"AN INSTRUCTORS GUIDE TO TRAINING TRAFFIC HANDLERS"

BY

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Disclaimer

DEDICATION

    The author dedicates this guide in memory of Clara Reger, W2RUF. Clara was from Buffalo, New York. She was licensed in 1933 and soon after became interested and active in traffic handling. It wasn't long before she was well known in traffic circles around the country. All who met her, loved her.

    Throughout her career, she became Manager of the Empire Slow Speed Net, was also manager of NYS for many years, and also worked 2RN, EAN and TCC. She founded the New York State Slow Speed Net, helping to attract new stations into the folds of the National Traffic System and CW nets. This was Clara's main goal and she was steadfast with it always.

    Clara also had a tremendous love of music and was talented in many other areas as well.

    There are very few who walk the steps that Clara did, so this guide is dedicated to her for what she stood for and what she did for all of us in traffic handling.

    Clara became a silent key in February 1980. She is dearly missed by many people, and is still the subject of conversations when traffic handlers get together.

CLARA REST IN PEACE

FORWARD

      This guide is written for the volunteers who are willing to train Amateur Radio Operators about traffic handling. These volunteer instructors know that the end result of training is the answer to bringing new traffic handlers to the Nets.

      It is the author's opinion that a guide of this nature is long overdue. It is written in a format that can be read by the instructor over the air, either as an added part of a net, or a net designated solely for the purpose of training.

      It is designed mainly toward phone net traffic handling, however, there is enough CW language for those who are interested in the CW aspect of traffic handling. The last chapter is dedicated solely to CW traffic handling, for those who want that training.

      There are many CW Slow Nets and Section Nets that provide training programs. Contact the Net Manager, Section Traffic Manager, or Section Manager for information in your area on these nets.

      The format of calling up a regular training net session on 2 meters has been done with great success. If you keep the sessions to about thirty minutes you will keep the interest of your class and not use up too much repeater time.

      It has also been found that a training session following the local net session brings in more stations. Make an announcement on the local net that the training session will follow the net and invite all to participate.

      The instructors will find that enthusiastic groups will ask a lot of questions and this should be encouraged.

      Some of the material in this guide can be found in ARRL Publications such as the "Operating Manual". All of the material in the Guide is written in the author's own language and much of it comes from over thirty years of experience and research in the traffic handling field.

      Good luck with your training. May your success spur many new Amateur Radio Operators into the folds of the wonderful field of Public

Service through the National Traffic System and other nets, thank you and 73.

<div align="center">

Mark Rappaport, W2EAG
TO THE INSTRUCTOR OR NCS

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There is a lot of material here and it will be up to you to make "cut off points" on your sessions. A lot depends on your audience as to how many questions you will get. Encourage your audience to "fire away".

I encourage you to use a lot of examples along the way to help your pupils understand. I have inserted some but you may have others that you feel are better. It is perfectly acceptable to ad-lib as you see fit. The course will only be interesting if you, as the instructor, make your points and prompt questions.

Please remember this guide is meant to instruct. If you have questions or concerns contact the author for clarification.

I realize that some of you may not be well versed in CW Traffic Handling. I have inserted a chapter at the end of this guide to aid in the training of those who wish to learn about it. If there is no interest in CW training among your pupils, I strongly suggest that you read Chapter 20, Numbers 1 and 2 to your group. It may stir some interest. Our CW net memberships are dwindling rapidly with every Silent Key, plus the advent of the no-code license. It will be up to the instructor to obtain information from your members as to whether or not they are interested. If you are not comfortable about training on this subject and you find you have people who want the training, I urge you to contact a friend who will be willing to aid you in your instruction of this subject.

To make training easier see that your students have the following:

(1)   FSD 218, commonly known as The Amateur Message Form or "Pink Card"

(2)   FSD 3, "The ARRL Numbered Radiogram Form"

Read thoroughly the work you are going to cover before the session. This will give you better insight as to how you wish to proceed with your training session. Remember that your audience is taking notes. Frequent breaks, asking for comments or queries are necessary. I have inserted throughout the course the letters "**Q/C**" for this purpose. If you are in a net mode have "call-ups" to invite other stations to join you. Make your students aware of strategic parts of the lesson for note taking.
Certificates of another nature should be given out to the other participants, who are deemed worthy.

At the end of your training instruct your class to draft a message and send it to the SM and STM notifying them they have completed the training course. It is a great reward.

Two meters is the starting place for many traffic handlers. Hopefully, this training will put them on the right track to being top-notch traffic handlers. I have not included any information on digital traffic handling, as I am not well versed on the subject. Feel free to insert the subject into your training if you wish.

I wish you good luck and hope that you find this guide rewarding.
INSTUCTORS FIRST SESSION

The following is what I have used with great success to start off the training. Use your own discretion as to weather or not you want to use it too. During the initial callup, proceed with the following:

The purpose of the net is to instruct Amateurs in the art of message format, net procedures, and teach pertinent traffic handling information. To check into the net, say this, and give your callsign and name. All stations are cordially invited and are welcome. Stations for the net, please call (your callsign) over.

GREETING: Good evening everyone, my name is_____and I thank you for your interest. I am pleased to meet you and hope that you will enjoy the training. Please stand by.   HAVE ANOTHER CALLUP HERE

The first session will be a fairly informal one, so that I can tell you what to expect in the weeks to come. Also, it gives us the opportunity to get to know one another. In the ensuing sessions, you will learn about formal written traffic, message format, net procedures and traffic nets in general. To better enable you to understand and visualize some of the material we will be covering, it would be helpful to have a copy of the ARRL FSD 218 Amateur Message Form, sometimes known as the pink card, and a copy of the ARRL FSD 3, Numbered Radiograms Form to aid you. These can be obtained on-line. (*INSTR:* Let your class know if you can provide them).

AWARDS; I will keep a log of everyone who checks into each training session. For those of you who I deem have received enough of the training, will be rewarded with a certificate. ARRL members who have not received an ORS (Official Relay Station) certificate, will be issued one. Stations who are not ARRL members, will be issued a certificate of a different nature, honoring your effort. **(INSTR**: Ask for questions or comments here, get a list of ORS holders, and have another callup.)

To make the training more interesting, it is important that you, the class, ask questions, no matter how trivial you might think they are. We are here to learn, so please get my attention during a break or at a callup, by giving the suffix of your call, and I will recognize you. There will be many places throughout the session where I will pause and ask for questions or comments. Are there any questions or comments now?

HAVE A CALLUP

Although this training is geared for phone nets, training for CW nets is also available for those who are interested. You will probably want to take notes as we go along. I will try to go slowly enough for

you to jot them down. Again, don't be afraid to ask for a repeat on anything that you miss. Any questions or Comments?

     I will try to keep each session to about 30 minutes. I feel that is long enough, so that you can digest the material and get your questions answered. (IF ON REPEATER) Also, it will also free up the repeater for other use.
     For those of you who have recently upgraded, or are members of RACES or ARES groups, you will find this training a very handy aid in preparing yourself to handle traffic on the nets or in an emergency.
     Traffic handlers are a close knit group, and you will find that you will make friends easily on the nets. Many may be lifetime friends. Traffic handling is an enjoyable aspect of our hobby.
I look forward to the coming weeks with you. If you know any other hams who you think might want to join us, please invite them. The next session will begin the real training, and is not too late for them to join and participate. Thank you.
                    QUESTIONS/COMMENTS

CLOSING; In closing, I thank you all for coming. I look forward to seeing you on the next session, (give time). Good evening to all. This is (your call) closing the net. 73 all.

CHAPTER 1: HISTORY

     In the 1920's and 30's organized traffic was handled by individual stations called "Trunk Lines". They were on fixed frequencies using crystal control that was supplied by the ARRL. This was the only way of routing traffic on an individual sked basis.

     There were fourteen trunk lines that criss-crossed the United States and Canada. Numerous independent lines were organized but not affiliated with the ARRL.

