



MARITIME INSTITUTE OF TECHNOLOGY AND GRADUATE STUDIES-PACIFIC MARITIME INSTITUTE

TUG TRAINING MATRIX

Tug Training Programs: Simulation

ADVANCED ESCORT TRAINING

Duration: 1–3 Days
Full Mission Simulation

PMI has been actively involved in numerous Escort Training Scenarios. From 3-Day Escort Team Training in cooperation with Pilots, Ship Officers and Tugboat Officers to 1-day Escort Training Scenarios for individuals assuming Escort Responsibilities.

Escort Training may include but not be limited to:

- BRM principals and practices during escort operations
- Review of Escort Operating Policies and Procedures
- Escort tug configurations and capabilities
- Escort techniques
- Emergency response and procedures

Call for Towing Escort Solutions.

ADVANCED RULES OF THE ROADS – SIMULATION

Duration: 1 Day
– Full Mission Simulation

This course focuses on the ambiguous areas of the Rules; the gaps and the overlaps. These are the areas where misunderstanding, confusion, and collisions may occur. This course will focus on the best courses of action in these uncertain areas, not only from a legal point of view but, more importantly, from the aspect of safety. You will learn to recognize these obscure situations and take early action before they become a problem. Our focus will always be: what is the safest decision to make in this situation?

The course is set up as four simulated scenarios drawn from real-world experiences and case law. Attendees will con the vessel in the Full Mission Tug simulator and following each scenario, there will be a debriefing and discussion session. While the legal implications of various courses of action will be presented, please note this is not an admiralty law class.

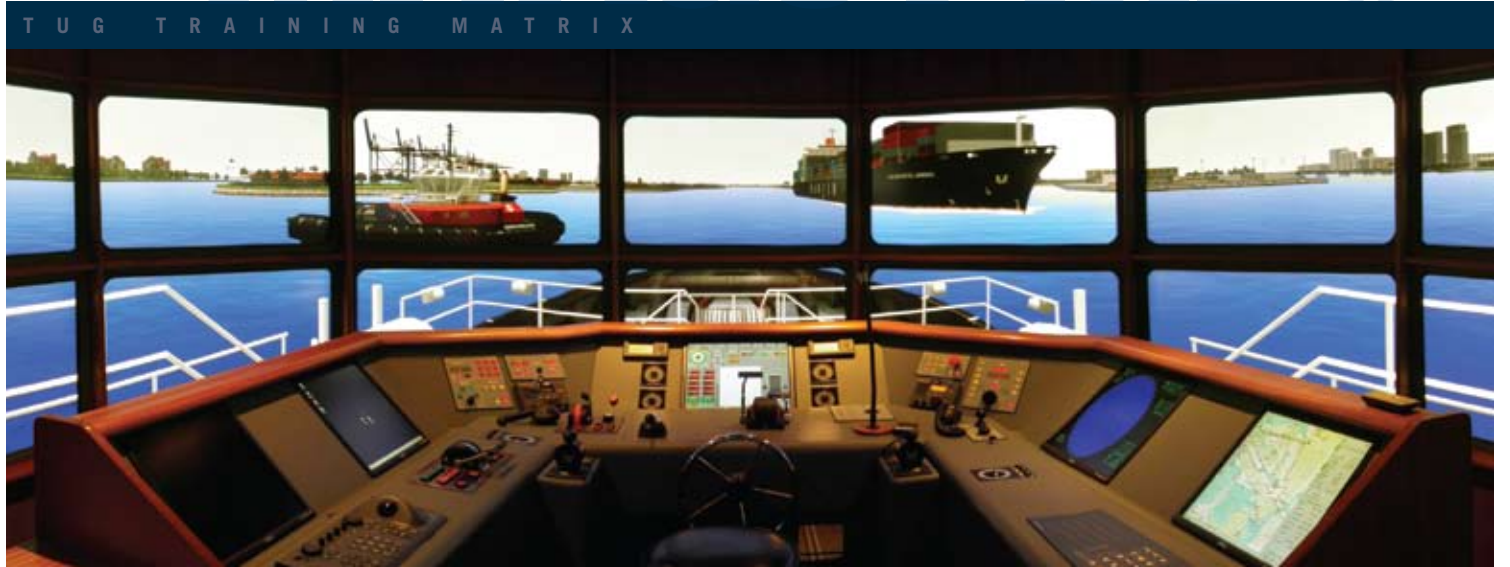
BRIDGE RESOURCE MANAGEMENT REFRESHER (BRM-R)

Duration: 1–3 Days
– Full Mission Simulation and/or
Electronic Navigation Lab

This seminar is specifically designed to discuss and review Inland and International Rules that have the greatest impact on pilotage. Special emphasis is placed on recent case studies where improper interpretation of the International Regulations for Avoiding Collisions at Sea (COLREGS) resulted in collisions or groundings. Please note that this course may be brought offsite to any customer-specified location that has training facilities.

