

A COMPARATIVE ANALYSIS OF SMALL ADVANCED NAVAL VEHICLES AND DISPLACEMENT-HULL NAVAL SHIP DESIGN

by

Markos Nicolaos Vassilikos

Submitted to the Department of Ocean Engineering on May 12, 1989 in
partial fulfillment of the requirements for the degrees of Ocean Engineer and
Master of Science in Ocean Systems Management.

Abstract

A small naval ship, derives its desirability as a naval vessel, due to the fact that it is an inexpensive solution to the problem of maritime defense. This thesis compares five of these naval vessels, two displacement-hull form, two hydrofoils, and one Surface Effect Ship. The procedure of the comparative analysis begins with a comparison of the gross characteristics of the ships, and uses several design indices to examine the factors that influenced each design. Differences in design criteria, standards, and practices are identified and assessed, and the advantages and disadvantages of each design are presented.

Thesis Supervisor: Professor Paul. E. Sullivan
Title: Assistant Professor of Ocean Engineering