

P 291501Z SEPTEMBER 2015

FM /MR PAUL ENGLISH CIV NETC-OP-ATD / MARS PM

/MR DAVE STAPCHUK CHIEF AIR FORCE MARS

TO /ALL ARMY MARS REGION DIRECTORS

/ALL AF MARS DIV DIRECTORS

/ALL AF MARS REGION DIRECTORS

ZEN/MR MIKE COREY AMERICAN RADIO RELAY LEAGUE

BT

UNCLAS FOUO

MSGID/GENADMIN/HQ ARMY MARS FT HUACHUCA AZ/AMO 14-15//

POC/DAVID MCGINNIS/CTR/NETC-OP-ATD MARS/FT HUACHUCA AZ//

ORDTYP/ORDER/HQ ARMY MARS//

TIMEZONE/Z//

**GENTEXT/SITUATION/**

**A. (U) GENERAL OVERVIEW:**

(1) (U) CHIEF, AIR FORCE AND ARMY MARS ARE COORDINATED ON THIS TASKING.

(3) (U) EXECUTION OF THIS COMMEX REQUIRES COORDINATION WITH RADIO STATIONS IN THE AMATEUR RADIO SERVICE (ARS).

(4) (U) TRAINING EXERCISE SIMULATES A NATIONAL CORONAL MASS EJECTION (CME) AND GEO-MAGNETIC STORM. IN 1859, ONE OF THE LARGEST GEOMAGNETIC STORMS ON RECORD OCCURRED. KNOWN AS THE CARRINGTON EVENT, THE CME ASSOCIATED WITH THIS SOLAR STORM WAS A DIRECT HIT ON THE EARTH. TELEGRAPH COMMUNICATIONS ACROSS THE GLOBE, WHICH HAD BECOME THE PRIMARY METHOD FOR COMMUNICATIONS AROUND THE WORLD, FAILED. IN 1989, ANOTHER CME KNOCKED OUT ELECTRICITY FOR 12 HOURS TO OVER 6 MILLION RESIDENTS IN QUEBEC. THE SOLAR STORM OF 2012 WAS OF SIMILAR MAGNITUDE TO THE CARRINGTON EVENT BUT PASSED EARTH'S ORBIT WITHOUT STRIKING THE PLANET. SHOULD A CME OF THIS MAGNITUDE STRIKE EARTH TODAY, THE RESULTING GEO-MAGNETIC STORM IS EXPECTED TO CAUSE

SIGNIFICANT DAMAGE TO ELECTRICAL AND TELECOM-MUNICATIONS INFRASTRUCTURE, CONSUMER ELECTRONICS, AND CAUSE WIDESPREAD ECONOMIC AND SOCIAL DISRUPTIONS. SOME ESTIMATES INDICATE UP TO 2 TRILLION DOLLARS IN DAMAGE AND RECOVERY FROM SUCH AN EVENT MAY EXTEND FROM SEVERAL MONTHS TO YEARS. ONLY EQUIPMENT THAT HAS BEEN PROTECTED DURING THE GEO-MAGNETIC STORM SHOULD BE EXPECTED TO OPERATE POST-EVENT.

(5) (U) THROUGHOUT THE COMMEX, STATIONS SHOULD OPERATE UNDER EXERCISE CONDITIONS THAT SIMULATE A COMPLETE UNAVAILABILITY OF CYBERSPACE, ELECTRICAL, AND TELECOMMUNICATIONS INFRASTRUCTURE. ALL MARS AND AMATEUR RADIO STATIONS SHOULD PLAN TO EXERCISE, REGARDLESS OF THEIR ABILITY TO USE BACKUP POWER.

B. (U) FRIENDLY FORCES

(1) (U) AIR FORCE MARS

(2) (U) ARMY MARS

(3) (U) AMATEUR RADIO OPERATORS

(4) (U) DOD FORCES

(5) (U) AMERICAN RADIO RELAY LEAGUE

C. (U) ENEMY FORCES

(1) (U) SOUND OPERATIONAL SECURITY (OPSEC) AND ANTI-TERRORISM/FORCE PROTECTION (AT/FP) PRACTICES WILL BE IMPLEMENTED AND USED THROUGHOUT THE COMMEX.//

GENTEXT/MISSION/

(U) IN A SIMULATED NATIONAL CRISIS SITUATION, MARS STATIONS WILL EXERCISE CONTINGENCY COMMUNICATIONS SUPPORT IN COOPERATION WITH AMATEUR RADIO STATIONS FROM 071200Z NOV 2015 TO 102359Z NOV 2015 IN ORDER TO FULFILL NATIONAL MILITARY REQUIREMENTS IN SUPPORT OF THE DOD NATIONAL CONTINGENCY COMMUNICATIONS MISSION INCLUDING:

(1) (U) JOINT TASKING AND UTILIZATION OF VOLUNTEER PERSONNEL FROM MARS TO FULFILL NATIONAL REQUIREMENTS.

