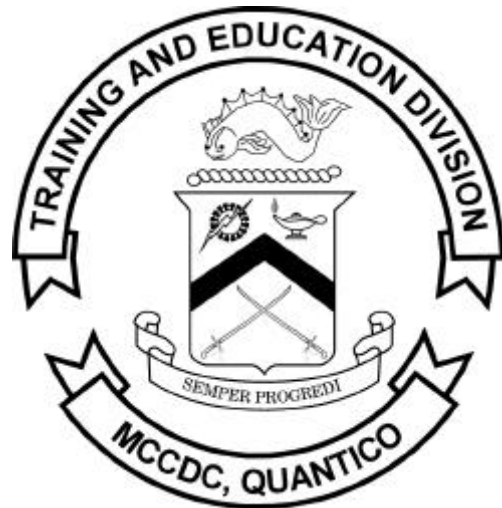


MARINE CORPS INSTITUTE



COMMUNICATIONS PLANS AND ORDERS

MARINE BARRACKS
WASHINGTON, DC



UNITED STATES MARINE CORPS

MARINE CORPS INSTITUTE
912 CHARLES POOR STREET SE
WASHINGTON NAVY YARD DC 20391-5680

IN REPLY REFER TO:

1550

Ser 2540

15 Sep 96

MCI 2540 COMMUNICATIONS PLANS AND ORDERS

1. Purpose. MCI course 2540, *Communications Plans and Orders*, provides instruction to Marines having duties that may require them to draft orders for operational communication.
2. Scope. MCI 2540 addresses information that all SNCO communication marines should know. This information includes organization and employment of USMC command and control systems, planning routine communication support, combat plans and orders including paragraph 5 of the operations order, communication estimates, and Annex K.
3. Applicability. This course is intended for instructional purposes only. It is designed for Marines in the ranks of sergeant through master gunnery sergeant in any MOS who are or may be assigned to communication units.
4. Recommendations. Comments and recommendations on the contents of the course are invited and will aid in subsequent course revisions. Please complete the course evaluation questionnaire at the end of the final examination. Return the questionnaire and the examination booklet to your proctor.

A handwritten signature in black ink that reads "R.A. Christie".

R.A. CHRISTIE

Lieutenant Colonel, U.S. Marine Corps

COMMUNICATIONS PLANS AND ORDERS

CONTENTS

	Page
Contents	i
Student Information	iii
Study Guide	v
Study Unit 1 . Organization and Employment of the Marine Air Ground Task Force (MAGTF)	
Lesson 1 . Organization of the Marine Air Ground Task Force (MAGTF)	1-1
Exercise	1-21
Lesson 2 . MAGTF Communications	1-23
Exercise	1-41
Lesson 3 . Amphibious/Joint and Combined Command and Control	1-42
Exercise	1-60
Study Unit 2 . Communications Planning	
Lesson 1 . Purposes and Types of Communications Plans and Orders	2-1
Exercise	2-8
Lesson 2 . Communications SOPs	2-9
Exercise	2-22
Study Unit 3 . Combat Plans and Orders	
Lesson 1 . Terminologies of Combat Plans And Orders	3-1
Exercise	3-5
Lesson 2 . Rapid Response Planning Steps for the Communications Estimate and Paragraph 5 of the Operation Order	3-6
Exercise	3-19
Lesson 3 . Communications-Electronics Estimate Format	3-20
Exercise	3-32
Lesson 4 . Operation Plan/Order	3-33
Exercise	3-37

CONTENTS--cont'd

	Page
Study Unit 4 . Annex K	
Lesson 1 . Gathering Data To Use in Annex K	4-1
Exercise	4-12
Lesson 2 . Formatting Annex K	4-13
Exercise	4-33
Lesson 3 . Joint Operation Planning System (JOPS) Format or Joint Operation Planning Execution System (JOPES), Alternative Annex K Formats	4-36
Exercise	4-49
Review Lesson	R-1
Bibliography	

Student Information

Number and Title

MCI 2540
COMMUNICATIONS PLANS AND ORDERS

Study Hours

7

Course Materials

Text

Review Agency

MCCES, MCAGCC
Twentynine Palms, CA 92278

Reserve Retirement Credits (RRC)

2

ACE

Course submitted for review by the American Council on Education.

Assistance

For administrative assistance, have your training officer or NCO log on to the MCI home page at www.mci.usmc.mil. Marines CONUS may call toll free 1-800-MCI-USMC. Marines worldwide may call commercial (202) 685-7596 or DSN 325-7596.

STUDY GUIDE

Congratulations on your enrollment in a distance training course from the Occupational Specialty Department of the Marine Corps Institute (MCI). Since 1920, the Marine Corps Institute has been helping tens of thousands of hard-charging Marines, like you, improve their technical job performance skills through distance training. By enrolling in this course, you have shown a desire to improve the skills you have and master new skills to enhance your job performance.

The distance training course you have chosen, MCI course 25.40, Communications Plans and Orders, provides instructions to all Marines having duties that may require them to draft orders for operational communication. The course includes information about the organization and employment of Marine Corps command and control systems, the planning of routine communication support, combat plans and orders including paragraph 5 of the operation order, communications estimates, and Annex K.

Because you have chosen to learn at a distance by enrolling in this MCI course, your professional traits are evident and we know

YOU ARE PROPERLY MOTIVATED. You made a positive decision to get training on your own. Self-motivation is perhaps the most important force in learning or achieving anything. Doing whatever is necessary to learn is MOTIVATION. You have it!

YOU SEEK TO IMPROVE YOURSELF. You enrolled to improve those skills you already possess and learn new skills. When you improve yourself, you improve the Corps!

YOU HAVE THE INITIATIVE TO ACT. By acting on your own, you have shown you are a self-starter, willing to reach out for opportunities to learn and grow.

YOU ACCEPT CHALLENGES. You have self-confidence and believe in your ability to acquire knowledge and skills. You have the self-confidence to set goals and the ability to achieve them, enabling you to meet every challenge.

YOU ARE ABLE TO SET AND ACCOMPLISH PRACTICAL GOALS. You are willing to commit time, effort, and the resources necessary to set and accomplish your goals. These professional traits will help you successfully complete this distance training course.

STUDY GUIDE, continued

BEGINNING YOUR COURSE

Before you actually begin this course of study, read the Student Information page. If you find any course materials missing, notify your training officer or training NCO. If you have all the required materials, you are ready to begin.

To begin your course of study, familiarize yourself with the structure of the course text. One way to do this is to read the Table of Contents. Notice the Table of Contents covers specific areas of study and the order in which they are presented. You will find the text divided into several study units and a review lesson. Each study unit is comprised of two or more lessons, lesson or unit exercises, exercise solutions and references.

LEAFING THROUGH THE TEXT

Leaf through the text and look at the figures and tables. Read a few lesson exercise items (questions) to get an idea of the type of items in the course. If the course has additional study aids, such as a handbook or a plotting board, familiarize yourself with them.

THE FIRST STUDY UNIT

Turn to the first page of study unit 1. On this page you will find an introduction to the study unit and generally the first study unit lesson. Study unit lessons contain learning objectives, lesson text, and exercises.

READING THE LEARNING OBJECTIVES

Learning objectives describe in concise terms what the successful learner, you, will be able to do as a result mastering the content of the lesson text. Read the objectives for each lesson and then read the lesson text. As you read the lesson text, make notes on the points you feel are important.

COMPLETING THE EXERCISES

To determine your mastery of the learning objectives and text, complete the exercises developed for you. Exercises may be contained in a lesson, at the end of a lesson, or at the end of a study unit. Without referring to the text, complete the exercise items and then check your responses against those provided.

CONTINUING TO MARCH

Continue on to the next lesson, repeating the above process until you have completed all lessons in the study unit. Follow the same procedure for each study unit in the course.

STUDY GUIDE, continued

SEEKING ASSISTANCE

If you have problems with the text or exercise items that you cannot resolve, ask your training officer or training NCO for assistance. If they cannot help you, request assistance from your MCI distance training instructor by completing the Content Assistance Request Form located at the back of the course.

THE REVIEW LESSON EXAM

When you have finished all the study units, complete the review lesson exam located at the end of the course text. Try to complete the review lesson exam without referring to the text. For those items you are unsure of, restudy the text. When you have finished the review lesson exam and are satisfied with your responses, check your responses against the answer key provided with your course materials.

PREPARING FOR THE FINAL EXAM

To prepare for your final exam, you must review what you learned in the course. The following suggestions will help make the review interesting and challenging.

CHALLENGE YOURSELF. Try to recall the entire learning sequence without referring to the text. Can you do it? Now look back at the text to see if you have left anything out. This review should be interesting. Undoubtedly, you'll find you were not able to recall everything. But with a little effort you'll be able to recall a great deal of the information.

USE UNUSED MINUTES. Use your spare moments to review. Read your notes or a part of a study unit, rework exercise items, review again; you can do many of these things during the unused minutes of every day.

APPLY WHAT YOU HAVE LEARNED. It is always best to use the skill or knowledge you've learned as soon as possible. If it isn't possible to actually use the skill or knowledge, at least try to imagine a situation in which you would apply this learning. For example, make up and solve your own problems. Or, better still, make up and solve problems that use most of the elements of a study unit.

STUDY GUIDE, continued

USE THE "SHAKEDOWN CRUISE" TECHNIQUE. Ask another Marine to lend a hand by asking you questions about the course. Choose a particular study unit and let your buddy "fire away." This technique can be interesting and challenging for both of you!

MAKE REVIEWS FUN AND BENEFICIAL. Reviews are good habits that enhance learning. They don't have to be long and tedious. In fact, some learners find short reviews conducted more often prove more beneficial.

TACKLING THE FINAL EXAM

When you have completed your study of the course material and are confident with the results attained on your review lesson(s) take the sealed envelope marked "**FINAL EXAM**" to your unit training NCO or training officer. Your training NCO or officer will administer the final exam and return the exam and answer sheet to MCI for grading. Prior to taking your final exam, read the directions on the NEW (generic DP-37) answer sheet carefully and complete all requested information.

COMPLETING YOUR COURSE

The sooner you complete your course, the sooner you can better yourself by applying what you've learned! **HOWEVER**--you do have 12 months from the date of enrollment to complete this course. In addition, you may be granted one 6-month extension if approved by your Commanding Officer. If you need an extension, please complete the Student Request/Inquiry form (MCI-R11) located at the back of the course, and deliver it to your training officer or training NCO.

GRADUATING!

As a graduate of this distance training course and as a dedicated Marine, your job performance skills will improve, benefiting you, your unit, and the Marine Corps.

Semper Fi!

STUDY UNIT 1

ORGANIZATION AND EMPLOYMENT OF THE MARINE AIR GROUND TASK FORCE (MAGTF)

Introduction. The organization and employment of the MAGTF is important to all communications SNCOs. Although there are many specialties, such as radio, wire, and communications (comm) center, all communications SNCOs must strive for an in depth understanding of MAGTF communications methods and MAGTF organization. This study unit provides you with information on the organization and employment of the Marine Air Ground Task Force (MAGTF). It also guides your study of the structure and responsibilities of the amphibious force, air contingency force, and the joint/combined force to give you a complete knowledge and a total picture of the MAGTF.

Lesson 1. ORGANIZATION OF THE MARINE AIR GROUND TASK FORCE (MAGTF)

LEARNING OBJECTIVES

1. Identify the four elements of the MAGTF.
2. Identify the capabilities of the MAGTF.
3. Identify the symbols of the MAGTF.
4. Identify the composition of the Marine Expeditionary Unit (MEU).
5. Identify the composition of the Marine Expeditionary Force (MEF).
6. Describe amphibious task force designators.

1101. MAGTF Organization

The purpose of organizing a MAGTF is to accomplish a specific mission. The size and mission of the MAGTF will determine the rank of the commander. All MAGTFs, regardless of their size, consist of a single commander and have the same elements in their structure. The basic structure of MAGTFs includes a (an):

- Command Element (CE)
- Ground Combat Element (GCE)
- Aviation Combat Element (ACE)
- Combat Service Support Element (CSSE)

Figure 1-1 shows how the basic elements of the MAGTF are organized.

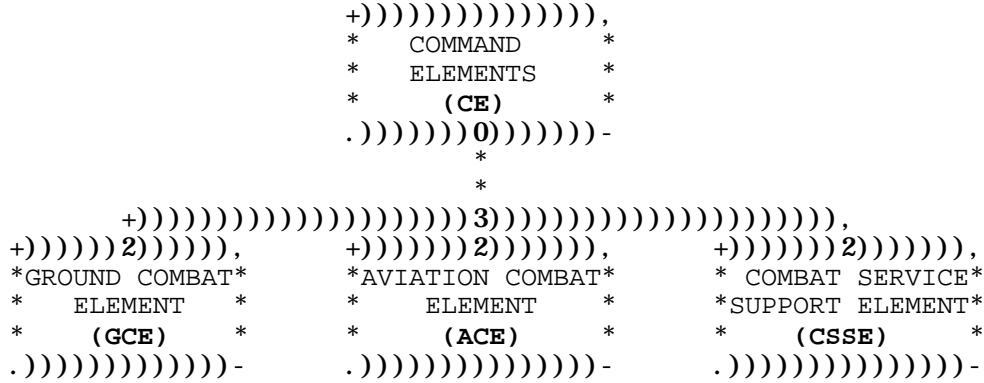


Fig 1-1. Marine Air-Ground Task Force organization.

Table 1-1 breaks the structure down further to give you an overview of the purpose and composition of each element.

Table 1-1. Elements of the MAGTF

ELEMENT	PURPOSE	COMPOSITION
CE	*Provides a command and control system for effective planning and execution of operations.	*Consists of the commander, the commander's staff, and the Surveillance, Reconnaissance, and Intelligence Group (SRIG). The SRIG provides command, control, communications, and complete intelligence support to the MAGTF.
GCE	*Conducts ground combat operations.	*Consists of a reinforced infantry unit that varies in size from a battalion of 200 Marines to one or more divisions of about 20,000 Marines.
ACE	*Conducts air operations and provides aviation support to the GCE and CSSE.	*Consists of aviation units. It varies in size from a reinforced helicopter squadron to one or more Marine Aircraft Wings and routinely integrates air/ground combat operations. This is a critical element in the effective application of combined arms. Coordination among the CE, GCE, and ACE is achieved through the Integrated Marine Air Command and Control System (MACCS).

1102. MAGTF Capabilities

a. MAGTFs embarked. On board Navy amphibious ships, MAGTFs provide decision makers with the capabilities to successfully employ a specialized unit. According to FMFRP 2-12, embarked MAGTFs can do the following:

- (1) Move forces into crisis areas without revealing their exact destinations or intentions. (The task force can keep its destinations and intentions hidden.)
- (2) Provide continuous presence in international waters.
- (3) Place America's "sword in the sheath" just over the horizon of a potential adversary. The sword is ready to be drawn if necessary. (The forces are outside the immediate view of the enemy but are ready to go into action if necessary.)
- (4) Allow the opportunity for the diplomatic process to reach a peaceful resolution of a crisis before drawing the sword. (We do not have to draw the sword until absolutely necessary.)
- (5) Project measured degrees of combat power ashore if necessary.
- (6) Introduce additional forces sequentially into the theater.
- (7) Operate independently of established airfields, basing agreements, and overflight rights.
- (8) Conduct combat operations ashore using inherent combat service support brought into the area of operations.
- (9) Secure staging areas for the introduction of follow-on Army and Air Force units.
- (10) Withdraw rapidly at the conclusion of operations or remain to help restore stability to the affected area.

b. MAGTF general capabilities. Regardless of size, all MAGTFs can do the following:

- (1) Enter and exit a battle area at night.
- (2) Operate under adverse weather conditions.
- (3) Operate from over-the-horizon, without electronic emissions, by surface or air.
- (4) Locate and fix the enemy.
- (5) Engage, kill, or capture the enemy in a rural or urban setting.

- (6) Operate in hostile nuclear, biological, and chemical environments.
- (7) Plan and commence execution within 6 hours of receipt of the warning order.
- (8) Provide seabase sustainment.

c. MAGTF special capabilities. In addition to the general capabilities listed above, MAGTFs have the special capabilities to do the following:

- (1) Exercise quick reaction.
- (2) Marry up rapidly required forces to accomplish missions.
- (3) Use intelligence-based operational decision making.
- (4) Act as a fleet commander's rapid response forces.

As you have just found out, the MAGTF has many capabilities vital to national security. The mission of the Marine Corps makes it beneficial to you to be familiar with all of the general and special capabilities.

Again, it's time to review what you have just learned.

Can an embarked MAGTF stay in international waters and introduce additional forces sequentially into the theater?


Can MAGTFs, regardless of size, engage and kill enemy and operate in hostile nuclear, biological, and chemical environments?

If you said yes to both questions, you are correct. They do have such capabilities. Continue when you're ready.

1103. MAGTF Symbols

In spite of the wide range of organizational possibilities, MAGTFs are always designated using the MEU, MEF, or SPMAGTF symbols. The exception will be when we deploy only the ground combat or aviation combat elements. When this occurs, we don't use MAGTF symbols.

a. Symbols

- (1) The intent of MAGTF-specific symbols is to clearly identify Marine organizations and units in joint and combined operations as well as to emphasize the amphibious assault characteristics of the MAGTF and its ground combat element.
- (2) Units that conduct amphibious operations across the beach, including combat, combat support, and landing support units, have a  included in their unit symbol.
- (3) MAGTF command elements and subordinate units in correspondence with higher or adjacent organizations in joint or combined operations use the symbols shown in figure 1-2. They're not used within the MAGTF subordinate elements.

b. Numerical designations for MAGTFs. The odd-numbered numerical designations represent the MAGTFs of Fleet Marine Force Pacific (FMFPac) while the even-numbered numerical designations indicate those from Fleet Marine Force Atlantic (FMFLant). The basic symbols for a MAGTF, GCE, ACE, and CSSE are shown in figure 1-2.

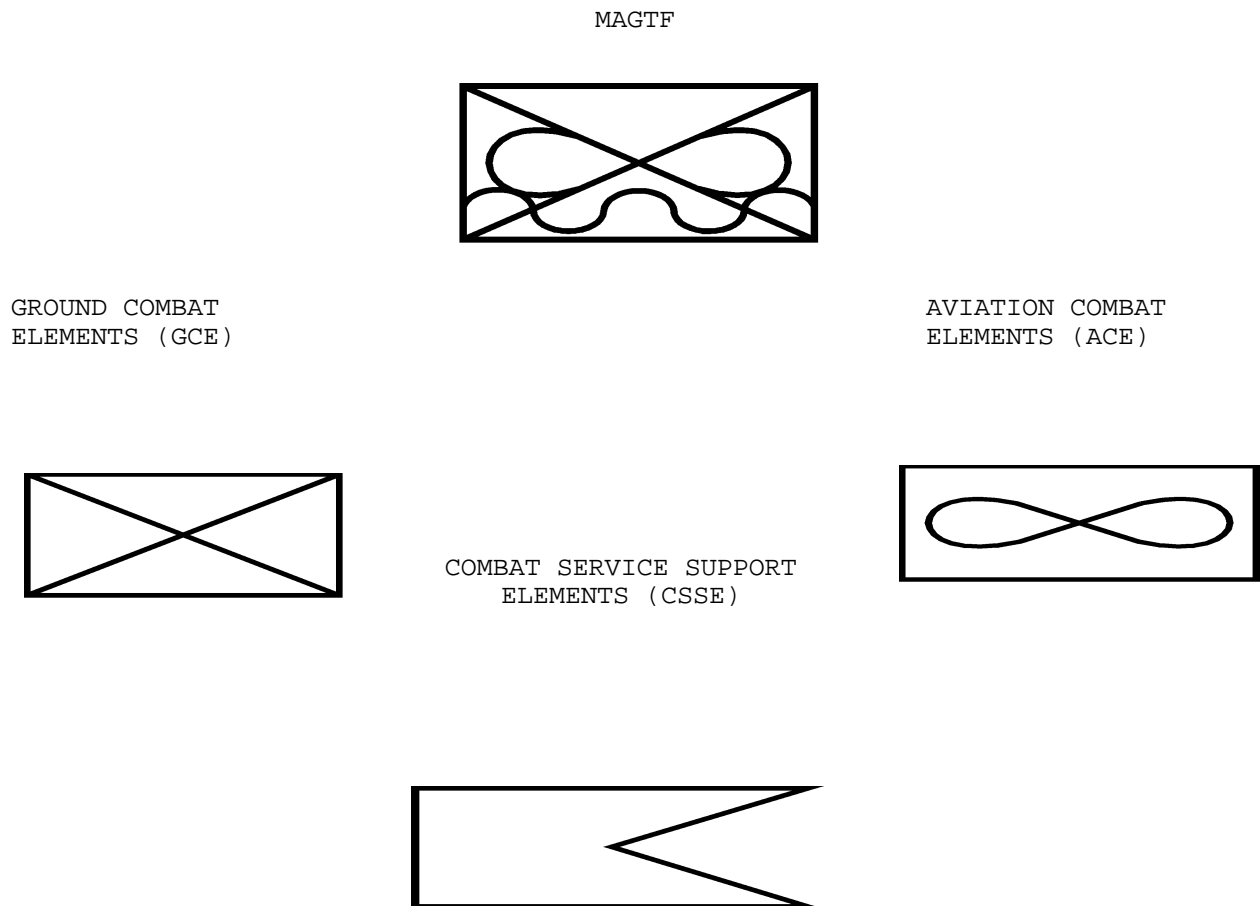
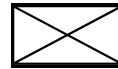


Fig 1-2. Basic MAGTF symbols.

Let's review what you have learned in this paragraph.

Draw a symbol indicating Ground Combat Elements and a symbol for Aviation Combat Elements.

If you drew a figure like this



for Ground Combat Elements and a figure like this



for Aviation Combat Elements, you are correct. You can continue to study the next objective. If you answered incorrectly on either figure or you really weren't sure, you may wish to review.

1104. Marine Expeditionary Unit (MEU)

a. General. The MEU normally consists of a reinforced infantry battalion, a reinforced helicopter squadron, and a MEU service support group (MSSG). The MEU deploys forward as the immediately responsive, on-scene, sea-based Marine component of the fleet commander's amphibious and power projection forces. The MEU can also deploy on short notice by using a mix of tactical and strategic airlift for contingencies in support of fleet and combat commanders. MEUs deploy continuously in the Mediterranean Sea and Pacific Ocean and periodically in the Atlantic Ocean, Indian Ocean, and Caribbean Sea.

The task-organized, trained, and equipped MEUs can conduct a wide variety of conventional and specialized operations. The MEUs are also excellent in limited operations. Most importantly, the MEUs can conduct, with a 6-hour notice, quick reaction to long-range amphibious raids from over-the-horizon without electronic emissions, during periods of darkness, and under adverse weather or sea conditions.

For sustained operations ashore, the MEUs may serve as the forward elements of a MEF.

b. MEU organization.

(1) The general organization of the MEU is shown in figure 1-3.

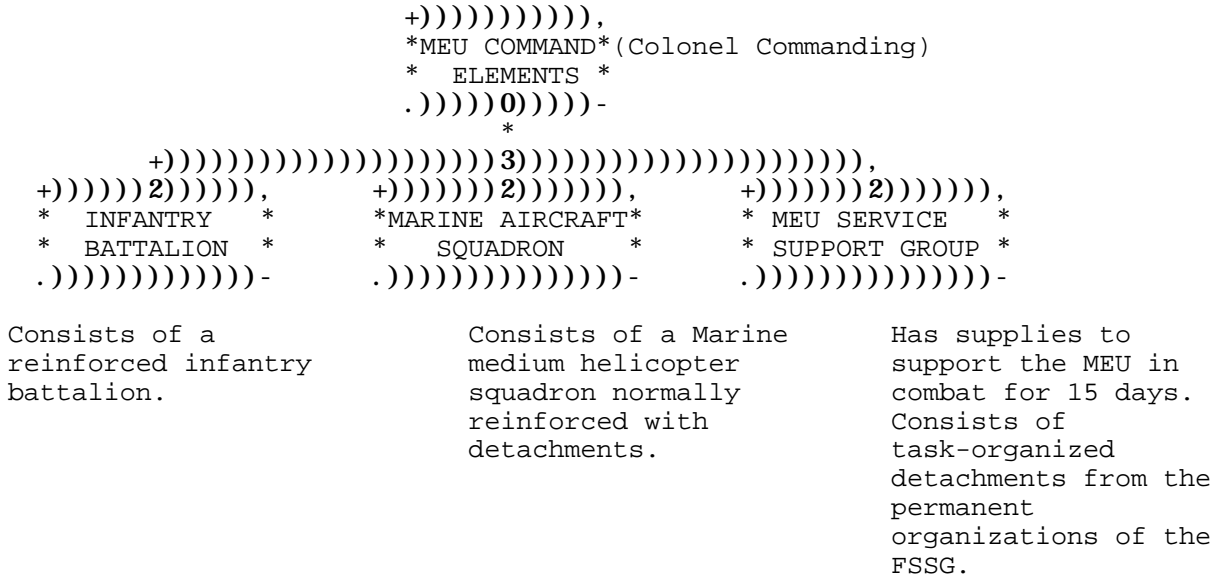


Fig 1-3. General MEU organization.

(2) The complete organizational makeup of the MEU is shown in figure 1-4.

```

+))))))))) ,
*MEU COMMAND*
* ELEMENTS *
.)))))0)))-
+))))))))) ,
+))))))2))))),
+))))))2))))),
+))))))2))))),
* ACE * * GCE * * MSSG *
*-----*
+) 1 REIN HELICOPTER*
* * SQUADRON *
* .))))) -
*
* +)))))) ,
/) 1 HMM/HMH/HMLA /),
* .0))))) - *
* * VMA DETACHMENT *
* .))))) -
* +)))))) ,
* * MARINE AIR *
.) 1 CONTROL GROUP *
* DETACHMENT *
.))))) -

+))))))))) ,
+))))))3)))))) ,
+))))))2))))),
+))))))2))))),
+))))))2))))),
* GCE * * MSSG *
*-----*
+) 1 REIN INFANTRY*
* * BATTALION *
* .))))) -
*
* +)))))) ,
* * INFANTRY /),
/) 1 COMPANY * /),
* .0))))) - * *
* .0))))) - * *
* .))))) - * *
* +)))))) ,
* * WEAPONS *
/) 1 COMPANY *
* .))))) -
* +)))))) ,
* * ARTILLERY *
/) 1 BATTERY *
* .))))) -
* +)))))) ,
* * ARMORED *
* * UNIT *
/) 1 (TANK, LAV, *
* * or both) *
* .))))) -
* +)))))) ,
* * COMBAT *
/) 1 ENGINEER PLT *
* .))))) -
* +)))))) ,
/) 1 RECON PLT *
* .))))) -
* +)))))) ,
* * ANTI-ARMOR *
.) 1 SECTION *
.))))) -

+))))))))) ,
+))))))2))))),
+))))))2))))),
+))))))2))))),
* MSSG *
*-----*
+) 1 MEU SERVICE *
* * SUPPORT GROUP*
* .))))) -
*
* +)))))) ,
* * HEADQUARTERS *
/) 1 PLATOON *
* .))))) - *
* +)))))) ,
* * MOTOR *
/) 1 TRANSPORT PLT *
* .))))) -
* +)))))) ,
* * LANDING *
/) 1 SUPPORT PLT *
* .))))) -
* +)))))) ,
* * SUPPLY *
/) 1 PLATOON *
* .))))) -
* +)))))) ,
* * MAINTENANCE *
/) 1 PLATOON *
* .))))) -
* +)))))) ,
* * ENGINEER *
/) 1 SUPPORT PLT *
* .))))) -
* +)))))) ,
* * HEALTH SERVICE*
/) 1 SUPPORT UNIT *
* .))))) -
* +)))))) ,
* * COMMUNICATIONS*
.) 1 PLATOON *
.))))) -

```

Fig 1-4. Complete MEU organization.

c. Symbol of a MEU. The universal symbol used to identify a MEU is shown in figure 1-5.

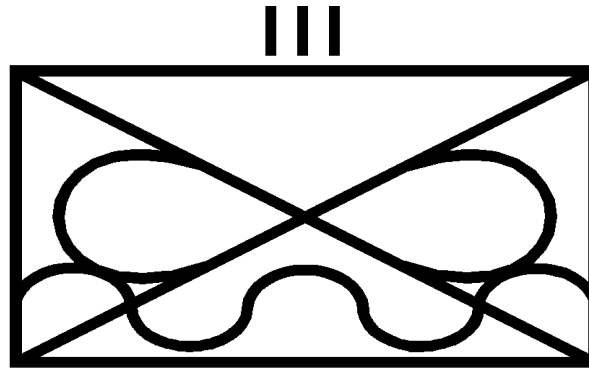


Fig 1-5. MEU symbol.

d. The MEU-sized MAGTF SOC (special operations capable). The MEU-sized MAGTF SOC is an enhancement of individual and unit capabilities and skills that the MAGTF requires to execute its mission. This enhancement results from advanced training and specialized equipment. These missions, both general purpose expeditionary missions and special operations tasks, require rapid planning.

Special capability levels vary with the MAGTF's type and size. The minimum capability would be the one that most often occurs within the forward-deployed MEU SOC. The maximum capability would most often be resident in the MEF, the most capable MAGTF. The scope of the operation, particularly in terms of support, operational reach, and coverage, determines the special operations capability.

A MEU-sized MAGTF assigned to a maritime special operations mission would have adequate command, control, communications, and intelligence (C³I) support; operational reach commensurate with the capabilities of assigned aviation assets to a reinforced medium helicopter squadron; and sufficient assets to cover one target area (each target area requires one strike unit).

All MAGTFs must be fully capable of executing their general purpose expeditionary missions along with special operations tasks.

Let's review what you learned.

List the three components of a MEU.

1. _____
2. _____
3. _____

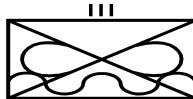
If your answer is that the MEU consists of a reinforced infantry battalion, a reinforced helicopter squadron, and a MEU service support group (MSSG), you are correct.

What is the designated rank of the commanding officer of a MEU?

If you said that the commanding officer of a MEU is a colonel, you are correct.

Draw a MEU symbol.

If you drew the MEU symbol like this



you are correct. If you answered any of the three challenges incorrectly, review paragraph 1104 before continuing.

1105. Marine Expeditionary Force (MEF)

A MEF is the largest and most capable MAGTF (see figure 1-6 on the next page). It normally consists of one or more Marine Divisions (MarDiv), a Marine Aircraft Wing (MAW), and a Force Service Support Group (FSSG). However, its composition is to meet specific mission requirements. The commander of MEF is either a major general or lieutenant general.

The MEF can normally deploy with supplies for 60 days. It can conduct amphibious operations and sustain operations ashore.

```

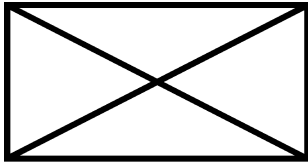
+))))))))) ,
* MEF * +)))) ,
* COMMAND *----->*SRIG *
* ELEMENTS * .))))-
.)))))0)))-
(ACE) +))))))))) , (CSSE)
+))))2))))) , +))))2)) , (GCE) +))))2))))) ,
+) 1MARINE AIRCRAFT* +) 1MARINE * +) 1FORCE SERVICE*
* * WING * * *DIVISION* * *SUPPORT GROUP*
* .)))))))))- * .))))))- * .)))))))))-
* +))))))))) , * +)))))) , (RLT) * +))))))))) ,
* *MARINE AIRCRAFT/) , * *INFANTRY/) , * *HEADQUARTERS *
/) 1 GROUP * /) , /) 1REGIMENT* /) , /) 1LAND SERVICE *
* * VMFA/VMFA(AW) * * /) , * .0)))))- * * * * * BATTALION *
* .0)))))- * * * * .0)))))- * * .)))))))))-
* * VMA/VMA (AW) * * * * .))))))- * * +))))))))) ,
* .0)))))- * * * +)))))) , * * MOTOR *
* *HMM/HMH/HMLA * * * *ARTILLERY* /) 1 TRANSPORT *
* .0)))))- * /) 1REGIMENT * * * BATTALION *
* *VMGR/VMAQ * * .))))))- * .)))))))))-
* *DETACHMENT * * +)))))) , * +))))))))) ,
* .)))))))))- * * TANK * * * LANDING *
* +))))))))) , /) 1BATTALION* /) 1 SUPPORT *
* * MARINE AIR * * .))))))- * * * BATTALION *
/ ) 1 CONTROL GROUP * * +)))))) , * .)))))))))-
* .)))))))))- * * LAI * * +))))))))) ,
* +))))))))) , /) 1BATTALION* * * SUPPLY *
* * MARINE WING * * .))))))- /) 1 BATTALION *
/ ) 1 SUPPORT GROUP * * +)))))) , * .)))))))))-
* .)))))))))- * * AAV * * +))))))))) ,
* +))))))))) , /) 1BATTALION* * * MAINTENANCE *
* * MARINE WING * * .))))))- /) 1 BATTALION *
.) 1 HEADQUARTERS * * +)))))) , * .)))))))))-
* * SQUADRON * * *COMBAT * * +))))))))) ,
* .)))))))))- /) 1ENGINEER * * * ENGINEER *
* *BATTALION* * * * SUPPORT *
* .))))))- * * * BATTALION *
* +)))))) , * .)))))))))-
* * RECON * * +))))))))) , * * MEDICAL *
/ ) 1BATTALION* * .))))))- /) 1 BATTALION *
* .))))))- * +)))))) , * .)))))))))-
* * HDQTRS * * +))))))))) , * * DENTAL *
.) 1BATTALION* * * * BATTALION *
* .))))))- * .)))))))))-

```

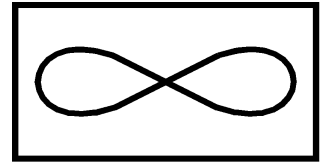
Fig 1-6. Complete MEF organization.

Let's review what you have learned so far.

