

Development of Internet-Enabled Training



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6/9/2011

This document is intended to provide a framework for the development of training to be delivered over the Internet.

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Revisions

Serial	Date	Change	By	Authority
01	05 Sep 2011	Initial draft	A McDougall	TOR

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Intent

1. The purpose of this document is to provide guidance with respect to the development of training intended to be delivered over the internet.
2. The guidance provided by this document is also intended to serve as a guide with respect to quality assurance steps to be taken with respect to the development of internet-enabled training.

Background

3. Within the maritime security domain, personnel must be competent and capable in the tasks that they are assigned or otherwise undertaking.
4. The training of personnel must be considered more than an issue of regulatory compliance. It must be based upon the following:
 - 4.1. Ensuring that the individuals conducting the tasks are protected against physical or mental harm;
 - 4.2. Ensuring that the organization offering the training has a reasonable expectation that the goals of the training will be met and can be applied in all reasonably foreseeable operating environments;
 - 4.3. Ensuring that those in proximity to the task are not placed at undue risk in terms of personal injury, injury to property, disruption of business or other forms of injury; and
 - 4.4. Ensuring that social issues and concerns are properly addressed and reflective of the appropriate Treaties, Conventions, Laws, Regulations or other cultural / social norms.
5. While the provision of internet based training does provide certain advantages with respect to costs, it must be understood that it is not always suitable for all material. This has been found to be true with respect to the following:
 - 5.1. Practical training where the individual is being expected to develop skills and where there is a need for the supervision of the individual in order to ensure that tasks are performed appropriately, completely and accurately; and
 - 5.2. Theoretical training where there is a need for significant interaction between the candidates and the instructor.

Coming into Force

6. This document will come into force upon its publication, currently set as being 10 Sept 2011.

Certification, Training and Awareness

7. The Association will clearly distinguish between certification, training and the making of persons aware (awareness). These are defined as follows:

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- 7.1. **Certification** – the communication of knowledge, the testing of an individual against that body of knowledge and the verification of experience relevant to that knowledge to give an assurance that the individual possesses the necessary knowledge, skills, abilities and experience to take on a specific kind of task;
 - 7.2. **Training** – the communication of knowledge and the testing of an individual to give an assurance that an individual possesses the relevant knowledge pertaining to a specific subject; and
 - 7.3. **Awareness** – also referred to as “familiarization” training involves the communication of information and *may, or may not*, involve testing to determine if the individual does possess the knowledge at the end of the awareness session.
8. The Association will require that the course clearly indicate whether or not the individual is “certified”, “trained” or “considered familiar” on the document issued to the candidate.
 - 8.1. The instructor has a degree of discretion with respect to the level of document being issued in that the instructor may decide to design course that offers a level of instruction above and beyond that normally required by regulators or industry practices
 - 8.2. The onus is on the instructor to have conducted any checks with respect to the history or experience of the individual where certification is involved; and
 - 8.3. The instructor also has a degree of flexibility with respect to the level of document being issued in that the instructor may, based upon his or her professional opinion and not on any discriminatory grounds as described in the United Nations Universal Declaration of Human Rights, opt to issue a document that does not indicate that the individual is certified but rather trained. This applies in situations where, in the professional or expert opinion of the instructor, the performance of the candidate points to the candidate not performing as would be reasonably expected by the candidate’s past experience.
 9. Where an individual is being considered as “trained” or “certified”, the organization offering the training must indicate the period for which the training or certification is considered valid. The period defined will describe the period during which the individual would not require additional or supplemental refresher training in order to remain current.
 - 9.1. It is anticipated, given the current climate of maritime security doctrine, that a period of certification would not exceed a period of two years for certifications that do not include the requirement to maintain the currency of the knowledge through continuing education or five years where such measures are included.
 - 9.2. Similarly, the certification upkeep period may be adjusted by the issuing authority (Submitter) where, in the opinion of the Submitter and the representative of the Association, there have been significant changes that warrant refresher or upkeep training.

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Constitutional Authority

10. The Constitutional Authority for this activity lies in Section 5(c) of the Constitution, associated with Training, Competence and Lifelong learning. This includes both the development of a sufficient depth of expertise and broader comprehension of issues within the maritime security domain.
11. The oversight of this effort being a Director drawn from the Membership is consistent with Section 8 (d) (v).
12. This standard is consistent with the process associated with the Vetting of Training.
13. The development of this standard is consistent with the requirements of the Core Operating Staff, particularly that of the Chief Quality Assurance Officer and the Chief Professional Development Officer.

