
UNITED STATES MARINE CORPS
THE BASIC SCHOOL
MARINE CORPS TRAINING COMMAND
CAMP BARRETT, VIRGINIA 22134-5019

**COMMUNICATION
EQUIPMENT PRACTICAL
APPLICATION (PA)
B191956
STUDENT HANDOUT**

Communication Equipment Practical Application (PA)

Introduction

Radio is our primary means of communication in a fast moving, tactical situation. Attempts at sending messages over the radio without guidelines would quickly degenerate into chaos.

Importance

The Marine Corps has established doctrine delineating exactly who will talk to each other on the radio; this doctrine is a guideline for communications planners. How to talk on the radio has been standardized for the sake of brevity and conciseness. Preparing and writing (referred to as drafting) a message has also been standardized for the sake of brevity and accuracy.

In This Lesson

In this lesson, you will learn about different radio nets, voice radio procedures, tactical message drafting, preventive maintenance of communications equipment, and troubleshooting communications equipment. You will also learn how to properly set up a gun loop using two different types of field telephone systems.

This lesson covers the following topics:

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Communication Equipment Practical Application (PA) (Continued)

Learning Objectives

TERMINAL LEARNING OBJECTIVE(S) Given an SL-3 complete field telephone, and communication wire connected to a distant site, communicate using wired communications to establish communications with a distant site. (0300-COMM-1003)

Given a tactical situation, individual radio, accessories, a distant site, frequencies and call sign, while wearing a fighting load, communicate using squad wireless communications to establish communication with the distant site. (0300-COMM-1004)

Given a VHF radio with a fill, a frequency or net ID, and a distant station, while wearing a fighting load, operate a VHF field radio to establish communications with the distant station. (0300-COMM-1005)

Given a situation and formats, while wearing a fighting load, submit a message using NATO report format to report any activity in the assigned area. (0300-COMM-1006)

Given a radio, perform basic radio operations ensuring equipment is functional without compromising communications. (MCCS-COMM-2101)

ENABLING LEARNING OBJECTIVE(S)

Given an SL-3 complete field telephone and communication wire, describe the capabilities/limitations of field phones without omission. (0300-COMM-1003a)

Given SL-3 complete field telephones and communication wire connect two or more telephones with wire to establish communications with a distant station. (0300-COMM-1003b)

Given an SL-3 complete field telephone and communication wire conduct a communication check with a distant station. (0300-COMM-1003c)

Given an SL-3 complete field telephone and communication wire maintain a field telephone for sustained operation. (0300-COMM-1003d)

Given an SL-3 complete field telephone and communication wire troubleshoot equipment as necessary to establish communications with a distant station.. (0300-COMM-

1003e)

Given a VHF radio, assemble a radio to establish communications with a distant station. (0300-COMM-1005a)

Given a VHF radio with a fill, a frequency or net identification, and a distant station, establish radio communications to send and receive messages. (0300-COMM-1005c)

Given a VHF radio with a fill, a frequency or net identification, and a distant station, troubleshoot a radio as required to establish communications with a distant station. (0300-COMM-1005d)

Given a VHF radio, disassemble a radio to maintain a radio for sustained operation. (0300-COMM-1005e)

Given a VHF radio, maintain a radio to support sustained operation. (0300-COMM-1005f)

Given a scenario, describe tactical NETs used to command and control an infantry battalion without omission. (0300-COMM-1005h)

Given a radio, describe capabilities/limitations without omission. (MCCS-COMM-2101a)

Radio Nets

A radio net is two or more stations operating on the same frequency for the specific purpose of exchanging information. A station is any unit that a commander authorizes to talk on the radio. At this station, the subordinate commander normally authorizes an individual to receive and transmit messages. This lesson focuses on three types of radio nets:

- Tactical nets.
- Administration and logistics nets.
- Fire support nets.

Additionally it will look at specific examples of these nets typically found in an infantry battalion. Please refer to Appendix A (Communications Diagram) for a graphic representation of how these radio nets are used.

Tactical Nets

Tactical nets are established to provide the commander with the means of commanding and controlling subordinate maneuver elements. They are not for planning; the radio should never be used as a substitute for thorough planning and preparation, but as the *voice of command*.