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EMERGENCY TUG & BARGE HANDLING / BRIDGE RESOURCE MANAGEMENT (ETB-BRM)

Duration: 3 Days
Full Mission Simulation

The focus of this 3-day course is on improving and recognizing situational awareness, risk assessment and knowledge/experience as critical elements in promoting strong decision making skills. This is accomplished through intense scenario based training utilizing classroom and simulation exercises to include high stress operational situations with the addition of casualties.

MASTER OF TOWING VESSELS – RENEWAL

Duration: HALF-DAY
Full Mission Simulation

This practical demonstration of competence is primarily for Masters of Towing Vessels whose Masters of Towing Endorsements is either up for renewal or has expired. This program may also be used to get signed off on the maneuvering tasks within the Towing Officer Assessment Record, for those individuals who do not have the opportunity to prove competence in those areas aboard a vessel. These practical demonstrations of competence are done with the latest in simulation technology in front of an experienced Designated Examiner.

NAVIGATIONAL SKILLS ASSESSMENT PROGRAM (NSAP)

Duration: 1–2 Days

This program has been utilized by many pro-active organizations to assist them in defining the areas of Competence and Skill Gaps and/or Strengths within their Organization. This comprehensive evaluation program utilizes simulation to identify and quantify performance in the following areas:

- Voyage planning
- COLREGS
- Situational Awareness
- Compliance with policies and procedures
- Boat handling/piloting
- Resource management
- Prioritization and multi-tasking
- Communications

Upon completion of the NSAP the company is provided with a report which visually graphs the results of the evaluations. This information is then utilized to build training solutions to address the areas of improvement or to focus on strengthening the skills of those individuals who show aptitude for promotion.

NEW HIRE ASSESSMENT

Duration: 1 Hour
Full Mission Simulation

This 1-hour simulation assessment is utilized by numerous companies as an additional step in the process of hiring individuals for the wheelhouse. This comprehensive evaluation program utilizes simulation to identify and quantify performance in the following areas:

- Voyage planning
- COLREGS
- Situational Awareness
- Compliance with policies and procedures
- Boat handling/piloting
- Resource management
- Prioritization and multi-tasking
- Communications

Please note that this course is customizable and can be adjusted to better meet the requirements of the position.

TOWING OFFICER ASSESSMENT RECORD SIMULATIONS (TOAR-SIM) CUSTOM TAILORED FOR CLIENT

Full Mission Simulation

This simulation program is utilized to complete the maneuvering tasks within the Towing Officer Assessment Record, for those individuals who do not have the opportunity to prove competence in those areas aboard a vessel.

These practical demonstrations of competence are done with the latest in simulation technology in front of an experienced Designated Examiner.

Z-DRIVE / TRACTOR TUG TRAINING

3 Days
Full Mission Simulation

This course is primarily for experienced workboat officers that have little or no experience with ASD Z-Drives. This course combines lecture, simulation and a comprehensive Z-Drive Workbook over a three day period.

Course Subjects

- Principles of Z-Drive Tug Design
- Z-Drive Mechanical Systems
- Principles of Z-Drive Tug Maneuvering
- Fundamentals of Light Tug Handling
- Communications
- Troubleshooting
- Fundamental barge maneuvers
- Light Tugs Maneuvers, with or w/o current
- Z-drive Competency Evaluation

AUTOMATIC IDENTIFICATION SYSTEMS ORIENTATION (AIS)

1 Day
Electronic Navigation Lab

ELECTRONIC NAVIGATION LAB

This is a 1-day orientation course on Automatic Identification Systems. All international sailing merchant mariners will shortly have to contend with this new system as it is installed on the bridge. The seminar is designed to acquaint the attendee with the technologies that make up the AIS and expose the attendee to the advantages and possible problems a professional mariner may encounter with the equipment. When AIS is combined with the electronic chart technologies, it can potentially provide the watch officer with an icon for every significant ship within radio range, display the vessels' indicating speed and heading, reflect actual size, name, classification, call sign, registration number, and other important information. There is no prerequisite for this seminar.

