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NETCOM

NETWORK ENTERPRISE TECHNOLOGY COMMAND



21 April 2022

Amateur Radio Support to DoD COMEX 22-2

NETCOM G3 Current Operations

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Amateur Radio Support to DOD

Agenda

- FCC & NTIA
- Operator Authorities
- DOD COMEX 22-2 Scenario
- Types of information relevant to the cause
- WWV/H
- 60 Meters
- Upcoming exercise dates



This is Your Presenter...

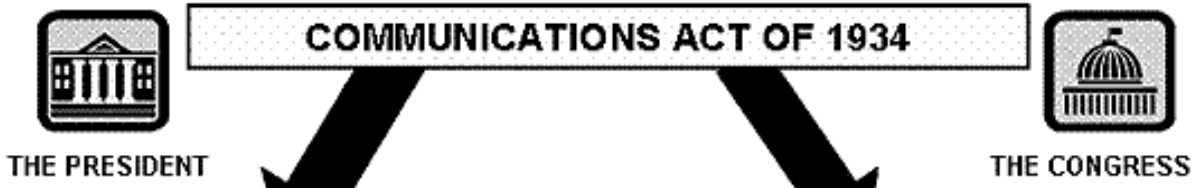
- Retired Colonel, Army Signal Corps, tactical assignments, 26 years
 - Deployments: middle east, Bosnia/Croatia, and Haiti
- Department of Army civilian since 2013
- HF Radio, Chief Army MARS and Army Land Mobile Radio Project Officer
- General Radiotelephone commercial licensee
- Licensed Amateur Radio Operator since 1976, amateur extra licensee
- Designated RACES County Liaison; Bell County, TX
- Trained AUXCOMM; working my position task book
- GMRS licensee



Federal Communications Commission (FCC) and National Telecommunication and Information Administration (NTIA)

Two federal entities control all Spectrum usage and user authorizations codified in law

National Spectrum Management



NTIA

Federal Users

National Defense
Law Enforce. & Security
Transportation
Resource Mgmt. & Control
Emergencies

FCC

Non-Federal Users

Business
State & Local Government
Entertainment
Commercial
Private

COORDINATION

NIFOG
National Interoperability Field Operations Guide
Version 2.0
AUGUST 2021
Cybersecurity and Infrastructure Security Agency
U.S. Department of Homeland Security

Title 47 Telecommunication Chapter I FCC

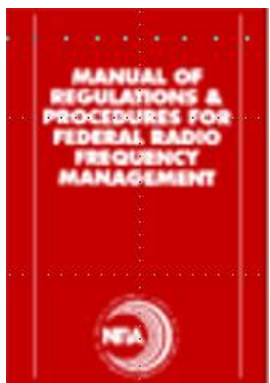
- Parts:
- 80 –Maritime
 - 87 - Aviation
 - 90 – Private Land Mobile Radio Service
 - 95 – Personal Radio Services
 - FRS
 - GMRS
 - CB
 - MURS
 - 97 – Amateur Radio Service

AUXCOMM

Auxiliary Communications Field Operations Guide (AUXFOG)
U.S. Department of Homeland Security
Office of Emergency Communications
Version 1.1
Homeland Security
November 2017

Title 47 Telecommunication Chapter III NTIA

“The Red Book”





Part 97 Amateur Radio Service

[eCFR :: 47 CFR Chapter I Subchapter D -- SAFETY and Special Radio Services](#)

- ▼ **Title 47** Telecommunication
 - ▼ **Chapter I** Federal Communications Commission
 - ▼ **Subchapter D** SAFETY and Special Radio Services
 - ▶ **Part 80** Stations in the Maritime Services
 - ▶ **Part 87** Aviation Services
 - ▶ **Part 90** Private Land Mobile Radio Services
 - Part 94 [Reserved]
 - ▶ **Part 95** Personal Radio Services
 - ▶ **Part 96** Citizens Broadband Radio Service
 - ▼ **Part 97** Amateur Radio Service
 - Subpart A** General Provisions
 - ▶ **Subpart B** Station Operation Standards
 - Subpart C** Special Operations
 - Subpart D** Technical Standards
 - ▶ **Subpart E** Providing Emergency Communications
 - Subpart F** Qualifying Examination Systems
 - Appendix 1 to Part 97**
Places Where the Amateur Service is Regulated by the FCC
 - Appendix 2 to Part 97**
VEC Regions
 - ▶ **Part 101** Fixed Microwave Services
 - Parts 102-199 [Reserved]