The command and control nets found in an infantry battalion, with the band normally associated with that net and the types of equipment in parentheses, are the

- Infantry platoon tactical net (very high frequency [VHF]) (inter-squad radio [ISR] and SINCGARS).
- Infantry company tactical net (VHF) (SINCGARS).
- Infantry battalion tactical net #1 (VHF) (SINCGARS).
- Scout sniper command net (VHF) (SINCGARS).
- Administration and logistics nets.
- Infantry battalion tactical net #2 (VHF) (SINCGARS).

Infantry Platoon Tactical Net

The Infantry Platoon Tactical Net (VHF) provides the platoon leader with the means to exercise command and control over the squad leaders. Stations on the net include

- The platoon leader.
- Squad leaders.
- Any fire teams operating away from the platoon, e.g., Security Patrol (SPs), Listening Posts (LPs).

This net uses the Inter-Squad Radio (ISR), SINCGARS.

Tactical Nets (Continued)

Infantry Company Tactical Net

The Infantry Company Tactical Net (VHF) provides the company commander with the means to exercise command and control over subordinate units. Stations on the net include the

- Company command post (CP).
- Company observation post (OP).
- Rifle platoons.
- Weapons platoon.
- Attached or supporting units (as required).

This net is also a means for the platoon commanders to call for and to direct 60mm mortar fire. This net uses SINCGARS.

Infantry Battalion Tactical Net #1

The Infantry Battalion Tactical Net #1 (VHF) provides the battalion commander with the means to exercise tactical command and control over subordinate units. Stations on the net include the

- Battalion CP.
- Battalion commander (with his radio operator).
- Rifle companies.
- Weapons company (as required).
- Attached or supporting units (as required).

This net uses SINCGARS.

Scout Sniper Command Net

Scout Sniper Command Net (VHF) provides the battalion scout sniper platoon commander within the S-2 staff section a means of exercising command and control over scout sniper teams. Stations on this net include the

- Scout sniper platoon commander.
- Scout sniper platoon sergeant.
- Scout sniper team leaders.

This net uses SINCGARS.

Tactical Nets (Continued)

Administration and Logistics Nets

Administration and logistics nets are established to provide the commander with the means to pass

- Logistical traffic (e.g. requests for resupply of chow, fuel, water, or ammunition by the company gunnery sergeant).
- Administrative traffic (e.g. morning reports, casualty reports by the company first sergeant).

These nets are typically monitored by the S-1 and the S-4 inside the battalion combat operations center (COC).

Infantry Battalion Tactical Net #2

The Infantry Battalion Tactical Net #2 (VHF) is the main administrative and logistic net found in an infantry battalion. This net provides the battalion commander with a means of exercising administrative or logistical command and control over subordinate units. It also functions as a secondary tactical command and control net.

Stations come up on the net as required. This net uses SINCGARS. This is the net on which the company gunnery sergeant will request logistical support, and the company first sergeant will use this net to send and receive reports.

Fire Support Nets

All fire support nets (air, naval gunfire, artillery, mortars) are monitored in the fire support coordination center (FSCC) that is part of the COC. The FSCC is located in a designated area where the supporting arms representatives monitor the nets that control as well as direct supporting arms.

A partial list of these nets, with the band normally associated with that net and the types of equipment in parentheses, include the

- Infantry battalion mortar net (VHF) (SINCGARS).
- Artillery conduct of fire net (VHF) (SINCGARS).
- Tactical air direction/helo direction (TAD/HD) net (UHF/VHF) (AN/PRC-113, AN/PRC-117, AN/PRC-152, AN/PRC-148).
- Tactical air control party (TACP) local net (VHF) (SINCGARS).

Fire Support Nets (Continued)

Infantry Battalion Mortar Net

The Infantry Battalion Mortar Net (VHF) provides the means by which the 81mm mortar forward observer calls for and directs 81mm fire. The stations on the radio net include the

- 81mm platoon fire direction center (FDC)
- Forward observers.
- 81mm mortar representative at the FSCC located within the battalion COC.

This net uses SINCGARS.

Artillery Conduct of Fire Net

The Artillery Conduct of Fire Net (VHF/SINCGARS) is the primary net for the artillery forward observers (FOs) to call for and direct artillery fire. Stations on the net include the

- FOs.
- Artillery liaison officer in the FSCC.
- Direct support artillery battery FDC.