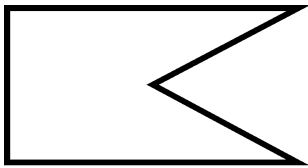
Identify the element of the MAGTF that each symbol below represents. Write your responses in the spaces provided.



a. _____



b. _____



c. _____

The correct answers are the following:

- a. GCE
- b. ACE
- c. CSSE

Table 1-2 gives you the elements of the MEF, its purpose, and the composition of each element to support the MEF commander.

Table 1-2. MEF Organization

ELEMENTS	PURPOSES	COMPOSITION
CE	Enables the MAGTF commander to control the MEF.	Includes the SRIG. The SRIG includes the following: *Air/naval gunfire liaison company (ANGLICO), comm battalion; force recon company, radio battalion, remotely piloted vehicle (RPV) company; and intelligence company.
GCE	Conducts ground operations.	Consists of one or more MarDivs that can include: regimental landing teams, artillery regiment, tank battalion, light armor infantry (LAI) battalion, assault amphibian battalion, combat engineer battalion, and reconnaissance battalion.
ACE	Provides aviation support to GCE and CSSE.	Exists for accomplishing the specific mission. Conducts the full range of Marine air operations. The ACE includes rotary/fixed-wing Marine aircraft group (MAG), Marine air control group (MACG), Marine wing support group (MWSG), aerial refueler transport assets, tactical electronic warfare (EW) detachment, and tactical recon assets.
CSSE	Exists for providing the full range of combat service support capabilities ties to the MEF for 60 days.	Includes headquarters and service maintenance, supply, motor transport, landing support, medical and dental battalions and the electronic support branch.

Again, take a minute to review what you have learned.

What aviation unit is responsible for providing support to the MEF?

The aviation unit providing support to the MEF is a Marine Air Wing (MAW).

What unit will provide the combat service support to the MEF?

The unit providing combat service support to the MEF is the FSSG.

If you answered both of these questions correctly, you may continue. If you did not answer correctly, go back and review the material in paragraph 1105.

The normal operating areas of the three MEFs are as follows:

- a. I MEF. I MEF's base is at Camp Pendleton and is a swing MEF. The I MEF provides forces for commitment either westward into the Pacific or for reinforcement of NATO's southern flank.
- b. II MEF. In the Atlantic, II MEF's headquarters is at Camp Lejeune. II MEF is responsible for the European theater, the west coast of Africa, and the coastline of South America. There are occasional exceptions.
- c. III MEF. In the Pacific, III MEF's headquarters is at Okinawa; it extends eastward to Kaneohe Bay, HI.

The universal symbol for a MEF is in figure 1-7 on the next page.

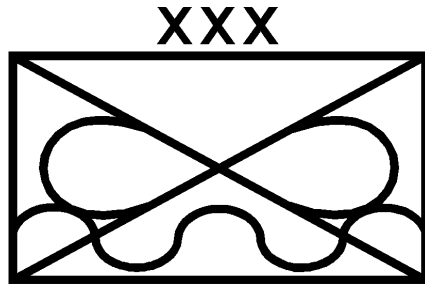


Fig 1-7. MEF symbol.

All MAGTF units will have either an even- or odd-numbered Roman numeral.

It's time again for a review.

What does a MEF usually consists of?

If you said that a MEF usually consists of one or more Marine divisions (MarDiv), a Marine Aircraft Wing (MAW), and a Force Service Support Group (FSSG), you are correct.

How long can the MEF deploy with organic supplies?

You are right if you said a MEF can normally deploy with supplies for 60 days.

What should be the rank of the MEF commanding officer?

If you said a MEF commander is either a major general or a lieutenant general, you are correct again.

Remember the MEF is the largest and most capable MAGTF. It can conduct amphibious operations and sustain operations ashore. (Examine figure 1-6 carefully.)

If you answered correctly, you can continue to study the next objective. If you didn't, you should review paragraph 1105.

1106. Amphibious Task Force Designators

We use a standard numerical designation system for identifying all forces within the amphibious task force. NTP-4 gives detailed instructions on the use of amphibious task force designators.

Each operational fleet within the Atlantic and Pacific Fleets will receive numerical designation such as 3rd Fleet, 7th Fleet, etc. Pacific fleets will have odd numbers, while Atlantic Fleets (this applies to the first digit only) will have even numbers.

Each operational fleet may include ten subdivided operational task forces; TF 30 through 39 for example. TF 36 may be the amphibious force of the fleet and TF 39 may be the FMF under the operational control of the fleet commander.

Each task force may have as many as ten task groups; TG 30.0 through 30.9. Each task group may have as many as ten task units; TU 30.6.0 through 30.6.9.

Each task unit may have as many as ten task elements; TE 30.6.3.0 through 30.6.3.9.

Amphibious task force designators receive the assignment in the initiating directive that comes from higher headquarters. This directive establishes an amphibious readiness group. Various components of the MAGTF receive landing force numerical designations. For example, a landing force under operational control of the Commander, 3rd Fleet could have numerical designators as follows:

CLF	CTF 39
Landing Force	TF 39
Landing Force HQ	TF 39.0
GCE	TF 39.1
ACE	TF 39.2
CSSE	TF 39.3

A breakdown of the Ground Combat Element (GCE) task group into task units and task elements follows:

Marine Division	TG 39.1
Division HQ	TU 39.1.0
RLT	TU 39.1.1
RLT HQ	TE 39.1.1.0
1st Bn	TE 39.1.1.1
2nd Bn	TE 39.1.1.2
3rd Bn	TE 39.1.1.3

Take a minute to review this paragraph.

How is an amphibious task force designated?

If you said that a standard numerical designation system is used to identify all forces within the amphibious task force, you are correct.

How are the amphibious task force designators assigned?

If you recalled that each operational fleet within the Atlantic and Pacific receives a numerical designation, such as the 3rd Fleet, 7th Fleet, etc., you are correct. You should also know that Pacific fleets will have odd numbers, while Atlantic Fleets have even numbers. (This applies only to the first digit.)

How does an amphibious task force receive its assignments?

If you said that the amphibious task force receives its assignments in the initiating directive that comes from higher headquarters and that the initiating directive establishes an amphibious readiness group, you are correct again. You may continue.

1107. Special Purpose MAGTF (SPMAGTF)

The special purpose forces are small MAGTFs. Their purpose is to accomplish missions that are not appropriate for the MEU and MEF. These forces are organized, trained, and equipped to conduct a wide variety of operations. Special purpose forces can include the following:

- Mobile training teams
- Security assistance operations
- Small independent action forces

These forces can deploy by a variety of means including amphibious or commercial ships, tactical or strategic airlift, or organic Marine Corps aviation.

Special purpose forces normally consist of specially trained Marines who can accomplish missions of insertion/extraction and can conduct raids and strike operations during day or night.

Special purpose forces possess extensive surveillance and reconnaissance capabilities. These can include unmanned aerial vehicles, radio recon teams, and counterintelligence assets.

Can you recall the four main elements of the MAGTF?

1. _____
2. _____
3. _____
4. _____

If you said the CE, GCE, ACE, and CSSE, you are absolutely right!

What is the make-up of special purpose forces?

If you said that special purpose forces include mobile training teams, security assistance operations, and small independent action forces, you are correct.

What is the purpose of a special purpose MAGTF (SPMAGTF)?

If you said that the purpose of a special purpose MAGTF is to accomplish some short-term missions that are not appropriate for the MEU and MEF to carry out, you are correct again.

Lesson Summary. During this lesson, we discussed the organization of the MAGTF. You learned that the MAGTF is made up of four main elements, CE, GCE, ACE, and CSSE. You also learned the purpose of each. We identified the capabilities of the MAGTF while embarked aboard ship. We covered each of the combat elements of the MAGTF including symbols and composition of the MEF and MEU. We also mentioned the amphibious task force designators. Finally, we discussed the characteristics and missions of special purpose forces.

In Lesson 2, we will get into a discussion of the functions of MAGTF/AMPHIBIOUS command and control agencies, FMF/MAGTF radio nets, communications support for MAGTF units, and communications responsibilities for operational units.

Exercise: Complete items 1 through 14 by performing the action required.
Check your responses against those listed at the end of this study unit.

1. What are the four elements of a MAGTF?
 - a. RLT, BLT, MSSG, ACE
 - b. FSSG, MEU, DIV, MEF
 - c. CE, GCE, ACE, CSSE
 - d. GCE, RLT, MAG, ACE

2. Of the eight general capabilities included in all MAGTFs, list four capabilities of a MAGTF regardless of its size.
 - a. _____

 - b. _____

 - c. _____

 - d. _____

Matching: For items 3 through 6, match each MAGTF symbol in column 1 with its appropriate MAGTF organization in column 2. Place your answers in the spaces provided.

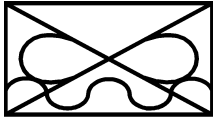
Column 1

Column 2

Symbol

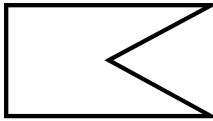
MAGTF

___ 3.

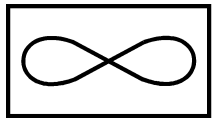


- a. MAGTF
- b. GCE
- c. ACE
- d. CSSE

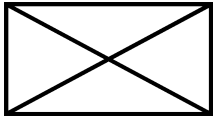
___ 4.



___ 5.



___ 6.



Matching: For items 7 through 12, match each unit in column 1 with its appropriate MAGTF organization listed in column 2. The MAGTF organizations in column 2 may be used more than once. Place your answers in the spaces provided.

Column 1

Column 2

Unit

MAGTF Organization

- ___ 7. Marine Aircraft Wing
- ___ 8. Infantry Battalion
- ___ 9. MSSG
- ___ 10. Marine Division
- ___ 11. Composite Aircraft Squadron
- ___ 12. FSSG

- a. MEF
- b. MEU

13. Which amphibious task force designators would be used for an amphibious readiness group in the Pacific fleet?
- | | |
|-------|-------|
| a. 02 | c. 45 |
| b. 39 | d. 69 |
14. Which order assigns task force designators?
-

Lesson 2. MAGTF COMMUNICATIONS

LEARNING OBJECTIVES

1. Given the command and control agencies for MAGTF operations, identify the primary function of each agency.
2. Name the publication that describes the radio nets required to support a MAGTF operation.
3. Identify communications units that provide support to each MAGTF unit.
4. Identify unit communications responsibilities.

We have discussed the organizational makeup of a MAGTF but our job as an operational communications chief/ SNCO will require us to go much deeper into the subject of the MAGTF. What about all the communications required to accomplish the assigned mission? We will now begin a discussion that relates to our area of expertise, MAGTF communications.

The CE, GCE, ACE, and CSSE positively control and coordinate the movement and activity of units through command and control agencies. The command and control agencies are the combination of the command and control equipment, facilities, and personnel who perform specific functions.

1201. Functions of MAGTF/AMPHIBIOUS Command and Control Agencies

a. General. Command and control agencies exist to perform specific tasks to support the MAGTF commander. The command and control agencies assist the MAGTF commander in accomplishing the mission.

b. Combat operations center (COC). The COC is the primary control agency of a MAGTF command element. It consists of selected staff representatives, required liaison personnel, and communications personnel and equipment.

- (1) Functions of the COC. The organization and mission of the MAGTF govern the specific functions of any COC. However, all COCs must contain facilities to do the following:
 - (a) Receive operational direction and related information from higher headquarters.
 - (b) Direct, control, and coordinate subordinate, supporting, and adjacent units by keeping abreast of the situation. (The COC does this by issuing necessary operational directives and supervising operations in the name of the commander.)
 - (c) Acquire and maintain current information about the status and operation of the command.
- (2) Communications requirements. The mission, organization, and operations of its parent unit determine the communications needed to support the functions of a COC. Considerations for COC communications are speed, reliability, and security. Although the requirements vary, the established communications for a COC must have sufficient capacity to transmit and receive necessary directives and information in the desired form. The COC requires communications with the following elements:
 - (a) Senior, subordinate, supporting, supported, and adjacent units
 - (b) The commander, his staff, control agencies, and other facilities within the command post
 - (c) Other units and agencies, as required, to support the operations of its parent unit
- (3) Communications means
 - (a) The COC may accomplish its communications using a teletypewriter, facsimile, high-speed data, multichannel radio, telephone, wire, or messenger.
 - (b) The COC may use satellite communications (SATCOM) to contact other MAGTFs. The COC can also use multichannel SHF SATCOM to connect the MEF to the Defense Communications System. The UHF SATCOM provides connection to the naval telecommunications system and to its subordinate units. Single channel UHF SATCOM can provide connections to any MAGTF COC with higher, lateral, and subordinate headquarters. UHF SATCOM can also provide connection for special reconnaissance, intelligence, and raid force requirements.

- (c) Tactical computer communications support for the MEF and COC must have detailed planning. This requires close coordination with the unit's information systems management organization (ISMO). Many computers are now available to support Marine Corps units, but the modems and cryptographic devices capable of linking computers via electrical means are nonstandard and not always readily available.

We can establish local area networks (LAN) to interconnect headquarters in addition to point-to-point computer circuits.

c. Landing force operations center (LFOC). The landing force operation center provides shipboard space and communications for the activities of the landing force commander. The landing force commander will move ashore at some point of the operation, followed or preceded by the control elements of his staff. The LFOC is disestablished after control is phased to the landing force COC ashore. General LFOC functions are similar to those of COC ashore discussed in paragraph 1201b.

- (1) Functions of LFOC. The LFOC's mission is to control and monitor the activities of the landing force, especially during the assault phase.
- (2) Communications requirements. The LFOC requires communications with the following:
 - (a) Landing force elements ashore
 - (b) Reconnaissance elements ashore
 - (c) Subordinate landing force headquarters afloat
 - (d) Commander Amphibious Task Force flag plot (CATF)
 - (e) Supporting Arms Coordination Center (SACC)
 - (f) Tactical Air Command Center (TACC)
 - (g) Helicopter Direction Center (HDC)
 - (h) Tactical-Logistics Group (TACLOG)
 - (i) Joint Intelligence Center (JIC)
 - (j) Other agencies as required for a specific mission

d. MAGTF supporting arms special staff (SASS). The MAGTF SASS includes the command element's artillery, air, naval gunfire, and target information officers and their assistants. The MAGTF SASS is responsible for planning and coordinating activities that affect the MAGTF as a whole.

- (1) Functions of the MAGTF SASS. The MAGTF SASS recommends attacking those enemy units or facilities that can significantly affect the accomplishment of the MAGTF's mission. The MAGTF SASS consolidates, adjusts, and forwards supporting arms requirements. In addition, the MAGTF SASS supports and advises the MAGTF commander if there are conflicts among elements of the MAGTF.
- (2) Communications requirements. The SASS communications requirements include communications means such as voice, teletypewriter, facsimile, high-speed data, telephone, wire, and messenger. Examples of the single channel radio circuits meeting the requirements of SASS follow:
 - (a) Landing force artillery command/fire direction
 - (b) Landing force naval gunfire support
 - (c) Naval gunfire control
 - (d) Landing force fire support coordination

e. Supporting arms coordination center (SACC). The supporting arms coordination center is the agency afloat through which the CATF exercises overall coordination of supporting fires within the amphibious objective area (AOA). The SACC exists on the flagship and consists of a supporting arms coordinator, naval gunfire section, air support section, and a target information section. Personnel from the GCE FSCC and MAGTF SASS stay in the SACC until responsibility for coordination of supporting arms is passed ashore.

- (1) Functions of SACC. To achieve overall coordination of fires in support of naval operations and the landing force scheme of maneuver ashore, the SACC must possess facilities to provide the CATF with information. The information specifies the requirements and developments affecting coordination of fire delivery by naval gunfire units, support aircraft, and artillery units. The SACC does the following:
 - (a) Coordinates fire support requests received from the landing force
 - (b) Displays the current fire support information
 - (c) Directs the execution of fire support coordination measures and promulgates instructions concerning troop safety
 - (d) Prepares and supervises the execution of naval gunfire plans

- (e) Coordinates air support operations with appropriate amphibious task force and landing force air control agencies
 - (f) Maintains a record of targets in the objective area
 - (g) Monitors appropriate fire support activities in the AOA until the commander and landing force receive the responsibility for the coordination of fires
- (2) Communications requirements. The communications required to support SACC operations depends on its general requirements as an afloat control agency and the specific requirements of its individual sections. The requirements include the following:
- (a) The naval gunfire section requires communications with naval gunfire representatives in the landing force FSCCs, naval gunfire support ships, and other organizations and agencies concerned with naval gunfire coordination, when specified.
 - (b) The air support section requires communications with the TACC, tactical air direction center (TADC), direct air support center (DASC), HDC, air representatives in the landing force FSCCs, support aircraft, forward air controllers, tactical air observers, tactical air controller (airborne), and other organizations and agencies concerned with air support operations, when specified. As control may be shifted ashore in phases, communications to agencies such as the forward air controller may depend on the status of shifting responsibility for fire support coordination ashore.
 - (c) The target information center requires communications to receive and disseminate target intelligence. The center does this using normal fire support communications within the SACC.

f. Fire support coordination center (FSCC). The fire support coordination center is the agency that coordinates the unit's plan for fire support. The staff of each FSCC has representatives of the various supporting arms who are special staff officers under the cognizance of the G-3/S-3. To be effective, the FSCC must have good communications, accurate and timely target data, current operational or tactical information, and adequate commander's guidance.

- (1) Functions of FSCC. The functions of the FSCC are to advise and inform the commander and the G-3/S-3 on fire support matters; they include fire planning, clearance of fires, monitoring fire support radio nets, recommending and implementing fire support coordination measures, coordinating engagement of air and surface targets, and targeting. In short, the FSCC plans, coordinates, and controls its unit's available fire support.

(2) Communications requirements. The FSCC can meet its communications requirements with voice, digital communications terminal (DCT), teletypewriter, facsimile, high-speed data, telephone, wire, and messenger. Depending on the level of the MAGTF, examples of the single channel radio circuits for meeting the requirements of the FSCC include the following:

- (a) Artillery command/fire direction
- (b) Conduct of fire nets
- (c) Fire support coordinator
- (d) Artillery air spotters
- (e) Tactical air requesters
- (f) Naval gunfire support control
- (g) Naval gunfire air spotters
- (h) Radar beacon
- (i) Naval gunfire control

g. Fire direction center (FDC). Fire direction centers provide artillery commanders with the means to exercise tactical and technical fire direction. Higher echelons exercise tactical fire direction when assigning missions to subordinate units or when responding to requests for reinforcing fires from subordinate or supported units. Technical fire direction is the conversion of calls for fire into firing data and fire commands. Artillery batteries and battalions can perform technical fire direction.

The primary function of the FDC is to act as the artillery COC to exercise tactical and technical fire direction. To accomplish this general function, the FDC facilities must be able to do the following:

- (1) Perform as the COC as related to artillery
- (2) Collect and disseminate target intelligence
- (3) Prescribe the concentration or distribution of fires
- (4) Allot ammunition
- (5) Convert fire missions into appropriate fire commands

h. Marine air command and control system (MACCS). Within the MAGTF (MEF), the agencies in the Marine air command and control system (MACCS) normally exercise the centralized coordination of aviation and provide control over all the tactical functions of Marine aviation.

In addition to providing MAGTF commanders with a way to command their aviation assets, the agencies of the MACCS also act as their primary point of contact for coordination with aviation forces external to the MAGTF.

The MACCS contains three primary control agencies:

- (1) Tactical Air Control Center (TACC)
- (2) Tactical Air Operations Center (TAOC)
- (3) Direct Air Support Center (DASC)

The TACC is the senior MACCS agency. The agency responsible for the conduct of air defense operations is the TAOC, while the agency responsible for the coordination of air support operations is the DASC.

Within the MEU, the ACE is normally a reinforced helicopter squadron. The ACE normally operates from a seabase and receives primary communications support from the CATF. If it operates ashore, the MAW provides the air command and control, air defense, and long-range communications assets.

The MACCS conducts the supervision, coordination, and general control of all tactical air operations in the MAGTF. The MACCS realizes the communications requirements through the stated requirements for the TACC, TAOC, and the DASC.

i. Tactical air command center (TACC). The tactical air command center is the senior Marine air command and control system (MACCS) agency. From it, the Marine tactical air commander (TAC) can supervise, direct, control, and coordinate all MAGTF air operations. In amphibious operations, TACC, when initially activated, will possess a tactical air direction center (TADC) and perform functions under the commander amphibious task force (CATF) and tactical air control center (afloat). When the commander of the landing force (CLF) has the responsibility for air operations in the AOA, the tactical air direction center (ashore) becomes the tactical air command center (ashore).

The TADC is an air operations facility subordinate to a TACC. It acts to coordinate and direct all air operations in a specified portion of the objective area. A TADC performs only those functions normally associated with the TACC and receives them from the tactical air commander. The essential difference between the TACC and TADC is "the amount of airspace" for which each is responsible and the scope of their assigned tasks.

j. Tactical air operations center (TAOC). The TAOC is subordinate to the TACC. It can detect, identify, and control the intercepts of hostile aircraft and missiles. It provides navigational assistance to friendly aircraft. TAOC can also assume the TACC/TADC responsibilities for a limited time.

k. Direct air support center (DASC). The DASC is at the hub of interaction between the supported ground unit and the aviation units and agencies providing the support. It co-locates with the senior FSCC.

(1) Functions of DASC. The DASC directly supports ground forces by performing the following:

- (a) Coordinating and controlling close air support
- (b) Coordinating and controlling other direct air operations
- (c) Controlling the employment of Low Altitude Air Defense Battalion (LAAD Bn) units (stingers)

(2) Communications requirements. The DASC requires communications with the following:

- (a) FSCC
- (b) TACC/TADC
- (c) TAOC
- (d) HDC
- (e) Tactical Air Control Party (TACP)
- (f) Forward Air Controller Airborne (FAC A)
- (g) Air Support Radar Teams (ASRT)
- (h) Tactical Air Coordinator Airborne (TAC A) and Helicopter Coordinator Airborne (HC A)
- (i) Supporting aircraft
- (j) LAAD platoon (when the LAAD platoon commander is located at the DASC)
- (k) Helicopter Support Team (HST)
- (l) Other organizations and agencies concerned with direct air support operations when specified

l. Battery control center (BCC). The battery control center (anti-air) exists within a missile battery command post. The BCC processes target data and exercises fire control over organic missile launcher sections. It is a subordinate agency to the tactical air operations center (TAOC).

(1) Function of BCC. The battery control center detects targets within its respective zone of responsibility and forwards the target descriptions to the appropriate senior control agency.

(2) Communications requirements. The air defense structure and the organization of its parent missile battery dictate BCC communications requirements. A BCC requires communications with the following:

- (a) Battery commander and facilities within battery position
- (b) Battery radar sites
- (c) Missile launcher sites
- (d) Tactical air operations center (TAOC) to which assigned
- (e) Early warning and control radar sites
- (f) Adjacent BCC/platoon
- (g) Other organizations and agencies afloat and ashore concerned with missile fire control, when specified

m. Helicopter direction center (HDC). The HDC is the primary control agency for the helicopter transport unit commander. It is located on the helo transport unit flagship.

- (1) Function of HDC. Its mission is to provide the means to direct and control helicopters during the ship-to-shore movement.
- (2) Communications requirements. The communications requirements of an HDC are subject to the air command and control structure and the scope of helicopter support in an objective area. An HDC must communicate with the following personnel or agencies:
 - (a) Commander of the helicopter transport group and his staff
 - (b) Helicopterborne units TACLOG
 - (c) Helicopter logistics support center (HLSC)
 - (d) TACC (afloat) or TADC (afloat)
 - (e) DASC
 - (f) Helicopter transport carriers and helicopter units ashore
 - (g) Helicopters and escort aircraft
 - (h) Helicopter Coordinator Airborne (HC A)
 - (i) TACPs

(j) Landing Zone (LZ) control teams

(k) Other organizations and agencies, afloat and ashore, concerned with helicopter movement and support, when specified

n. Tactical logistics group (TACLOG). The TACLOG is a temporary unit tasked and organized by the ground combat element of the landing force (LF) to assist the naval control organization in the ship-to-shore movement of troops, equipment, and supplies. During the ship-to-shore movement, the Navy control organizations are responsible for control of both the surface and helicopterborne assault forces. The TACLOG's task is to parallel the Navy control organizations during the ship-to-shore movement. TACLOG normally receives the communications equipment from the control ship and may augment it by Marine Corps equipment, as required.

(1) Functions of TACLOG. The missions of TACLOG are to advise and assist the Navy control group during the conduct of the ship-to-shore movement of both surface and helicopterborne assault forces.

(2) Communications requirements. Communications requirements of a TACLOG depend upon the relationships between the naval control organization and the landing force TACLOGs and the landing force's landing plan. Generally, a TACLOG requires communications with the following agencies:

(a) Corresponding naval control agencies on the control ship and other control agencies such as the HDC and the Helicopter Logistics Support Center (HLSC)

(b) COC/LFOC of its parent organization

(c) The TACLOG of senior, adjacent, and subordinate organizations

(d) Landing force support party (surface movement)

(e) Helicopter support teams

(f) Other organizations and agencies concerned with the ship-to-shore movement of troops, equipment, and supplies, when specified

o. Helicopter logistics support center (HLSC). The HLSC is under the operational control of the helicopter transport group or unit commander. It normally exists aboard the helicopter transport group flagship close to the HDC and the TACLOG.

- (1) Functions of HLSC. The missions of the HLSC are to closely coordinate the debarkation of helicopterborne serials in accordance with the landing plan. The HLSC coordinates deviations from the landing plan, including the debarkation of on-call and nonscheduled serials. The HLSC accomplishes this mission via the helicopter logistics command net in accordance with the expressed priorities by the troop commander ashore through the TACLOG or supporting Landing Force Support Party (LFSP)/Helicopter Team (HST).
- (2) Communications requirements. A HLSC requires communications with the following units:
 - (a) TACLOG
 - (b) HDC
 - (c) Helicopter transport carriers
 - (d) Helicopter transport group unit commanders
- (3) Communications nets. Examples of the circuits that may be used to meet the communications requirements of the HLSC include the following:
 - (a) Helicopter command net
 - (b) HST control

p. Combat service support operation center (CSSOC). The CSSOC is the primary logistics control agency within the objective area or designated area of responsibility from which it controls all logistics operations in support of the MAGTF. The CSSOC closely parallels the organization of the combat service support section in garrison. It contains an operations section, an emergency operations center (EOC), a watch section, a plans section, an intelligence section, an administrative section, and liaison officers from the supported commands.

- (1) Contents of the CSSOC. The CSSOC operations section consists of representatives from the following logistics agencies:
 - (a) Engineer support unit
 - (b) Health service support unit
 - (c) Maintenance support unit
 - (d) Supply support unit
 - (e) Transportation support unit

- (2) Functions of CSSOC. The CSSOC exercises the overall coordination of the provision of combat service support requirements from senior, subordinate, supported, supporting, and adjacent commands. To achieve overall coordination of logistics in support of MAGTF operations, the CSSOC must contain facilities to do the following:
 - (a) Receive all requests for combat service support
 - (b) Coordinate the provision of combat service support requirements
 - (c) Prepare and submit reports related to combat service support
- (3) Communications requirements. The communications equipment of the CSSOC depends upon the unique circumstances of the operation and the directives of the MAGTF headquarters. The CSSOC will normally require communications with the following:
 - (a) The commander, his staff, and other agencies existing within the command post
 - (b) Subordinate combat service support organizations
 - (c) Supported organizations and commands

q. Signals intelligence/electronic warfare coordination center (S/EWCC). The S/EWCC is a staff agency that exists only at the MEF command element. It facilitates coordination among the G-2, G-3, and CEO with respect to their staff responsibilities in the areas of signal intelligence (SIGINT), electronic warfare (EW), and command element operations. Since the S/EWCC must have access to special intelligence (SI) and must operate in an authorized facility for the storage and handling of sensitive compartmented information (SCI), the G-2 is responsible for its establishment and operation.

- (1) Functions of S/EWCC. The S/EWCC coordinates the MAGTF signals intelligence and electronic warfare with communications-electronics efforts to identify potential conflicts. The S/EWCC provides the forum for resolution of conflicts and recommends improvements in plans and orders to ensure compatibility.

When the S/EWCC cannot resolve conflicts, it will become the primary affected staff officer's responsibility to resolve them through the normal staff action. The S/EWCC must also contain facilities to

- (a) Advise the MAGTF commander on all aspects of SIGINT/EW

- (b) Prepare SIGINT/EW plans and orders and supervise the execution of these plans and orders in coordination with the MAGTF operations officer to ensure optimum productivity during all phases of tactical operations
 - (c) Coordinate the receipt and recording of SIGINT/EW information from senior, subordinate, and adjacent units and also prepare, direct, and supervise the preparation of periodic reports in accordance with the received information for appropriate dissemination
 - (d) Coordinate with and assist the MAGTF G-3 and CEO in planning for emission control and preparing plans and orders involving signal security
- (2) Communications requirements. The organization and mission of the MAGTF govern the communications requirements of the S/EWCC and the scope of SIGINT/EW activities within the objective area. The S/EWCC normally requires communications with the following:
- (a) The commander and his staff, the COC, special security communications center, and other agencies and facilities existing in the command post
 - (b) SIGINT/EW organizations, units or elements at senior, subordinate, and adjacent headquarters
 - (c) Other specified organizations and agencies concerned with SIGINT/EW
- (3) Communications support. The support SI organizations provide the necessary terminal equipment to support the SCI requirements of the S/EWCC. Organic support for the S/EWCC includes telephone, circuit paths for unique SCI requirements, and frequency coordination. It may also include the requirement for secure direct circuits. Detailed coordination on communications security (COMSEC) material is mandatory.

r. Joint intelligence center (JIC). The JIC is a single agency that supports the intelligence requirements of both the Commander Landing Forces (CLF) and Commander Amphibious Task Force (CATF). The establishment of the JIC is both a CATF and CLF decision, co-equal in responsibility. The JIC is usually aboard the CATF's flagship and has a staff of ground, air, and naval intelligence personnel.

- (1) Communications requirements. Intelligence resources available to the JIC include national assets, available joint and combined assets, and internal force assets already deployed in advance of assault operations. The CATF is responsible for providing the communications means to gather intelligence information as it is collected. These shipboard assets include the following:

- (a) Tactical intelligence subsystem entry for Sensitive Compartmented Information (SCI)
 - (b) Naval Telecommunications System (NTS) entry for general service record traffic information
 - (c) Entry into allied communications record traffic systems
 - (d) Single channel secure radio
- (2) Communications nets. Examples of the circuits the JIC may use to meet the communications requirements include the following:
- (a) MAGTF intelligence net
 - (b) MAGTF reconnaissance net

Let's review what you have learned.

<p>a. Which control agency directs, controls, and coordinates the subordinate, supporting, and adjacent units?</p> <p>_____</p>
<p>b. Which control agency controls and monitors the activities of the landing force, especially during the assault phase?</p> <p>_____</p>
<p>c. Which control agency advises and informs the commander and the G-3/S-3 on fire support matters?</p> <p>_____</p>
<p>d. Which control agency acts as the artillery COC to exercise tactical and technical fire direction?</p> <p>_____</p>
<p>e. Which control agency contains the three subagencies TACC, TAOC, and DASC?</p> <p>_____</p>
<p>f. Which control agency controls all logistics operations in support of the MAGTF?</p> <p>_____</p>

If your answers for the questions were: a. COC, b. LFOC, c. FSCC, d. FDC, e. MACCS, and f. CSSOC, you are correct. If you knew these answers, you can go on to study the next objective. If not, you may want to review paragraph 1201.

1202. FMF/MAGTF Radio Nets

MAGTF nets exist for supporting the communications requirements of a MAGTF during combat operations. It is apparent that the size of the MAGTF will influence which nets to establish. FMFM 3-30, Communication provides the basic description of radio nets.

The listing in FMFM 3-30 is a planning guide of radio nets that satisfy the radio communications requirements of the FMF/MAGTF during amphibious operations and subsequent operations ashore. You will not use all of the radio nets listed in FMFM 3-30 in a given operation or exercise. As few as two or three nets may suffice to meet mission requirements for small organizations.

All the radio net descriptions contain the following:

- The name or title of the radio net
- Frequency bands
- Purpose
- Composition

A communications supervisor cannot memorize every bit of information relating to communications. Appendix C of FMFM 3-30 contains 166 different radio nets. The communications supervisor should make it a point to know where to find the needed information concerning radio nets.

So far in this lesson we have listed the command and control agencies of a MAGTF and their functions. We have also discussed how to find the radio nets that each of the agencies will be using.

Time to review what you learned in this paragraph.

What publication describes the communication nets?

If you said FMFM 3-30, Communication, you are correct.

1203. Communications Support for MAGTF Units

To write an effective communications plan of any kind, you **must** know the overall personnel situation. Whom do you have to work with? Are there attachments and detachments? Will other communications units in your radio nets have the assets/personnel available to support your plan?

While planning your communications, you will find from time to time that you will need to know exactly whom it is that you are dealing with at the distant end of your communications link. You also may need to know whom it is that you should be supporting or who should be supporting you.

Check with your S-1/G-1; they should give you access to the T/O (table of organization). This should give you the number of communications personnel rated by MOS in each unit. The communications support units that support each MAGTF unit are in table 1-3.

Table 1-3. Communications Support Units

MAGTF UNIT	COMMUNICATIONS SUPPORT
MEF	Communications Bn
Division	Comm Co HQ Bn
Infantry Bn	Comm Plt H&S Co
Artillery Regiment	Comm Plt HQ Battery
AAV Bn	Comm Section H&S Co
Tank Bn	Comm Section H&S Co
Combat Engr Bn	Comm Plt H&S Co
Artillery Bn	Comm Plt HQ Battery
LAI Bn	Comm Plt H&S Co
Air Wing	MWCS (Marine Wing Comm Squadron)
FSSG	Comm Co H&S Bn
Radio Bn	Comm Plt H&S Co

The command elements for all MAGTFs (MEU, MEF) are staffed with both equipment and personnel by the communications battalions. The FSSG units (Comm Co H&S Bn, landing support Bn, engineer support Bn, motor transport Bn, and dental Bn) provide the CSSEs with personnel. The division supports GCEs. Any SPMAGTF units can get support from a mixture of every unit if necessary.

