Hands-On Voice Traffic Net: Transmitting ICS-213 by Radiogram

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Learn ICS-213 Radio Relay With Voice Procedure

A ♥ R Q R Kreig 14-398-0085

Diverale.

WIT

E. Hartoffelkop

2

"No fault learning environment!"

Let's get mistakes out of our systems today.



What Is ICS-213?

Format to Organize Information on a Sheet of Paper

GENERAL MESSAGE (ICS 213)

1. Incident Name (Optional): BLACK SWAN Tra						
2. To (Name and Position): R. U. Thayer / Area Commander						
3. From (Name and Position): I. M. Here / Incident Commander						
4. Subject: Updated briefing schedule			5. Date: Nov 2, 2021	6. Time 10:00		
7. Message: Exercise. Daily briefing schedule from this incid 0600 Area Command 0700 First Shift Briefing 0800 Media The quick brown fox jumps over the lazy dog, e						
8. Approved by: Name: HERE	Signature:	Deci	tion/Title: Inciden	t Commander		
9. Reply:						
10. Replied by: Name: ICS 213	Position/Title: Date/Time:	_ Się	gnature:			

Encapsulate?

What is it, and why?

To move a message across a circuit, it needs to be put in a transmission format.

- Can't just put ICS-213 in the mail and have it deliver. Encapsulate in envelope.
- Can't just send it "on the Internet," need email. Encapsulate in Internet Message Format.
- Even on web, still need *HyperText Transfer Protocol (HTTP) Messages.*

What is Radiogram?

Message Transmission Format

Includes Features for Relay, Accountability, and Quality of Service.

V								
UMBER	PRECEDENCE	нх	STATION OF ORIGIN	CHECK	PLACE OF C	RIGIN	TIME FILED	DAT
то					THIS RADIO N AMATEUR STAT NAME STREET ADDRE		PHONE	
TELEPHONE	ENUMBER				CITY, STATE, Z	P		
REC'D	FROM		DATE	TIME	SENT		DATE	TIN
HANDLED S ACCEPTED DELIVERINI OBTAINED	SOLELY FOR THE PLEAT	SURE OF OPE	SE BY A LICENSED AMATEUR SHT ABOVE AS SUCH MESSA RATING, NO COMPENSATION MESSAGE MAY BE FILED WITH INFORMATION ON AMATEUR AIN STREET, NEWINGTON, CT	CAN BE	FUNCTIONS IS PROMOTION (OPERATORS. TO THAT END, SYSTEM FOR DAILY NATION	Y LEAGUE, INC, IS TH S AND THE PUBLISHE DF PUBLIC SERVICE I THE LEAGUE HAS OF VIDE MESSAGE HAN	COMMUNICATION AMONG AN IGANZED THE NATIONAL TR DLING.	
RRI	SOLELY FOR THE PLEAT	SURE OF OPE R. A RETURN I DU. FURTHER RTERS, 225 M	RATING, NO COMPENSATION RESSAGE MAY BE FILED WITH INFORMATION ON AMATEUR AIN STREET, NEWINGTON, CT	I CAN BE H THE "HAM" RADIO MAY BE T 0611	FUNCTIONS IS PROMOTION O OPERATORS. TO THAT END,	OF PUBLIC SERVICE (THE LEAGUE HAS OF VIDE MESSAGE HAND	oling.	RRI
HANDLED 5 ACCEPTED DELIVERIN OBTAINED	SOLELY FOR THE PLEAT	SURE OF OPE R. A RETURN I DU. FURTHER RTERS, 225 M	RATING, NO COMPENSATION RESSAGE MAY BE FILED WITH INFORMATION ON AMATEUR AIN STREET, NEWINGTON, CT	I CAN BE H THE "HAM" RADIO MAY BE T 0611	FUNCTIONS IS PROMOTION O OPERATORS. TO THAT END, SYSTEM FOR DAILY NATION		oling.	AFFIC
RRI	SOLEL YFOR THE FIELD BY A THAM OPERATOR G THIS MESSAGE TO Y ROM ARREL HEADQUA	SURE OF OPE A. A RETURN I DU. FURTHER RTERS, 225 M			Dependencia is predoctions orbitations is transformed by statism for Data Inter- port of Data International DGRR.			RRI
DELATERIN OBTAINED	RECEDENCE	SURE OF OPE A. A RETURN I DU. FURTHER RTERS, 225 M			Dependencia is predoctions orbitations is transformed by statism for Data Inter- port of Data International DGRR.			RRI
ASC. NO.	RECEDENCE	SURE OF OPE A. A RETURN I DU. FURTHER RTERS, 225 M			Dependencia is predoctions orbitations is transformed by statism for Data Inter- port of Data International DGRR.			RRI
ISG. NO.	RECEDENCE	них странарования и представляется на представ На представляется на представляется на представляется на представляется на представляется на представляется на пре			Dependencia is predoctions orbitations is transformed by statism for Data Inter- port of Data International DGRR.			RRI

