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#### MILITARY HANDBOOK

DESIGN METHODS FOR NAVAL SHIPBOARD SYSTEMS



AMSC N/A FSC 1990

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MIL-STD-2189(SH) 13 November 1987

# DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND

Washington, DC 20362-5101

## Design Methods for Naval Shipboard Systems

- 1. This Military Standard is approved for use by the Department of the Navy and is available for use by all Departments and Agencies of the Department of Defense.
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## MIL-STD-2189(SH) 13 November 1987

### **FOREWORD**

<u>Purpose</u>. The purpose of this standard and the supporting sections is to provide textbook-type information and guidance for use in the design and construction of ships. The supporting sections illustrate typical design and calculation methods and procedures which are acceptable to the Government.

<u>Background</u>. The need for standardized ship design methods and procedures has become apparent as ships and their equipment have grown more complex. Previously an internal Design Data Book consisting of individual design data sheets was used to compile design methods and procedures applicable to the Navy. This standard extends that concept and provides ready access to those involved in Naval ship design.

<u>Design</u>. System and equipment design present the engineer with complex and unique problems. Many methods and design procedures exist which may be used in designing a given system or equipment. The intent of this standard is to establish the methods and procedures which the Navy will accept as valid. A designer employing these methods and procedures will have his work considered acceptable from the standpoint of form and method. This is not to imply that other methods and procedures are not acceptable to the Navy, but the burden of proof resides with the contractor.

<u>Concept</u>. This standard will be developed in depth over a period of time through the medium of supporting sections to cover the spectrum of ship design methods and procedures. Such sections will be issued as they are prepared. Each section will be self-sufficient in technical coverage. They must be applied, however, in consideration of how they are invoked in an acquisition. Generally, they will be invoked as an acceptable method or procedure in designing a system or equipment. In some instances they may be invoked as mandatory requirements.