraine was approved. The Odessa National Maritime Academy (ONMA) was the first to visualize it by means of the new-presented system of MET.

## 1 THE OBJECTIVES OF MARITIME EDUCATION ESTABLISHMENTS

The licensed officers' staff is educated and trained by maritime colleges, academies and universities.

The training and education are effected for both operational and management levels. The International Convention on Standards of Training Certification and Watch-keeping for Seafarers (STCW-78/95) and STCW-95 Code established uniform international requirements to the training of ship watch-keeping officers and ratings Chapters II, III and IV of the STCW-95 Code present the mandatory minimum requirements to the competence of every candidate for the acquisition of Certificate of Competence enabling a person to occupy officers' positions on board.

The procedures to prove the officer's achievements of the required competence standard are defined and the criteria for evaluating the competence are listed in the corresponding tables of STCW-95 Code.

In combination with on-board practical training the above knowledge and proficiency enable a candidate to occupy corresponding officers' positions on board.

The curricula of the maritime educational establishments were adjusted in accordance with STCW-78/95 Convention requirements and since 1998 applied in most states. IMO developed model courses of training masters, deck and engineer officers

(Model courses 7.01, 7.02, 7.03 and 7.04.) facilitated the transition to this order of training.

At the same time the opinion of the international maritime community, expressed at the conferences on maritime education in Sweden 2000 [4], in Belgium 2002 [5], and etc., shows that the minimum knowledge and proficiency requirements listed in STCW-95 Code are compulsory but not sufficient to satisfy the needs of the modern merchant marine.

The rapid development of fleet, specialization of ships, fitting them with complicated equipment, automation and electronics require the presence of specialists fundamentally competent in natural and technical sciences on board a ship. An educational establishment shouldn't be aimed at giving a certain fixed scope of knowledge for the operation of a modern vessel.

This knowledge will get outdated still before a prospective officer graduates. A maritime specialist should be prepared for being capable of understanding all the innovations and learn to operate them by himself. That is why the curricula of advanced maritime higher educational establishments include not only the minimum scope of knowledge and skills, which could have been covered in two years, but also two additional years of studies (bachelor's level) ensuring a broad general education.

Still another additional course of studies is required for the occupation of shipboard positions at the management level.

It's worthy to note, that the specific character of work on board - long periods at sea, reduced crews, hard work, sometimes driving those on board to stress situations and fatigue accumulation requires from a ship officer for the successful work with people to be well prepared in humanitarian aspects, that is to have a high cultural level, knowledge of psychology, the laws of a person's behavior in a group, ability to predict and eliminate conflict situations, optimize the relations among the seafarers united into one crew.

The majority of maritime higher educational establishments, especially those in European countries adopted the above educational system for training marine officers. A wide scope of education is necessary to ensure safe navigation in modern conditions.

We understand that to fit his future work on board, a seaman should not only have a high level of spiritual development, but also be well hardened physically. That is why maritime educational establishments devote much attention to the physical training of the future seafarers.

Besides regular general physical training and achieving the compulsory standards provided for by curricula, favorable conditions are provided for training in different sports up to the choice of a young man. All sorts of sports competitions at different levels are greatly encouraged by the administration.

The quality of preparation of the seamen for their future work on board ships largely depends on the lecturers and instructors; in compliance with the STCW Convention those are to have the proper qualification for different types and levels of education and training.

Lecturers and instructors specialized in professional disciplines should have not only an appropriate maritime education but also a sufficient sea experience. That is the matter of especial importance, as it enables them besides delivering a theoretical course, to share their acquired experience for training the cadets (students) to solve routine operational problems in practical way, fostering proper care and attention to their every day work, responsibility for the fulfillment of their duties on board.

Unfortunately the payment of lecturers and instructors is much lower than that of seafarers on board.

That is why it is very difficult to attract properly qualified experienced maritime industry practitioners

still not of old age to the academic work in maritime educational establishments.

Besides not every experienced practitioner is capable of resultative lecturing or practical training.

