STRATEGY RESEARCH PROJECT



# CONTINGENCY COMMUNICATIONS PLANNING FOR THE FORCE XXI ARMY

BY

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USAWC CLASS OF 1995

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# CONTINGENCY COMMUNICATIONS PLANNING FOR THE FORCE XXI ARMY

A STRATEGIC RESEARCH PAPER

by

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18 April 1995

ABSTRACT

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TITLE: Contingency Communications Planning For The Force XXI Army

FORMAT: Strategic Research Paper

DATE: 18 April 1995 PAGES: 70 UNCLAS

America's Army is focused on the 21st century. It is transforming from an industrial to an information age force. A forward-deployed Cold War army has become a power-projection force based largely in the United States. It is therefore now more critical to plan properly prior to deployment. A contingency communications planning doctrine is needed to assist our Signal Corps planners in supporting U.S. combat forces. This study addresses the current roles, missions, and organization of our contingency combat forces and the signal units which provide their communications support. It proposes a contingency communications planning doctrine and concludes with suggestions for a methodology to implement this signal doctrine.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

# CONTINGENCY COMMUNICATIONS PLANNING FOR THE FORCE XXI ARMY

## I

## INTRODUCTION

You can't command if you can't communicate! Military communications systems facilitate the execution of command, control, and its supporting functions. To accomplish this, communications systems must provide rapid, reliable, and secure information interchange throughout the chain of command. "An unbroken chain of communications must extend from the National Command Authorities (NCA) (i.e., the President and the Secretary of Defense), through the Chairman of the Joint Chiefs of Staff, to the combatant commanders, commanders of Service components, and all subordinate commanders."[1] The Chairman of the Joint Chiefs of Staff is responsible through the combatant commands, then each military service ensures that commanders at each echelon have the communications necessary to accomplish their assigned missions.[2] Effective communications systems are critical to planning, executing, and sustaining a successful operation. The communications plan is thus vital to any operations order. This is as true for contingency planning prior to deployment as it is in all phases of military operations - from Operations Other Than War (OOTW) to mid- to high-intensity combat operations.

It is often said that equipment acquisition and modernization must remain at the forefront of the Army's continual

development process. The Army Signal Corps and various specialized communications units especially need this process to continue to adequately support contingency and early entry forces. "C4I For The Warrior," a J6 Directorate concept, notes that warriors' information needs can be satisified only if the technological requirements are specified by the users - not the other way around. Since the Army now acquires commercial off-the-shelf (COTS) technology, the commercial vendors need to know the information needs of the warrior. While both our current Concept Based Requirements System and acquisition process take too long, the COTS acquisition process is usually much quicker. But does this expedient process deliver what the warrior really needs? Easy access to technology cannot be allowed to drive our doctrine. Rather, doctrine should be developed to accomplish the wide range of anticipated missions. Then commercial industry can design and develop the best technology to support this emerging doctrine, using those COTS items that meet the warriors' perceived needs.

This paper argues that the signal community must establish a contingency communications planning doctrine. Such new doctrine will enhance US contingency combat forces/capabilities to fight immediately upon arrival and win.

## BACKGROUND

"As the modern battlefield has grown in space, time, and complexity, so too have the information needs of the commander.

Correspondingly, the task of processing and reducing data to provide the commander with the essential information he needs has become increasingly complex."[3] History has shown that shortfalls in communications have led to partial or total failure in battle. Operation Urgent Fury, the invasion of Grenada, provides a recent example of initial confusion created by a communications breakdown caused primarily by an incompatibility of the joint services' communications equipment. America's First Battles documents the failure of command and control in the first battle of each of America's major wars. In most of these initial battles, these failures ultimately led to catastrophic defeats. Given the fast pace of modern high-intensity warfare, the Army does not want the luxury of losing early battles while firming up its command and control systems.[4] Although America has eventually won its major wars, communications problems contributed to early failures. A force-projection Army must determine its information needs prior to deploying.