(2) (U) COORDINATING WITH AVAILABLE AMATEUR RADIO RESOURCES.

(3) (U) SOCIALIZE WARNING OF A NATIONAL, IMPENDING HAZARDOUS EVENT THROUGHOUT THE MARS FORCE. IMPLEMENT MEASURES TO PROTECT THESE RESOURCES FROM THE NOTIONAL HAZARD.

(4) (U) DEMONSTRATE INTEROPERABILITY BETWEEN DOD NETWORKS AND AMATEUR RADIO.

(5) (U) RADIO STATIONS OPERATING WITHIN THE DOD GLOBAL HF ENTERPRISE NETWORK MEET PERFORMANCE STANDARDS DESCRIBED IN MIL-STD 188-110 AND TEXT MESSAGE STANDARDS IN MIL-STD 6040 (USMTF)//

GENTEXT/EXECUTION/

A. (U) INTENT

(U) ESTABLISH AND SUSTAIN DEPENDABLE, MULTI-LAYER HF RADIO-ONLY NETWORK COMMUNICATIONS TO SUPPORT DOD OBJECTIVES AND INTERFACE WITH RELEVANT AMATEUR RADIO NETWORKS AS REQUIRED TO FULFILL DOD INFORMATION REQUIREMENTS.

B. (U) CONCEPT OF OPERATIONS

(U) THIS COMDEX IS DESIGNED TO EXERCISE TASKS THAT WOULD NORMALLY OCCUR FOR A PERIOD OF TIME OF SEVERAL DAYS OR LONGER. HOWEVER, THE COMDEX IS CONDUCTED OVER A COMPRESSED TIME PERIOD. THIS IS A HIGH PRIORITY ACTIVITY AND ALL MARS ASSETS AVAILABLE TO TRAIN SHOULD PARTICIPATE IN THIS COMDEX.

(1) (U) NOTIFICATION PHASE

(U) THE TIME PERIOD 071200Z THROUGH 080900Z NOV 2015 IS THE NOTIFICATION PHASE OF THE COMDEX.

(U) AT 071200Z NOV 2015 ALL MARS STATIONS WILL SIMULATE A GROWING AWARENESS OF A NOTIONAL CME AND GEOMAGNETIC STORM CONSIDERED LIKELY TO HIT EARTH AS DISCUSSED ON NOTIONAL SOCIAL MEDIA AND NEWS NETWORKS. THE GROWING CONSENSUS IS THIS CME IS LIKELY TO BE OF A CATASTROPHIC MAGNITUDE.

(U) DURING THIS PHASE, STATE MARS DIRECTORS AND STAFF SHOULD PREPARE MARS STATIONS FOR A POTENTIAL COMMUNICATIONS DISRUPTION AND SOCIALIZE TECHNIQUES WITH THEIR SUBORDINATES TO PROTECT RADIO AND COMPUTER EQUIPMENT. ADDITIONALLY, AMARS STATE CIVIL AFFAIRS OFFICERS AND AFMARS STATE EMERGENCY COORDINATORS SHOULD WORK TOGETHER TO BEGIN COORDINATION ACTIVITIES WITH LOCAL AMATEUR

ORGANIZATIONS. REGION MARS DIRECTORS AND OPERATIONS STAFF SHOULD PREPARE FOR PERIODS OF HIGH INTENSITY AND SUSTAINED NETWORK OPERATIONS. MARS MEMBERS SHOULD MAINTAIN EMAIL AND TELEPHONE CONTACT WITH THEIR STATE MARS STAFF, CHECK INTO REGULARLY SCHEDULED MARS NETS, CHECK AND TEST EQUIPMENT, SOFTWARE AND REFERENCE INFORMATION TO ENSURE THEY ARE UP TO DATE AND OPERATIONAL IN ALL AREAS.