Let's take time for another review.

What communication units support the infantry Bn, artillery regiment, and AAV Bn?

If you said the communications units for the infantry Bn, artillery regiment, and AAV Bn are the comm plt H&S Co, comm plt HQ battery, and comm section H&S Co respectively, you are correct.

1204. Communications Responsibilities for Operational Units

In military operations, there should be a clear definition for unit responsibility to efficiently accomplish the mission. Clarification of unit responsibility for establishing communications enhances command relationships and interoperability. To facilitate military operation, the following unit responsibilities for communications are necessary:

- Communications between a senior and subordinate unit is the responsibility of the senior commander.
- Communications between adjacent units is the responsibility of the first common senior commander.
- Communications between a supporting and supported unit is the responsibility of the supporting unit commander.
- Communications between a reinforcing and a reinforced unit is the responsibility of the reinforcing unit commander.
- Communications between a unit and an attached unit is the responsibility of the commander of the unit to which the attachment is made.
- Communications services to units not attached, supporting, or reinforcing, and without organic communications equipment is the responsibility of the nearest unit possessing the capability, as directed by the next common senior commander.

In employing communications, unit responsibility is often lost in the fog of war. Therefore, flexibility, common sense, initiative, cooperation, and mutual assistance should prevail in the application of unit responsibility. For example, once established between units, wire communications is a mutual responsibility.

Time again for a review.

- a. Who is responsible for communicating between a senior and subordinate unit?

- b. Who is responsible for communicating between a supporting and supported unit?

- c. Who is responsible for communicating between a reinforcing and reinforced unit?

If you said the persons responsible for communications are a. the senior commander, b. the supporting unit commander, and c. the reinforcing unit commander, you are correct. You have finished this lesson. If you are ready, tackle the lesson exercise. If you need to, take time for a review.

Lesson Summary. This lesson has covered the command and control agencies for MAGTF operations, the function of each of those agencies, as well as the publication that describes the radio nets they will use. This lesson also included the communications unit that supports each MAGTF unit. Finally, we discussed the identification of unit responsibilities regarding communications.

In Lesson 3, you will learn about amphibious operations, communications responsibilities of each commander, communications requirements for each phase of an amphibious operation, the structure of joint/combined operations, and publications used for joint/combined operations.

Exercise: Complete items 1 through 19 by performing the actions required. Check your responses against those listed at the end of this study unit.

1. Which control agency affects overall coordination of fires in support of naval operations and the landing force scheme of maneuvers ashore?

2. Which agency controls and monitors the activities of the landing force, especially during the assault phase?

3. What agency plans, coordinates, and controls its units' available fire support?

4. The agency that detects, identifies, and controls the intercepts of hostile aircraft and missiles and provides navigational assistance to friendly aircraft is the _____.
5. The command and control agency that advises and assists the Navy control group during the conduct of the ship-to-shore movement of both helicopter and assault forces is the _____.
6. Which agency acts as the COC for matters related to combat service support?

7. The agency that directly supports ground forces by coordinating and controlling close air support and other direct air operations and stingers is the _____.
8. Name the publication that describes the radio nets required to support a MAGTF operation.

Matching: For items 9 through 14, match the MAGTF unit in column 1 with the comm unit that supports it in column 2. Place your response in the space provided.

Column 1	Column 2
<u>MAGTF Unit</u>	<u>Comm Unit</u>
___ 9. Division HQ	a. Comm Bn
___ 10. AAV Bn	b. Comm Co HQ Bn
___ 11. MEF HQ	c. Comm Section H&S Co
___ 12. Artillery Bn	d. Comm Plt HQ Battery
___ 13. Tank Bn	e. MWCS
___ 14. Air Wing	

Identify unit responsibilities by writing the responsible unit in the space provided.

15. Who is responsible for communications between adjacent units?

16. Who is responsible for communications between a unit and its attached unit?

17. Who is responsible for communications between a reinforcing and a reinforced unit?

18. Who is responsible for communications between a senior and subordinate unit?

19. Who is responsible for communications between a supporting and a supported unit?

Lesson 3. AMPHIBIOUS/JOINT AND COMBINED COMMAND AND CONTROL

History is replete with examples of amphibious operations. The most renowned is probably the Normandy invasion of World War II in which the Allied Forces established a foothold on the continent of Europe to open a second front. Normandy was a joint and combined amphibious operation.

A second well-known example is the seizure of the island of Iwo Jima to deny it and its airfields to the enemy and to provide advanced air bases and emergency airfields for aircraft on long-range bombing missions against Japan. This was a joint Navy and Marine Corps operation. Without the efforts of key individuals and without communications systems, these operations would have failed with tragic results.

This lesson will highlight the command and control responsibilities of the commanders, amphibious task force (CATF), and landing force (CLF) during amphibious/joint and combined operations. We will also discuss the structure of joint and combined operations. These operations seem to be the way of the future for us. In this lesson, you will learn about some important publications and references that you can use for further research on this subject.

LEARNING OBJECTIVES

1. State, in writing, the definition of an amphibious operation.
2. Identify the communications responsibilities for the commander, amphibious task force (CATF), and the commander, landing force (CLF).
3. Identify the communications requirement for each phase of an amphibious operation.
4. Identify the structure of joint/combined operations.
5. Identify the publications used for joint/combined operations.

1301. Amphibious Operation Definition

An amphibious operation is the most difficult type of military operation to plan. What is an amphibious operation exactly?

An amphibious operation is an attack launched from the sea by naval and landing forces embarked in ships. It involves a landing on a hostile shore. It normally requires extensive air participation and represents a closely integrated effort of trained, organized, and equipped forces for different combat functions. Amphibious forces establish a landing force on a hostile shore to do the following:

- Carry out or promote further combat operations
- Obtain a site for an advance naval or air base
- Deny the use of an area or facilities to the enemy

The amphibious operation is a complete operation within itself. As an entity, an amphibious operation includes planning, embarkation, rehearsals, movement to the objective area, assault, capture, and holding of the objective until termination of the amphibious operation. An amphibious operation may include or take place together with airborne operations; it does not include marshalling of forces.

The commander needs an effective and efficient communications system to direct and control the operations of his command. The performance of any communications system depends on the quality of planning and the preparation of plans and orders.

Normally, the commander assigns the responsibility for detailed preparation of communications plans, orders, directives, records, and reports to the communications officer. But in reality, do you think the communications officer is going to do all the work? Not likely. That is why he has you, a capable staff noncommissioned officer or a communications chief, perform duties for him.

The communications officer will task you, the communications chief, for input and you will rely on your section chiefs to complete the task. Therefore, you and your SNCOs must be thoroughly familiar with the format, content, and techniques for the preparation of those plans, orders, directives, records, and reports.

Well, it's time again to review what you learned in this paragraph.

What is the definition of an amphibious operation?

If you said that the amphibious operation is an attack launched from the sea by naval and landing forces embarked in ships involving a landing on a hostile shore, you are absolutely correct.

1302. Communications Planning Responsibilities

An amphibious operation requires a reliable, secure, rapid, and flexible system of communications. However, superimposed on the normal communications system of all forces are the additional requirements for command of the amphibious task force as a whole, for the several special forms of control exercised, and for the lateral communications between all elements of the force in the execution of common or coordinated functions. These additional requirements follow:

a. Communications planning. Communications planning begins at the same time general planning is initiated. You must translate the operational requirements of the communications system into specific technical requirements to support the tactical and logistical plans. Communications planning representatives of each echelon must know all the details of operational planning.

b. Initial requirements. In planning the communications system, the landing force commander establishes communications liaison with the amphibious task force (ATF) to determine the requirements on the LF communications. He maintains close liaison with his subordinate commanders to ensure that they receive the necessary planning guidance and communications means to accomplish the assigned mission. If the commander cannot meet the requests of his subordinates and additional communications support is necessary, the CLF takes appropriate action to ensure meeting these requirements.

c. Commander, amphibious task force. The commander, amphibious task force (CATF) is responsible for the following activities:

- (1) Determining the communications requirements of Naval forces, including the established requirements of ships to the ATF by the Military Sealift Command (MSC), reviewing and approving communications requirements of the LF and other forces, and consolidating the communications requirements for the ATF as a whole
- (2) Acquiring and assigning the necessary technical facilities to subordinate elements of the force
- (3) Determining the priorities and allocation of shipboard communications facilities to each participating force

Note: Certain radio equipment and operating spaces are installed and available aboard amphibious ships for the embarked troops.

- (4) Determining, consolidating, and coordinating the electronic warfare (EW) requirements of all participating forces
- (5) Establishing the provisions to ensure the adequate communications for the Naval elements of the ATF during the planning phase
- (6) Preparing the instructions in support of prescribed cover and deception plans for the operation
- (7) Announcing the requirements for establishing liaison between all commands of the participating forces for communications planning
- (8) Preparing and promulgating a complete and coordinated plan for the employment of communications during the operation

d. Commander, landing force. The commander, landing force (CLF), is responsible for the following actions:

- (1) Establishing provisions for adequate LF communications during the planning phase
- (2) Determining requirements for communications facilities controlled by higher headquarters and submitting these requirements to the CATF
- (3) Preparing requests for the allocation of shipboard communications services or facilities for use of landing force units while embarked
- (4) Developing a landing force EW plan and stating the requirements for EW support to the CATF
- (5) Maintaining liaison with the CATF and subordinate LF units in all communications planning matters
- (6) Developing and promulgating a complete and coordinated communications plan for the landing force and submitting this plan to the CATF for review, coordination, approval, and inclusion in the ATF communications plan as appropriate

It's time to review what you learned in this paragraph.

a. Who is responsible for determining the communication requirements of Navy forces and establishing the priorities and allocation of shipboard communication facilities to each participating force?

b. Who is responsible for establishing provisions for adequate LF communication during the planning phase and maintaining liaison with the CATF and subordinate CLF units in all communication planning matters?

If you said the answer for a. is the CATF and the answer for b. is the CLF, you are correct.

1303. Communications Requirements for the Five Phases of Amphibious Operations

The amphibious assault follows a well-defined pattern. It includes a sequence of events or activities that occur, although to a lesser degree, in other types of amphibious operations. The acronym PERMA is commonly used to describe the five phases of an amphibious assault.

- Planning
- Embarkation
- Rehearsal
- Movement to the objective
- Assault and capture of the objective

Planning occurs throughout the entire operation but is normally dominant in the period before embarkation. The planning period extends from the issuance of the initiating directive to embarkation.

Although planning does not cease with the termination of the planning phase, it is useful to distinguish between the planning phase and subsequent phases. During the planning phase, the CATF, CLF, and other designated commanders in the initiating directive are on equal levels of command.

a. Communications during the planning phase

- (1) Communications requirements. The basic requirement for communications during the planning phase is to provide the staffs with a system of fast, reliable, and secure communications. The communications section constantly maintains contacts between staffs throughout the planning phase. Since preparations for embarkation will be taking place during the planning phase, Marines must avoid the use of tactical equipment from the landing force.
- (2) Coordination responsibilities. The Assistant Chief of Staff (A/CS G-6) is responsible for drafting the landing force communications plan. Throughout planning, coordination must be effective with the general and special staff of the command, and communications counterparts in senior, subordinate, and parallel commands to ensure that all communications requirements of the landing force are met.
 - (a) Personnel. The A/CS G-6 coordinates with A/CS G-1 concerning equitable distribution of all communications personnel assets to meet and project personnel requirements during the operation.

- (b) Intelligence. The A/CS G-6 obtains the following information from A/CS G-2:
1. Climatic characteristics of the objective area
 2. Terrain analysis information as it might affect communications
 3. Enemy electronics warfare capability, enemy communications-electronics installations, and the types of communications equipment the enemy is using

The A/CS G-6 consults A/CS G-2 concerning communications requirements to support the intelligence effort.

- (c) Operations. The A/CS G-6 obtains the task organization, scheme of maneuver, rates of advance, unit locations, use of electronic warfare, and other facets of the operation plan that affect the communications plan from the A/CS G-3.
- (d) Logistics. The A/CS G-6 determines the initial allowance of resupply of equipment, spare parts, the location of logistic support installations, and any special requirements for communications to support the logistics effort.
- (e) Supporting arms. The A/CS G-6 plans the assignment of callsigns and frequencies, special codes, additional personnel requirements, special equipment, and technical communications instructions to the supporting arms coordination center (SACC).
- (f) Embarkation. The A/CS G-6 identifies communications requirements for embarkation control and movement to the embarkation point by coordinating with the Embarkation Officer/SNCO. The A/CS G-6 will prioritize the loading plan for communications equipment. His prioritization will ensure that necessary equipment is accessible. Special arrangements and coordination will be necessary to stow cryptographic and classified materials.

b. Communications during the embarkation phase. The CLF must provide communications plans for adequate communications between naval elements and the embarked forces. He will normally be responsible for planning, providing, or obtaining communications in the embarkation area by using permanent facilities, both military and commercial, rather than using tactical equipment. When tactical means are necessary, the CLF will arrange with organizations that are not involved in the amphibious operation to provide such tactical means for embarkation and shore communications. The CLF will specifically consider the following events:

(1) Ship-to-shore radio circuits for the control of loading ships

Note: This responsibility remains with the CATF.

(2) Communications to control convoys moving to the embarkation area

(3) Communications between the embarkation area and the parent base station

(4) Communications support of movement control centers

(5) Repair and maintenance

(a) The communications officer of the unit to be embarked is responsible for ensuring that the troop's portion of shipboard communications equipment is made available for testing, calibration, and tagging before embarkation.

(b) The ship's commanding officer is responsible for the maintenance and upkeep of permanently installed troop communications equipment. The troop communications officer is responsible for maintenance of the embarked unit's organic equipment.

(c) The CLF assigns the Marine communications personnel to the ship's system control center or communications center for duty. Such assignments help prevent problems caused by the Navy's lack of understanding of Marine staff structure and embarked units. It also protects and ensures the best interests of the embarked Marines.

(6) Special considerations and requirements. Establishing early liaison between port authorities, the Naval element, the landing force, and appropriate civilian or governmental agencies is necessary to determine requirements and coordinate the installation of communications in support of the embarkation phase. The CLF must ensure the following:

(a) Communications within the base assembly area through coordination with the agency(ies) providing communications support is established

(b) Convoy control communications to facilitate the movement of personnel and equipment from the base assembly area to the point of embarkation is established

(c) Communications between the parent base/station and embarkation area, either through the establishment of a secure radio net or a secure teletype circuit

Note: Ideally, the CLF can pass and discuss the routine or unclassified matters over already existing commercial telephone lines.

(d) Communications within the embarkation area is established by the following:

1. An external radio net between strategic points
2. A temporary field wire/telephone system

c. Communications during the rehearsal phase. Plans must include a full scale rehearsal for all elements of the task force to test communications systems, equipment, and techniques to identify difficulties and potential problem areas before the actual landing.

For this reason, it is necessary to test all Naval shipboard single channel radio, multichannel radio, teletype, and landing force vehicular, van, manpacked and handheld radio equipment that the Marines will use on D-Day. It is also highly desirable that sufficient time be available between rehearsal and D-Day to permit repair of equipment and modification of operating instructions as necessary.

The rehearsal phase accomplishes the following:

- (1) Tests the adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces
- (2) Ensures that all echelons are familiar with plans
- (3) Tests the communications system

Check communications plans as they apply to the following:

- (1) Time consumed in activation of radio nets upon lifting of radio silence
- (2) Problems encountered in maintaining communications during ship-to-shore movement
- (3) Speed in displacing communications ashore
- (4) Net and circuit congestion
- (5) Frequency interference
- (6) Message center operation, message flow, and message control
- (7) Time difference between calls for communications equipment and supplies and their arrival on the beach

- (8) Proper use of operation codes, numerical codes, and authentication systems
- (9) Transmission security
- (10) Overall effectiveness of the plan

d. Communications during the movement to the objective phase. The movement to the objective phase is the period during which various components of the amphibious task force move from the points of embarkation to the amphibious objective area (AOA).

- (1) Responsibilities for external communications. The CATF is responsible for providing all external communications, including entry into the Naval Telecommunications System, if appropriate, and the communications between ships of the task force.

However, the use of communications means, particularly radio, is normally severely restricted to prevent disclosure to the enemy of locations, movements, and intentions of the task force.

Accordingly, the CATF will prescribe various emission control (EMCON) conditions in effect during the movement to the AOA.

- (2) Communications means. Communications within and between the various groups of the task force are provided by helicopter messengers, visual means, or line of sight radio in consonance with the degree of EMCON in effect. Scheduled radio broadcasts normally receive messages from external sources to the amphibious task force or its elements.

e. Communications during the assault phase. The assault phase covers the period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. During the assault phase, landing force elements rely primarily on radio communications as the way to exercise control and coordination over the assigned forces. During the initial phases of the assault, when the MAGTF command element and the command elements of the major subordinate commands of the landing force are afloat, landing force circuits are provided by facilities specially designated in amphibious shipping by the CATF. Using these facilities allows the landing force elements to have their complete allowance of tactical communications equipment for the movement ashore. If sufficient shipboard equipment is not available, the ship's commanding officer will receive a request for deck mounting.

- (1) Control of supporting arms. The CATF is responsible initially for exercising overall control and coordination of delivered fire by naval gunfire ships, supporting aircraft, and landing force artillery units when establishing ashore.

The CATF carries out his responsibility through the SACC or TACC which relies primarily on radio communications.

When the landing force establishes adequate command, control, and communications facilities ashore, the responsibility for the overall control and coordination of supporting arms is transferred from the CATF to the CLF. Before the transfer, however, it is essential that communications exists between the SACC and the FSCC and DASC ashore. Additionally, the TACC, FSCC, and DASC must have established communications with all appropriate supported and supporting units, agencies, and control elements of the landing force.

- (2) Control of logistics. The CATF has the overall responsibility for control and coordination of logistics support to the landing force during the assault. Landing force communications for the control of logistics support relies primarily on radio and must provide a viable means for the control of movement and handling of equipment and supplies.
- (3) External communications. As soon as the major elements of the landing force are established ashore, an entry into the NTS or DCS must be established.

As you can see, all the information from lessons 1 and 2 of this study unit is starting to come together. You will take into account all the information you learned so far during your communications planning. It does not matter which element of a MAGTF you are assigned to; you must have a clear understanding of all the preceding information in this course.

Take a minute to review what you learned in this paragraph.

Which phase of an amphibious operation requires a communication system that provides fast, reliable, and secure communication between the staffs without using tactical communication equipment?

Which phase of an amphibious operation requires a test of communication systems, equipment, and techniques to identify difficulties and potential problem areas before the actual landing?

If you said **the planning phase**, you are correct and if you said **the rehearsal phase**, you're correct again. Let's go on to the next paragraph.

b. Joint operations fall under two very distinctive command structures:

(1) Unified command structure

(a) The President, through the Secretary of Defense, with the advice and assistance of the JCS, establishes unified and specified combatant commands for the performance of military missions and determines the force structure of such combatant commands (see figure 1-8). The commanders of unified and specified commands are responsible to the President and the Secretary of Defense for such military missions as may be assigned to them. The chain of command runs from the President to the Secretary of Defense and through the JCS to the commanders of the unified and specified commands.

The President, the Secretary of Defense, or the JCS by authority and direction of the Secretary of Defense issues orders to such commanders.

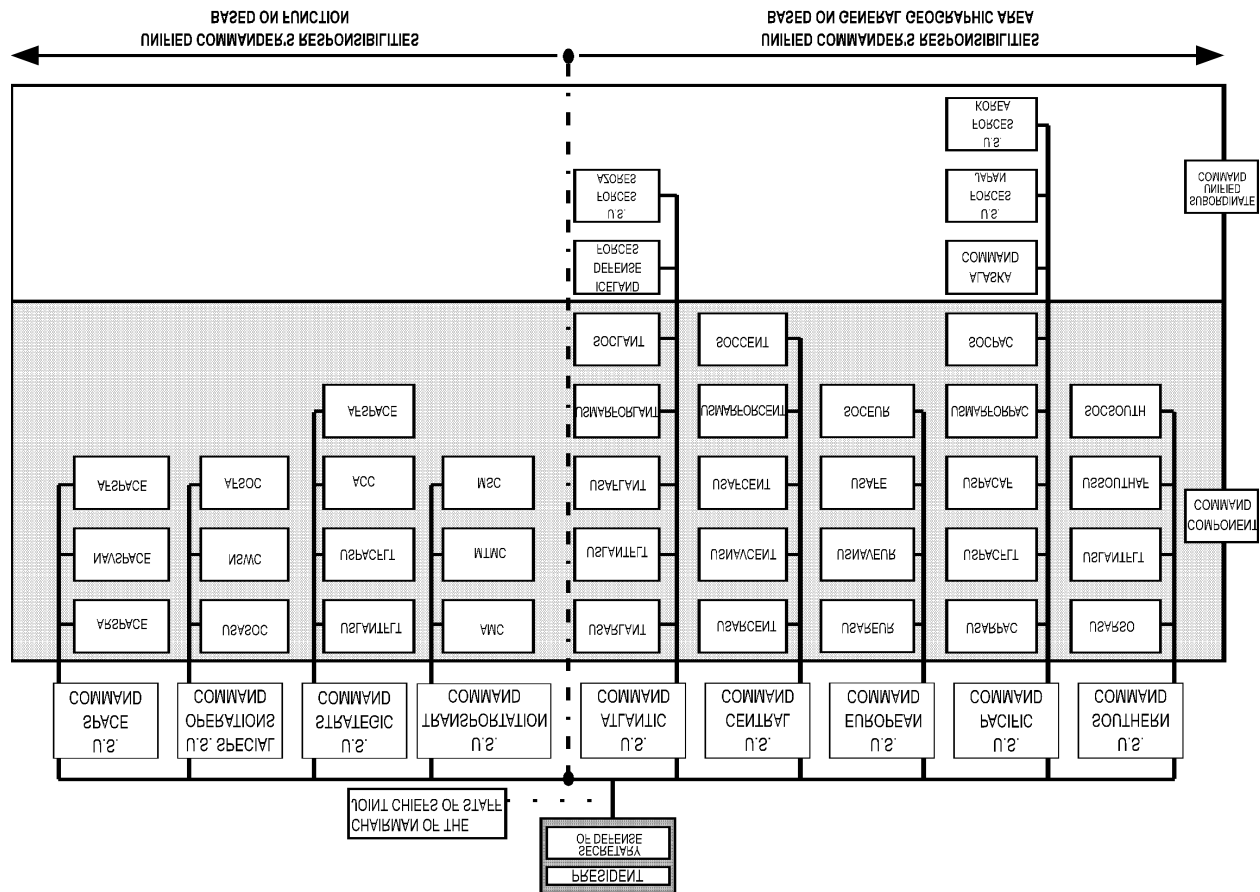


Fig 1-8. Unified command structure.

- (b) The commander of the unified command exercises operational command through the service component commander and commanders of other subordinate commands. The individual military departments have the responsibility under the direction of the Secretary of Defense for the logistic and administrative support of component commands.
- (c) To achieve stability, continuity, and economy and to facilitate long-range planning, each of the services has the responsibility for organizing, training, equipping, and providing forces to fulfill certain combatant functions and for administering and supporting the forces so provided.

(2) Specified Command Structure

- (a) Although a specified command usually consists of forces from only one service, it may include units and staff representation from other services. When units of other services are allocated (assigned or attached to the commander of a specified command), it is normal to indicate the purpose and duration of the allocation. Such allocation, in itself, does not constitute the specified command as a unified command or a joint task force. If the allocation is major and is to be of long duration, a unified command normally would be established in lieu of a specified command.
- (b) The responsibilities and authority of the specified commander are set forth in JCS Pub 2, Unified Action Armed Forces (UNAAF).

c. Joint operations are most likely the level of operation in which a MEF will be employed. These operations may increase the radio circuits required, expand long haul multichannel assets, and require liaison team communications. The planning consideration will include the interoperability of equipment, CEOI information, and COMSEC keys. Communications in the joint environment poses several new challenges. You can find a large portion of doctrinal information in JCS publications and other service communications publications. To ensure the successful integration of communications within the Marine Corps, two concerns are important: terminology and interoperability.

- (1) Terminology. The Army/Navy designator system has standardized terminology for communications-electronics equipment. Marines sometimes use different terminology to describe common procedures. For example, Marines refer to a telephone that is connected to a tactical switchboard from a remote site as a "long local." An Air Force communicator would call it an "A/C Supervised" circuit. Each service must agree on terminology with its counterparts to avoid confusion.

- (2) Interoperability. A key consideration facing communications is ensuring the interoperability of equipment on a communications circuit. Generally, most communications equipment that Marine forces use to communicate is compatible with similar equipment in the communications-electronics inventory of other U.S. forces. We cannot, however, assume compatibility.

The joint tactical communications office (TRITAC) development is directing the use of like equipment throughout DOD. When this family of equipment is fielded, interoperability will be achieved. In the meantime, the use of current inventory equipment demands constant attention to interface problems. We must verify that both equipment and cryptographic keying material are compatible.

d. Considerations for joint communications planning. The considerations listed below are not all inclusive, but serve as a guide for you to consider in planning joint operations.

- (1) Net control/command relationships. Generally, net control responsibilities will rest with the senior command.
- (2) AUTODIN termination. The joint task force (JTF) or unified command normally effects an AUTODIN termination. Component commands may also have independent entries.
- (3) Lateral communications requirements. The first common senior headquarters dictates the lateral requirements that must be coordinated by the involved units.
- (4) Cryptographic considerations. It is essential that the first common senior headquarters or issuing authority directs the use of cryptographic keying material common to, and held by, all participants.
- (5) Frequency management. The first common senior headquarters in a joint operation is responsible for obtaining, controlling, and disseminating frequencies. Each service must conduct the necessary liaison and coordination with the JTF frequency managers.
- (6) Switching requirements. Marines must coordinate the liaison between specific, tactical, and automatic switching system (THAIS) interface matters with our counterparts. They must also make special efforts to ensure interoperability of different service switches.
- (7) Point-to-point circuits. Compatibility of terminal equipment on joint point-to-point circuits should be a concern to all. When incompatibilities exist, an exchange of service equipment and personnel to install, operate, and maintain that equipment is necessary.

- (8) Circuit designators/restoration priorities. The DCA, JCS, and individual services use different circuit designators and restoration priority schemes. We must familiarize ourselves with the different procedures and ensure that all our planning documents accurately reflect the proper circuit designators and restoration priorities to prevent technical control from becoming confused while troubleshooting circuits.

e. Combined operations. Combined operations present unique situations with a variety of challenges for the communications expert--you. Many of the special considerations for joint operations also hold true for combined operations. A combined operation is conducted by forces of two or more allied nations acting together for accomplishment of a single mission. Would you consider Southwest Asia a combined operation? Check your response to the last sentence. Was more than one allied nation there? Are any of our allies, such as Great Britain, or France, or Canada, in that group? There is no universally accepted doctrine for conduct of combined operations. However, doctrine applicable to a particular alliance, such as NATO, may be available. The MEF will normally remain under the operational control of a U.S. joint task force or unified commander.

- (1) Communications planning considerations for operations with allied nations have greatly expanded due to language barriers, uncommon terminology, and noninteroperability of communications and COMSEC equipment. The MEF G-6 will help make coordination and liaison with the allied communications planner early in the planning phase. However, you must consider the following:
 - (a) Crypto. Marines must verify the common keying material and equipment interoperability for all circuits with each participating nation.
 - (b) Frequency coordination. Satisfying frequency needs in a combined operation is difficult. Submit requirements early in a standard action frequency format. The senior headquarters frequency manager must consolidate the input and submit it to the host country for approval/allocation.
- (2) Host nation support. Request host nation support early in the planning cycle. A format for requested services and a standard submission procedure to acquire additional communications services must be consistent. You must consider the following:
 - (a) Commercial communications assets. The use of existing nontactical systems as a backup to tactical communications systems is often an option. This employment, however, will require extensive liaison with host nation personnel.

Such systems are vulnerable to intercept and sabotage. As such, Marines must plan commercial assets only as a backup for tactical systems under the operational control of U.S. forces.

- (b) Power requirements. If you contemplate the use of host country electrical power, ensure that it is compatible or capable of being converted to a usable form.

Let's pause for a review of this paragraph.

- a. What are the two command structures of Marine air ground forces joint operations?

- b. What are the two concerns of a successfully integrated communication within the Marine Corps?

If your answer for a. was unified command structure and specified command and your answer for b. was terminology and interoperability, you are correct; go on to the next paragraph.

1305. Joint and Combined Operations Publications and Reference Materials

Daily Marine Corps communications activities are more than enough to keep anyone's mind fully occupied. No one can remember all the information/doctrine needed every day to make a communications system work. You can use such documents as FMs, FMFMs, FMFRPs, TMs, MCOs, MIs, TIs, NAVMCs, etc. for guidance.

When you are in a rapid response planning session or any decision making process, you must have answers to important planning questions. You will also be responsible for giving sound advice to the commander.

To accomplish your job, you must have a quality communications reference library available for your use. If you know you are going to have an upcoming unified operation, you must read up on all related publications before the staff planning session. It doesn't hurt to take the reference material into the planning session with you.

FMFM 3-30, FMFM 3-1, and FMFRP 3-32 all have appendixes with lists of references.

The following list of references is not all inclusive, but it includes a few of the most important publications:

- (1) Allied Communications Publications (ACP). In conjunction with allied nations, these publications contain information and instructions concerning the employment of communications.
- (2) Joint Army, Navy, Air Force Publications (JANAP). Jointly, the Army, Navy, and Air Force have prepared and approved these publications and the U.S. Military Communications Electronics Board (MCEB) has recognized them.
- (3) Naval Tactical Publication; Naval Telecommunications Procedures; Naval Telecommunications Publications (NTPs). Prepared and approved by The Chief of Naval Operations (CNO), these publications contain the basic doctrine applicable to the Navy and Marine Corps. They are general in nature and relate to planning.
- (4) Naval Warfare Publication (NWP). This publication contains the policies and procedures for the employment of communications.
- (5) Naval Warfare Information Publications (NWIPs). These publications contain the detailed technical instructions for the employment of communications.

Well, it's time to review the preceding paragraph.

What are the Joint and Combined Operations Publications?

If you said the references are ACP, JANAP, NTPs, NWP, and NWIPs, you are correct. Great! You have finished this lesson and can go on to the lesson exercise after you've read the lesson summary.

Lesson Summary. This lesson provided you with the definition of an amphibious operation and knowledge of the responsibilities of the CATF and CLF when planning communications support for an amphibious operation. You learned the five phases of the amphibious operation and the communications requirements for each. Finally, you learned the structures of joint and combined operations and the reference material from which you can obtain further information on the topics you have learned.

Exercise: Complete items 1 through 19 by performing the action required. Check your responses against those listed at the end of this study unit.

1. An "attack launched from the sea by naval and landing forces embarked in ships or craft involving a landing on a hostile shore" defines a(an)
 - a. amphibious recon.
 - b. airborne operation.
 - c. beach landing assault.
 - d. amphibious operation.

2. Which statements support the responsibilities for the CATF?
 - (1) Establishing provisions for adequate LF communications during the planning phase
 - (2) Acquiring and assigning necessary technical facilities to subordinate elements of the force
 - (3) Preparing instructions in support of cover and deception plans prescribed for the operation
 - (4) Preparing requests for the allocation of shipboard communications services or facilities for use by landing force units while embarked

a.	1, 2	c.	3, 4
b.	2, 3	d.	1, 4

3. Which statement best describes a responsibility of the CLF?
 - a. Determination, consolidation, and coordination of the electronic warfare requirements of all participating forces
 - b. Preparation and promulgation of a complete and coordinated plan for the employment of communications during the operation
 - c. Establishment of provisions for adequate LF communications during the planning phase
 - d. Acquisition and assignment of necessary technical facilities to subordinate elements of the force

Matching: For items 4 through 11, match each communications consideration in column 1 with its appropriate planning phase in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Comm Consideration</u>	<u>Phase</u>
___ 4. Provide the staffs with a system of rapid, reliable, and secure communications.	a. Embarkation b. Rehearsal c. Movement d. Planning e. Assault
___ 5. The CLF is responsible for planning, providing, or obtaining communications in the embarkation area.	
___ 6. Employing landing force communications personnel and equipment to augment Navy comm facilities.	
___ 7. Ensuring that all echelons are familiar with plans.	
___ 8. The CATF is responsible initially for exercising overall control and coordination of fire delivered by NGF.	
___ 9. Establishing ship-to-shore radio circuits for the control of loading.	
___ 10. The CATF is responsible for providing all external communications, to include entry into the NTS.	
___ 11. Drafting of landing force comm plan.	
12. "A command with a broad continuing mission under a single commander and composed of significant assigned components of two or more services" defines a	
a. unified command.	c. specified command.
b. joint task force.	d. combined force.

13. "A command normally composed of forces from one service which has a broad continuing mission and which is established and so designated by the President through the Secretary of Defense" defines a
- a. unified command.
 - b. joint task force.
 - c. specified command.
 - d. combined force.
14. "A military force composed of elements of two or more Allied Nations" defines a
- a. unified command.
 - b. joint task force.
 - c. specified command.
 - d. combined force.

Matching: For items 15 through 19, match each publication listed in column 1 with its proper description in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Publication</u>	<u>Description</u>
___ 15. ACPs	a. Prepared in conjunction with allied nations and contains information and instructions concerning the employment of communications
___ 16. JANAPs	b. Prepared and approved under the cognizance of the U.S. Military Communications Electronics Board (MCEB)
___ 17. NTPs	c. Contains the detailed technical instructions for communications
___ 18. NWPs	d. Prepared and approved by CNO, contains basic doctrine applicable to the Navy and Marine Corps, general in nature and related to planning
___ 19. NWIPs	e. Contains the policies and procedures for the employment of communications

UNIT SUMMARY

This study unit provided you with in-depth knowledge of the MAGTF. This included the organizational composition, symbols for identification, and communications planning responsibilities for the CATF and CLF. Further discussion highlighted the five phases of an amphibious operation and the communications responsibilities for each phase. We took a brief look at joint and combined operations, the authority to establish a joint/combined structure, and the reference material for communications planning. Study Unit 2 will take us a little deeper into the planning sequence covering the COMPLAN, COMMSOP, and CEOI and how they affect the battalion mission.

