MARITIME SECURITY EDUCATION AND TRAINING – EXPANDING THE ROLE OF IMO AND STCW

Fred Anstey,
Marine Institute of Memorial University of Newfoundland
E-mail: Fred.Anstey@mi.mun.ca

Abstract. The ISPS Code identifies obligatory training for both shipboard and shore based personnel, and IMO model outlines have been developed for each of the ship, company and port facility security officer courses. IMO has however abrogated its responsibilities as it pertains to maritime security certification and training by not articulating mandatory training requirements for either the port facility security officer or the company security officer. Non-mandatory guidelines, applied in an inconsistent manner will not suffice. The combining of the Ship, Company, and Port Facility Security Officer Courses into a new more inclusive Maritime Security Officer Course, with STCW certification, is the logical solution for security officer training. The systemic 'criminalization of the seafarer' has been, in part, caused by ship and port facility working in opposition instead of working together. A single MSO Course will result in more efficient scheduling and cost effective training for MET institutions and for industry. The current nonsensical structure requires that seafarers moving from SSO to CSO or to the PFSO position undergo subsequent and redundant training. If the IMO intends to impose mandatory regulatory requirements such as the ISPS Code on the global maritime industry, then it must follow through with requisite training and certification.

INTRODUCTION

The events of 9/11 have had a major global impact that has also been experienced by the international shipping industry. One of the earliest and most noticeable consequences is the advent, through the International Maritime Organization (IMO), of the International Ship and Port Facility Security (ISPS) Code. While this Code mandates new occupational security positions and requisite training within the maritime industry, the IMO has not used the STCW Code and Convention to full advantage to ensure uniform global compliance, particularly as it relates to training and certification for these identified positions. Additionally, IMO course outlines; STCW requirements for the Ship Security Officer (SSO); IMO training guidelines for the Company Security Officer (CSO) and Port Facility Security Officer (PFSO); and varying national oversight provisions have sent a mixed message to MET and to industry as to the appropriate level of training that is required.

INTERNATIONAL MARITIME ORGANIZATION

According to Özçayir [1], the origins of the IMO stem back to 1914 with the first iteration of a Safety of Life at Sea (SOLAS) Convention. The more formal establishment occurred in 1948, when an international convention founded the Inter-Governmental Maritime Consultative Organization- renamed in 1982 as the IMO. This 1948 convention drafted the original mandate and summarized it into an Article 1 of that convention. The five broad aims, including later amendments, collectively provide a mechanism for governments to work in a collaborative manner, particularly in the area of regulation and practices affecting shipping engaged in the international trade.

This mandate has been used to formulate a comprehensive body of legislation covering every aspect of shipping. The IMO [2] evidences this body of legislation through standards for ship design, construction, equipment, operation and manning, and key treaties include SOLAS, the MARPOL convention for the prevention of pollution by ships, and the STCW convention on training for seafarers– all examples that directly impact vessels. The mandate does refer to "...matters of all kinds affecting shipping engaged in international trade..." but as evidenced the IMO appears to concentrate legislation on those matters which

directly and immediately affect vessels, and at least historically, has not used the mandate in a broader application to deal directly with shore based operations and entities.

International ship and port facility security code (ISPS)

The ISPS Code, formulated to enhance maritime security, is to form the basis for national security legislation for in excess of 160 signatory countries. Although IMO had previously dealt strictly and directly with ships, the objectives as espoused by ISPS make a stark departure from this model. The Code [IMO 3] mandates the establishment of a co-operative framework that is to include governments, agencies, administrations, and both shipping and port industries. These entities are tasked collectively to take appropriate measures in order to prevent security incidents from affecting ships or the shore based port facilities. Further, it states that responsibilities to ensure maritime security will be established at the national and international level. The functional requirements of the Code bind both ships and port facilities together when identifying procedural objectives governing communications, access controls, security plans, and measures for the prevention of the introduction of unauthorized weapons and devices.

