

**NAVAL
SHORE ELECTRONICS
CRITERIA**

HF RADIO ANTENNA SYSTEMS

**DEPARTMENT OF THE NAVY
NAVAL ELECTRONIC SYSTEMS COMMAND
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RECORD OF CHANGES

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FOREWORD

PURPOSE

This handbook provides an authoritative source of reference data and general technical information concerning high frequency (HF) antenna systems used in Navy shore communications facilities.

The information contained in the handbook is not to be considered as the final, detailed engineering specification for any particular facility or installation project. Rather, the intent is to present criteria and technical information sufficiently broad in scope to cover the major considerations for selecting, designing, and installing HF antenna systems.

SCOPE

The criteria and technical information in this handbook are directly related to HF antennas and their associated system components. Physical and electrical characteristics of antennas, transmission lines and other system components are covered along with antenna selection procedures and installation considerations.

The criteria for the planning, installation and checkout of system and equipment installations at shore communications stations are presented in NAVELEX 0101, 102 — "Naval Communications Station Design". Discussions concerning radio propagation paths and site selection criteria are contained in NAVELEX 0101, 103 — "HF Radio Propagation and Facility Site Selection". This handbook treats these subjects to the degree necessary for clarity and continuity of subject matter.

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