     Some of you may remember the radio silence during World War II and much of the 1940's. After World War II the trunk line system was reinstated but due to many conflicts and other problems the ARRL organized and started operating the National Traffic System in 1949. It was authored by George Hart, W1NJM.

     The early years of NTS was not without its problems as many of the old timers tried to hold onto the old ways. Finally NTS caught on and now over fifty years later is still the official traffic system of the ARRL. The six hundred plus NTS nets of today are a far cry from what existed back on October 1, 1949. The NTS is known as the tightest operating organization in Amateur Radio, yet, one of the friendliest.
Q/C

     Those of you that are just getting started in traffic handling will soon find out that high quality operating methods and dedication of it's members is what makes traffic handlers a very close knit group. The comradeship amongst traffic handlers is unequaled in amateur radio. You are going to make a lot of new friends, some for a lifetime.

INSTRUCTOR; Before starting Chapter 2, Encourage your class to take notes and ask questions. Explain that there will be many breaks for questions or comments (Q/C). This is also a good place to have another callup for new checkins.

CHAPTER 2:   TRAFFIC NETS

1.   WHAT IS A NET?

A traffic net is an organized group of amateur operators gathered on a designated frequency and time for the purpose of exchanging formal written third party messages in the United States, Canada and abroad where third party traffic is legal.

   The main reasons to check into a traffic net are:

   A. To provide an outlet for message delivery in your area.
   B. To bring traffic into the Net.
   C. To perform as a liaison station.
   D. To enjoy camaraderie of the Net members, all of whom are
       performing a public service.
   E. To keep trained for emergencies. **Q/C**

2.   NET STRUCTURE

Each session is composed of the following:

   A.   The Net Control Station (NCS) – The NCS is a station that has been assigned by the Net Manager to control or run the net on an assigned day. The Net Control Station is the Master of Ceremony. While the Net is directed, his/her instructions must be carried out without question. The NCS is in charge!   Q/C

   B.   Liaison Stations – One or more stations assigned to take messages destined for areas outside of the Net's normal coverage and also stations bringing in traffic from those outside areas or Nets. The Net Manager appoints liaisons.   Q/C

   C.   Net Members – Stations that check in at random to represent a city, town, village or other designated part of the net's coverage. The Net Manager keeps strict account of the membership on a roster with a tally of check-ins and liaison functions.
                                        Q/C
3.   MEETING TIMES

   Most NTS nets meet at a fixed time, on a designated frequency, on a daily basis. Many nets meet more than once a day, conforming to the NTS structure. Ask a Net Manager or the Section Traffic Manager for details.

Q/C

CHAPTER 3: TYPES OF NETS

      Listing the Nets from the lowest to the highest levels, they are: the Local Net, the Section Net, Region Net, Area Net and TCC (Transcontinental Corps). We will also discuss Independent Nets.

1.   Local Nets – Generally cover a comparatively small area such as a city, county or designated zone within a section. They are usually operated on VHF serving as traffic or emergency nets. Coverage depends on the range of the repeater and its links.   **Q/C**

2.   Section Nets – Operate at ARRL Section Level and may consist of more than one state within the section, depending on availability of operators, traffic and terrain. Mode: May be phone or CW, but generally Cycle 4 is CW. **Q/C**

3.   Region Nets – Coverage basis is usually a call area. In some areas this may differ because of time zone changes, etc. The 1RN, 2RN, 3RN and 8RN observe call area boundaries. **Q/C**

4. Area Nets – Are the highest level nets and consist of Eastern, Central and Pacific areas.

5. TCC liaison stations take traffic from area to area nets on schedules, dictated by the TCC Director or on an individual basis. **Q/C**

      All the above nets are bound together by liaison stations, whom are assigned by the Net Managers, either coming in or going out of the nets upward or downward. Also, these nets may meet one or more times daily, conforming to the ARRL NTS cycle structure, either CW or phone.

INDEPENDENT NETS – Are nets that are recognized, but not sanctioned by the ARRL. They may or may not have assigned liaison stations. Coverage
 depends on the band of operation, sometimes covering wide areas. The Net Managers are usually elected by the net membership. Many members are usually affiliated with NTS.   **Q/C**

CHAPTER 4: RESPONSIBILITIES

      What are our responsibilities as traffic handlers? Let's review them along with some other observations.

1.   Accuracy

    A.   To receive and send formal written traffic in any mode, with absolute accuracy, letter for letter.

    B.   Sending slow and deliberate is a lot better than fast and furious. Remember, using cw, one or two wrong letters sent on a word can change the whole context of a message. On phone, use phonetics on difficult words.

C.   Do not be ashamed to ask for fills, no matter how long it takes. Use correct pro-words. An entire session will be devoted to pro-words,prosigns and Q-signals a little later.

a.   If you are the sending station, speak or send only as fast as the receiving station can write. This includes operators who have been around a long time. He or she may be having a bad day or poor conditions may prevail on that end. This saves net time. Sending too fast leads to mistakes and asking for fills.   **Q/C**

b.   Never roger or QSL on CW for a message until you are 100 percent sure you have it all correctly written. Ask the sending station to wait while you check it, if necessary.   **Q/C**

c.   If on CW – adjust your key speed to that of the receiving station. Use good spacing. This will save time in the long run. When on phone use the best possible diction; send in phrases that are meaningful.
                                                Q/C

2.   <u>Being On Time</u>

A. When checking into a net, especially if you have traffic, be there on time. The same goes if you are the NCS or liaison station. It's your responsibility. Stations with traffic should check in first. This allows the NCS to set up pairing off Stations and speed the flow of net. Stations with no traffic should hold back from checking in to allow those with traffic to check in first. Follow the instructions given by the NCS at the opening of the net. Some nets have different formats or preambles for the net call up. They should be followed to the letter. **Q/C**

B.   Be alert during the net. Try to follow what is going on. Be prepared to go to work if asked. This is especially true on HF Phone or CW nets where band conditions may be a lot less than ideal.   **Q/C**

C.   Never leave the net without permission, unless it's an emergency. This is frustrating and embarrassing for the NCS. Notify the NCS before you leave, during a call-up. **Q/C**

3.   <u>Keeping Record and Logging</u>

A.   It has been many years since Amateurs were mandated to keep a log of all activities on the air. It is a good practice, especially for Traffic Handlers, because you can

keep track of the Net, frequency, the time, and stations you sent or received traffic from and the number of pieces handled in that session. Keeping a strict account of your traffic is one of the most responsible jobs you have. Develop a system that works for you. You should file your traffic for at least 6 months before disposing of it. **Q/C**

B. Traffic handlers who draft, originate, or receive messages for relay or delivery, must accept the responsibility to do so, and to clear them from their station in the shortest time possible. You must relay or deliver the   message. There is no tolerance for a "Dead Ended"   message and anyone who does is tearing down a high   standard that Traffic Handlers have worked hard for,   for decades. This is strong language but is needed because the pride and moral values of Traffic Handlers are the highest in Amateur Radio. Usual procedure is to relay or deliver in 48 to 72 hours or service message back.   **Q/C**

C.   Third Party Traffic and Agreement

All amateurs, and especially traffic handlers, should thoroughly read part 97.111 through part 97.119 of the "FCC Rules and Regulations" pertaining to third party traffic and authorized transmissions. A list of U.S. Third Party Traffic Agreements can be found in "The ARRL Operating Manual" and other publications. Know them, they are the countries that we can legally pass traffic with. **Q/C**

4.   All the above is good information for our newer traffic handlers to digest and a good reminder to us "old timers". Using good common sense and being responsible will go a long way in making all of us better traffic handlers. **Q/C**

CHAPTER 5 – TOOLS NEEDED

You would not think there would not be many, but here is a list of tools that make the life of a traffic handler a lot easier. You may want to write them down.