Information requirements are generated by the commander/staff and satisfied from a variety of sources. Technological advances have placed the commander in a position to be inundated with incoming data, facts, and statistics. While he is literally drowning in information, he may be starving for knowledge. The problem lies in identifying and prioritizing what information is most critical. After this identification and prioritization, the commander can develop some options. All of his options, however, are based on the premise that the probability of making a correct decision increases when key elements of information required by

the commander are both available and accurate. Better information, then, renders tactical decision-making more accurate.[5]

Such decision-making has become more important within the framework provided by the vertical continuum of war. The familiar depiction of the vertical continuum is shown in Figure I-I. The darkened center area represents the operational art required to organize the tactical events in area 1, which contains the military conditions at the operational level that will achieve strategic objectives in area 2. The more realistic approach in the future is reflected in Figure I-2. The checkered center area represents the future overlap of all three levels of war, an area of integration and simultaneity. The darkened sections on either side depict the area of operational art focused on organizing the events in area 1 to achieve the objectives of area 2. Areas 1 and 2 are larger than in the earlier continuum because of the operational interaction involving both strategy and tactics, caused by technological advances.[6]

These changes in the vertical continuum require a new conceptional framework of command and control, which in turn requires a reassessment of commanders' future information needs. Such a framework should capture, at a minimum, the decision-making and planning processes that drive a commander's information-seeking behavior and his information needs.[7] A situational framework, applicable across many situations, shapes the commander's needs by reducing the number of information requirements to a manageable number. Contingency communications planning doctrine can provide the basis for such frameworks.

