Basic Voice Traffic Handling: Mechanics

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Origination, Relay, and Delivery

Learning Objectives:

1. Describe steps of radio messaging
2. Identify references
3. Identify training options

Do Not Just Complete the Form Top to Bottom

Unless you like to make errors.

Forms impose organization on the medium (printed form on paper, or displayed form on screen).

Forms exist for the purpose of helping a person get information in the right *format*.

Format is organization of data to support exchange or storage.

Four Steps In Radio Messaging

Origination

Prepare message for relay for someone else.

(2) To
(4) From
(3) Text
(1) Preamble

Not radio stuff!

Relay: Send

Send prepared message from your radio station to another radio station.

Relay: Receive

Receive prepared message from another radio station at your radio station.

Delivery

Give the written message to the addressee ("To"), so it makes sense to them.

Not radio stuff!

Origination

Prepare message for relay

(usually for someone else).

Origination is organizing the thoughts of one person for transmission.

To (including how to get it there: phone, physical address, or station).

From (including how to reply: phone, physical address, or station).

Text (what to say).

Preamble (radio operators).

MPG 1.0.2 Example

Shows radiogram form with the "part" (or "block") numbers in parens.

Origination part is in the bottom-left, part 7.

The origination record is so if someone asks how W1AW number 1 (this message) got created, the radio operator has recorded the name and contact information for the person who worked with the operator to make the message.

It also includes date and time, which could show a delay between creating the message and getting it to the sending operator.

PREAMBLE (1)							
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
NR	PREC	HX___	STN ORIG	CK	PLACE OF ORIG	TIME FILED	MON DY
1	R	HXE	W1AW	12	NEWINGTON CT	1830Z	JUL 1

(2) TO DONALD R SMITH
164 EAST SIXTH AVE
RIVER CITY MD 00789

THIS RADIO MESSAGE WAS RECEIVED AT:(9)
AMATEUR STATION _____ TEL_____
NAME _____
STREET ADDRESS _____
CITY,STATE,ZIP _____

TEL 301 555 3470
OP NOTE (2.4)
TXT (3)

THANKS	FOR	MESSAGE	X	HOPE
TO	SEE	YOU	AT	HAMFEST
X	73			

SIG (4) DIANA OP NOTE (4.2)

RCVD FROM	NET	DATE/TIME	SENT TO	NET	DATE/TIME
(5) WD3W	MEPN	012215Z JUL 91	(6) KD3JK	MDD	012308Z JUL 91

(7) ORIG - FROM - DATE/TIME	(8) DLVD - TO - DATE/TIME
Name	Name
Addr	Addr
City	City
TEL	TEL

There's no "radio stuff" yet.

Completion of the form helps to format the message for transmission.

Completion of the origination part helps to establish the record of where the message came from in the first place.
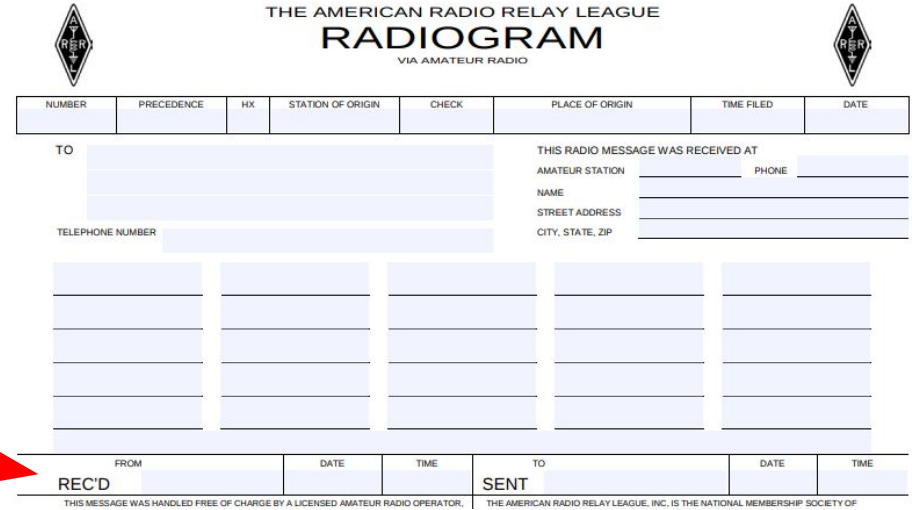
Standard Radiogram Form

What's happening?
There is no origination part!

You're right. Use "Received" (RECD) for origination on the standard form.

In origination, you received a message and might have asked questions to get complete information for transmission.

Record who gave you the message and how (verbally? in-house phone? written?)...