<u>ARRL FORMS</u>

1.   FSD 218 – "Amateur Message Form" also known as "The Pink Card", (A Must Have). Shows formal written message by breakdown, precedence, handling instructions, Q signals, abbreviations, pro-signs and pro-words. **Q/C**

2.   FSD 3 – "ARRL Numbered Radiograms" – Lists numbered texts to shorten content of messages. **Q/C**

<u>Other Items To Have On Hand</u>

Telephone book, (know your dialing area); state maps, zip code directory, list of towns, villages and cities in the state and a dictionary. And above all, plenty of pens, pencils and paper. **Q/C**

INSTRUCTOR; Before starting Chapter 6, alert your class that paper and pen is needed.

<u>**CHAPTER 6 – PRO-SIGNS, PRO-WORDS, PHONETICS, QN SIGNALS**</u>

It cannot be stressed enough the importance of using these indicators properly while sending traffic, especially on phone. On FM the use of phonetics is usually not needed as often, except on difficult words or names. Proper use of pro-words, pro-signs and phonetics will make sending and receiving a message effortless, thus, keeping the flow of the net in a timely fashion.

On CW learning and using QN signals and pro-signs is easy and a must. FSD 218 (pink card) is the best op-aid for these. There will be more on CW later in the course. Following is a list of phone pro-words needed, copy them down, and commit them to memory.

1.	Amateur Call	2.	Figures or Initials
3.	I spell	4.	Zip Figures
5.	Mixed Group (s)	6.	Phone figures
7.	Break	8.	I say again
9.	Say again	10.	All after
11.	All before	12.	Between
13.	Word after	14.	Word before
15.	End of message	16.	No more
17.	More to follow	18.	Over
19.	Roger	20.	Confirm
21.	Wait or standby	22	Correction

You will find it necessary to use more than one of these at a time in many situations, especially when asking for fills.

(Example) – A.   Say Again Word After _____.
          B.   I Spell Amateur Call _____.
          C.   End of Message, No More, Over   **Q/C**

<u>**QN SIGNALS**</u>

QN signals are used in CW net operations. A full list with meanings can be found on FSD 218, the "pink card". Study them, they are easy. Right now we will go into only the few needed to get you into a CW net.

During a call-up of the net, the NCS will send the name of the net using abbreviations of the net name, such as NYS would stand for New York State. This will be followed by the QN Signals as follows:

```
QND - The Net is Directed
QNZ - Zero Beat My Frequency
QNN - Net Control Station Call Is
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He or she may then send QNA, which means "Answer" in prearranged order. This means the NCS is looking perhaps for liaison stations or stations with traffic to check in first. Then he will send QNI, meaning "Net Stations Report In or A General Call-Up for Any Station To Check In". More training on CW is furnished at the end of the course, for those who may be interested.   **Q/C**

PHONETICS

Knowing and using proper phonetics in traffic handling is a must. Do not be intimidated by people who still use the old ones. Traffic handlers must remain constant at being precise. The ITU alphabet follows along with the standard abbreviations for the months.

```
(A)   ALPHA
(B)   BRAVO
(C)   CHARLIE
(D)   DELTA
(E)   ECHO
(F)   FOXTROT
(G)   GOLF
(H)   HOTEL
(I)   INDIA
(J)   JULIET
(K)   KILO
(L)   LIMA
(M)   MIKE
(N)   NOVEMBER
(O)   OSCAR
(P)   PAPA
(Q)   QUEBEC
(R)   ROMEO
(S)   SIERRA
(T)   TANGO
(U)   UNIFORM
(V)   VICTOR
(W)   WHISKEY
(X)   X-RAY
(Y)   YANKEE
(Z)   ZULU
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Month Abbreviations: JAN, FEB, MAR, APR, MAY, JUN,JUL, AUG, SEP, OCT, NOV, DEC.
Abbreviations for the states are the same as what the Postal Service uses. Commit them to memory as well.

FIGURES

When pronouncing figures (or numerals) there are only two that most people have problems with. The number five should be pronounced

(Fife). The number nine should be pronounced (Niner). Zero is Zero, not "OH." If sent like this, there should be less confusion. **Q/C**

TEST MESSAGE

INSTRUCTOR: This test message will be referred to many times during the course of training. Please have your audience copy it down on a separate piece of paper that they can put aside, explain that it will be used many times in the sessions to follow. You may have to go slowly and explain, for example, "This is the preamble, which is the first line across your paper". Refer them to FSD 218, the pink card.

TEST MESSAGE

INSTRUCTOR: The following test message may consume a full thirty-minute session. Explain to your class that a breakdown of each part of the message will follow immediately and will answer many of their questions. A grammar and written form follows. This message will be referred to during the remainder of the training. Talk them through it.

PREAMBLE: NR 421 R HXG KF1SLG ARL 25 BREWSTER MA 2130Z NOV 23

ADDRESS: MR MRS THOMAS CANAVARO KF1BCE
2648 CATAWBA STREET SE
TEWKSBURY MA 02463 DASH 3115
508 555 7992   BREAK

TEXT: DRILL ARL FIFTY THREE LETTER
X CAN MAKE SKED SATURDAY
1530Z ON 14 DECIMAL 327 X IF
NOT GOOD CALL ME AT
999 555 4434 X 73   BREAK

FULL SIGNATURE: JACK EISENHOWER KF1SLG
98 WELLHOUSE LANE
BREWSTER MA 02776 DASH 1372
508 555 9983

END OF MESSAGE, NO MORE, OVER (The CW explanation of this is AR over-scored, N, K)

TEST MESSAGE

PREAMBLE: NUMBER FOUR TWO ONE, ROUTINE, HOTEL XRAY GOLF, ARL TWENTY FIVE, BREWSTER MASSACHUSETTS, MIXED GROUP – FIGURES TWO ONE THREE ZERO ZULU, NOVEMBER FIGURES TWO THREE.

CHAPTER 7: MESSAGE FORM

INSTRUCTOR; point out to your class that there are many errors on the "pink card". Abbreviation for Connecticut is CT not Conn. Pro-words are left out. ie: Initial X-ray; Zip figures; Phone figures, etc.

Let us preface this important subject by saying a few words of encouragement and criticism.

Passing a piece of traffic, especially on phone, sounds like an easy thing to do, and it is. Unfortunately there are many ways to go wrong. We as humans tend to get "wordy" in our speech. In traffic handling there is no room for this. We must contain ourselves and use only the proper pro-words, phonetics and procedures while sending or receiving traffic. If everyone uses proper procedures it makes it easier for all. Self-discipline is the key to being a good traffic handler. Do not be intimidated by others who are not so disciplined. Do your part and set an example for others to follow.   **Q/C**

STRUCTURE: There are four parts to a message: the preamble, address, text and signature. We will address each part individually and later in the training we will examine the CW differences.   **Q/C**

PREAMBLE: The preamble is the heading or top line of the message and
              is divided into eight parts, explained as follows:

1.   Message Number: The identifying number given to a message by the person drafting or originating the message. It stays with the message from the time of draft to when it gets delivered. Its importance cannot be measured as that number may be referred to sometime if a question arises about that message. Make sure you copy it correctly. When sending the message number on phone,send each number individually. (Example: MSG NR FOUR, TWO, ONE) Most traffic handlers start the year off with message number one and go from there consecutively. **Q/C**

2.   Precedence: Indicates the urgency of the message and thus, the urgency of moving or handling it, designated by the originator, not necessarily by who signs the message. There are four precedents used and are as follows:

A.   Routine Messages (R) are the most commonly used on traffic nets. They have no urgency and are mainly used for greetings, traffic net reports, holidays, birthdays, etc. These types of messages are those that grease the wheels of the NTS on a daily basis to keep traffic handlers in readiness for true emergencies. **Q/C**

B.   Welfare Messages (W) depict health and welfare of individuals in a disaster area. They are handled only after emergency and priority messages have been cleared. **Q/C**

C.   Priority Messages (P) are those that have:

1.   A specific time limit.
2.   Official messages not covered by the emergency
      category.
3.   Press dispatches and emergency related traffic not of
      the highest urgency.