Part / Section
0 – 199
80 – 199
80.1 – 80.1252
87.1 – 87.529
90.1 – 90.1338
95.100 – 95.3385
96.1 – 96.67
97.1 – 97.527
97.1 – 97.31
97.101 – 97.121
97.201 – 97.221
97.301 – 97.317
97.401 – 97.407
97.501 – 97.527
101.1 – 101.1527

Amateur Radio consists of:

- Amateur Radio Service
- Amateur Satellite Service
- Radio Amateur Civil Emergency Service

97.111 Authorized Transmissions

97.407 Radio Amateur Civil Emergency Service



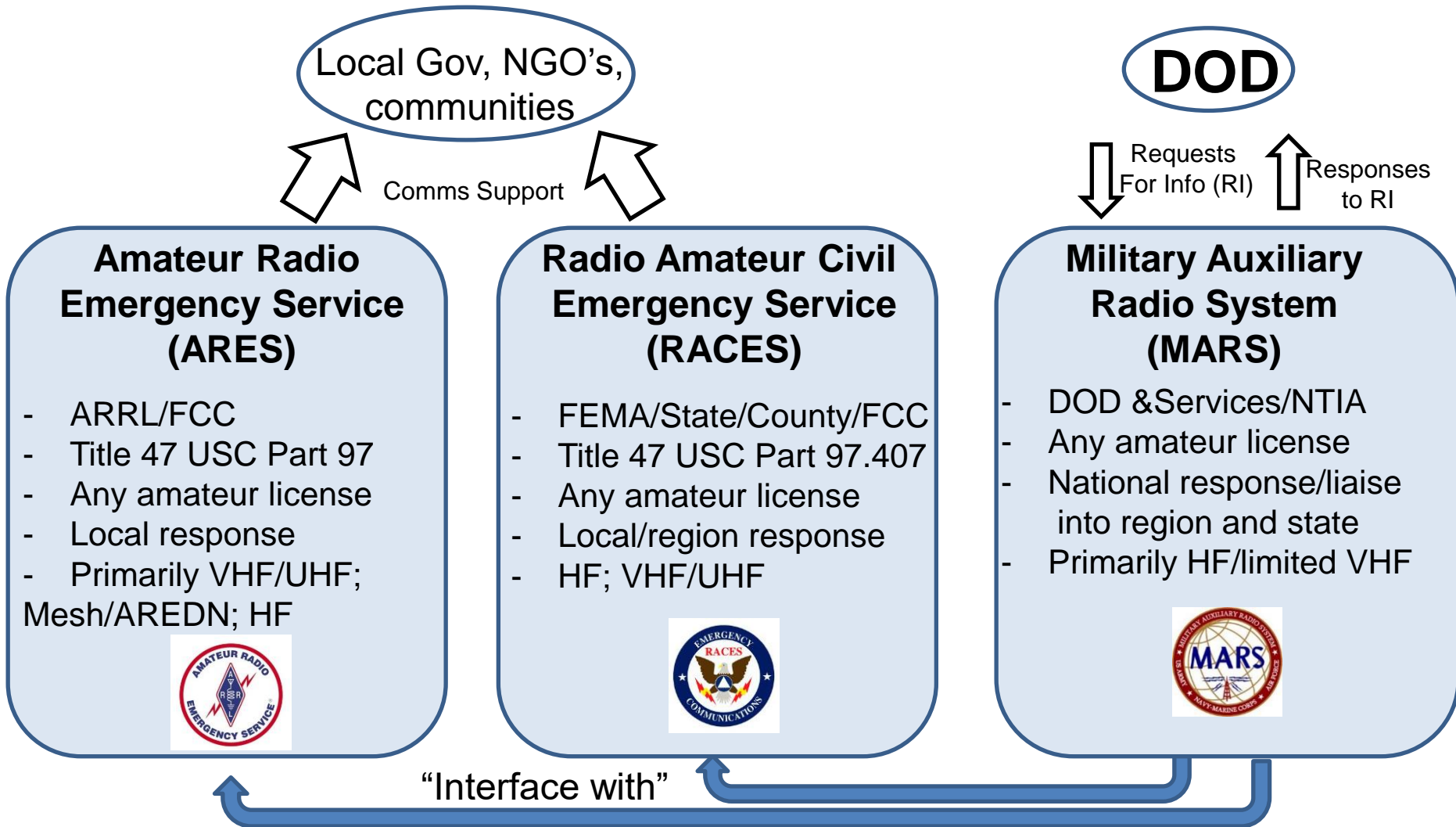
eCFR :: 47 CFR Part 97 Subpart B -- Station Operation Standards

