

Nautical Institute Advanced DP Operator Course

Scope

This course principally involves simulated DP operations including errors, faults and failures giving the participants the opportunity to apply the lessons learnt in both the Induction/Basic course and the seagoing DP familiarization. The course will cover the functionalities of the DP system including:

- Position Reference Systems
- DP operations
- DP alarms, warnings and emergency procedures

There will be six lecture modules:

- Introduction
- Operation Planning
- Principles and Elements of DP
- Position Reference Systems
- Environmental Sensors and Ancillary Equipment
- FMEA, Risk Assessment

Lectures will be fortified with practical exercises on the advanced DP simulator.

Objective

On completion of this course the student should be able to carry out operational planning, risk assessment and hazard identification tasks. Set up the DP system for a particular task, and react to all events occurring:

1. OPERATION OF A DP SYSTEM
 - 1.1. Demonstrate an ability to set up and operate the DP system under the various control modes, and to carry out manual, mixed manual / automatic and automatic manoeuvres
 - 1.2. Demonstrate the operation of position reference systems, sensors and peripheral equipment associated with the DP system
2. DP OPERATION
 - 2.1. Interpret vessel plans and specifications, capability diagrams and other data relevant to the planning and conduct of DP operations
 - 2.2. Using vessel and other data, assess the capability of the vessel to complete successfully any proposed operation

- 2.3. Carry out risk assessment exercise on proposed operations and determine the level of redundancy appropriate
- 2.4. Make appropriate contingency plans to cover any foreseeable system failure or operational requirement. Contingency planning to include appropriate "escape routes" for the vessel.
- 2.5. Demonstrate compliance with appropriate procedures to be followed when approaching any work site and transferring from conventional vessel control to DP control
- 2.6. Demonstrate effective completion of Pre DP and other checklists
- 2.7. Demonstrate effective communications necessary during DP operations and the testing procedures
- 2.8. Conduct vessel positioning manoeuvres and station keeping functions following operational plan and procedures
- 2.9. Organise DP watch keeping procedures observing recognised safe working practices
- 2.10. Conduct appropriate watch handover procedures, completing appropriate checklists
- 2.11. Maintain the appropriate logbooks and records pertaining to DP operations
- 2.12. Evaluate the various information, warning and alarm messages communicated to the operator
- 2.13. Relate the content of the messages in 2.12 above to the actions necessary in relation to the DP operation
3. EMERGENCY PROCEDURES
- 3.1. Recognise the conditions that will cause degraded operational status or Emergency status to prevail
- 3.2. Recognise the warnings and alarms associated with catastrophic failure
- 3.3. Appraise the various factors to be taken into account subsequent to any system failure and determine appropriate actions
- 3.4. Carry out procedures to stabilise the vessel position and heading subsequent to a variety of system failures and take appropriate decisions and actions relating to the continuance or abandonment of the operation

Entry Standards

This course is designed for Deck Officers as the third step in the Nautical Institute's training scheme towards DP certification

Teaching Facility

STAR Center, Dania Beach, Florida