Constraints on those Developing Training

14. All persons developing training intended for internet-enabled delivery must be competent in the subject matter being delivered. Competence is defined as being able to demonstrate advanced knowledge, skills or experience through certification or other credible third party attestation.
15. All persons involved in the development of the training must indicate that they are bound with respect to ensuring that appropriate and reasonable care is taken with respect to the protection of sensitive or proprietary information. This includes the reputation of any entity's reputation or brand.
16. All developed material shall have an official copy made and held in such a way as to prevent unauthorized additional, modification, or deletion. An updated official copy shall be made upon the updating of the material.
17. The Submitter must agree to hold harmless the Association with respect to any losses or injury where the Association can demonstrate that it has taken reasonable steps with respect to the development and delivery of the material.

Core Tasks

18. The Executive of the Association shall maintain this process and publish it to ensure full transparency in the process.
19. The Executive of the Association shall, as appropriate and able, maintain a means of delivering training to its membership.
20. The Executive shall canvas its membership, partner or friendly associations and the industry (in order of priority) in order to increase the availability of credible training.
21. The Director responsible for this effort shall ensure that those involved in the development of training adhere to the principles and requirements of this standard.
22. The Director responsible for this effort shall, as appropriate and necessary to ensure the quality of the training, consult with the certification or technical committees (as appropriate to the subject).

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23. A second member of the Executive shall review the final package prior to deployment in order to ensure that all steps in the development have been clearly documented and appropriately completed.

Determination and Identification of Need

24. The development of internet-enabled training may be considered needed in the following circumstances:
- 24.1. There is a need to distribute the training beyond the reach of competent instructors;
 - 24.2. There is a need to realize cost savings in order to allow for any training at all; or
 - 24.3. There is a need to deliver the training across a broad community within a timeframe that cannot be met by instructors.
25. Before undertaking the development of eLearning training where the above conditions cannot be clearly met, all Full and Associate members of the Association shall be canvassed to determine if such training exists within the Association that may be made available following the Vetting of Training process.

Determination of Expertise and Professional

26. The determination of expertise will be based upon the criteria used to establish expertise in the courts. While there is a level of subjectivity understood in this process, the assessment must be based on clearly demonstrable grounds:
- 26.1. Formal education from accredited institutions that deliver that training normally;
 - 26.2. Certification by professional bodies (not business interests);
 - 26.3. Experience directly in the matter being discussed; and
 - 26.4. Recognition by peers that the level of knowledge being communicated is beyond the average.
27. The determination of the concept of a professional shall be based upon the following criteria:
- 27.1. Formal education or acceptance of a critically reviewed, peer developed body of knowledge;
 - 27.2. A demonstration that the individual is competent in that body of knowledge (certification);
 - 27.3. Confirmation that the individual follows a regime of continuous learning or upkeep of that body of knowledge;
 - 27.4. Verification that the individual practices or applies that body of knowledge (experience); and
 - 27.5. Confirmation that the individual's actions are subject to oversight by a body with no vested interest and an acceptable code of conduct and that the individual has not breached that code of conduct.

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Determining Suitability of Internet-Enabled Training

28. Training using this capability may be considered appropriate where the material is largely theoretical or can be explained to the individual without having to be physically present at the candidate's location.
29. Training using this capability must ensure that there is an appropriate level of interaction possible between the instructor, outside experts and candidates so as to ensure that candidates have an adequate opportunity to ask directed questions and receive specific answers.

Determining Suitability for eLearning

30. In this context, eLearning training refers specifically to training that is delivered through a presentation to the candidate followed by testing. By its nature, communications is from the presenter, through the presentation, to the candidate. The candidate then demonstrates that he or she can reiterate the core points presented in the presentation.
31. Due to communication being in one direction, this training is suitable only for training where individuals are being made aware of inflexible or set requirements.

Attribution of Work / Derived Works

32. Where training is developed based on the work of other persons, the training material must make reference to that previous work. Failing to give proper attribution for work is considered to be a violation of the Code of Practice.
33. Where another Member's work is being used as source material for training, it is considered to be a professional courtesy and practice for an arrangement to be made regarding the use of the work. This is, of course, above and beyond any legal or regulatory requirements that would reasonably be considered in force.

Development Process and Quality Checks

34. The development process shall take into account the need to integrate clear and measurable criteria for the purposes of determining the quality of the training and the quality of its delivery.
35. The checks required by the Association shall incorporate the following:
 - 35.1. The requirements communicated within professional certification;
 - 35.2. The requirements communicated within regulatory regimes;
 - 35.3. The recommendations communicated through industry-accepted best practices; and
 - 35.4. The recommendations developed through the critical thinking and peer review of demonstrably competent professionals.
36. No requirement shall be blindly accepted. Each must be reviewed by competent persons to ensure that the specific details are appropriate.

