

FED-STD-1035
March 29, 1977

FEDERAL STANDARD

TELECOMMUNICATIONS: CODING, MODULATION AND TRANSMISSION REQUIREMENTS FOR SINGLE CHANNEL MEDIUM AND HIGH FREQUENCY RADIOTELEGRAPH SYSTEMS USED IN GOVERNMENT MARITIME MOBILE TELECOMMUNICATIONS

This standard is issued by the General Services Administration pursuant to the Federal Property and Administrative Services Act of 1949, as amended.

1. SCOPE

1.1 Description. This standard establishes minimum requirements for single channel, narrowband, medium and high frequency (300 KHz - 30 MHz) radiotelegraph systems used in Government maritime mobile telecommunications. Manual on-off keying (i.e., Morse code operation) is not within the scope of this standard.

1.2 Purpose. This standard is to facilitate the interoperability of maritime mobile telecommunication facilities of the Federal Government.

1.3 Application. This standard shall be used, to the extent specified herein, by all Federal departments and agencies in the design and procurement of maritime mobile radiotelegraph systems for medium and high frequency operation.

2. REQUIREMENTS

2.1 Capability shall exist for transmission and reception of signals conforming to International Alphabet #2 code at a modulation rate of either 74.2 or 75 baud. (This does not preclude the use of additional rates and coding techniques.)

2.2 Class F1 emission, with a frequency shift of 170 Hz between mark and space signals, shall be used for transmission of the telegraph signal over the radio path. The lower of the two frequencies emitted from radio transmitters shall correspond to a binary 1 (mark), while the higher of the frequencies shall correspond to a binary 0 (space).

2.3 The frequency tolerance of transmitted radio signals shall be 40 Hz for ship stations and shall be 15 Hz for shore stations. The frequency tolerance of the receivers at ship and shore stations shall likewise be 40 Hz and 15 Hz, respectively. These tolerance requirements shall apply to all equipment being installed and to all equipment in use after January 1, 1979.

2.4 Capability shall exist for interoperation of ship telegraph equipment with nonradio telecommunication facilities when the vessel is in port. Interoperation shall be as Data Terminal Equipment (DTE) interfacing Data Circuit-terminating Equipment (DCE) and shall employ serial binary data interchange.

3. Changes. When a Federal agency considers that this standard does not provide for its essential needs, a statement citing inadequacies shall be sent in duplicate to the General Services Administration, Federal Supply Service, Washington, D.C. 20406, in accordance with provisions of Federal Property Management Regulations 41 CFR 101-29.3. The General Services Administration will determine the appropriate action to be taken and will notify the agency.

Preparing Activity:

National Communications System (NCS)
 Office of Technology and Standards
 Washington, D.C. 20305

This document is available from the General Services Administration (GSA), acting as agent for the Superintendent of Documents. A copy for bidding and contracting purposes is available from GSA Business Services Centers. Copies are for sale at the GSA, Specification Sales, Building 197 (Washington Navy Yard), Washington, D.C. 20407 for 25 cents each.

FSC TELE