The Code identifies the types of vessels to which ISPS applies and then defines port facilities as those entities servicing such vessels. The ISPS Code by application and through its very name treats both ships and port facilities as equal partners in this implementation of a holistic security regime. Further when assigning duties to the contracting governments it requires them to approve both port facility and ship security assessments and plans. Although ISPS does allow contracting governments to delegate certain duties to recognized security organizations (RSO), it does not allow them to delegate the approval of port facility assessments or plans, while it does allow ships assessments and plans to be approved by such organizations. Rather, it ensures that each country's marine administration is to maintain control over this matter, thus reinforcing the importance of these matters within the security regulations. The ISPS Code also directs contracting governments to provide to IMO information regarding each approved port facility, ensuring that these entities are included in the IMO database, and again is recognition that they are to form part of the overall security arrangement.

It is important to note that through the ISPS Code, it is the IMO that has created the vessel based Ship Security Officer (SSO) and the shore based Company Security Officer (CSO). Additionally it created and defined the port facility and thus the Port Facility Security Officer (PFSO). For both the ship and port facility the Code denotes responsibilities for persons with security responsibilities and has also identified required areas of training for each of these positions. Responsibilities for both ship and shore-based positions are similar in nature.

A comparison of the training requirements, for the CSO and PFSO, as identified in the ISPS Code, reveals very few differences. Part A of the Code states that each shall have received training as identified in Part B, which lists twenty areas of training. The areas listed are virtually identical for both the CSO and PFSO.

A comparison of the list of areas of training for the CSO and for the SSO also discloses pertinent information. The requirements listed for the SSO mirrors all of those listed for the CSO but it also enumerates five others. This is particularly enlightening as most training institutions, contracting governments and even the IMO model course outlines require more training for the CSO and of course the PFSO. This is particularly significant when designing course material, and even more so if combining all requirements into one common security course.

This brief review of the ISPS Code affirms that IMO has created the positions of CSO, SSO, and PFSO and that it places equal weight on the security procedures for both port facilities and for international shipping. Moreover it mandates training for all three positions and that such training is similar in content. It leaves little doubt that MET institutions are intended to be involved in the provision of such training but

the format, and to some degree the content, are left in doubt especially with no formal recognition of this training, for two of the three positions, within the STCW.

IMO Model Course Outlines

The IMO has made significant use of model course outlines, developed with the help of IMO member governments and content experts. These outlines have been designed to ensure that prescribed training is consistent with the STCW Convention. Proper usage by MET institutions is expected to ensure global consistency but with the course outlines giving enough latitude for institutions to provide flexible application while at the same time curtailing the amount of effort normally required for course development.

According to IMO [4] each model course includes a course framework that details the scope, objective, entry standards, and other information about the course; a course outline with timetable; a detailed teaching syllabus including learning objectives; instructor guidance notes; and a summary of the student evaluation process.

Noting that the ISPS Code was constructed in quick fashion for an early implementation date, the IMO [5], with the help of governments of the United States of America and India, developed outlines for the SSO, CSO, and PFSO courses. Each was developed using the ISPS Code requirements as the basis for the model. A comparison of the model course outlines is particularly useful for determining the interrelationship of content requirements.

Model Course Outlines- CSO versus PFSO

When reviewing each of the three outlines it is apparent that many commonalities exist. A comparison of the CSO and PFSO outlines reveals striking similarities. Each suggests an eighteen hour course schedule, and identifies 11 major topics, with a total of 55 subtopics – all similar in description.