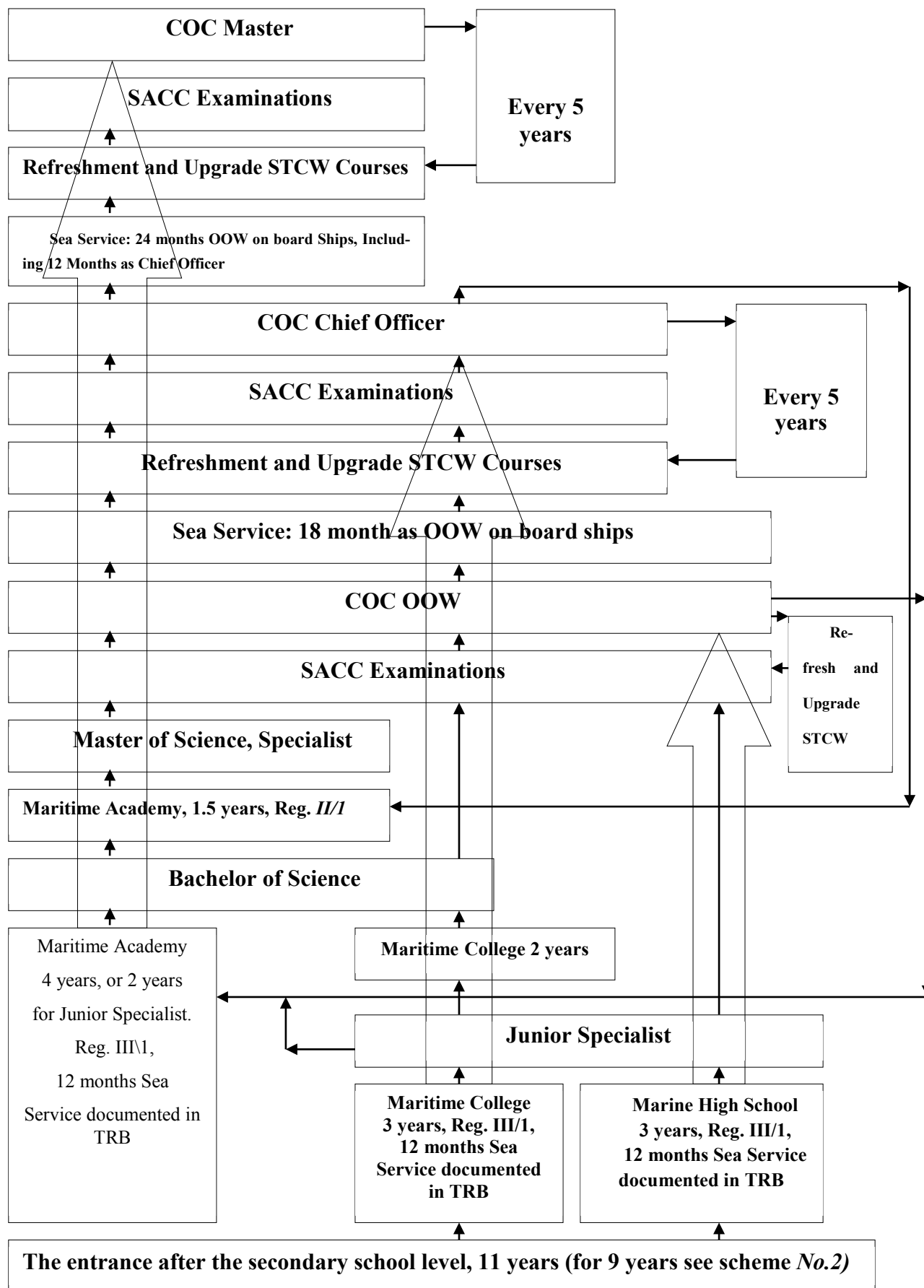
Taking into account the above problems IMO has developed special methods of preparing maritime officers to academic career which help them to learn methods of training the young people both on board and shore.