Tactical Air Direction/Helo Direction (TAD/HD) Net

The Tactical Air Direction/Helo Direction (TAD/HD) Net (UHF/VHF) is the primary means for the forward air controller (FAC) to direct the aircraft in the conduct of the close air support/close in fire support mission. Stations on the net include the

- FAC.
- Air officer (AO) in the FSCC.
- Aircraft.

This net uses the AN/PRC-113, AN/PRC-117, AN/PRC-152, and SINCGARS.

Tactical Air Control Party (TACP) Local Net

The Tactical Air Control Party (TACP) Local Net (VHF) is the primary means for the FAC to request air support from the AO located in the FSCC. The FAC and the AO also pass administrative traffic to each other over this net (e.g. bomb damage assessment). Additionally, anyone operating a VHF radio can use this net to request air support from the AO. This net uses SINCGARS.

Parallel and Alternate Means of Communication

The effective use of the communications system requires that you understand the parallel and alternate means of communications available when the primary means fail. For example, if you needed artillery fire for an enemy target and did not have an artillery FO with you, how would you call for fire? Answer: By using any of the nets that are monitored in the battalion COC/FSCC (all of the nets except the company/platoon tactical nets). The COC/FSCC can then relay the call for fire and any adjustments.

The key to the Marine Corps air-ground team lies in your ability to successfully use the command, control, and communications (C³) systems, specifically the

- Combat operations center.
 - Fire support team (FiST).
-

Combat Operations Center

The infantry battalion has several different levels of command posts. At the platoon level, the CP consists mainly of the

- Platoon commander.
- Platoon sergeant.
- Radio operator.

They usually have their own fighting position along with all of their gear and equipment.

At the rifle company level, it is the same set up with the addition of the company staff with all of their associated gear and equipment:

- Fire support team (FiST).
- Executive officer.
- Gunnery sergeant.
- First sergeant.

At the infantry battalion level the footprint is much larger; therefore, at the battalion level, are usually two types of combat operations centers (COCs):

- Main COC.
 - Tactical (TAC) COC.
-

Combat Operations Center (Continued)

Main COC

The Main COC, which has a large footprint with several vehicles and one or more general purpose tents, is normally commanded by the battalion executive officer and has a representative from each of these primary staff sections:

- S-1: Administration.
- S-2: Intelligence.
- S-3: Operations (which includes the FSCC).
- S-4: Logistics (including medical).
- S-6: Communications.

The Main COC also possesses a large footprint of vehicles from the supply trains and field trains, and several personnel from Headquarters and Service Company that support the different primary staff sections.

Tactical COC

The TAC COC, often referred to as the mobile, jump, forward, or TAC COC, is highly mobile and is normally augmented with several vehicles from the communications platoon for command and control unless the commander decides to go foot mobile. The battalion commander commands this COC, which normally has

- S-3 officer or “actual.”
- S-2 officer.
- S-6 officer.
- AO.
- Associated communications personnel and clerks from the different primary staff sections.

The TAC COC and the main COC normally establish tactical control using the appropriate radio nets; they often pass this control from one COC to the other as they leap frog each other on the battlefield in their attempt to locate the battalion commander where he can best control the battle.

Fire Support Team (FiST)

Every rifle company has its own FiST.

FiST Composition

The FiST is comprised of several individuals each with their own responsibilities:

- FiST leader-weapons platoon commander, usually a lieutenant, has overall responsibility to coordinate, request, and deconflict all of the fire support for the rifle company commander. The FiST leader maintains communication with the company commander on the company TAC net.
 - Forward air controller (FAC), normally a captain who is a naval aviator. The FAC's job is to request close air support from the AO located in the FSCC back at the battalion COC. The FAC requests this air support using the TACP local net. Once the aircraft checks in on station, the FAC uses the TAD net to provide terminal guidance to the aircraft.
 - Artillery forward observer (Arty FO), normally a lieutenant attached to the rifle company from the direct support artillery battery. The Arty FO's responsibility is to call for and adjust artillery fires in support of the ground scheme of maneuver. The Arty FO calls for fire to the artillery battery on the artillery conduct of fire net; once the rounds impact on or near the target, the Arty FO adjusts the rounds using the same net. The Arty FO normally has an Radio Telephone Operator (RTO) and a 0861 Scout Observer.
 - 81mm mortar forward observer (81s FO), normally a corporal attached to the rifle company from the 81mm mortar platoon. The 81s FO's responsibility is to call for and adjust 81mm mortar fire in support of the ground scheme of maneuver. The 81s FO calls for fire to the 81mm mortar platoon on the battalion mortar net; once the rounds impact on or near the target, the 81s FO adjusts the rounds using the same net.
-