Record date and time that you got the message.

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

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

TO

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

TELEPHONE NUMBER

FROM		DATE	TIME	TO		DATE	TIME
REC'D				SENT			

THIS MESSAGE WAS HANDLED FREE OF CHARGE BY A LICENSED AMATEUR RADIO OPERATOR, THE AMERICAN RADIO RELAY LEAGUE, INC, IS THE NATIONAL MEMBERSHIP SOCIETY OF

There's no radio stuff here, so you received it from a person, even if that person is a radio operator. You didn't get it from a station.

If you're a radio operator staffing W8SGT and originate a message that B. Jones verbally gave, you received the message from B. JONES/VERBAL, not from his callsign.

A Detail

This isn't a tutorial on origination but her's one other thing to know so you have the concept.

The STATION OF ORIGIN
is the station where the message was originated. In our example, it's W8SGT.

This radiogram in the station record at W8SGT clearly was originated for B. JONES, and came in verbally at 1405Z (10:05 A.M. EDT) on July 29.

"Tell them thanks for the coffee before mid-afternoon today!"

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
			W8SGT				

TO

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

TELEPHONE NUMBER

FROM B. JONES/VERBAL DATE JUL 29 TIME 1405Z

| REC'D | | | TO | SENT | DATE | TIME |

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Your callsign does not matter. This message was originated at W8SGT.

B. Jones might have a station callsign but it does not matter. This message was received from B. JONES, verbally, and has nothing to do with Jones' station.

Message Status?

This message is at station W8SGT.

What is the status of the message?

Unsent, waiting for action at station W8SGT.

How do we know?
  It's RECEIVED from someone.
  It's ORIGINATED at W8SGT.
  W8SGT is this station.
  SENT is empty.

This message needs action!

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
42	P	B4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO

S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

TELEPHONE NUMBER

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

ARL   FIFTY   THREE   COFFEE

B JONES OHIO EMA C/O W8SGT COLUMBUS 43235

FROM	DATE	TIME	TO	DATE	TIME
B. JONES/VERBAL	JUL 29	1405Z	SENT		

REC'D

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The parts of the radiogram format work together to provide not only accounting after the fact but to show the status of the message as it's being handled.

Relay

Move the message from one station to another station.

Relay moves the message from one station to another station.

The station that is holding the message must handle it.

The station holding the message will send it to another station.

The station receiving the message now holds it and must handle it.

Accounting happens at each step.

Relay: Send

Relay: Send to W8THV

W8SGT is on a net and lists the traffic for W8OMR COLUMBUS.

W8OMR is not in the net.

Net control directs nearby station W8THV to take message for W8OMR.

W8THV calls W8SGT and receives the message.

W8SGT records station, date, and time saying ROGER (or sending "QSL").

This message at station W8SGT is now handled.

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
42	P	B4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO
S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

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

TELEPHONE NUMBER

ARL	FIFTY	THREE	COFFEE	

B JONES OHIO EMA C/O W8SGT COLUMBUS 43235

FROM	DATE	TIME		TO	DATE	TIME
B. JONES/VERBAL	JUL 29	1405Z	SENT	W8THV	JUL 29	1434Z

REC'D
THIS MESSAGE WAS HANDLED FREE OF CHARGE ... AMERICAN RADIO RELAY LEAGUE, INC, IS THE NATIONAL MEMBERSHIP SOCIETY OF

SENT is completed at the time that it "leaves" the station. This shows when W8THV operator said ROGER (or sent QSL). The message is "off" of W8SGT and "on" W8THV.

W8SGT operator should file the message where it stays until policy says. (Not 0 days, also probably not forever.)

Relay: Send to W8T[...]

W8SGT is on a net and lists [...] W8OMR COLUMBUS.

W8OMR is not in the net [...]

Net control directs nearb[...] take message for W8OMR.

W8THV calls W8SGT and [...] message.

W8SGT records station, date, [...] saying ROGER (or sending "O[...]

This message at station W8SGT is no[...] handled.

[...] at the time that it "leaves" the station.
[...]THV operator said ROGER (or sent
[...]ff" of W8SGT and "on" W8THV.

[...] or should file the message where it stays
[...] policy sa[...]s. (Not 0 days, also probably not forever.)

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

[...]	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

C/O W8OMR

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

THREE   COFFEE

C/O W8SGT COLUMBUS 43235

| [...]n5Z | SENT | W8THV | JUL 29 | 1434Z |

[...] AMERICAN RADIO RELAY LEAGUE, INC, IS THE NATIONAL MEMBERSHIP SOCIETY OF

Voice Procedure for Relay Covered and Practiced in Next Session!