***Company* / Port Facility Security Officer – Course Timetable**

Day	1st Period (1.5 Hours)	2nd Period (1.5 Hours)	3rd Period (1.5 Hours)	4th Period (1.5 Hours)
Day 1	1. Introduction	2. Maritime Security Policy 3. Security Responsibilities	3. Security Responsibilities 4. *Ship* / Port Facility Security Assessment	4. *Ship* / Port Facility Security Assessment
Day 2	5. Security Equipment 6. *Ship* / Port Facility Security Plan	6. *Ship* / Port Facility Security Plan	6. *Ship* / Port Facility Security Plan 7. Threat Identification, Recognition & Response	7. Threat Identification, Recognition & Response
Day 3	8. *Ship* / Port Facility Security Actions 9. Emergency Preparedness, Drills & Exercises	9. Emergency Preparedness, Drills & Exercises	10. Security Administration 11. Security Training	11. Security Training

The model outlines also include the course timetables. The following table, as constructed, reflects the timetable for both the CSO and the PFSO collapsed into one with wording that is not reflected in the PFSO outline italicized. As can be seen the only differences within the table is the word 'ship' versus

'port facility'. The sub-topics, not shown in this table, reflect differences similar in nature. With these exceptions the timetable for the eighteen hour three-day CSO course is exactly the same as for the PFSO course.

A review of each of the two sets of learning objectives affirms that they are for the most part identical, except in a few minor areas, and where the topics may be particular to either the CSO or PFSO. Two examples of differing topics are 'documents required to be carried on board a vessel', and 'inspection of the ship security plan (SSP) by foreign port state control'. Other than these two examples the differences are largely in reference to the ship versus port facility and with the learning objectives virtually the same. As the major topics for each course are general in nature, for example the topic of 'threat identification, recognition and response', it may be questioned as to the value of offering two separate courses in response to the ISPS Code training demands. A common course with common topics but attacked from different perspectives by participants, according to the class composition, may be the answer.

Model Course Outlines- CSO versus SSO

A comparison of the model course outline for the CSO and SSO courses also identifies abundant similarities. The primary difference is in the course duration with 18 hours for the former and 12 hours for the latter. This would appear to indicate a marked difference in the two courses, but a closer examination shows that this is not the case. There are 55 and 52 sub-topics listed respectively for the CSO and SSO courses. All of the SSO subtopics are a subset of the CSO, leaving only the three additional topics for the CSO course. These three topics are 'development of the ship security plan', 'approval of the ship security plan', and 'instructional techniques'.

To some degree this conflicts with the ISPS training requirements, which identifies more topics for the SSO training than that for the CSO. In any case it is apparent that the two courses, according to the model course outlines are very similar and as will be noted the three additional topics are of value to the SSO.

Firstly, while the development of the SSP according to ISPS is within the purview of the CSO the Code also assigns responsibilities to the SSO which at least implies a required knowledge of SSP development. Section 12.2 of the ISPS Code directs the SSO, *inter alia,* to propose modifications, and to report deficiencies and non-conformities as identified through internal audits, and these duties all relate in some part to the development methodology of the SSP. In any case this sub-topic lists only three learning objectives. Secondly, the topic 'approval of the ship security plan' details the procedure for approval both for the initial plan and subsequent amendments. This information is also of value to the SSO. Thirdly, for the topic of instructional techniques, ISPS, when identifying duties for the CSO and the SSO, states that each are responsible for ensuring 'adequate training' for shipboard personnel. Further, the Sub-Committee of IMO [6] on Standards of Training and Watchkeeping, in its report to the 38th session of the Maritime Safety Committee (MSC), has endorsed proposed amendments to STCW with regard to security training for ship personnel. It recommends that security familiarization and security training be provided by the SSO or other qualified person. It is therefore apparent that these topics could and should be part of the training regime for the SSO as well as for the CSO.

There are also a number of topics where additional time above that allocated for the SSO course is allotted for the CSO course, namely 'ship security assessment', 'ship security plan', 'threat identification, recognition, and response', and 'emergency preparedness, drills, and exercises'.