§ 97.111 Authorized transmissions.

- (a) An amateur station may transmit the following types of two-way communications:
- (1) Transmissions necessary to exchange messages with other stations in the amateur service, except those in any country whose administration has notified the ITU that it objects to such communications. The FCC will issue public notices of current arrangements for international communications.
 - (2) Transmissions necessary to meet essential communication needs and to facilitate relief actions.
 - (3) Transmissions necessary to exchange messages with a station in another FCC-regulated service while providing emergency communications;
 - (4) Transmissions necessary to exchange messages with a United States government station, necessary to providing communications in RACES; and
 - (5) Transmissions necessary to exchange messages with a station in a service not regulated by the FCC, but authorized by the FCC to communicate with amateur stations. An amateur station may exchange messages with a participating United States military station during an Armed Forces Day Communications Test.
- (b) In addition to one-way transmissions specifically authorized elsewhere in this part, an amateur station may transmit the following types of one-way communications:
- (1) Brief transmissions necessary to make adjustments to the station;
 - (2) Brief transmissions necessary to establishing two-way communications with other stations;
 - (3) Telecommand;
 - (4) Transmissions necessary to providing emergency communications;
 - (5) Transmissions necessary to assisting persons learning, or improving proficiency in, the international Morse code; and
 - (6) Transmissions necessary to disseminate information bulletins.
 - (7) Transmissions of telemetry.



Amateur Radio Supporting the DOD





DOD COMEX 22-2



DOD COMEX Scenario



A significant event took place across the U.S. over the weekend (30 April-1 May) which is causing wide-spread disruptions to normal communications and other services.

A whole of government response is ramping up and a DOD HQs is activated to respond and gather situational awareness information in order to plan the appropriate response.

WWV/H stations are broadcasting informational messages providing general information about the current situation and what types of information is needed.

U.S. Army Network Enterprise Technology Command has activated the Military Auxiliary Radio System network in order to interface with the DHS Shared HF Resources network and the amateur radio community in order to assist in gathering situational awareness information.

Amateur radio and AUXCOMM assistance in collecting specific information via radio-only means is desired and appreciated.



Types of Information that May Be Needed?