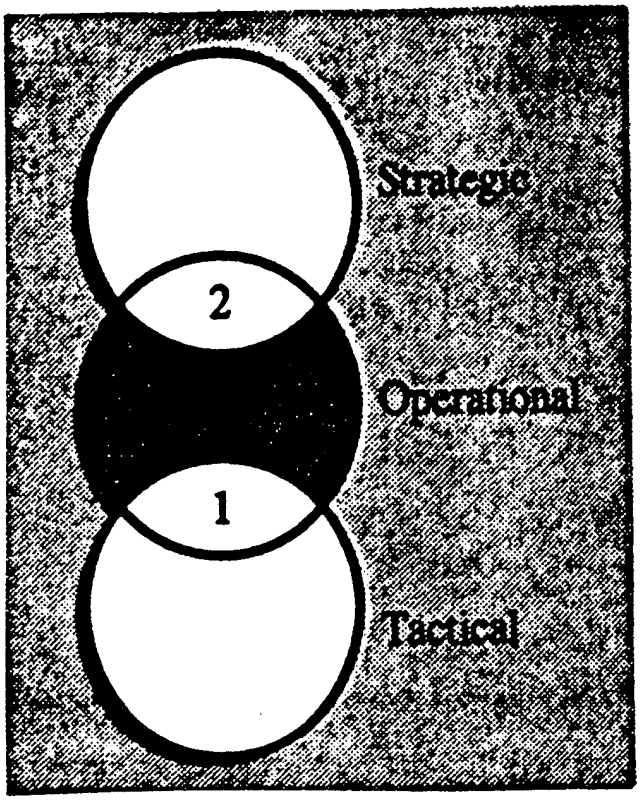


Figure I-1

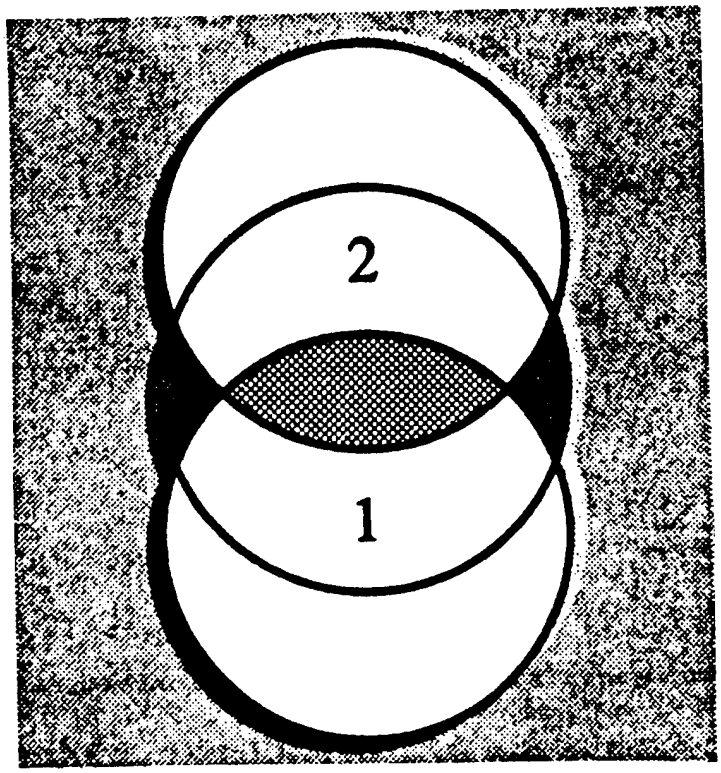


Figure I-2

Studies reviewed by the RAND Corporation have identified multiple categories of commanders' information needs. One category includes a broad variety of "essential" elements of information, ranging from 20 to 62,900 items. Many of the studies qualified their results by stating that the number was either too small because it did not account for special circumstances or too large because it could not effectively shape the design of decision aids. The studies also varied in their designation of essential information categories (intelligence, operations) and in specification of desired levels of aggregation.[8] Since commanders do require different levels of aggregation, it is impossible to identify any given level of aggregation as universally appropriate. Also, the commander's determination of given essential information will fluctuate depending on the Mission, Enemy, Terrain, Troops, and Time (METT-T). Despite these variables, contingency communications planning should anticipate as specifically as possible what the commander's information needs will be for a given type of mission. That is, contingency communications planning should seek to reduce the fogginess of an operation.

The January 1992 US National Military Strategy (NMS) provides crisis response roles and describes contingency forces needed to carry out specific assigned missions. This strategy requires appropriate responses to regional crises. Regional contingencies are many and varied, potentially rising on short notice. US forces need to respond rapidly to deter and, if necessary, to fight unilaterally, or as part of a combined

effort.[9] The recent revision (February 1995) of the US NMS continues this strategy. The "come-as-you-are" arena of spontaneous, often unpredictable crises requires fully trained, highly ready forces that can be rapidly emplaced and that are initially self-sufficient.[10] In a given situation, the CINC can choose what is needed for crisis response either from assigned forces or from US-based contingency forces and special operations forces.[11] US-based Army contingency forces (the XVIII Airborne Corps) include an airborne division that can be air-dropped or air-landed on short notice; an air assault division, with unique helicopter capabilities (employed with great success in Desert Storm); two full-up, all active, heavy divisions, ready to be shipped from the US; and a light infantry division capable of being transported rapidly to a crisis.[12] The United States Special Operations Command (USSOCOM) also provides rapidly deployable forces from the Army, Air Force, and Navy. These contingency forces also must be maintained at the highest possible readiness levels to respond rapidly to crises around the world.[13]

A 1 February 1995 DOD Memorandum asserts the necessity for a capability to fight and win two nearly simultaneous Major Regional Contingencies (MRC). The memo specifies the force levels and other capabilities recommended in the Bottom Up Review (BUR) that are sufficient to support the objectives assigned to the armed forces in the President's National Military Strategy (NMS), including execution of the 2-MRC strategy. The review substantiates that, as long as planned enhancements and service

modernization efforts materialize in a timely manner, the BUR force will remain capable of fighting and winning two nearly simul-taneous major regional contingencies against projected threats. This force will include 10 active-component divisions and a total end strength of 475,000 soldiers by 1999.

However, we should anticipate a continuance of the two-MRC requirement beyond 1999, into a time frame when the force will become even smaller. Planners of signal operations can contribute significantly to contingency planning by carefully anticipating information needs for a variety of missions and operations. A contingency communications planning doctrine would greatly enhance the command and control of initial US combat personnel in a crisis location. But the signal community's awareness of these operational requirements must be shared by the entire command structure. Commanders and staff should accept the responsibility to understand the system and should help determine what information will be needed and when.

Today's combat leaders are faced with a volatile, uncertain, complex, and ambiguous global environment (VUCA). To operate in this environment, the commander must have operational flexibil-ity that provides the broadest possible range of options - a set of "on-call alternatives." The supporting signal plan should be an enabler, not a limiter, in this regard. To do this, the contingency signal planning must retain great flexibility and not lock onto a fixed solution that constrains the commander's options.

