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**REPUBLIC OF THE PHILIPPINES**

**DEPARTMENT OF TRANSPORTATION**

**MARITIME INDUSTRY AUTHORITY**

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| **INVENTORY OF TEACHING AIDS AND REFERENCES** |

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| **Training Course:** | Basic Training for Ships Operating in Polar Waters |
| **Name of Maritime Training Institution:** |  |

| *Note: Substitute textbooks and videos can be used provided they contain the same content of the required.* | **Self-Assessment** | **Tabletop Evaluation** | **Inspection** | **Remarks** |
| --- | --- | --- | --- | --- |
| **To be accomplished by applicant MTI** | **To be accomplished by designated Tabletop Evaluator** | **To be accomplished by designated Evaluation and Inspection Team (EIT)** |
| **Items** | **Hardcopy** | **Electronic Copy** | **Complied** | **Not Complied** | **Complied** | **Not Complied** |  |
| **Teaching Aids (A):** |
| 1. Visual Presentations
 |  |  |  |  |  |  |  |
| 1. Training videos related to:
* M/V Explorer sinking in Antarctica
* Breaking the ice – bay of Bothnia
* M/S Rautaruuki being assisted by ice breaker Oder and Otso
* IMO in the Polar environment the Polar Code explained

*Note: Other titles of video materials may be used provided it has similar content.* |  |  |  |  |  |  |  |
| 1. Ice Charts
 |  |  |  |  |  |  |  |
| 1. Hand-outs
 |  |  |  |  |  |  |  |
| 1. Exercise Sheets

*Ice characteristics and areas where different types of ice can be expected in the area of operation*1. Perform continuous monitoring of ice presence and movement resulting from environmental forces such as wind and tides, while navigating the vessel
2. Use ice forecast and imagery to interpret ice types and features in regions *(table-top exercise)*
3. Use Aircraft Synthetic Aperture Radar (SAR), Side Looking Airborne Radar (SLAR), infrared and visual imagery for both Arctic and Antarctic regions to interpret ice types and features *(table-top exercise)*
4. Use Egg Code to interpret the contents of the various ice advisories and forecasts *(table-top exercise)*

*Operate and maneuver a vessel in ice*1. Apply proper methods of adjusting speed and power-output, prior to ice-contact, up on ice contact and following open water leads through ice infested waters
2. Apply procedures for maneuvering astern in ice
3. Execute a turning maneuver in ice, avoiding collision/impact of stern and ship’s sides
4. Apply preparations and procedures required by the escort vessel during ice escort