Lesson 1 Exercise Solutions

	<u>Reference</u>
1. c.	1101
2. (any of the four listed)	1102
Enter and exit a battle area at night.	
Operate under adverse weather conditions.	
Operate from over-the-horizon, without electronic emissions, and by surface or air.	
Locate and fix the enemy.	
Engage, kill, or capture the enemy in a rural or urban setting.	
Operate in hostile nuclear, biological, and chemical environments.	
Plan and commence execution within 6 hours of receipt of the warning order.	
Provide seabase sustainment.	
3. a. Figure 1-2	1103
4. d. Figure 1-2	1103
5. c. Figure 1-2	1103
6. b. Figure 1-2	1103
7. a.	1106
8. b.	1104
9. b.	1104
10. a.	1106
11. b.	1104
12. a.	1106
13. b.	1107
14. The initiating directive	1107

Lesson 2 Exercise Solutions

	<u>Reference</u>
1. Supporting arms coordination center	1201
2. Landing force operations center	1201
3. Fire support coordination center	1201
4. Tactical air operations center	1201
5. Tactical logistics group	1201
6. Combat service support operations center	1201
7. Direct air support center	1201
8. FMFM 3-30 Communications	1202
9. b.	1203
10. c.	1203
11. a.	1203
12. d.	1203
13. c.	1203
14. e.	1203
15. First common senior commander	1204
16. Commander of the unit to which the attachment is made	1204
17. Reinforcing unit commander	1204
18. Senior commander	1204
19. Supporting unit commander	1204

Lesson 3 Exercise Solutions

	<u>Reference</u>
1. d.	1301
2. b.	1302
3. c.	1302
4. d.	1303
5. a.	1303
6. a.	1303
7. b.	1303
8. e.	1303
9. a.	1303
10. c.	1303
11. d.	1303
12. a.	1304
13. c.	1304
14. d.	1304
15. a.	1305
16. b.	1305
17. d.	1305
18. e.	1305
19. c.	1305

STUDY UNIT 2

COMMUNICATIONS PLANNING

Introduction. A commander requires an effective and efficient communications system to command and control the operations of his unit, in essence, to **serve command**. Effective command depends on careful planning and the attendant preparation of plans and orders.

The commander delegates the details of planning and the preparation of communications plans and orders to his communications-electronics officer. It is this individual who must know the capabilities and limitations of his equipment and how to employ it, and he must also know how to prepare a communications plan that can be understood at the lowest echelon. The plan has to be detailed yet flexible enough to support the concept of operations.

Murphy's Law is still valid! "If it can be misunderstood, it will be!" The staff officer must realize that the orders he prepares may affect hundreds of Marines, and a "misunderstanding" can cause the failure of our assigned mission.

Lesson 1. PURPOSE AND TYPES OF COMMUNICATIONS PLANS AND ORDERS

LEARNING OBJECTIVE

Identify types of communications plans and orders.

2101. Purpose of Communications Plans and Orders

The purpose of the communications system is to provide the commander with effective and efficient ways to command and control the operations of his unit. The efficiency of any communications system depends on the quality of planning and the preparation of plans and orders.

Communications plans and orders describe how the communications system will support your unit in the exercise of command and control. For effective support, communications plans must follow standard formats. You, as a communications chief, are responsible to the communications officer for the preparation of the plans, orders, and directives that will be discussed in this study unit.

As with all orders in the Marine Corps, communications (comm) plans and orders are directive in nature and must be written to reflect the commander's directions and orders. All plans and orders should convey the decisions of the commander in a clear, unmistakable, and emphatic manner. Instructions to subordinates must leave no doubt about what is intended.

These instructions are set forth in sufficient detail to ensure the actions of the subordinates conform to the plan of operations for the whole force. Generally, the commander tells subordinates the "who, what, when, where, and why" of the situation. However, the commander must be careful not to encroach on the initiative of subordinate commanders by prescribing details that lie within the province of subordinate commanders. Only when there are overriding circumstances will plans and orders spell out the details concerning "how" lower echelons will accomplish their assigned tasks. In addition to instructions, plans and orders contain sufficient information so subordinates can make intelligent decisions.

2102. Types of Communications Plans and Orders

Let's take a look at the various types of communications plans and orders. In the following list are the basic forms of communications instructions:

- Communications standing operating procedures (COMMSOP)
- Communications-electronics operating instructions (CEOI)
- Communications plan (COMMPAN)
- Letter of instruction (LOI)
- Communications estimate
- Paragraph 5 of the operation order
- Command and control systems annex (Annex K)

a. Communications standing operating procedure (COMMSOP). The SOP is one of several types of orders the commander develops and implements to accomplish the mission. Now, let us define SOP as follows:

"A standing operating procedure is a set of instructions covering those features of operations which lend themselves to a definite or standardized procedure without the loss of effectiveness."

Compare the words **standing** and **standard**. "Standing" implies presently in effect, while "standard" implies something permanent and inflexible. The SOP, as defined, is a standing procedure reflecting the approved doctrine as published in current literature, directives, and regulations modified to satisfy local operating conditions and the policies of the command.

Since the instructions are routine and standing, they tend to be valid for long periods of time and not subject to frequent change. One point to remember at this time is that the COMMSOP, while it is a communications plan, is of value to the entire organization, not just to the communicator. As with all communications plans and orders, the COMMSOP is directive in nature and reflects the commander's orders to his own organization and to subordinate commands as well. Remember, the COMMSOP's purpose is to standardize all operations within the units of a command. It does not undermine the commander's authority, but helps eliminate disorganization of operational procedures.

Because the COMMSOP is of value to all hands, including the administrators, logisticians, and communicators, it is normally unclassified. Thus, everyone can have access to it on a regular basis regardless of clearance.

The COMMSOP amplifies communications doctrine that is found in such documents as NWP's, JANAP's, FMFM's, NTP's, ACP's, and so forth. It may also include instructions and procedures pertinent to a particular situation, for instance, the employment of new techniques and systems. The COMMSOP will be discussed thoroughly in lesson 2 of this study unit.

b. Communications-electronics operation instructions (CEOI). The CEOI is an order that contains technical guidance for the establishment of communications. It amplifies the COMMSOP by providing the details required to coordinate and control the various communications within a unit. The COMMSOP provides the organization with the radio nets, and the CEOI supplies the callsigns and frequencies to be used on the net.

- (1) Classification. Each CEOI is classified according to content. The overall classification of the CEOI is based on the highest level of classified information it contains.
- (2) Promulgation. Unlike the COMMSOP that is normally promulgated in some form by all command echelons at squadron and battalion levels and above, the CEOI is normally promulgated by division, aircraft wing, FSSG, and brigade headquarters. Higher headquarters normally request input from subordinate commands. The issuing headquarters should maintain sufficient copies of the CEOI for distribution to other units when those units are task-organized for an operation.
- (3) Contents. The following information and instructions are normally included in the CEOI:
 - (a) General communications instructions
 - (b) Callsign assignments

- (c) Frequency assignments
 - (d) Radio net circuit designators
 - (e) Wire/cable trunk circuit designations
 - (f) Wire/cable tagging codes
 - (g) Telephone directory names and numbers
 - (h) Teletype and data routing indicators
 - (i) Identification and marking panel codes
 - (j) Signal panel message instructions
 - (k) Pyrotechnic and smoke codes
 - (l) Ground air signals
 - (m) General cryptographic instructions
 - (n) Cryptographic devices to be used
 - (o) Current effective editions of the cryptographic key lists
 - (p) Codes and ciphers
 - (q) General authentication instructions
 - (r) Effective authentication tables
- (4) Automated Communications-Electronics Operation Instructions (ACEOI). The National Security Agency (NSA) produces an ACEOI. This document normally contains callsigns, callwords, and frequencies to be used by designated operating units. Figure 2-1 shows a sample ACEOI.

The ACEOI is intended for use during a specified time frame. By providing a standardized source of information, the ACEOI enhances both operational communications capabilities and communications security. If the ACEOI is lost or compromised, the standardized format facilitates rapid identification, destruction, and replacement. As of August 1994, NSA is the only agency authorized to produce the ACEOI. The proper term for locally produced operating instructions is **CEOI**. All the CEOI's information is extracted from the ACEOI. In the near future, however, individual commands will produce their own ACEOIs with frequencies and other information provided to them by CINC JCEOI.

FOR INSTRUCTIONAL PURPOSES ONLY					
ВИ ЛВС #3	21'22	21'30	24'22	30'02	48'30
ВИ ЛВС #1	01'30	20'02	44'20	38'40	25'00
ВИ СМД	28'32	22'22	31'32	04'00	42'10
В СОМБИЛ	ЦДВ	ЕЗС	Е00	Д1В	С4Б
У СОМБИЛ	02А	Н4У	Л3Е	М3Н	021
НО СОМБИЛ	МЕЛ	УЕ1	М0А	К1У	Л0И
ВАЛЛАГОИ	Л1Е	ЮС	Б00	04Х	И4М
КЛА 100	01	03	03	04	02
	САГГ СИГИ2				
FOR INSTRUCTIONAL PURPOSES ONLY					

Fig 2-1. Sample ACEOI.

c. Communications plan (COMMPLAN). The COMMPLAN is the COMMSOP and CEOI combined into one document. This combined document becomes the basic communications plan.

The tactical and administrative instructions of the COMMSOP are the body of this plan. The technical operating instructions of the CEOI are normally issued as a supplement. Preparation of the operating instructions as a separate supplement facilitates revision and extraction as the need arises.

You'll find that higher echelons, such as FMFPAC and FMFLANT, normally prepare a COMMPLAN instead of separate COMMSOPs and CEOIs. The divisions and wings also have these options.

The COMMPLAN must be classified when the supplements are added or combined with the tactical and administrative instructions.

d. Letter of instruction (LOI). An LOI is used in the higher echelons of military service to convey broad aims and strategic plans or general policy guidance of an operational nature not suited for promulgation in an operation plan or order. It has the same authority as an operation plan or order. Although an LOI has no a prescribed format, because of its nature it generally follows the sequence of an operation plan or order to the extent practical. The term "letter of instruction" should not be loosely applied to planning guides, outline plans, warning orders, activation orders, and other instructions that do not meet the criteria established for a letter of instruction.

e. Communications-Electronics estimate. The communications- electronics estimate is a tool the commander and his staff use to find the best way to accomplish a given mission. It is a problem-solving process that requires a systematic analysis of all essential data. No matter what the level of command is, the procedure is the same. However, the details vary with the level and type of command. For example, at battalion and below, estimates are seldom recorded. The estimate is as thorough as time and circumstances permit. The communications officer's estimate must be updated continuously. The commander must be kept informed and briefed as changes that affect operations occur, as new facts are determined, as assumptions are replaced by facts or rendered invalid, or as changes to the mission are received or indicated. The comm-elect estimate will be covered in more detail in Study Unit 3.

f. Paragraph 5 of the operation order. Paragraph 5 (Command and Signal) may deal with a number of subjects. It not only contains instructions for the establishment and maintenance of communications, but also contains instructions on the location of command posts, probable locations of future command posts, and command relationships. As a member of the commander's special staff, the communications officer is responsible for the preparation of paragraph 5.

Paragraph 5 may consist of the notation "NO CHANGE" if the existing COMMSOP and CEOI are adequate for the operation. It may contain changes or additions to an existing communications plan or order if these are few in number. The subject plan or order should be referenced.

Subparagraphs of paragraph 5 include command relationships, signal, and command posts described in detail as follows:

- (1) Command relationships. Shows unusual command relationships. If not used, omit the term. For example, see the following:

COMMAND RELATIONSHIPS--Control of BLT 1/2 passes from RLT-2 to RLT-7 on order CG, II MEF on or about D+2.

COMMAND RELATIONSHIPS--not used, omitted.

- (2) Signal. Refers to the Annex K and other effective publications such as the COMMSOP and CEOI. It also includes instructions or restrictions pertaining to communications electronics, such as radio use restrictions or pyrotechnic signals. For example, see the following:

SIGNAL:

- Reference (b) and Annex K (Command and Control Systems)

- Radio silence until lifted by this headquarters
- Signal for assault waves that have landed will be green star cluster

(3) Command posts. States the location of the issuing unit's command post, location of subordinate unit command posts, and location of the command post of the next higher unit.

If an Annex K is not prepared, show the command post locations of adjacent and supported units to facilitate communications by messenger. In an amphibious operation, this subparagraph may also show command posts, both afloat and ashore. This subparagraph can be considerably shortened, however, by referencing command post locations on the operation overlay or, if one is prepared, in Annex K. This subparagraph may also direct subordinate units to report the location and opening/closing times of command posts. An example follows:

COMMAND POSTS

2 RLT 4 LHA 1 268381

BLT 1/4 LPH 10 254387

CO A LPH 10 To be reported

CO B LPH 10 264391

(Report initial location ashore and changes in location by priority message.) Additional subparagraphs may or may not be included. If included, they are lettered consecutively and may include the following information, as appropriate:

- (a) Locations and times of opening/closing of advance communications centers
- (b) Use of communications-electronics equipment and systems
- (c) Code words and names
- (d) Liaison procedures

g. Command and control systems annex (ANNEX K). The command and control systems annex is an amplification of the instructions contained in paragraph 5 of the operation plan or order. It is a tool to coordinate the establishment, maintenance, and operation of the communications system in support of the commands and agencies involved in the operation. It establishes the primary communications-electronics mission to be accomplished by the following:

- (1) The command

- (2) Those missions, other than routine, assigned to communications-electronics personnel at the headquarters
- (3) Communications-electronics missions other than those routinely assigned to commanders of subordinate units
- (4) Certain administrative and logistics details concerning communications-electronics

In formulating an operation plan or order, MEF, division, aircraft wing, or other major headquarters normally find it necessary to issue a voluminous and detailed command and control systems annex. The annexes developed by subordinate organizations are usually less detailed. The maintenance of a standing Annex K eliminates much of the preparation time in establishing a comprehensive Annex K and alleviates much of the repetitive and detailed information. In other instances, a subordinate organization may be able to place many of the necessary instructions in paragraph 5 of its operation plan or order by employing the Command and Control Systems Annex, COMMSOP, and CEOI promulgated by its senior headquarters. There are still instances in which the plan or order developed by a lower echelon should contain both paragraph 5 and a Command and Control Systems Annex. For example, when an infantry battalion is involved in a helicopter-borne or other highly specialized operation, the operation order requires communications-electronics instructions written in such detail and with such clarity that no salient points are omitted or misunderstood. These instructions should appear in the Command and Control Systems Annex.

Lesson Summary. In this lesson, you have just learned the types of communications (comm) plans and orders communicators use daily while planning or conducting an operation. All of these plans and orders are interrelated. You can't have a COMMLAN without a COMMSOP and CEOI. It is difficult to draft a COMMSOP without a senior command's COMMSOP. In Lesson 2, you will learn advantages of communications SOPs.

Exercise: Complete items 1 through 6 by performing the action required. Check your responses against those listed at the end of this study unit.

- 1. Which communications plan/order has the following subparagraphs: command relationships, signal, and command posts?

- 2. Which COMMLAN is used in the higher echelons of military service to convey broad aims and strategic plans?

3. Which COMMPLAN or order is a problem-solving process that requires a systematic analysis of all essential data?

4. Which COMMPLAN contains technical guidance required to establish and maintain communications in support of operations?

5. Which COMMPLAN or order is an amplification of paragraph 5 of the operation plan or order?

6. Which communications plan/order is created by combining the COMMSOP and CEOI?

Lesson 2. COMMUNICATIONS SOPs

LEARNING OBJECTIVES

1. Identify four advantages of using COMMSOPs.
2. Identify the content of a COMMSOP.
3. Identify the publication that provides instructions for submitting a Communications Guard Shift.
4. Name the time constraints for Communications Guard Shifts.

2201. Advantages of Communications SOPs

The COMMSOP is always applicable unless particular cases prescribe otherwise. This maintains the flexibility needed for special situations. The COMMSOP usually is referred to in the operation order together with any exceptions to the procedures that are to be made. The amount and type of information included in a COMMSOP must be carefully determined. These procedures must be clear and concise. Right now, pull out the COMMSOP for your unit and obtain previous operational orders or plans and the communications-electronics annex, not just from your last field exercise, but from three or four others, if possible. Try to recall how many times you have used the procedures in each field exercise. If you use a procedure in every field exercise, you should include it in your COMMSOP. Who will actually determine what you include? Hopefully you. You are the comm expert! A COMMSOP offers four distinct advantages:

- A COMMSOP reduces the need for other types of orders and simplifies the preparation and transmission of orders.
- A COMMSOP simplifies and perfects troop training by establishing uniform practices for the unit.
- A COMMSOP promotes understanding and teamwork throughout the command.
- A COMMSOP facilitates and expedites tactical and administrative operations and minimizes confusion and error.

Let's review what you have learned so far in this paragraph.

What are the four advantages of a COMMSOP?

1. _____

2. _____

3. _____

4. _____

If you said a COMMSOP will (1) reduce the need for other types of orders and simplify the preparation and transmission of orders, (2) simplify and perfect troop training by establishing uniform practices for the units, (3) promote understanding and teamwork throughout the command, and (4) facilitate and expedite tactical and administrative operations and minimize confusion and error, you are correct.

2202. COMMSOP Contents

a. Scope. The scope of the COMMSOP varies with the echelon of the preparing command. A COMMSOP prepared by a division is broad in scope and provides essential instructions for all elements of the division. The COMMSOP of a subordinate element of the division applies only to the individual unit and the contents will be written in more detail as they relate to the affairs of this individual unit. As the scope of the COMMSOP decreases, the detail it contains will increase.

b. Format. Although there is no established format for a COMMSOP, use one of the two following formats:

- (1) One format for an SOP may be published as an all-inclusive document. That is, it will contain sections and paragraphs detailing the duties and responsibilities of subordinate units and, where applicable, of personnel. This format will not have annexes or enclosures.
- (2) In the second format, the SOP may be published as a basic document containing instructions of a general nature and of interest to all units. This format is organized by function (radio, telecommunications center, wire, and tech shop) and technical or specific instructions for individual units and/or personnel.

SOPs prepared by subordinate units must comply with and be related to pertinent parts of the SOP of the higher command. SOPs pertaining to practices or procedures governed by regulations or other publications readily available to all elements of the command should not be repeated except when the repetition is required to clarify local operating practices.

In the COMMSOP, include and address the subjects listed in table 2-1. These subjects cover all the different areas that help keep the unit's communications system functioning smoothly.

Table 2-1. COMMSOP Contents

SUBJECT	INFORMATION
*References	*Include references such as FMFMs, field manuals, technical manuals, regulations, and the SOP and CEOI of higher commands.
*Training of Personnel	*Limits training instructions for communication electronics personnel to general statements of responsibility; detailed instructions are normally contained in quarterly training schedules.
*Signal Security	*Limits instructions to those that are applicable to all elements of the command and are not contained in the command CEOI. The purpose of this section is to develop and maintain a SIGSEC awareness throughout the unit.
*Physical Security	*Develops an awareness for physical security; promulgates and standardizes physical security procedures throughout the unit.

Table 2-1. COMMSOP Contents--cont'd.

SUBJECT	INFORMATION
*Telecommunications Centers	*Provide instructions that govern the locations of communications centers, establish procedures pertaining to the transmittal and receipt of record traffic, prescribe the records to be maintained, and give other information pertaining to operations message forms, message preparation, and releasing authority.
*Messenger Service	*Indicates that the extent of the messenger service includes scheduled motor, air, and foot messengers; provides for pickup and delivery points; prescribes methods of packaging and addressing; and states security clearances required by messengers.
*Wire Communications	*Assign responsibility for normal wire lines/remote lines as well as wire and cable construction practices, priority of tagging procedures, general guidance pertaining to locations of switchboards and dispatching facilities, terminal equipment, and instructions governing the placing of calls. You should also consider including directory service, instructions for obtaining service, including commercial or enemy lines, and care and maintenance of wire communications material.
*Single Channel Radio	*Provides instructions pertaining to the installation, operation, and maintenance of single channel radio communications equipment (antennas, radios, retransmission) and the composition and use of radio nets, including those required for special purposes and emergency operation. This part of the COMMSOP also defines actions to take if there is imitative communications deception (ICD) or jamming. It also establishes procedures for monitoring various frequencies on nets.
*Multichannel Radio	*Provides instructions pertaining to the installation, operation, and maintenance of those multichannel systems that apply to all elements of the command. You should publish detailed instructions on operations in the SOP of the unit that owns the equipment.

Table 2-1. COMMSOP Contents--cont'd.

+))))))))))))))0)))))))))))))))))))))))))))))))))))))) * SUBJECT *	* INFORMATION *	
*Satellite	*Provides instruction pertaining to the type * *of termination requests, activation and/or * *deactivation, operation, and maintenance of * *the satellite terminal. These instructions * *also define actions to take if there is a * *terminal failure and provide ways of * *activating alternate means of entry into the * *defense communications system.	
/))))))))))))))3))))))))))))))))))))))))))))))))))))1 *Radio Wire *Integration (RWI)	*Prescribes the general procedures to be * *employed by all users for the installation, * *operations, and maintenance of radio wire * *integration facilities.	
/))))))))))))))2))))))))))))))))))))))))))))))))))))1 *Visual and Sound	*Provide instructions pertaining to the * *general use and distribution of visual and * *sound signal devices (flags, lights, pyro- * *technics, panels, arm-and-hand signals, * *whistles, sirens, bells, voice amplifiers, * *and explosive devices).	
/))))))))))))))3))))))))))))))))))))))))))))))))))))1 *Frequency Control	*Includes procedures to follow to obtain * *frequencies, restrictions on the use of * *frequencies, procedures for reporting * *interference, and conditions under which * *radio silence or listening silence is * *required.	
/))))))))))))))3))))))))))))))))))))))))))))))))))))1 *C ³ Protection	*Provides instructions containing routine * *actions to take in an EW environment, * *including the reporting of hostile inter- * *ference, jamming, and deception attempts, * *the employment of standard procedures to * *minimize the occurrence and effects of * *electronic countermeasures, and measures * *to take to protect friendly systems.	
/))))))))))))))3))))))))))))))))))))))))))))))))))))1 *Communications *Control	*Provides amplifying instructions pertaining * *to unique considerations for COMMCN not * *already discussed in the FMFM 3-30.	
/))))))))))))))3))))))))))))))))))))))))))))))))))))1 *System and Circuit *Identifications	*Provide instructions covering the proper * *identification of circuits and systems for * *installation and control purposes.	
/))))))))))))))3))))))))))))))))))))))))))))))))))))1 *Communications *Support for *Intelligence	*Establishes the communications support pro- * *cedures for intelligence systems in the * *command.	
.))))))))))))))2))))))))))))))))))))))))))))))))))))-		

The COMMSOP for a communications unit is unique. It provides for the operation of the unit as it executes its assigned missions. You should determine the scope of the COMMSOP by the type of unit, the amount of detail the unit commander desires, and the echelon of command to which the unit is assigned. At a minimum, the COMMSOP will include the following:

- Specific responsibilities of each major element of the unit
- Instructions on unit operation that the commander considers routine and important enough to continue instructions
- Assignment of instructions governing the execution of communications-electronics missions
- Instructions pertaining to the routine service support and operations to include personnel policies and procedures, unit service support procedures, all classes of supplies, all types of equipment, maintenance, inspection procedures, physical security, and other instructions as directed by the unit commanders

Also consider these additional subjects: specific responsibilities, instructions for inclusion in subordinate COMMSOPs, communications policies, key references, exercise guidelines, safety, and displacement procedures.

It's time to take a minute to review this paragraph.

a. What materials are included in references of the COMMSOP?

b. What is the purpose of signal security in the COMMSOP?

c. What is included in COMMSOP messenger service?

d. What visual and sound signal devices are included in the COMMSOP?

If your answers were close to what follows, you are correct:

- a. The FMFMs, field manuals, technical manuals, regulations, SOP, and CEOI of higher commands are the references in COMMSOP.
- b. The purpose of the signal security is to develop and maintain a SIGSEC awareness throughout the unit.
- c. The messenger service includes scheduled motor, air, and foot messengers.
- d. The visual and sound signal devices are flags, lights, pyrotechnics, whistles, and sirens.

If these were your answers, congratulations! You can continue to the next paragraph.

2203. Communications Guard Shift (COMMSHIFT)

Since communications personnel must accomplish several tasks involving outside agencies, you absolutely **must** have routine standardized procedures in place to keep things simple and avoid delays. You will provide detailed instructions in the COMMSOP for the following:

- Telecommunications Service Request
- Termination Request (SATCOM)
- Frequency requests
- MIJI reporting
- Communications guard shift

All of these frequently used correspondences are usually funneled through MEF Headquarters. Many major commands have locally produced forms in their SOPs to make it easier for subordinate commands to initiate these tasks. The MEF headquarters usually screens and then processes the finished product through the appropriate agencies.

For the purposes of this lesson, the only correspondence you will learn is the communications guard shift. You don't use it nearly as often as the other types of correspondence because your unit as a whole usually doesn't move very frequently.

The NTP-4 gives detailed instructions on communications guard shifts.

You must include the unclassified COMMSHIFT information/ instructions, phone numbers, and points of contact in your unit's COMMSOP. FMFRP 3-32 Appendix D has an excellent points of contact listing. When the time comes to deploy, everything will work with ease if you have standing procedures outlined.

A reference that may assist you in the routing of your COMMSHIFT is the ACP-117. MCI course 25.42, Telecommunications Center Operator, gives you a brief explanation of the "routing process" in Study Unit 1, Lesson 4.

Give simple procedures for COMMSHIFTs and all the above listed correspondences by referring the reader to the appropriate reference materials, such as TMs, FMs, MCOs, etc. You must be certain that any SOP you refer to is, in fact, available to the user.

Review time again.

a. What reference may assist you in the routing of your COMMSHIFT?

b. What reference has an excellent "points of contact" listing?

If your answer for question a. is ACP-117 and b. is FMFRP 3-32 APPENDIX D, you are correct.

2204. Communications Guard Shift Procedures

A communications guard shift (COMMSHIFT) is a message procedure used whenever an addressable command or detachment shifts its guard from one geographical location to another. The communications guard shift procedures presented here are valid as of August 1994. They may change tomorrow with the guidance of a single message or order.

Note: The following information should be used as a sample and should not be used without first checking the NTP-4's latest comm guard shift procedures. Those procedures are designed to ensure that all message traffic addressed to your unit will be received whether you are at Camp Lejeune, Camp Pendleton, Okinawa, on ship, or anywhere in the world. The procedures will also ensure that you have the facilities/equipment you need when you need them.

(1) Precedence. The nature or requirement for the COMMSHIFT will dictate the precedence assigned to the message as described below:

(a) During normal operations, transmit COMMSHIFTs to (or action) NAVCSRF HONOLULU HI, with an info copy to NCTAMS LANT NORFOLK VA in time to reach the common source route file (CSRF) updating authority between 48 and 72 hours before the effective time of the shift. Such COMMSHIFTs will be assigned ROUTINE precedence only.

- (b) Use PRIORITY precedence to send COMMSHIFTs if a change in communications guard is required within 24 to 48 hours.
 - (c) Reserve IMMEDIATE precedence for COMMSHIFTs that are effective in less than 24 hours and are dictated by an emergency change in operations or by equipment failure. This is the only COMMSHIFT that can have an effective time on other than a new day (0001Z).
- (2) Message address. All COMMSHIFTs will be transmitted through the Marine Corps chain of command.
- (a) Address all COMMSHIFTs action to the gaining and losing communications activities as well as action to NAVCSRF HONOLULU HI and info CSRF LANT NORFOLK VA.
 - (b) When shifting to (or from) an activity not governed by the NTP-4 procedures (Army, Air Force, or foreign communications centers), include COMNAVTELCOM WASHINGTON DC as an action addee.
 - (c) Information addees on COMMSHIFTs will include the appropriate NAVCAMS for the ocean area and for shifts involving the Pacific/Indian Ocean communications area, NAVCOMMSTA STOCKTON CA. Last, add CMC WASHINGTON DC.

Let's work out a situation that will possibly make this clear.

You are presently assigned to the 5th Marine Regiment in Camp Pendleton, California. Your unit has just been ordered to join forces with III MEF in Okinawa. Using this information and what we have covered so far, determine the addees on a COMMSHIFT. Place your responses in the spaces below.

```

+)))))))))))))))))))0))))))))))))))))))0)))))))))))))))))),
* COMM UNIT          * ACTION ADDEES    *INFORMATION ADDEES  *
/)))))))))))))))))))3))))))))))))))))))3))))))))))))))))))1
*Gaining Facility   *                  *                      *
*                  /))))))))))))))))))3))))))))))))))))))1
*                  *                  *                      *
*                  /))))))))))))))))))3))))))))))))))))))1
*                  *                  *                      *
*                  /))))))))))))))))))3))))))))))))))))))1
*                  *                  *                      *
*                  /))))))))))))))))))3))))))))))))))))))1
*                  *                  *                      *
*                  /))))))))))))))))))3))))))))))))))))))1
*                  *                  *                      *
*                  /))))))))))))))))))3))))))))))))))))))1
*                  *                  *                      *
*                  /))))))))))))))))))3))))))))))))))))))1
*Other              *                  *                      *
.)))))))))))))))))))2))))))))))))))))))2))))))))))))))))))-

```


Let's try one more question to see how well you learned what you studied in this paragraph.

<p>a. What is the main comm facility for the East Coast?</p> <p>_____</p> <p>b. What is the comm facility for protecting all routing through the CSRF for all western Pacific commands?</p> <p>_____</p>
--

If your answers for the questions were a. NCTAMS LANT NORFOLK, and b. CSRF WESTPAC GQ, you are correct. Congratulations! You're probably ready for the lesson exercise. If you don't feel completely confident about your knowledge of the material, you may want to review this study unit.

Lesson Summary. In this lesson, you have identified the following: the advantages of using COMMSOPS, the types of COMMSOP information, publication of communications guard shift, and the time constraints for comm guard shift. All the detailed instructions for submitting a comm guard shift are in the NTP-4. You also learned about a sample COMMSHIFT so that you can get a better understanding of how they work. Remember the time limits for each of the different precedences: ROUTINE, PRIORITY, and IMMEDIATE.

Exercise: Complete items 1 through 8 by performing the action required. Check your responses against those listed at the end of this study unit.

1. What are the four distinct advantages of a COMMSOP?
 - a. _____

 - b. _____

 - c. _____

 - d. _____

Matching: For items 2 through 6, match each COMMSOP subject in column 1 to the information that it contains in column 2.

Column 1

Column 2

COMMSOP Subject

Information

- | | |
|---------------------------------------|---|
| ___ 2. Wire communications | a. Establish procedures pertaining to the transmittal and receipt of record traffic |
| ___ 3. C ³ Protection | b. General guidance pertaining to locations of switch boards and patching facilities, terminal equipment, and instructions governing the placing of calls |
| ___ 4. Telecommunications center | c. Establishes procedures for monitoring various frequencies on nets |
| ___ 5. End user computing | d. Instructions for employing standard procedures to minimize the occurrence and effects of electronic countermeasures |
| ___ 6. Single channel radio equipment | e. Detailed instructions that address the interface class I data systems and tactical communications system into and out of the amphibious objective area |
7. Which of the following reference material contains detailed instructions for a comm guard shift?
- | | |
|----------|------------|
| a. CSP-1 | c. NTP-3 |
| b. NTP-4 | d. ACP-125 |
8. What is the time requirement in hours for a PRIORITY communications guard shift?
- | | |
|-------|-------------|
| a. 6 | c. 24 to 48 |
| b. 24 | d. 48 to 72 |

UNIT SUMMARY

This study unit gave a brief explanation of the communications plans and orders that are used routinely. They are the COMMSOP, CEOI, COMMLAN, LOI, Comm Estimate, Paragraph 5 of the Op Order, and the Command and Control Systems Annex. The COMMSOP was discussed in detail, including the information it covers in the different subject/subparagraphs. COMMSHIFTS were covered in more detail than the other tasks (TSRs, Termination requests, Frequency requests, MIJI reports) that involve outside agencies. Except for comm center personnel, COMMSHIFTS are not handled as frequently as the other tasks mentioned.

In the next study unit, you will learn different types of combat plans and orders, including the procedures for preparing a communications-electronics estimate and paragraph 5 to develop an operation plan/order.

Lesson 1 Exercise Solutions

	<u>Reference</u>
1 Paragraph 5 of the operation order	2101
2. Letter of Instruction	2101
3. Comm Estimate	2101
4. CEOI	2101
5. Command and Control Systems Annex	2101
6. COMMLAN	2101

Lesson 2 Exercise Solutions

	<u>Reference</u>
1. a. Reduce the need for other types of orders and simplify the preparation and transmission of orders	2201
b. Simplify and perfect troop training by establishing uniform practices for the unit	2201
c. Promote understanding and teamwork throughout the command	2201
d. Facilitate and expedite tactical and administrative operations and minimize confusion and error	2201
2. b.	2202
3. d.	2202
4. a.	2202
5. e.	2202
6. c.	2202
7. b.	2203
8. c.	2204

STUDY UNIT 3

COMBAT PLANS AND ORDERS

Introduction. Plans and orders are the commander's way to convey information and instructions to the subordinate units of his command. The communications (comm) officer is responsible for submitting information to support those plans. In certain cases, you, as a communications SNCO, actually prepare the supporting communications portion of the plans. This study unit will help you to understand the different types of plans and orders including their preparation. It will also highlight the rapid response planning process, including 14 steps to prepare you for developing a communications-electronics estimate and paragraph 5 of the operation plan/order. But, before we get started with the preparation, you must first understand the basis for the plans and orders. The commander's announcement will come from his decision and concept of operation that results from his estimate of the situation.