Our current and future battlefield presents unique

challenges to deploying US combat forces. The challenge is no less for the signal planners and their communications support. All contingencies require communications. Appropriate signal packages will be designed and tailored for each situation. Dependability and flexibility will be necessary. All this calls for a contingency communications planning doctrine.

ENDNOTES

1. Joint Chiefs of Staff, "Doctrine For Command, Control, Communications, and Computer (C4) Systems Support To Joint Operations," Joint Publication 6-0, p. I-3.

2. Ibid., p. I-3.

3. James P. Kahan, Cathleen Stasz, and D. Robert Worley, Understanding Commanders' Information Needs, p. 1.

4. Ibid., p. 2.

5. Ibid.

6. David Jablonski, The Owl Of Minerva Flies At Twilight: Doctrinal Change And Continuity And The Revolution In Military Affairs, pp. 29-30.

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# II

# DOCTRINAL FOUNDATIONS

Doctrine tells how America's Army intends to conduct war and Operations Other Than War. It must be definitive enough to guide specific operations, yet remain sufficiently adaptable to address diverse and varied situations worldwide.[1] Doctrine is the engine that drives change within the US Army. It is designed to produce conditions that ensure successful operations and accomplishment of missions. Doctrine integrates principles and fundamentals and describes how to meet operational challenges. Thus one of the critical challenges in today's Army is the continuing development of relevant doctrine.[2] Force XXI concepts will guide our military into the next century.

Military doctrine must support the national strategy. Our Army now needs doctrine applicable to current and predicted strategic environments; it will necessarily be much less prescriptive and much less given to precise, scientific analysis than military doctrine of the Cold War.[3] Changing times call for new concepts. Innovative doctrine for the 21st century will change how we think, which will alter what we do and ultimately redefine what we are. During the current transition, the Army is aggressively developing new doctrine and revising manuals in light of these new environmental realities.[4] Emerging doctrine must describe the type and posture of US forces and anticipate their missions in support of the Force XXI concept.

Army Field Manual 100-5 (June 1994), Operations, marks the beginning of a doctrine of full-dimensional operations. It stresses the principles we need understand to maintain the edge in future theaters of war. Moreover, it shows how the art of "battle command" applies these principles in various scenarios. This doctrine profoundly breaks from the narrower, more deterministic approach of the Cold War, with its focus on Central Europe and against a fixed Soviet doctrine.[5]

TRADOC Pamphlet 525-5, Force XXI Operations (August 1994), anticipates full-dimensional operations for a future strategic Army that as part of the joint team will continue to provide staying power on land. Force XXI Operations thus provides a future concept to guide the evolution of the Army into the 21st century.

Doctrine For Joint Operations, Joint Publication 3-0, emphasizes contingency communications planning. Command decisions are generated and transacted by means of communications, computers, and intelligence. When these systems function precisely, they significantly upgrade the speed and accuracy of the information that commanders exchange, both vertically and laterally. Effective command at varying operational tempos requires reliable, secure, and interoperable communications. Communications planning increases options available to Joint Force Commanders (JFCs) by providing the communications systems necessary to pass along critical information at decisive times. These communication systems permit JFCs to exploit tactical success and facilitate future operations.[6]

Doctrine For Command, Control, Communications, and Computer (C4) Systems Support To Joint Operations, Joint Publication 6-0, addresses Crisis and Contingency C4 Systems. During a crisis, actions must be taken quickly so that the opportunity to influence events and prevent escalation is not lost. In the early stages of a crisis, critical C2 connectivity provides on-going, instant communications with military units, diplomatic personnel, friendly forces, and, wherever possible, hostile elements.[7]

The NMS relies heavily on the use of power projection forces. The US Army has completed its transformation from a Cold War Army focused on the Soviet threat to a Power Projection Army based primarily in the United States. As the Army has carried out this enormous and critical transformation, we have built a strong and enduring bridge to the future. In what has become a process of continuous change, today's Power Projection Army is a milestone on our way to Force XXI.[8]