RRI Form May Be Helpful

Form = Screen or paper layout Format = Structure of information

(US DE)	RAD	Via Amateur Radio	RAM	RRI Constant
NR PRECEDENCE HX	STATION OF ORIGIN	ONECK		TIME (UTC)
NAME	ADDRESSEE		DELIVERY TIME & METHOD	
STREET ADDRESS			OPERATOR NAME TELEPHON	E or EWAIL
CITY, STATE, ZIP			STATION LOCATION or ADDRESS	
TELEPHONE/ EM ALL			RADIO RELAY INTERNATIONAL is a profit corporation dedicated to the re radiogram messages. Unpaid anate volunter ther equipment, time and s maintain the radio networks that make Learn more at www.radio.relay.org.	elay and o ur radio skill to op
NON-CASE SENSITIVE COMMUNICATIONS; TV		BODYTEXT	source of an action contract.	
		SIGNATURE		
RAME	P08114		085WIZXION	
NAME Radio operato rame			GRANIZATION TELEPHONE / DAVA.	
		REPLY VIA		

RRI FORM 1801 rev



When Given Message For Relay, Just Originate Radiogram







	1						1
NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
то					THIS RADIO MESSAGE W	AS RECEIVED AT	
					AMATEUR STATION	PHONE	
					NAME		
					NAME		
					STREET ADDRESS		
TELEPHONE	NUMBER				CITY, STATE, ZIP		

FROM	DATE TIME		то	DATE	TIME
REC'D			SENT		
THIS MESSAGE WAS HANDLED FREE OF CHARGE BY WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT I HANDLED SOLELY FOR THE PLEASURE OF OPERATI ACCEPTED BY A "HAM" OPERATOR. A RETURN MESS DELIVERING THIS MESSAGE TO YOU. FURTHER INFO OBTAINED FROM ARRL HEADQUARTERS, 225 MAIN S	ABOVE. AS SUCH MESSA NG, NO COMPENSATION GAGE MAY BE FILED WIT DRMATION ON AMATEUR	AGES ARE I CAN BE H THE "HAM" RADIO MAY BE	THE AMERICAN RADIO RELAY LEAGUE, INC, IS THE NATIO LICENSED RADIO AMATEURS AND THE PUBLISHER OF QS FUNCTIONS IS PROMOTION OF PUBLIC SERVICE COMMUN OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZEI SYSTEM FOR DAILY NATIONWIDE MESSAGE HANDLING.	MAGAZINE. ONE OF	ITS

1. Incident Name (Optional): Demonstration 2205					
2. To (Name and Position): R.U. Thayer, Area Commander					
3. From (Name and Position): I. M. Heere, Incident Commander					
4. Subject: Status	5. Date: Jan 29 2022	6. Time 1201			
7. Message:					
Estimated I-71 reopening 1300.					



3. From (Name and Position): I. M. Heere, Incident Comma

4. Subject: Status

1. Incident Name

7. Message:

Estimated I-71 reopening 1300.

To: R. U. Thayer, Area Commander

How do we get message to Area Commander? (ICS-205, maybe?)

Deliver by phone? (What number?) Deliver by radio? (What callsign?) Deliver by runner? (What location?)

TH REP.	RA		GF	
TO OHIO EMA W8SGT R U THAYER AREA COMMANDE TELEPHONE NUMBER		CHECK		To: R. U. Thayer, Area Commander We found Incident Commander is at Ohio EMA, represented by station W8SGT.
FROM REC'D THIS MESSAGE WAS HANDLED FREE OF CHARGE BY WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT A HANDLED SOLELY FOR THE PLEASURE OF OPERATIN ACCEPTED BY A "HAM" OPERATOR. A RETURN MESSA DELIVERING THIS MESSAGE TO YOU, FURTHER INFO	BOVE. AS SUCH MESSAGE G, NO COMPENSATION CA GE MAY BE FILED WITH T	S ARE IN BE HE "HAM"	FUNCT OPERA	Added necessary information. Changed nothing, removed nothing.

1. Incident Name (Optional): Demonstration 2205

2. To (Name and Position): R.U. Thayer, Area Commander

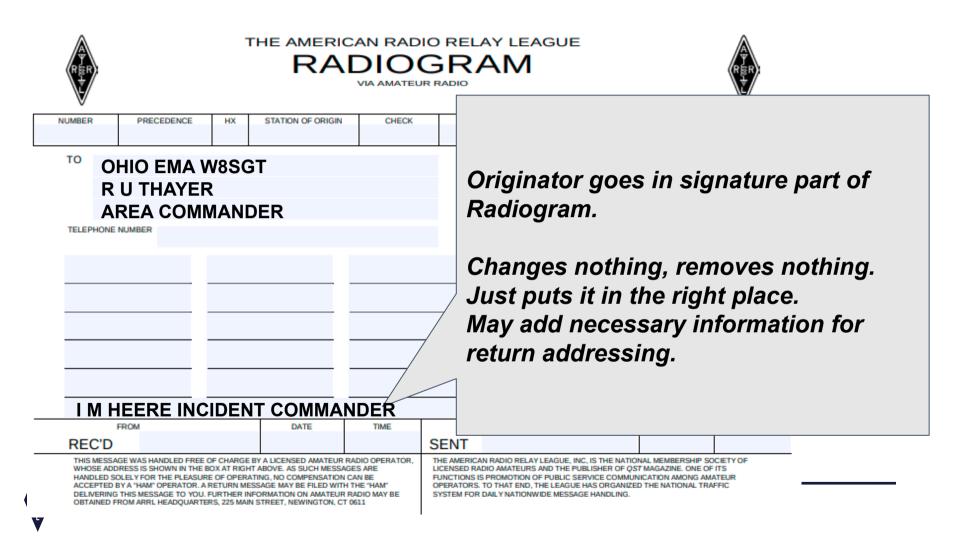
3. From (Name and Position): I. M. Heere, Incident Commander

