2020 MARS/NTS Exercise Traffic

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Presentation objectives

High level overview of the traffic system

High level overview of the radiogram format

Converting an ICS 213 to radiogram for introduction via voice or Morse code traffic nets

ICS 213 to radiogram conversion requirement when bringing messages to traffic nets

National Traffic System overview

National Traffic System (NTS) overview

Organized network of amateur radio operators who move traffic (messages)

Started in 1915 as the formal ARRL system to relay messages across the country

Goal: Relay the message so that it arrives as it started

Word for word, letter for letter

NTS operations

Primarily set up to serve the United States and Canada

- NTS does support global traffic, dependent on amateur radio reciprocity agreements with other countries
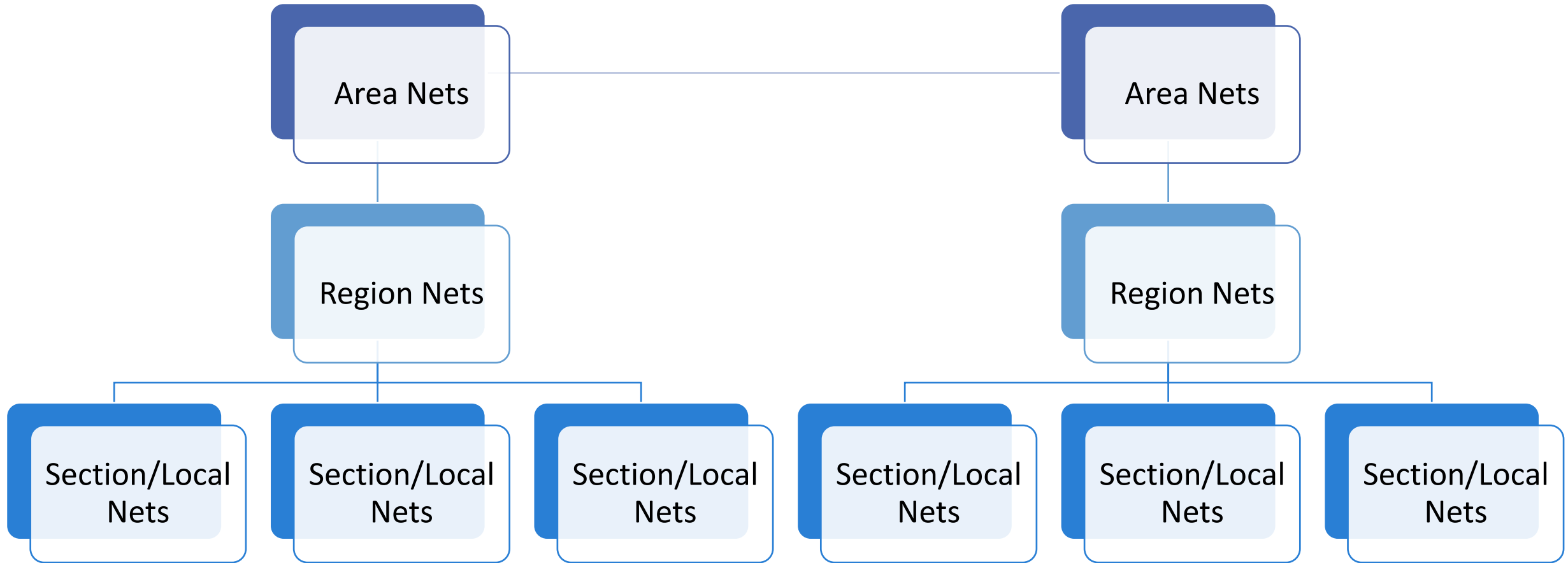
Transmit and receive modes

