



KONGSBERG

Dynamic Positioning System Basic Trainer



*“Introduction
and training for
advanced dynamic
positioning!”*

Introduction

Training of Dynamic Positioning (DP) operators is conducted according to Nautical Institute's (NI) certification scheme in a five phase program; introduction course, seagoing familiarisation, followed by advanced shore-based simulator course, supervised DP watchkeeping, and concluding with final candidate assessment.

All of the five phases are witnessed and recorded by entries in a DP trainee logbook. The DP basic and advanced simulators from Kongsberg are vital tools in this training.

Training objectives

Operator errors during DP operations may lead to expensive downtime, or even worse; accidents or incidents resulting in damage, pollution, personnel injuries or fatalities. This implies the need for a comprehensive training programme for key DP personnel along with accurate and realistic trainer systems.

The Kongsberg DP - Basic Trainer is used throughout the basic and general training of DP operators.

Equipment and Configuration

The training is performed at Desktop Operator Stations which comprise an operator panel connected to a standard Personal Computer. A typical configuration can be a number of Desktop Operator Stations arranged in a classroom setting with an instructor station. By means of a video switch and a projector, the instructor can show both his own and the student DP display on a video projector for assessment. All Stations normally simulate the same vessel and DP system configuration, but operate independently of each other. For maintenance purpose, all Personal Computers will be connected via a Local Area Network.

Instructor stations

To setup and control a DP scenario on the Basic Trainer, the instructor has a user-friendly operator station. From his position he can control the various DP vessels, prepare the vessel conditions, sensor and power settings and introduce different type of environment conditions like; wind, waves, current to make the exercise as realistic as possible. To train critical operations the instructor can introduce different levels of faults on ship systems, power systems and thrusters as well as sensor system with noise and abnormal conditions.

DP Vessels

Vessels with corresponding DP configurations are available, each with its specific characteristics and DP system functions and interfaces:

- Supply vessel
- Shuttle tanker
- Drillship
- Semi submersible drilling unit
- Optional customer specific ships: dredging vessels, icebreakers, cruise ship and anchor handling vessels.

DP features - Basic Trainer

The Kongsberg DP Basic Trainer is developed to fulfil all training objectives needed for the DP operator simulation, featuring:

- General-purpose user interaction with DP screen and button panel according to the DP Operator Manual, and configuration of the actual vessel and DP system
- Adjustment of simulated wind and current.
- Simulated vessel behaviour
- Simulated position-reference systems and sensors
- Simulated thruster performance
- Manual joystick operation
- Automatic Station-keeping including:
 - Position change
 - Heading change
 - Autopilot
 - Auto Track

Main specifications

Hardware and software that will be provided by Kongsberg:

- DP Operator Panel with serial line interface to the PC system.
- DP Application software with DP models.
- Personal Computer.
- Power requirement 220/115VAC (2 X double outlets).
- Projector for debrief (optional).



The supply vessel - "Challenger".



Desktop student console.



Debriefing of students.