Force projection requires the demonstrated ability to rapidly alert, mobilize, deploy, and operate anywhere in the world. It is a key element of power projection - the nation's ability to apply all or selected elements of national power to contribute to deterrence, to enhance regional stability, or to act in crisis. Power projection is a central element of US national security and national military strategy. The Army contributes to this strategy as part of a joint team. The entire Army, active and reserve components, based in or outside the continental United States (OCONUS), and supported by civilians,

is, in one way or another, part of the force projection capability.[9]

Power projection forces must be specifically designated and tailored to perform given missions. Force projection usually begins as a contingency operation, a rapid response to a crisis. Alerts may come with little or no notice. In any event, a rapid, yet measured response is critical. A combatant commander may be able to resolve the crisis and achieve theater aims faster by committing a smaller forward-presence force than by waiting for a larger but less timely response option.[10] US forces conducting these missions may be opposed or unopposed. Opposed operations require a lethal and survivable forcible entry capability; forces should be prepared to fight immediately upon entry.[11]

Designated contingency forces will be the first to arrive in a crisis. Initial success could depend greatly on the C3, whose initial performance will depend largely on prior contingency communications planning. Planning for contingency operations that involve the potential for combat should provide for early insertion of credible, lethal forces. Commanders should be prepared to deploy sufficient combat power to resolve a crisis on favorable terms. These forces must be interoperable and flexible, ready to deal with unforeseen circumstances while the main body closes into the objective area.[12] From a strategic perspective, an adversary's awareness of our capability to rapidly insert highly lethal forces can convince this adversary that further aggression is too costly. Such a sure threat can then paralyze the enemy's initiative before he can consolidate his gains.

Whereas in our earlier military operations we could recover from initial set-backs and reversals, we no longer have this luxury of early failure. Because of the lethality of modern weapons, the increased reliance on diplomatic and negotiated conflict resolution, the patience and expectations of the American public, and the incredible economic and logistical requirements for longer-term operations, we can no longer settle for long-haul military solutions. To support our NMS, our Army must now be ready to strike quickly and decisively. There is no time available for the buying: Win now... or lose.

Army early-entry forces will engage in a wide range of potential missions, many of which will be joint, multinational, and interagency. Innovative combinations of forces will be tailored to meet the challenges associated with early-entry operations, which will be conducted by forces that are not necessarily light or heavy. Rather, they will be tailored to METT-T in order to create the best possible force to meet the needs of any contingency. The early-entry force may not be comprised solely of active component forces. It will likely have a sizeable reserve component and a civilian contingent, especially in OOTW. The aim of early-entry forces must be, when possible, simultaneous application of force or control throughout the operational area. However, if this is not possible, and if we are forced initially into other circumstances, we should continue to confront the adversary with rapid and simultaneous application of force or control as quickly as possible.[13] If we cannot buy time, we should not grant the adversary this opportunity.

Such operations can be carried out anytime, anywhere, and in any type of environment. Early-entry operations will encompass the wide range of military operations: peacemaking, worldwide humanitarian assistance, civil support, unconventional warfare, forcible entry, and even heavy battle. These operations may be of short duration, or they may be the initial phase of extended, protracted operations.[14]

Selection of these early arriving units will have far-reaching implications. Failure in early-entry operations will have significant strategic consequences for follow-on military forces. Contingency communications planning prior to deployment will be critical to initial success.

## ROLES AND MISSIONS OF CONTINGENCY FORCES

The terms "roles, missions, and functions" are often used interchangeably, but there are significant distinctions among them. Roles are the broad purpose for which the Services were established by Congress in law. Missions are the tasks assigned by the President or Secretary of Defense to the combatant Commanders in Chief (CINCs). Functions are specific responsibilities assigned by the President and Secretary of Defense to enable the Services to fulfill their legally established roles. In simple terms, the primary function of the Services and Special Operations Command is to provide forces - each organized, trained, and equipped to perform a role. These forces may then be employed by the CINC of a combatant command in the accomplishment

of a mission.[15] Contingency units provide quick response and carry out early-entry missions. US forces must be prepared to operate over all kinds of terrain with differing levels of support from host nations and other allies.[16] Contingency communications planning can assist our preparations for junctioning in a wide variety of environments.

Army contingency forces are organized and equipped for a full range of crises that require prompt and sustained land operations or presence:

* Airborne forces capable of responding to a crisis within hours to show US resolve and to stabilize the situation.