- Voice
- Morse code (CW)
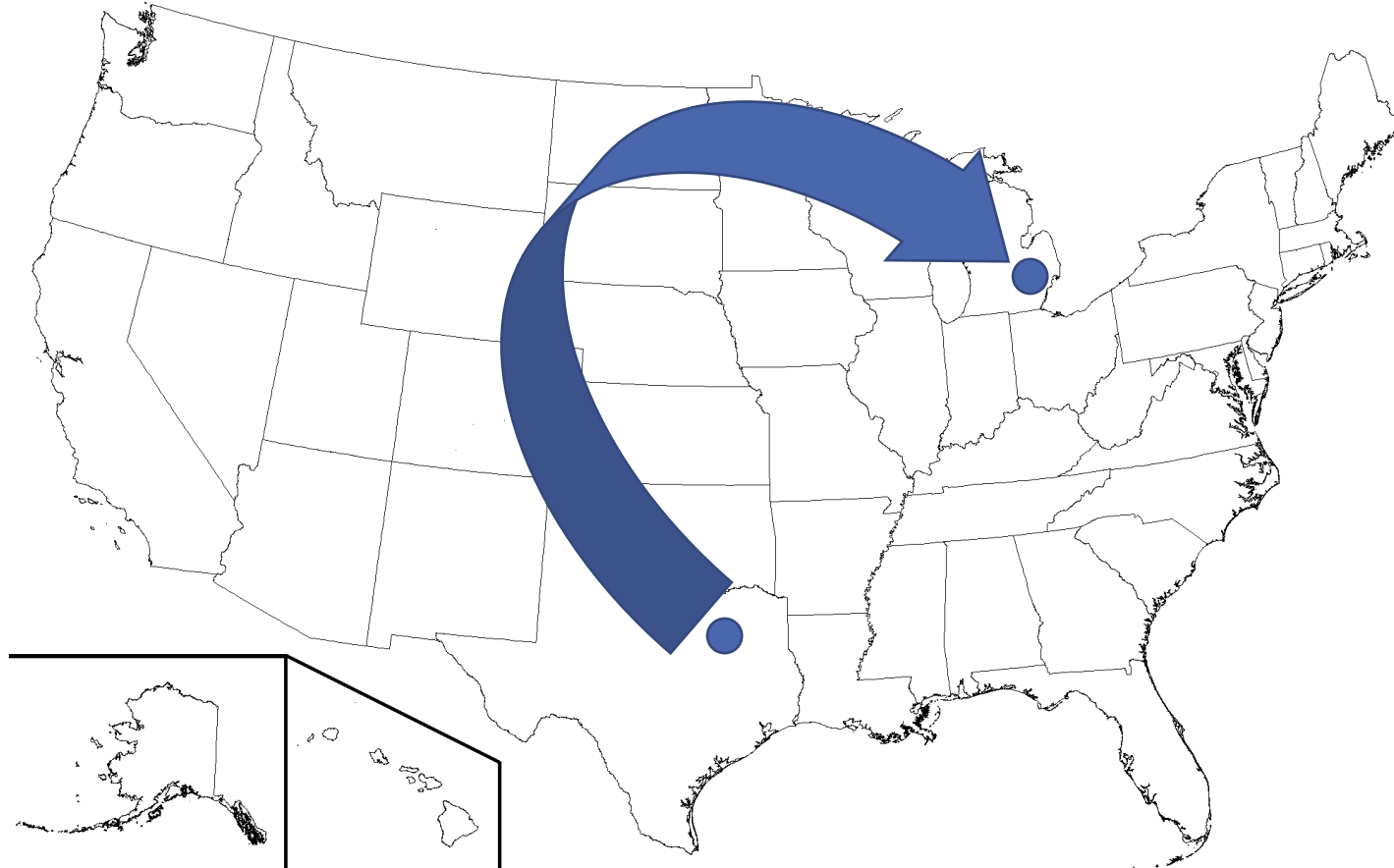- Digital (Digital Traffic Network)

Four traffic "types"