TUG TRAINING MATRIX



AUTOMATIC RADAR PLOTTING AIDS (ARPA)

4 Days

Electronic Navigation Lab

The goal of this 4-day STCW-95 required course is to train deck officers and pilots in the proper use of ARPA. The curriculum exceeds IMO requirements. "Hands-on" simulation is conducted on the latest Transas Simulation Software, NaviTrainer 5000. The successful completion of the course entitles attendees to an STCW ARPA Certification.

ELECTRONIC CHART DISPLAY & AIS (ECS / AIS) OVERVIEW

2 Days

Electronic Navigation Lab

This networked with the instructor and blind bridge simulators. Please note this is not a complete ECDIS course. This two day program also incorporates many elements from the AIS Course. – Electronic Navigation Lab 2-day training course in the operational use of ECDIS is designed to enhance the safety of navigation by providing familiarization and an introduction to the basic skills necessary to utilize the features of ECDIS. The training and assessment incorporates the use of live marine ECDIS equipment.

ELECTRONIC CHART DISPLAY & INFORMATION SYSTEMS (ECDIS)

5 Days

Electronic Navigation Lab

This USCG approved ECDIS course is 35-hours in duration and is designed to enhance the safety of navigation by providing the knowledge and skill necessary to fully utilize ECDIS. Conforming to IMO Performance Standards for ECDIS, the course incorporates live marine ECDIS equipment, networked with the interactive blind bridge simulators. Class size is limited so there will be only one mariner per workstation and no more than two mariners working in rotation on the ECDIS bridge simulation.

The program utilizes the Transas Marine NaviSailor software and meets IMO performance standards. NaviSailor includes additional functions; such as integration of AIS targets, display of tide, current and wind data, weather information options, and military information layers

RADAR OBSERVER PROGRAM UNLIMITED (ROP-5)

5 Days

Electronic Navigation Lab

The goal of this course is to train attendees in the proper use of radar for risk assessment, collision avoidance, and navigation. The curriculum exceeds USCG and IMO requirements for radar training. "Hands-on" simulation is conducted in the Institute's unique six-ship interactive radar simulator.

RADAR OBSERVER RENEWAL PROGRAM (ROR-1)

1 Day

Electronic Navigation Lab

This course is a 1-day program designed for those who need to renew their USCG radar certificate.

VOYAGE PLANNING AND SITUATIONAL AWARENESS (VPSA)

1 Day

Electronic Navigation Lab

The goal of this 1-day program is to provide trainees with knowledge, understanding, and proficiency in appraising and planning a voyage, in executing the voyage plan, in utilizing the plan in simulation exercises to enhance situational awareness, and to emphasize the importance of Bridge Team Management. The program stresses the significance of thorough voyage planning in maintaining situational awareness and preserving the safety of navigation.

CLASSROOM INSTRUCTION

ABLE SEAMAN (AB)

5 Days
Classroom

This 5-day course is designed for mariners at the entry-level position. It provides the knowledge, understanding and proficiency to work safely and efficiently aboard today's merchant vessels. Marlinspike seamanship proficiency is demonstrated by actually tying various knots, bends, hitches and splices.

ASSESSOR TRAINING FOR TOWING VESSEL OPERATORS (ATS)

4 Hours
Classroom

This short, but effective training course prepares your Mates and Masters for conducting onboard assessments as required by the Towing Officer Assessment Record (TOAR) introduced in NVIC 4-01.

The TOAR contains an extensive list of required assessments that prospective towing vessel officers must complete before they can qualify to operate a towing vessel. The responsibility of assessing and signing the TOAR falls on the qualified and experienced towing vessel Mates and Masters. Participation in our Assessor Training course will provide successful assessment strategies and alleviate some of the concerns and apprehensions your officers may have with their new responsibilities. Dr. Alice Barnes, co-author of Conducting Mariner Assessments; which was written for the USCG, developed this course exclusively for MITAGS/PMI. The program includes the following training areas:

- The Purpose of Conducting Assessments
- The Role of the Assessor
- The Process of Conducting Assessments
- Strategies for Conducting Assessments

Role-play exercises are used to reinforce the strategies for conducting assessments and help to answer any questions on assessment requirements or techniques. The USCG has accepted this course as suitable training in assessment methods for mariners wishing to serve as Designated Examiners for towing vessel license and endorsement candidates.