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Development Process

37. The development process is as follows:
 - 37.1. The specific need within the industry is identified and confirmed by the Executive
 - 37.2. An individual is identified that meets the criteria associated with expertise to assist in the development of the course. This individual is referred to as the Developer.
 - 37.3. The level of effort is assessed by the Executive in consultation with the developer and, where required, any business arrangements are made. These arrangements are to include the following:
 - 37.3.1. an agreement on the level of effort,
 - 37.3.2. the maximum cost of the project and
 - 37.3.3. an assurance that the project will be completed.
 - 37.4. The course description form is completed by the Executive member and confirmed by the Developer.
 - 37.5. The course outline is developed by the Developer and confirmed, if appropriate, by the Executive. This may be done in bullet format.
 - 37.5.1. This includes the identification of key concepts and specific items that are critical to be answered appropriately.
 - 37.6. Course modules are laid out by the Developer, linking back to all of the key concepts and specific items critical to be answered appropriately.
 - 37.7. The course is developed by the Developer and confirmed as being appropriate by the Executive and an outside reviewer following the same criteria as used for the Vetting of Training.
 - 37.8. The course is mounted on the appropriate eLearning platform and a pilot course is run so as to confirm that the courses function as intended on the internet-enabled platform.
 - 37.9. A survey of those that have conducted the courses is taken, comments are collected and any improvements are made.
 - 37.10. Following these improvements being made, the course is deployed.

Development of Scoring Sheet

38. A scoring sheet may be developed for either a full course or a specific module within a course. The letter indicating endorsement must clearly indicate what is being considered to be endorsed.
39. Each specific claim or statement made in the training will constitute one line item on the scoring sheet and will be scored in accordance with the matrix below.
40. The scoring sheet for each module of training will include the opportunity for comments by those conducting the assessment. All statements made by those conducting the assessment must be fully attributable (name).

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Scoring of Checks

41. The following definitions apply with respect to *the source* of the information:
- 41.1. **Common Practice:** the material is based upon a commonly accepted practice within the industry and has not been commented upon negatively by an authoritative body (accepted practice);
 - 41.2. **Drawn from Guidance Material:** the material is based upon a commonly accepted *best practice* that has been published by a party with no vested interest in the training beyond being involved in the same subject;
 - 41.3. **Drawn from Expert Comment:** The statement by an individual meeting all the criteria defining an expert above (and free of any vested interest) that the statement is sound;
 - 41.4. **Drawn from Professionally endorsed:** The statement is included in an Association's body of knowledge, subject to peer review and periodic updating and supported by a community of experts.
42. The following definitions apply with respect to *the nature of verification or supporting documentation* pertaining to the statement made in the training:
- 42.1. **Cited** – The work includes a reference to the source of information that can be followed up upon by those conducting the check;
 - 42.2. **Documented** – The work includes a link or copy to the reference material from which it is drawn, allowing for the individual conducting the check to determine the specific statement and evaluate the context within which it was made;
 - 42.3. **Verified** – The work includes the reference and a statement made by an outside party (an expert) that the documentation or citation exists and is in use within an credible and trustworthy community that is subject to legal or similar oversight; and
 - 42.4. **Validated** – The work includes the reference and a statement made by an outside expert that the documentation or citation exists and that the reference is valid for the context in which it is being applied.
43. The scoring of the checks shall be based upon the following hierarchy:

	Common Practice	Guidance material	Expert Comment	Professional Endorsed
Cited	1	2	3	4
Documented	2	3	4	5
Verified	3	4	5	6
Validated	4	5	6	7

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Acceptable levels of Quality Assurance

44. With respect to the delivery of the content, all information must be presented clearly and concisely, including the context in which it is to be used.
45. All key questions and critical concepts are to be clearly identified and described explicitly in course material.
46. The validity of the content in the presentation is assessed using the scoring matrix. On the matrix, no particular item may score less than 3 and the average of all scores must be greater than 4.
47. In some cases, the work may be developed and presented as an acceptable standard. Accepted standards must meet all of the following criteria:
 - 47.1. Be developed through a consultative process involving experts and those affected by the standards;
 - 47.2. Be subject to critical review by those who can legitimately claim expertise;
 - 47.3. Be subject to oversight by a third party with no vested interest beyond the maintenance of the standard; an
 - 47.4. Be subject to periodic reviews.
48. The determination that a standard is pertinent sets a precedent for future use, but only in the same usage and context. A list will be maintained and published on the Association website for those seeking reference materials to use when developing further training. Where reference material must be purchased, it is the responsibility of the Submitter.
49. With respect to testing, all questions and answers must be drawn from the material as presented to the candidate. This includes the following:
 - 49.1. For familiarization or awareness training, the question must be drawn from the main teaching point and the answer must be drawn from the slide associated with the main teaching point.
 - 49.2. For training or directed eLearning, the question must be based upon the objectives of the course. The response to the question must be presented using concepts presented in the course and based upon material found in any appropriate readings, presentations or other material to which the candidate was directed to have contact.
 - 49.3. For each question, criteria associated with the correct answer must be set before the testing. This shall be the basis of the marking scheme.
 - 49.4. For any method that involves a series of multiple choice questions, an adequate bank of questions shall be created so that there is at least one question per two slides presented in the test and number of questions selected for the test shall make up more than 75% of the total number of questions available for the test.