Relay: Receive

Relay: Receive from W8SGT

W8SGT is on a net and lists the traffic for W8OMR COLUMBUS.

W8OMR is not in the net.

Net control directs nearby station W8THV to take message for W8OMR.

W8THV calls W8SGT and receives the message.

W8THV records station, date, and time operator said ROGER (or sending "QSL").

This message now needs action at W8THV.

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
42	P	B4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

THIS RADIO MESSAGE WAS RECEIVED AT
AMATEUR STATION ___ PHONE ___
NAME ___
STREET ADDRESS ___
CITY, STATE, ZIP ___

TELEPHONE NUMBER

ARL   FIFTY   THREE   COFFEE

B JONES OHIO EMA C/O W8SGT COLUMBUS 43235

| REC'D | W8SGT | DATE JUL 29 | TIME 1434Z | SENT | TO | DATE | TIME |

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This message at W8SGT clearly needs action: RECD complete, TO elsewhere, SENT empty

Only three actions allowed:
1. Relay to another station
2. Delivery to the addressee
3. Service (cancel this and originate new) message to STATION OF ORIGIN

Relay: Send

Relay: Send to W8OMR

W8THV is on a net and lists the traffic for W8OMR COLUMBUS.

W8OMR is in the net.

Net control directs W8OMR to take message from W8THV.

W8OMR calls W8THV and receives the message.

W8THV records station, date, and time saying ROGER (or sending "QSL").

This message at station W8THV is now handled.

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
42	P	B4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

THIS RADIO MESSAGE WAS RECEIVED AT
AMATEUR STATION ___ PHONE ___
NAME ___
STREET ADDRESS ___
CITY, STATE, ZIP ___

TELEPHONE NUMBER

ARL   FIFTY   THREE   COFFEE

B JONES OHIO EMA C/O W8SGT COLUMBUS 43235

REC'D W8SGT   JUL 29 14__   SENT W8OMR   JUL 29 1508Z

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SENT is completed at the time that it "leaves" the station. This shows when W8THV operator said ROGER (or sent QSL). The message is "off" of W8THV and "on" W8OMR.

W8THV operator should file the message where it stays until policy says. (Not 0 days, also probably not forever.)

Relay: Receive

Relay: Receive from W8THV

W8THV is on a net and lists the traffic for W8OMR COLUMBUS.

W8OMR is in the net.

Net control directs W8OMR to take message from W8THV.

W8OMR calls W8THV and receives the message.

W8OMR records station, date, and time operator said ROGER (or sending "QSL").

This message now needs action at W8OMR.

RADIOGRAM

MSG. NO.	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME (UTC)	DATE
42	P	B4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO: S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

MESSAGE: ARL FIFTY THREE COFFEE

FROM (SIGNATURE): B JONES OHIO EMA C/O W8SGT
COLUMBUS 43235

Form 1602

RECIVED FROM (CALL)	TIME	DATE	TRANSMITTED TO (CALL)	TIME	DATE
W8THV		JUL 29 1508Z			

This message at W8OMR clearly needs action:
1. RECD from W8THV (a station, i.e., radio)
2. TO is some other station
3. SENT is empty

Still must relay, deliver, or service.

Station W8OMR Take Action

W8OMR now has the message.

Station always decides which action to take:

1. Relay to another station
2. Deliver to the addressee, or
3. Service (cancel and notice).

Looking at "addressee" (TO),
we see it is directed to this station.

We do not use radio to relay this message further.

We have all information needed here to deliver.

Since we are now delivering, we can now complete part 9 of the radiogram ("THIS MESSAGE WAS RECEIVED AT"), which is not preprinted on this form. Doesn't matter. Goes in the same place.

What's The Status?

W8OMR now has the message.

W8OMR can make delivery, no radio relay.

W8OMR has not yet made delivery.
    SENT part is empty.

W8OMR needs to deliver this message!
    Could be by phone if we know it,
    Could be hand-delivery or courier,
    Could be posted to site message board,
    Could be intraoffice mail.

RADIOGRAM

MSG. NO.	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME (UTC)	DATE
42	P		B4 W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO: S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

RECEIVED AT W8OMR
S6/HHC/4CSSB OHMR
COLUMBUS OH 43228

MESSAGE: ARL   FIFTY   THREE   COFFEE

FROM (SIGNATURE): B JONES OHIO EMA C/O W8SGT
COLUMBUS 43235

Form 1602

RECIVED FROM (CALL)	TIME		TRANSMITTED TO (CALL)	TIME	DATE
W8THV	JUL 29 1302				

However it will get delivered, we know that delivery has not yet happened.