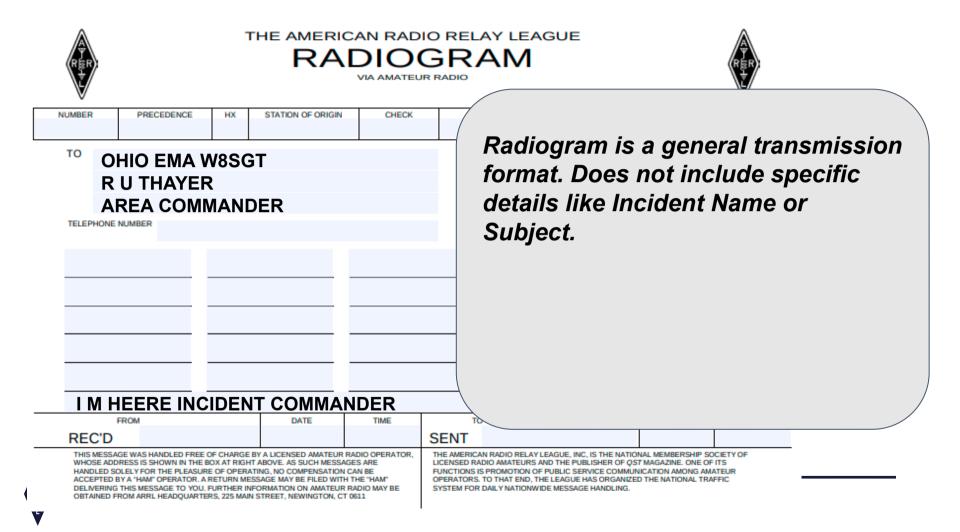
4. Subject: Status

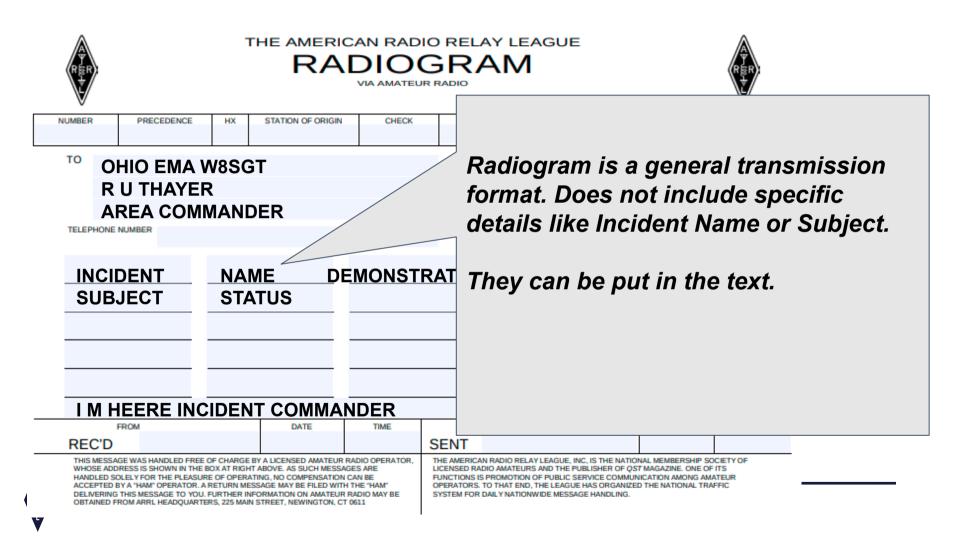
7. Message:

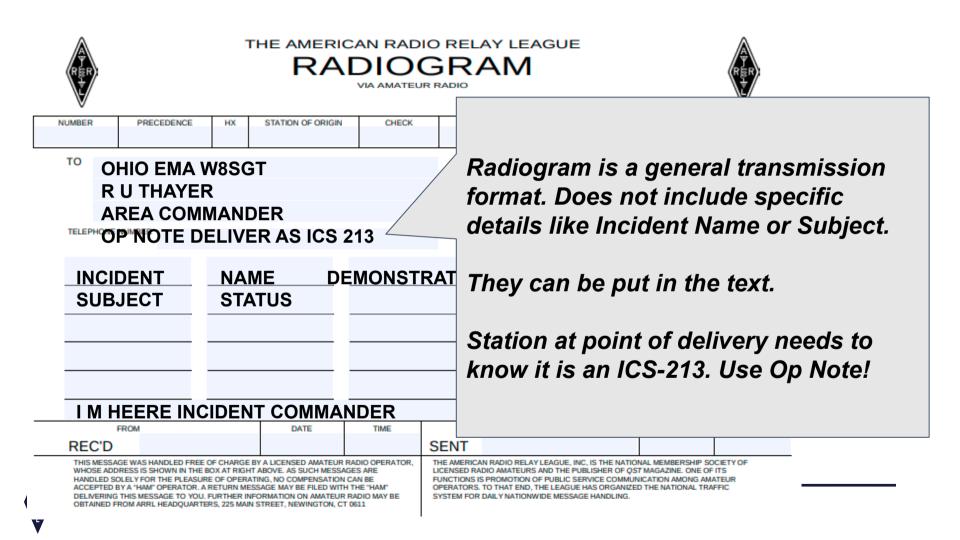
Estimated I-71 reopening 1300.