Testing Outcomes

50. Where individuals are being considered trained, they must undergo testing.
51. The outcomes of testing are the following:
 - 51.1. **Pass** – where all the testing criteria have been met;

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- 51.2. **Fail** – where the testing criteria were not met.
- 51.3. **Pass with limitations** – where the candidate meets the minimum criteria but fails to answer key questions appropriately or fails to grasp an identified critical concept.

Costs to Maintain Endorsement

- 52. All costs associated with the development of course material must be identified and agreed to at the start of the process
- 53. The Association is to be able to recover its portion of the development costs as part of the operating costs of the course when first issued. The recovery of these funds is to be done in a manner that is respectful of the Developer's return on investment.
- 54. Following the recovery of all developmental costs, the Association is to be able to recuperate reasonable costs associated with the provision of infrastructure up to (but not necessarily) a total of 50% of the total gross income of the offering.

Use of Logos

- 55. The use of logos is covered under the *Use of Logos* policy covered on the Association website.

Reporting and Returns

- 56. Annually, based on the date of development, the Developer and Association must report the following:
 - 56.1. Any changes made to the course material;
 - 56.2. The number of participants that have taken the course; and
 - 56.3. Any comments regarding the utility of the vetting / endorsement process.
- 57. Where a report is determined to be deliberately misleading, it is considered to be a clear violation of the Code of Practice and will automatically result in the removal of all endorsements and privileges of the individual.

Revisions

- 58. This document is subject to annual review by the Board of Directors and Core Operating Staff.
- 59. The next review is anticipated to be in September 2012.

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Appendix A – Course Description Form

Name:	<i>Enter the name of the course as it would appear on a certificate</i>		
Course Serial	<i>Enter the serial number of the course</i>		
Duration	<i>How many hours of instruction?</i>	Current Version:	<i>Version number</i>
Description	<i>What does the course intent to address? What are the main teaching points that will be included and how will they be delivered? How will the candidate be tested?</i>		
Need	<i>What need is being addressed specifically through this training? Cite specific references</i>		
Pre-Requisite	<i>Identify all pre-requisites</i>	CEC's	<i>1 per hour of effort</i>
Level	<i>Basic / Intermediate / Advanced</i>	Refresh	<i>Must renew every...</i>
Changes and Updates			
Date	Made by	Checked by	Comments
Author	<i>Name of the developer</i>		
Credentials	<i>List all relevant education, certification and experience</i>		
Company	<i>Company name</i>		
Contact	<i>Email</i>		

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Appendix B – Module Lesson Plan

Serial	Course Name	Module Name	Instructor Name	Version

Objectives:

1. **Performance Objective:** *Using an action verb, what is to be performed in this module? For example, demonstrate, through explanation, how a barrier delays a potential attacker.*
2. **Evaluation Objective:** *Using concise and measurable nouns, describe what the candidate must show in order to meet criteria. For example, list the five core principles associated with...*
3. **Conditions**
 - 3.1. **Provided**
 - 3.1.1. *List the first item provided*
 - 3.1.2. *List the second item provided*
 - 3.2. **Denied**
 - 3.2.1. *List the first item that they will not be allowed access to*
 - 3.2.2. *List the second item that they will not be allowed access to*
4. **Standard** – *Describe any particular sources or standards of information to be used.*
5. **Major Areas** are used to describe the main teaching points that are to be presented in the module. These will be the basis for testing.

Major Areas	
<i>Topic 1</i>	<i>Description</i>
<i>Topic 2</i>	<i>Description</i>
<i>Topic 3</i>	<i>Description</i>
<i>Topic 4</i>	<i>Description</i>
<i>Topic 5</i>	<i>Description</i>

6. **Type of Test** – *Indicate the type of testing and the number of questions.*
7. **Instructional Aids:** *Identify any materials to be used as reference material.*