One of the ways of attracting experienced practitioners, first of all masters and chief engineers to academic activity may be their invitation to the engagement in the educational establishments during the periods of their stay on shore between the contracts concluded for the work at sea. A solution of the problem would also be the arrangement of a temporal refresher employment of the lecturers in the position of dubbing officers or their temporal employment to the crew staff positions on board commercial ships, but that requires certain funding, which an educational establishment is mostly short of as well as understanding and support on the part of shipping companies.

## 2 MET IN THE UKRAINE

The two principal factors - the alarming situation with the employment of population and low rates of pay for labor on the one hand and the high standards of education and training of marine officers in Ukraine on the other hand predetermine favorable opportunities of training competitive specialists for the international labor market in the maritime educational institutions of Ukraine. Mostly part of the graduates from ONMA were employed for service on board ships under foreign flags. However, many specialists after gaining invaluable practical experience in Ukrainian companies seek employment by foreign shipowners. The laws on the employment and on the higher education currently in force in Ukraine enable a graduate of a higher educational establishment to effect a free choice of the employment place. The latter fact gives the graduates of the Maritime educational establishment the opportunity for the employment by foreign shipping companies.

Ukraine, as a maritime power, being a party to the STCW-78.95 International Convention has undertaken to constantly maintain the quality of training seafarers at the level of international standards.



SACC – State Assessment Commission of Competency,  
COC – Certificate of Competency,

OOW - Officer in charge of the Watch,  
TRB – Training Record Book.

Figure 1. The Unlimited Certificates of Competency (Deck) – Referring to the STCW 78/95 and Resolution of the Cabinet of Ministers of Ukraine No 38, 15<sup>th</sup> of January 2005 - “Regulation on the Conferring the rank upon the Ukrainian Seafarers”.