Local news



Internet availability



Water availability



Road conditions



Power availability



Hotel availability



Airport weather



Fuel availability

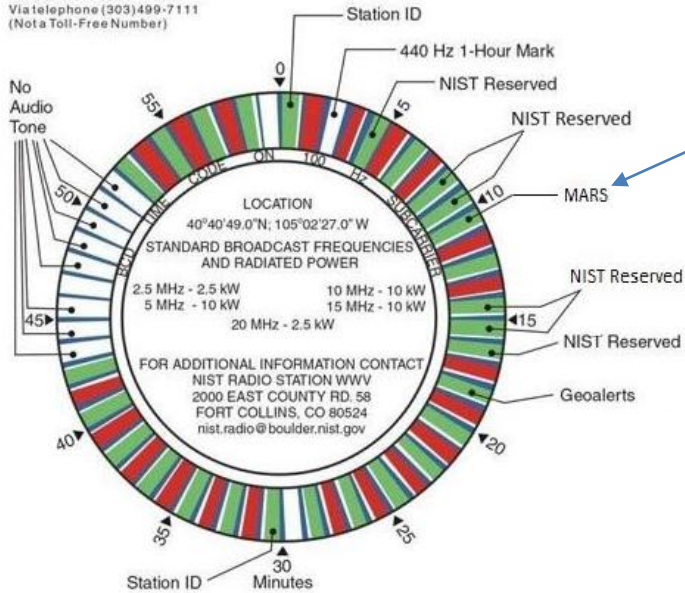


DOD Broadcasts on WWV & WWVH



WWV

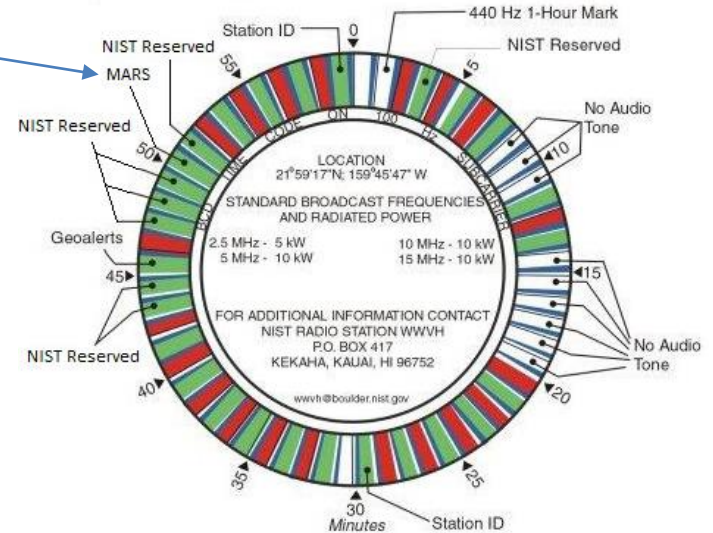
Broadcast Format
Via telephone (303) 499-7111
(Nota Toll-Free Number)



DOD Information Broadcasts

WWVH

Broadcast Format
Via telephone (808) 335-4363
(Nota Toll-Free Number)



Concept of Operation:

<= 40 sec voice-only broadcast

10 mins after the hour WWV

50 mins after the hour WWVH

Take a listener survey:

www.dodmars.org

Survey results shared with WWV/H to show their HQs how the stations are used and how often



60 Meters Protocol

The only five channels where military and amateurs are permitted to communicate on the same channel

US Government stations and Radio Amateur Civil Emergency Service: stations may exchange emergency communications. (97.111)

DHS, FEMA, USCG, DOD, others Fed entities: have primary use authorization; Amateur radio service has secondary use authorization on these channels:

Dial Frequency:

5330.5 (channel 1) “The rally channel”

5346.5

5357.0

5371.5

5403.5

} Working Channels

When required, federal/military stations will **request amateur radio operators** to:

- **clear the frequency** to allow the feds to conduct their communications, **or**
- **request amateur radio operators to remain on frequency and assist** with communications or information gathering



60 Meters Concept of Operation



030200Z May: High power broadcast followed by net calls by FEMA Region requesting information for specific locations

3-7 May 1200 Hrs local: Net calls by FEMA Region to retrieve information requested the prior evening