*Crew preparation, working conditions and safety*1. Conduct safety meeting in accordance with the accepted principles and procedures to establish and implement safe working procedures for crew specific to polar environment *(table-top exercise)*
 |  |  |  |  |  |  |  |
| **IMO References (R):***MTIs may use additional references as deemed necessary to meet the intended learning outcomes of this training course.* |
| 1. *International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978*, as amended
 |  |  |  |  |  |  |  |
| 1. *Global Maritime Distress and Safety System (GMDSS)* Manual. 2021 edition.
 |  |  |  |  |  |  |  |
| 1. Guidance on methodologies for assessing operational capabilities and limitations in ice (MSC.1/Circ.1519).
 |  |  |  |  |  |  |  |
| 1. *International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual*. (2022 edition).
 |  |  |  |  |  |  |  |
| 1. IAMSAR *Guidelines for the development of Shipboard Emergency Plans for Search and Rescue* (SAR) in ice infested waters.
 |  |  |  |  |  |  |  |
| 1. International Code for Ships Operating in Polar Waters (Polar Code).
 |  |  |  |  |  |  |  |
| 1. International Convention for the Prevention of Pollution from Ships (MARPOL), 2022 edition.
 |  |  |  |  |  |  |  |
| 1. International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974), as amended
 |  |  |  |  |  |  |  |
| 1. IMO Guide to Cold Water Survival, 2012 edition.
 |  |  |  |  |  |  |  |
| 1. IMO Intact Stability Code 2020 edition
 |  |  |  |  |  |  |  |
| 1. IMO Model Course 7.11 – Basic Training for Ships Operating in Polar Waters
 |  |  |  |  |  |  |  |
| 1. International Safety Management Code (ISM Code and Guidelines). (2018 edition).
 |  |  |  |  |  |  |  |
| 1. Medical First Aid Guide for Use in illnesses and accidents involving hypothermia and frostbite, (MFAG).
 |  |  |  |  |  |  |  |
| 1. Polar Waters Operational Manual.
 |  |  |  |  |  |  |  |
| **Bibliography (B):***The training provider may choose books from the bibliographic list or use other or additional references provided it has similar content to the latest edition and addresses the achievement of all intended learning outcomes. Electronic publications may be accepted as alternatives to printed copies, provided those are of the latest editions and must be sourced from authorized providers/producers.* |
| 1. Admiralty Annual Summary of Notices to Mariners. (2023 edition).
 |  |  |  |  |  |  |  |
| 1. AdmiraltySailing Directions: Arctic Pilot Volume 1 (NP10).
 |  |  |  |  |  |  |  |
| 1. *Admiralty Sailing Directions: Bering Sea and Strait Pilot (NP23)* (9th Edition 2019). United Kingdom Hydrographic Office.
 |  |  |  |  |  |  |  |
| 1. *Admiralty Sailing Directions: Southern Barents Sea and Belroy More Pilot (NP72)* (4th, 2019 ed.). (n.d.). United Kingdom Hydrographic Office
 |  |  |  |  |  |  |  |
| 1. *Admiralty Sailing Directions: South and East Costs of Korea. (NP43)* (12th, 2020 ed.). (n.d.). United Kingdom Hydrographic Office.
 |  |  |  |  |  |  |  |
| 1. *Admiralty Sailing Directions: The Antarctica Pilot (NP9).* (9th, 2019 ed.). (n.d.) United Kingdom Hydrographic Office.
 |  |  |  |  |  |  |  |
| 1. *Admiralty The Mariner’s Handbook, NP100*
 |  |  |  |  |  |  |  |
| 1. Transport Canada. *Arctic Ice Regime Shipping Control System (AIRSS) Standard.* (2thed.). (2018).
 |  |  |  |  |  |  |  |
| 1. Baltic Ice Management Handbook.
 |  |  |  |  |  |  |  |
| 1. International Chamber of Shipping. (2020) *Bridge Procedures Guide.* (6th ed.).
 |  |  |  |  |  |  |  |
| 1. *Sailing Directions pub 180 Planning Guide Arctic Ocean* (2020 edition). (n.d.). Createspace Independent Publishing Platform.
 |  |  |  |  |  |  |  |
| 1. Transport Canada. (n.d.). *Equivalent Standards for the Construction of Arctic Class Ships. Canada*. (repealed).
 |  |  |  |  |  |  |  |
| 1. *Guidelines for the Operation of Passenger Vessels in Canadian Arctic Waters – TP 13670*. (2018) Transport Canada.
 |  |  |  |  |  |  |  |
| 1. American Bureau of Shipping (ABS) *Guide for vessels operating in low temperature* (2021 edition).
 |  |  |  |  |  |  |  |
| 1. Ice Navigation in Canadian Waters. Icebreaking Program, Maritime Services, Canadian Coast Guard, Fisheries and Oceans Canada, Ottawa, Ontario.
 |  |  |  |  |  |  |  |
| 1. MANICE: *Manual of Standard Procedures for Observing and Reporting Ice Conditions*. Canada.
 |  |  |  |  |  |  |  |
| 1. National Oceanographic Atmospheric Administration (NOAA) *Observers’ Guide to Sea ICE*
 |  |  |  |  |  |  |  |
| 1. *PUB 200 Sailing Directions (Planning Guide & Enroute). Antarctica* *Ocean* (12th ed.). (2021) National Geospatial-Intelligence Agency.
 |  |  |  |  |  |  |  |
| 1. *PUB 181 Sailing Directions (Enroute). Greenland and Iceland.* (14th ed.). (2021) National Geospatial-Intelligence Agency.
 |  |  |  |  |  |  |  |
| 1. *Ship Safety Bulletins*. Transport Canada
 |  |  |  |  |  |  |  |
| 1. Snider, D. FNI. Polar Ship Operations*: A Practical Guide.* The Nautical Institute. 2nd edition, 2018
 |  |  |  |  |  |  |  |
| 1. Swedish P & I Club. *Ice – Advice for Trading in Polar Regions.*
 |  |  |  |  |  |  |  |
| 1. Tunik, A. et. al. *Ice Phenomenon Threatening Arctic Shipping*. Backbone Publishing Company.
 |  |  |  |  |  |  |  |
| 1. United State Coast Pilot 9 *Pacific and Arctic Coasts: Alaska to Beaufort Sea*. (41st ed.).
 |  |  |  |  |  |  |  |
| 1. *Winter Navigation on the River and Gulf of St. Lawrence Practical Notebook for Marine Engineers and Deck Officers*. (2011 ed.) Transport Canada
 |  |  |  |  |  |  |  |
| 1. WMO *Sea ice nomenclature*. (2014 ed.)
 |  |  |  |  |  |  |  |

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| **Accomplished by** | **:** |  |  | **Date** | **:** |  |
|  |  | Name and Signature ofMTI’s Authorized Representative |  |  |  |  |

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| **Table Top Evaluator’s Comments:** |
|  |  |  | **Date of Evaluation** |  |  |  |
|  | **Table Top Evaluator’s Name & Signature** |  |  |  |  |  |
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| **Inspector’s Comments:** |
|  |  |  | **Date of Inspection** |  |  |  |
|  | **Inspector’s Name & Signature** |  |  |  |  |  |
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