(U) AT 080001Z NOV 2015 G2 SOURCES WILL NOTIFY MARS OF AN IMPENDING CME. DOD WILL DIRECT MARS PROGRAMS TO IMPLEMENT A POSTURE TO ENSURE SURVIVALABILITY OF THEIR INDIVIDUAL STATIONS, DISCONNECT RADIO AND COMPUTER EQUIPMENT FROM ALL WIRING BETWEEN THE HOURS OF 080900Z THROUGH 081200Z NOV 2015. MARS MEMBERS WILL BE NOTIFIED OF POTENTIAL REQUESTS FOR INFORMATION FOLLOWING CME IMPACT. MARS STATIONS SHOULD COMMUNICATE INFORMATION RELEVANT TO PROTECTING EQUIPMENT FROM THE EFFECTS OF THE GEOMAGNETIC STORM TO ALL MARS MEMBERS AND FINALIZE PREPARATIONS FOR OPERATIONS.

(2) (U) GEOMAGNETIC STORM PHASE

(U) BETWEEN 080900Z THROUGH 081200Z NOV 2015 THE NOTIONAL GEOMAGNETIC STORM WILL OCCUR. ALL MARS STATIONS RADIO AND COMPUTER EQUIPMENT SHALL BE PHYSICALLY DISCONNECTED FROM ANTENNAS, POWER MAINS, AND INTERCONNECT WIRING IN A MANNER THAT PROVIDES THE BEST PROTECTION FROM THE EFFECTS OF THE GEOMAGNETIC STORM.

(U) NO EXERCISE RADIO OPERATIONS WILL BE CONDUCTED DURING THE GEOMAGNETIC STORM PHASE.

(3) (U) POST GEOMAGNETIC STORM PHASE / HIGH INTENSITY NETWORK OPERATIONS (HINO)

(U) AT 081200Z NOV 2015 MARS STATIONS WILL OBSERVE NOTIONAL LOSS OF ELECTRICAL POWER, TELECOMMUNICATIONS, AND CYBERSPACE AS A RESULT OF THE NATIONAL GEOMAGNETIC STORM. BASED ON THESE NOTIONAL TRIGGER EVENTS, MARS STATIONS SHALL TAKE INDIVIDUAL ACTION THAT COLLECTIVELY ACTIVATES HF RADIO NETWORKS AT ALL LEVELS. COMSPOT REPORTS SHALL BE GENERATED AT EACH LEVEL AND SENT TO HIGHER.

(U) SHORTLY AFTER 081200Z NOV 2015, A REQUEST FOR INFORMATION FOR COUNTY MESSAGES WILL BE FORWARDED TO MARS. MARS STATIONS IN EACH

COUNTY OR ADJACENT OR NEARBY COUNTIES WILL COMPLETE COUNTY MESSAGES AS TASKED.

(U) MARS MEMBERS, USING THEIR AMATEUR RADIO LICENSE, SHALL CONTACT AMATEUR RADIO STATIONS AND CONVERSE WITH AMATEUR OPERATORS TO OBTAIN THE INFORMATION VARIABLES NECESSARY TO COMPLETE THE COUNTY REPORTS. MARS STATIONS SHOULD NOT EXPECT AMATEUR STATIONS TO KNOW FIPS COUNTY CODES OR THE COUNTY MESSAGE FORMAT. BECAUSE EXERCISING THE MARS/AMATEUR RADIO SERVICE INTERFACE IS A PRIMARY OBJECTIVE OF THIS COMDEX, MARS STATIONS SHOULD OFFER LOCAL AMATEUR STATIONS EVERY OPPORTUNITY TO TRAIN IN THIS COMDEX TO INCLUDE TAKING DUPLICATE INFORMATION FROM AMATEUR SOURCES WHEN THE INFORMATION MAY BE AVAILABLE DIRECTLY TO THE MARS STATION.

(U) AMATEUR RADIOS OPERATORS THAT WOULD NORMALLY OPERATE AT A STATE OR LOCAL GOVERNMENT EMERGENCY OPERATIONS CENTER OR AT ANOTHER GOVERNMENT OR CIVIL FACILITY DURING AN ACTUAL EVENT OF THIS TYPE MAY SIMULATE OPERATING FROM THAT FACILITY DURING THIS COMDEX, AS APPROPRIATE. THE INTENT OF THIS COMDEX IS NOT TO REQUEST ACTIVATION OF STATE/LOCAL OR CIVIL FACILITIES, RATHER TO EXERCISE INFORMATION EXCHANGE BETWEEN MARS AND AMATEUR NETWORKS.

(U) IT IS IMPORTANT TO NOTE THAT ONLY REAL-WORLD INFORMATION IS COLLECTED. SIMULATED OR NOTIONAL CONDITIONS ARE NOT REPORTED. IE: IF THE POWER IS REALLY ON, THEN THE REPORT SHALL BE THE POWER IS ON.