BASIC SAFETY TRAINING STCW (BST)

5 Days
Classroom

This course is required by the STCW'95 Code for all mariners with safety or pollution control duties. BST combines all four elements of basic safety into a 5-Day program. Training modules may be taken individually depending on attendee's needs. This training must be renewed every five years. The individual modules are as follows:

- (MED-ELAID) ELEMENTARY FIRST AID (1 DAY),
- (PSSR) PERSONAL SAFETY AND SOCIAL RESPONSIBILITY,
- (FF-FPFF) FIRE PREVENTION AND FIRE FIGHTING (2 DAYS),
- (PST) PERSONAL SURVIVAL TECHNIQUES (2 DAYS).

BASIC WEATHER

5 Days
Classroom

This course is required for Able Seamen upgrading to Mate 200GRT or higher. It provides students with the knowledge of the characteristics of various weather systems, reporting procedures and recording systems. Additionally, attendees will be able to use and interpret information obtained from shipboard meteorological instruments.

CONTINGENCY PLANNING

1 Day
Classroom

This one day, 7 hour workshop will introduce the attendee to the concepts of contingency planning and emergency management using NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity Workshops. An attendee successfully completing the Contingency Planning workshop will be able to: - List the steps in the Emergency Management Process, - Describe methods to mitigate potential risks, - List the components of preparedness to include, but not limited to planning, coordination with other agencies, training and drills, - Describe actions when responding to an emergency and - Describe considerations in the recovery process. There is no prerequisite for this workshop.

CREW ENDURANCE COACHES TRAINING (HF-CEM)

2 Days
Classroom

USCG Crew Endurance (CE) Coaches Training is designed to provide commercial mariners at the management and vessel level with the knowledge and skill to develop, deploy, and assess a Crew Endurance Management System (CEMS) within their companies. The Crew Endurance "Coach" is critical to the success of Crew Endurance Management System implementation within any organization.

DESIGNATED DUTY ENGINEER PREP (DDE LICENSE PREP)

10 Days
Classroom

This 10-day, 70-hour course of instruction is designed to provide unlicensed members of the Eng. Dept. with knowledge and understanding of the U.S.C.G. DDE Exam subjects. Topics covered include the use of hand tools and measuring instruments, firefighting, piping systems, safety precautions, combustible fuels, boilers, electrical safety and theory, engine room auxiliaries, damage control, pollution laws and regulations, ship construction, principles of refrigeration, hydraulics, filters and strainers, motor plants, pneumatics, pumps, steering gear, deck machinery and air compressors. DDE endorsements are issued in three levels of horsepower dependent upon the total service, and completion of the appropriate exam modules. They include: DDE Unlimited HP: 1080 days with 540 days as a QMED. QMED DDE 4,000 HP: 720 days with 360 days as a QMED. QMED DDE 1,000 HP: 360 days with 180 days as a QMED.

ELEMENTARY FIRST AID (BST-MED-ELAID)

1 Day
Classroom

This course is designed to train all seafarers in providing life saving first aid until the arrival of more highly trained medical personnel. It fulfills the standards of competency in Elementary First Aid as required by 46 CFR 10.205 (h) (1) (ii) and STCW-95 Section A-VI, Table A-VI/1-3. Through classroom lecture and use of anatomical mannequins, the attendee will demonstrate basic life support (CPR) for an adult victim, initial treatment for severe bleeding, initial treatment for severe burns, basic patient transport, and Automated External Defibrillator (AED) techniques.

ENVIRONMENTAL REGULATIONS SEMINAR

2 Days
Classroom

The principal objective of this course is to provide an overall awareness of the environmental issues facing the maritime community as well as specific information about the major environmental media impacted by vessel operations. Beginning with an introductory discussion of the environmental aspects and impacts of vessel operations, the course then provides a general overview of the regulatory framework under which vessels operate. The course proceeds through more specific issues and requirements relating the major environmental media (air, water, waste etc.) that are potentially impacted by vessel operations. This includes specific reference to the Vessel General Permit issued by the U.S. Environmental Protection Agency. The class concludes with an overview of potential regulatory and legal liabilities and a brief summary of Environmental Management Systems as a means of minimizing the environmental impacts as well as potential liabilities.