Lesson 1. TERMINOLOGIES OF COMBAT PLANS AND ORDERS

LEARNING OBJECTIVES

1. Describe a combat plan.
2. Describe a combat order.
3. Name the two classifications of combat plans and combat orders.
4. Identify individual plans and orders including their categories.

3101. Combat Plans

A combat plan contains assumptions. Since it is normally projected ahead to a greater degree than a combat order, it has less factual information for its basis. However, each combat plan includes a statement of assumptions to supplement available facts. Combat plans are effective immediately for planning purposes or for specified preparatory actions.

3102. Combat Orders

A combat order carries with it the obligation of immediate execution or execution at a specified time or date. A combat plan, although it may be effective immediately for planning purposes, may not be executed until the commander so directs in a separate order of execution. A combat plan becomes a combat order only when its execution is directed.

3105. Fundamentals of Preparation

a. Qualities. As we said in the beginning of Study Unit 2, all plans and orders convey the commander's intent. Therefore, all combat plans and orders should have the following four basic qualities:

- (1) Timeliness. A primary requirement for plans and orders is timeliness. Obviously, an order will fail to accomplish its purpose if it does not reach the subordinate units in time for them to take effective action. The desire to produce an attractive package, complete in every polished detail, must not interfere with the prompt dispatch of necessary instructions and information.
- (2) Simplicity and brevity. Two essential characteristics of effective plans and orders are simplicity and brevity. They never should be obtained at the expense of clarity.
 - (a) Simplicity refers to the use of language. Use common words and short, direct sentences to promote ease of understanding. Sound paragraph construction and the effective use of paragraph numbers and titles also aid in rapid comprehension.
 - (b) Brevity refers to the amount of material presented in the plan or order. As a general guide, subordinates are provided with all the "need to know" information, but not with extraneous information.
- (3) Completeness. Every plan and order should be as complete as the available information at the time of preparation. The plan should include all of the essential elements of the commander's decision and the information necessary to permit sound decisions at lower echelons.
- (4) Flexibility. Flexibility in the preparation of orders is essential. Effective plans and orders require a balance among the various characteristics. A desire for clarity should not lead to excessive wordiness, nor should a desire for completeness delay issuance. Flexibility provides full details to those who require them to accomplish their mission, yet permits the rapid issuance of partial instructions.

Lesson Summary. This lesson provided you with the knowledge needed to identify the different types and purposes of combat plans and orders. It also provides you with the fundamentals required for their preparation. In the next lesson, you will put this information to use as you begin preparation for your first planning document, the communications estimate.

Exercise: Complete items 1 through 12 by performing the action required.
Check your responses against those listed at the end of this study unit.

1. Which communications plan/order contains assumptions?

2. Which communications plan/order carries with it the obligation of immediate execution, or execution at a specified time or date?

3. What are the two classifications of combat orders and plans?
 - a. Warning orders and operation plans and orders
 - b. Contingency plans and operation plans and orders
 - c. Letters of instruction and fragmentary orders
 - d. Letters of instructions and operation plans and orders

Matching: For items 4 through 11, match the plan or order in column 1 to its type in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Plan or Order</u>	<u>Type</u>
___ 4. Warning	a. Combat plan
___ 5. Outline	b. Combat order
___ 6. Campaign	c. Either combat plan or
___ 7. Letter of instruction	order
___ 8. Fragmentary	
___ 9. Contingency	
___ 10. Alternate	
___ 11. Operation	

12. List the four basic qualities that all combat plans and orders should possess.
 - a. _____
 - b. _____
 - c. _____
 - d. _____

- (1) The key point is to make certain that you understand the mission. Constraints related principally to rules of engagement, limits imposed on use of assets, and diplomatic matters should be clearly specified, so in these areas, assume nothing. Ask for clarification on any matter not clear to you.
- (2) Five main focus points that should be considered are the following:
 - (a) Determine mission precedence (routine, priority, emergency)
 - (b) Analyze implied tasks
 - (c) Arrange task sequence
 - (d) Identify constraints
 - (e) If necessary, ask for clarification
- (3) The warning order should now be issued to give everyone involved a "heads up"; now they can start preparing their plans and orders, getting their Marines properly prepared.

c. Determine information requirements (step 3). In the course of the mission analysis, the commander determines the information requirements in the areas of operations, relative combat power of friendly and enemy forces, and enemy capabilities. Information not available must be collected and integrated into the estimate.

- (1) Higher headquarters may force feed what is needed. Analysis of on-hand information and review of the generic intelligence request handbook (GIRH) identify key information gaps that the commander requests higher headquarters to fill via high precedence voice and hardcopy messages. This is the time when our prior planning and "what if" drills pay off.

Let's take a look at figure 3-1 on the next page to review the first three planning steps of the planning process and the elements required under each.

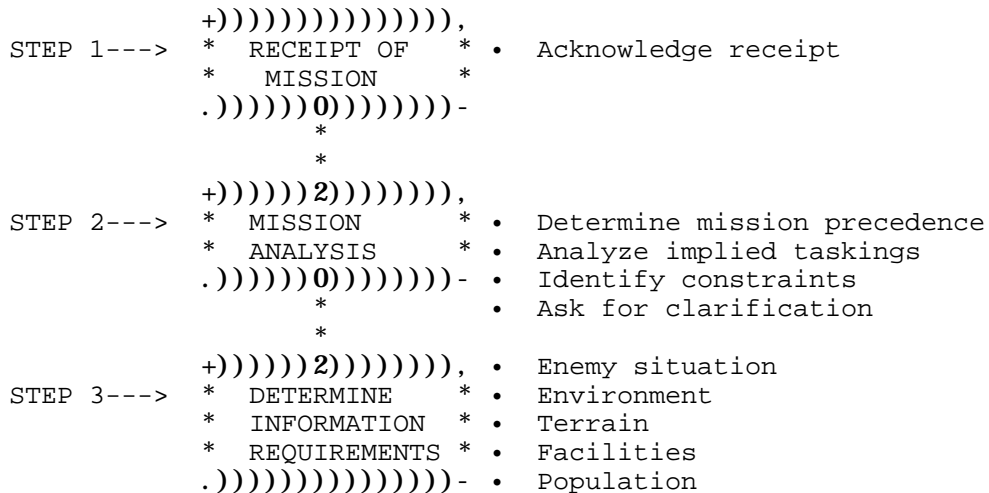


Figure 3-1. Rapid response planning process steps 1 through 3.

d. Initial staff orientation (step 4). The commander receives information from his own staff and from higher, lower, and adjacent headquarters. Any information not available from these sources must be collected and integrated into the estimate process.

- (1) Gaps in information at this early stage are covered by making assumptions. The receipt and evaluation of new information validates these assumptions as planning proceeds. Collection of information is normally begun concurrently with the processes described in steps (2) and (3) of the rapid response planning.
- (2) The initial staff orientation provides a quick review of the situation for both the amphibious squadron (PhibRon) and the MEU staffs and all others who have a need to know. Ensure all "players" are present.

e. MAGTF commander's planning guidance (step 5). The commander provides planning guidance to the staff and to subordinate units. The guidance is derived from his analysis of the mission and consideration of the information available (or not available) at this stage. This is his assistance to his staff in preparing or revising their estimates. Planning guidance may include (1) the commander's analysis of the mission, (2) the commander's general plan for using nuclear weapons or chemical agents, and (3) other factors the commander considers important.

- (1) The amount of planning guidance varies, depending on the mission, the volume and validity of information, the situation, and the experience of the commander. The amount of planning guidance required also varies with the units, the area of operations, the enemy, and the commander.

- (2) The commander's initial guidance is usually incomplete, but it is developed and expanded as more information is obtained. Initial guidance is not limited to one specific step in this sequence, but should precede the preparation of staff estimates.
- (3) This step also applies to the CATF. Commanders receive necessary guidance concerning the topics listed as well as any others that may impact the operation. Also, in rapid planning, subordinate commanders and staff must ask for guidance if it is not given. The less time available for planning, the greater the need for definitive guidance. Nothing should be left in doubt. Let's take a look at some specifics the commander should consider.
 - (a) Restate mission
 - (b) Restate intent
 - (c) Major action to accomplish
 - (d) Assumptions/previous decisions/restrictions
 - (e) Course of actions to consider/ignore
 - (f) Phasing instructions
 - (g) Fire support guidance
 - (h) Comm guidance
 - (i) EW guidance
 - (j) OPSEC guidance
 - (k) Tactical deception
 - (l) SIGINT guidance
 - (m) Preassault operations
 - (n) Subsidiary landings
 - (o) Sea echelon/over-the-horizon
 - (p) CSS/medical
 - (q) Combat engineer guidance
 - (r) Rehearsals

f. Develop courses of action (C/A) (step 6). A course of action (C/A) is a possible plan open to a commander that may lead to the accomplishment of his mission. It is normally expressed in a general statement that describes the type of operation contemplated.

These proposed courses of action are examined by various staff estimates to determine if they can be supported. The commander systematically analyzes and compares these courses of action in his estimate of the situation.

- (1) Courses of action are developed through a deliberate process of consideration. Although many may be considered initially, only those that offer the greatest possibility for success are selected for detailed analysis and comparison in the staff's estimates and the commander's estimate. Less promising courses of action are rejected outright, and subsidiary courses are integrated into major ones. Typically, two or three courses of action are developed for formal consideration in the estimates. As a result of the estimate process, modifications to these courses of action are made when necessary.
- (2) Normally, the G-3/S-3 develops proposed courses of action early in the planning process in coordination with other members of the staff. Often, the commander will have approved the proposed courses of action before issuing his planning guidance. Therefore, the courses of action are included in the commander's planning guidance.
- (3) Occasionally, the proposed courses of action are announced after planning guidance has been issued. Proposed courses of action are necessary for the staff to begin the staff estimate process and should be announced as soon as they have been developed and approved. Unless higher headquarters has directed a specific course of action, the commander does not select a single course of action at this time because doing so would prevent objective and unbiased staff estimates.
- (4) All proposed courses of action must be significantly different and, at the same time, be feasible. They must also incorporate the commander's guidance.
 - (a) Considerations. We cannot simply look at an operational area and develop a good course of action. This is one reason why we need to complete other steps before the developing courses of action. We need to consider some very important facts on every course of action submitted for approval, including the following:
 1. What is the assigned mission?
 2. What is the commander's guidance? This includes any aspect of the situation the commander considers unusual or particularly significant.
 3. What are the available resources, including personnel and equipment?

4. When gathering information from intelligence reports, consider the characteristics of the area of operation, including key terrain, avenues of approach, and the enemy situation.

(b) Content. The content is stated as a task and should include the following:

1. What we intend to accomplish.

2. When we intend to accomplish it.

3. Where we intend to execute.

4. How we intend to accomplish it.

5. Who we intend to use to accomplish it.

Figure 3-2 shows a sample course of action.

On H-Hour on D-Day, the main attack, consisting of two companies reinforced with LAR and tanks, will conduct an amphibious assault over red beach employing AAVs and landing craft to attack along axis red to seize ATF Obj 1 (airfield). Simultaneously, a supporting attack, consisting of one company reinforced with anti-tank sections, will conduct a helicopterborne assault in LZ Hawk to secure LF Obj A, Loma Hill, and to prevent enemy observation and fires onto ATF Obj 1. Artillery lands over red beach and gives priority of fires to the main attack. One company remains in reserve and prepares for a helicopterborne landing in either LZ Hawk to reinforce the company at LF Obj A or along axis red to reinforce the companies assaulting ATF Obj 1.

- (5) Remember, each course of action must
- (a) Be suitable for accomplishing the mission
 - (b) Be acceptable
 - (c) Be feasible
 - (d) Be complete
 - (e) Conform to the commander's guidance
 - (f) Provide alternatives

g. Staff estimates (step 7). Based on the mission and the commander's planning guidance, the staff prepares estimates. These estimates are coordinated among the staff sections. The results are staff recommendations about what actions the commander should take to accomplish his mission.

h. Commander's estimate (step 8). The commander's estimate of the situation is an orderly reasoning process by which the commander evaluates all factors affecting the situation. How does the commander do this? He chooses feasible sequences of action and analyzes them to determine the course of action most likely to accomplish the mission. Normally, the commander listens to both his general and special staff, relying on the written or oral staff estimates.

- (1) The S-3 normally keeps a matrix showing how each staff member weighs each course of action based on capabilities and limitations. One example of a matrix is shown in figure 3-3. The most important thing here is to trust your own instincts--just because your buddy likes a particular course of action doesn't mean that you should.
- (2) Each special staff member briefs the courses of action and rates them in numerical order with the lowest point total being the best. Notice that course of action number one (C/A 1) has the lowest point total. Normally, this means the commander will choose that particular course of action. But remember, too, that war is an art as well as a science and numbers may not tell the whole story. If this matrix reflected the Inchon Plan, General MacArthur would have elected the **least preferred course of action**.

S-3 ESTIMATE MATRIX						
	NGF	ARTY	CAS	COMM	CSS	TOTAL POINTS
C/A 1	2	1	2	1	1	7
C/A 2	1	2	1	2	2	8
C/A 3	3	3	1	3	3	13

Fig 3-3. Sample estimate matrix.

3202. Planning Sequence Prior to the Operations Order

The MAGTF commander's estimate (step 8) and decision (step 9) assist the commander in forming his concept of the operation (step 10). To alert the appropriate units, warning orders (step 11) are distributed. After careful analysis, all the staff members determine what actions are required to carry the operation to successful completion and to prepare detailed plans and orders (step 12). This includes operation plans and, in the case of amphibious operations, embarkation and landing plans that will be included as appendixes in other annexes.

Prior to the receipt of the mission, the MEU and PhibRon must have a detailed, comprehensive SOP that is actually used and is not just a bureaucratic requirement. The SOP is a "how-to" handbook containing the procedures and the various "packages" needed to accomplish expected missions.

Remember the COMMSHIFT we did in Study Unit 2? COMMSHIFT procedures are standard. Standard. What did we say an SOP was? Standing Operating Procedure. Note, the word is standing, not standard. An up-to-date SOP precludes the need for an operations order, allowing planning by exception. However, how many times have you checked into a unit and could not find the SOP? How often have you had in your shop an SOP that was over 3 years old and out-of-date? We will discuss the role of the operations plan/order in preventing situations like these.

a. Commander's decision (step 9). The commander has sole responsibility for making a decision for a course of action based on input from the staff and his own estimate. The commander's decision provides a firm basis for subsequent development of the operation plan.

b. MAGTF commander's concept of operations (step 10). The commander amplifies his decision by stating his overall concept of the operation. The concept is the single unifying factor for the later development of detailed plans and orders since it explains how the commander envisions the operation will proceed. This concept of the operation is general in nature during early planning but becomes refined as detailed planning progresses. In accordance with Joint Publication 1-02, the concept of operations is defined as "a verbal or graphic statement, in broad outline, of a commander's intent or assumptions in regard to an operation or series of operations." The concept is designed to give an overall picture of the operation.

(1) Considerations. The commander must consider five areas in developing a good concept of operations. These five areas are abbreviated METT-T. Let's see what the abbreviation means.

(a) Mission (landing force mission)

(b) Enemy (capabilities)

- (c) Troops (forces available)
 - (d) Terrain characteristics of the area
 - (e) Time (time available)
- (2) Content. To write the concept of operations, the commander must keep in mind that it is a summary statement of how the operation will be conducted to accomplish the mission. It must amplify the mission found in paragraph 2. Traditionally, specific units are not designated. In amphibious operations, the following information must be included:
- (a) Overall formation for landing
 - (b) General scheme of maneuver
 - (c) Principal landing force objectives
 - (d) General task organization
 - (e) Means of ship-to-shore movement
 - (f) Fire support
 - (g) Plans for deception operations, if required
 - (h) Plans for subsidiary operations, if required

c. Warning orders (step 11). As deemed appropriate, units being employed or supporting the commander's concept are alerted through warning orders and furnished with sufficient information to begin planning and preparing for the operation.

d. Preparation of detailed plans (step 12). To ensure sufficient guidance is provided for the staff to start detailed planning, the commander will cover the following six elements when announcing his decision to commit his command to a course of action:

- (1) Who. The "who" usually refers to the command as a whole, but may designate a subordinate command. In cases where the "who" refers to the command as a whole, it may be omitted.
- (2) What. This is a statement of the course of action to be executed to accomplish the mission. An example is "to land and secure, to continue to march, to attack, or to defend."
- (3) Where. In offensive operations, the commander decides the position(s) "from which, to which," the course of action will be executed. In defensive operations, this refers to the position to be defended.

- (4) When. The commander identifies the time(s) at which the course of action will be initiated. For example, this could be on "D-Day at H-Hour" or "without delay."
- (5) How. The "how" refers to the scheme of maneuver or major tactical formation that will be employed to execute the course of action. For example, this could be "with two divisions in the assault," or "with one company reinforced with TOWs."
- (6) Why. It is important to provide a statement about the purpose of the operation to ensure intelligent compliance with the operation plans or orders. This is particularly true when higher headquarters cannot reasonably be reached. The concept of operations is always located in paragraph 3a(2) of the basic plan or order. It may also be found in paragraph 2 of Annex C (Operations) of the operation order or plan. In complex or MAGTF operations, it is stated in Appendix 11 (Concept of Operations) of Annex C (Operations) to the basic order or plan. In such cases, concepts for the ACE and CSSE are included. Additional concepts may be included as required. Plans are amplified in various support documents of the operation order or plan. Such documents will include the following:
 - (a) Plan for landing
 - (b) Plan for supporting fires
 - (c) Plan for employment of aviation
 - (d) Plan for combat service support
 - (e) Plan for civil affairs

Before we move on, can you recall the three rapid response steps required to prepare operation plans/orders? The steps are taken after the staff estimates.

1. _____
2. _____
3. _____

If you answered, (1) MAGTF commander's estimate of the situation, (2) MAGTF commander's decision, and (3) MAGTF commander's concept of the operation, great! If you didn't, go back and study the information again. Now let's put the last four rapid response planning process steps in perspective. Take a look at figure 3-5.

```

STEP 9---->+)))))))))) , • Mission
* COMMANDER'S * • Situation
* DECISION * • Analysis of opposing C/As
.)))))0)))))))- • Comparison of own C/As
* • Decision
*

STEP 10---->+)))))2)))))) , • Commander's intent
* CONCEPT * • Task organization
* OF * • Principal objectives
* OPERATION * • Scheme of maneuver
.)))))0)))))))- • Method of landing
* • Fire support concept
* • Communications concept
* • CSS concept
* • Phasing/sequence of major
* events
*

STEP 11---->+)))))2)))))) , • Review existing plans
* WARNING * • Select plan or run audible
* ORDERS * • Modify plans
.)))))0)))))))-
*
*

STEP 12---->+)))))2)))))) , • Review existing plans
* PREPARATION * • Select plan or run audible
* OF * • Modify plans
* DETAILED PLANS *
.))))))))))-

```

Fig 3-5. Rapid response planning steps 9 through 12.

Lesson Summary. This lesson discussed the first steps in the rapid response planning process. Steps 1 through 8 are used for the staff estimates and steps 9 through 12 are used for the operation order. We discussed information requirements needed to ensure planning is both timely and continuous. In the next lesson, we will discuss the format for the communications related portion of step 8, the communications-electronics estimate.

Exercise: Complete items 1 through 12 by performing the action required.
 Check your responses against those listed at the end of this study unit.

Matching: For items 1 through 12, match each planning step listed in column 1 with its appropriate phase in the rapid planning process listed in column 2. Place your responses in the spaces provided.

Group I: Steps for the Staff Estimates

Column 1	Column 2
<u>Step</u>	<u>Phase of the Rapid Response Planning Process</u>
___ 1. One	a. Initial staff orientation
___ 2. Two	b. Mission analysis
___ 3. Three	c. Receipt of mission
___ 4. Four	d. Determine information requirements
___ 5. Five	e. MAGTF commander's planning guidance

Group II: Steps for the Staff Estimates

Column 1	Column 2
<u>Step</u>	<u>Phase of the Rapid Response Planning Process</u>
___ 6. Six	a. MAGTF concept of operation
___ 7. Seven	b. Commander's estimate
___ 8. Eight	c. Develop courses of action
	d. MAGTF commander's decision
	e. Staff estimate

Group III: Steps for Operation Plans/Orders

Column 1	Column 2
<u>Step</u>	<u>Phase of the Rapid Response Planning Process</u>
___ 9. Nine	a. Commander's concept of the operation
___ 10. Ten	b. Preparation of detailed
___ 11. Eleven	c. Develop courses of action
___ 12. Twelve	d. MAGTF commander's decision
	e. Issue warning orders

Lesson 3. COMMUNICATIONS-ELECTRONICS ESTIMATE FORMAT

LEARNING OBJECTIVES

1. Identify the three purposes of the communications-electronics estimate.
2. Identify, in writing, the contents of the heading and body of the communications-electronics estimate.
3. Name the six paragraphs contained in the situation and considerations paragraph of the communications-electronics estimate.

In the rapid response planning process, the objective during the planning phase is speed. Recall the MAGTF capabilities from Study Unit 1: "A MAGTF will plan and commence execution within 6 hours of the receipt of the warning order." Because of this requirement, the staff estimates are normally briefed orally. To ensure you cover all the bases, however, you should know the written format and you must refer to it each time you give an oral brief of the estimate. This lesson will take you through the entire structure of the communications-electronics estimate process and the preparation of your own estimates.

3301. Purpose of Communications-Electronics Staff Estimates (Step 8)

An estimate of the situation is a logical and orderly examination of all factors affecting mission accomplishment. Its purpose is to determine the most suitable of the various courses of action under consideration. The making of estimates is a continuing job for all officers and SNCOs, especially those assigned as staff personnel. The estimate of the situation is a continuing process that begins at the inception of the planning phase and ends at the conclusion of operations. An entirely new estimate is prepared only when a new operation is undertaken or when a drastic change in the situation renders such action appropriate.

Supporting staff estimates serve three general purposes:

- They assist the commander in summarizing those significant aspects of the situation that influence any course of action that may be adopted.
- They analyze the impact of all factors on a particular course of action.
- They evaluate and determine how the means available can best be employed to support a given course of action.

In addition to supporting the commander's estimate of the situation, staff estimates will assist you in determining the detailed actions necessary to accomplish the overall mission.

3302. Communications-Electronics Estimate Paragraphs

a. Heading. Each heading of a staff estimate contains the same information; no deviation is made. The format for all estimates can be found in FMFM 3-1, Command and Staff Action.

The heading of an estimate contains seven items of information. Let's take a look at figure 3-6 and see exactly what is contained in the heading.

CLASSIFICATION
Copy no. ___ of ___ copies
3rd MEB
TWENTYNINE PALMS
011200Z Jun 92
<u>COMMUNICATIONS-ELECTRONICS ESTIMATE</u>
Ref: NONE

Fig 3-6. Estimate heading.

- (1) Classification. List the overall classification of the contents. Ensure the classification is in capital letters or print that is larger than the text. The classification will be placed at the top and bottom of **every** page.
- (2) Copy number. The issuing headquarters assigns a copy number to each copy. A log should be maintained to track each copy issued to other staff sections. This is extremely important if the estimate is classified.
- (3) Official designation of command. Use a code name, if required, for security. Use the same code name contained in the operation order.
- (4) Place of issue. This may be a code name or postal designator of the geographic location. This item is always capitalized.
- (5) Date/time group. This is the day, hour, month, and year the estimate was issued.
- (6) Title. The title of the estimate being submitted. This line is always capitalized and underlined.

- (7) Reference. The reference line will list any information used to compile your estimate. Normally, reference is made to the mission statement or maps that may have been used. Any reference listed must be made available to recipients of the estimate. If no references are used, the entry will look like this:

Ref: NONE.

b. Body. There are five main paragraphs that make up the content of the body of our estimate. They are mission, situation and considerations, communications-electronics, evaluation, and conclusions.

Let's discuss each paragraph and the information it contains.

- (1) Mission. Although titled as a main paragraph, the information contained here is considered a subparagraph. The mission heading is in all uppercase letters and is underlined. This subparagraph contains a brief restatement of the basic mission of the command as a whole as previously announced by the commander. Deduced missions necessary for the accomplishment of the basic mission, along with decisions of the commander regarding either deduced or basic missions, should be listed in appropriate subparagraphs. Look at the sample mission paragraph in figure 3-7.

1. MISSION

Commander, Amphibious Task Force, will conduct an amphibious operation to seize and secure MARGARITA ISLAND in the COSTA ARCHIPELAGO to reopen the SOCIAL STRAIGHTS. Eliminate ORANGE capability within the bases for U.S. Army forces for subsequent operations; prepare to conduct further offensive operations as directed.

- (2) Situation and considerations. This paragraph will contain the most information and is the second of the five paragraphs. A total of six subparagraphs make up the contents of this paragraph. Most of the information contained in the situation and considerations paragraph is derived from the intelligence brief conducted in step 2 and the commander's guidance received in step 5 of the rapid response planning process. A detailed explanation of the **situation and considerations** paragraph will be covered in paragraph 3303 of this lesson.

(3) Communications-electronics analysis. This is paragraph 3 of the communications-electronics estimate. The information contained here comes from the courses of action developed in step 6 of the rapid response planning process. Each course of action under consideration is analyzed in light of significant factors to determine problems that will be encountered, measures required to solve such problems, and any limiting features. This paragraph will carry as many subparagraphs as necessary to list **every** course of action. Let's take a look at the type of information contained in paragraph 3.

(a) Subparagraph a. Your first course of action will be listed here. Normally, the course of actions are listed here in the same order they were received. This subparagraph is titled "Course of Action #1."

1. Sub-subparagraph 1 is titled "Support Requirements." Two additional sub-subparagraphs will follow and discuss the information shown in figure 3-8.

Terrain and Distance Factors. A discussion of terrain and distance factors that may affect the location of command posts and installations and the employment of means to communicate.

Installations. A discussion of known or deduced communication requirements for each communication and control agency and for other units. These requirements may be expressed as needlines or may be detailed to include types of circuits and terminal service or other forms of communications required by these activities.

Fig 3-8. Sub-paragraph information.

2. Sub-subparagraph 2 is titled "Support Capability." This paragraph contains a discussion of the ability to employ all available means of communications to satisfy the foregoing support requirements. Other sub-subparagraphs that may be used together with this sub-subparagraph are the following:

- (a) Radio and wire
- (b) Messenger
- (c) Visual and sound

Let's take a look at figure 3-9 and see just how paragraph 3 is formatted.

```
+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))),
*3.  COMMUNICATIONS-ELECTRONICS ANALYSIS *
* * * * *
*   a.  Course of action #1 *
* * * * *
*       (1) Support requirements *
* * * * *
*           (a) Terrain and distance factors *
* * * * *
*           (b) Installations *
* * * * *
*       (2) Support capability *
* * * * *
*           (a) Radio and wire *
* * * * *
*           (b) Messenger *
* * * * *
*           (c) Visual and sound *
* * * * *
*   b.  Course of action #2 *
* * * * *
*       (1) Support requirements *
* * * * *
*           (a) Terrain and distance factors *
* * * * *
*           (b) Installation *
* * * * *
*       (2) Support capability *
* * * * *
*           (a) Radio and wire *
* * * * *
*           (b) Messenger *
* * * * *
*           (c) Visual and sound *
* * * * *
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-
```

Fig 3-9. Communications-electronics estimate sample paragraph 3.

(4) Evaluation. This is the fourth paragraph of the communications-electronics estimate. The information contained in this paragraph is based on the previous analysis. The advantages and disadvantages of each course of action listed in paragraph 3 are summarized and compared from a communications-electronics viewpoint. Refer to figure 3-10 for the proper format of this paragraph.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))) ,
*4.  EVALUATION                                                                    *
*                                                                                       *
*   a.  Course of action #1                                                            *
*                                                                                       *
*       (1) Advantages                                                                *
*                                                                                       *
*       (2) Disadvantages                                                            *
*))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))) -

```

Fig 3-10. Sample paragraph 4.

(5) Conclusions. This is the last paragraph of the communications-electronics estimate. All together there are four subparagraphs. They are

- (a) A statement about which course of action under consideration can best be supported from a communications-electronics viewpoint
- (b) A statement of the most obvious disadvantages that render the other courses of action less desirable from a communications-electronics viewpoint
- (c) A statement of significant communications-electronics problems to be solved and limitations that may exist
- (d) A statement of measures required to solve the foregoing communications-electronics problems and to offset any limitations that may exist

c. Ending. The ending is short and simple. It contains the endorsement that lists any supporting documents. Refer to figure 3-11.

- (1) The signature of the individual preparing the estimate will appear immediately following the fifth paragraph. Normally, the communications officer will sign; however, on occasion you, as the comm chief, will be responsible for signing.
- (2) The items affixed to the estimate will be any supporting documents attached as annexes.

/s/ _____

ANNEXES: (as appropriate)

Fig 3-11. Communications-electronics estimate ending.

3303. Situation and Considerations Subparagraphs

As mentioned earlier in this lesson, the situation and considerations paragraph is the largest of the five contained in the comm/elect estimate. We will describe each of the six subparagraphs in detail.

a. Subparagraph a. This subparagraph is titled "Intelligence Situation." It contains information that you have gathered or information obtained from the G-2. If you desire, reference can be made to the intelligence estimate or to other intelligence documents when deemed appropriate. This subparagraph will also have two additional sub-subparagraphs. They follow:

- (1) Characteristics of the area. Include those characteristics affecting communications-electronics such as weather, terrain, transportation networks, and communications routes.
- (2) Enemy strengths and disposition of major units. Include information about tactical units and possible signals intelligence or electronic warfare the enemy could use, such as jamming, wire tapping, and use of imitative deception on voice radios.

b. Subparagraph b. This subparagraph is titled "Tactical Situation." It contains information obtained from the commander's planning guidance and from the G-3/S-3 in step 5. This subparagraph also contains the following three additional sub-subparagraphs:

- (1) Present disposition of major units. This sub-subparagraph contains information on the tactical units and communications-electronics elements.
- (2) Courses of action considered. This sub-subparagraph lists the courses of actions that were selected during step 6 of the rapid response planning process.
- (3) Projected operations. This sub-subparagraph lists factors that could interrupt communications. Some examples of these factors are rates of advance, command post location and displacement, and uncovering of major communications routes.

c. Subparagraph c. This subparagraph is titled "Personnel Situation." Information for this subparagraph has either been gathered by you or obtained from the G-1/S-1 regarding personnel matters affecting the communications-electronics situation. If deemed appropriate, reference may be made to the personnel estimate or other documents. This subparagraph will normally have three sub-subparagraphs containing information on strengths, replacements, and command post organization and operation.

d. Subparagraph d. This subparagraph is titled "Logistic Situation." The contents will include information known or obtained from the G-4/S-4 regarding logistic matters. If appropriate, you can refer to the logistic estimate or other logistic documents. Normally, this subparagraph contains at least three sub-subparagraphs that include information on equipment availability, condition of equipment, and the availability of repair parts and consumable items.

e. Subparagraph e. This subparagraph is titled "Assumptions." An assumption is defined as theory assumed to be true in the absence of positive proof to the contrary. Assumptions are used to bridge gaps between facts. Care should be taken to avoid unnecessary assumptions when facts are available.

f. Subparagraph f. This subparagraph is titled "Communications-Electronics Situation." The contents of this subparagraph will contain current communications installations, the status of the overall communications system, and the location and mission of communications and control agencies. You can reference the COMMSOP and CEOI if appropriate. This subparagraph will include sub-subparagraphs if special items are not covered elsewhere. Examples include frequencies, callsigns, and cryptographic matters.

Let's take a look at a sample paragraph 2 in figure 3-12. It shows the elements that comprise the subparagraphs and how they are formatted.

+))
 * **UNCLASSIFIED** *
 * *
 *2. SITUATION AND CONSIDERATIONS. *
 * *
 * a. Intelligence Situation. (Information known or obtained *
 * from the G-2. Where appropriate, reference may be made *
 * to the Intelligence Estimate or other intelligence *
 * documents.) *
 * *
 * (1) Characteristics of the area. (Those affecting *
 * communications-electronics.) *
 * *
 * (a) Weather *
 * *
 * (b) Terrain *
 * *
 * (c) Transportation networks/communications routes *
 * *
 * (d) Any other areas deemed appropriate *
 * *
 * (2) Enemy Strengths and Disposition of Major Units *
 * *
 * (a) Tactical Units *
 * *
 * (b) Signals intelligence/electronic warfare: *
 * *
 * 1 Jamming *
 * *
 * 2 Wire tapping *
 * *
 * 3 Imitative deception *
 * *
 * 4 Any others deemed appropriate *
 * *
 * b. Tactical Situation. (Information obtained from the *
 * commander's planning guidance and from the G-3.) *
 * *
 * (1) Present Disposition of Major Units *
 * *
 * (a) Tactical units. (List all units involved) *
 * *
 * (b) Communications-electronics elements attached *
 * *
 * (page number) *
 * *
 * **UNCLASSIFIED** *
 * *
 * .))-

Fig 3-12. Sample paragraph 2.

+)) ,

* **UNCLASSIFIED** *

(2) Courses of Action to be considered.

(a) Course of action #1

(b) Course of Action #2

(c) Other course of action if more than two

(3) Projected Operations. (If known, and that will affect the communications-electronics situation.)

(a) Rates of advance

(b) Command post location and displacement

(c) Uncovering of major communications routes

(d) Other information deemed appropriate

c. Personnel Situation. (Information known or obtained from the G-1 regarding personnel matters affecting the communications-electronics situation. Where appropriate, reference may be made to the logistic estimate or other logistic documents.)

(1) Strengths

(2) Replacements

(3) Command post organization and operation

(4) Other information deemed appropriate

d. Logistic Situation. (Information known or obtained from the G-4 regarding logistic matters affecting the communications-electronics situation. Where appropriate, reference may be made to the logistic estimate or other logistic documents.)

(1) Availability of equipment

(2) Condition of equipment

(3) Availability of repair parts and consumable items

(4) Other information deemed appropriate
(page number)

* **UNCLASSIFIED** *

.))-

Fig 3-12. Sample paragraph 2--cont'd.

+)) ,
*
* **UNCLASSIFIED** *
*
* e. Assumptions. (Any assumptions required as a basis for *
* initiating planning or for the preparation of the *
* estimate.) *
*
* f. Communications-Electronics Situation. *
*
* (1) General. (Information regarding current *
* communications installations, the status of the *
* overall communications system, and the location *
* mission of communications and control agencies. *
* Reference may be made to the COMMSOP and CEOI or *
* to the communications-electronics annexes *
* contained in current operation plans or orders.) *
*
* (2) Special. (Items not covered elsewhere that *
* affect the communications-electronics situation.) *
*
* (a) Availability and assignment of radio *
* frequencies *
*
* (b) Assignment of callsigns *
*
* (c) Availability of shipboard communications *
* equipment for troop use *
*
* (d) Arrangement for communications guard *
*
* (e) Anticipated traffic volumes *
*
* (f) Cryptographic matters *
*
* (g) etc. *
*
* (page number) *
*
* **UNCLASSIFIED** *
.))))) -

Fig 3-12. Sample paragraph 2--cont'd.

This lesson has covered information on the communications-electronics estimate. Let's go back and review. Check your responses against those below.

1. What type of information does paragraph 1 of the communications-electronics estimate contain?

2. What is the purpose of the communications-electronics estimate?

3. The information contained in paragraph 2 "Situation and Considerations," subparagraph b "Tactical Situation" of the estimate will be received from what steps in the rapid response planning process?

Step _____ and step _____

Your answers should have been as follows:

1. Mission
2. To assist the commander in summarizing significant aspects of the situation, analyzing the impact of all factors on a particular course of action, and evaluating and determining how the means available can best be employed.
3. Step 5 and step 6

Did you have any trouble? If so, review paragraphs 3301, 3302, and 3303 of this study unit.

Lesson Summary. In this lesson, you learned the three purposes of the communications-electronics estimate. You also learned the information you need to write the heading and body of the communications-electronics estimate. Finally, you learned the six subparagraphs contained in the situation and considerations paragraph. Now that you have completed the estimate, you are ready to prepare paragraph 5 of the operation order/plan.

Lesson 4. OPERATION PLAN/ORDER

In the previous lessons we discussed the sequence of planning to get to a point where we encountered our first major communications planning document, the communications-electronics estimate. Everything involved in the planning process--mission analysis, determining information requirements, staff orientations, developing courses of action, staff estimates, and the MAGTF concept of operation--exists for one single purpose--to use all the information to draft the operation order/plan. For communications personnel, your part in this plan is paragraph 5 of the operation order, command and signal. This lesson will describe the five-paragraph order (operation order) and show where command and signal fits in.

LEARNING OBJECTIVE

Describe the format for the operation plan/order.

3401. Operation Plan and Order Preparation

After considering recommendations by his staff (staff estimates, step 7), the commander prepares his estimate (commander's estimate, step 8) of the situation. This estimate consists of an orderly reasoning process by which the commander evaluates all factors affecting the situation. He analyzes feasible courses of action to arrive at a decision on which course of action is appropriate (commander's decision, step 9). This decision provides a firm basis for subsequent development of the operation order. The commander amplifies his decision by stating his overall concept of the operation (step 10).

a. Concept of operation. The concept of operation is the single most unifying factor for the subsequent development of detailed plans and orders. This is true because it explains the commander's vision of how the operation will proceed. This concept of the operation is

- (1) General in nature during early planning
- (2) Becomes refined as detail planning progresses

b. Definition. Joint Publication 1-02 (JCSPub 1-02) defines the concept of operations as **a verbal or graphic statement, in broad outline, of a commander's intent or assumptions in regard to an operation or series of operations.** The concept is designed to give an overall picture of the operation.

c. Operation plan. The operation plan is the instrument through which the commander translates his decision (step 9) into specific tasks for subordinate units. It contains sufficient detail about execution of the plan to ensure coordinated action by the command as a whole.

- (1) Whether the documents are titled "plans" or "orders" depends primarily upon the time of issue. In many cases, the necessity for the commander to issue early planning guidance to his subordinates will prompt him to issue a tentative directive in the form of a plan. The plan serves as either the basis for subsequent orders or becomes the operation order by issuing appropriate implementation instructions. Remember from Lesson 2, an operation order has a date and time of execution.
- (2) The operation order may be a brief oral statement, such as one issued by a battalion commander to his companies as they continue the attack. Or, it may be a voluminous, detailed document such as one for an amphibious operation. The operation order contains the "who," "what," "when," and "where" of the commander's decision and enough of the "how" and "why" to ensure compliance. However, it does not encroach on the subordinate commander's prerogative to develop the specifics and determine "how" he will accomplish his assigned tasks.

d. Assembly. The assembly of the complete operation plan and the coordination of its component parts is a function of the G-3/S-3. The preparation of detailed parts of the plan, including appended portions, may be assigned to various special staff members. Staff activity in the preparation of the plan is directed and coordinated by the chief of staff. All parts of the plan are approved by the commander before they are disseminated.

e. Form and content. To ensure complete understanding and inclusion of all essential instructions and to facilitate finding references, all operation plans and orders are promulgated in a standard format. The form is divided into three principal parts: heading, body, and ending.

- (1) Heading. Contains the numbering of copies, issuing headquarters, place of issue, date/time group, month and year of issue, message reference number, title and number of plan, reference used in the plan, time and zone used through the plan, and changes from oral orders (figure 3-13).
- (2) Body. The body contains the task organization and the following main paragraphs (table 3-5):

Table 3-5. OpPlan Body Contents--cont'd