- Emergency (life-and-death)
- Priority (time is of the essence)
- Welfare (health and welfare inquiries)
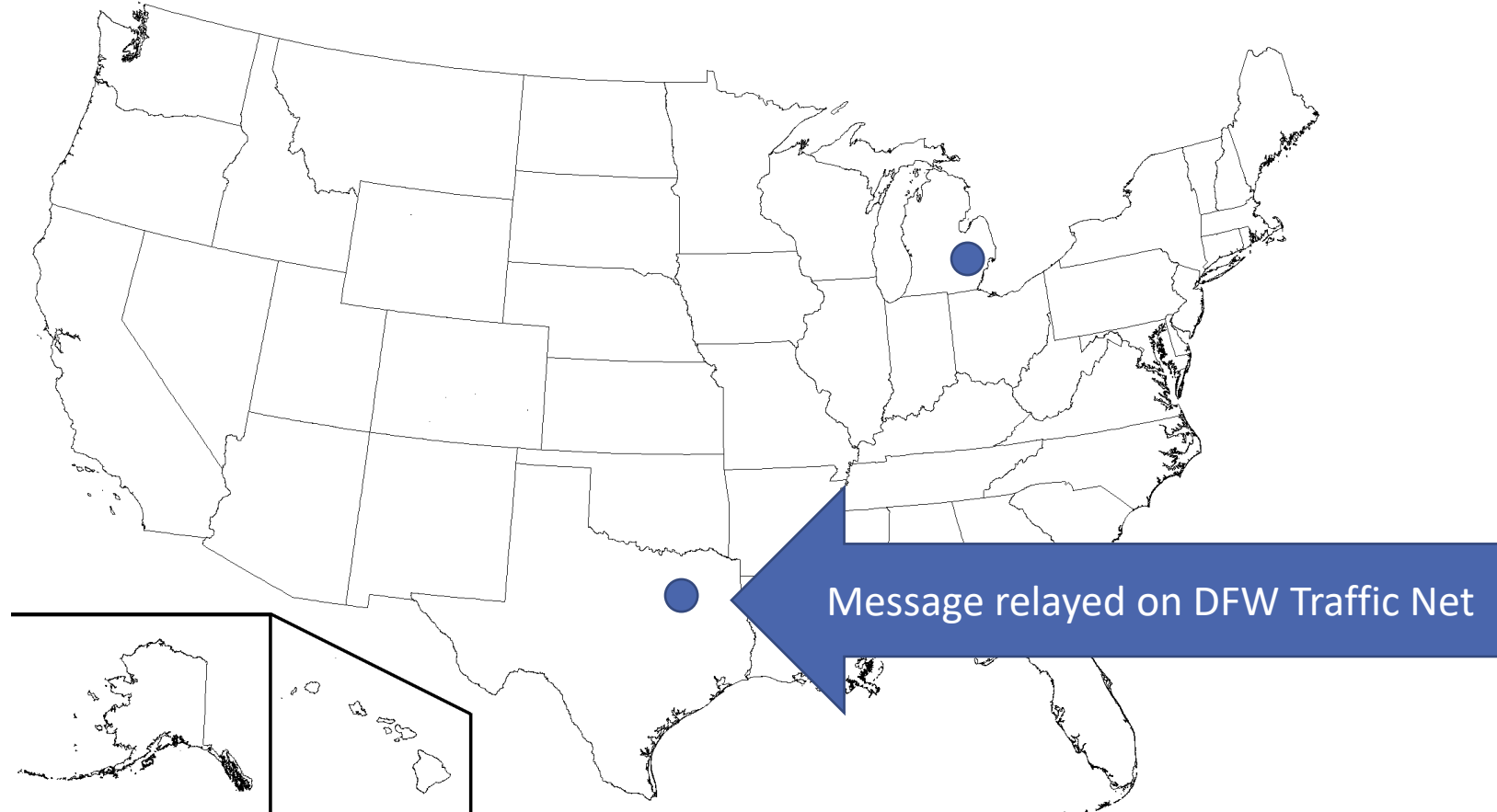- Routine (day-to-day)

NTS traffic flow

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Example message movement

I want to send a message to a family member in Michigan

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Example message movement

1. **List the traffic and relay to station able to take the traffic**

Message relayed on DFW Traffic Net

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Example message movement

1. **List the traffic and relay to station able to take the traffic**
2. **Relayed to IN**