Fire Support Team (FiST) (Continued)

FiST Importance

All fire support on the battlefield must be coordinated in order to achieve effective combined arms. The FiST leader is responsible for conducting this coordination using the fire support nets and the company TAC net.

FiST Use

Here is an example that illustrates the importance of using communications equipment to deconflict fire support:

Attack helicopters must know the gun target lines of all indirect fire support assets. The artillery and mortar FDCs must know the battle positions of the attack helicopters. The same can be said for knowing the final attack heading of fixed wing close air support. If this information is not properly communicated to the appropriate personnel, then combined arms will never be achieved on the battlefield.

Voice Radio Discipline

As stated previously, a radio net is two or more stations operating on the same frequency for the specific purpose of exchanging information. Voice radio procedures begin with proper discipline on the net.

The Net Control Station (NCS) enforces this discipline by controlling the radio net. The NCS is responsible for

- Overall supervision of the net.
- Opening and closing the net.
- Granting and denying entry to the net.
- Correcting errors made on the net.
- Maintaining discipline on the net.
- Maintaining the radio that acts as the master-timing source for all stations on the SINCGARS radio net.

Voice radio discipline includes not only proper discipline on the net, but also proper

- Methods of control for nets.
- Radio procedures.
- Message drafting.

Voice Radio Discipline (Continued)

Call Signs

The radio stations on the net are identified by call signs; the following table describes the two types of call signs:

- Administrative.
- Tactical.

Type of Call Sign	Description
Administrative	<ul style="list-style-type: none"> • Used in non-tactical situations where security is not critical. • Normally do not change on a regular basis (pilots often have an intra-squadron call sign that they use on the squadron-common radio net). • TBS uses on the range safety net.
Tactical	<ul style="list-style-type: none"> • Used as unit designators on secure radio nets. The units originate them, but these call signs must be approved at the national level to ensure that in a large scale conflict call signs will not be duplicated. • Are assigned down to the platoon level. • Can be an alphanumeric call sign (e.g. "A9G") or a call word (e.g. "Ripper"). <p>Note: A collective call sign is a letter-numeral-letter designator (such as O8I) or a call word used to call all of the stations on the net.</p>

Methods of Control for Nets

The following table below describes the methods of control for different types of nets:

- Free.
- Directed.

Voice Radio Discipline (Continued)

Methods of Control for Nets (Continued)

Type of Net	Description of Control
Free	<ul style="list-style-type: none"> • Member stations. • Do not have to request permission from the NCS to transmit. • Required to advise NCS when they have to drop off the net for any reason. • Is the most commonly used tactical net at the small unit level. • NCS opens at a predetermined time: <ul style="list-style-type: none"> ○ All stations monitor the frequency. ○ NCS transmits the net call sign. ○ Stations answer in alphabetical order. ○ NCS notifies the net that their transmissions have been heard. ○ Net is now open for traffic.
Directed	<ul style="list-style-type: none"> • NCS strictly controls all traffic. • Member stations must request permission from NCS to transmit any traffic to stations other than NCS.

Example Free Net Transmission

An example of free net transmission is:

"R3T (ROMEO THREE TANGO) this is Y9I (YANKEE NINE INDIA), over."

The receiving station would then say:

"Y9I (YANKEE NINE INDIA) this is R3T (ROMEO THREE TANGO), over."

Contact has been established between the stations.

Radio Procedures

Voice Techniques

The use of proper voice techniques will enhance the quality and speed of transmissions:

- Speak clearly, distinctly, and without personal quirks or accents.
 - Speak at the speed of the lowest operator and in understandable phrases.
 - Use a normal voice level; don't yell.
-

Radio Procedures (Continued)

Profanity

Using profanity over a radio is a violation of the rules of the Federal Communications Commission (FCC).

Phonetic Alphabet

The following table shows the phonetic alphabet.

