



D.P. Associates

Intuitive, Intelligent and Diverse Training Solutions

“SafeCargo can do all this on a laptop, single PC or in a multi-workstation network environment.”

Developed together with Warsash Maritime Academy (UK), SafeCargo™ offers all the facilities required to allow the safe, hands-on training for all operators associated with the handling all bulk liquids and gases.

By allowing the full simulation of all cargo and ballast operations, training can be provided all aspects, from practical introduction to detailed problem solving.

SafeCargo™ can do all this on a laptop, single PC or in a multi-workstation network environment. In the latter, the system can be configured to allow individual, group, ship to ship or ship shore training to be implemented.

BENEFITS OF SIMULATOR TRAINING

- Safe Operator Training
- Development of Operating Procedures
- Testing System Design
- Reduction of Training Time (6 to 1 ratio)

CHEMICALS

- Chemical Tanker

NEW MODELS

- Crude/ Products/ Chemical Tanker
- LNG Carrier (QFlex)
- Ship specific models can be produced if required

SAFECARGO: LIQUID CARGO HANDLING



SafeCargo™ allows the simulation of all vessel and shore facilities associated with the carriage and storage of liquids and gases. The standard models (see list below) provide the flexibility one system to be used to provide training in all principles and procedures for multiple ship types.

The students control the system via the use of simple to use, graphical displays, depicting systems and controls as found on real vessels allowing detailed vessel familiarization. The integrated trim & stability software allows for cargo planning and the determination of all

GAS

- LNG (Membrane) Carrier
- LNG (Spherical) Carrier
- LPG Carrier
- LPG Shore Terminal

OIL

- Crude Oil/ Products Tanker
- VLCC
- Oil Shore Terminal
- Floating Production, Storage & Off loading Facility FYP S(0)



SAFECARGO: LIQUID CARGO HANDLING

Military, Government, and Commercial Clients

THE SYSTEM

SafeCargo™ is designed to provide realistic real-time simulation in all aspects of the behavior of liquids and gases and the associated operations. Consequently, students can undertake all the various cargo operations for the respective ship types in real-time, without limitation, allowing part or complete operations to be conducted as required.

SafeCargo™ can be run on a single PC or configured in a multi-station network.

THE STUDENT STATION

Each student station is equipped with two high resolution monitors. Only the mouse is used to control all facilities, allowing students to become quickly familiar with its operation, maximizing time available for learning.

THE INSTRUCTOR STATION

The instructor station provides all the facilities required to allow an instructor to set up, monitor, control and assess multiple students undertaking individual or group exercises. Usually equipped with four high resolution displays, the instructor is able to monitor exactly what each student is doing at any time, and interact with them by adjusting each model and inputting faults and malfunctions. Logging, replay and parameter trend facilities together provide detailed material to be used in the debriefing of exercises.

Optional facilities include:

- Communications system allowing the instructor to communicate with each

student in the various roles that may be required.

- WISE "Virtual Instructor" system allows for use without supervision personnel for out-of-hours tuition or self study.
- WISE "Automatic Competence Assessment System" which will assess a student's ability to undertake a task against defined criteria and provide all the necessary materials the instructors require for record keeping.
- Detailed training curriculums suitable for incorporation within

FEATURES OF LIQUID CARGO HANDLING SIMULATOR

- PC Based on MS Windows OS
- Requires only standard PC hardware
- Capable of being run on single PC/laptop or multiple student stations
- Quick & easy to install and operate
- Very flexible student station configuration allowing system to be used for maximum training environments and objectives
- Optional unique "Virtual Instructor" module allows system to be used without an instructor being present
- Large model library
- Models allow all operations to be conducted, without limitation, including (as appropriate)
 - Cargo planning
 - Multiple cargoes
 - Cargo tank preparation
 - Inert / N2 gas supply and purging
 - Automatic and manual gas detection facilities
 - Inerting, gassing up and cool down
 - Cargo loading / unloading / heating
 - Refrigeration equipment
 - Use of cargo compressors
 - Supply of gas to boilers
 - Handling of problems and emergency
 - Graphics displays represent actual control systems found on real vessels
 - Uniquw 'Student Competence Assessment System'



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L-3, Headquartered in New York City, L-3 Communications employs over 64,000 people worldwide and is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems. The company reported 2007 sales of \$14 billion.

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