

TJ INC.
simulation



machinery control system desktop simulator **19G4A**



TJ INC has embraced the use of PC based simulation in order to develop highly successful and yet extremely cost effective training solutions. TJ INC is proud to present Device 19G4A, the Machinery Control System Desktop Simulator.

The 19G4A is designed to develop trainee proficiency in gas turbine engineering principles and practices, watch-keeping and casualty control for the *Arleigh Burke* (DDG-51) class of guided missile destroyers. The system is a complimentary trainer to the full sized hardware version of 19G4 trainers that TJ INC has also produced for the Surface Warfare Officers School in Newport, RI. Since the DDG-51 class ships are undergoing constant configuration upgrades, the 19G4A PC-based simulator creates the opportunity to virtually train officers on all variations of the *Arleigh Burke* class without the significant cost of modifying physical hardware on the baseline trainers themselves.

Used in a classroom environment, the 19G4A simulates DDG-51 MCS operation for Prospective Commanding Officers, Prospective Executive Officers, Department Heads and Engineering Officer of the Watch trainees.

The 19G4A virtual consoles allow the trainee to interact with the consoles in extremely realistic detail. All shipboard controls, panning, zooming, and navigation are available on a touch-screen platform, allowing the students to become familiar with real world console controls and indicators.

The 19G4A classroom training scenarios are initiated, controlled and monitored from an Instructor Operator Station. The IOS dynamically controls the operation of the trainer during normal and casualty control operations. The instructor has the ability to inject casualties sequentially or simultaneously, change the states of various equipment, override system parameters and evaluate trainee performance.

