ANNUAL ARMED FORCES DAY CROSSBAND MILITARY/AMATEUR RADIO COMMUNICATIONS TEST (14 MAY 2016)

The Army, Air Force, Navy and Coast Guard are sponsoring the annual military/amateur radio communications tests in celebration of the 66th Anniversary of Armed Forces Day (AFD). The AFD Military/Amateur Crossband Communications Test is conducted 14 May 2016.

The annual celebration is a unique opportunity to test two way communications between Amateurs and military communicators authorized in 47 CFR 97.111, and features traditional military to amateur cross band SSB voice, Morse Code, practice using legacy interoperability waveforms, as well as an opportunity for Amateurs to utilize more modern military communications modes such as MIL-STD Serial PSK and Automatic Link Establishment (ALE). New for Armed Forces Day this year, military stations and amateur radio operators are authorized to directly communicate on the 60 Meter interoperability channels.

These tests give Amateur Radio operators and Short Wave Listeners (SWL) an opportunity and a challenge to demonstrate their individual technical skills, and to receive recognition from the appropriate military radio station for their proven expertise. QSL cards will be provided to those stations making contact with the military stations.

PART I. MILITARY-TO-AMATEUR CROSS BAND SSB & CW TEST CONTACTS.

Military-to-Amateur cross band operations will take place on the dates/times in ZULU (UTC), and frequencies listed below for each station. Voice contacts will include operations in single sideband voice (SSB). Some stations may not operate the entire period. Participating military stations will transmit on selected Military frequencies and listen for amateur radio stations in the Amateur bands indicated below. The military station operator will announce the specific amateur band frequency being monitored. Duration of each voice contact should be limited to 1-2 minutes. The following stations will be transmitting on MARS frequencies listed below which are provided as "Window/Dial Frequency" in kHz. Some stations will use CW to provide the opportunity to check in by Morse Code.

ARMY STATIONS:

AAZ / FT HUACHUCA, AZ

(14 MAY 1500Z - 2359Z)

FREQUENCY	EMISSION	AMATEUR BAND
5,330.5 kHz	USB	60M
14,383.5 kHz	USB	20M
18,211.0 kHz	USB	17M

AAC / BARROW ARMY RESERVE CENTER, KY

(14 MAY 1300Z - 15 MAY 0100Z)

FREQUENCY	EMISSION	AMATEUR BAND
5,346.5 kHz	USB	60M
7,360.0 kHz	USB	40M
13,963.5 kHz	USB	20M
20,920.0 kHz	USB	15M

AAV / CAMP EVANS, NJ

(14 MAY 1400Z - 2100Z)

FREQUENCY	EMISSION	AMATEUR BAND
5,330.5 kHz	USB/CW	60M
7,493.5 kHz	USB/CW	40M
14,846.0 kHz	USB/CW	20M
18,272.0 kHz	USB/CW	17M

ABH / SCHOFIELD BARRACKS, HI

(14 MAY 1600Z - 2300Z)

FREQUENCY	EMISSION	AMATEUR BAND
5,357.0 kHz	USB	60M
14,438.5 kHz	USB	20M
18,272.0 kHz	USB	17M
20,997.0 kHz	USB	15M

ADB / CAMP FOSTER, OKINAWA

(14 MAY 1500Z – 15 MAY 0100Z)

FREQUENCY	EMISSION	AMATEUR BAND
14,487.0 kHz	USB	20M
17,545.0 kHz	USB	17M
20,994.0 kHz	USB	15M

WAR / PENTAGON WASHINGTON, DC

(14 MAY 1200Z - 2400Z)

FREQUENCY	EMISSION	AMATEUR BAND
5,357.0 kHz	USB/CW	60M
14,854.0 kHz	USB/CW	20M
18,211.0 kHz	USB/CW	17M
24,760.0 kHz	USB/CW	12M

WUG-2 / ARMY CORPS OF ENGINEERS, TN

(14 MAY 1300Z-15 MAY 0200Z)

FREQUENCY	EMISSION	AMATEUR BAND
5,403.5 kHz	USB	60M
13,910.5 kHz	USB/CW	20M
18,293.0 kHz	USB/CW	17M
20,973.5 kHz	USB/CW	15M

ALT/ CAMP MABRY, TX

(14 MAY 1300Z-15 MAY 0200Z)

FREQUENCY	EMISSION	AMATEUR BAND
5,357.0 kHz	USB	60M
14,512.5 kHz	USB	20M
18,293.0 kHz	USB	17M
20,997.0 kHz	USB	15M

AIR FORCE STATIONS:

AIR / ANDREWS AFB

(14 MAY 1200Z - 2400Z)