A...Alpha	J...Juliet	S...Sierra	2...Too
B...Bravo	K...Kilo	T...Tango	3...Tree
C...Charlie	L...Lima	U...Uniform	4...For-er
D...Delta	M...Mike	V...Victor	5...Fife
E...Echo	N...November	W...Whiskey	6...Six
F...Fox	O...Oscar	X...X-ray	7...Sev-en
G...Golf	P...Papa	Y...Yankee	8...Ait
H...Hotel	Q...Quebec	Z...Zulu	9...Nine-er
I...India	R...Romeo	1...Wun	0...Zer-row

Radio Check

A distant station uses a radio check to test the radio's signal strength and readability. The authorized transmissions, in order, for a radio check are

1. *"(CALLSIGN), this is (CALLSIGN), radio check, over."*

2. The response depends on the quality of the signal strength and readability of the transmission. The following table shows the choice of responses based on the quality.

If the quality was...	Then the response should be
Good	<i>"(CALLSIGN), this is (CALLSIGN), roger, over."</i>
Weak signal, but understandable	<i>"(CALLSIGN), this is (CALLSIGN), weak but readable, over."</i>
Weak signal, and hard to understand	<i>"(CALLSIGN), this is (CALLSIGN), weak and garbled, over."</i>
Strong signal, but unreadable	<i>"(CALLSIGN), this is (CALLSIGN), strong but garbled, over."</i>

3. *"(CALLSIGN), this is (CALLSIGN), roger, out."*

Message Drafting

A message is any thought or illustration expressed in plain or cryptic language for transmission by any means of communications. Appendix B is a sample NAVMC 694, Tactical Field Message Book page. Refer to it during the lecture portion of this lesson.

Terminology

Be familiar with the following terms:

- Drafter: The person who actually writes the message.
- Originator: The command whose authority sends a message.
- Releasing Officer: The person who is authorized to release messages from the command.

Parts of a Message

The three parts of a message are the

- Heading: Contains all of the information necessary to get the message from the originator to the intended recipients:
 - Precedence.
 - Date-Time Group (DTG).
 - Originator.
 - Addressee.
 - Classification.
 - Main body: The text of the message; contains the information being sent to the addressee. The message should be accurate, brief, and clear.
 - Ending: Contains the releasing officer's signature. If a message is unsigned, the radio operation will not transmit it. Furthermore, the releasing officer needs to verify the message to ensure it is accurate. The signature also serves as a point of contact (POC) for that particular message.
-

Message Drafting (Continued)

Precedence

The drafter assigns the precedence to designate the speed with which he or she desires the message to be delivered. To communications personnel, the precedence indicates the relative order of processing required; to the recipient, precedence indicates the relative speed with which they should act on/respond to the message.

The four categories used to determine the precedence are

- Routine (R).
- Priority (P).
- Immediate (O).
- Flash (Z) precedence.

(Circle appropriate letter in top left corner of page.) Table 1 in Appendix A is a precedence table.

Date-Time Group (DTG)

The Date-time-group (DTG) is the date and time a message was prepared for transmission at the platoon and company level. The DTG is the method of identifying a particular message and referring back to it at a later date.

Originator

The originator is the command from which a message is sent and is written using the call sign or the abbreviation.

Addressee

The addressee is the intended recipient of the message. The two types of addressees are

- Action.
- Info.

Classification

The classification is used to restrict the handling of the message and the dissemination of its contents. You cannot arbitrarily assign classification. The three classifications used in the US in ascending order of security are

- Confidential.
 - Secret.
 - Top secret.
-

Message Drafting (Continued)

Considerations

Considerations when drafting or receiving messages.

- Accuracy. The message should contain accurate information and be printed in legible, easy-to-read lettering.
 - Brevity. The three rules of brevity in writing messages are brevity by
 - Elimination.
 - Substitution.
 - Abbreviation.
 - Clarity. Be sure the message you are writing can be easily understood. Use punctuation only when it affects the meaning of the message.
-

Preventive Maintenance and Operation Checks for SINGARS

Often radio communications are lost in the field due to a lack of radio maintenance or some other easily correctable problem.