Traffic relayed over digital network

Example message movement

1. **List the traffic and relay to station able to take the traffic**
2. **Relayed to IN**
3. **Relayed to MI**

Traffic relayed over digital network

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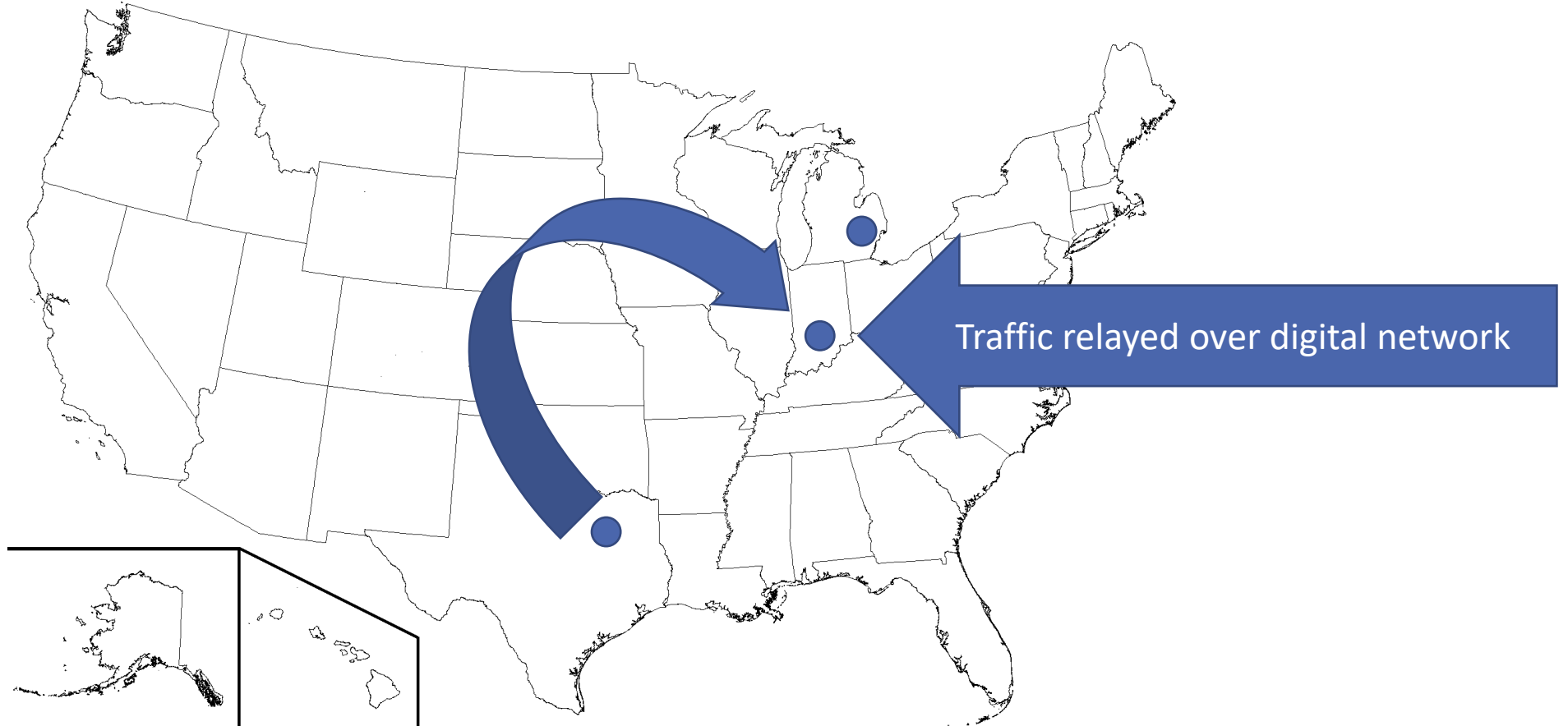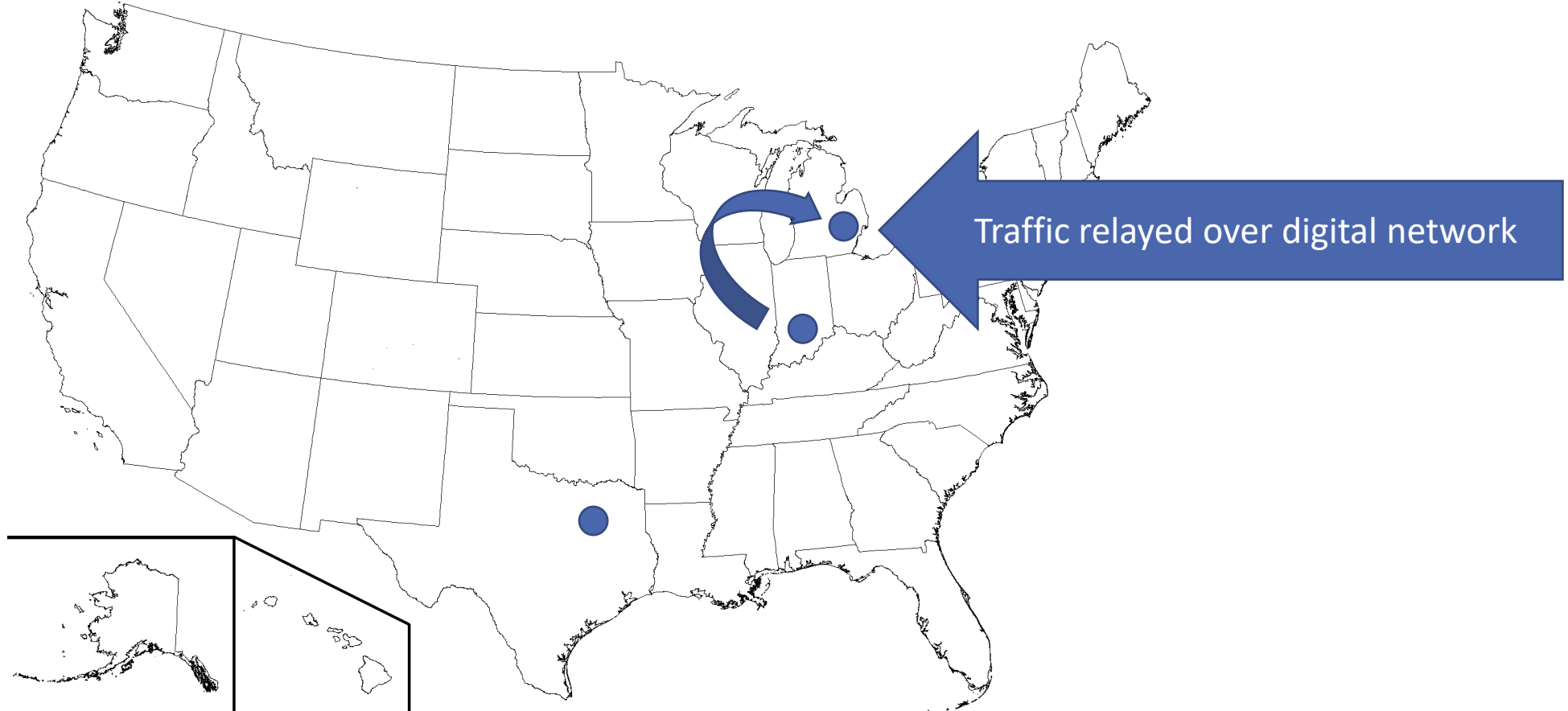
Example message movement