(U) THIS EXERCISE SIMULATES THE INACCESSIBILITY OF CYBERSPACE. THE PRIMARY OBJECTIVE IS TO EXERCISE HUMAN INTERACTION BETWEEN RADIO OPERATORS IN THE MARS AND AMATEUR SERVICES USING BASIC TECHNOLOGIES. CONTACT TO AMATEUR RADIO STATION SHALL BE ONLY THROUGH TRADITIONAL RADIO METHODS. NO INTERNET-BASED LINKING, REMOTE, STORE AND FORWARD, OR EMAIL SYSTEMS ARE PERMITTED TO BE USED TO FULFILL THE EXERCISE REQUIREMENT.

(4) (U) SUSTAINED NETWORK OPERATIONS

(5) (U) MARS / DOD ACTIVITY

(6) (U) CONTINUITY OF OPERATIONS

C. (U) TASKS TO SUBORDINATE UNITS:

(1) (U) US ARMY GATEWAY STATION FORT HUACHUCA:

(2) (U) MARS STATIONS SUPPORTING THE TRANSGLOBAL NET:

(U) SCHEDULE MAJOR RELAY STATIONS AND MAKE ALL NECESSARY PREPARATIONS TO STAFF THE TRANSGLOBAL NET.

(3) (U) MARS STATIONS SUPPORTING THE NATIONAL SUPPORT NET:

(U) THE NATIONAL SUPPORT NET WILL RECEIVE ADDITIONAL INSTRUCTION IN A SEPARATE COMMUNICATION.

(4) (U) ARMY AND AIR FORCE MARS REGION DIRECTORS

(A) (U) ESTABLISH PROCEDURES AND ISSUE DIRECTIVES WITHIN THEIR REGION TO SUPPORT THIS COMDEX.

(B) (U) ESTABLISH ALTERNATE COMMAND AND STAFF ASSIGNMENTS WITHIN THE LEADERSHIP TEAM.

(C) (U) SOCIALIZE THIS EXERCISE WITH AMATEUR RADIO ORGANIZATIONS TO ENCOURAGE PARTICIPATION.

(U) (U) ENSURE ALL MARS STATIONS MAXIMIZE TRAINING OPPORTUNITIES THROUGHOUT THE COMDEX AND ARE CAPABLE OF OPERATING USING SSB VOICE AND MIL-STD DATA.

(6) (U) AIR FORCE MARS DIVISION DIRECTORS

(U) PROVIDE ALL NECESSARY SUPPORT TO AIR FORCE MARS REGION DIRECTORS TO EXECUTE THIS COMDEX.

(7) (U) JOINT PHONE PATCH MANAGER:

(U) NO SIGNIFICANT ADDITIONAL DEMANDS FOR PHONE PATCH SERVICES ARE ASSOCIATED WITH THIS COMDEX. CONDUCT SCHEDULED PHONE PATCH OPERATIONS ACCORDING TO EXISTING DIRECTIVES.

D. (U) COORDINATING INSTRUCTIONS:

(1) (U) TRAIN-UP

(U) THROUGH INDEPENDENT STUDY PRIOR TO THIS COMDEX, MARS STATIONS SHOULD FAMILIARIZE THEMSELVES WITH THE POTENTIAL EFFECTS OF A CARRINGTON-CLASS CME AND ACTIONS THAT CAN BE TAKEN TO PROTECT EQUIPMENT FROM THE RESULTING GEOMAGNETIC STORM.

(2) (U) AMATEUR RADIO ACTIVITY

(U) THIS EXERCISE DOES NOT INCLUDE ANY FORMAL TASKING ASSOCIATED WITH A PARTICULAR AMATEUR RADIO ORGANIZATION; HOWEVER, THIS PROVIDES AN OPPORTUNITY FOR INDIVIDUAL, NON MARS AFFILIATED AMATEUR RADIO OPERATORS TO SUPPORT A DOD ACTIVITY IN A REALISTIC, AD-HOC MANNER. THE SOURCE OF ANY REQUEST FOR INFORMATION CAN BE A LOCAL AMATEUR RADIO STATION WHO IS NEAREST THE REQUESTED RESOURCE. STATE MARS DIRECTORS, THROUGH THEIR CIVIL AFFAIRS OFFICERS (A) AND EMERGENCY COORDINATORS (AF), SHOULD TAKE IMMEDIATE ACTION TO ENLIST THE SUPPORT OF INTERESTED LOCAL AMATEURS, GROUPS, AND ORGANIZATIONS.

(U) AMATEUR RADIO ACTIVITY IS LIMITED TO RADIO ONLY; NO TCP/IP TECHNOLOGY WILL BE USED DURING THIS EXERCISE.