4. Notice of death or injury, either personal or official   in a disaster area.

D.   Emergency – (Always spelled out in any mode). These messages pertain to life and death urgency. They are very rare and are sent by amateurs only when commercial sources are absent. Emergency messages are used in emergency situations when vital supplies, materials, etc. are urgent in a stricken area. **Q/C**

E.   Handling Instructions – An optional part of the preamble designed to instruct the delivering station as to what the station of origin wants done when delivering the message. If a handling instruction is in the preamble, it must be carried completely through each relay to delivery. The seven HX Instructions are followed by A, B, C, D, E, F, and G. The originating station simply adds one or more letter to the HX, informing what he or she wants done with the message. Refer to your FSD 218 for their meanings. **Q/C**

F.   Station of Origin – The call sign who first sent the message is the station of origin. The importance of this is significant, as it will be referred to if a question arises with the message. **Q/C**

G.   Check – Is the count of words or groups in the text of the message. The check may include the letters ARL before the number of groups if an ARRL Numbered Radiogram is used. (Example: As in test message, ARL 25).

F.   Place of Origin – Usually the town or city plus the state where the message was originated, with one exception: If you are writing up a message for someone else in a different town that will be the place of origin, not your town. The town, city, village is spelled out completely. The state or providence is abbreviated with accepted abbreviations for states, i.e. MA for Massachusetts, CT for Connecticut. **Q/C**

G.   Filing Time – is an optional part of the preamble. It is mostly used on time-valued messages and must be carried through to message destination. The use of the initial Z for Zulu time (or GMT) must be used on CW. Use the initial Zulu on phone. The time is on a 24- hour clock as in military time, i.e., FIGURES 2130Z. **Q/C**

H.   The Date – Simply use the month followed by the day. The year is not used and should NOT be included. Months are abbreviated, i.e., JAN, JUL, NOV, etc. When there are double figures in the day of the month, it should be sent as follows. Example: May one six or December two niner.

Instructor; Re-read the entire preamble to your class. Point out that NO pro-words are used in the preamble, except if a word is spelled out, then the pro-words "I spell" must be used.

INSTRUCTOR: REFER YOUR CLASS TO THE TEST MESSAGE AND GO OVER THE

PREAMBLE WITH THEM. Instruct them to put the Test Message on a separate piece of paper as it will be referred to later in the training.

TEST MESSAGE (PREAMBLE) FOLLOWS:

NR 421 R HXG KF1SLG ARL 26 BREWSTER MA 2130Z NOV 23

<u>**INSTRUCTOR**</u>: **PROPER SENDING OF PREAMBLE**:

"This is _____ (Give your call sign), Message number four two one (pause) routine (pause). Hotel x-ray golf (pause) kilo foxtrot one sierra lima golf (pause) ARL twenty six (pause) Brewster, (I spell) B R E W S T E R MASSACHUSETTS (pause) (Mixed group) two one three zero zulu (pause) November (figures) two three." <u>End Preamble</u>

ANY FILLS NEEDED?   **ANY QUESTIONS/COMMENTS**

<u>**INSTRUCTOR**</u>: **SOME IMPORTANT NOTES, (read to your class) Notice pauses between the parts of the preamble.**

1.   The sending station should always preclude sending the preamble with his or her call sign. The reason is that the receiving station can write that call sign down for his/her records or log keeping.

2.   Notice the words "Message Number" given before the number of the message.

3.   Also note that the handling instructions are spelled phonetically as is the station of origin.

4.   When an ARL appears as part of the check it is not proper to send the ARL in phonetics when in the preamble.

   5. When the sending station sends the preamble as above, it is allowable for the receiving station to abbreviate the precedence, the name of the state and the month name when writing it down.
   6. The only place to use a pro-word in the preamble is the place of origin.
   7. When using CW, and if your rig has break-in capabilities, then send the pro-sign QSK after your call sign before starting to send the preamble.

This concludes the preamble.

<div align="center">Q/C</div>

<div align="center">CHAPTER 8: THE ADDRESS</div>

INSTRUCTOR: Refer your class to the test message and encourage questions.

The address is the next part of a message, which directly follows the preamble. There is no break between the two parts, so when sending a message just continue on from the preamble to the address.

Compose the address exactly as you would put an address on an envelope of a letter, adding a phone number. There are some differences, on CW, which we will cover later.

The first line of the address is the addressee's name. It may be prefaced by Ms, Mrs, Mr. & Dr., etc., followed by one or more first names, perhaps a middle initial and then one or more last names; this also may be followed by an amateur call, a club number, family, or a title of some sort, so be aware. The receive station may abbreviate them.   Q/C

The second line usually starts with the number of the street and street name and perhaps an apartment number, letter or both. It could also be a P.O. box number, or a Rural Route number. Keep in mind many streets have a direction name included, for example, "southeast" and may be abbreviated by the initials S.E. or phonetically, "initials" SIERRA ECHO. These also can be abbreviated. Q/C

The third line declares the name of the town, the state, using accepted abbreviations for the state and the zip code.

The fourth line, if given, will contain the telephone number and should contain an area code. When drafting or originating a message it is imperative to include a full name, address, zip code, telephone number and area code along with any other information to speed delivery of the message.   Q/C

It cannot be stressed enough, while sending the message on phone to use the correct pro-words. Also, a short pause between each line is advised to clue the receiving station that a new line is coming.

Today's postal zip code now contains nine figures, the first five followed by a dash, then the next four digits. Use the word dash to separate them, for example; 02780-2705. Usually, only the first five are used. This completes the address of a message. What follows here, is the first of the two BREAKS in a message. Simply say "Break."

In order to put all this in perspective, I will now send you a sample address as it should be sent, on phone, using the proper pro-words. Please refer to the test message. I will use phonetics where necessary. Is everyone ready to copy? (Pause)

Address follows:

    Mr.Mrs. Thomas Canavaro KF1BCE
    2648 Catawba Street SE
    Tewksbury MA 02463-3115
    508 555 7992   BREAK (BT-CW)

INSTRUCTOR: USE PROPER PHONETICS explain to your class that difficult words should be spelled phonetically, using proper pro words.

PROPER READING (OR SENDING TO THE CLASS)

LINE 1   Mister Mrs. Thomas Canavaro, (I spell) (Phonetically) C A N A V A R O (Amateur Call) Kilo Foxtrot One Bravo Charlie Echo (Pause)

LINE 2   (Figures) Two Four Six Eight Catawba (I spell) (Phonetically) C A T A W B A Street (Initials) Sierra Echo (Pause)

LINE 3   Tewksbury (I spell) T E W K S B U R Y (Phonetics) Massachusetts (Zip figures) Zero Two Four Six Three Dash Three One One Five (Pause)

LINE 4   (Phone Figures) Five Zero Eight (Pause) Five Fife Fife (Pause) Seven Niner Niner Two   BREAK

NOTICE THE BREAK, IT IS THE FIRST OF TWO USED IN A MESSAGE, THIS ONE IS TO SEPARATE THE ADDRESS FROM THE TEXT. THIS CONCLUDES THE ADDRESS.

<div align="center">Q/C</div>

CHAPTER 9: THE TEXT OF A MESSAGE

The text conveys the thought of the originator. It can be made up of any words, figures or mixed groups. To be legal, it cannot be coded or encrypted in any manner. Also, it may not facilitate any business or commercial quality of any party.   **Q/C**

We will talk more about third party traffic later in the course.

It is important when writing up a message to keep the check to about twenty-five groups or less. Be concise. Use the initial xray as sparingly as possible.

