

# Revision of US Military HF Radio Standards

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# Working Group

- Voting members represent
  - Lead Standardization Activity: DISA
  - Preparing Activity: USAF OKC Air Logistics Ctr
  - Custodians
- Observers
  - Industry
  - Academia

# Custodians – HF Standards

- Air Force
  - Oklahoma City Air Logistics Center
- Army
  - Communications – Electronics Command
- Navy
  - Space and Naval Warfare Systems Command
- Additional departments and agencies

# Technical Advisory Committee

- Informal team reporting to Working Group
- Small group of technical experts
  - Government, industry, academia reps
- Suggests changes to reflect state of the art
- Provides technical “sanity check”
- Corporate/agency/marketing/political issues remain outside the TAC

# Development Process

- Unofficial TAC Draft(s)
- Working Group Draft
- Coordination Draft (2009?)
- Comments
  - Essential
  - Suggested
- Resolution Meeting
- Approval

# Current Status of HF Standards

# Standards Revision Progress

- TAC met June 2007
  - Thorough review of updates since last revisions
  - New recommended changes
  - TAC Drafts sent to Working Group late in 2007
- Working Group met 5 February 2008
  - Approved major changes recommended by TAC
  - Many technical comments to be sent to TAC
- TAC met February 2009

# MIL-STD-188-141B

- “Interoperability and Performance Standards for Medium- and High-Frequency Radio Systems”
- Current issue is Change Notice 1, dated 31 August 2001

# MIL-STD-188-141C

- Working Group approved some major surgery:
  - Add wideband radio specs (up to 24 kHz channels)
  - Appendix C (3G): replace with reference to STANAG 4538
  - Remove Appendix D (HF networking)
  - Appendix E (HF Applications) to be informative only
  - Remove Appendix F (3G Anti-jam)
  - Remove Appendix G (2G data link protocol)
  - Remove Appendix H (HF MIB)

# MIL-STD-188-141C

- TAC Meeting February 2009
  - Resolved technical comments from the services and industry
  - New Appendix K:  
Guidance for shipboard co-sited applications
  - Wideband channel characteristics in development

# MIL-STD-188-110B

- “Interoperability and Performance Standards for Data Modems”
- Current issue is dated 27 April 2000

# MIL-STD-188-110C

- Working Group approved some major surgery:
  - Removed VF, wireline, LF, and UHF modems
  - Removed Appendix A (16-tone waveform)
  - **Appendix B (39 tone) retained, but obsolescent**
  - Removed Appendix D (subnetwork interface)
  - Removed Appendix E (data link protocol pointer)
- TAC is finalizing:
  - New Appendix G (LAN interface)
  - New Appendix H (channel simulator specs)

# MIL-STD-188-110C

- TAC Meeting February 2009
  - Resolved technical comments from the services
  - Recommend retaining Appendix B (39-tone):
    - Still in use by DHS (but phasing out)
  - Wideband waveforms in development
    - Will recommend passband specs to radio TAC
  - Appendix H simulator specs to be augmented for 6 kHz and 12 kHz channels

# AFCEA HF Radio Class

- Introduction to HF radio and HF standards
- Classes scheduled this year in Fairfax, VA
  - 5 – 7 May
  - 1 – 3 September (before US Labor Day holiday)

Questions?