Haward Technology Middle East

COURSE OVERVIEW OE0305
Telecommunication Systems

Course Title
Telecommunication Systems

Course Date/Venue
Session 1: May 28-June 01, 2023/Venue 1
Meeting Room, Sheraton Cairo Hotel
& Casino, Cairo, Egypt
Session 2: March 10-14, 2024/Boardroom 1,
Elite Byblos Hotel Al Barsha, Sheikh
Zayed Road, Dubai, UAE

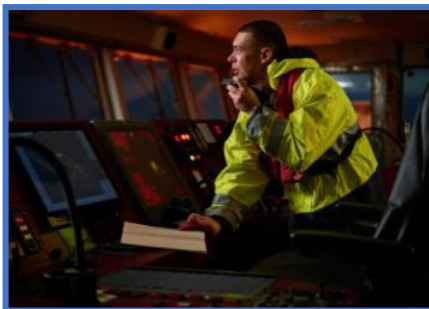**Course Reference**
OE0305

Course Duration
Five days/3.0 CEUs/30 PDHs

Course Objectives

This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to provide participants with a detailed and up-to-date overview of marine communication. It covers the importance of radio history and communication elements; the radio frequency spectrum elements including RF propagation, propagation software, mixing of frequencies and modulation; the basic VHF radio communications as well as their specification; and the proper procedure of global maritime distress and safety.

During this interactive course, participants will learn the requirements of FCC rules, maritime radio licenses and radio frequency plan; the radiotelephone operating procedures as well as the long-range marine radio communication; marine communication systems and radio marine maintenance.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain knowledge on marine communication systems

- Discuss the importance of radio history and communication elements

- Explain the radio frequency spectrum elements including RF propagation, propagation software, mixing of frequencies and modulation

- Demonstrate the basic VHF radio communications as well as their specification

- Employ the proper procedure of global maritime distress and safety

- Acquire the requirements of FCC rules, maritime radio licenses and radio frequency plan

- Practice the radiotelephone operating procedures as well as the long-range marine radio communication

- Recognize other marine communication systems and radio marine maintenance

Who Should Attend

The course is intended for port controllers, ship controllers, vessel controller navigators and marine radio transceiver and ship radio stations technical staff.

Course Fee

Egypt	**US$ 8,000** per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	**US$ 8,000** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Training Methodology

This interactive training & certification program includes the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Workshops & Work Presentations
20% Case Studies & Practical Exercises
30% Videos, Software & Simulators

In an unlikely event, the program director may modify the above training methodology before or during the program for technical reasons.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:-

- The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

- British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Captain Sergey Kole, is an **International Expert** in **Port Operations & Management** with over **25 years** of **onshore** and **offshore** experience within the **Oil & Gas**, **Petroleum** and **Refinery** industry. His expertise widely covers in the areas of **Telecommunication Systems**, **Tanker Vetting & Inspection**, **International Ship and Port Facility Security Code** (**ISPS**) **Code**, **Marine Vetting & Audit Criteria Manual** for **Tank Ships**, **Marine & Ship Vetting**, **Vetting Process & Marine Safety Criteria**, **Tanker Vetting** for **Terminals**, **Ship Vetting**, **Marine Terminal** Operations & Management, **Marine Hazards** Prevention & Control, **Marine Communication** Systems, **Marine Safety**, **Ship** Management, **Oil Terminal** Planning, **Vessels** Operations, **Terminal** Management & Support Operations, **Oil Spill Contingency & Emergency Response Plan**, **Qualitative & Quantitative Risk** Assessments, **Terminal** Planning, **Oil Tanker Storage** Planning, **Cargo Transfer** Handling, Loading & Discharging, **Ballasting**, **Tank** Cleaning, **Crude Oil Washing**, **Ship** Handling, **Radar** Navigation, **Navigational** Aids, **Meteorological** Data Review, **Sea & Weather** Condition Monitoring, **ERT Vessel** Coordination and **Transport & Distribution Carrier**. Further, he is well-versed in **Sea-going** Personnel Human Resource Management, **Survival Craft & Rescue Boats**, Dynamic Positioning, Anti-Piracy Preparedness & Response, **Shipping** Maintenance System, **Oil & Chemical Tanker**, **Liquefied Gas Tanker**, **Inert Gas** System, **Crude Oil** Tanker & Gas Carrier, Offshore Logistics & Supply Management, **Marine Fleet** Management & Operations, **International Maritime Conventions & Codes**, **Marine Radar**, **Port Traffic Control** Systems & Instrumentation, **H²S** Hazard Awareness, **Firefighting**, Medical Care Onboard, Carriage of Dangerous & Hazardous Substances and **Ballast Water & Sediment** Management.

During his career life, Captain Sergey has gained his technical and marine expertise through various challenging key positions such as being the **Captain**, **Operations Director**, **Project Manager**, **Port Supervisor**, **Master** of General Cargo Ship, **Master** of Container Ship, **Chief Officer**, **Marine Operations Specialist**, **Marine Coordinator**, **On-call Duty Officer**, **Crewing Consultant**, **2nd Officer**, **Ship Chandler** and **Senior Instructor/Trainer** for several international companies such as **ZADCO**, **AMEC Foster Wheeler**, Fircroft Engineering Services, Ltd., Rusalina Yacht Company, Van Oord Offshore, Exxon Neftegaz Ltd (ENL), Jr Shipping, Carisbrooke Shipping, Unicorn Petrol ve Kimya, Q Shipping BV, m/v Tradeport, Miedema Shipping CV, Rah Management BV, Petrobulk Maritime Inc., Empross Lines Ship Management, Melcard Ltd., Aquarian Shell Marine Inc., Mercy Baaba and Square Ltd.