We do not use punctuation marks in the text of a message. However, we use the initial x-ray when ending a sentence or train of thought. If the sentence is one that asks a question, we use the word query, spelled out on CW nets. The only other punctuation mark that is used is the decimal point, usually used in number groups. On CW, the initial R is used for the decimal point. On phone, the Pro-word (Decimal) is used, i.e. the frequency 14.273 would be sent as follows:

(Figures) one four decimal two seven three. When sending, always use the pro-word initial before the x-ray, or simply, initial x-ray.   **Q/C**

Each x-ray in the text is counted as a group, as is query. Remember: If you are using an ARRL Numbered Radiogram, the ARL is counted as a group and the numbers of the ARL must be spelled out, i.e., ARL Forty Six is sent (I spell) (Initials) Alpha Romeo Lima. Forty Six, (I spell) Foxtrot Oscar Romeo Tango Yankee. Six, (I spell) Sierra India X-ray. This is counted as three groups. **Q/C**

If there is a telephone number in the text, the area code counts as one group. The first three digits count as a group, and the last four digits count as a group when counting for the check. When sending on phone, it is important to leave a space or pause between these groups. The same goes for CW. Do not run them together. **Q/C**

When sending the text on phone, send it at what would be a comfortable speed for the receiving station to write it down. Some people write slowly. Sending too fast may mean requests for a lot of fills. This wastes net time. Send the words in groups or phrases that make sense. Don't be afraid to use your arsenal of pro-words such as, "I say again", or "I spell" or "I repeat". This actually saves time, especially on difficult words or names. Use good pronunciation. If you can't pronounce the word, simply say, "I spell" and spell the word phonetically. **Q/C**

INITIALS OR INITIAL GROUPS: A letter, or a group of letters that does not form a word, should be preceded by the pro-word "initials", i.e. ARRL would be sent, (initials) Alpha Romeo Romeo Lima, if they appear in the text.   **Q/C**

FIGURE GROUP OR GROUPS: The pro-word "Figures" is used to precede any group of numbers.

MIXED GROUP: Is a group that has a combination of letters and numbers. Use the pro-words "mixed group," then send that group by spelling it out phonetically. Example: The mixed group 1530Z, would be sent," Mixed group, "figures" one five three zero zulu.   **Q/C**

Never use x-ray as the last group in the text. The text is usually ended with a salutation, i.e. love, regards, 73, etc.

ARRL RADIOGRAM BLANKS: Blanks are written using five groups to a line. This simplifies counting the groups and is a good habit to get into when receiving traffic.

Before you roger for any message, be sure the text group count agrees with the check in the preamble.   If not, you must challenge the sending station to find the problem.
After the last group in the text is the word BREAK,which separates the address from the signature. On CW we use the overscored BT. **Q/C**

INSTRUCTOR: Refer class to the test message.

CHAPTER 10:   CHECK COUNT

GETTING THE CHECK COUNT RIGHT: If an agreement cannot be made on the check count, you can do the following things:

1.   Under poor conditions you may need many fills in the text. If so, you can say "say again text at reading speed". This may clear up what was missed   quickly. The sending station should always start and end with the word Break when sending the full text.

2.   If you only need one or two group fills, then use your pro-words,"In the text," "say again word after" or "word before" or "all between" and give the word or words you need. **INST: GIVE   EXAMPLE.**

3.   Many texts have several x-rays, so when asking for fills,
be   careful if there is more than one. You may need to ask for the word before or word after the x-ray to make it clear to the sending station what you are looking for.
INSTR; Give a sample here.   **Q/C**

4.   If an agreement cannot be made, the receiving station can ask for the first letter or number of each group in the text phonetically. The CW Q signal for this procedure is QTB. This should clear up the discrepancy. On phone always use phonetics for this procedure. Always start and end the text with the word "break."   **Q/C**

5.   Never change the spelling of a word anywhere in a message. Get a confirmation of the spelling and leave it as it was sent. You can make an operator's note at the end of the message after the signature of what you believe the discrepancy was. The operator's note will carry on to delivery of the message.   **Q/C**

6. If the originating station has made a wrong count in the check or if the check is wrong when you receive the message, if both you and the station sending you the message agree, then you may correct the check by putting it down the   way it was sent originally, and adding a slant bar followed   by the number you have rogered for.

7.   The Internet has caused some changes in the word count. When
a web site, or URL is found in the text of a message, words to describe the symbols that are found on a keyboard and
are
used,they will be counted as part of the text. One reason for this is beacause on CW there are no signs for them. We must keep thing uniform in traffic handling.

    INSTR: Give a sample here.

8. At the end of the text comes the second BREAK in the message, separating the text from the signature. The CW signal for BREAK is the over-scored BT. **Q/C**

INSTUCTOR: REVIEW DRILL MESSAGE TEXT. ASK IF EVERYONE IS READY TO COPY.

                    BREAK

        DRILL ARL FIFTY THREE LETTER
        X CAN MAKE SKED SATURDAY
        1530Z ON 14.327 X IF
        NOT GOOD CALL ME AT
        999 555 4434 X 73 BREAK

NOTICE THE CHECK COUNT IS TWENTY FIVE. END OF TEXT REVIEW **Q/C**

CHAPTER 11: THE SIGNATURE

The signature conveys the identification of the person of origin. It immediately follows the second break in the message, separating it from the text.

It may consist of a single name, an Amateur Call, several names, a combination of these; or it may consist of a full name, address, zip code and telephone number. Please refer to your test message.

INSTRUCTOR: PLEASE READ SIGNATURE AND USE PHONETICS WHERE NECESSARY.

                    BREAK

        JACK EISENHOWER KF1SLG
        98 WHEELHOUSE LANE
        BREWSTER MA 02776 DASH 1372
        508 555 9983

On phone, after the signature is sent by the sending station, the pro words "End of Message, no more, over," are sent if no more traffic is to follow.

If the sending station has more traffic, he would say "end of message, more, over". If there is an operators note, he would say "end of message, no more, operators note," then send the operators note. Then send " end, "no more, over."   **Q/C**

CHAPTER 12: RECEIPT OF MESSAGE

The following is one of the most common mistakes in traffic handling. When on a phone net to receipt a message, you ROGER the message. Never QSL a message. Q signals should always be reserved for CW Nets, not phone nets.

Another thing you will often hear the receiving station say, "Roger number 421, over". It is not necessary to say anything more than "Roger message". When you say that, it means you have copied the message in its entirety – period! If there is any question in your mind about the message, after it has been transmitted to you, simply give your call sign and say WAIT. Look over the message thoroughly. If you need a fill, now is the time to get what you need. At this time, make sure you LOG THE TIME OF RECEIPT and the STATION FROM WHO YOU RECEIVED THE MESSAGE.   **Q/C**

We have covered the following before in chapter four under responsibilities, but it is worth the redundancy to remind you about this.

Once you have rogered for, or accepted a message, it is your moral responsibility to deliver or relay it in the shortest possible time after receipt. "Dead Ending" a message is not an ethical practice in traffic handling. Amateurs have worked long and hard to establish a very integral reputation to get formal written messages to their destinations. Therefore, it is your moral obligation to do the same. However, if you deem that there is anything in the text of a message that does not conform with Part 97 of the FCC Rules, you can refuse to roger a message.

SERVICE MESSAGES

A service message is one that relates to another message, usually one with problems of delivery. It can also allude to other problems or discrepancies of a message. Example: A wrong address or phone number.

You may use the pro-word "service" (SVC on cw), in the preamble BEFORE the message number. The rest of the preamble remains the same, leaving out the precedence.   **Q/C**

It is also acceptable to treat a service message as routine traffic. The numbered radiogram ARL Sixty Seven or ARL Forty Seven should be used. Only use a brief text on any service messages. Do not get "wordy."
Be concise.   **Q/C**

"SOME IMPORTANT POINTERS"

A.   If you check into a net and the NCS sends you off frequency to pass traffic and the frequency he designates is busy, the receive station is the station to continue going in the same direction as instructed, and find a frequency that is clear enough for him to take the traffic. He will call the sending station and receive the traffic. This procedure holds true for both phone and CW. Always acknowledge NCS instructions before you leave net frequency by saying "roger." **Q/C**

B.   Today many e-mail addresses are found in message texts, and perhaps in the signature. Some are a little complicated as they contain mixed groups, letter groups, etc. Make sure you read them carefully before sending them. Also, the accepted wordage

for the period that appears in almost all E-mail addresses is "Dot". On phone the pro-word "Dot" should be used.   On CW, the letter R will still be used unless the originator of the message has sent it using the word "Dot" spelled out. **Q/C**

LEGALITIES

1.   You <u>DO NOT</u> have to roger a message if there is any doubt about the   contents. You may have to give an explanation to the sending station why, but be steadfast. **Q/C**

   2.   Familiarize yourself with the "FCC Regulations Part 97 for Amateurs". Part 72.113 to 72.115 relates to Third Party Traffic regulations and definitions on messages. Also, it defines messages relating to business or commercial benefit. **Q/C**

   3.   A list of countries that the U.S. has a third party agreement with can be found in the Operating Manual and Handbook. Keep one handy to refer to if a message of international delivery comes your way. More detailed information on this can be found in either the ARRL FCC Rules and Regulations book or the Operating Manual.   **Q/C**

CHAPTER 13: GETTING FILLS

   At this point in the training it is necessary to make some important comments.