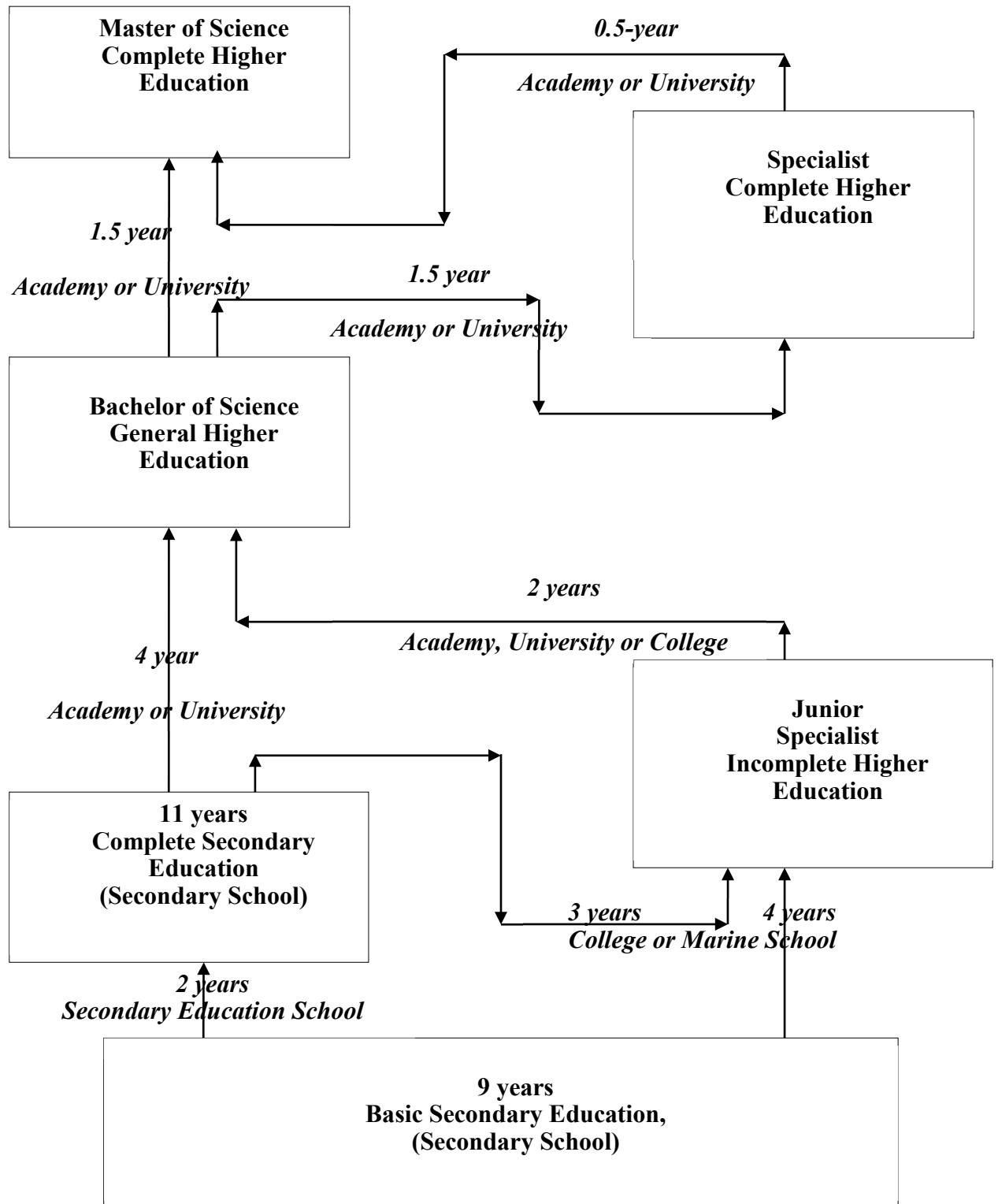


Figure 2. The System of Education in Ukraine

The achievement of these standards has only become possible as a result of creation of a proper national system of education and training, refresher and upgrading courses and courses of additional relevant education and training for officers. This system comprises today 10 Maritime higher educational establishments (academies, universities, institutes and colleges) and about 40 maritime training centers, most of them being fitted with advanced simulator base and modern training technologies.

Odessa National Maritime Academy is the basic educational establishment of Ukraine. It educates and trains wide profile maritime specialists for both national and international labor market. All the conditions are created in the Academy for training specialists meeting the requirements of the international standards of shipping industry, requests of national and foreign shipping companies.

ONMA amounts about 11000 undergraduates of seafaring specialization with yearly graduation more than 1000 people. The Academy comprises faculties, institute, colleges and training center, not only in Odessa but in other cities of Ukraine.

Enrollment based on the competitive choice of candidates having complete secondary education 10-11 years).

Term of studies of a specialist having complete higher education -5.5 years;

Provision of on-board training not less than 8-12 months depending on the special field;

Fundamental general engineering training;

High level of educational technology provision;

High rating of the academic staff;

Combination of studies and research work of the cadets, development of creative skills;

Arrangement of studies and even' day life of cadets in the conditions resembling shipboard environments and routines;

Compliance with the requirements of the international conventions;

System of continuous post-graduation education for marine officers for maintaining a high level of competence, familiarization with new technologies and new control methods.

The last decade reforms of education in Ukraine initiated the transition to the stepped system of training specialists, providing for four qualification educational levels: junior specialists, bachelor, specialist and master. According to the conception of education and professional training of ship crew members, approved by the Ministry of Education and Science of Ukraine, the graduates of the educational establishments at the level of junior specialists

and bachelor shall occupy on board the positions of officers in charge of a watch at the operational level and those at the level of specialists and masters at the management level in compliance with STCW-95.