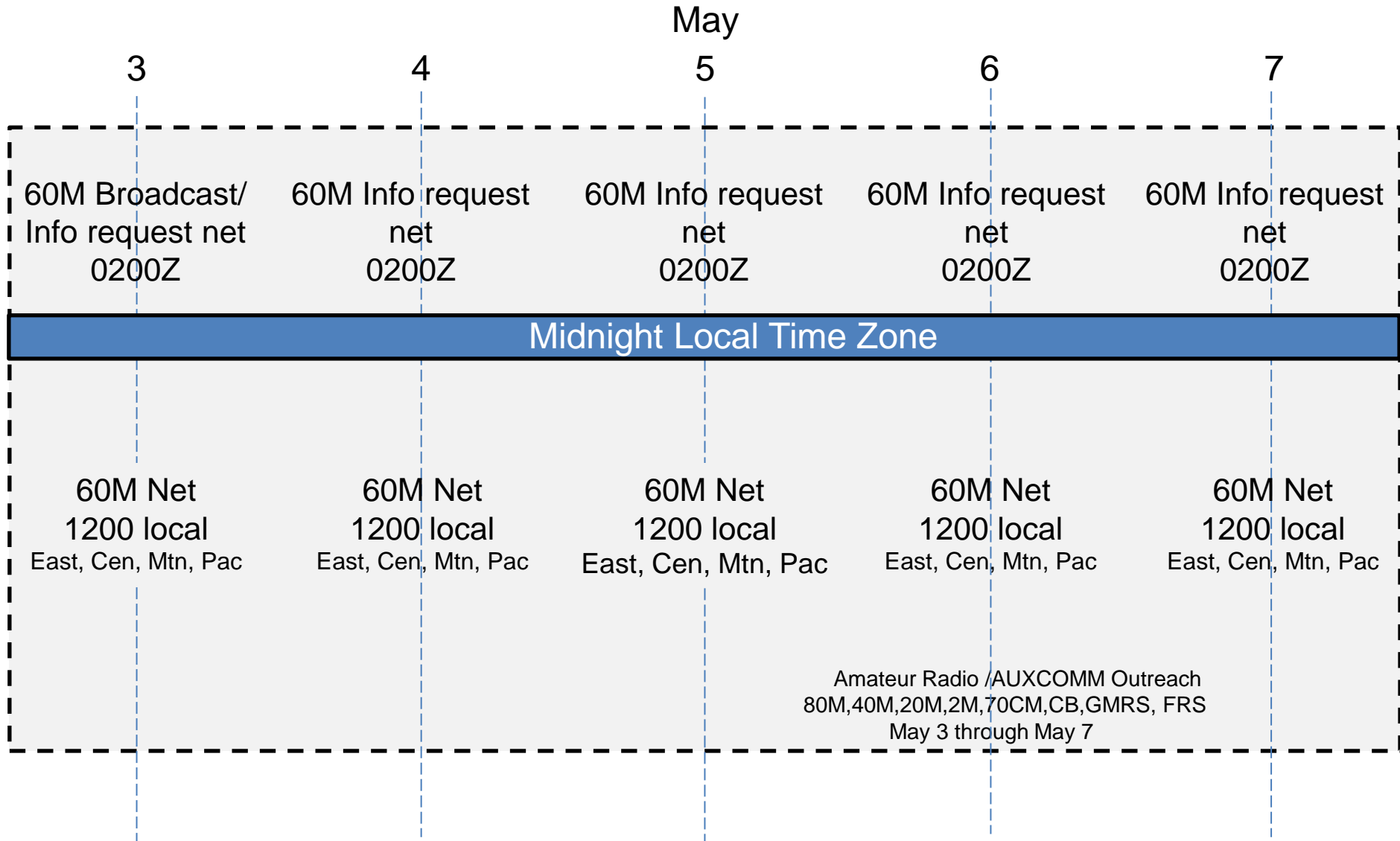


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DOD COMEX 22-2



Amateur/AUXCOMM Interface



Together We Are ... The Voice of Our Army



When are Upcoming Training Exercises?



14 May – Armed Forces Day Crossband Test

25-27 July – DOD COMEX 22-3

Oct – DHS/DOD/ARRL Simulated Emergency Test?



Wrapping this Up...