   1.   Especially, once the sending station has started sending the message to you, try to let him or her send it at least as far as the first break, just before the text. If you missed something in the preamble or address, this is the place to break the sending station for a fill. Ideally, it is best to try to copy the whole message then get any fills you may need. If you miss something, you can put a blank line where the miss is, then go back to it. **Q/C**

2.   On HF you are going to encounter many foes such as poor band conditions, interference, fading and yes, poor operating techniques. Remember, not everyone is trained in traffic handling. Others have developed poor habits. Having patience will be the greatest asset you have, plus your own ability. Don't be discouraged. **Q/C**

<u>POINTER/WORDS</u> When requesting fills, it is necessary to precede the fill by first using a pointer word, denoting where in the message you are referring to. Let's use our test message, and I will give an example of each.

            In the preamble, "say again originating station, over."
            In the address," say again word after Thomas, over."

In the text, say again between letter and make, over.
In the signature, say again word before lane, over.

This helps the sending station to look immediately at the correct part of the message, thus speeding up the flow of the net. **Q/C**

This is where your pro-words are going to come in handy. Immediately after the pointer word, the pro-word for what fill you need is given. Always use say again, confirm, or all between before using the pro-words that follow. Let us refer to our test message.

A. This is (CALL SIGN) "In the text, say again, word after make, over".

b. This is (CALL SIGN) "In the preamble, say again, all between HXG and Brewster, over".

c. This is (CALL SIGN) "In the text, confirm figures one four decimal three two seven, over".

If you ask for a confirmation, and the sending station agrees, the only word he should say is CONFIRM. If he disagrees, he will say NEGATIVE, then send the correct fill. **Q/C**

Again, be careful of multiple x-rays when asking for fills. In our test message there are three. So, you can't say "In the text, say again word after x-ray, over". You will have to use good judgment by using either the word preceding the x-ray first. Another way is using the pro-words "Say Again, All Between", then give the word preceding the blank and the word after the blank for the sending station to fill. **Q/C**

On difficult words use "Say Again Phoneticaly", if you need a spelling, i.e. "Say Again Phonetically Word After Make, Over". **Q/C**

CHAPTER 14: OPERATOR'S NOTES

Upon occasion, a message will come through with an operator's note. It appears at the very end of the message, after the signature.

For example: "End of message, operators note".

The sending station sends the operators note and receive station must write it down word for word.

Most operator notes allude to:

1. A discrepancy of the message
2. Additional information given by one of the stations relaying   the message
3. Information from the station of origin.

After completion of sending the operators note, the sending station will say:

"End of message, no more, over" or

"End of message, more, over.

On CW, the operators note appears in the same place and is sent abbreviated "op note", followed by the text of the note, then followed by the ending of the overscored AR then N if no more traffic. **Q/C**

<u>CHAPTER 15: A FEW REMINDERS/DO'S AND DON'TS</u>

Sending formal written traffic on phone belies many downfalls. The fact that our English alphabet has only eleven letters with distinct sound is one of them. There are fourteen letters that end with an EE sound. So, at risk of being redundant, it is so important to use good diction, and proper use of the pro-words and phonetics especially on difficult words or names that sound the same, but are spelled differently.

When you listen to traffic being passed you will hear many extra, unnecessary, words and phrases being used. This has become so common they are accepted by many traffic handlers. There is no room for them. Here are some examples of mistakes made by a sending station.

<u>INSTRUCTOR</u>: DISCUSS EACH COMMON ERROR

1.   Preamble:

     a.   "with a check of"
     b.   "today's date" or "12/3/98"
     c.   using just the last letter of the Handling instruction.

2.   Address:
     a.   Going to Mr. And Mrs.---------

     b.   "Smith, common spelling"
     c.   "Maple St., like the tree"
     d.   "Break and the text"
     e.   "Mr. John Brown, like the color"
     f.   "Sending too fast forcing errors by receive station"

All of these must be eliminated. Again, don't be intimidated by others. Do what you know is proper procedure. This will show others, and they will mimic you.

If you make an error while sending use the pro-word "correction", say the last correct word, then proceed.

INSTRUCTOR; At this point, give your class homework. Have them draft up a message. Let them know they will be sending it to you at your next meeting or class. It may take up your next one or two sessions depending on the size of your class. Point out all errors to them.

<u>CHAPTER 16: CHECKING INTO A</u> <u>NET</u>

INSTRUCTOR: Make sure your class takes notes. Explain that there is no longer a net directory published by the ARRL due to the new FCC Rulings

of frequency changes. Instruct them to get in touch with their STM for help with this.

Nets are designed to meet on a pre-determined frequency prescribed by the manager, and in accordance with the ARRL National Traffic System structure. Independent nets meet at the time and frequency designated by the net manager.

Be on the net frequency on time, especially if you have traffic for the net.

The Net Control Station will call up the net on or about the designated frequency at net time. You may have to tune around to find it if the designated frequency is in use by others. The net will be on the frequency that the NCS determines clear at that particular session. Naturally, we are speaking about HF operating here. It is your responsibility to Zero Beat the Net Controls signal. Make sure your RIT is off and then tune for a natural voice on Sideband. On CW, either tune on a dummy load, or go off net frequency a few KHZ and key a few seconds to get your tone in your mind, then tune the NCS signal mimicking your tone. You should be Zero Beat. Modern radios with digital read out, make this simple.

Listen to the preamble the NCS may send, it may have instructions on how to check into that particular net. Follow them to the letter and stay alert for any demands of the NCS after you check in.

A full explanation of how to check into a CW net will be discussed at the end of this training coarse in the CW Section. **Q/C**

CHAPTER 17: ORIGINATING MESSAGES

Message origination is often misinterpreted and admittedly somewhat confusing. It is not a message sent from your station for the first time. It refers to a message that you write up from someone in the general public, not yourself. The reason for this is because we, the traffic handlers, perform as a public service via amateur radio. Keeping ourselves in the eyes of the public is one of our main goals. An easy way to remember it is "Origination Equals Public". Another way to put it is "A message sent by your station from a third party."

When writing up a message from someone in a different town, everything in the message stays the same except in the preamble. The place of origination will be the name of the town where he lives, not your town, unless they are the same. **INSTR:** You may want to repeat these two paragraphs for clarity. **Q/C**

You can get originations from family, friends and neighbors. Radio clubs hold message fairs at malls, conventions and ham fests. These are all good places for originating traffic including from people who you have delivered a message to.

Drafting is not a word officially used by the ARRL in the National Traffic System. It is a word we can use to separate it from the word originating to cause less confusion.

Drafting a message is one YOU write up for your own personal use, not one you write up for someone else.

Messages like these may include ones you send to relatives such as birthday, anniversary, etc. Also, Net reports to the net manager are ones you draft, or perhaps one you send to a ham buddy for a sked or for any other reason. **Q/C**

INSTRUCTOR; Tell the class they need a separate piece of paper to copy the following book message. See that they are ready.

CHAPTER 18: BOOK MESSAGES

Over the years, book messages have been confusing to many operators, not only new traffic handlers. This was especially true for the person who was on the receiving end of handling a "book" for the first time. It was further complicated when the operator had to "split" the book because of the different locations or areas the addresses were in. The final problem was "How do I count the traffic for my report at the end of the month?" The count seemed to be the most difficult part but now this has been changed to simplify things, more on this later. **Q/C**

WHAT IS BOOK TRAFFIC?