### 3 PRACTICAL TRAINING OF CADETS

STCW-78/95 Convention (Section B-II/1) notes that the mandatory periods of seagoing service are of prime importance in learning the job of being a ship's officer and in achieving the overall standards of competence required. The programme of on-board training should be an integral part of the overall training plan. The improvement of quality and systematic character of practical training are facilitated by an individual "Training Record Book" proposed by IMO. It will provide unique evidence that a structured programme of on-board training has been completed, which can be taken into account in the process of evaluating competence for the issue of a certificate. The Convention provides for two identifiable individuals who are immediately responsible for the management of the programme of on-board training. The first of these is a qualified seagoing officer, who, under the authority of the master, should organize and supervise the programme of training on board, the second should be a person nominated by the company, referred to as the company training officer. He should have an overall responsibility for the training programme and for coordination with colleges and training institutions.

The company should ensure that appropriate periods are set aside for completion of the programme of on-board training and bear the whole of the expenses for practical training of the prospective maritime officers to be further employed by the company.

A certain part of the shipping companies act in the compliance with the requirements of the Convention, taking an active part in training maritime specialists, place cadets on their ships for on-board training, nominate officers responsible for the management of the programme of on-board training, bear the burden of expenses for the provision and transport to embarkation place and (for repatriation) of cadets. It's necessary to note that such activity not only facilitates good practical training of the prospective officers but also a current operation of ships with the help of the cadets which perform any feasible works on board and form part of a watch. At the same time the company has a chance to evaluate prospective officers they intend to employ after the graduation.

Unfortunately far not all companies find vacancies for cadets, and are engaged in their training on

board. It would be desirable to work out an agreement at the international level recommending the shipowners to place cadets on every ship.

It is worthy to note that the European Conference on Employment and Training 2001 held in Tallinn by LSM Company (Lloyd Ship Management) insistently recommended shipowners to reserve minimum two vacancies per ship for cadets and also to invest money in education and training of seamen "invest in people" [3].

ONMA has gained an experience of direct contact and cooperation with the shipping companies, which make a choice of last-year cadets of the Academy, support them in the final stage of their education and in this way form a reliable manning reserve of deck and engineer officers, to be employed by these shipowners after their graduation.

The results of the active position of the Academy in the international co-operation are not limited to the provision of our cadets with the vacancies for practical training on board foreign vessels with substantial remuneration for their labor and social guarantees: but they extend to concluding direct contracts with shipping companies providing for the financial aid to the Academy.

In 2008 above 3500 cadets of the Academy completed the programs of their on-board training including 2000 on board ships belonging to foreign shipowners.

The policy of the company provides for the eventual employment of the cadets after their graduation in case of successful completion of two terms of shipboard practical training on board the ships belonging to the Company. More than 100 contracts on the on-board training have been signed with different shipowner Company.

#### 4 CONCLUSION

A comparatively short period of time is necessary for building a fleet, but a longer period is required for bringing qualified officers to maturity. A common concern of crewing companies, maritime institutes and training centers is the assurance of the high level of seafarers' competence.

The shortage of qualified officers also requires the revision of the policy of shipping companies. Comparatively insignificant investments in education, training and upgrading of seamen within the framework of appropriate programs of personnel formation and control would give priority in provision with staff to those companies which assure their future and "invest in people".

#### REFERENCES

- O'Neil W. IMO - Globalization and the Role of the Role of the Seafarer IMO News. no. 3, 2001, p. 4-5.
- Yamamoto II. On the reason and Significance of the Core Concept of I AMU
- Lloyd Ship Management, July/August, 2001, p. 3,35,36,38.
- Solving MET issues chartering the course into 21 century."/ Eleventh Conference on Maritime Education and Training (IMLA 11). 21-25 August 2000, World Maritime University, Malmo. Sweden.
- STCW'95: evaluation of the implementation by maritime training centres /The International Maritime Educational Conference. 14-15 March 2002, World Maritime Institute, Ostend. Belgium.
- The law of higher education of Ukraine/ [www.rada.gov.ua](http://www.rada.gov.ua)
- Bologna Declaration/  
<http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf>
- Standards and Guidelines for Quality Assurance in the European Higher Education Area/ <http://ec.europa.eu/>