The learning objectives identified in the CSO model course are the same as those for the SSO model course for the topic of 'ship security assessment', however there are an additional three sub-objectives. These relate to the description, method, and weaknesses of the security assessment. These additional sub-topics are allocated an additional hour of instruction. The ISPS Code, while making the CSO responsible for the security assessment, also suggests involvement by persons such as the SSO. It is also required that

the assessment be appended to the SSP so that the SSO can understand the rationale for the included security procedures. This additional training material would be of obvious benefit to the SSO.

The second topic 'ship security plan' as discussed previously, allocates 2.5 hours instruction for the CSO training, and 1.0 hours for the SSO course. As the SSO has the primary responsibility for implementing and maintaining the SSP any additional training information would be of value. Furthermore it is the SSO who will have frontline contact with Port State Control Officers and should therefore have intimate knowledge of all aspects of plan development.

The third major topic 'threat identification, recognition, and response' allocates 1.5 hours and 2.5 hours respectively for SSO and CSO training. While the major topics are the same there are a few extra sub-topics for the CSO. However an analysis of these, to some degree, exposes a nonsensical approach to the training. This section should ideally be geared to frontline personnel including the SSO. The extra sub-topics for the CSO, for example, detail how to plan and carry out a search and how to manage a crowd. These topics would be fundamental for the SSO as it is that individual that is on the frontline and that will be required to implement these procedures and possibly to instruct other crew members in these matters.

The 'emergency preparedness, drills, and exercises' major topic outlines three similar learning objectives for SSO and CSO training with 1.0 hours and 2.0 hours allocated respectively. Again it can be argued that the additional content is also applicable to the SSO. This information pertains to the need for contingency plans; purpose of drills and exercises; the elements to be tested by each drill and the relevant elements to be assessed in a drill. As drills and exercises are carried out shipboard, this information is crucial to proper planning and execution.

IMO Guidelines for the CSO and PFSO

The roles of the CSO, SSO, and PFSO as newly formulated through the ISPS Code were not previously addressed through STCW. The MSC in 2003, understanding the need to develop new requirements, instructed the STW sub-committee to develop training and certification criteria for the position of CSO. In 2005 it instructed them to do similarly for the position of PFSO. However the STW sub-committee decided that the STCW was not the appropriate instrument to govern CSO training and certification as this position was shore based. The MSC, when asked for clarification on this matter, determined that guidelines instead of mandatory requirements were to be developed. It subsequently deemed similar guidance for the position of PFSO.

The IMO [7] accordingly promulgated the CSO guidelines through MSC/Circ. 1154 and the PFSO guidelines through MSC/Circ. 1188 [IMO 8]. Both sets of guidelines are similar in scope. They refer to an attached table of knowledge, understanding, and proficiencies (KUPs) and list only five major competencies. When using either the IMO model course outlines or the ISPS Code as a benchmark for training requirements it is evident that the level of knowledge required in these guidelines is deficient for both the CSO and PFSO.

The guidelines do not in fact require attendance in a training program. For both the CSO and PFSO positions they state that persons so designated should be able to demonstrate competence to undertake the identified tasks, duties, and responsibilities. It is further stated that these listed levels of knowledge should be sufficient. A rudimentary review of qualifications and experiences of persons attending maritime security training courses at one Canadian MET institution suggests that most persons identified as the CSO or PFSO have very little or no background involvement in security. The job requirements of the CSO or PFSO are commonly attached to persons filling managerial roles- quite frequently the HSEQ officer.

There are also concerns with the levels of oversight by different contracting governments when using this template as a measure of competence. Although the guidance states that the method for demonstrating competence is through the assessment of evidence obtained from approved training or examination, the

guidelines allow for a wide range of such training, or in fact possibly no actual training but rather experience. It is interesting to note that both sets of guidelines state that persons that have completed an approved course based on the appropriate IMO model course outline should be considered to have met the training requirements for these positions. Why then not just use the model courses as the basis of this guidance and, because the positions are in fact mandated by the IMO through ISPS, go further and insist that this training be mandatory?