(3) (U) JOINT COORDINATION

(U) REGION MARS DIRECTORS, SUPPORTED BY DIVISION DIRECTORS SHALL COORDINATE ALL COMMEX ACTIVITIES TO ACHIEVE:

(A)(U) HF RADIO NETWORK COVERAGE AS REQUIRED.

(B) (U) A SCHEDULE TO ENSURE NET CONTROL AND MINOR/ MAJOR RELAY STATION AVAILABILITY.

(C) (U) ASSIGN AND TRAIN MARS STATIONS TO ACCOMPLISH ALL ANTICIPATED TASKS.

(D) (U) PRIORITIZE AND SCHEDULE RESOURCES TO ENSURE COMMEX IS FULLY STAFFED THROUGH THE ENTIRE PERIOD.

(E) (U) ENSURE COMSPOT REPORTS INCLUDE REMARKS CONTAINING THE INDIVIDUAL MEMBER CALL SIGN OF ALL STATIONS THAT CHECKED INTO THE NET WHILE THE NET WAS OPERATING. TAKE ALL NECESSARY ACTIONS TO ENSURE ALL MARS STATIONS THAT TRAINED IN THIS EXERCISE ARE RECORDED.

(F) (U) COMPLETE AND SUBMIT AFTER ACTION REPORTS (AAR) TO THE RESPECTIVE HEADQUARTERS OR DIVISION DIRECTORS NO LATER THAN 15 DAYS FOLLOWING CONCLUSION OF COMMEX.

MARS AFTER ACTION REPORTS SHALL CONTAIN THE ASSIGNED STATION (NOT BILLET) CALL SIGN OF EVERY MARS STATION PARTICIPATING.

(4) (U) A REDACTED VERSION OF THIS ORDER WILL BE PROVIDED FOR REFERENCE AND DISTRIBUTION TO THE AMATEUR RADIO COMMUNITY.

(5) (U) OTHER ACTIVITIES MAY COINCIDE WITH THIS EXERCISE. MARS STATIONS ARE TO PROCESS "NO PLAY" MESSAGES AND TRAFFIC WITHOUT DELAY, AS REQUESTED.//

GENTEXT/ADMIN AND LOG/

(U) ALL MARS STATIONS ARE EXPECTED TO BE SELF SUPPORTING FOR THE DURATION OF THE COMMEX. NO SERVICE SUPPORT IS PROVIDED.//

GENTEXT/COMMAND AND SIGNAL/

A. (U) COMMAND

(1) (U) CHAIN OF COMMAND.

(U) US ARMY NETCOM IS THE LEAD AGENCY DESIGNATED FOR EXECUTION OF THIS TASK. THIS ACTIVITY IS COORDINATED BETWEEN HQ ARMY MARS AND CHIEF AIR FORCE MARS.

(A) ARMY MARS PROGRAM MANAGER / US ARMY NETCOM G34 ATD;

(B) CHIEF AIR FORCE MARS / US AIR FORCE SPACE COMMAND 38SCM;

(C) ARMY MARS OPERATIONS OFFICER / US ARMY NETCOM G34 ATD;

(D) ARMY MARS REGION DIRECTORS AND AIR FORCE MARS REGION DIRECTORS;

(E) AF MARS DIVISION DIRECTORS (ADMINISTRATIVE ONLY);

(F) ARMY AND AIR FORCE MARS STATE DIRECTORS;

(G) MARS MEMBERS.

B. (U) SIGNAL

(4) (U) INTERNET TECHNOLOGY, INCLUDING HF EMAIL AND INTERNET LINKED REPEATER SYSTEMS ARE NOT PERMITTED IN THIS EXERCISE.

(U) MARS MEMBERS OPERATING ON AMATEUR RADIO FREQUENCIES SHALL UTILIZE THE PREVAILING OPERATING MODE IN USE ON THE FREQUENCY.

(6) (U) OFF LINE ENCODING

(B) (U) IT IS UNDERSTOOD THAT AMATEUR STATIONS DO NOT HAVE ENCRYPTION CAPABILITIES. COMMUNICATIONS WITH AMATEUR STATIONS SHALL BE UN-ENCRYPTED AND IN ACCORDANCE WITH EXISTING AMATEUR CONVENTIONS.



(7) (U) COMMUNICATIONS PLAN

(B) (U) AMATEUR RADIO: LOCAL VHF/UHF AND HF AMATEUR RADIO NETS AND  
OTHER LOCAL AD HOC AMATEUR ACTIVITY.//

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