1. **List the traffic and relay to station able to take the traffic**
2. **Relayed to IN**
3. **Relayed to MI**
4. **Local delivery**
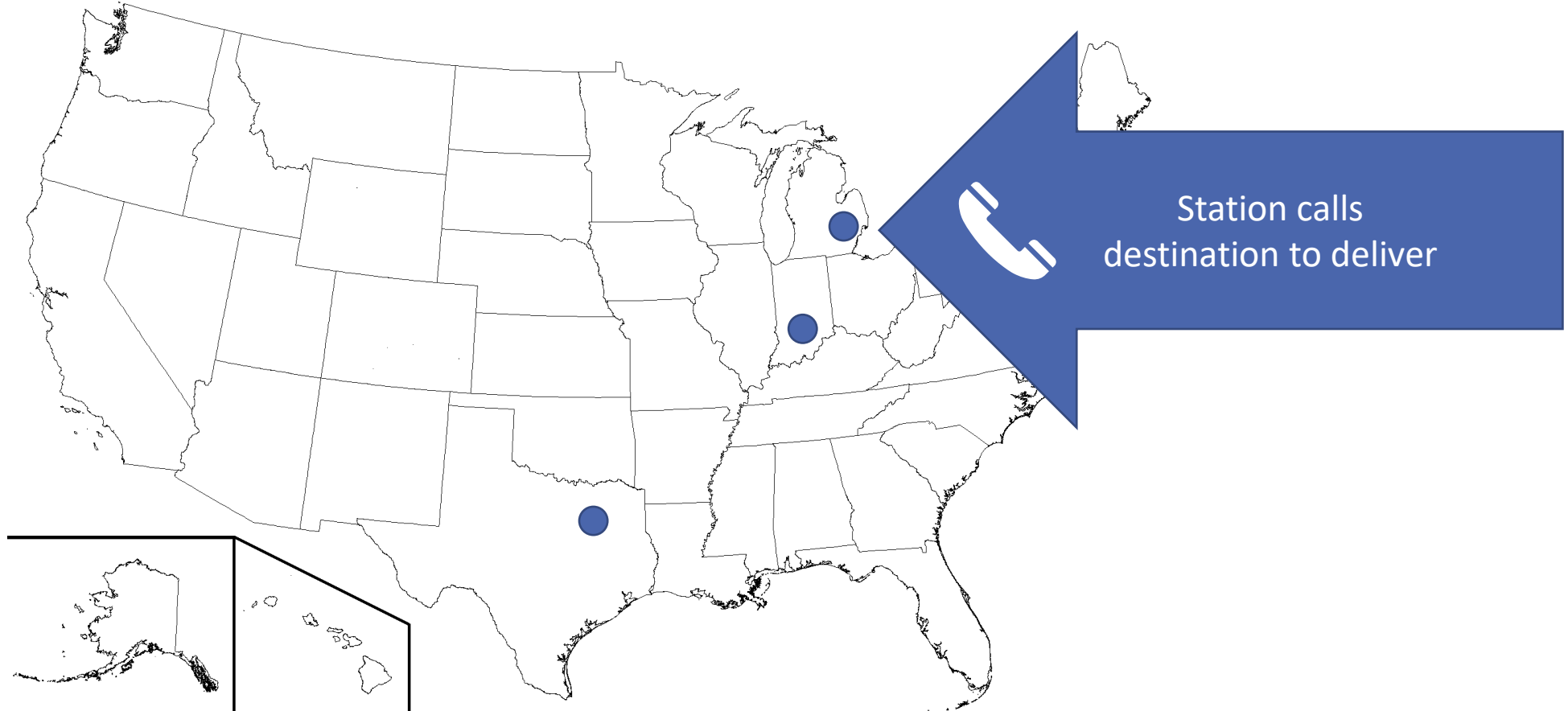
Station calls destination to deliver