Standards of Training, Certification and Watch-keeping

The IMO through the MSC [9] has formulated, adopted, and promulgated changes to the STCW Code that affect SSO certification. The changes to Part B (guidance) are minimal but formally recognize the SSO and requisite training and certification. The title of Chapter VI now includes 'security', and a new section B-VI/5, entitled 'guidance regarding training and certification for ship security officers' is now added. However the information provided in this part, while recognizing the SSO does little more than state that training should be relevant to the ISPS Code. It does however recognize that the IMO model course may be of assistance in the preparation of such training.

The IMO amendments, through the MSC [10], to Part A of the STCW Code has modified the title to reflect the addition of security and to include a new section A-VI/5 that identifies the mandatory minimum requirements for the issuance of certificates of proficiency for the SSO. This new section also includes a KUPs table that is analogous to the one found in the guidelines for the CSO.

Similar to training provisions for the CSO, there are five competencies to be demonstrated in order to achieve proficiency as a SSO. However there are some additional stipulations in the CSO guidelines. While the SSO is required to achieve competencies in maintaining, and supervising the SSP the CSO is to additionally achieve competencies related to developing the SSP. Both the SSO and CSO are required to achieve competency in the area of assessing security risk, threats, and vulnerability – with nine associated KUPs- and with the only difference being that one of these KUPs for the CSO includes the procedures for conducting security assessments. The other KUP for the CSO pertains to instructional techniques. As discussed previously, there is anticipation that the SSO will be involved in security instruction for both crew with and without security duties and therefore it is advisable that the SSO have training on this topic.

The comparison of tables also discloses that the SSO is to achieve two additional KUPs- one related to the procedures for the ship security alert system (SSAS), and the second related to testing calibrating and maintaining security equipment. These areas are not unique to the SSO. The ISPS Code has determined that the CSO is a key player in procedures related to the SSAS. Activation of the system would normally denote that an event has occurred that impacts the security of the vessel and that the CSO is to provide communications and support in this eventuality. The CSO is instrumental in determining the type of security equipment to be installed on the vessel, and with providing training and spare parts required in relationship to this equipment.

The amendments to STCW mandate proficiencies for the SSO, however the training requirements, when left for the interpretation of contracting governments, are not succinct enough. The method for demonstrating competence is again through approved training or examination, and although it is stated that the IMO model course may be of assistance, there is no requirement for those governments to use this as the bench mark. Signatory states are not only able to impose different training criteria but often, at least for vessels flying their flag, view training approved by other states as deficient.

Further, in an attempt by IMO to distance itself from obligations as created through the ISPS Code it has created mandatory competencies and KUPs for the position of SSO while creating non-mandatory but comparable training for the CSO.

Contracting Government Implementation

The implementation of the STCW security requirements by contracting governments has varied. A review of Canada's interpretation and its instructions to Canadian MET institutions provides one such example. Transport Canada [11], in 2007, outlined course standards that institutions are to attain as part of the course approval process.

In general it is required that the course be in accordance with the Canadian Marine Transportation Security Regulations (MTSR) and the ISPS Code. It includes the STCW Table A-VI/5, as previously discussed and it states that the course must meet these requirements. It also references the SSO model course outline as beneficial and it recommends that course instructors complete the IMO train-the-trainer course, which is also based on the model course outline.

Transport Canada provides its own course outline that is to be followed for the design of the course and for submission for approval. Interestingly this outline does not follow the IMO model course for the SSO but rather the CSO course outline. The Transport Canada standards cover all of the major topics and sub-topics as listed in the CSO model course. Additionally it requires an 18 hour course, as does the CSO model course, versus the 12 hours required in the SSO model course. It does juggle some time requirements within four of the eleven sections but with the total hour number intact. This is just one example of interpretation of IMO certification requirements for the SSO and no doubt there are many other varying examples.