```

+))))))0))))))
*      5      * Titled COMMAND AND SIGNAL, contains instructions *
*            * relative to command and communications-electronics*
*            * arrangements. It will include the locations, *
*            * afloat and ashore, if known, of the command posts *
*            * of major elements of the command. If specific *
*            * location of the command post ashore is not known *
*            * at the time of issuance of the order, the approxi- *
*            * mate location should be indicated or the comment *
*            * "to be announced" should be entered. *
.)))))))2))))))

```

(3) Ending. The ending of the operation plan contains acknowledgement instructions, signature, authentication, list of annexes, and distribution (figure 3-14).

ACKNOWLEDGE RECEIPT	
JOHN H. SMITH	
Colonel, U. S. Marine Corps	
Commanding	
OFFICIAL:	
U. R. WRIGHT	Major,
USMC	S-3
CLASSIFICATION	

Fig 3-14. OpPlan ending format.

That covers just the basics of the operation order. Since our job will mainly deal with paragraph 5, let's discuss it in more detail and see what type of information it contains.

f. Command and signal. Paragraph 5 deals with a number of subjects. It contains not only instructions for the establishment and maintenance of communications, but also instructions about the location of command posts, probable locations of future command posts, and command relationships. Earlier in this course in Study Unit 2, paragraph 2102f we discussed the format for paragraph 5 of the operation order. As a member of the commander's special staff, the communications officer is responsible for the preparation of paragraph 5.

Lesson Summary. This lesson provided you with the information required to properly draft the heading and the ending of the operations plan or order. It showed that the body is a five-paragraph order. Paragraph 5 of the operation plan/order was covered in more detail in Study Unit 2.

- - - - -

Exercise: Complete items 1 and 2 by performing the action required. Check your responses against those listed at the end of this study unit.

1. What is contained in the heading of an operation order?
 - a. Date time group, reference used, time zone used in the plan, and acknowledgement instructions
 - b. Situation, mission, execution, administration and logistics, and command and signal
 - c. References, time zone, issuing headquarters, and title of plan
 - d. Issuing headquarters, list annexes, signature, month and year of issue

2. What is contained in the ending of an operations order?
 - a. Acknowledgement instructions, references, time zone
 - b. Acknowledgement instructions, signature, list of annexes
 - c. Signature, list of annexes, maps
 - d. Numbering of copies, date time group, distribution

UNIT SUMMARY

This study unit provided you with the terminology, knowledge, and skills required to draft detailed plans to assist the commander in preparation of combat orders and plans relating to communications-electronics. Not only did we look at the terms of combat plans and orders, but we also covered rapid response planning steps for the communications estimate and paragraph 5 of the operation order, the communications estimate format, and the operation plan. Your next study unit will lead you into the detailed preparation of your basic communications document--Annex K.

Lesson 1 Exercise Solutions

	<u>Reference</u>
1. Comm plan	3101
2. Comm order	3102
3. d.	3103
4. b.	3104
5. a.	3104
6. a.	3104
7. b.	3104
8. b.	3104
9. a.	3104
10. a.	3104
11. c.	3104
12. a. Timeliness	3104
b. Simplicity and brevity	
c. Completeness	
d. Flexibility	

Lesson 2 Exercise Solutions

	<u>Reference</u>
1. c.	3201
2. b.	3201
3. d.	3201
4. a.	3201
5. e.	3201
6. c.	3201
7. e.	3201
8. b.	3201
9. d.	3202
10. a.	3202
11. e.	3202
12. b.	3202

Lesson 3 Exercise Solutions

	<u>Reference</u>
1. b.	3301
2. c.	3302
3. e.	3302
4. a.	3302
5. d.	3302
6. b.	3302
7. c.	3303
8. f.	3303
9. a.	3303
10. b.	3303
11. d.	3303
12. e.	3303

Lesson 4 Exercise Solutions

	<u>Reference</u>
1. c.	3401
2. b.	3401

STUDY UNIT 4

ANNEX K

Introduction. An annex is a document appended to a plan or an order (or to other items). The annex pertains to a type of activity or subject that is not of general interest or is just too voluminous to put in the body of the document. It can be prepared in any form appropriate to its subject matter. It may not necessarily be in the format of the body of the operation plan or order to which it is attached.

The communications-electronics annex is the plan for coordinating the establishment and operation of the communications systems and agencies throughout the landing force. It takes the same form at all levels of command within the landing force and is based upon and supports the tactical and logistical plans.

Annex K comprises communications plans and orders. This study unit will discuss Annex K in detail, including the formatting of its amplifying instructions: appendixes, tabs, enclosures, and attachments.

Before we discuss drafting Annex K, you need to learn the material and information needed to prepare it.

Lesson 1. GATHERING DATA TO USE IN ANNEX K

LEARNING OBJECTIVES

1. Identify the responsibilities of the general and special staff sections.
2. Identify communications resources available for use when conducting an operation.
3. Identify the three purposes of the communications- electronics annex.

4101. Staff Responsibilities for Drafting the Communications-Electronics Annex

The actual drafting of the communications-electronics annex is the responsibility of the communications-electronics officer and his staff. Throughout its preparation of the communications-electronics annex, the communications-electronics officer coordinates with each staff section of the landing force as well as with the communications-electronics officers at parallel and lower commands, ensuring that all requirements are satisfied. Any officer or staff noncommissioned officer who may be assigned communications duties must be prepared to write the communications-electronics annex.

Annex K is referred to by one of three names. FMFM 3-1 calls it Annex K (Communications-Electronics) while FMFM 3-30, which is used for joint or combined operations, refers to Annex K as Annex K (Command and Control Systems), and the Joint Pub 5-03.2 (JOPS Vol II) uses the term Supplemental Planning Formats and Guidance. For the purpose of this study unit, we will refer to the document as simply Annex K. See Appendix A of either FMFM 3-30 or FMFM 3-1 for the exact formatting of the different types of Annex Ks.

The skill that you use to prepare Annex K for tactical employment of your communications unit and equipment will make the difference between producing an effective communications system that supports the mission or a confusing document that invites communications failure and tactical disaster.

You must prepare your communications plan along with the operation plan. Doing this ensures your capability of setting up adequate communications support when and where you need it. Preparing your communications plan along with the operation will also enable you to supervise the installation, operation, and maintenance of communications during the execution of those plans. Begin the planning process by using the following five planning process phases:

1. Collect information
2. Analyze communications requirements
3. Analyze planning factors
4. Prepare plans
5. Develop your communications concept

The first, fourth, and fifth phases will be discussed in this lesson. The second and third are analytical phases and are performed mentally during the thought processes used in the other phases. The second and third phases will therefore not be discussed in the lesson.

Let's begin our discussion with the first phase, collect information. During the rapid response planning process, you received information from other personnel. Now, what other information do you need? You need current and detailed information. So, even though you have some information, you must talk to the staff officers or NCOICs of each staff office to obtain the current and detailed information you need to complete the annex.

Take a look at table 4-1 and see what information you could obtain from these staff officers/NCOICs.

Table 4-1. Information From General/Special Staff

STAFF SECTION*	TYPES OF INFORMATION *	
*G-1/S-1	*The personnel officer provides information * *concerning personnel strengths, replacements, * *command post organization and operation, and any * *special communications requirements pertaining to * *personnel and administration. *	1
*G-2/S-2	*The intelligence officer provides information * *concerning weather, terrain, the enemy situation, * *communications security, and any special * *communications requirements pertaining to * *intelligence. *	1
*G-3/S-3	*The operations and training officer provides * *information concerning the mission, concept of * *operations, task organization, anticipated rates * *of advance, proposed locations of command posts, * *axis of communications, and any special * *communications requirements pertaining to * *operations. *	1
*G-4/S-4	*The combat service support (CSS) officer provides * *information concerning initial allowances and * *resupply of communications-electronics material, * *available CSS, proposed location of CSS * *installations, and any special communications * *requirements pertaining to CSS. *	1
*G-5/S-5	*The civil affairs officer provides information * *concerning the relationship among U.S. Marine * *Forces, civil authorities, and people in a * *friendly or occupied country where Marine Forces * *are present, including any special communications * *requirements pertaining to civil affairs. *	1
*Special Staff Officers	*Other staff officers listed under special staff * *in FMFM 3-1 (NBC, MMO, Embarkation, etc.), * *including liaison representatives from attached * *and supporting units, provide information * *relative to their specialties including any * *special communications requirements. *	1
*Other Headquarters	*Other headquarters provide information that you * *must consider during planning. Senior * *headquarters may assign special communications * *units, impose special communications * *requirements, or issue communications operation * *instructions for the operation. Subordinate * *headquarters may request special units or equip- * *ment, additional personnel or material, or other * *assistance necessary to accomplish their mission. *	1
.)	2)	-

As you can see, you obtain vital information from everyone on the general and special staff. You need to consult them about their specific communications plans and requirements. Establish good working relationships with all staff sections.

Information requirements, located in the left column of the following challenge, are typical subjects that general and special staffs may need to study during operation planning.

Take a minute to complete the challenge below.

Using the types of information that staff sections can provide from table 4-1, fill in each responsible staff section you would contact for detailed information on each subject.

```

+)))))))))))))))))))))))))))))))))))))))0)))))))))))))))))))))) ,
*      INFORMATION REQUIREMENTS      *      RESPONSIBLE SECTION *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Assignment of special                *Other headquarters      *
*communications units                  *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Task organization                     *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Personnel strengths                   *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Relationships between U. S. Marine * *                          *
*Forces and other agencies             * *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Personnel replacements                *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Anticipated rates of advance          *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Enemy situation                       *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Allowances and resupply               *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Weather                               *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Provide liaison representatives       *                          *
/)))))))))))))))))))))))))))))))))))))3))))))))))))))))))))))1
*Terrain                               *                          *
.)))))))))))))))))))))))))))))))))))))2))))))))))))))))))))))-

```

Your answer should appear as shown in the right column under the responsible section of the chart on the next page. If you answered correctly, continue. If you missed something, look it up in paragraph 4101 before continuing.

c. Environmental characteristics affecting the selection of available resources. These characteristics greatly affect communications as explained below:

- (1) Terrain. You should be aware of the topography, vegetation, road networks, soil conditions and other terrain features affecting the location of facilities, installation of wire lines, operation of radio circuits, and messenger service.

Note: Remember, any terrain offers both advantages and disadvantages, so the goal is to capitalize on the advantages and minimize the disadvantages.

Examples: Mountainous areas have a major impact on the operating range of VHF equipment. In places like Norway, HF may be the only reliable communications for ground troops without an extensive retransmission capability.

In the desert, the conductivity of the soil is so poor in most places you will need synthetic grounding systems (rock salt, copper piping, and large amounts of water) to protect equipment and improve the operating performance.

In jungles or densely vegetated areas, you may need to elevate antennas above the tree line.

- (2) Weather. To operate in adverse weather conditions, you will need special equipment or supplies such as heaters, air conditioners, shelters, water proofing materials, or cold weather batteries. Being informed of weather conditions will help you take precautions to minimize the effects of weather on communications.
- (3) Electromagnetic Environmental Effects (E3). The electromagnetic environment affects the maneuverability of military forces and the operation of equipment, systems, and platforms. Some electromagnetic environmental effects include
 - (a) Electromagnetic compatibility/electromagnetic interference
 - (b) Electromagnetic vulnerability
 - (c) Electromagnetic pulse
 - (d) Electronic counter-countermeasures
 - (e) Hazards of electromagnetic radiation to personnel
 - (f) Ordnance and volatile materials

- (g) Natural phenomena effects of lightning and precipitation static.

The key to controlling E3 is an effective training program for operator and maintenance personnel.

Note: You may have noticed that these characteristics came from the rapid response planning process, step 3 - Determine Information Requirements.

Answer this challenge.

Name the four main resources you must consider during operational planning.

1. _____
2. _____
3. _____
4. _____

Your answer should be: personnel, equipment, supplies, and maintenance support. If you answered correctly, continue. If you didn't, review paragraph 4102 before continuing.

As you can see, a great deal of research needs to be done before you can begin to put together an effective plan. Personnel, equipment, supplies, maintenance, the enemy's capabilities, and the terrain are only a few considerations. So far in this lesson, we discussed who you will work with to help develop your plan and what resources are available or needed.

4103. Defining the Purposes of Annex K

Annex K is a tool you use to coordinate the establishment, maintenance, and operation of the communications system in support of the command and agencies involved in the operation. Annex K amplifies the instructions contained in paragraph 5 of the operation plan or order. It contains details about the following:

- The communications mission of the command
- The communications situation of enemy and friendly forces
- The assignment of communications tasks and responsibilities
- Instructions concerning supply and maintenance

By incorporating these details, we are in effect developing our communications concept for operations. Doing this is one of the five phases of the planning process. Annex K describes the following:

- The primary communications-electronics missions the command must accomplish
- Those missions other than routine assigned to communications-electronics personnel at the headquarters
- Those nonstandard communications-electronics missions assigned to commanders of subordinate units
- Certain administrative and logistics details concerning communications-electronics

a. Formulating a plan or order. When formulating an operation plan, your Annex K can become voluminous because of the large amount of information to cover. When you develop an Annex K for a small subordinate organization, the material is less detailed; this means you can create a more concise Annex K.

Note: When creating an Annex K for a subordinate organization, ensure a copy of the major organization's COMPLAN is available for use. Doing this helps you avoid repetition of detailed information.

b. You can save time by preparing a standing Annex K rather than creating a new, comprehensive Annex K every time details and specifics change. This is done by shifting blocks of information on your computer as changes occur. If you are assigned to a subordinate organization, you may be able to place the necessary instructions in paragraph 5 of its operation plan or order.

Note: Remember, you can employ the COMMSOP and CEOI. You may also employ your senior headquarter's annex.

If you are assigned to a subordinate organization, there are times when you may need only to include information in paragraph 5 of your operation plan or order.

c. Annexes are prepared for three purposes: 1. to amplify parts of an order with data that is technical in nature or somewhat limited in application to the command as a whole, 2. to promote clarity, brevity, and simplicity within the body of an order, and 3. to furnish the substance of a plan or order to a subordinate unit. Annex K actually fulfills all three purposes, but primarily the first, since it amplifies paragraph 5 with data that is technical in nature and, for the most part, limited in application to communications-electronics units.

Knowing the purposes of Annex K and without using the information contained in the COMMSOP and CEOI (except by referring to it), you can begin preparing the annex based on orders received from higher headquarters and the conclusions reached in the commander's estimate of the situation (step 9).

Here's another challenge. See if you can answer the following question without looking back at Annex K.

What are the three purposes of Annex K?

1. _____

2. _____

3. _____

Check your responses to see if they substantially agree with the following correct responses. If you answered correctly, continue. If you did not remember the purposes, go back to the beginning of paragraph 4103 and review it before continuing.

1. To amplify parts of an order with data that is technical in nature or somewhat limited in application to the command as a whole
2. To promote clarity, brevity, and simplicity within the body of an order
3. To furnish the substance of a plan or order to a subordinate unit

Lesson Summary. This lesson taught the types of information each staff section produces. In particular, it covered the staff responsibilities of drafting the communications-electronics annex, determining and evaluating communications resources in the objective area, and defining the purposes of the Annex K. The next lesson will address how to format Annex K.

Exercise: Complete items 1 through 10 by performing the action required.
 Check your responses against those listed at the end of the study unit.

Matching: For items 1 through 7, match the general and special staff section in column 1 to the information requirements it provides to the communications section in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Staff Section</u>	<u>Information Requirements</u>
___ 1. G-1/S-1	a. Allowances and resupply of communications-electronics material
___ 2. G-2/S-2	b. Information concerning the weather, terrain, and enemy situation
___ 3. G-3/S-3	c. Information concerning personnel strengths and replacements
___ 4. G-4/S-4	d. Information concerning the mission and concept of operations
___ 5. G-5/S-5	e. Includes liaison representatives from attached and supporting units
___ 6. Special staff officers	f. Provides information concerning the relationships among U.S. Marine forces and agencies in an occupied country
7. Personnel resources for communications operations include the types and numbers of military occupational specialties, the state of _____, and the availability of _____.	
8. Equipment resources for communications operations include the quantity, condition, and operational characteristics of authorized equipment; the availability of replacement equipment; and _____.	
9. Supply resources for communications operations include the availability of _____ and _____.	

10. What are the three purposes of Annex K?

- a. _____

- b. _____

- c. _____

Lesson 2. FORMATTING ANNEX K

Introduction. The communications officer is responsible for communications planning. The communications chief should assist by analyzing all aspects of the situation to determine what communications means are necessary to satisfy requirements. You must be prepared to provide the appropriate information and instructions concerning the installation, operation, and maintenance of communications, including Annex K. When you plan communications for an operation, you can best ensure clarity by planning in reverse order. For example, if planning an amphibious assault, you would start by first analyzing the ship-to-shore phase; then, the afloat, movement, and rehearsal phases; and, finally, the embarkation phase.

Having considered both the requirements and factors affecting the employment of communications through reverse planning, you must then develop a "concept of employment." The "communications concept," table 4-3, lists the significant factors you must consider.

5. Name the only mandatory appendix to include in Annex K.
6. Identify the amplifying segments of appendixes to Annex K.

4201. Preparing Annex K's Heading

In preparing the heading of Annex K, you will find that it is similar to the heading of the operation plan or order described in Study Unit 3. The total content of the heading will depend on whether the annex is issued **with** or **separately from** the basic operation plan or order. If the annex is issued with the basic operation plan or order, some of the information will have already been included within the plan or order format. If the annex is issued separately, it must address all items of information. The next few paragraphs will explain this in detail.

All possible items of information contained in the heading are discussed and illustrated in the following:

a. Copy number. The copy number is assigned to each copy by the issuing headquarters. (A log is maintained to identify the recipient of each copy when the annex is classified.)

Copy No. ____ of ____ copies

b. Issuing headquarters. This consists of the official designation of your unit. (When secrecy is required, use a code name in lieu of your unit name.)

22nd MEU

c. Place of issue. This shows the physical location of the unit issuing the annex. It is always capitalized. The place of issue may be shown in the following three ways:

(1) Geographical location

(1) CAMP LEJEUNE, N.C.

(2) Postal designator

(2) APO NEW YORK NY

(3) Code name

(3) OPERATION SHARP EDGE

d. Date-time group. This shows the date and time the plan or order is signed and, unless otherwise specified in the plan or order, the date and time the annex is effective. It is expressed in standard military sequence: day, hour, time zone of the operating area.

301500R Jun 1992

e. Message reference number. The message reference number is assigned by the originator. It consists of letters, numbers, or a combination of both and allows acknowledgement in the clear.

ABD-1

f. Designation and title. The designation will contain the word "annex" in all capital letters followed by the letter designation. The title of the annex will be in parenthesis followed by the operation plan or order number to which the annex is attached.

ANNEX K (Communication-Electronics) to Operation Order 5-92

g. References of the annex. Refers to documents (maps, charts, publications, photomaps, and SOPs) needed to understand the annex; any reference used must be made available to recipients. (Entry is always included even if no references are used.) Map entries require series number, country, sheet names or numbers, edition, and scale.

Ref: (a) MEFO P2000.1
(COMMSOP)
(b) MEFO P2000.2
(CEOI)
(c) Map: KOREA
1:50,000 AMS
Series L7014
Sheets 6047
I- IV
or

h. Time zone. This shows the time zone used throughout the plan or order. Normally, the time zone is applicable in the objective area.

Time Zone: R

Look at figure 4-1 to see what the heading will look like. Remember that the Annex K heading you use depends on whether the annex is issued **with** or **separately from** the basic operation plan or order. Compare the two headings in figure 4-1 (issued with a plan or order) and figure 4-2 (issued separately).

```

+)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-,
*
*           CLASSIFICATION
*
*
*           I MEF FWD (TF 77)
*           Camp HANSEN, OKINAWA
*           200800R July 1992
*
*ANNEX K (Communications-Electronics) to Operation Order 4-92
*
*Ref:  (a)  MEFO P2000.1 (COMMSOP)
*       (b)  MEFO P2000.2 (CEOI)
*       (c)  Maps: Korea 1:50,000 AMS Series L7014 Sheets 6047
*           I - IV
*
*Time Zone: R
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-

```

Fig 4-1. Annex K heading issued with an order.

Answer the following challenge. Refer to figure 4-1, which shows Annex K issued with the operation order or plan.

What two elements are missing in figure 4-1?

1. _____

2. _____

The two elements missing in figure 4-1 are

1. The copy number ("Copy no. ____ of ____ copies")
2. The message reference number

If your answer matches this, continue. If your answer is different, review paragraph 4201 before continuing.

Now, let's take a look at figure 4-2. It shows the Annex K issued separately from the operation plan or order with all information included.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))
*
*                               UNCLASSIFIED                               *
*
*                               Copy No ____ of ____ copies                *
*                               I MEF FWD (TF 77)                            * *
*                               Camp HANSEN, OKINAWA                        * *
*                               301500R June 1992                          *
*                               PBX-3                                       *
*
*Annex K (Communications-Electronics) to Operation Order 4-92            *
*
*Ref:  None                                                                *
*
*Time Zone:  R                                                            *
.))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-

```

Fig 4-2. Annex issued separately from operation plan or order.

4202. Preparing the Six Main Paragraphs of Annex K

As with all plans and orders, the G-3/S-3 is the staff officer responsible for the preparation and promulgation of the annex. Granted, he doesn't do the actual writing of the annex (that's your job), but he has overall awareness of its preparation.

You must remember that the most important rule when drafting Annex K is to be brief, concise, and avoid duplicating any information if you can.

Note: If certain information is contained in the COMMSOP, CEOI, or the COMMLAN, reference that information.

When you prepare an Annex K, you must address the six main paragraphs.

- General
- Mission
- Execution
- Special measures
- Logistics
- Administration

These paragraphs are the major components and are essential to the development of Annex K. The following section of the course discusses the contents of these paragraphs and their subparagraphs in detail.

4203. Preparing Annex K's Paragraphs and Subparagraphs

We'll discuss the details of the written format of Annex K's paragraphs and subparagraphs in the order they appear in Annex K.

Use this format when you prepare Annex K. (Note: Either the FMFM 3-30 or the FMFM 3-1 forms are appropriate, although minor differences exist. This follows the 3-30 format).

a. General. Like the body of the operation plan or order, the body of the communications-electronics order, Annex K, always contains specific information. The first paragraph of the body is titled "General." It provides background information and/or references. It also gives an overview of the circumstances and environment under which the communications system described in the annex will be developed. In addition, the **general** paragraph includes the purpose of the annex, and the situations that may be encountered during the operation.

- (1) Purpose. This subparagraph contains a brief, general statement that describes the purpose of Annex K with respect to the objectives of the basic plan. It also provides guidance for the conduct of communications-electronics operations in support of the operation.
- (2) Situations
 - (a) General. This subparagraph includes the concept of operations as it pertains to communications.
 - (b) Enemy forces. The enemy forces subparagraph contains enemy forces information that will affect the communications-electronics systems. You can write this by referencing the Intelligence Annex or by providing specific information on enemy electronic warfare capability, communications facilities and capabilities, and the exploitation of enemy assets.
 - (c) Friendly forces. This subparagraph contains information on the higher, adjacent, and/or supporting units or facilities involved in the communications-electronics support of the operation. (This subparagraph contains communications-electronics elements attached or detached for the operation. This subparagraph may make reference to the task organization annex.)
- (3) Attachments and detachments. This subparagraph lists units assigned to augment a larger unit or detached to other units. You can obtain this information by referencing the Task Organization Annex.
- (4) Assumptions. This subparagraph contains assumptions that establish essential criteria for development of the annex. If, as the planning phase progresses, the situation develops differently from that covered in the assumptions, you will need to modify the plan accordingly. Assumptions define the situation the plan is designed to meet; these are restrictions on the plan.

You should hold the number of assumptions to a minimum and word them accurately to describe the conditions under which the plan is to be used. Assumptions are applicable only to plans.

Take a look at figure 4-3 on the next page to see what paragraph 1 (the "General" paragraph) actually looks like.

+)) ,

*1. GENERAL *

* *

* a. Purpose. This annex provides communications-electronics*
* instructions and detailed tasking to communications *
* elements of I MEF FWD for the support of operational *
* requirements in the basic Operation Order 4-92. *
* * *

* b. Situation. *
* * *

* (1) General. *
* (See "Concept of Operations, Annex C Operations) *
* * *

* (2) Enemy Forces. *
* * *

* (a) See Annex B (Intelligence) to Operation *
* Order 4-92. *
* * *

* (b) The enemy has the capability to: *
* * *

* 1 Conduct signal intelligence and *
* electromagnetic warfare operations. *
* Intelligence indicates highest activity *
* occurring before attack by enemy forces. *
* * *

* 2 Conduct extensive and imitative deception *
* on all communications circuits. *
* * *

* (c) Evacuate all captured communications- *
* electronics equipment to this headquarters *
* for exploitation. *
* * *

* (3) Friendly Forces. *
* (See Annex A Task Organization) *
* * *

* (4) Attachments and Detachments. See Annex A (Task *
* Organization) to Operation Order 4-92. *
* * *

* (5) Assumptions. Mobile communications assets from *
* CINCLANTFLT will not be available to the Landing *
* Force to establish entry into the Defense *
* Communications System (DCS). Entry will be *
* established using organic resources. *
* * *

.))) -

Fig 4-3. Sample paragraph 1 of Annex K.

b. Mission. The mission paragraph is the second paragraph of the annex. It normally indicates the time the communications elements will commence operations, the expected duration of the operation, and a brief statement about the general communications-electronics mission of the command. Figure 4-4 shows a sample of the mission paragraph.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))
*2.  MISSION
*
*   Commencing at H-4, D-day, I MEF FWD (TF 77) communications-
*   electronics elements will provide support for the Landing
*   Force and subsequent operations ashore. Communications
*   support will continue until amphibious withdrawal of all
*   I MEF FWD Forces is complete.
.))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-

```

Fig 4-4. Sample paragraph 2 of the annex.

c. Execution. This is the third paragraph of the annex. It deals with specific instructions on the "who" and "how" for establishing communications support for the operation. This paragraph assigns specific missions to subordinate units as well as to the communications organization of the issuing unit. The execution paragraph contains the following four subparagraphs:

- (1) Guiding principles. This subparagraph contains guiding principles that refer to the unit's communications policies or procedures (from the heading references) that require emphasis. It may also outline principles not covered in the SOPs that are necessary for coordination and guidance.
- (2) Operational concepts. This subparagraph describes how the entire operation is visualized from a communications-electronics viewpoint. The particular emphasis is placed on aspects of the basic operation order that establishes communications-electronics requirements, capabilities, and limitations.
- (3) Tasks and responsibilities. This subparagraph assigns specific communications-electronics missions or tasks for both issuing and subordinate units. The tasks for each unit are shown in separate subparagraphs. In addition, instructions for functional-type communications-electronics systems, such as fire support, air defense, and special intelligence communications, are stated in specific subparagraphs.
- (4) Coordinating instructions. This subparagraph provides instructions for communications-electronics tasks that apply to two or more units. It covers the communications means and agencies (communications center, radio, wire, multi-channel radio, messenger service, visual and sound, and communications and control).

Figure 4-5 shows a sample execution paragraph.

The execution paragraph could be lengthy, depending on the number of subordinate units attached.

+)))
*3. EXECUTION *
* *
* a. Guiding Principles. These include current policy that *
* emphasizes maximum use of communications security *
* procedures and assets available to enhance *
* communications security. All command and tactical *
* circuits will be secured to the maximum extent *
* feasible. Callsigns will be changed daily. Use *
* proper authentication procedures and numeral encryption *
* on all nonsecure circuits. Report all suspected *
* intruders and erroneous calls IAW unit SOPs. *
* *
* b. Operational Concept. *
* *
* (1) I MEF FWD Headquarters will initially collocate *
* with RLT-2 on D+1. It will make maximum use of *
* mobile communications assets. *
* *
* (2) Remaining communications assets will phase ashore *
* and establish communications circuits to support *
* total command and control of the Landing Force *
* vicinity of 235013 by D+2. *
* *
* (3) Any additional needed subparagraphs will be added. *
* *
* c. Tasks and Responsibilities. *
* *
* (1) Communications Company (-) (rein) *
* *
* (a) Install, operate, and maintain communications *
* facilities for the I MEF FWD Headquarters *
* ashore in accordance with references (b) and *
* (c) and this annex. *
* *
* (b) On order, establish advance communications *
* control center, switching central, and *
* technical control facility vicinity 235013. *
* *
* (c) Add any other subparagraphs deemed necessary *
* or appropriate. *
* *
* (2) RLT-2 *
* *
* (a) Install, operate, and maintain communications *
* in accordance with references (b), (c), and *
* this annex. *
* *
* (b) Be prepared to provide communications as an *
* alternate I MEF FWD command post if CP *
* becomes a casualty. *
*)))-

Fig 4-5. Sample execution paragraph of Annex K.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))
*
*   (3) MAG-40
*
*   (a) Install, operate, and maintain communications
*   in accordance with references (b), (c) and
*   this annex.
*
*   (b) Be prepared, on order, to establish airborne
*   retransmission facilities for the I MEF FWD
*   tactical net 1 (AM 713) commencing H-4 and
*   terminating on order.
*
*   (4) Brigade Service Support Group 4
*
*   (a) Install, operate, and maintain communications
*   in accordance with references (b), (c), and
*   this annex.
*
*   (b) Provide communications support to the Shore
*   Party Group once ashore.
*
*   Note: Additional subparagraphs could be
*   required if there were more
*   responsibilities.
*
* d. Coordinating Instructions.
*
*   (1) Communications Center. Operations in accordance
*   with reference (b) and Appendix 1 (Communications
*   Security).
*
*   (2) Radio
*
*   (a) Maintain radio silence until notified by this
*   Headquarters.
*
*   (b) See Appendix 2 (Radio Circuit Plan).
*
*   (c) Radio callsigns are in accordance with
*   reference (c) and Appendix 3 (Radio
*   Callsigns and Routing Indicators).
*
*   (3) Wire and Multichannel Radio. See Appendix 4 (Wire
*   and Multichannel Radio Plan).
*
*   (4) Messenger Service. Scheduled messenger service
*   will be announced.
*
*   (5) Visual and Sound. See Appendix 5 (Visual and
*   Sound).
*
*   (6) Systems Management and Control. See Appendix 6
*   (Systems Management and Control).
.))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))

```

Fig 4-5. Sample execution paragraph of Annex K--cont'd.