Captain Sergey has a **Bachelor's** degree in **Navigation** in **Nautical Studies** from the **Kiev State Academy** of **Water Transport**, **Ukraine** and holds a **Master Mariner** (Unlimited) Certificates of Equivalent Competency from the MCA, UK and NSI, Netherlands. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**) and has delivered various trainings, courses, seminars, workshops and conferences internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	**PRE-TEST**
0830 – 0900	***Marine Equipment*** *Different Types of Marine Equipment Used for Telecommunications with Vessels • Proficiency in the Use of Marine Communication Equipment e.g. VHF, including Frequencies and their Uses • The Proper Use of VHF Techniques by Ensuring Specific Questions that Determine the Nature of Conversation i.e. VHF Communications Protocol • Proficiency in the Usage of Other Communication Equipment e.g. Emails, PC, Telephone and Fax • Use AIS Equipment, including Digital Display Map*
0900 – 1000	***Marine Equipment Utilization*** *The Basic Usage of Communication Equipment (Emails, PC, Telephone and Fax, VHF Etc.) • Proper Use of VHF, including Portable VHF Handset and Walkie-Talkie • The Type of Communication Facilities and has Advanced Communication Skills to Communicate with Vessels & Own Service Boats • Monitors the Usage of Communication Equipment & Advises Subordinate for the Proper Communication Procedures & Protocols • Monitors and Ensure the Availability of Providing the Proper Communication Facilities*
1000 – 1015	*Break*
1015 – 1115	***Marine Equipment Utilization (cont'd)*** *Monitor and Guide VHF Conversation with the Vessels for Ensuring to Obtain the Specific Requirement of the Vessels and Services Needed • In Charge of Maintaining the Equipment, Including Any Service Required• Proficiency in the Usage of Other Communication Equipment e.g. Emails, Pc, Telephone and Fax • Use Ais Equipment, including Digital Display Map and Theory of Operation of Equipment*
1115 – 1230	***Radio History & Communication Elements*** *History ● Basic Communications Systems ● Simplex vs Duplex • Basic Transmitters ● Basic Receivers*
1230 – 1245	*Break*
1245 – 1420	***The Radio Frequency Spectrum Elements*** *Radio Frequencies ● Radio Frequency Bands and Management ● RF Propagation • Propagation Software ● Mixing of Frequencies ● Modulation*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0900	***VHF Radio Communications*** *Basic VHF Transmitter ● Basic VHF Receiver*
0930 – 0945	*Break*
0915 – 1045	***VHF Radio Communications (cont'd)*** *Basic VHF Antennas and Coaxial ● Basic Transceiver ● Specifications*
1045 – 1230	***Global Maritime Distress & Safety (GMDSS)*** *History ● Carriage Requirements ● Physical Description-VHF DSC ● The Sea Areas ● The MMSI*

1230 – 1245	*Break*
1245 – 1420	***Global Maritime Distress & Safety (GMDSS) (cont'd)*** *Emergency Position Indicating Radio Beacon ● Navigation Text Messages (NAVTEX) ● Automatic Identification System (AIS) ● Search and Rescue Transponder (SART)*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***FCC Rules, Maritime Radio Licenses, & the Radio Frequency Plan*** *The Communications Act of 1934 ● FCC Rules*
0930 – 0945	*Break*
0945 – 1045	***FCC Rules, Maritime Radio Licenses, & the Radio Frequency Plan (cont'd)*** *Marine Radio Licenses ● Advanced Licenses*
1045 – 1230	***Radiotelephone Operating Procedures*** *Basic Operations ● Radio Vocabulary ● Calling Procedures*
1230 – 1245	*Break*
1245 – 1420	***Radiotelephone Operating Procedures (cont'd)*** *Emergency Calling Procedures ● Testing Procedures ● Golden Rules of Radio*
1420 – 1430	***Recap***
1430	*Lunch & End Of Day Three*

Day 4

0730 – 0930	***Long-Range Marine Radio Communications*** *Amplitude Modulation ● Single Sideband ● MF/HF Antennas ● MF/HF Operations*
0930 – 0945	*Break*
0915 – 1045	***Long-Range Marine Radio Communications (cont'd)*** *Basic Communications Satellite Architecture ● Real Communications Satellite Systems ● Specific Systems*
1045 – 1230	***Other Marine Communications Systems*** *Flags and Whistle ● Amateur Radio ● Cellular Phones*
1230 – 1245	*Break*
1245 – 1420	***Other Marine Communications Systems (cont'd)*** *Family Radio Services ● General Mobile Radio Services ● Loud Hailers*
1420 – 1430	***Recap***
1430	*Lunch & End Of Day Four*

Day 5

0730 – 0930	***Radio Maintenance*** *Confidence Testing*
0930 – 0945	*Break*
0945 – 1100	***Radio Maintenance (cont'd)*** *Confidence Testing (cont'd)*
1100 – 1230	***Radio Maintenance (cont'd)*** *Preventative Maintenance*
1230 – 1245	*Break*

1245 – 1345	**Radio Maintenance (cont'd)** *Corrective Maintenance*
1345 – 1400	**Course Conclusion**
1400 – 1415	**POST-TEST**
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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