Combining the Courses

The quick development and implementation of the ISPS Code is at the root of many of the problems associated with the new world order of a systematic maritime security regime [Anstey 12]. The ISPS Code; the three separate IMO model course outlines; the IMO guidelines for the CSO and the PFSO; the STCW requirements for SSO; and the varying national interpretations of these requirements have all contribute to the confusion associated with maritime security training. This confusion extends not just to administrations but also to industry stakeholders and to training providers.

The introduction of the ISPS Code abruptly forced MET institutions into the field of security training-one with which many were not that comfortable. The uncertainty as to exactly what knowledge is to be imparted has also created confusion. However it must be reinforced that it is the ISPS Code that has created and defined the CSO, SSO and PFSO. It has also outlined training requirements for all three positions. The analysis of these requirements, as previously outlined, has shown the commonality that exists between each of the three positions. Many of the topics to be covered are found to be general in nature and are to be specifically applied by the student to the ship or port facility according to the nature and location of the operation as may be applicable. An examination of the topics covered for each of the three positions demonstrates the necessity for the entities to work together to create a strong security framework particularly during the ship-port security interface. Part B of the ISPS Code reinforces this by cautioning that even if the reader's interest relates to the ship or to the port facility alone that it is strongly recommended that they read the Code in its entirety to understand the relationship required with the other.

There is also the possibility that a person occupying one of these three positions may move into one of the others. In fact the guidance for CSO and PFSO training identifies precisely this eventuality. The guidance for PFSO training states that training objectives and KUPs are common for all three positions and instructs contracting governments to take this into account when setting criteria for any re-training or assessment. Similar advice is given in the guidelines for the CSO training.

A logical conclusion would be that one Maritime Security Officer Course (MSO) that subsumes the requirements of the current three positions may be the answer. Some, of course, may argue that port operations are drastically different than ship operations and such a course would not address this issue.

However the training as currently provided is not necessarily addressing this either. When following any of the guidance, courses are in reality raising security awareness. Lessons learned are then expected to be applied to the security officer's environment, whether it is at a port facility or on board the vessel. In fact that has to be the baseline. Even within for example port operations there are many variations, specialties, and locations which cannot be covered in a course where there are many persons from varying port facilities. The same problems would arise within a course for the SSO or CSO.

The MSO Course would have the further advantage of each person sharing experiences and concerns from their positional perspective. This would contribute to each having a better understanding of the others operational problems and solutions. By way of example, one current security topic is often the 'criminalization of the seafarer'. Does each entity always understand the problem of the other? Is the PFSO aware that crew members may be on board the vessel for lengthy contracts and only infrequently be able to avail of shore-leave? Do vessel personnel understand the port facility security requirements under the ISPS Code and national regulations?

A common course will also alleviate scheduling and cost concerns. MET institutions currently struggle with anticipating and providing the appropriate security courses as required by industry. Industry has the reciprocal problem of finding the appropriate course and at a time when crews or personnel are available to enroll in them. A common course will allow more offerings of the same course which allows more flexibility and greater likelihood of higher enrolment. As with any industry MET institutions are required to provide not only an effective product but also an efficient one. For example the provision of a training course for each of the PFSO, CSO and SSO positions and with only three students in each is obviously not as efficient as one common course with nine students. Cost is a concern not only for industry but also for MET organizations, which also operate with limited resources.

The IMO model course outlines should also be used as the basis for this combined course. The review of the three outlines has shown the commonalities that exist. They also mirror the training requirements as specified in the ISPS Code. Moreover, these course outlines are currently referenced in the CSO and PFSO guidelines; the STCW stipulations for the SSO, and even some national provisions as evidenced in the Canadian example. This at least demonstrates widespread awareness and usage of these documents. No doubt changes would be required to ensure they were to be reflective of the combined course.