FREQUENCY	EMISSION	AMATEUR BAND
4,517.0 kHz	USB	80M
7,305.0 kHz	USB	40M
15,807.0 kHz	USB	20M
20,740.0 kHz	USB	15M

AGA2SY / HANCOCK FIELD, NY

(14 MAY 1200Z TO 2400Z)

FREQUENCY	EMISSION	AMATEUR BAND
4,575.0 kHz	USB	80M
7,540.0 kHz	USB	40M
13,993.0 kHz	USB	20M

AGA4AR / ARNOLD AFB, TN

(14 MAY 1500Z TO 2000Z)

FREQUENCY	EMISSION	AMATEUR BAND
3,299.0 kHz	USB	80M
7,457.0 kHz	USB	40M
15,632.0 kHz	USB	20M

AGA5SC / SCOTT AFB, IL

(14 MAY 1600Z TO 2300Z)

FREQUENCY	EMISSION	AMATEUR BAND
3,308.0 kHz	USB	80M
4,872.0 kHz	USB	80M
7,545.0 kHz	USB	40M

AGA9TR / TRAVIS AFB, CA

(14 MAY 1600Z TO 2300Z)

FREQUENCY	EMISSION	AMATEUR BAND
4,575.0 kHz	USB	80M
4,872.0 kHz	USB	80M
7,545.0 kHz	USB	40M

COAST GUARD STATIONS:

NMC1 / COAST GUARD ISLAND, ALAMEDA, CA
(14 MAY 1400Z - 15 MAY 0030Z)

FREQUENCY	EMISSION	AMATEUR BAND
7,542.0 kHz	USB	40M
15,740.5 kHz	USB	20M
22,924.5 kHz	USB	15M

NMN / CAMSLANT, CHESAPEAKE VA
(14 MAY 1400Z - 15 MAY 0030Z)

FREQUENCY	EMISSION	AMATEUR BAND
7,528.6 kHz	USB	40M
14,459.6 kHz	USB	20M
19,221.6 kHz	USB	17M

NAVY STATIONS:

NIIW / USS MIDWAY CV-41 SAN DIEGO, CA
(14 MAY 1200Z - 15 MAY 0600Z)

FREQUENCY	EMISSION	AMATEUR BAND
4,003.5 kHz	USB	80M
7,360.0 kHz	USB	40M
14,441.5 kHz	USB	20M
18,211.0 kHz	USB	17M
20,997.0 kHz	USB	15M

NWVC / LST-325 EVANSVILLE, IN
(14 MAY 1200Z-15 MAY 0400Z)

FREQUENCY	EMISSION	AMATEUR BAND
4,007.0 kHz	USB/CW	80M
6,913.0 kHz	USB/CW	40M
13,974.5 kHz	USB/CW	20M
17,500.0 kHz	USB/CW	17M
24,782.0 kHz	USB/CW	12M

NWKJ / USS YORKTOWN CV-10
(14 MAY 1200Z - 15 MAY 0400Z 2015)

FREQUENCY	EMISSION	AMATEUR BAND
4,000.0 kHz	USB	80M
7,360.0 kHz	USB	40M
14,663.5 kHz	USB	20M
18,272.0 kHz	USB	17M
20,940.0 kHz	USB	15M

NPAX / US NAVAL ACADEMY MD
(14 MAY 1300Z-15 MAY 0200Z)

FREQUENCY	EMISSION	AMATEUR BAND
4,038.5 kHz	USB/CW	80M
7,533.5 kHz	USB/CW	40M
14,487.0 kHz	USB/CW	20M
17,545,0 kHz	USB/CW	17M
20,994.0 kHz	USB/CW	15M

PART II. SECRETARY OF DEFENSE MESSAGE TEST VIA DIGITAL MODES.

The Secretary of Defense message will be transmitted via Military Standard radio teletype modes described in MIL-STD 188-110A/B and listed below. Reception of Serial PSK will provide a technical challenge to Amateur stations to receive the broadcasts using a high symbol rate Serial PSK waveform not utilized in Amateur radio, but found in all modern military equipment.

Additionally, broadcasts will be sent using Wide Shift FSK (RTTY), as this mode represents a baseline in interoperability common in all radio services. Specific settings are shown below.

MIL-STD 188-110 A/B Serial PSK.
Software to demodulate the military Serial PSK waveform and detailed instructions can be downloaded at:

http://www.n2ckh.com/MARS_ALE_FORUM/

Utilizing this mode with soundcard equipment can be challenging and we recommend Amateur stations review the instructions carefully. Receivers should be set for a 2.7 kHz passband between 300 and 3000 Hz. Audio level should be set to just above the minimum level that decodes. Reception of the preamble at the beginning of the transmission is required to demodulate text.

To practice receiving signals in this mode, tune to the following dial frequencies at 1201Z, 1801Z or 0001Z daily.