Stop to review what you've covered so far and try this challenge.

What is the title of the first paragraph in Annex K?

If your answer is "General," you are correct. Continue. If your answer was incorrect, review paragraph 4203a before continuing. Try the next challenge.

List two of the four subparagraphs found in paragraph 3.
1. _____
2. _____

If you listed any two of the following, you are correct and may continue. If you answered incorrectly, review paragraphs 4203b through 4203c before continuing.

1. Guiding Principles
2. Operational Concept
3. Tasks and Responsibilities
4. Coordinating Instructions

d. Special measures. This is the fourth paragraph of the annex. It provides information not covered in separate subparagraphs regarding each special measure or procedure necessary to support the mission. It must include information that is not part of the main communications effort. Figure 4-6 shows the special measures paragraph.

```

+)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))
*4. SPECIAL MEASURES
*
* a. Coordinate with ship's communications officers to
* determine requirements for joint communications tasks
* while embarked and utilization of field radio
* equipment on board, if required.
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-
```

Fig 4-6. Sample special measures paragraph of Annex K.

e. Logistics. This is the fifth paragraph of the annex. It provides a statement of logistical matters affecting the communications-electronics system of the command. Generally, logistics will be adequately covered by referring to Annex D (Logistics) and Annex P (Combat Service Support). Figure 4-7 illustrates an example of the logistics paragraph.

```
+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))),
*5. LOGISTICS *
* * * * *
* a. See Annex D (Logistics) and Annex P (Combat Service *
* Support). *
* * * * *
* b. See Appendix 6 (Special Maintenance Procedures) to this*
* Annex. *
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-
```

Fig 4-7. Sample logistics paragraph of Annex K.

f. Administration. This is the sixth and final paragraph of the annex. It contains administrative procedures concerning communications-electronics personnel as well as administrative matters significant to the overall communications-electronics mission. Normally, the requirements for communications-electronics records and reports will be listed. The command post ashore or afloat locations are also found in this paragraph. Figure 4-8 on the next page is an example of the administration paragraph.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-,
*6.  ADMINISTRATION *
* * * * *
* a.  See Annex E (Personnel). *
* * * * *
* b.  Reports will be in accordance with Annex N (Reports), *
*     and as may be directed. *
* * * * *
* c.  All units submit frequency usage reports to the I MEF *
*     FWD G-6 in accordance with reference (a). *
* * * * *
* d.  Command Posts. *
* * * * *
*     (1) Afloat *
* * * * *
*         (a) Amphibious Task Force (TF 76):  USS Blue *
*             Ridge *
* * * * *
*         (b) 5th Marine Expeditionary Brigade (TF 77): *
*             USS Blue Ridge *
* * * * *
*         (c) Regimental Landing Team 2:  USS Tarawa *
* * * * *
*     (2) Ashore *
* * * * *
*         (a) 5th Marine Expeditionary Brigade (TF 77) *
*             vicinity of 235013. *
* * * * *
*         (b) All Landing Force units report command post *
*             locations when established ashore. *
* * * * *
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-

```

Fig 4-8. Sample administration paragraph of Annex K.

You have completed the six paragraphs of the annex. To check your accumulated knowledge, answer the challenge.

List the six paragraphs of Annex K.

1. _____	4. _____
2. _____	5. _____
3. _____	6. _____

If you answered, "General, Mission, Execution, Special Measures, Logistics, and Administration," you are correct and may continue. If your answer was different, review paragraph 4202 before continuing.

4204. Ending Annex K

Preparing the ending of any annex is easy because the ending of an annex contains very little information. However, the signature can be very confusing. You must know who is authorized to sign Annex K. The following individuals are officially authorized to sign Annex K:

- Commanding Officer
- Executive Officer
- Operations Officer

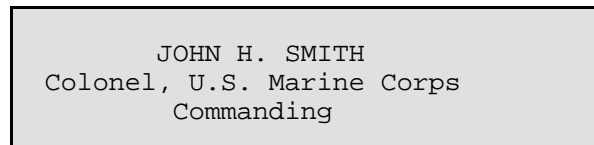
Each variation of signature will be discussed as you progress into the elements that make up the ending. The ending of the communications-electronics annex contains the signature, acknowledgement instructions, distribution, and a list of appendixes.

Following paragraph 6, the next item is the acknowledgement.

a. Acknowledgement instructions. These instructions are included in every order and annex. They will ensure that the recipients receive and understand the order.

b. Signature. The operation order, or an annex, can have three variations of signatures. Each one is unique in the way it is shown on the annex.

- (1) The first variation is the signature of the commanding officer that is a basic endorsement of the plan. His signature will resemble that shown in figure 4-9.



JOHN H. SMITH
Colonel, U.S. Marine Corps
Commanding

Fig 4-9. Sample CO signature.

- (2) The second variation is the signature of the executive officer when he is granted the authority to sign by the commanding officer. Figure 4-10 shows a sample of the XO's signature on the annex.

BY COMMAND OF COLONEL SMITH

R. E. BRISTOW
Lieutenant Colonel, U.S. Marine Corps
Executive Officer

Fig 4-10. Executive officer's signature.

- (3) The third variation of signature authorized on Annex K is referred to as the "**authentication**." Only copies are authenticated!

You will use authentication when copies of the annex do not bear the signature of the commander or the executive officer. Then, the copies are authenticated by the staff officer responsible for the preparation or assembly. Figure 4-11 is a sample of an annex with "authentication signatures." In this case, "authentication" consists of the capitalized word "**OFFICIAL**," followed by the signature, name, rank, service, and official position of the authenticating officer. The authentication indicates that the copy is an exact copy of the original. Normally, the individual authorized to sign the official copies is the Chief of Staff/Operations Officer.

OFFICIAL:

U. R. WRIGHT
Major, USMC
S-3

Fig 4-11. Sample authentication signature.

c. The list of appendixes. The next item of information on the ending would be the list of appendixes. The appendixes are listed in order and attached to the parent annex. See figure 4-12.

```
Appendixes:  
1-Communication Security  
2-Communication Planning  
3-Radio Circuit Plan
```

Fig 4-12. Sample list of appendixes.

d. The distribution. The last item of information is distribution. This item indicates to whom the annexes should be sent. This item is important because annexes are not necessarily given the same distribution as their parent document (the operation plan or order); instead, annexes are distributed only to units and activities affected by the information and instructions contained in them. Distribution is determined by reference to a standard distribution list or a distribution annex accompanying the parent plan or order. Figure 4-13 shows a sample distribution list of an annex.

```
DISTRIBUTION: Annex (Distribution)  
  
or  
  
DISTRIBUTION: CO, RLT-2  
                CO, MAG-40  
                CO, BSSG-4
```

Fig 4-13. Sample distribution.

4205. Identifying the Mandatory Appendix for Annex K

The only mandatory appendix required with Annex K is titled "Communications Security." Figure 4-14 shows a listing for this mandatory appendix.

```
APPENDIXES:  
  
1 - Communications Security
```

Fig 4-14. Sample appendix.

4206. Following Annex K's Amplifying Instructions

Remember, all annexes amplify the operation plan or order. Certain rules are applied when drafting the annex. Details to remember about security classification and format are covered below.

a. Use of appendixes, tabs, enclosures, and attachments. Annex K is appended to the operation order to increase understanding of the order. Similarly, appendixes, tabs, enclosures, and attachments are appended to Annex K to provide further information that is too voluminous or complex to include in Annex K itself. An appendix amplifies an annex, a tab amplifies an appendix, an enclosure amplifies a tab, and an attachment amplifies an enclosure. Figure 4-15 shows the relationship of amplifying documents to the annex.

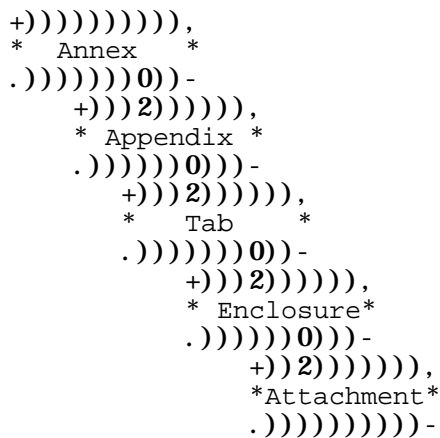


Fig 4-15. Order of amplifying documents

b. The security classification of the annex. Place the security classification in capital letters and center at the top and bottom of each page.

- (1) Be sure you use the FMFM 3-1 format. Ensure each main paragraph has the appropriate security classification marking following the numeral designation.
- (2) Keep in mind for future reference: the JOPS format requires every paragraph (including subparagraphs and sub-subparagraphs) to have the appropriate security classification marking following the numeral or letter designation.

c. The designation of letters to the annex. Assign each annex an uppercase letter corresponding to the annex's succession in the operation order. The annex you will study on the following page will be designated as Annex K.

d. The placement of the page number. Place page numbers (Arabic numerals) above the security classification and centered on the bottom of **every** page.

(1) The page number will always begin with the letter designation of the annex followed by the appropriate page number (Arabic numeral) for the annex, as shown at the right.

6444444444444444444444444444447
5 Annex Page Numbering **5**
K))))))))))))))))))))))))))M
5 K-1 **5**
944444444444L4L4L44444444448
 * *
 * *
 +)))))))- .))))),
 Annex K Page 1

(2) A page number for appendixes, tabs, and enclosures will always start with the annex letter. The appendix is indicated by an Arabic numeral. The page number, also indicated by an Arabic numeral, follows as shown at the right.

6444444444444444444444444444447
5 Appendix Numbering **5**
K))))))))))))))))))))))))))M
5 K-3-1 **5**
944444444444L4L4L44444444448
 * * *
 * *
 +)))))))- * *
 Annex * *
 * *
 +)))- .))))),
R R
 Appendix Page number
 to appendix

(3) Designate a tab using an uppercase letter. To indicate Tab B attached to appendix 3, type it as shown at the right.

6444444444444444444444444444447
5 TAB Numbering **5**
K))))))))))))))))))))))))))M
5 K-3-B-1 **5**
9444444444L4L4L4L44444448
 * * * *
 * * * *
 +)))))))- * * *
 Annex * * .))))),
 * * *
 +)))- .)))- **R**
 * * * Page
R R Number
 Appendix Tab

(4) Designate an enclosure using an Arabic numeral. To indicate Enclosure 1 to Tab B of Appendix 3, type it as shown at the right.

6444444444444444444444444444447
5 Enclosure Numbering **5**
K))))))))))))))))))))))))))M
5 K-3-B-1-1 **5**
94444444L4L4L4L4L44444448
 * * * * *
 * * * * *
 +)))))- * * * .)))-
 Annex +)))- * * Page
 Appendix * * Number
 * *
 * *
 +)))))- .)))-
 Tab Enclosure

6. Which six paragraph titles listed below are used when composing Annex K?
- (1) Situation
 - (2) Mission
 - (3) Execution
 - (4) Administration
 - (5) Logistics
 - (6) Command
 - (7) Signal
 - (8) Special Measures
 - (9) General
- a. 1, 2, 3, 4, 5, 6 c. 2, 3, 4, 5, 8, 9
b. 2, 4, 5, 6, 8, 9 d. 3, 4, 5, 6, 7, 8
7. The subparagraphs "purpose" and "situation" are found in which paragraph of Annex K?
- a. General c. Mission
b. Logistics d. Administration
8. In which paragraph of Annex K is the mission statement located?
- a. 1 c. 3
b. 2 d. 4
9. What is the title of the third paragraph of Annex K?
- a. Mission c. Execution
b. Special Measures d. Administration
10. What are the four subparagraphs found in the execution paragraph of Annex K?
- a. Guiding Principles, Special Measures, Operational Concepts, and Tasks and Responsibilities
b. Tasks and Responsibilities, Administration and Logistics, Command and Signal, and Special Measures
c. General, Mission, Guiding Principles, and Operational Concepts
d. Coordinating Instructions, Operation Concepts, Tasks and Responsibilities, and Guiding Principles
11. What is the title of the fourth paragraph of Annex K?
- a. Mission c. Execution
b. Special Measures d. Logistics
12. What is the title of the fifth paragraph of Annex K?
- a. Mission c. Execution
b. Special Measures d. Logistics

13. Which paragraph of Annex K includes command posts ashore and afloat?

- a. Mission
- b. Special Measures
- c. Administration
- d. Tasks and Responsibilities

Matching: For items 14 through 17, match the information given in column 1 to the appropriate ending element in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Information</u>	<u>Element</u>
___ 14. Indicates to whom the annex is being sent	a. Acknowledgement Instructions
___ 15. Ensures recipients receive and understand the order	b. Signature
___ 16. Can have three variations	c. List of appendixes
___ 17. Listed in order and attached to the parent annex	d. Distribution
18. Which appendix must be included in Annex K?	
a. Radio Circuit Plan	c. Communications Center
b. Safety	d. Communications Security
19. Which document amplifies Annex K?	
a. Appendix	c. Enclosure
b. Tab	d. Attachment
20. Which document amplifies an appendix?	
a. Annex	c. Enclosure
b. Tab	d. Attachment
21. Which document amplifies a tab?	
a. Appendix	c. Enclosure
b. Annex	d. Attachment

Lesson 3. JOINT OPERATION PLANNING SYSTEM (JOPS) FORMAT OR JOINT OPERATION PLANNING EXECUTION SYSTEM (JOPES), ALTERNATIVE ANNEX K FORMATS

Introduction. Originally the Joint Operation Planning System (JOPS) was established by the Joint Chiefs of Staff (JCS) and directed for use in joint planning. Work began on the development of JOPS in 1967, and initial designs of JOPS were approved by the Joint Chief of Staff (JCS) in 1970. Since that time, the system has been further updated to include the improvement of the Joint Deployment System (JDS). The systems have been combined, eliminating the disadvantage of having to move back and forth between the two. Combined, the two systems produce a single system that is both improved and user-friendly--JOPES. This new system was scheduled for fielding in November 1989, but due to development problems and operations Desert Shield and Desert Storm, it was not fielded until the Spring of 1993. The JOPES system provides the framework for all joint planning in which the strategic deployment of forces is the prime concern. It is oriented toward the solution of complex strategic mobility problems associated with force deployment and support. Today the plan is time-sensitive. JOPES is described in Joint Pub 5-03.1, Joint Operation Planning and Execution System, Volume I, "Planning, Policies, and Procedures."

LEARNING OBJECTIVES

1. Identify the six objectives of JOPS/JOPES.
2. Distinguish between Annex K Command and Control Systems (JOPS/JOPES format) and the Annex K Communications-Electronics format.

There are a number of Marine units whose mission requires use of the JOPS/JOPES format from time to time. Our Marine Expeditionary Forces' (MEFs') mission of "worldwide disaster relief and humanitarian aid" is an example.

4301. JOPS/JOPES Objectives

The JOPS/JOPES is a coordinated process that produces a detailed plan to best accomplish the military mission. The process includes people, procedures, communications, and automated data processing (ADP) hardware and software. The following are the six objectives of JOPS/JOPES:

- a. Minimize the number of operation plans that must be prepared
- b. Make it easier to prepare operation plans by standardizing format and reducing content
- c. Make it easier to use and understand operation plans
- d. Incorporate all ADP techniques

e. Standardize the plan review process and the plans themselves (such as emergency evacuation and disaster relief plans)

f. Establish procedures for reporting and processing resource shortfalls and limiting factors identified during the planning process

Unified and specified commanders are directed to employ the principles and procedures prescribed in JOPS/JOPEs for planning new and revised plans. As a result, these principles and procedures are incorporated into the staff and command instructions of the unified and specified commands, and, in certain instances, the staff and command instructions of the services and service component commanders.

Although specific staff division responsibilities for the development of elements of a plan may differ among the various staffs, JOPS/JOPEs procedures are employed in all joint planning.

4302. Distinguishing Between JOPS/JOPEs and Annex K Communications-Electronics Formats

The standardized JOPS/JOPEs operation plan format was developed to facilitate documentation of the strategic, not tactical, deployment of forces. Nevertheless, MAGTF and other unit commanders operating in a joint environment are directed to prepare operation plans and orders in the JOPS/JOPEs format. Consequently, you need to know the JOPS/JOPEs format. An example of the JOPS/JOPEs format for Command and Control Systems Annex (Annex K to the Operation Order) is contained in the FMFM 3-30.

a. General differences. You will see that the JOPS/JOPEs in Annex K, Command and Control Systems format (illustrated in FMFM 3-30) looks quite different in its structure from the Annex K, Communications-Electronics format (illustrated in FMFM 3-1). A first glance will tell you that JOPS/JOPEs is in open (rather than blocked) format and every subparagraph is introduced with its security classification symbol. Looking further, you see the general outline tracks the same subjects, but JOPS/JOPEs breaks these subjects down into more subparagraphs to reference other orders. JOPS/JOPEs provides references rather than the detailed information itself. In fact, JOPS/JOPEs is a message system of references.

b. Heading. Another major difference between the JOPS/JOPEs format and the Annex K, Communications-Electronics format, is the heading format. The heading of the JOPS/JOPEs Annex K format contains less information than does the Annex K Communications-Electronics format described in Lesson 2. This is true because the JOPS/JOPEs heading does not include the separate line for the time zone. But, notice the JOPS/JOPEs heading does show security classifications. Table 4-4 shows the required information for the heading using the JOPS/JOPEs format.


```

+)))))))))) ,
*
* I MEF FWD (TF 77) *
* Camp HANSEN, OKINAWA*
* 200800R July 1992 *
*
*ANNEX K (Communications-Electronics) to Operation Order 4-92 *
*
*Ref: None *
*
*Time Zone: R *
.)))))))))) -

```

Fig 4-16. Communications-electronics format (FM 3-1).

```

+)))))))))) ,
*
* I MEF FWD (TF 77) *
* FPO SAN FRANCISCO CA*
* 200800R July 1992 *
*
*ANNEX K TO I MEF FWD OPORD 4-92 (U) *
*COMMAND AND CONTROL SYSTEMS (U) *
*
*(U) REFERENCES: a. FMFM 3-30 *
.)))))))))) -

```

Fig 4-17. Command and control JOPS/JOPEs format (FMFM 3-30).

Can you readily identify the differences between the two formats? Try this challenge to be sure.

List the differences between Annex K format (Communication-Electronics) and the JOPS/JOPEs format (Command and Control Systems).

1. _____
- _____
2. _____
- _____
3. _____
- _____
4. _____
- _____
5. _____
- _____

If your answer is as follows you are correct; you may continue. If you answered differently, review paragraph 4302 before continuing.

1. The Command and Control Systems Annex format identifies its security classification at the beginning of each subparagraph.
2. The Command and Control Systems Annex format does not have a time zone line.
3. The Command and Control Systems Annex format uses an FPO address.
4. The Command and Control Systems Annex format breaks paragraphs down into more subparagraphs to reference other orders instead of giving detailed information.
5. The Command and Control Systems Annex format is contained in FMFM 3-30 and the Communications-Electronics Annex format is contained in FMFM 3-1.

c. Body. As in the operation plan or order, the body of an annex always contains specific information. The body of the JOPS/JOPES Annex K format contains the same six main paragraphs found in the Annex K Communications-Electronics format. To refresh your memory, they are

- a. General
- b. Mission
- c. Execution
- d. Special Measures
- e. Logistics
- f. Administration

Note: The security classification is listed at the beginning of each paragraph and subparagraph in the JOPS/JOPES format.

Two differences between the JOPS/JOPES Annex K Command and Control (FMFM 3-30) and Annex K Communications-Electronics (FMFM 3-1) formats can be seen in the types of information and in the number of subparagraphs contained in each of their six main paragraphs.

For example, consider the first paragraph of the JOPS/JOPES format. Here the "general" paragraph consists mostly of references.

- (1) General. The "general" paragraph is divided into two subparagraphs titled "purpose" and "situation." Throughout, the paragraph references information about the background and present environment under which the communications system (described in the annex) will be developed. This includes the reason for the annex, the situations that could be encountered during the operation, and assumptions that will influence planning.
- (a) Purpose. This paragraph states the purpose of the annex. It provides guidance for the conduct of communications-electronics operations in support of the operation.
- (b) Situation. This paragraph is further divided into four subparagraphs for easy identification of specific areas.
1. General. This always refers to the concept of operations, Annex C (Operations to the Operation Plan or Order)
 2. Enemy. This paragraph is further divided into two subparagraphs:
 - a. The first subparagraph always refers to Annex B (Intelligence to the Operation Plan or Order).
 - b. The second subparagraph refers to the enemy capabilities.
 3. Friendly. This paragraph always refers to Annex A (Task Organization to the Operation Plan or Order) and contains a minimum of three additional subparagraphs. These subparagraphs list:
 - a. Higher headquarters or other units that will provide communications
 - b. Command relationships that will usually be referred to through Annex J (Command Relationships to the Operation Plan or Order)
 - c. Attachments and Detachments. Uses Annex A (Task Organization to the Operation Plan or Order) as a reference
 4. Assumptions. Contains those assumptions established during the planning phases

Refer to figure 4-18 on the following page for a sample paragraph 1 (General) in the JOPS/JOPES format.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-,
*1. (U) GENERAL *
* * *
* a. (U) Purpose. This annex provides guidance for the *
* establishment of universally standard communications required *
* in support of I MEF FWD operations. *
* * *
* b. (U) Situation *
* * *
* (1) (U) General. See Concept of Operations, Annex C *
*(Operations) to Operation Order 4-92. *
* * *
* (2) (U) Enemy *
* * *
* (a) (U) Annex B (Intelligence) to Operations Order *
*4-92. *
* (b) (U) The enemy has the capability to *
* * *
* 1 (U) Conduct ECM to include imitative *
*communications deception (ICD), jamming (communications and *
*radar), and radar deception operations. *
* * *
* 2 (U) List all areas that would apply. *
* * *
* (3) (U) Friendly. See Annex A (Task Organization) to *
*Operations Order 4-92. *
* * *
* (a) (U) Higher headquarters or other specific *
*organizations that will provide communications to I MEF FWD *
*in a specific operation. *
* * *
* (b) (U) See Annex J (Command Relationships) to *
*Operation Order 4-92. *
* * *
* (c) (U) Attachments and Detachments *
* * *
* 1 (U) See Annex A (Task Organization) to *
*Operation Order 4-92. *
* * *
* 2 (U) When OPCON is taken of MAGTF units as *
*I MEF FWD forms MARFOR communications assets will be listed *
*separately. *
* * *
* (4) (U) Assumptions. State the assumptions that *
*establish essential criteria for development in the annex. *
.)))))

```

Fig 4-18. Sample paragraph 1 of a JOPS/JOPEs format annex.

Looking over figure 4-18, did you notice the obvious, basic differences between it and the FMFM 3-1 format that you learned in Lesson 2? The JOPS/JOPEs format annex is not blocked like the previous annex and the JOPS/JOPEs format uses a security classification symbol at the beginning of each paragraph and subparagraph of the annex.

You may also notice that some of the subparagraphs are different throughout.

- (2) Mission. The JOPS/JOPEs format mission paragraph, like the Annex K Communications-Electronics format mission paragraph, is a concise statement of the communications-electronics mission of the command. Normally, this paragraph states the time the communications-electronics agencies will commence and terminate operations. See figure 4-19 for an example of the JOPS/JOPEs format mission paragraph.

2. (U) MISSION. Commencing and terminating on order, 5th MEB communications-electronics activities will install, operate, and maintain the internal and external communications systems and facilities to provide reliable command and control communications support for assigned operations.

Fig 4-19. Sample JOPS/JOPEs format mission paragraph.

- (3) Execution. This is the third paragraph of the JOPS/JOPEs format Annex K. It deals with specific instructions on the "who and how" for establishing communications support for the operation. This paragraph assigns specific missions to subordinate units as well as to the communications organization of the issuing unit. The execution paragraph contains the following three subparagraphs:
 - (a) Guiding principles. This subparagraph outlines principles necessary to coordinate and guide all commands and agencies. It also mentions selected policies, doctrines, or procedures from the references that need emphasis. (New procedures and authorized deviations from standard procedures are included in a separate subparagraph.)
 - (b) Operational concepts, capabilities, and limitations. This subparagraph describes how the entire operation is visualized from a communications-electronics viewpoint. Particular emphasis is given to the aspects of the basic operation order that establish communications-electronics requirements, capabilities, and limitations.

(c) Tasks and responsibilities. This subparagraph separates the issuing unit's communications-electronics tasks from the subordinate units' tasks. The tasks for each unit are shown in separate subparagraphs. Also, instructions for functional-type communications-electronics systems, such as fire support, air defense, and special intelligence communications, are included in specific subparagraphs.

Take a look at figure 4-20 to see what the execution paragraph looks like. Remember, this could be a lengthy paragraph depending on the number of subordinate units attached.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))
*3. (U) EXECUTION *
* * * * *
* a. (U) Guiding Principles *
* * * * *
* (1) (U) The communications procedures contained in refer- *
* ences (a) through (c) and appropriate ACPs and JANAPs listed in *
* reference (b) will be used by communications elements of I MEF *
* FWD. *
* (2) (U) Communication is the voice of command. *
* Communications provide the means by which the commander not *
* only exerts his influence on the battlefield, but also allows *
* him to exercise command over all his assigned forces. To be *
* effective, the communications systems must be flexible and *
* provide rapid, reliable service without disclosing vital *
* information to enemy forces. *
* * * * *
* (3) (U) When I MEF FWD operations are conducted in a *
* hostile communications environment, the following communication *
* degradations may be expected: *
* * * * *
* (a) (U) Loss of DCS entry due to equipment damage or *
* circuit path loss. *
* * * * *
* (b) (U) Isolation of headquarters due to loss of *
* wideband systems. *
* * * * *
* (4) (U) Frequency changes, radio transmission brevity, *
* and, on occasion, complete emission control will be employed *
* to facilitate control and reduce anticipated interference with *
* communications. *
.))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-

```

Fig 4-20. Sample execution paragraph of the JOPS/JOPES format.


```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-,
*   b. (U) Operation Concept, Capabilities, and Limitations *
* * * * *
*   (1) (U) Every communications means available will be *
*utilized to provide the commander with the ability to exert his *
*authority and fulfill his responsibilities. It is the *
*responsibility of G-6/S-6 to make the commander fully aware of *
*the capabilities and limitations of the communications system. *
* * * * *
*   (2) (U) The major limitation of the communications system *
*centers on the high EW threat environment. *
* * * * *
*   (a) (U) The enemy has the full capability to disrupt, *
*intercept, and confuse friendly forces communications. *
* * * * *
*   (b) (U) ALL personnel using voice communications must *
*display exceptional care to ensure that intelligence *
*information is denied the enemy. This can be done best using *
*authentication, encryption systems, and GOOD COMMON SENSE. *
* * * * *
*   (3) (U) Appendix 1 (Communications Security) to this *
*annex outlines those measures designed to deny unauthorized *
*persons information that can be derived from an analysis of *
*the friendly forces communications system. *
* * * * *
*   c. (U) Tasks and Responsibilities. Appendix 3 *
*(Communications Planning) to this annex highlights those *
*communications planning considerations that must be taken in *
*the execution of the assigned mission. *
* * * * *
*   (1) (U) I MEF FWD *
* * * * *
*   (a) (U) Provide the net control station for all I MEF *
*FWD controlled radio circuits. Appendix 4 (Radio Circuit Plan) *
*to this annex. *
* * * * *
*   (b) (U) Install, operate, and maintain a systems *
*control and technical control facility in support of all I MEF *
*Control to this annex. Appendix 8 (System Management and *
*Control) to this annex. *
* * * * *
*   1 (U) Ensure that a communications liaison *
* representative is at higher and adjacent headquarters to *
* facilitate the direct handling of communications-electronics *
* questions and/or problems. *
* * * * *
*   2 (U) Ensure that the CEO and the command are *
*informed of the communications circuit status. *
.)))))

```

Fig 4-20. Sample execution paragraph of the JOPS/JOPES format--
cont'd.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-,
*      (2) (U) Det 2nd Radio BN *
*
*      (a) (U) Provide EW communications support for I MEF *
*FWD in accordance with normal SOP and Appendix 3 (Electronic *
*Warfare) to Annex C (Operations) and this annex. *
*
*      (b) (U) Establish and maintain a I MEF FWD signals *
*intelligence/electronic warfare control center (S/EWCC) in *
*accordance with reference (c). *
*
*      (3) (U) Ground Combat Element *
*
*      (a) (U) Install, operate, and maintain internal and *
*external communications circuits as directed in unit SOPs and *
*this annex. *
*
*      (b) (U) Be prepared to assume communications and *
*crypto guard for I MEF FWD and to assume net control of I MEF *
*FWD circuits in the event this headquarters becomes a casualty. *
*
*      (4) (U) Aviation Combat Element *
*
*      (a) (U) Install, operate, and maintain internal and *
*external communications circuits as directed in unit SOPs and *
*this annex. *
*
*      (b) (U) Be prepared to maintain TADIL A and TADIL B *
*connectivity with COMPHIBRON SEVEN and FSCC as required. *
*
*      (5) (U) Combat Service Support Element *
*
*      (a) (U) Install, operate, and maintain a SYSCON/ *
*TECHCON facility to ensure the rapid restoration or rerouting *
*of communications circuits.
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-

```

Fig 4-20. Sample execution paragraph of the JOPS/JOPES format--
cont'd.

Try the next challenge. You may refer to figures 4-5, 4-17, 4-18, and 4-20.

When comparing the JOPS/JOPES execution format to the Annex K Communication-Electronics execution format, what subparagraph is found in the Annex K format but not in the JOPS/JOPES format?

If your answer is the coordinating instructions subparagraph, you are correct. If your answer is different, compare figures 4-17 through 4-20 with figure 4-5 (paragraph 4203) before continuing.

(4) Special Measures. This is the fourth paragraph of the JOPS/JOPEs annex and provides, in separate subparagraphs, information regarding each special measure or procedure necessary to support the mission not covered in paragraph 3. This paragraph includes information on the communications-electronics operations that are not part of the main effort, such as C² measures, routing indicators, electronic identification procedures, and liaison teams. Figure 4-21 illustrates the special measures paragraph.

```
+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))),
*4. (U) SPECIAL MEASURES *
* * * * *
* a. (U) The CEO and other communications personnel will make *
*special efforts to indoctrinate staff/command personnel in *
*alternate routes/means of communications to preclude the *
*confusion or delay of information due to outages in the high *
*threat EW environment. *
* * * * *
* b. (U) The communications necessary for linkup operations is *
*found in Appendix 18 (Communications for Linkup Operations) to *
*this annex. *
* * * * *
* c. (U) Detailed instructions for the establishment of *
*communications entry into the DCS communications network is *
*found in Appendix 21 (Entry into DCS Communications Network) *
*to this annex. *
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-
```

Fig 4-21. Sample special measures paragraph in JOPS/JOPEs format.

(5) Logistics. This is the fifth paragraph of the annex and contains logistical matters that affect the communications-electronics system of the command. Reference is usually made in this paragraph to the Annex D (Logistics) and Annex P (Combat Service Support). Figure 4-22 provides a sample of the logistics paragraph.

```
+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))),
*5. (U) LOGISTICS *
* * * * *
* a. (U) See Annex D (Logistics) and Annex P (Combat Service *
*Support). *
* * * * *
* b. (U) Units will deploy with the capability to perform *
*basic organizational and field maintenance. *
.)))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-
```

Fig 4-22. Sample logistics paragraph in the JOPS/JOPEs format.

(6) Administration. This is the sixth and final paragraph of the JOPS/JOPEs annex and it contains administrative procedures concerning communications-electronics in the areas such as personnel, records, and reports that are significant to the mission as a whole. Command posts ashore and afloat are also shown in this paragraph. Figure 4-23 illustrates an example of the administration paragraph.

```

+))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))))-,
*6. (U) ADMINISTRATION *
* * * * * *
* a. (U) Communications-electronics status and other related *
* reports are determined in Appendix 31 (Communications Reports) *
* to this annex. *
* * * * * *
* b. (U) Security and COMSEC violations will be reported in *
* accordance with Appendix 1 (Communications Security) to this *
* annex. *
* * * * * *
* d. (U) Command Posts *
* * * * * *
* (1) (U) Afloat *
* * * * * *
* (a) (U) Amphibious Task Force (TF 76): USS Blue *
* Ridge *
* * * * * *
* (b) (U) 5th Marine Expeditionary Brigade (TF 77): *
* USS Blue Ridge *
* * * * * *
* (c) (U) Regimental Landing Team 2: USS Tarawa *
* * * * * *
* (2) (U) Ashore *
* * * * * *
* (a) (U) 5th Marine Expeditionary Brigade (TF 77) *
* vicinity of 235013. *
* * * * * *
* (b) (U) All Landing Force units report command post *
* locations when established ashore. *
.)))))