Maintenance Checklist

To maintain your radio in good working order,

- Inspect radio for any damage.
 - Test all knobs to be sure they are all present and are working properly.
 - At least once a day, clean all the connectors using a pencil eraser to prevent corrosion build-up to ensure a good contact between connectors for the
 - Antenna.
 - Handset.
 - Fill device.
 - Battery.
 - No matter what the forecast is, waterproof the radio and handset using plastic bags and duct or electrical tape to ensure the radio is protected from inclement weather.
 - Inspect the whip and the tape antennas for cracks or tears.
-

Preventive Maintenance and Operation Checks for SINCGARS (Continued)

Maintenance Checklist (Continued)

- Inspect the pins in both of the antennas to ensure that they are not bent.
- Inspect SL-3 bag to be sure no holes are in it and all of the SL-3 is present. At a minimum, the bag should contain
 - 3 foot tape antenna.
 - 10 foot whip antenna.
 - H-250 handset.
 - Hard base.
 - Flex base.

Troubleshooting

If you lose communications in the field, follow this checklist of actions to troubleshoot the RT-1523 (SINCGARS):

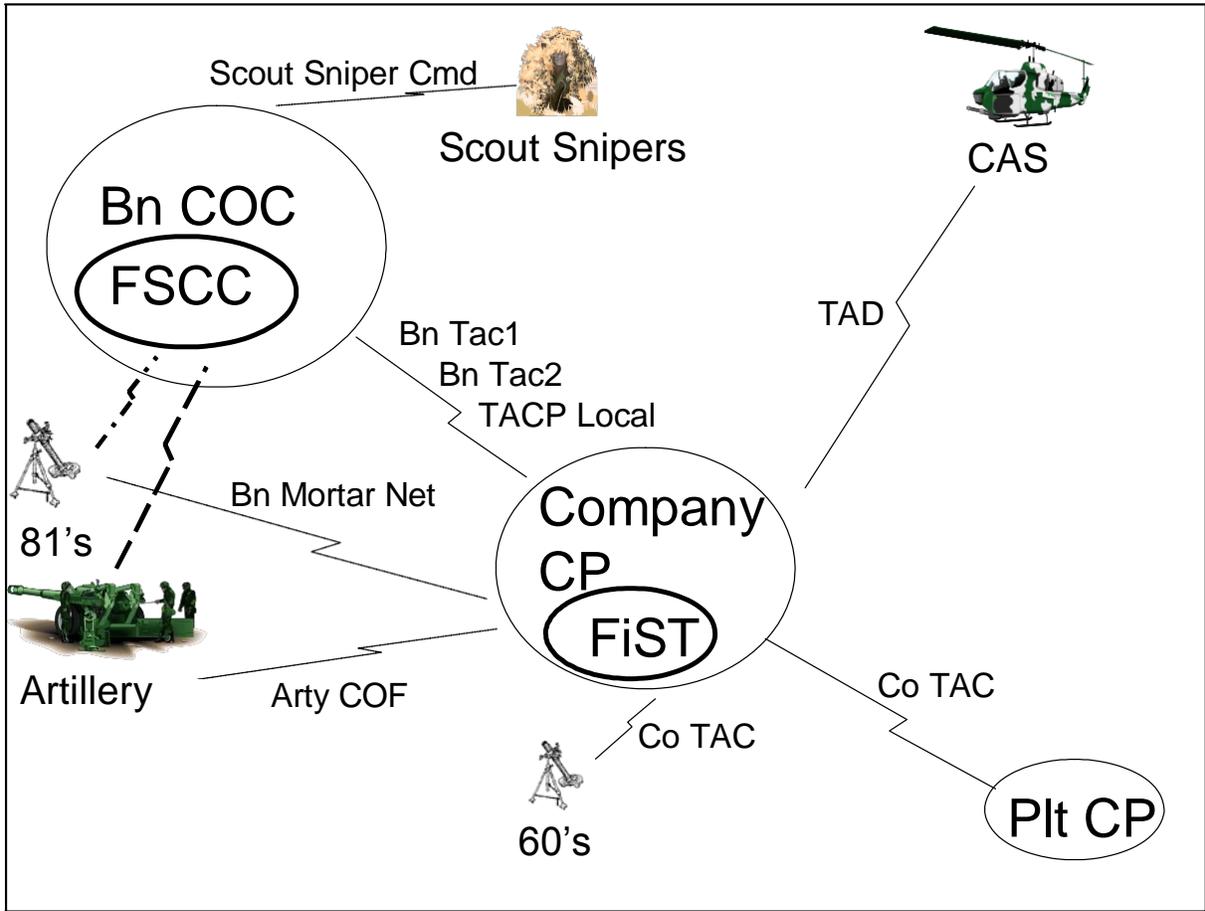
- Is the radio on?
 - Is the volume turned up loud enough to hear; is the display turned up bright enough to see?
 - Do you have the right net identification (ID) or frequency?
 - Do you have the right crypto? (Are all channels loaded with the same TSK, TEK, hop set, time, and net ID? If not, try scrolling COMSEC fill.) Ensure Julian date is correct as well.
 - Check the connectors (handset and antenna, pm).
 - Check batteries (main battery and hold-up battery [HUB]).
 - If all of the above is good and you cannot seem to talk, go to STBY, then back to ON.
 - Check antenna to ensure it is connected properly. Relocate to higher terrain.
 - You may be required to zero your radio, and re-load with all 5 required variables needed to frequency-hop.
 - Perform a radio check for each frequency/NET ID you will be using.
 - Inspect the readout to see if the diamond-shaped light is on. If it is blinking, your HUB is low; if solid, your HUB is dead. This can cause a loss of crypto depending on the state of your main lithium battery.
 - Above all else, *use a common sense approach when troubleshooting!*
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Summary