11,105.0 kHz USB	13,512.5 kHz USB
11,454.0 kHz USB	14,935.0 kHz USB
12,147.0 kHz USB	15,870.0 kHz USB

FSK in accordance with MIL-STD 188-110A/B
Military FSK is Baudot at 850 Hz, 75 baud, low mark, and 2000 Hz center. Most RTTY programs can be set to decode this mode. To achieve low mark while receiving in USB, the reverse shift is selected.

Although not a capability normally found in Military stations, to accommodate amateurs some stations will transmit the Secretary of Defense message using common ham radio modes such as RTTY, PACTOR, AMTOR, PSK-31, MFSK and MT63. Amateur sound card modes will use default settings.

The Secretary of Defense message can be received from the stations listed below.

Frequencies listed are provided as "Window/Dial Frequency" in kHz. All times in Zulu (UTC).

COMBINED BROADCAST STATIONS BY TIME

14 MAY/1400Z	MIL STD 188-110 FSK	13,506.0 kHz USB	AGA2SY
14 MAY/1410Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AGA2SY
14 MAY/1420Z	MIL STD 188-110 FSK	13,506.0 kHz USB	WAR
14 MAY/1420Z	MIL STD 188-110 FSK	17,443.0 kHz USB	AGA2SY
14 MAY/1430Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	WAR
14 MAY/1430Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AGA2SY
14 MAY/1440Z	MIL STD 188-110 FSK	13,506.0 kHz USB	AAC
14 MAY/1440Z	MIL STD 188-110 FSK	17,443.0 kHz USB	WAR
14 MAY/1450Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AAC
14 MAY/1450Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	WAR
14 MAY/1500Z	MIL STD 188-110 FSK	17,443.0 kHz USB	AAC
14 MAY/1510Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AAZ
14 MAY/1510Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AAC
14 MAY/1530Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AAZ
14 MAY/1800Z	MIL STD 188-110 FSK	13,506.0 kHz USB	AGA2SY
14 MAY/1810Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AGA2SY
14 MAY/1820Z	MIL STD 188-110 FSK	13,506.0 kHz USB	WAR
14 MAY/1820Z	MIL STD 188-110 FSK	17,443.0 kHz USB	AGA2SY
14 MAY/1830Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	WAR
14 MAY/1830Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AGA2SY
14 MAY/1840Z	MIL STD 188-110 FSK	13,506.0 kHz USB	AAC
14 MAY/1840Z	MIL STD 188-110 FSK	17,443.0 kHz USB	WAR
14 MAY/1850Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AAC
14 MAY/1850Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	WAR
14 MAY/1900Z	MIL STD 188-110 FSK	17,443.0 kHz USB	AAC
14 MAY/1910Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AAZ
14 MAY/1910Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AAC
14 MAY/1930Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AAZ
14 MAY/1930Z	RTTY	7,457.0 kHz USB	AGA4AR
14 MAY/1930Z	RTTY	7,540.0 kHz USB	AGA2SY
14 MAY/1930Z	RTTY	7,545.0 kHz USB	AGA5SC
14 MAY/1930Z	RTTY	7,915.0 kHz USB	AGA9TR
14 MAY/2030Z	MT63	7,457.0 kHz USB	AGA4AR
14 MAY/2030Z	MT63	7,540.0 kHz USB	AGA2SY
14 MAY/2030Z	MT63	7,545.0 kHz USB	AGA5SC
14 MAY/2030Z	MT63	7,915.0 kHz USB	AGA9TR
14 MAY/2100Z	MFSK	7,457.0 kHz USB	AGA4AR
14 MAY/2100Z	MFSK	7,540.0 kHz USB	AGA2SY
14 MAY/2100Z	MFSK	7,545.0 kHz USB	AGA5SC
14 MAY/2100Z	MFSK	7,915.0 kHz USB	AGA9TR
14 MAY/2130Z	RTTY	13,993.0 kHz USB	AGA2SY
14 MAY/2130Z	RTTY	14,392.5 kHz USB	AGA5SC
14 MAY/2130Z	RTTY	14,411.0 kHz USB	AGA9TR
14 MAY/2130Z	RTTY	15,632.0 kHz USB	AGA4AR

