

Naval Criminal Investigative Service Office of Intelligence

Commercial Maritime Shipping and Port Operations (CMSPO) Professional Development Training Program

Program Outline



Delex Maritime Analysis Center
Delex Systems, Inc.
13865 Sunrise Valley Drive
Suite 250
Herndon, VA 20171



Professional Development Course of Instruction

The National Strategy for Maritime Security September 2005

The infrastructure and systems that span the maritime domain, owned largely by the private sector, have increasingly become both targets of and potential conveyances for dangerous and illicit activities. Moreover, much of what occurs in the maritime domain with respect to vessel movements, activities, cargoes, intentions, or ownership is often difficult to discern ... Pg 2

Understanding the Commercial Maritime Operating Environment: The National Strategy for Maritime Security establishes as a matter of National Security Policy a comprehensive and focused framework of policy and planning guidance across a wide spectrum of marine activities world-wide. The National Strategy for Maritime Security recognizes the United States' dependency on global maritime trade as a fundamental enabler of the country's economic system and quality of life and reinforces the national security imperative involving commercial maritime trade and port operations. This policy guides United States Homeland Security and Defense at multiple planning and operational levels affecting activities across Federal, State, and local government as well as private industry. Every government homeland and national security professional involved in maritime security needs to understand the fundamentals of commercial maritime shipping industry and port operations.

Identifying the Training Need: The Naval Criminal Investigative Service's (NCIS) Office of Intelligence has identified a need to enhance functional levels of knowledge by employees who work in maritime security and defense programs so they better understand how the commercial maritime shipping industry operates. Such information is highly useful when planning and integrating investigations, analysis, and response operations effectively across the Federal interagency and at times with our military allies. However, training to obtain basic commercial maritime shipping industry knowledge is outside traditional Federal and State/local government law enforcement, first responder, and military training systems. This knowledge gap, combined with lack of organic training resources can result in a workforce susceptible to errors and increase safety risk because basic information on commercial maritime shipping and port operations is at times lacking. Professional development training for defense and security professionals on commercial maritime industry operations can rapidly and effectively close the knowledge and off-set this risk thereby strengthening confidence and improve mission effectiveness.



Law enforcement and intelligence professionals need to know this ship's operating environment in port and at sea to conduct effective defense and security operations.

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Closing the Gap: Delex has a proven record of providing unique program, training and exercise support to component agencies within the Departments of Defense, Homeland Security, and Justice. To help strengthen knowledge NCIS employee knowledge, Delex developed the Commercial Maritime Shipping Industry and Port Operations (CMPO) professional development training program in accordance with NCIS's specified requirements. This operational-level training is designed to inform appropriate NCIS employees and their invited interagency partners on relevant commercial maritime shipping industry business operations and port operations as a global enterprise.

Delex' Instructional Approach: This training program is an interactive blended-learning experience combining classroom presentations led by academic experts, private-sector maritime industry experts, government agency program managers with a functional port visit that re-enforces classroom learning. Designed to meet the specified requirements for NCIS, the CMPO professional development training provides students with operational-level knowledge of the commercial maritime shipping and port business sectors, including contemporary trends and drivers affecting the industry. The training also provides functional field visits to selected military and commercial ports so that classroom topics are witnessed first-hand hardening the training experience.

Curriculum development and delivery of CMPO training involves:

1. Continuous consultation between Delex training team and NCIS's program manager to ensure alignment and integration of learning objectives;
2. Dedicated support from national-level commercial maritime shipping and port operations industry experts;
3. Collaboration with Federal agency representatives responsible for domestic and foreign maritime and trade security programs to include the United States Coast Guard and the Customs and Border Protection Agency;
4. Positive learning environment – Classroom size is limited to 20 students per class to ensure close interaction between students and instructors;
5. Planning for Civilian and Military Port facility site visits in Hampton Roads, Virginia.

CMPOC Training Administration Data

1. Course Title: Commercial Maritime Shipping Industry and Port Operations;
2. Training Timeline: 6 - 17 Feb 2012;
3. Location: Classroom – Quantico, Va.
Port Visits – Hampton Roads, VA.
4. Service Provider: **Delex Maritime Analysis Center**
Delex Systems, Inc.
13865 Sunrise Valley Drive
Suite 250
Herndon, VA 20171
5. Delex POC: Mr. Stephen Austin, saustin@delex.com; 703-287-3381
6. Number of Students Seats Available: 20;
7. Curriculum:



- 1) Commercial Maritime Industry – An Intelligence Perspective
- 2) Commercial Maritime Industry Terms of Reference
- 3) Maritime Trade and its Significance to the United States Economy
- 4) Freight Markets and Cargo Commodities
- 5) The International Maritime Organization (IMO)
- 6) Vessel and Port Terminal Types and Operations
- 7) Cargo Documentation
- 8) Terminal Security Operations
- 9) Coastal and Harbor Pilots
- 11) Classification Societies
- 12) North American Shipping and Intermodal Logistics Systems
- 13) Port and Intermodal Operations Productivity
- 14) Port Development in North America
- 15) Vessel Ownership and Registry / Flag State & Port State Controls
- 16) Crew Licensing and Documentation
- 17) Bulk Shipping
- 18) Certificates
- 19) Dangerous Cargoes
- 20) Commander, U.S. Transportation Command (TRANSCOM)
- 21) Military Sealift Command (MSC)
- 22) Freight Logistics Management
- 23) Customs Brokers and Ship's Agents
- 24) Chartering and Brokering
- 25) Marine Insurance
- 26) Transportation Management in an International Oil Company
- 27) Maritime Law

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- 28) Maritime Unions
- 29) Global Piracy Threats
- 30) U.S. Customs and Border Protection Programs / National Targeting Center – Cargo
- 31) U.S. Coast Guard Foreign Port Security Programs
- 32) U.S. Coast Guard Domestic Port Security Programs
- 33) Military and Commercial Port Facility Visits
 - ~ Norfolk Naval Shipyard / Controlled Industrial Area
 - ~ Coast Guard Sector Hampton Roads
 - ~ Virginia Port Authority / Norfolk International Terminal
 - ~ Naval Station Norfolk / Port Operations
 - ~ Maersk Lines Terminal
 - ~ Military Sealift Command / Vessel Walking Tour

Course Syllabus

Block I – Classroom Instruction **37.5 Hours**

1. Introduction/Course Overview (0.5 Hour)

Student and Instructor Self-Introductions: Safety/Classroom egress information, NCIS headquarters building orientation, and an introduction of instructors to the student body with explanations of each day's training events and learning objectives.

2. Perspectives from the Office of Naval Intelligence (ONI) (2 Hours)

Objective: Provide the students ONI's perspectives and lessons learned on commercial maritime industry operations as a global enterprise and the importance of continued analysis for United States security.

3. Commercial Maritime Shipping Industry Terms of Reference (1 Hour)

Objective: Provide the students basic knowledge on elements of the commercial maritime shipping industry and introduce new terms and concepts involving the maritime shipping industry.

- Ship Terminology
- Types of Ships and Acronyms
- Jones Act / Cabotage

4. Maritime Trade and its Significance to the United States Economy (1 Hour)

Objective: Provide the students with basic knowledge of how international maritime trade is an essential element of the United States' economy and quality of life.

Topics:

- U.S. trade as a fraction of global trade
- Volume of U.S. Trade & Economic Cash Flow
- Discussion on the size of the U.S. and Foreign Flag merchant marine fleets
- Jobs directly and indirectly tied to maritime trade

5. Freight Markets and Cargo Commodities (1 Hour)

Objective: Provide the students with a basic understanding of what Freight Markets and Cargo Commodities means to the commercial maritime industry.

Topics:

- Definitions of Freight Markets and Cargo Commodities
- United States and Global GDP within the Maritime Shipping Industry

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- Growth/decline of international seaborne trade reflective of the demands for freight and commodities
- Volume of world ship exports from the perspective of bulk cargos (energy/oil, iron ore/steel, grains, coal, etc.) and the container trade

7. The International Maritime Organization (IMO) (1 Hour)

Objective: Provide the students with a basic understanding of the international operating framework, rules, and enforcement of the commercial maritime shipping industry.

Topics:

- What is the IMO
- Why does it exist
- How does it operate
- How are rules developed and enforced
- What are IMO Conventions and how are they developed

8. Vessels and Port Terminals (1.25 Hour)

Objective: Provide the students with a basic understanding the different type of commercial ships and their operations at port terminals.

Topics:

- Types of Vessels
- Types of Port Terminals
- Matching Vessels to the Terminals

8. Container Cargo Stowage and Documentation (1.25 Hour)

Objective: Provide the students with a basic understanding of how containers are stowed and tracked on ships and within a terminal's container yard.

Topics:

- Vessel and Terminal Container Tracking Systems

9. Terminal and Cargo Security Operations (1.25 Hour)

Objective: Provide the students with a basic understanding of the development and operations of port terminal security systems.

Topics:

- Development of container inspections systems in the United States and overseas
- Security challenges across the industry

10. Harbor and Coastal Pilots

(1.25 Hours)

Objective: Provide the students with a basic understanding of the roles, responsibilities, capabilities, and business operations of harbor and coastal marine shipping pilots.