FATIGUE, SLEEP, & MEDICATIONS (HF-FSM)

1 Day
Classroom

This 1-day program will assist the attendee in understanding how medications, certain sleep patterns, and sleep disorders can decrease effectiveness or even potentially increase the risk of errors during transits. Basic information on sleep and fatigue will be presented. Participants will review several effects of some prescription and over-the-counter medications on performance and fatigue. Additionally, positive and negative utilization of caffeine as a stimulant will be discussed.

MARITIME MEDICAL TRAINING FOR THE TOWING OFFICER (MED-TO)

3 Days
Classroom

This program is offered in conjunction with Global Medical Systems. The class is an intensive 24-hour medical course that fulfills the U.S. Coast Guard license requirements for first aid and cardiopulmonary resuscitation training. This 3-day program focuses on the essential skills needed to save lives and prevent further injury and illness.

MEDIA RESPONSE

1 Day
Classroom

This one day, 7 hour workshop is designed to provide the attendee with the basic knowledge, skills and abilities for interaction with the news media during and after a crisis event. This is designed as a “hands-on” workshop. The attendee will be expected to participate in video taped, mock interviews. An attendee successfully completing the Media Response workshop will be able to: - Describe a communication model, - List the goals of crisis communications, - Describe effective communication techniques for the media and - Demonstrate effective communication techniques for responding to the media.

MEDICAL CARE PROVIDER (MED-PRO)

5 Days
Classroom

A one week course designed for licensed deck officers in order to provide immediate first aid to ship's personnel and to assist the Ship's Medical Person-in-Charge with providing definitive medical care. This course is established using guidelines provided by the International Maritime Organization, Standards of Training, Certification and Watch keeping for Seafarers (STCW).

MENTORING & ASSESSMENT PROGRAM (MAP)

1-DAY
Classroom

This 1-day program combines the Assessor Training for Towing Vessel Operators with an additional 4 hour Mentoring Module.

The primary objective of this additional module is to provide “Mentors” with practical knowledge and techniques to assist and enhance the ability to be an effective Mentor. This program was jointly developed by QSE and PMI.

MSC DAMAGE CONTROL (MSC-DC)

2 Days
Classroom

This two-day course is composed of a classroom phase followed by a practical application phase. The classroom sessions cover damage control investigation, communication, shoring, pipe patching, bulkhead plugging, and de-watering. The information learned during the classroom sessions is then reinforced in the application phase. Attendees perform as members of a damage control team to combat various types of shipboard damage, other than fire. The MITAGS course has been certified by the Military Sealift Command (MSC) as meeting MSC damage control standards and content requirements. Attendees should bring work clothes appropriate for working in a dirty environment. Attendees should bring work clothes appropriate for working in a wet environment.

RULES OF THE ROAD SEMINAR (COLREGS)

(1/2 to 1 Day)
Classroom

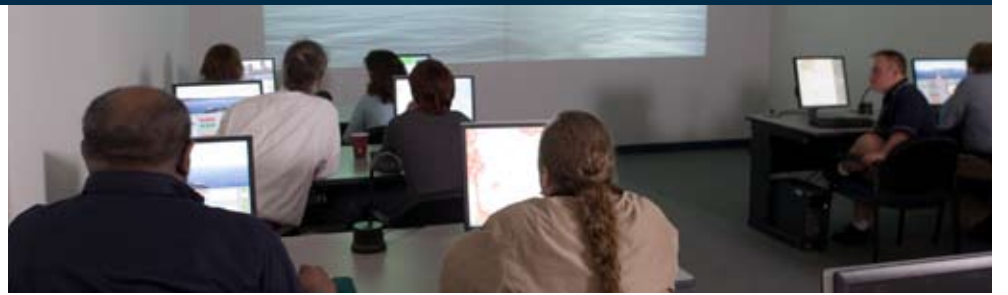
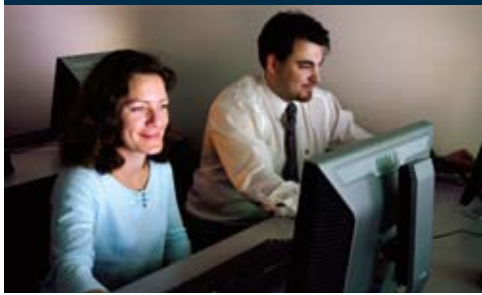
This seminar is specifically designed to discuss and review Inland and International Rules that have the greatest impact on pilotage. Special emphasis on recent case studies where the improper interpretation of the COLREGS resulted in collisions or groundings. The course may be brought to your location.