Enough detail to be unambiguous? Return path in ICS-205? Return path information stated?









1. Incident Name (Optional): Demonstration 2205

2. To (Name and Position): R.U. Thayer, Area Commander

3. From (Name and Position): I. M. Heere, Incident Commander

4. Subject: Status

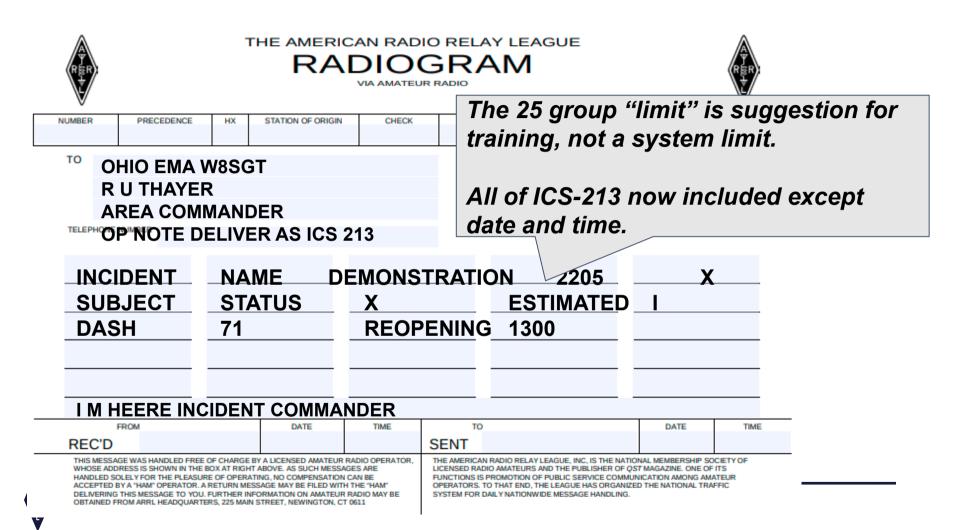
7. Message:

Estimated I-71 reopening 1300.

Put rest of message in radiogram text.

A few basic rules so that relay will happen accurately whether over digital, voice, or CW.

X = "." between sentences R = "." decimal, (146R52 = 146.52) QUERY = "?" Spell out other punctuation, e.g., DASH





DELIVERING THIS MESSAGE TO YOU, FURTHER INFORMATION ON AMATEUR RADIO MAY BE

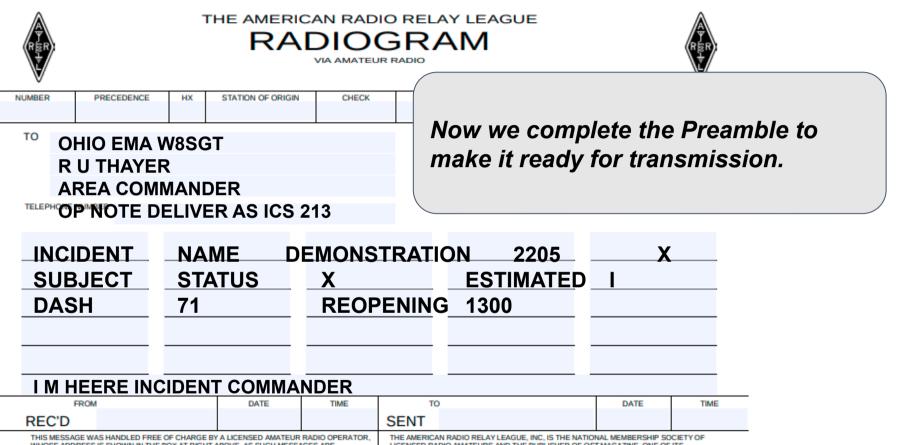
OBTAINED FROM ARRL HEADQUARTERS, 225 MAIN STREET, NEWINGTON, CT 0611

THE AMERICAN RADIO RELAY LEAGUE



NUMBER	PRECEDENCE	нх	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN			
R L AR	IIO EMA V J THAYEF REA COMM NOTE DE	R MAND	-	213	ICS-213 has date and time. Radiogram format is 24-hour clock, date is like JAN 9. Three-letter month,			
	JENT	NAI STA	ME D	EMONS X	then day, no leading zero, usually no year.			
DAS		71			PENING 1300			
					TO DATE TIME			
REC'D					SENT			
WHOSE ADDRI HANDLED SOL	ESS IS SHOWN IN THE B ELY FOR THE PLEASUR	E OF OPERAT	Y A LICENSED AMATEUR ABOVE. AS SUCH MESS/ ING, NO COMPENSATION SAGE MAY BE FILED WIT	GES ARE CAN BE	THE AMERICAN RADIO RELAY LEAGUE, INC, IS THE NATIONAL MEMBERSHIP SOCIETY OF LICENSED RADIO AMATEURS AND THE PUBLISHER OF QST MAGAZINE. ONE OF ITS FUNCTIONS IS PROMOTION OF PUBLIC SERVICE COMMUNICATION AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC			

SYSTEM FOR DAILY NATIONWIDE MESSAGE HANDLING.