A book message is formed by the originating station when he or she wants to send a radiogram to two or more parties. The text to each is the same, except the addresses are different. Therefore, the book has "common parts". These common parts are the precedence, station of origin, check, place of origin, date, text and most always, the signature. To simplify this let us go over the following example. **Q/C**

INSTRUCTOR: Ascertain if your group is ready to copy. Make sure they understand the book message entirely before going on to the next book with different signatures. You may want to ask for questions line by line.
"This is" (your call)

Follows a Book of 3

ROUTINE W2XXX 8 ELMDALE NY FEB 14
BREAK
HAPPY VALENTINES DAY TO YOU
AND YOURS LOVE
BREAK
MARY AND FRANK JONES
BREAK
INSTR: Point out an additional Break is inserted here to separate the common parts from the addees. Also a Break is sent between each additional address in the book.

    Msg NUMBER 11   MR AND MRS JOHN DOE **(NO PRECEDENCE NEEDED)**
              240 MAPLE DR
              OAKLAND CA 99998
              222 412 7744   BREAK

```
Msg NUMBER 12     MR JAMES LAKE
              222 ELM STREET
              MIAMI FL 33344
              588 123 7890           BREAK


Msg NUMBER 13     MRS SARAH FIELDS
              42 BUCK RUN
              BANGOR ME 04401
              291 776 5585
BREAK, END OF BOOK, NO MORE,OVER
```

Notice the common parts are the preamble, followed by a break, followed by the text,another break, and then the signature. They are all the same. The uncommon parts, of course, are the addresses. Also, each addressee is separated by a break. **Q/C**

There can be an exception, however, and it would be in the signature. Many times a club will have a message fair and the station of origin may use one or two standard texts. Therefore, if he sends out ten messages using a standard text, and all ten are from different people, it necessitates him to omit the signature directly after the text of the message, and insert it after each addressee. It would be sent as such:
    "This is," (your call)

FOLLOWS A BOOK OF 3:

```
R W2XXX 8 ELMDALE NY FEB14
BT
HAPPY VALENTINES DAY TO YOU AND YOURS LOVE  (BREAK)

        NR 1 MR AND MRS JOHN DOE
        240 MAPLE DR
        OAKLAND CA 99998
        222 412 7744
        SIG JOHN AND ANN SMITH
        BREAK
        NR 2 MR JAMES LAKE
        222 ELM ST
        MIAMI FL 33344
        588 123 7890
        SIG GEORGE LEVI
        BREAK


        NR 3 MRS SARAH FIELDS
        42 BUCK RUN
        BANGOR ME 04401
        291 776 5585
        SIG CHARLES BOYD BREAK        END OF BOOK, NO MORE, OVER
```

NOTE: On phone no punctuation is necessary after sending the phone number to proceed with the signature. Just say the pro-word signature, and send the signature that is in the message. On cw, the letters SIG are used before the names in the signature.   **Q/C**

If you have no more traffic, send" end of book, no more, over."
Also, when sending the addresses in a book on CW, the pro-sign AA over-
scored is used, as usual, to designate the separations of the lines in
the address. The letter N is sent only if no more traffic is to
follow. Otherwise the letter B would be sent to notify the receiving
station more traffic is to follow.   **Q/C**

COUNTING THE BOOK

This is now a simple task. Simply count one message for every
addressee that has a message number that you either received or sent.
That's it.
                              Q/C

INSTRUCTOR: Use your local area as examples for the following:

LISTING BOOK TRAFFIC

        This depends on what kind of net you are on, where you live and
the destination of each message in the book. Let's use a book of 3 as
an example.

        A: Local Net: Check-in as usual. If all messages are within
the   local net coverage, then list it "Book of Three", then list the
        destinations. If any of the book is going upward by a liaison
station,then list the local messages first, then the section net
traffic   after that.   **Q/C**

        B: Section Net: Same as local net mainly. List messages in the
        book for the Section first, then list Region messages second.

        C: Region Net: All book traffic coming into the Region
        net will be either going upward to the Area Net, for example, or
        downward to the other Section Nets. If there are several
        sections within the Region Net, it will have to be split up, if
        warranted.
        INSTR; Refer class to test book message.

        D: Area Net: The Region Net transmit station going to the Area
        Net will have to determine how to split the book up into the
        different regions or areas within that Area Net. Example: Book
        of 3 going to CA, FL, ME and you are coming from Second Region
you   would list them as PAN 1 (Pacific Area 1) 4RN1 (Fourth Region 1)
        and 1RN1 (First Region 1). In each case the NCS will know what
to   do from there. **Q/C**
        **INSTR; Refer class to the Operating Manual or go on-line for the
        National Traffic Routing Guide.**

                    CHAPTER 19:   REPORTING YOUR TRAFFIC

        Earlier in our training we touched on this subject as one of the
responsibilities of traffic handling.

It is good practice to count up your monthly traffic totals and send your report to both the SM (Section Manager) and STM (Section Traffic Manager). This gives them an idea of how much traffic is being passed in the section. Even if you only originate, receive, send or deliver one or two messages a month, you should notify them of your activity at the end of the month with a SAR (Station Activity Report)and with your Public Service Honor Roll (PSHR) report, if you qualify.

INSTRUCTOR; Tell your class who the SM and STM are in your area.

The STM in turn fills out his report form with all the activity that is reported to him and sends it into the League and Section Manager.

To count your traffic, simply count the number of messages that were originated, received, sent or delivered by your station. You get one point for each. List each separately. EXAMPLE: Originated 2 - Received 4 - Sent 4 - Delivered 2, then total them up and list the total in your report. In our example the total is 12.

If you are an NCS or Liaison Station or if you handle enough traffic your may qualify for the Public Service Honor Roll (PSHR). You need a total of 70 points to qualify. The categories are listed in the QST every month in the Public Service column or on the ARRL web site. If you do qualify your PSHR breakdown and totals should also be included in your Station Activity Report at the end of the month. Don't forget you get a point each BY sending a radiogram to the STM and SM.

I have left out several things in the training.
1. Being an NCS: There are so many variables for description here. Listen to the nets to get ideas.
2. Digital traffic stations etc.
3. Hundreds of other tips, but I feel that what you have learned is a solid basis to get you started.
4. Use your new knowledge. Get on the nets. Practice what you have learned and don't be swayed by others.

INSTRUCTOR;
This is the end of the phone traffic handling instruction. Ask your class if there is anything they want to review. Also inform them that there is a full chapter on CW Traffic handling for anyone who wants the training. Let the class members know about the Certificates that will be issued as a reward. Above all, Congratulate them and thank them for going through the training. **INSTRUCTOR:** (See conclusion, last page after the CW training)

CHAPTER 20: CW NETS

Checking into and handling traffic on CW Nets is a lot of fun. It can be very rewarding and yet for some it can be very intimidating. This holds true for those of you who may be just starting out. The following material will give you enough knowledge to get you over the coals.

In the previous phone training, we went over the necessary QN signals to get you checked into a CW Net. There are several more that are used, so study of them is a good idea. Again, you will find them on the ARRL FSD 218 pink card or on the ARRL web site.

INSTRUCTOR; Make sure the class has FSD218 handy. Go over QNA, QNC,QND, QNE, QNI, QNZ, AND QTC.

Here are a couple of tips that will be helpful before you even think about taking the plunge of checking into your section CW Net:

1. There are many good slow speed nets, especially on 80 meters. Ask your instructor or STM or check the Net Directory to find them. It would be a good idea to listen to these nets for a week or two to familiarize your-self with CW net procedures and the use of QN Signals. Be attentive to everything that goes on. Follow the stations that the Net Control Station (NCS) sends off frequency and copy the messages that are sent for practice. Use your FSD 218 to guide you. Most of the traffic is sent off frequency on CW nets, so you have to stay sharp.

2. When you feel comfortable check in. It is a sure bet you will be welcomed by the (NCS). He will probably ask for your name and QTH. If he is sending a bit too fast for you, ask him to QRS. Don't be afraid. He will surely accommodate you.