Topics:

- Explain where do maritime pilots work both in the U.S. and internationally
- Discuss what are pilots legal authorities and responsibilities
- Discuss the relationship with the ship's captain & crew – and the relationship with the bridge team
- Explain safety and security concerns
 - Commercial / Operational Schedule Pressures
 - Cultural barriers / practices
 - Language & communications barriers
 - Special concerns for old vessels / old equipment & minimal manning
- Concerns for special vessels
 - Military
 - Cruise ships
 - LNG / explosive cargoes
- Meaning of the International “Hotel” Flag
- United States and International Pilots Associations

11. Classification Societies

(1.25 Hours)

Objective: Provide the students with a basic understanding of the operational business practices of Classification Societies and their unique roles within the commercial maritime shipping industry.

Topics:

- History of classification societies and why they were created
- Examples of the business sectors where they operate today
 - Energy – Shipping - Environment
- Explanation of what a standards based organization means
- Market share of different class societies
- Relationships with stakeholders
 - Ship owners
 - Shipyards
 - Shipping agents

- Governments
- Insurance
- Periodic ship surveys
- Class rules versus government regulations
- International Association of Classification Societies

12. North American Shipping and Intermodal Logistics

(1 Hour)

Objective: Provide the students specialized instruction of how the international commercial maritime industry connects with truck, rail, and domestic U.S. marine transportation systems in the continuous flow of trade within North America and worldwide.

Topics:

- Explain how maritime security systems support the global supply chain and intermodal transportation systems;
- Understand the flow of cargo from gates of entry to gates of departure in a marine terminal;
- Types and Designs of Ship Containers
- Container Terminal Equipment & Operations
 - Twenty Foot Equivalent (TEU)
 - Type & Designs of Containers
 - Cranes
 - Straddle Carriers
 - “Bomb” Carts
 - Intermodal Transshipment Points

13. Ports and Intermodal Operations Productivity

(1.25 Hours)

Objective: Provide the students with a basic understanding of the operations and productivity of the North America’s intermodal transportation and its role in sustaining the way of life in North America.

Topics:

- Ports as an Intermodal System
- North American Port & Intermodal System Capabilities and Capacities
- International Port Productivity Comparison



14. Port Development in North America (1.25 Hours)

Objective: Provide the students with focused instruction of port development in North America and its influence on United States global trade.

Topics:

- 2015 Panama Canal Expansion Impacts
- Port/Cargo Security
- Containership New Build Order Book
- Future U.S. Cargo Demand
- Canadian Land Bridge

15. Vessel Ownership and Registry / Flag State and Port State Controls (1.5 Hours)

Objective: Provide the students with working knowledge of vessel ownership and registration by Flag States, authorities of Port States, and how compliance is enforced within this framework on an international scale.

- Flag States
 - Types of Registers
 - Flags of Convenience
 - Responsibility & Structure of a Flag State
 - Performance of Flag States
 - Relationships & Delegation to Classification Societies
- Port States
 - Evolution of Port State Control (PSC)
 - Responsibility of the Port State
 - US Coast Guard Program
 - Port State Control White, Black, & Grey Lists
 - PSC Enforcement Regimes
 - US Coast Guard
 - Paris MOU
 - Tokyo MOU

16. Crew Licensing & Documentation (1 Hour)

Objective: Provide the students with an understanding on the processes involved in determining and validating seafarer licenses and credentials on a global scale.

Topics:

- Definition of a Seafarer
- Types of Seafarer Identification

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- Licenses
- Certificates
- Background Investigations and Protection against Fraud

17. Bulk Shipping – Certificates – Dangerous Cargoes (3.25 Hours)

Objective: Provide the students with specialized instruction on bulk shipping operations, basic certificates used in all commercial shipping operation (involving ships and cargo, and an overview of special concerns involving dangerous and explosive cargoes.

Topics:

- Bulk Shipping Vessel Operations
- Bulk Shipping as a Percentage of Global and U.S. Shipping
- Vessel designs
 - Bulk - Break-bulk – Neo-bulk - barges
- Explosive and Dangerous Cargos
- Misdeclared Cargos and their Threats to a Vessel / Port
- Vessel Certificates
 - Vessel - Cargo - Hazmat

18. United States Transportation Command & Military Sealift Command (2.25 Hours)

Objective: Provide the students with a basic understanding of the roles and mission of Commander, U.S. Transportation Command (TRANSCOM) and Military Sealift Command (MSC).

Topics:

- TRANSCOM and MSC organizational frameworks support to warfighters and contingency operations
- Support to warfighters and for other emergency / contingency operations of national importance
- Mobility Tradeoffs regarding Air and marine Transport
- Pre-positioned Ships
- Types of MSC Ships
- Crewing of MSC Ships
- Anti-Terrorism and Force Protection Planning and Operations aboard MSC Ships
- Embarked Security Teams,
- Personnel Screening
- MSC Port World-Wide
- MSC Fleet Vessel Types, Capabilities, and Numbers

19. Customs Brokers and Ship's Agents / Freight Logistics Management (2.25 Hours)

Objective: Provide the students with a basic understanding of how and what Customs Brokers and Ship's Agents are and do as it applies to the commercial maritime shipping industry and how Freight Logistics Management is performed as a global business activity.