THIS MESSAGE WAS HANDLED FREE OF CHARGE BY A LICENSED AMATEUR RADIO OPERATO WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT ABOVE. AS SUCH MESSAGES ARE HANDLED SOLELY FOR THE PLEASURE OF OPERATING, 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 0611 THE AMERICAN RADIO RELAY LEAGUE, INC, IS THE NATIONAL MEMBERSHIP SOCIETY OF LICENSED RADIO AMATEURS AND THE PUBLISHER OF QST MAGAZINE. ONE OF ITS FUNCTIONS IS PROMOTION OF PUBLIC SERVICE COMMUNICATION AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC SYSTEM FOR DAILY NATIONWIDE MESSAGE HANDLING.



VIA AMATEUR RADIO



NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE		
					JEFFERSONVILLE OH	1201 EST	JAN 29		
TO									_
10 O	HIO EMA W	V8S (GT						
R	U THAYER	2			Where will a	messag	e back t	o person ir)
Α	REA COMM	IAN	DER		signaturo no	od to ho	diractor	42	

TELEPHOPMOTE DELIVER AS ICS 213

signature need to be directed? City and state. No comma, USPS

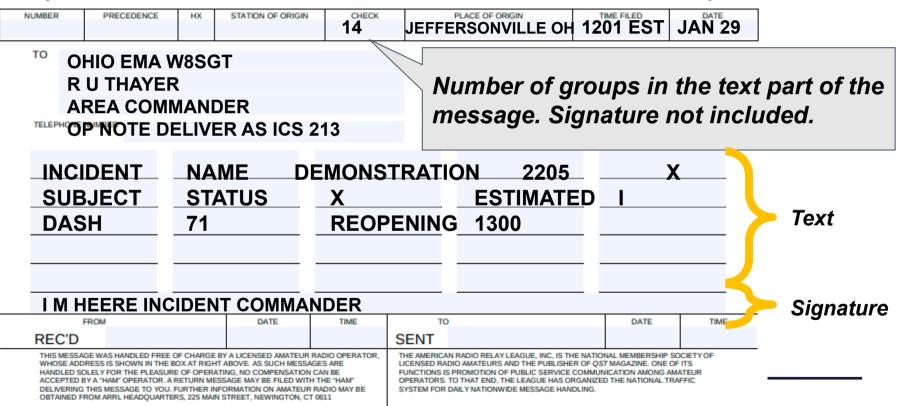
INCIDENT NAME DEMONSTRA abbreviation for state.

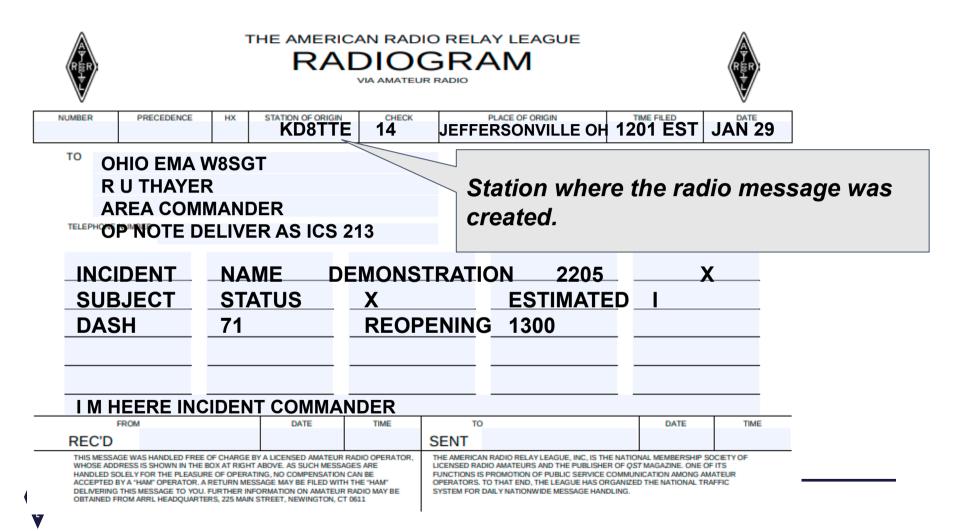
SUBJECT	STATUS	Χ
DASH	71	REOPENING 1300

I M HEERE INCIDENT COMMANDER

FROM	DATE	TIME	Т	D	DATE	TIME
REC'D			SENT			
THIS MESSAGE WAS HANDLED FREE OF CHARGE BY WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT A HANDLED SOLELY FOR THE PLEASURE OF OPERATI ACCEPTED BY A 'HAM' OPERATOR. A RETURN MESS DELIVERING THIS MESSAGE TO YOU. FURTHER INFO OBTAINED FROM ARRL HEADQUARTERS, 225 MAIN S	ABOVE. AS SUCH MESSA NG, NO COMPENSATION AGE MAY BE FILED WIT ORMATION ON AMATEUR	AGES ARE I CAN BE H THE "HAM" RADIO MAY BE	FUNCTIONS OPERATORS	AN RADIO RELAY LEAGUE, INC, IS THE NATIO! NDIO AMATEURS AND THE PUBLISHER OF QS IS PROMOTION OF PUBLIC SERVICE COMMUN. TO THAT END, THE LEAGUE HAS ORGANIZED DAILY NATIONWIDE MESSAGE HANDLING.	MAGAZINE. ONE OF	ITS