We discussed:

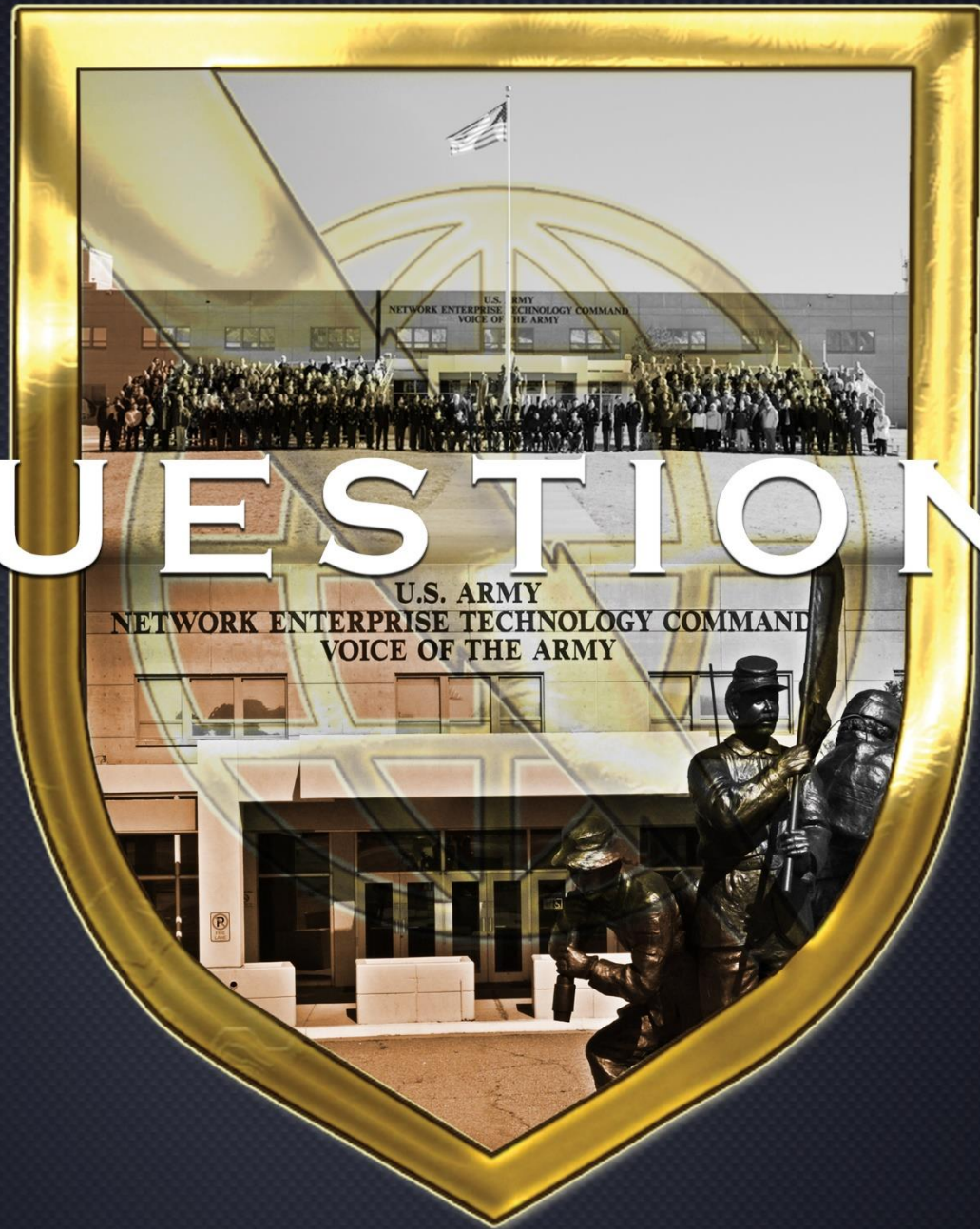
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For those burning questions after this presentation:

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254-630-9472

QUESTIONS



U.S. ARMY
NETWORK ENTERPRISE TECHNOLOGY COMMAND
VOICE OF THE ARMY