



Interested in UHF SATCOM?

If your organization is interested in the capabilities and functions of the JITC UHF SATCOM test facilities, or to obtain a cost estimate for testing your system, please contact the Test Officer at the following test facilities:

Legacy DAMA:
DSN 879-5331
(520) 538-5531

Integrated Waveform (IW):
DSN 879-1741
(520) 538-1741

UHF SATCOM (DAMA)

Test Facility Homepage:

<http://jitc.fhu.disa.mil/reg/uhfdama.htm>

Legacy DAMA Certification Register

<http://jitc.fhu.disa.mil/reg/legacydama.html>

**Integrated Waveform (IW)
Certification Register**

<http://jitc.fhu.disa.mil/reg/iw.html>

**Integrated Broadcast Service (IBS)
Common Interactive Broadcast (CIB)**

<http://jitc.fhu.disa.mil/reg/ibs.html>



Revised September 2012



Defense Information Systems Agency
Department of Defense

Joint Interoperability Test Command

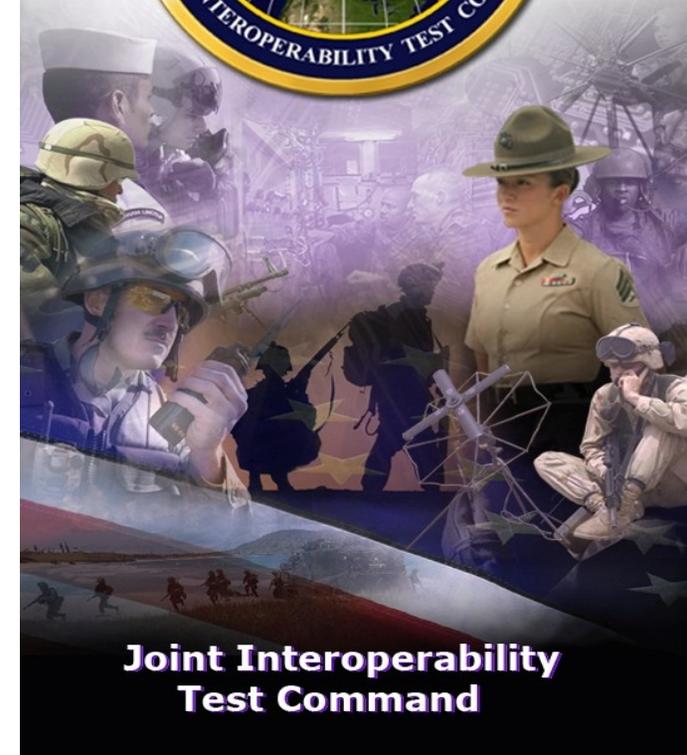
Attn: Visitor Support Center
P.O. BOX 12798
Fort Huachuca, AZ 85670-2798

Phone: 1-800-LET-JITC
1-800-538-5482
<http://jitc.fhu.disa.mil>

Ultra High Frequency (UHF) Satellite Communications (SATCOM) Test Facility



*Experts in Testing and Certification
Accelerating the Nation's IT Dominance*



**Joint Interoperability
Test Command**

GENERAL INFORMATION

The Joint Interoperability Test Command (JITC) is the Defense Information Systems Agency's test organization responsible for the interoperability and standards conformance certification testing of all Command, Control, Communications, Computer, and Intelligence systems of the Joint Enterprise. Following the release of the Chairman Joint Chiefs of Staff Instruction (CJCSI) 6251.01C in August 2009, JITC updated its capability to continue to provide Military Standards (MIL-STD)-188-181, -182, -183 and -184 conformance testing to enable agile certification of joint enterprise systems per the CJCSI. JITC provides these agile test services to Service, Agency, and Commercial vendor customers on a cost reimbursable basis.

The Demand Assigned Multiple Access (DAMA) Ultrahigh Frequency (UHF) Test Facility is the JITC functional component that is responsible for MIL-STD conformance testing of all UHF Satellite Communications terminal systems. The test facility is located within the Joint Test Facility compound at the JITC, Fort Huachuca, Arizona. Fort Huachuca is located in Sierra Vista, which is approximately 70 miles southeast of Tucson.

TEST CAPABILITIES

Test personnel perform joint enterprise terminal testing for conformance to the following:

- ◆ MIL-STD-188-181/A/B, Interoperability Standard for Dedicated 5-kHz and 25-kHz UHF Satellite Communications Channels
- ◆ MIL-STD-188-182/A, Interoperability Standard for 5-kHz UHF DAMA Terminal Waveform
- ◆ MIL-STD-188-183/A, Interoperability Standard for 25-kHz UHF TDMA/DAMA Terminal Waveform
- ◆ MIL-STD-188-184, Interoperability and Performance Standard for the Data Control Waveform

We can provide agile, tailored testing support to meet customer requirements. The scope of testing can range from "Quick Look" verifications of specific MIL-STD requirements to assist equipment vendors with their developmental testing process, to full compliance testing of any/all of the CJCSI mandated MIL-STDs. Once testing has demonstrated that a terminal meets all the requirements of a particular MIL-STD, JITC publishes a certification letter to document that fact. After a terminal has been certified to comply with each of the mandated MIL-STDs, JITC will then issue a separate document that certifies that the terminal conforms to the requirements of CJCSI 6251.01C, commonly referred to as a "Fourth Letter Certification". A Terminal Base Address will not be issued by the address-controlling authority until the terminals have received the Fourth Letter Certification, usually the ultimate goal of all test events.



TEST FACILITY

The legacy UHF SATCOM test facility is equipped with a broad assortment of precision measuring equipment, input/output devices, cryptographic devices, radio terminals, satellite simulators, a DAMA Orderwire Processor, and DAMA Semi-Automatic Controller to enable testing and verifying compliance with the myriad of MIL-STD conformance requirements. The SAC is a mirror image of the UHF DAMA network control systems currently fielded at the four Joint UHF Military Satellite Communications Network Integration control stations.

Conformance testing is accomplished on four test benches — one each for MIL-STD-188-181, -182, -183 and -184. Because testing is sub-divided amongst four test benches, multiple terminals can undergo testing simultaneously. Tests are conducted by a team of highly-trained and experienced support contractors, using a standard set of test procedures developed for each MIL-STD. Copies of the test procedures are available upon request in Adobe Acrobat pdf format.

Normally, customers provide all terminal equipment for testing. However, the lab does possess an assortment of terminals to support in-house interoperability testing as well as ad hoc warfighter operational scenario testing. The lab is equipped with multiple PSC-5s, a PRC-117F, multiple TD-1271/WSC-3s, and a pair of MD-1324/RT-1771s. Additional radios will be procured in the future to support Joint Tactical Radio System (JTRS) test support requirements.

TEST FACILITY UPGRADES

We continuously upgrade the facility to enable agile testing to keep pace with satellite modem and receiver/transmitter technology developments, as well as MIL-STD revisions. The most recent upgrade provided a much-improved multi-hop (communications across multiple satellite footprints) test capability within the lab environment.