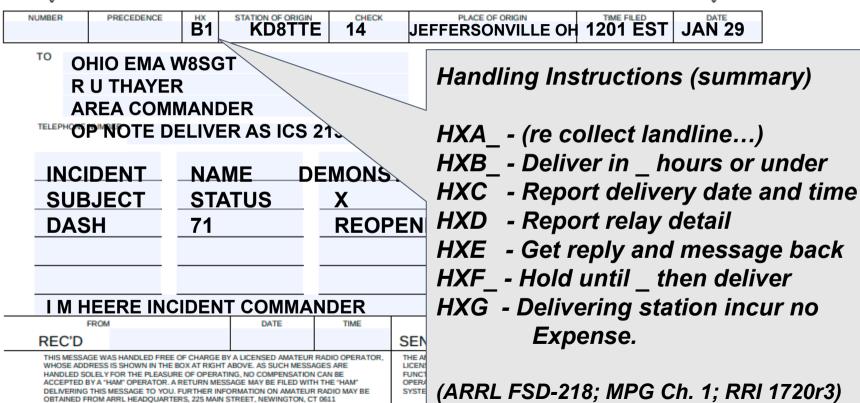


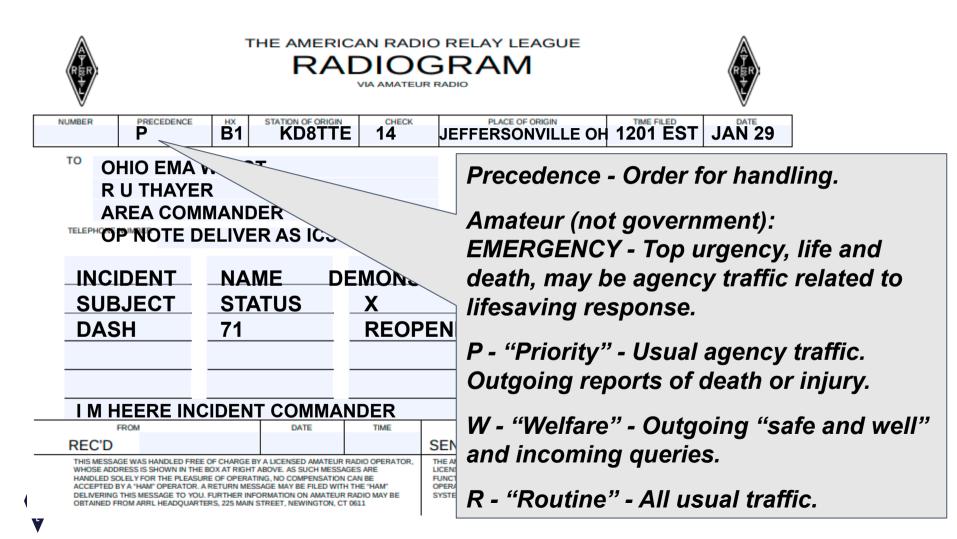


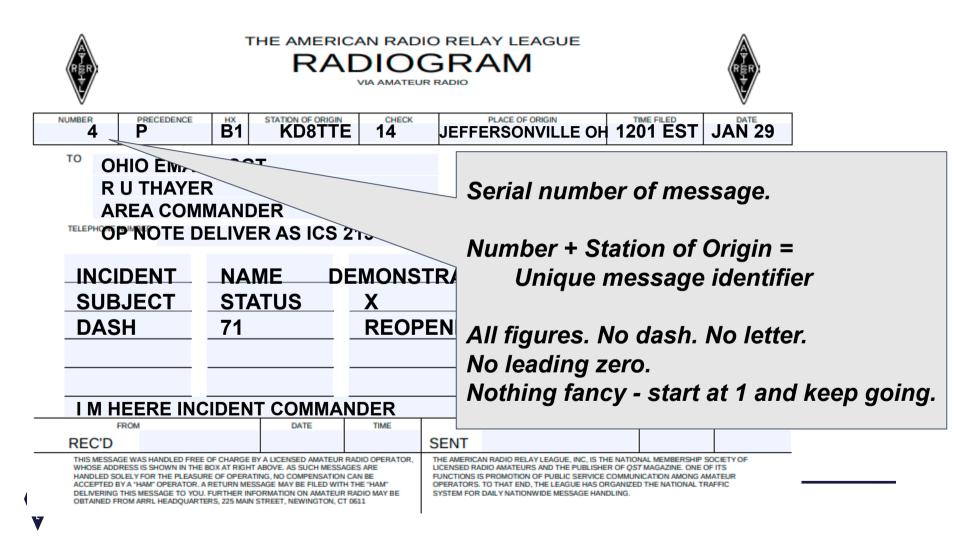












Now Ready for Relay



Let's Get This Party Started!

You will see a radiogram. I will voice it (slowly enough for you to follow).

Procedure words—prowords—tell receiving operator precisely what to write

Proword FIGURES ONE TWO means write 12 not TWELVE Proword I SPELL means I'm going to spell the word I just voiced Proword INITIALS CHARLIE ECHO SIERRA TANGO means write CEST

Prowords also help receiving operator to follow message structure.