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The ARRL radiogram format

Why radiograms

Standardized message format

- We all follow the same thing, even internationally
- Allows for faster relaying with some built-in error correction

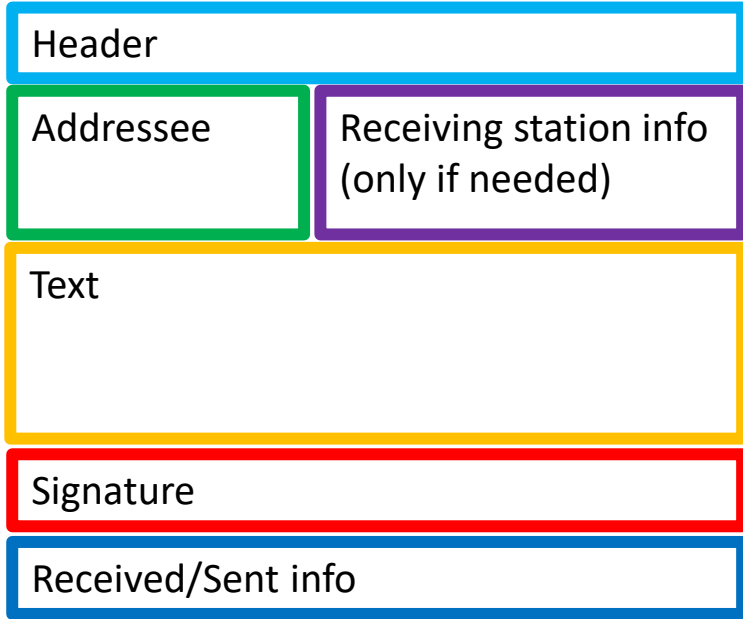## Traceable

- We can replay the message's movements if needed

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ARRL radiogram components

ARRL radiogram components

Header

Addressee | Receiving station info (only if needed)

Text

Signature

Received/Sent info

ARRL — the national association for Amateur Radio™

RADIOGRAM

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE

PHONE NUMBER

AMATEUR STATION _____ PHONE_____
NAME _____ E-MAIL_____
STREET _____
CITY, STATE, ZIP_____

REC'D

SENT

This message was handled at no charge by a licensed Amateur Radio operator, whose address is shown in the box at right above. No compensation can be accepted by a "ham" operator. A return message may be filed with the "ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225 Main Street, Newington, CT 06111 or **www.arrl.org.**

The ARRL is the national association for Amateur Radio and the publisher of *QST* magazine. One of its functions is promotion of public service communication among Amateur Radio operators. To that end, the ARRL has organized the National Traffic System for daily nationwide message handling.

1320 2/11

Radiogram header

Number	Unique number (assigned by amateur radio operator introducing the traffic)
Precedence	Importance (Emergency, Priority, Welfare, Routine)
Handling Instruction (optional)	Specific instructions we can request (such as, "Please get a reply")
Station of Origin	Who brought this radiogram to the system
Check	How many words are in the text
Place of Origin	Where is this message from
Time Filed (optional)	Coordinated Universal Time (UTC) preferred
Date	Month and day – again, Coordinated Universal Time (UTC) preferred

Radiogram addressee

Where the radiogram is headed

Just like a letter – name (and callsign if they have one), address, phone

Does not need to be an amateur radio station (you can send one of these to a family member, friend, …)

Phone number preferred (this is the typical delivery method)

Radiogram text

Generally 25 spaces for routine traffic, but supports longer messages when needed

Be concise and clear

Punctuation is written (X or XRAY for period, QUERY for question…)

Count the words, put this number in the check

Radiogram signature

Directly below the text section

Yes, unlabeled

Typically a first name, and callsign if sender has one

Radiogram tracking info

FROM	DATE	TIME	TO	DATE	TIME
REC'D			SENT		

This message was handled at no charge by a licensed Amateur Radio operator.   The ARRL is the national association for Amateur Radio and the publisher of QST

For tracking who you received it from and/or who you relayed it to

24-hour time format

UTC is preferred

Example:

K8AMH   JUL 28   17:22

Example radiogram

This does not change while the radiogram is relayed to its destination

Transferring a MARS message with 213 to radiogram

Compiling a Radiogram with ICS 213 content

ICS 213 field	Equivalent radiogram field
1. Incident Name (Optional)	Not transferred
2. To (Name and Position)	Addressee section
3. From (Name and Position)	Signature
4. Subject	Addressee section OP NOTE, along with an indicator the radiogram is carrying an ICS 213. For example: OP NOTE ICS 213 MESSAGE SUBJECT SHELTER SUPPLY REQUEST
5. Date	Date
6. Time	Time filed