```

Fig 4-23. Sample administration paragraph in JOPS/JOPEs format.

d. Ending. The ending to the JOPS/JOPEs format is identical to that used in the Annex K Communications-Electronics (FMFM 3-1) format shown in figures 4-9 through 4-14. The ending of the JOPS/JOPEs Annex K (FMFM 3-30) Command and Control Systems Annex consists of the following:

- (1) Acknowledgement instructions
- (2) Signature of either the commander or his authorized representative. Authentication by the authorized representative is also acceptable.

(3) List of the appendixes that are attached to the annex

(4) Distribution

Lesson Summary. This lesson taught you to identify the six objectives of the JOPS/JOPEs. You also learned to distinguish the differences between the JOPS/JOPEs Command and Control format and the Annex K Communications-Electronics format.

Exercise: Complete items 1 through 5 by performing the action required. Check your responses against those listed at the end of this study unit.

1. Which statement(s) best describe(s) the objective(s) of the JOPS/JOPEs?
 - (1) Minimize the number of operation plans that must be prepared in complete detail.
 - (2) Accelerate the actions the commander can take to meet a foreseen contingency.
 - (3) Standardize formats and reduces content, making it easier to prepare operation plans.
 - (4) Make it easier to use and understand operation plans.
 - (5) Assist the commander in summarizing significant aspects of the situation that influence a course of action.

a. 1, 2, 3	c. 1, 3, 4
b. 2, 4, 5	d. 3, 4, 5

2. What two subparagraphs are found under the General paragraph of a JOPS/JOPEs Annex K?
 - a. Situation, Enemy Forces
 - b. Situation, Purpose
 - c. Attachments, Detachments
 - d. Purpose, Enemy

3. How many subparagraphs are listed in the Execution paragraph of a JOPS/JOPEs Annex K?

a. 1	c. 3
b. 2	d. 4

4. Which FMFM references information concerning the JOPS/JOPEs Command and Control Systems Annex?

a. FMFM 3-32	c. FMFM 3-1
b. FMFM 3-30	d. FMFM 1-3

5. Which FMFM references information concerning the Communications-Electronics Annex?
- | | |
|--------------|-------------|
| a. FMFM 3-32 | c. FMFM 3-1 |
| b. FMFM 3-30 | d. FMFM 1-3 |

UNIT SUMMARY

This study unit examined Annex K and its purposes. It highlighted the composition of the general and special staff as well as important information in the annex. Specifically, the three lessons covered gathering data to use in Annex K, the format of Annex K, and an alternative Annex K format (JOPS/JOPEs). You also examined the differences between an Annex K Communications-Electronics format and the JOPS/JOPEs Command and Control execution format. Check your answers to the lesson exercise and move on to the Review Lesson when you're ready.

Lesson 1 Exercise Solutions

	<u>References</u>
1. c.	4101
2. b.	4101
3. d.	4101
4. a.	4101
5. g.	4101
6. f.	4101
7. the state of training of assigned personnel, and the availability of replacements in the objective area	4102
8. maintenance facilities in the objective area	4102
9. resupply in the objective area	4102
the quantity and condition of available supplies such as wire, batteries, and repair parts	
10. a. To amplify parts of an order with data that is technical in nature or somewhat limited in application	4103
b. To promote clarity, brevity, and simplicity within the body of the order	
c. To furnish the substance of a plan or order to a subordinate unit	

Lesson 2 Exercise Solutions

1. a.
2. c.
3. b.
4. e.
5. d.
6. c.
7. a.
8. b.
9. c.
10. d.
11. b.
12. d.
13. c.
14. d.
15. a.
16. b.
17. c.
18. d.
19. a.
20. b.
21. c.

References

- 4201
- 4201
- 4201
- 4201
- 4201
- 4202
- 4203
- 4203
- 4203
- 4203
- 4203
- 4203
- 4203
- 4204
- 4204
- 4204
- 4204
- 4205
- 4206
- 4206
- 4206

Lesson 3 Exercise Solutions

1. c.
2. b.
3. c.
4. b.
5. c.

References

- 4301
- 4302
- 4302
- 4302
- 4302

COMMUNICATIONS PLANS AND ORDERS

REVIEW LESSON EXAMINATION

INSTRUCTIONS: The purpose of the review lesson is to prepare you for your final examination. We recommend that you try to complete your review lesson without referring to the text, but for those items (questions) you are unsure of, restudy the text. When you have finished your review lesson and are satisfied with your responses, check your responses against the answers provided at the end of this review lesson examination.

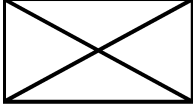
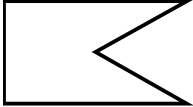
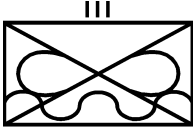
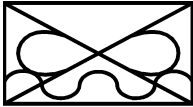
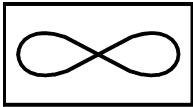
Select the ONE answer which BEST completes the statement or answers the item. For multiple-choice items, circle your response. For matching items, place the letter of your response in the space provided.

1. Which of the following are the four elements of a MAGTF?
 - a. FSSG, MEU, MEB, and MEF
 - b. CE, GCE, ACE, and CSSE
 - c. GCE, RLT, MAG, and ACE
 - d. RLT, BLT, MSSG, and ACE

2. Which six of the following eight are capabilities inherent in all MAGTF units?
 - (1) Enter and exit a battle area at night
 - (2) Operate under adverse weather conditions
 - (3) Operate from over-the-horizon, without electronic emissions, by surface or air
 - (4) Plan and commence execution within 2 hours of receipt of the warning order
 - (5) Provide 30 days' sustainment
 - (6) Locate and fix the enemy
 - (7) Engage, kill, or capture the enemy in a rural or urban setting
 - (8) Operate in hostile nuclear, biological, and chemical environments

a. 1, 2, 3, 4, 5, 7	c. 1, 2, 3, 6, 7, 8
b. 1, 2, 3, 5, 6, 7	d. 1, 2, 5, 6, 7, 8

Matching: For items 3 through 7, match each unit in column 1 to its appropriate symbol in column 2. Place the letter of your response in the space provided.

Column 1	Column 2
<u>Unit</u>	<u>Symbol</u>
___ 3. MAGTF	a. 
___ 4. GCE	b. 
___ 5. ACE	c. 
___ 6. CSSE	d. 
___ 7. MEU	e. 

8. A MEU is composed of a

- a. reinforced infantry battalion, a reinforced helicopter squadron, and a MEU service support group.
- b. light infantry battalion, a wing group, and an MSSG.
- c. Marine infantry battalion, a reinforced helicopter squadron, and a combat service support group.
- d. reinforced infantry battalion, a reinforced harrier squadron, and an MSSG.

9. For sustained operations ashore, the MEUs may serve as the forward elements of

- a. an invading ground force.
- b. a MEF.
- c. a peace-keeping operation.
- d. a special MAGTF.

10. A MEF is composed of
- a. an infantry regiment, a Marine aircraft wing, and a BSSG.
 - b. one or more Marine divisions, a Marine aircraft group, and an FSSG.
 - c. an infantry corps, a Marine aviation squadron, and a CSSD.
 - d. one or more Marine divisions, a Marine aircraft wing, and an FSSG.
11. Which of the following amphibious task force designators is used for Pacific fleets?
- a. 77
 - b. 60
 - c. 26
 - d. 02
12. Which of the following orders assigns task force designators?
- a. Warning Order
 - b. Mission Assignment
 - c. Operation Order
 - d. Initiating Directive
13. Which of the following is the primary function of the landing force operation center?
- a. To effect overall coordination of fires in support of naval operations and the landing force scheme of maneuver ashore
 - b. To control air support and anti-air warfare means including fighter and attack aircraft, surface-to-air missiles, anti-aircraft guns, and air warning facilities
 - c. To provide the means to direct and control helicopters during the ship-to-shore movement
 - d. To control and monitor the activities of the landing force, especially during the assault phase
14. Which of the following is the primary function of the supporting arms coordination center?
- a. To advise and assist the Navy control group during the conduct of the ship-to-shore movement of both surface and helicopter-borne assault
 - b. To effect overall coordination of fires in support of naval operations and the landing force scheme of maneuvers ashore
 - c. To closely coordinate the debarkation of helicopter-borne serials in accordance with the landing plan
 - d. To serve as a single intelligence agency formed during the pre-assault phase of amphibious operations

15. Which of the following is the primary function of the FSCC?
- a. To coordinate close air support and control RPVs
 - b. To plan and coordinate artillery support for subordinate and adjacent units
 - c. To plan, coordinate, and control their units' available fire support
 - d. To coordinate naval gunfire support for subordinate and adjacent units
16. Which of the following is the primary function of the FDC?
- a. To provide tactical and technical fire direction as the artillery COC
 - b. To act as the control point for the HQ Commandant's supervision of the command post
 - c. To control the direction of fire support for the infantry battalion
 - d. To coordinate air support operations with appropriate amphibious task force and landing force air control agencies
17. Which of the following is the primary function of the tactical air command center?
- a. To control and monitor the activities of the landing force, especially during the assault phase
 - b. To act as the senior Marine air command and control system agency
 - c. To advise and assist the Navy control group during the conduct of the ship-to-shore movement of both surface and helicopter-borne assault forces
 - d. To direct the execution of fire support coordination measures and promulgate instructions concerning troop safety
18. Which of the following is the primary function of the TAOC?
- a. To effect overall coordination of fires in support of naval operations and the landing force scheme of maneuvers ashore
 - b. To exercise operational control and coordination of all rotary and fixed wing aircraft assigned to troop support missions
 - c. To control air support and act as anti-air warfare means that include fighter and attack aircraft, surface-to-air missiles, anti-aircraft guns, and air warning facilities
 - d. To detect, identify, and control the intercepts of hostile aircraft and missiles, and provide navigational assistance to friendly aircraft

19. Which of the following is the primary function of the DASC?
- a. To coordinate air support operations with appropriate amphibious task force and landing force air control agencies
 - b. To direct the execution of fire support coordination measures and promulgate instructions concerning troop safety
 - c. To directly support ground forces by coordinating and controlling close air support and other direct air operations and stingers
 - d. To closely coordinate debarkation of helicopter-borne serials in accordance with the loading plan
20. Which of the following is a function of the battery control center?
- a. To exercise fire control over missile launcher selections
 - b. To exercise the artillery battery fire control
 - c. To handle the naval gunfire call for the fire control center
 - d. To control the company commander's mortar section
21. Which of the following is the primary function of the helicopter direction center?
- a. To provide the means to direct and control helicopters during the ship-to-shore movement
 - b. To closely coordinate the debarkation of helicopter-borne serials in accordance with the landing plan
 - c. To exercise operational control and coordination of all rotary and fixed wing aircraft assigned to the troop support mission
 - d. To coordinate air support operations with appropriate amphibious task force and landing force air control agencies
22. What is the primary function of the tactical logistical group?
- a. To coordinate air support operations with appropriate amphibious task force and landing force air control agencies
 - b. To advise and assist the Navy control group during the conduct of the ship-to-shore movement of both surface and helicopter-borne assault forces
 - c. To establish provisions to ensure adequate communications for the naval elements of the ATF during the planning phase
 - d. To announce the requirements for establishing liaison among all commands of the participating forces for communications planning

23. Which of the following is the primary function of the helicopter logistics support center?
- To closely coordinate debarkation of helicopter-borne serials in accordance with the landing plan
 - To exercise operational control and coordination of all rotary and fixed wing aircraft
 - To advise and assist the Navy control group during the conduct of the ship-to-shore movement of both surface and helicopter-borne assault
 - To coordinate air support operations with appropriate amphibious task force and landing force air control agencies
24. Which of the following is the primary function of the CSSOC?
- To control landing force traffic as it crosses the beach
 - To exercise COC as related to combat service support
 - To maintain a record of targets in the objective area
 - To serve as a single intelligence agency formed during the pre-assault phase
25. Which of the following publications describes radio nets required to support a MAGTF operation?
- FMFM 7-24
 - NTP-3
 - FMFM 3-30
 - NTP-4

Matching: For items 26 through 37, match the MAGTF unit in column 1 to its supporting communications unit in column 2. Place the letter of your response in the space provided. Match the answers only with items in the same group

Column 1	Column 2
<u>MAGTF Unit</u>	<u>Comm Unit</u>
(Group 1)	
___ 26. Division HQ	a. Comm Plt H&S Co
___ 27. MEF HQ	b. Comm Plt HQ Battery
___ 28. Infantry Bn HQ	c. Comm Co HQ Bn
___ 29. Artillery Regt HQ	d. Comm Battery
	e. Comm Battalion

(Group 2)	
___ 30. AAV Bn	a. Comm Plt H&S Co
___ 31. Tank Bn	b. Comm Plt HQ Battery
___ 32. Combat Engr Bn	c. Comm Section H&S Co
___ 33. Artillery Bn	
___ 34. LAI Bn	

(Group 3)	
___ 35. Air Wing	a. Comm Co H&S Bn
___ 36. FSSG	b. MWCS
___ 37. Radio Bn	c. Comm Plt H&S Co
	d. Comm Section H&S Co

38. Which of the following units is responsible for communications between a senior and subordinate unit?
- a. The first unit to set up its communications equipment
 - b. The senior unit
 - c. The unit with the elevated antennas
 - d. The subordinate unit
39. Which of the following units is responsible for communications between a supporting and a supported unit?
- a. The first common senior unit
 - b. The supported unit
 - c. The senior unit
 - d. The supporting unit
40. Which of the following units is responsible for communications between a reinforcing and a reinforced unit?
- a. The first common senior unit
 - b. The reinforcing unit
 - c. The junior unit
 - d. The reinforced unit
41. Which of the following units is responsible for communications between a unit and its attached unit?
- a. The first common senior unit
 - b. The unit to which attachment is made
 - c. The junior unit
 - d. The attached unit
42. Which of the following units is responsible for communications between adjacent units?
- a. The first common senior unit
 - b. The senior unit
 - c. The junior unit
 - d. The first unit in the area
43. An attack launched from the sea by naval and landing forces embarked in ships or craft involving a landing on a hostile shore defines a (an)
- a. amphibious operation.
 - b. airborne operation.
 - c. beach landing assault.
 - d. amphibious reconnaissance.

44. Which two of the following four statements support the responsibilities for a CATF?

- (1) Establishes provisions for adequate LF communications during the planning phase
- (2) Acquires and assigns necessary technical facilities to subordinate elements of the force
- (3) Prepares instructions in support of cover and deception plans prescribed for the operation
- (4) Prepares requests for the allocation of shipboard communications services or facilities for use of landing force units while embarked

- a. 1, 2
- b. 1, 4

- c. 2, 3
- d. 3, 4

45. Which of the following statements best describes the responsibilities of the CLF?

- a. Determines, consolidates, and coordinates the electronic warfare requirements of all participating forces
- b. Prepares and promulgates a complete and coordinated plan for the employment of communications during the operation
- c. Establishes provisions for adequate LF communications during the planning phase
- d. Acquires and assigns necessary technical facilities to subordinate elements of the force

Matching: For items 46 through 53, match each communications requirement in column 1 with its appropriate planning phase in column 2. Place the letter of your response in the space provided.

Column 1	Column 2
<u>Comm Requirements</u>	<u>Planning Phase</u>
___ 46. Establish secure voice radio or teletype	a. Embarkation Plan
___ 47. Conduct an objective critique of performance	b. Rehearsal
___ 48. Establish voice radio or communications between control points (base station, convoy control and assembly area)	c. Movement
___ 49. Employ landing force communications personnel and equipment to augment Navy comm facilities	d. Planning
___ 50. Establish initial allowance of resupply of equipment and spare parts	e. Assault
___ 51. Enforce strict EMCON conditions to prevent intelligence disclosures to the enemy	
___ 52. Establish ship-to-shore radio circuits for the control of loading ships	
___ 53. Control and coordinate logistics support to the landing force during ship-to-shore movement	
54. A command that has broad continuing mission under a single commander and is composed of significant assigned components of two or more services is a	
a. unified command.	c. specified command.
b. joint task force.	d. combined force.
55. A military force composed of elements of two or more allied nations defines a	
a. unified command.	c. specified command.
b. joint task force.	d. combined force.

56. A command with a broad continuing mission that was established and designated by the President through the Secretary of Defense and is normally composed of forces from one service is called a
- a. unified command.
 - b. joint task force.
 - c. specified command.
 - d. combined force.

Matching: For items 57 through 61, match each publication listed in column 1 with its proper definition in column 2. Place the letter of your response in the space provided.

Column 1	Column 2
<u>Publication</u>	<u>Definition</u>
___ 57. Naval Warfare Information Publications (NWIPs)	a. Prepared in conjunction with allied nations and contains information and instructions concerning the employment of communications
___ 58. Joint Army Navy Air Publications (JANAPs)	b. Prepared and approved under the cognizance of the U.S. Military Communications Electronics Board (MCEB)
___ 59. Naval Telecommunications Publications (NTPs)	c. Contain detailed technical instructions
___ 60. Allied Communications Publications (ACPs)	d. Prepared and approved by CNO, contain basic doctrine applicable to the Navy and Marine Corps that is general in nature and relates to planning
___ 61. Naval Warfare Publications (NWP)	e. Contain the policies and procedures for the employment of communications
62. Which of the following commplans/orders is a set of instructions covering those features of operations that lend themselves to a definite or standardized procedure without loss of effectiveness?	
a. COMMLAN	
b. COMMSOP	
c. CEOI	
d. Paragraph 5 of the operation plan or order	

63. Which of the following commplans/orders is created by combining the COMMSOP and the CEOI?
- a. COMMLAN
 - b. Communications Electronics Estimate
 - c. Command and Control Systems Annex
 - d. LOI
64. Which of the following commplans/orders contains technical guidance required to establish and maintain communications in support of operations?
- a. COMMLAN
 - b. COMMSOP
 - c. CEOI
 - d. LOI
65. Which of the following commplans/orders is a problem-solving process that requires a systematic analysis of all essential data?
- a. CEOI
 - b. LOI
 - c. Comm Estimate
 - d. Paragraph 5 of the Operation Order
66. Which of the following commplans/orders is used in the higher echelons of military service to convey broad aims and strategic plans?
- a. CEOI
 - b. LOI
 - c. Comm Estimate
 - d. Paragraph 5 of the Operation Order
67. Which of the following commplans/orders has the following subparagraphs: command relationships, signal, and command posts?
- a. Command and Control Systems Annex
 - b. Letter of Instruction
 - c. Comm Estimate
 - d. Paragraph 5 of the Operation Order
68. Which of the following commplans/orders is an amplification of paragraph 5 of the operation plan or order?
- a. Command and Control Systems Annex
 - b. Letter of Instruction
 - c. Comm Estimate
 - d. COMMLAN

69. One of the advantages of the COMMSOP is that "it reduces the need for other types of orders and simplifies the preparation and transmission of orders." What are the other three advantages?
- a. (1) Promotes understanding and teamwork throughout the command, (2) simplifies and perfects troop training by establishing uniform practices for the unit, and (3) standardizes coordination and control of fire and maneuver
 - b. (1) Simplifies and perfects troop training by establishing uniform practices for the unit, (2) facilitates and expedites tactical and administrative operations and minimizes confusion and errors, and (3) promotes Marine Corps-wide control of the electromagnetic spectrum
 - c. (1) Simplifies and perfects troop training by establishing uniform practices for the unit, (2) promotes understanding and teamwork throughout the command, and (3) facilitates and expedites tactical and administrative operations and minimizes confusion and error
 - d. (1) Facilitates and expedites tactical and administrative operations and minimizes confusion and error, (2) promotes understanding and teamwork throughout the command, and (3) can be used as a guide for the conduct of an entire operation

Matching: For items 70 through 77, match the COMMSOP information in column 1 to the communications means in column 2. Place the letter of your response in the space provided.

Column 1	Column 2
<u>Information</u>	<u>Communications Means</u>
___ 70. Remoting	a. Single Channel Radio
___ 71. Types of construction	b. Wire Communications
___ 72. Retransmission	c. Telecommunications Center
___ 73. Releasing Authority	
___ 74. Use of commercial or enemy lines	
___ 75. Antennas	
___ 76. Message Forms	
___ 77. Message Preparation	
78. Which of the following publications gives detailed instructions for a Comm Guard Shift?	
a. ACP-125	c. CSP-1
b. NTP-3	d. NTP-4

79. Which of the following is the standard request time in hours allowed for a "routine" commshift?
- a. 48 to 72
 - b. 24 to 48
 - c. 24
 - d. 12
80. Which of the following is the standard request time in hours allowed for a "priority" commshift?
- a. 48 to 72
 - b. 24 to 48
 - c. 24
 - d. 12
81. The standard request time allowed for an "immediate" comm shift is less than _____ hours.
- a. 36
 - b. 24
 - c. 12
 - d. 6
82. A combat plan
- a. carries with it the obligation of immediate execution or execution at a specified time or date.
 - b. is effective immediately for planning purposes or for specified preparatory action.
 - c. contains assumptions and calls for immediate execution or execution at a specified time or date.
 - d. is issued in message form and contains instructions of immediate concern.
83. A combat order
- a. carries with it the obligation of immediate execution or execution at a specified time or date.
 - b. is effective immediately for planning purposes or for specified preparatory action.
 - c. contains assumptions and calls for immediate execution or execution at a specified time or date.
 - d. is for a series of related military operations to accomplish a common objective.
84. The two classifications of combat orders are
- a. contingency plans and operations plans/orders.
 - b. warning orders and operation plans/orders.
 - c. letters of instruction and operation plans/orders.
 - d. letters of instruction and fragmentary orders.

Matching: For items 85 through 92, match the plan or order in column 1 with the type of order in column 2. Place the letter of your response in the space provided.

Column 1	Column 2
<u>Plan or Order</u>	<u>Type of Order</u>
___ 85. Warning	a. Combat plan
___ 86. Outline	b. Combat order
___ 87. Campaign	c. Both combat plan or order
___ 88. Letter of Instruction	
___ 89. Fragmentary	
___ 90. Contingency	
___ 91. Alternate	
___ 92. Operation	
93. Sequence the following seven rapid response steps as they are actually performed prior to preparing a communications-electronics estimate.	
(1) Mission analysis (2) Initial staff orientation (3) Develop courses of action (4) MAGTF commander approves courses of action (5) Receipt of mission (6) Determine information requirements (7) MAGTF commander's planning guidance	
a. 5, 4, 1, 2, 3, 6, 7	c. 5, 6, 1, 3, 2, 7, 4
b. 5, 1, 6, 7, 2, 4, 3	d. 5, 1, 6, 2, 7, 3, 4
94. Sequence the following three rapid response steps as they are actually performed after the MAGTF staff elements complete their staff estimate.	
(1) Preparation of detailed plans (2) MAGTF concept of operation (3) MAGTF commander's estimate and decision	
a. 3, 1, 2	c. 1, 2, 3
b. 3, 2, 1	d. 2, 1, 3

95. Which three of the following five statements best describe the purposes of the communications-electronics estimate?
- (1) It is a possible plan open to a commander that may lead to the accomplishment of his mission
 - (2) It assists the commander in summarizing the significant aspects of the situation
 - (3) It analyzes the impact of all factors on a particular course of action
 - (4) It evaluates and determines how the means available can best be employed
 - (5) It normally expresses in a general statement a description of the type of operation contemplated
- a. 1, 2, 3
 - b. 2, 3, 4
 - c. 1, 3, 5
 - d. 3, 4, 5
96. In addition to supporting the commander's estimate of the situation, staff estimates assist the staff officer in determining the detailed actions necessary to
- a. write the appropriate annex.
 - b. draft the concept of operations.
 - c. accomplish the mission.
 - d. complete paragraph 5 of the Op Plan.
97. Which paragraph of the communications-electronics estimate contains the communications-electronics analysis?
- a. 2
 - b. 3
 - c. 4
 - d. 5
98. Which of the following is the title for paragraph 5 of the communications-electronics estimate?
- a. Mission
 - b. Situation and considerations
 - c. Evaluation
 - d. Conclusions
99. What is the title for paragraph 2 of the communications-electronics estimate?
- a. Mission
 - b. Situation and considerations
 - c. Conclusions
 - d. Evaluation

100. Which paragraph of the communications-electronics estimate contains the evaluation?

- a. 1
- b. 2
- c. 3
- d. 4

101. What is the title of paragraph 1 to the communications-electronics estimate?

- a. Mission
- b. Situation and considerations
- c. Communications-electronics analysis
- d. Evaluation

102. Of the nine choices below, select the six subparagraphs contained in the situations and considerations paragraph.

- (1) Mission
- (2) Intelligence
- (3) Personnel
- (4) Tactical
- (5) Administration
- (6) Logistics
- (7) Execution
- (8) Assumptions
- (9) Communications-electronics

- a. 1, 2, 3, 6, 8, 9
- b. 2, 3, 4, 5, 6, 9
- c. 2, 3, 4, 6, 8, 9
- d. 3, 4, 6, 7, 8, 9

Matching: For items 103 through 110, match the type of information in column 1 to its responsible staff section in column 2. Place the letter of your response in the space provided.

Column 1

Column 2

Types of Information

Staff Section

- | | |
|--------------------------------|---------------------------|
| ___ 103. Civil affairs | a. G-2/S-2 |
| ___ 104. Resupply | b. G-3/S-3 |
| ___ 105. Task organization | c. G-4/S-4 |
| ___ 106. Terrain | d. G-5/S-5 |
| ___ 107. NBC | e. Special staff officers |
| ___ 108. Enemy situation | |
| ___ 109. Artillery | |
| ___ 110. Concept of operations | |

111. Personnel resources for communications operations include the types and numbers of particular military occupational specialties, the state of training of assigned personnel, and the
- a. condition of equipment.
 - b. availability of re-supply in the objective area.
 - c. availability of replacements in the objective area.
 - d. first aid location and procedures.
112. Equipment resources for communications operations include the quantity, condition, and operational characteristics of authorized equipment, availability of replacement equipment, and the
- a. number of batteries available.
 - b. state of training of assigned personnel.
 - c. maintenance facilities in the objective area.
 - d. availability of repair parts.
113. Supply resources for communications operations include the availability of resupply in the objective area and
- a. the quantity and condition of available callsigns and radio frequencies.
 - b. the quantity and condition of available supplies such as wire, batteries, and repair parts.
 - c. the location of all the COCs and FSCCs.
 - d. the number of trucks and tracked vehicles available.
114. Which three of the following four statements are the three purposes of Annex K?
- (1) To amplify parts of an order with data that is technical in nature or somewhat limited in application to the command as a whole
 - (2) To explain service required by individual users, anticipated traffic loads and distances, characteristics of the objective area, available resources, and the enemy electronic capability
 - (3) To promote clarity, brevity, and simplicity within the body of the order
 - (4) To furnish the substance of a plan or order to a subordinate unit
- a. 1, 2, 3
 - b. 2, 3, 4
 - c. 1, 3, 4
 - d. 4, 1, 2

115. Which of the following items of information is deleted from the heading when Annex K is issued with the operation order?
- a. Copy number
 b. Date/time group
 c. Place of issue
 d. References
116. Which of the following is the purpose of the message reference number in the heading of Annex K?
- a. To allow acknowledgement in the clear
 b. To describe the specifications of a tactical mission
 c. To establish groupings into which the command will be divided
 d. To give sequence to mission requirements
117. Arrange the following paragraphs in the order they are addressed in Annex K.
- (1) Logistics
 (2) Special Measures
 (3) Administration
 (4) General
 (5) Execution
 (6) Mission
- a. 1, 5, 3, 6, 2, 4
 b. 2, 6, 5, 3, 4, 1
 c. 3, 4, 6, 1, 2, 5
 d. 4, 6, 5, 2, 1, 3

Matching: For items 118 through 125, match the information listed in subparagraph column 1 to its appropriate paragraph in column 2. Place the letter of your response in the space provided.

Column 1	Column 2
<u>Subparagraph</u>	<u>Paragraph</u>
___ 118. Command Post Afloat	a. General
___ 119. Coordinating Instructions	b. Execution
___ 120. Guiding Principles	c. Administration
___ 121. Situation	
___ 122. Responsibilities and Tasks	
___ 123. Operational Concept	
___ 124. Command Post Ashore	
___ 125. Assumptions	

126. Which of the following subparagraphs are found under the "General" paragraph of Annex K?
- a. Purpose, situation, and acknowledgement
 b. Guiding principles, operational concept and tasks
 c. Coordinating instructions, attachments, and command posts
 d. Enemy forces, friendly forces, and attachments

127. The tasks and responsibilities are found under the _____ paragraph of Annex K.
- a. mission
b. general
- c. execution
d. administration
128. Which four of the following six are contained in the ending of Annex K?
- (1) Acknowledgement
(2) Signature
(3) Authentication of all copies
(4) Precedence
(5) Distribution
(6) List of Appendices
- a. 1, 2, 3, 4
b. 1, 2, 4, 5
- c. 1, 2, 5, 6
d. 1, 3, 4, 5
129. Which three of the following five persons are authorized to sign Annex K?
- (1) Commanding officer
(2) Executive officer
(3) Operations officer
(4) Communications officer
(5) Communications chief
- a. 1, 2, 3
b. 1, 3, 4
- c. 1, 4, 5
d. 3, 4, 5
130. Which appendix **must** be included in Annex K?
- a. Frequency Management
b. Communications Reports
c. Communications Security
d. Systems Management and Control

Matching: For items 131 through 134, match each segment in column 1 with the document it amplifies in column 2. Place the letter of your response in the space provided.

Column 1	Column 2
<u>Segment</u>	<u>Document</u>
___ 131. Appendix	a. Operation order
___ 132. Annex	b. Annex
___ 133. Enclosure	c. Appendixes
___ 134. Tab	d. Tabs
	e. Enclosure

LAST PAGE OF THE REVIEW LESSON

Review Lesson Solutions

Reference

1.	b.	1101
2.	c.	1102
3.	d.	1103
4.	a.	1103
5.	e.	1103
6.	b.	1103
7.	c.	1103
8.	a.	1104
9.	b.	1104
10.	d.	1105
11.	a.	1106
12.	d.	1106
13.	d.	1201
14.	b.	1201
15.	c.	1201
16.	a.	1201
17.	b.	1201
18.	d.	1201
19.	c.	1201
20.	a.	1201
21.	a.	1201
22.	b.	1201
23.	a.	1201
24.	b.	1201
25.	c.	1202
26.	c.	1203
27.	e.	1203
28.	a.	1203
29.	b.	1203
30.	c.	1203
31.	c.	1203
32.	a.	1203
33.	b.	1203
34.	a.	1203
35.	b.	1203
36.	a.	1203
37.	c.	1203
38.	b.	1204
39.	d.	1204
40.	b.	1204
41.	b.	1204
42.	a.	1204
43.	a.	1301
44.	c.	1302
45.	c.	1302
46.	a.	1303
47.	b.	1303
48.	a.	1303
49.	a.	1303
50.	d.	1303

Review Lesson Solutions, continued

		<u>Reference</u>
51.	c.	1303
52.	a.	1303
53.	e.	1303
54.	a.	1304
55.	d.	1304
56.	c.	1304
57.	c.	1305
58.	b.	1305
59.	d.	1305
60.	a.	1305
61.	e.	1305
62.	b.	2101
63.	a.	2102
64.	c.	2102
65.	c.	2102
66.	b.	2102
67.	d.	2102
68.	a.	2102
69.	c.	2201
70.	b.	2202
71.	b.	2202
72.	a.	2202
73.	c.	2202
74.	b.	2202
75.	a.	2202
76.	c.	2202
77.	c.	2202
78.	d.	2203
79.	a.	2204
80.	b.	2204
81.	b.	2204
82.	b.	3101
83.	a.	3102
84.	c.	3103
85.	b.	3104
86.	a.	3104
87.	a.	3104
88.	b.	3104
89.	b.	3104
90.	a.	3104
91.	a.	3104
92.	c.	3104
93.	d.	3201
94.	b.	3202
95.	b.	3301
96.	c.	3301
97.	b.	3303
98.	d.	3303
99.	b.	3303
100.	d.	3303

Review Lesson Solutions, continued

	<u>Reference</u>
101. a.	3303
102. a.	3303
103. d.	4101
104. c.	4101
105. b.	4101
106. a.	4101
107. e.	4101
108. a.	4101
109. e.	4101
110. b.	4101
111. c.	4102
112. c.	4102
113. b.	4102
114. c.	4103
115. a.	4201
116. a.	4201
117. a.	4202
118. c.	4203
119. b.	4203
120. b.	4203
121. a.	4203
122. b.	4203
123. b.	4203
124. c.	4203
125. a.	4203
126. d.	4204
127. c.	4204
128. d.	4204
129. a.	4204
130. c.	4204
131. b.	4204
132. a.	4204
133. d.	4204
134. c.	4204

BIBLIOGRAPHY

SOURCE MATERIALS

AFSC PUB-1	The Joint Staff Officer's Guide (1993)
FM 101-5	Staff Organization and Operations
FMFM 3-1	Command and Staff Action
FMFM 3-30	Communications
FMFRP 2-12	Marine Air-Ground Task Force: A Global Capability
FMFRP 3-32	Tri-MEF Standing Operating Procedures for Communication and Computer Systems
FMFRP 14-5	Marine Air Command and Control System Operational Concept (MACCS 2000)
FMFRP 14-7	Over The Horizon (OTH) Amphibious Operations Operational Concept
NTP-3	Telecommunications User's Manual
Joint Pub 1-02	DOD Dictionary of Military and Associated Terms