SECURITY OFFICER – VESSEL, COMPANY, & FACILITY (VCF)

3 Days
Classroom

This 3 day, 21 hour course of instruction is designed to provide instruction and proficiency in compliance with the International Ship and Port Security (ISPS) Code for Port Facility, Company and Ship Security Officers (PFSO/CSO/SSO). A candidate successfully completing the Port Facility, Company and Ship Security Officer program will be able to: - Describe recommended practices and procedures listed in current national and international regulations and policies regarding port and ship security. - Develop a risk analysis based on available threat analysis, intelligence information and national regulations and policies. - Identify characteristics and behavior patterns of persons who may be likely to commit unlawful acts. - Recognize and detect weapons, dangerous substances and devices - Identify common crowd behaviors. - Develop and implement a port facility and vessel security plan. - Demonstrate the elements of a security assessment and propose modifications to the existing security plan. - Demonstrate conducting physical searches of compartments, baggage and persons. - Identify the basic principles for implementing an incident command system. - Describe plans for managing on-going threats, to include theft, piracy and hijacking. - Identify types of security equipment usage & maintenance. - Describe instructional techniques for training the crew and employees regarding ship security and port facilities. Shipboard and/or port operational experienced is preferred.

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SUCCESSFUL SAFETY MANAGEMENT – A PRACTICAL PRIMER

1 Day
Classroom

This 1 Day workshop is an overview of important Safety Management topics that include: Safety and Environmental Policy; Competence and Training; Objectives and Targets; Designated Person Ashore; Master's Responsibility; Emergency Preparedness and Response; Nonconformance and Observations. The workshop is designed for all sectors of the maritime industry and is geared toward shoreside and vessel personnel alike. Dione Lee, with 20+ years experience in Safety Management Systems, will combine in-depth knowledge with a practical approach to provide a better understanding of the safety management process. This workshop is part of the Continual Improvement Workshop Series.

TANKERMAN PERSON-IN-CHARGE – BARGE (TPIC-BARGE)

5 Days
Classroom

This course satisfies the training requirements set forth in 46 CFR, Part 13 and STCW-95 Section A-V/1 for persons desiring to serve in the capacity of Person in Charge (PIC) aboard a tank barge carrying dangerous liquid cargoes. The information presented familiarizes the attendee with the operational practices, safety concerns, and pollution prevention requirements associated with barges operating in the oil and chemical service industry.

VESSEL SECURITY OFFICER TRAINING (VSO)

3 Days
Classroom

This 21 hour course of instruction is designed to provide instruction and proficiency required for personnel who are assigned responsibilities as Vessel Security Officer (VSO) to perform their duties in accordance with the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMO ISPS Code, and U.S. Coast Guard regulations contained in 33 CFR Chapter I Subchapter H. The course aim is also to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-VI/5 of the STCW Code and the mandatory training requirements in 33 CFR Part 104

COMPUTER BASED TRAINING

ASSESSOR TRAINING FOR TOWING VESSEL OPERATORS – COMPUTER BASED TRAINING (ATS-CBT)

Classroom

This Computer Based Training Module delivers the ATS course (above) on a DVD or through the MITAGS/PMI Learning Management System. All elements of the Assessor Training for Towing Vessel Operators 4 Hour Classroom Course is covered within this CBT.

The USCG has accepted this course as suitable training in assessment methods for mariners wishing to serve as Designated Examiners for towing vessel license and endorsement candidates.

ADDITIONAL INFORMATION

For additional information on MITAGS' Security Training Programs, please contact Captain Robert Becker toll-free at (866) 656-5569 or via e-mail at rbecker@mitags.org. You may also visit the MITAGS website at www.mitags.org.