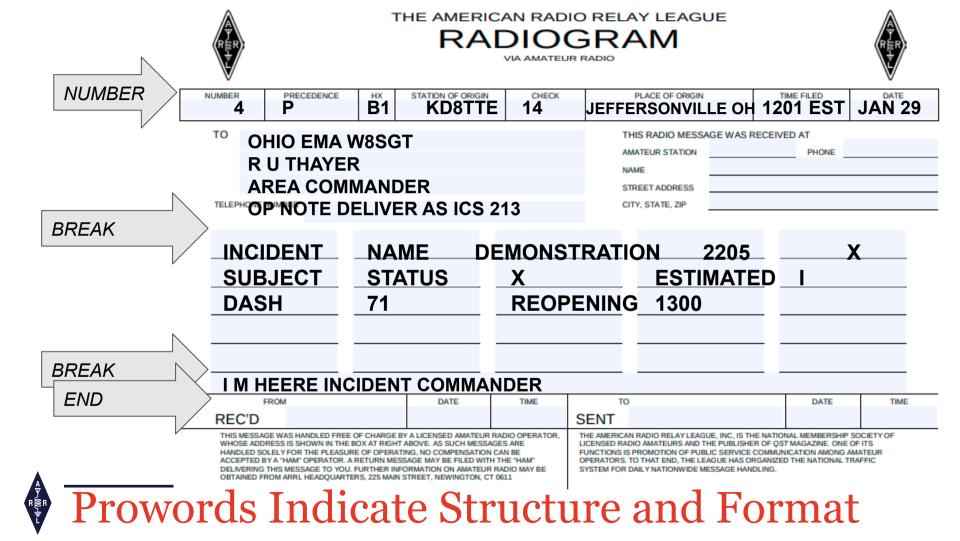
Proword NUMBER starts preamble part, which always ends with a date.Addressee part always comes immediately after date.Proword BREAK starts text part.Proword BREAK ends text part, starts signature part.Proword END ends the signature part.



Procedure Words (Prowords) You Need

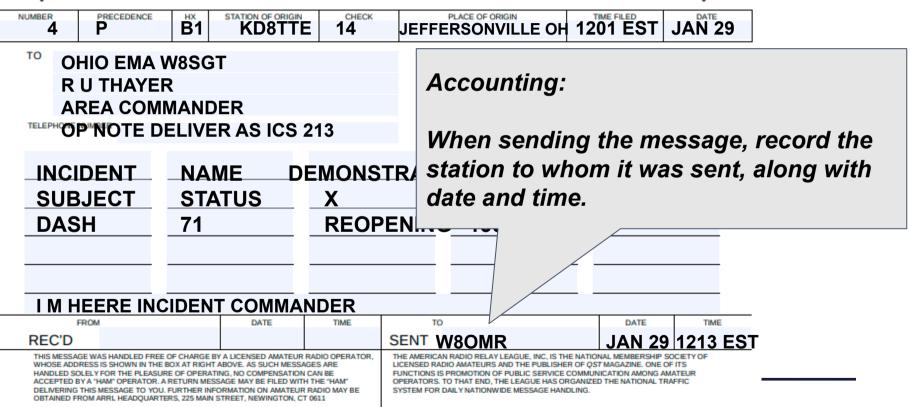
NUMBER	Start writing: The next group is the message number.
BREAK	Start (or end) of text part.
END	End of the transmission.
MORE / NO MORE	More / No More messages to follow.
ROGER	I have the entire message.
FIGURES	Write figures for the next group.
INITIALS	Write initials for the next group.
MIXED FIGURES	Write a combination of figures and initials for the next group.
I SPELL	Here comes the phonetic spelling of the word I just voiced.
I SAY AGAIN	I resend - for emphasis or correction.