Topics:

- Fundamental Terms and Activities
 - Direct carriers
 - NVOCC
 - Third Party Logistics
 - 4PL (Business Process Outsourcing), Freight Forwarding
- Freight Forwarding
- Shipping Agents
- Customs Brokers Expertise and Authorization
- Diplomatic Customs Clearance Services
- Dangerous and Perishable Goods Management
- Regulation Compliance
- Security Regulations & Protection Against Shipping Technologies and Materials to Bad Actors
- Special Equipment Provisions

20. Marine Insurance (2.25 Hours)

Objective: Provide the students with a basic understanding of the role of Marine Insurance within the commercial maritime shipping and current trends and drivers influencing the marine insurance business.

Topics:

- Insurance of Vessels, Cargo, and Marine Facilities
- Insurance Basics
 - Insurable interest
 - Legal purpose
 - Indemnity
 - Made Whole Doctrine
- Insurance Market
- Flow of a Typical Insurance Transaction
- Major Coverage Classes
 - Hull
 - War Risk
 - Pollution
 - Offshore energy
 - Cargo, Reinsurance
- Current Industry Trends

21. Maritime Law (2.25 Hour)

Objective: Provide the students with basic understanding of terms and concepts in maritime law and how they impact the commercial maritime shipping industry business operations as well as guide government policies internationally.

Topics:

- International Law
- United States Law
 - Jurisdictional zones
 - Federal Departments and Agencies
- U.N. Convention on the Law of the Sea
- Case Study Deep-water Horizon

22. Maritime Unions (1 Hour)

Objective: Provide a basic understanding of the operating frameworks of organized labor in commercial maritime shipping industry ships and at port handling facilities.

Topics:

1. Unions as Organizations
2. US Maritime Labor Unions
3. International Transport Workers' Federation (ITF)
4. The Labor Relations Process
5. Mariner Training in the US
6. Labor Contracts – A Primer
7. International Bargaining Forum
8. International Maritime Labor Convention of 2006
9. The Future of Maritime Labor

23. Global Piracy Threats & Anti-Piracy Policies/Practices (2.25 Hour)

Objective: Provide the students with background information on special security concerns involving the commercial maritime shipping industry's vulnerabilities to international crime and piracy and how the industry is working within itself and international governments to improve vessel and crew security.

Topics:

- Vessel Security Threats Worldwide
- Existing and Emerging Security Protocols
- International Cooperation between Industry and Governments

24. U.S. Customs and Border Protection (CBP) (1.25 Hours)

Objective: Provide the students with a basic understanding of the roles and missions of the United States Customs and Border Protection Agency and its unique roles and mission involving port security and cargo screening as conducted with the National Targeting Center – Cargo.

Topics:

- National Targeting Center – Cargo’s Operational Architecture
- Layered Security
- Partnership with Industry

25. U.S. Coast Guard Port Security Programs (2.25 Hours)

Objective: Provide an understanding of the United States Coast Guard’s authorities, role, and mission regarding layered security for the United States in the global maritime domain focusing on domestic and foreign port security programs.

Topics:

- The Development of Maritime Security in the United States;
- The National Maritime Security Strategy and the Integration of Transportation Systems into Maritime Security Planning Frameworks;
- Roles and Responsibilities of Federal Agencies in the Maritime Domain;
- International, National, State and Local Government and Private Sector Cooperation in Maritime Security;
- National / Area / Port Maritime Security Plans
- Maritime Security Act of 2002
- Port Security Procedures and Variations to MARSEC levels
- Port Security Activities Influence on the Supply Chain
- U.S. Coast Guard’s Application of Risk Management for Port Security Programs.
 - Risk Management Factors
 - Threats, Vulnerabilities, and Risk in the Port Environment
 - Shared Responsibilities - Government and the Private Sector

Block II – Port Operations Orientation and Site Visits

24 Hours

26. Facility Visits

Objective: Provide the students with a hands-on understanding of port operations, port infrastructure, cargo movement and intermodal transportation systems, and port security command and control, operations monitoring, and oversight and response activities.

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Site Visits:

- Coast Guard Sector Hampton Roads
- Norfolk International Terminals
- Naval Station Norfolk (Port Operations)
- Norfolk Naval Shipyard (Controlled Industrial Area)
- MSC Ships Visit Newport News

TOTAL COURSE HOURS: 80 Hours (*with port visit travel*)