14 MAY/2200Z	MIL STD 188-110 FSK	13,506.0 kHz USB	AGA2SY
14 MAY/2200Z	MIL STD 188-110 SERIAL PSK	14,487.0 kHz USB	ADB
14 MAY/2210Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AGA2SY
14 MAY/2210Z	MIL STD 188-110 SERIAL PSK	20,994.0 kHz USB	ADB
14 MAY/2220Z	MIL STD 188-110 FSK	13,506.0 kHz USB	WAR
14 MAY/2220Z	MIL STD 188-110 FSK	17,443.0 kHz USB	AGA2SY
14 MAY/2230Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	WAR
14 MAY/2230Z	MT63	13,993.0 kHz USB	AGA2SY
14 MAY/2230Z	MT63	14,392.5 kHz USB	AGA5SC
14 MAY/2230Z	MT63	14,411.0 kHz USB	AGA9TR
14 MAY/2230Z	MT63	15,632.0 kHz USB	AGA4AR
14 MAY/2230Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AGA2SY
14 MAY/2240Z	MIL STD 188-110 FSK	13,506.0 kHz USB	AAC
14 MAY/2240Z	MIL STD 188-110 FSK	17,443.0 kHz USB	WAR
14 MAY/2250Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AAC
14 MAY/2250Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	WAR
14 MAY/2300Z	MFSK	13,993.0 kHz USB	AGA2SY
14 MAY/2300Z	MFSK	14,392.5 kHz USB	AGA5SC
14 MAY/2300Z	MFSK	14,411.0 kHz USB	AGA9TR
14 MAY/2300Z	MFSK	15,632.0 kHz USB	AGA4AR
14 MAY/2300Z	MIL STD 188-110 FSK	17,443.0 kHz USB	AAC
14 MAY/2310Z	MIL STD 188-110 SERIAL PSK	13,506.0 kHz USB	AAZ
14 MAY/2310Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AAC
14 MAY/2330Z	MIL STD 188-110 SERIAL PSK	17,443.0 kHz USB	AAZ
15 MAY/0240Z	RTTY	13,506.0 kHz USB	NWKJ
15 MAY/0240Z	RTTY	17,443.0 kHz USB	NWKJ
15 MAY/0300Z	CW-25WPM	4,007.0 kHz USB	NWVC
15 MAY/0300Z	CW-25WPM	6,913.0 kHz USB	NWVC
15 MAY/0310Z	AMTOR FEC	13,506.0 kHz USB	NWKJ
15 MAY/0310Z	AMTOR FEC	17,443.0 kHz USB	NWKJ
15 MAY/0340Z	MT63	13,506.0 kHz USB	NWKJ
15 MAY/0340Z	MT63	17,443.0 kHz USB	NWKJ

SUBMISSION OF SECRETARY OF DEFENSE TEST MESSAGE ENTRIES.

Transcripts of the received text should be submitted "as received". No attempt should be made to correct possible transmission errors. Provide time, frequency and call sign of the military station copied, including name, call sign, and address (including zip code) of individual submitting the entry. Ensure this information is placed on the paper containing the test message. Each year a large number of acceptable entries are received with insufficient information, or necessary information was not attached to the transcriptions and was separated, thereby precluding issuance of a QSL card. Entries must be sent to the appropriate address as follows:

A. Stations copying Secretary of Defense message transmitted from Army and Navy stations, send entries to:

ARMED FORCES DAY CELEBRATION
COMMANDER NETCOM
ATTN: NETC-ITSMD
BLDG 90549 JIM AVENUE
FORT HUACHUCA, AZ 85613-7070

B. Stations copying Secretary of Defense message transmitted from Air Force stations, send entries to:

ARMED FORCES DAY CELEBRATION
38 CYRS/CHIEF, AF MARS
203W LOSEY ST, RM 1200
SCOTT AFB, IL 62225

PART III. AUTOMATIC LINK ESTABLISHMENT.

Amateur Stations with Automatic Link Establishment (ALE) capability can contact a military station on specific half duplex “cross band” channels established for this purpose. ALE is a selective calling and linking method utilized by government, military, and amateur radio communications.

Military stations will scan and receive certain Amateur HFLINK ALE frequencies, and transmit on the corresponding military ALE frequency. Military stations will also transmit ALE station identification (soundings) on each military frequency at 30 to 90 minute intervals. Amateur stations which are capable may scan the military frequencies and monitor the soundings to build the LQA database or select the channel manually. Amateur stations will call military stations using ALE selective calling on one of the paired cross band channels. HF Radios with an embedded ALE feature, or ham radios with computer-based PC-ALE, are compatible for use with the military 2G-ALE used in this event.

Amateur stations seeking more information about ALE go to http://hflink.net.

Please note:
Upper Sideband (USB) is utilized on all frequencies for transmit and receive.

Military stations participating in ALE are listed below:

STATION CALLSIGN	ALE ADDRESS
AAZ	**AAZ**
AGA2SY	**2SYAGA**
WAR	**WAR**

ALE FREQUENCY LIST

Channel	Amateur Frequency	Military Frequency
X75US	3,996.0 USB	4,000.0 USB
X60INT	5,371.5 USB	5,371.5 USB
X40US	7,296.0 USB	7,357.0 USB
X20INT	14,346.0 USB	14,846.0 USB
X17INT	18,117.5 USB	18,272.5 USB
X15INT	21,432.5 USB	20,940.0 USB
X12INT	24,932.0 USB	24,858.5 USB