Understanding the radio nets organic to an infantry battalion and using proper radio procedures are critical to properly employing combined arms and helping guard unit survivability. When the tactical situation is urgent and the need for quick and accurate communications is critical (e.g., upon enemy contact), key people or "actuals" should talk directly to one another on the radio whenever possible. Remember, *if you can't communicate, you can't command!*

Appendix A

Communications Diagram



Appendix B

Sample Message

PROTECTOR INSERT
 Place this under the last copy of each message written.

Z O P (R)	DTG (COMM USE) Z50836R FEB 94	FM: LIT
TO: A3W		
<input checked="" type="checkbox"/> TOPSEC	SECRET	CONF UNCLAS
Current position is 400 meters north of BLT ORT Bravo		
RELEASING OFFICER'S SIGNATURE	TOR/FOD	PAGE
<i>Mike O'Neal</i>		1 OF 1

Table 1. Precedence Table

Each message that is drafted on a NAVMC 694 is assigned a message precedence according to how fast it must reach its intended recipient. The following precedence table is used as the standard:

Precedence Table	Time Limits	Security Classification Table
Z - FLASH	10 minutes	TOPSEC - TOP SECRET
O - IMMEDIATE	30 minutes	SECRET - SECRET
P - PRIORITY	3 hours	CONF - CONFIDENTIAL
R - ROUTINE	6 hours	UNCLAS - UNCLASSIFIED

References

Reference Number or Author	Reference Title
FM 24-18	Tactical Single-Channel Radio Communications Techniques
MCRP 3-11.1A	Commander's Tactical Handbook
MCRP 3-40.3A	Tactical Communications
MCRP 3-40.3B	Radio Operator's Handbook
MCWP 3-11.1	Marine Rifle Company/Platoon
MCWP 3-40.3	Communications and Information Systems
TM 11-5805-201-12	Telephone Sets TA-312/PT and TA/312A
TM 11-5805-243-13-40	Operator's Manual for the TA-1/PT
TM 11-5820-890-10-1	Radio Set, AN/PRC-119
TM 11-5820-890-10-6	SINCGARS ICOM Ground Radio Pocket Guide

Glossary of Terms and Acronyms

Term or Acronym	Definition or Identification
AO	Air officer
Arty	Artillery
Bn	Battalion
C ³	Command, control, and communications
CAS	Close air support
Co	Company
COC	Combat operations center
CONF	Confidential
CP	Command post
DTG	Date-time group
FAC	Forward air controller
FCC	Federal Communications Commission
FDC	Fire direction center
FiST	Fire support team
FO	Forward observer
FSCC	Fire support coordination center
HUB	Holdup battery
ID	Identification
ISR	Inter-squad radio
LP	Listening post
NCS	Net control station
O	Immediate
OP	Observation post
P	Priority
PA	Practical application
Plt	Platoon