A common MSO course will also produce uniformity in course length and with greater likelihood of mutual acceptance by signatory states. The IMO model course for the SSO identifies a two-day course while the PFSO and CSO courses are each designated as three-day courses. Lloyd's Register [13] currently offers a three-day combined SSO/CSO course, as approved by Denmark; a four-day CSO course, as approved by MCA; and a three-day PFSO course. Currently Transport Canada mandates a three day SSO course. There is little wonder that courses as offered and approved in one jurisdiction are not recognized by other jurisdictions! It is hoped that this further streamlining of course requirements would result in easier acceptance of training across administrations.

CONCLUSIONS

The IMO has a mandate, albeit generally untested, which allows it to deal with all matters related to shipping – even those not directly and specifically aimed at vessels. The organization has used this expanded interpretation of its mandate to formulate the ISPS Code and hence create the port facility and the shore based positions of PFSO and that of CSO. It is understood that the IMO, through the STCW, is required to set the standards for training and certification for the international shipping community. By failing to set mandatory standards for the IMO created positions of CSO and PFSO the organization has reneged on its responsibilities in this matter. By formulating only guidance for these two positions it has created confusion through the varying degrees of application by the international community. Any guarantee that training is uniformly provided and monitored, at a level that ensures the co-operative

security framework, and as demanded by the ISPS Code, is questionable. There is no one answer for marine security training, but the combination of the security officer courses, using the model course outlines as the basis for such training, into a comprehensive MSO course would be a start. In time a revision of ISPS Code security training requirements and resultant IMO model course amendments may be necessary, but for now a mandatory MSO course would be of benefit to both industry and MET.

References

[1] Özçayir, Z. O., *Port State Control, second edition,* Informa Publishing Group Ltd: London, 2004, p. 37.

[2] IMO, *About IMO- Introduction to IMO.* IMO Newsroom. http://www.imo.org/About/mainframe.asp?topic_id=3.

[3] IMO, *International Ship and Port Facility Security Code,* 2003 edition, International Maritime Organization; UK, 2003, p. 6.

[4] IMO, *IMO Model Courses.* http://www.imo.org/humanelement/mainframe.asp?topic_id=292

[5] IMO, *Model Course- Company Security Officer (Draft),* International Maritime Organization: UK, 2003, Acknowledgements, p. i.

[6] Sub-Committee on Standards of Training and Watchkeeping, *Report to the Maritime Safety Committee- 38th Session.* IMO. 2007, p. 13. http://www.iamu-edu.org/pdf/(STW38-Report)17.pdf.

[7] Maritime Safety Committee, *Guidelines on Training and Certification for Company Security Officers,* IMO, 2005. http://www.marad.dot.gov/documents/MSC_Circ_1154.pdf.

[8] Maritime Safety Committee, *Guidelines on Training and certification for Port Facility Security Officers,* IMO, 2006. http://www.un.org/sc/ctc/pdf/1188.pdf.

[9] Maritime Safety Committee, *Amendments to Part B of the Seafarers Training, Certification and Watchkeeping (STCW) Code,* IMO, 2006. http://www.imo.org/includes/blastDataOnly.asp/data_id%3D14730/9.pdf.

[10] Maritime Safety Committee, *Resolution MSC.209 (81)- Adoption of Amendments to the Seafarers' Training, Certification, and Watchkeeping Code (STCW Code), IMO. 2006.* http://www.mpa.gov.sg/sites/circulars_and_notices/pdfs/shipping_circulars/sc07-12f.pdf

[11] Transport Canada, *Recognition Program for Approved Ship Security Officer Training- Submission Requirements and Course Standards.* Minister of Transport Canada, 2007.

[12] Anstey, F. A., *The Fast-track to ISPS Code and National Security Regulation Implementation and the Implications for Marine Educators.* IAMU Journal Volume 4, No. 2. 2006.

[13] Lloyd's Register, *List of Public Training Events for 2009,* Lloyd's Register; UK, 2009. http://www.lloydsregister.dk/Files/Schedule2009.pdf.