

THE RADIO FACILITY

The HFTF radio facility is configured as a classic HF radio facility with transmitter and receiver sites that are separated spatially. Linked by fiber optic cable and microwave radio systems, these two remote sites house the facility's six receive and six transmit antennas and support components.

ADDITIONAL INFORMATION

To obtain more information about the JITC High Frequency Test Facility, its capabilities and functions, please contact one of the following JITC representatives:

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HIGH FREQUENCY (HF) TEST FACILITY



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*Increasing Combat Effectiveness
Through Interoperability*

Joint Interoperability Test Command

GENERAL INFORMATION

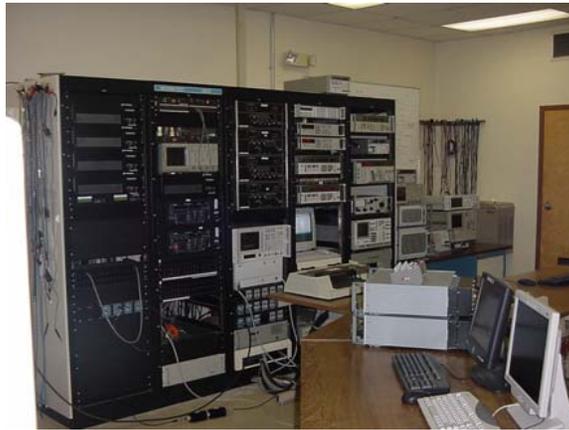
The High Frequency Test Facility (HFTF) functions as both a testing laboratory and a classic HF radio facility, which includes separate control, transmitter, and receiver sites. The laboratory and test areas are located within the Joint Test Facility (JTF) at Fort Huachuca, AZ. The receiver and transmitter sites are located approximately one mile and 30 miles, respectively, from the HF control facility.

The JITC is responsible for certifying all Command, Control, Communications, Computer, and Intelligence (C⁴I) systems as interoperable for joint use. To support this mission, the HFTF conducts Military Standards (MIL-STD), NATO STANAG compliance testing, and interoperability certification for Military Services, federal Agencies, and commercial customers.

TEST CAPABILITIES

The HFTF provides a broad range of test capabilities, to include bench-top standards conformance testing, performance testing using HF channel simulators, and over-the-air testing. JITC has developed test procedures to validate the following MIL-STD and NATO STANAG requirements:

- ◆ MIL-STD-188-141B, Interoperability and Performance Standards for Medium and High Frequency Radio Systems
- ◆ MIL-STD-188-110B, Interoperability and Performance Standards for Data Modems
- ◆ STANAG 5066, Profile for HF Radio Data Communications
- ◆ STANAG 4203, Annexes B and C, Technical Standards for Single Channel HF Radio Equipment
- ◆ STANAG 5511, Annex B (paragraphs 7.1 and 7.2), Tactical Data Exchange Link 11/Link 11B



The following procedures are also under development (or revision) by JITC to validate the following MIL-STD and STANAG requirements:

- ◆ MIL-STD-188-203-1A, Interoperability and Performance Standards for Tactical Digital Information Link (TADIL) A
- ◆ STANAG 4539, Technical Standards for Non-Hopping HF Communications Waveforms
- ◆ STANAG 4529, Characteristics of Single Tone Modulators/Demodulators for Maritime HF Radio Links with 1240 Hz Bandwidth
- ◆ STANAG 4285, Characteristics of 1200/2400/3600 Bits Per Second Single Tone Modulations/Demodulators for HF Radio Link
- ◆ (S)MIL-STD-188-148A, Interoperability Standard for Anti-Jam Communications, High Frequency Bank (2-30 MHz) (U)

HF Interoperability and performance testing is supported with the following certified radios and modems:

TRANSCEIVERS
RT-2200
AN/VRC-100
AN/ARC-220
AN/PRC-138 V2
Micom 2ES

MODEMS
RF-5710A
MDM Q9600
MDM 3001

THE TEST LAB

The HF test lab has 1600 sq ft of space support laboratory testing requirements. Test equipment includes spectrum analyzers, protocol analyzers, signal generators, oscilloscopes, and vector signal analyzers for waveform and protocol analysis. The lab's test automation network, known as "Legends," provides the tester with test management, data acquisition, and data analysis capabilities.

UPGRADE 2000

In 2000, a three level SCOPE Command station was added to the HFTF to increase test capabilities. This equipment provides complete control of radio modem assets at the transmitter and receiver sites.