Delivery

Give the written message to the addressee ("To"), so it makes sense to them.

Delivery takes the relayed message and prepares it for the recipient.

The station that is holding the message must handle it.

No radio stuff!

Accounting continues.

Delivery: No More Radio

In this example, we deliver via internal email:

```
To: V.V. Resourceful
From: R.T. Operator
Date: Jul 29 11:17:31 EDT (-0400)
Subject: Radio Message from Ohio EMA

SGT:
Message for your shop follows. You
can send radio response through me.
V/R,
R.T. Operator PFC (OH), OHMR

291432Z JUL 20
TO S4/HHC/4
FR B JONES OHIO EMA
RECEIVED YOUR COFFEE. IT'S VERY MUCH
APPRECIATED; MANY THANKS.
```

RADIOGRAM

MSG. NO.	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME (UTC)	DATE
42	P	B4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO: S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

RECEIVED AT W8OMR
S6/HHC/4CSSB OHMR
COLUMBUS OH 43228

MESSAGE: ARL   FIFTY   THREE   COFFEE

FROM (SIGNATURE): B JONES OHIO EMA C/O W8SGT
COLUMBUS 43235

Form 1602

RECIVED FROM (CALL)	TIME	DATE	TRANSMITTED TO (CALL)	TIME	DATE
W8THV	JUL 29 1508Z		V.Resourceful/email	JUL 29 1517Z	

Never just throw a message at the addressee. Calling someone up to say "ARL FIFTY I SPELL FOXTROT INDIA…" does no one any good.

You might attach a copy of the radiogram itself but in any case turn it back into something human readable.

When you make the delivery, it's SENT.

Delivery: No More Radio

In this example, we deliver via internal email:

```
To: V.V. Resourceful
From: R.T. Operator
Date: Jul 29 11:17:31 EDT (-0400)
Subject: Radio Message from Ohio EMA

SGT:
Message for your shop follows. You
can send radio response through me.
V/R,
R.T. Operator PFC (OH), OHMR

291432Z JUL 20
TO S4/HHC/4
FR B JONES OHIO EMA
RECEIVED YOUR COFFEE. IT'S VERY MUCH
APPRECIATED; MANY THANKS.
```


Delivery goes to a person, not a station; this is the complement of origination.

Now the message is "off of" W8OMR, and it can be filed, in accordance with the station policy. Probably not 0 days, but also not forever.

Recap

All of the parts together

RECD is when station receives the message:

      Origination if it's from a person
          Often not by amateur radio
      Relay if it's from a station

SENT is when station sends the message:

      Relay if it's from a station
      Delivery if it's to a person
          Often not by amateur radio

Question

What if the message came in over amateur radio but was informal?

Informal message (chatter) that results in the creation of a formal message (radiogram) is treated exactly as if a person spoke to a station operator.

Same as email to station operator.

Or phone call to station operator.

Origination is preparing for relay, making the formal message.

Proper Message Records Can Help Trace and Find Problems

This is a key part of the job, not a "nice to have."

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
42	P	B4	W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

TO S4/HHC/4 C/O W8OMR
COLUMBUS OH 43228

TELEPHONE NUMBER

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

ARL   FIFTY   THREE   COFFEE

B JONES OHIO EMA C/O W8SGT COLUMBUS 43235

REC'D	DATE	TIME		SENT	DATE	TIME
B. JONES/VERBAL	JUL 29	1405Z	SENT	W8THV	JUL 29	1434Z

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B JONES OHIO EMA C/O W8SGT COLUMBUS 43235

REC'D	DATE	TIME		SENT	DATE	TIME
W8SGT	JUL 29	1434Z	SENT	W8OMR	JUL 29	1508Z

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RADIOGRAM
RRI

STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
W8SGT	ARL 4	COLUMBUS OH	1423Z	JUL 29

/O W8OMR
OH 43228

RECEIVED AT W8OMR
S6/HHC/4CSSB OHMR
COLUMBUS OH 43228

FIFTY   THREE   COFFEE

FROM (SIGNATURE): B JONES OHIO EMA C/O W8SGT
COLUMBUS 43235

Form 1602

RECIVED FROM (CALL)	TIME	DATE	TRANSMITTED TO (CALL)	TIME	DATE
W8THV		JUL 29 1508Z	V.Resourceful/email		JUL 29 1517Z

Thank You!

C. Matthew Curtin KD8TTE
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See Episode 008, *Radio Message Accounting and Lifecycle of a Radiogram*