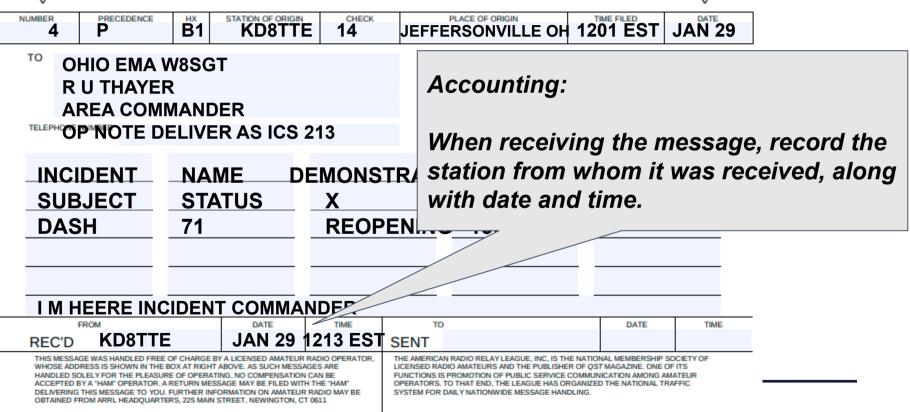














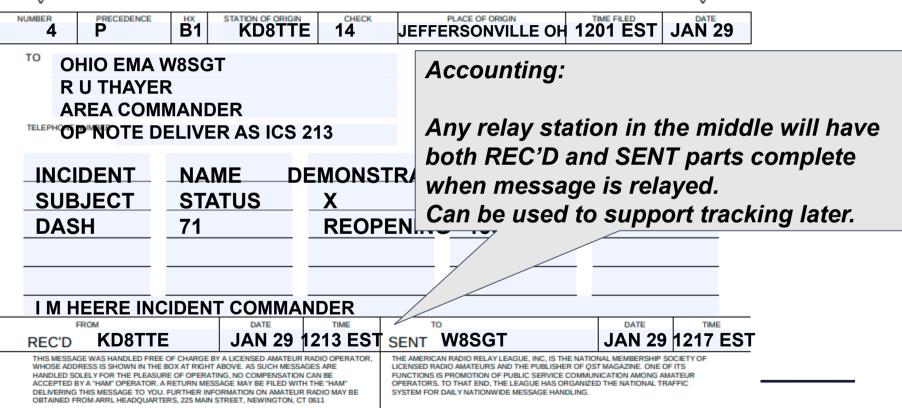


NUMBER	PRECEDENCE	B1	KD8TTE	14	JEFFERSONVILLE OH	1201 EST	JAN 29	
R	HIO EMA W U THAYER REA COMM P NOTE DE	IAN		3	Both station message. Re letter-for-let	elay was	-	

INCIDENT	NAME [DEMONS	TRATIO	N 2205	X	
SUBJECT	STATUS	X		ESTIMATED		
DASH	71	REOF	PENING	1300		
I M HEERE IN		ANDER				
FROM	DATE	TIME	то		DATE	TIME
REC'D KD8TT	E 🔰 JAN 29	1213 EST	SENT			
WHOSE ADDRESS IS SHOWN IN THE HANDLED SOLELY FOR THE PLEASL ACCEPTED BY A "HAM" OPERATOR. DELIVERING THIS MESSAGE TO YOU	E OF CHARGE BY A LICENSED AMATEI BOX AT RIGHT ABOVE. AS SUCH MES IRE OF OPERATING, NO COMPENSATI A RETURN MESSAGE MAY BE FILED V J. FURTHER INFORMATION ON AMATE IERS, 225 MAIN STREET, NEWINGTON	SSAGES ARE ION CAN BE WITH THE "HAM" EUR RADIO MAY BE	LICENSED RADIO FUNCTIONS IS PR OPERATORS. TO 1	ADIO RELAY LEAGUE, INC, IS THE NA AMATEURS AND THE PUBLISHER OF OMOTION OF PUBLIC SERVICE COM INAT END, THE LEAGUE HAS ORGAN Y NATIONWIDE MESSAGE HANDLING	QST MAGAZINE. ONE OF IUNICATION AMONG AM IZED THE NATIONAL TRA	ATEUR







Delivery: From Radio to Recipient



1. Incident Name (Optional):	DEMONSTRATION 2205		
2. To (Name and Position):	OHIO EMA W8SGT R U THAYER	AREA CO	MMANDER
3. From (Name and Position):	I M HEERE INCIDENT COMM	ANDER	
4. Subject:		5. Date:	6. Time
STATUS		JAN 29	1201EST

Message:

ESTIMATED I-71 REOPENING 1300.

Delivering station followed OP NOTE to make the delivery (making local record copy of message) in ICS-213 format.

Returned text to normal - no spelling out punctuation, etc.

NR 4 P HXB1 KD8TTE 14 JEFFERSONVILLE OH 1201EST JAN 29 RECD W80MR 1217 EST JAN 29

GENERAL MESSAGE (ICS 213)

1. Incident Name (Optional):	DEMONSTRATION 2205	
2. To (Name and Position):	OHIO EMA W8SGT R U THAYER	AREA COMMANDER
3. From (Name and Position):	I M HEERE INCIDENT COMM	ANDER
4. Subject:		5. Date: 6. Time
STATUS		JAN 29 1201EST

7. Message:

ESTIMATED I-71 REOPENING 1300.

May provide additional detail in annotation.

Do not change, do not remove from original, do not annotate so it is confused with original.

Raise the issue, test, set a standard, train to it, and use it consistently.

<u>May differ among</u> agencies.

Originate Now!

Use your group's ICS 213

Use TO and FROM details precisely

Remember OP NOTE

Use P (voiced "priority") precedence for radiogram.

Formatting:

X for period ("stop") between sentences R for "decimal", e.g., 146R52 QUERY for ? at end of sentence



Radios On! Each Group Sends & Receives

1. REPORT INTO THE NET.

THIS IS - AA1AAA - GROUP ONE - WITH TRAFFIC - GROUP TWO PRIORITY

2. HEAR INSTRUCTION.

AA1AAA - AA2BBB - THIS IS - KD8TTE -CHANGE FREQUENCY - SIDE 4 - SEND

3. ACKNOWLEDGE INSTRUCTION.

Answer in order called. Transmit callsign and go.

AA1AAA. AA2BBB.

4. SEND FIRST MESSAGE.

First station call second station, adding PRIORITY.

Second station answers "ready" or "send." First station sends message and says END -NO MORE.

When second station has the message, operator answers ROGER and says PRIORITY.

5. SEND SECOND MESSAGE.

Stations repeat process, reversing sender and receiver.

6. **RETURN TO CONTROL FREQUENCY.** When frequency clear, announce retu

When frequency clear, announce return. AA1AAA BACK.



Did we make mistakes?

Good. We know what not to do.



Thank You!

For more information

- Your Section Manager Get ARES & NTS Working Together
- ARRL NTS MPG
- Radio Relay International
- Radio KD8TTE (YouTube)
- Exercise with your organizations and agencies