Compiling a Radiogram with ICS 213 content

ICS 213 field	Equivalent radiogram field
7. Message	Text section
8. Approved by (Name and Position/Title)	If necessary, place in signature OP NOTE. For example: JANE DOE OPERATIONS SECTION CHIEF OP NOTE APPROVED BY JOHN SMITH INCIDENT COMMANDER
9. Reply	Not transferred
10. Replied by (Name, Position/Title, Signature)	Not transferred

Items on a Radiogram but not an ICS 213

Radiogram field	Instructions
Precedence and Handling Instruction	Use the appropriate precedence and, if warranted, handling instruction, such as HXC if you need delivery confirmation.
Station of Origin	The amateur radio operator introducing this radiogram into the traffic system should use their call sign.
Place of Origin	Use the incident location or source (City ST) of the ICS 213, if known, and add, "VIA MARS". If location/source not, use the location of the amateur radio operator introducing this radiogram into the traffic system, again adding, "VIA MARS".
Addressee section OP NOTE	Include an OP NOTE here indicating that the radiogram is carrying an ICS 213 form, even if no subject or incident name is included: OP NOTE ICS 213 MESSAGE

VZCZCMMM999
RR UHWWCC
DE UHCHBPM #0676 2021356
ZNR UUUUU
R 201356Z JUL 2020
FM ARMY MARS PROGRAM MANAGER CHIEF ARMY MARS
TO UHWWCC/REGION TEN RJMOG
BT
UNCLAS
ICS-213
1. COMEX
2. MONTE SIMPSON (360-633-7665 OR W7FF@ARRL.ORG)/W WA SM
3. PAUL ENGLISH/CHIEF ARMY MARS
4. HF SKILLS EXERCISE
5. 07/20/2020
6. 0800L
7. This messages is part of a Military Auxiliary Radio System HF
skills exercise. Mr. Simpson please call 254-630-9472 or email
paul.a.english.civ@mail.mil to confirm receipt of this message.
Your assistance is greatly appreciated.
8. ENGLISH/CHIEF ARMY MARS
BT
#0677
[DIGEST:676E83CAFA01FA418C7B425006F38CC7]
NNNN

ARRL — the national association for Amateur Radio™

R A D I O G R A M

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE FILED
<###>	<P/W/R...>		<CALL SIGN>	47	<CITY ST> VIA MARS	0800L	JUL 20

TO MONTE SIMPSON W WA SM

THIS RADIO MESSAGE WAS RECEIVED AT
AMATEUR STATION _____ PHONE _____
NAME _____ EMAIL _____
STREET _____
CITY, STATE, ZIP _____

PHONE NUMBER 360 633 7665
EMAIL W7FF ATSIGN ARRL DOT ORG
OP NOTE ICS 213 MESSAGE SUBJECT HF SKILLS EXERCISE

THIS MESSAGE IS PART OF
A MILITARY AUXILIARY RADIO SYSTEM
HF SKILLS EXERCISE X MR
SIMPSON PLEASE CALL 254 630
9472 OR EMAIL PAUL DOT
A DOT ENGLIGH DOT CIV
ATSIGN MAIL DOT MIL TO
CONFIRM RECEIPT OF THIS MESSAGE
X YOUR ASSISTANCE IS GREATLY
APPRECIATED X

PAUL ENGLISH CHIEF ARMY MARS

FROM	NET	DATE	TIME		TO	NET	DATE	TIME
REC'D					SENT			

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ICS 213 conversion required prior to listing with NTS

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The traffic system does not use the ICS 213 form

It does not contain critical components needed to ensure efficient, accurate relaying

Any traffic brought to a traffic net must be converted to ARRL Radiogram beforehand

Stations bringing ICS 213 forms will not be able to list or relay their traffic

Unless the MARS liaison has done the needed Radiogram conversion

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