Most nets usually have a short preamble sent by the NCS. The preamble usually explains the name of the net and perhaps gives a few instructions. On CW Nets the NCS will make his call up and usually will send "QND", (the Net is directed), followed by "QNZ" (Zero beat signal with mine).

The NCS may follow that by sending "QNA" (answer in pre-arranged order) asking for liaison stations first to check in, then perhaps stations with traffic. **Q/C**
INST: Refer your class to chapter 6 (QN Signals)

HOW TO CHECK INTO A CW NET

A. Listen for the Net Control Station (NCS) to call up the Net. The net name will be abbreviated. EXAMPLES: EMRI stands for "East Mass – Rhode Island". NJN equals "New Jersey Net".

B. When the NCS sends "QNI", he is inviting any station to check-in by sending a letter of the alphabet. (Some stations use a letter in their call). It is done this way

to prevent doubling. If you have full break in feature, QSK) use it. It is a valuable tool in CW traffic handling.

C.   If the NCS echoes or repeats the letter you sent he is inviting you to check in.

D.   You send "DE" (this is) followed by your call sign, plus "QRU", (I have nothing for you), then "K" (go ahead).

E.   The NCS will then acknowledge you by sending "R" (Roger) followed by "AS" (wait).

F.   To check in with traffic, follow the steps above but instead of sending "QRU" send "QTC" (Traffic) plus the name of the destination of your traffic, followed by the number of messages for that destination then K.

        EXAMPLE: DE W1XXX QTC BOSTON 2   K

G.   The NCS will acknowledge you by sending R (Roger) then over- scored AS (wait).

        You are in the Net. **Q/C**

MESSAGE FORM

        There are several differences in CW traffic handling. Just the nature of CW requires more abbreviations, which we will go into here.

        In the preamble the abbreviation for the word number is the letters NR, which is sent before the number of the message.

        If there is a filing time in the preamble it should always be in UTC time and the letter "Z" is used to designate Universal Time. It directly follows the four digit numbers. EXAMPLE: 2130Z. **Q/C**

        When your complete message is down on paper, it should have separate lines for preamble, address parts, text and the signature. Refer to your test message or the FSD 218 message. **Q/C**

        In the address to separate each line the pro-sign AA over-scored is used. This lets the receiving station know a new line is coming. We use it between the address name and the street address, then again between that and the city, the state and zip code, then again between the Zip Code and the telephone number. After the telephone number, the abbreviation letters over-scored BT (Break) is used. The second break separates the text from the signature. **Q/C**

        After the signature the pro-sign letters over-scored AR (end of transmission) followed by the letter N (no more) are used if no more traffic follows. If you have more pieces of traffic to send, then send the AR followed by the letter B (more to follow) plus the number of pieces you have left to send.
INST: Make sure your class understands fully the 3 paragraphs above.

EXAMPLES: AR N equals End of Transmission, no more.

> AR B3 equals End of Transmission, three more to follow.

Q/C

The pro-sign over-scored IMI meaning repeat or question- mark, is used when sending difficult names, words or mixed groups when you want to send them twice. This saves time on fills.

The letter R serves as a decimal point in CW traffic handling. EXAMPLE: The frequency of 3.585 is sent 3R585. The word " dot" may also be used if in a web site. **Q/C**

If a question mark is needed in the text, the word QUERY is used. Spaces are used to separate the groups of telephone numbers.

If a dash is used or needed, simply spell out DASH. These are most often found in the address, especially in the nine digit Zip Code.

EXAMPLE: 02463-3115
SEND: 02463 DASH 3115

Use AA over-scored to separate lines of a full signature, as is done in the address of a message.   **Q/C**

GETTING FILLS

It is very important to know all the abbreviations used for getting fills on CW. They are the same as on phone, but are abbreviated. They are as follows:

    WA = word after   WB = word before
    BN = between   AA = all after
    AB = all before   IMI = repeat or query

The abbreviation for Confirm is "CFM". The abbreviation for Signature is "SIG". Both are use frequently. **Q/C**

When you miss a large portion of the message it is necessary to use the over-scored IMI (Repeat, Question) followed by the over-scored BN (Between); followed by sending the last correctly received word then the word AND, followed by next correctly received word.

EXAMPLE: (Refer to Test Message)

            IN   ADR   IMI   BN   2648   AND TEWKSBURY   K

MEANING: In the address repeat between 2648 and Tewksbury, go ahead. **Q/C**

Don't forget to use "pointers", such as "in the address" or "in the text", pointing to the part of the message then using the proper pro-signs for fills. This makes it much easier for the sending station to look in the correct part of the message where the fill is going to be asked for, thus speeding up the passing of the traffic. In the event that an agreement cannot be found in the check of the text, we use the Q signal QTB. The receive station sends QTB and the sending station

will then proceed to send QTB, then the first letter of each group in the text for the receive station to follow along to find the discrepancy. This is a sure fire way to finding it.**Q/C**

NET PROCEDURES

Unlike many phone nets, on CW nets ninety-five percent of the traffic listed is passed off frequency. The Net Control Station is responsible for keeping strict record of the traffic listed, the stations checked in and the frequencies he has directed stations to move off to on his sheet. **Q/C**

The NCS may call on you at any time for any of the following:

1.   To take or pass traffic
2.   To act as a relay between stations
3.   To make a net call-up
4.   To take over net control
5.   To ask about traffic you listed

This is why it is so important to be attentive on the net at all times. Follow his or her directions without question. The NCS is in charge during a directed net. Do not "break" the net unless you have information pertinent to the net proceedings or traffic listed. **Q/C**

There will be times when you must leave the net either temporarily or permanently due to other demands or circumstances; a phone call, someone at the door, a thunderstorm crops up, the dog wants out, etc. Sometimes it's impossible to notify the NCS, but you should at least try. If leaving for just a few minutes the pro-sign QNT followed by the number of minutes are used. If permanent leave is necessary the pro-sign QNX is used. Tell the NCS when you check in if you have to leave early.

It is not a good practice to leave a net without permission from net control. The NCS may have planned for your station to take traffic or to be a relay station. It is embarrassing and frustrating for the net control station to call a station and get no response and also takes up unnecessary net time. **Q/C**

For the newcomer, usually after checking into a CW Net a half dozen times or so, he or she gets to know the check in procedure, QN signals, message format and getting fills. It does not take long to realize that what seemed so confusing at first becomes an easy task with repetition. Give CW Nets a try. You may find out you have been missing a lot of enjoyment. An alternative is to just listen to the net for several days and follow along the proceedings, and go off frequency to listen to the pairs that been sent off. This is good practice and will give you a heads up. Q/C

"SOME IMPORTANT POINTERS"

A.   If you are the sending station, before you start sending the message send "QSK" if your radio has the break in feature. This alerts the receiving station that he can break you at any time. **Q/C**

B.   When sent off frequency the RECEIVE station picks a suitable frequency when the "directed" one is busy. He will keep going in the same direction as the net control prescribed and find a good frequency to receive on. **Q/C**

C.   When the NCS sends you off frequency you MUST acknowledge that you understand his instructions. Acceptable and mostly used signals are a simple letter R (Roger) the letter G (Going) or a dash is even okay if conditions are good. Never leave the net frequency without this acknowledgment and leave the NCS wondering if you understood or even heard the instruction. **Q/C**

CONCLUSION

        This concludes the "Guide for Training". There are other aspects of traffic handling that are omitted such as being an NCS, working higher echelon nets, etc. You will learn about these when you are active in the nets and gain experience.

        It is with many thanks to you, the student, for your time to complete this training. You have accomplished a lot of knowledge in these training sessions and you are to be congratulated for your efforts.

        May you have many happy hours passing traffic on the nets and I know that you will meet many new friends in our family of traffic handlers. Your time has been well spent. 73 and Good Luck!

TO THE INSTRUCTOR: If you have made arrangements for ORS Certificates or the like, now is the time to announce your intentions. Good Luck and thanks for your work. 73!

Mark Rappaport W2EAG