### Why Should I Study TSSE?

- TSSE will help you understand the complexities and interdependencies of military problems and be able to solve (or know who can solve) those problems.
- TSSE will make you better equipped to provide government oversight to systems development and design work performed by contractors.
- TSSE will make you a "smart buyer" who knows when and by whom competent solutions are provided to your needs.
- TSSE will provide you with an understanding of whole life system operations and support issues such as automation and reduced manning.
- If you're an ED, TSSE will make you more competitive for billets in major system programs.
- If you're a URL, TSSE will give you an understanding of the requirements generation process and how to communicate your requirements to the technical community.
- If you're an International Officer, TSSE will give you an opportunity to actively participate in a ship design environment with U.S. Officers and other allied services.

## Total Ship Systems Engineering

### How do I join?

Tell your Detailer that you want to study in one of the many technical curricula offered at the Naval Postgraduate School and you want to participate in the Total Ship Systems Engineering program.

If you are already at NPS, see Prof. Papoulias at x3381 or papoulias@nps.edu

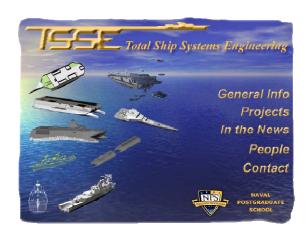
# For More Information Please Contact:

### Prof. Fotis A. Papoulias

Director, Total Ship Systems Engineering 831 656 3381 papoulias@nps.edu

### Prof. Robert H. Harney

TSSE Combat Systems Chair 831 656 2685 harney@nps.edu



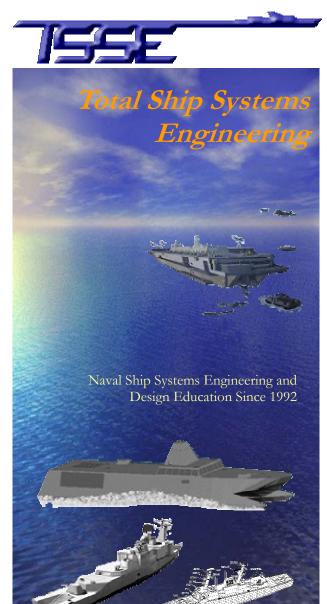
### **Total Ship Systems Engineering**

Naval Postgraduate School 700 Dyer Road, Rm. 323 Phone (831) 656 3381 Fax (831) 656 2238

www.nps.navy.mil/tsse/

Dec. 5, 2005

# NAVAL POSTGRADUATE SCHOOL

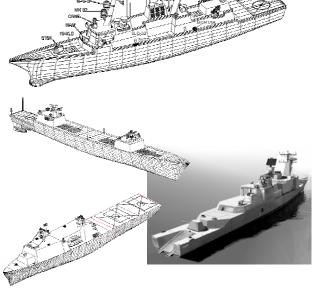


### **Total Ship Systems Engineering at NPS**

### PROGRAM OBJECTIVE:

The Total Ship Systems Engineering program at the Naval Postgraduate School provides a broad based, systems engineering and design oriented education, focusing on the warship as a total engineering system, including mission effectiveness, hull, mechanical, electrical, and combat systems.

### SAMPLE STUDENT PROJECTS:



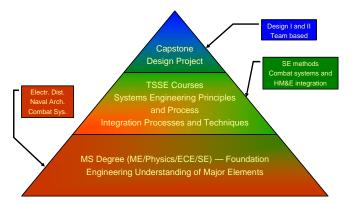


#### PROGRAM INFORMATION:

The Total Ship Systems Engineering Program is intended to contribute to the development of the Navy's ship and systems design leaders of the future. The program emphasizes the overarching need for integration among and across technologies and traditional disciplines to enable future warships to prevail against increasingly challenging threats. Students from the Electrical Engineering, Combat Systems Science and Technology and Mechanical and Astronautical Engineering curricula are eligible to participate. The program builds on the Masters Degree foundation of the eligible students by introducing them to systems engineering methods as well as various technologies important to the integration of modern warships. The program culminates in a team-performed Navy ship conceptual design.

The student's Masters Degree is the foundation of the program. TSSE adds to this a grounding in Systems Engineering principles and process and tools and techniques for integration of complex systems. The whole experience is completed by the capstone design project which gives the students the opportunity, in a benign educational environment, to apply their systems engineering knowledge in an interdisciplinary team to a realistic design.

### The TSSE Knowledge Scheme







Joint ACCESS: High Speed Assault Connector for Seabasing Operations and Joint Expeditionary Logistics