* Light infantry forces specifically designed for rapid air deployment to provide sustained force in various types of terrain where maneuver and mobility are restricted.

* Air assualt forces structured to hit hard and fast, using lift helicopters for rapid mobility over terrain and attack elicopters to defeat even heavily armored targets.

* Armored and mechanized infantry forces capable of defeating the full range of enemy capabilities, including other heavy armored forces.

In some situations, Army contingency forces can serve as the enabling force for additional contingency or expeditionary forces by establishing a secure lodgment and then transitioning into sustained land operations.[17]

Special Operations Forces (SOF) comprise an important part of DOD's contingency forces. Should deterrence efforts fail, SOF, trained as a quick-reaction, high-leverage force, complement conventional forces dealing with regional conflicts. At times they may be the principal force involved. As a projection force,

SOF can deploy rapidly and operate worldwide under a broad range of political and military conditions that might be encountered in regional conflicts.[18] "In fulfilling these responsibilities, SOF engage in seven traditional missions: unconventional warfare, direct action, special reconnaissance, foreign internal defense, counterterrorism, psychological operations, and civil affairs."[19]

The command, control, and communications (C3) mission of these combat contingency forces is assigned to signal contingency units-which include the 35th Signal Brigade (Airborne (ABN)), the 82d Signal Battalion (ABN), the 112th Signal Battalion (Special Operations (SO) (ABN)), and the Joint Communications Support Element (JCSE). These signal forces maintain the same readiness posture as the contingency combat forces they support. In addition, the signal units continually upgrade their equipment to remain at the forefront of technological communication advances (Appendix A).

## ORGANIZATION OF DOD's CONTINGENCY FORCES

Rapid deployable units must be ready to go on a moment's notice. The XVIII Airborne Corps and United States Special Operations Command are currently capable of performing contingency missions.

The XVIII Airborne Corps goes to war in carrying out contingency operations. The Corps provides command and control (C2) for the Army's crisis response forces. This potpourri of versatile, lethal capabilities is rapidly deployable and

expansible. It is not a fixed force; it can be tailored to any contingency worldwide based on factors of METT-T.[20] (Figure II-1).

The XVIII Airborne Corps is a strategic crisis response force manned and trained to deploy rapidly by air, sea, and land anywhere in the world. It is prepared to fight upon arrival and win. Regardless of the contingency, this fight-and-win mission remains constant.

"The XVIII Airborne commander (or one of his subordinate general officers) can expect to be designated the joint task force commander, at least for initial forcible entry operations into the objective area. Conversely, he might be designated the COMARFOR (Commander, Army Forces) under another joint force commander, or a subordinate commander to a senior COMARFOR."[21] There are times when he will be called upon to perform both roles simultaneously, such as JTX Agile Provider 94.

One of the nation's greatest deterrents of aggression is the ability to persuade potential adversaries and would-be regional hegemons that the cost of aggression substantially exceeds any benefit they could hope to gain. Only highly credible crisis response forces can assure US strategic objectives will be achieved, should this deterrence fail.

"The demonstrated ability to respond quickly and effectively to crisis now underpins US NMS more than ever. Indeed, crisis response has emerged as one of the four axioms of our nation's evolving military strategy (the other three being deterrence and defense, forward presence and reconstitution)."[22] The XVIII

Airborne Corps' readiness posture depends on its ability to provide a viable component of tailored forces which are then available for a broad range of operations. Contingency planning is critical to implement the various operations plans (OPLANS). The communications portion of this contingency planning process must be current and comprehensive, offering viable support for every combat phase of each OPLAN.

The United States Special Operations Command (USSOCOM) is a joint service command made up of specially selected men and women from the Army, Navy, and Air Force. Each Military Department has established a major command to serve as the Service component of USSOCOM. Selected units within each of these services are designated as early-entry contingency forces (see Figures II-2 - II-6).

US warfighting is no longer a single service responsibility. Joint service participation supports US policy for dealing with aggression. Planning and coordinating these multi-service operations are critical elements in carrying out our strategy. Contingency communications planning to ensure C3 compatability in support of joint service operations could be a critical factor for early success.

# 18TH AIRBORNE CORPS ORGANIZATION

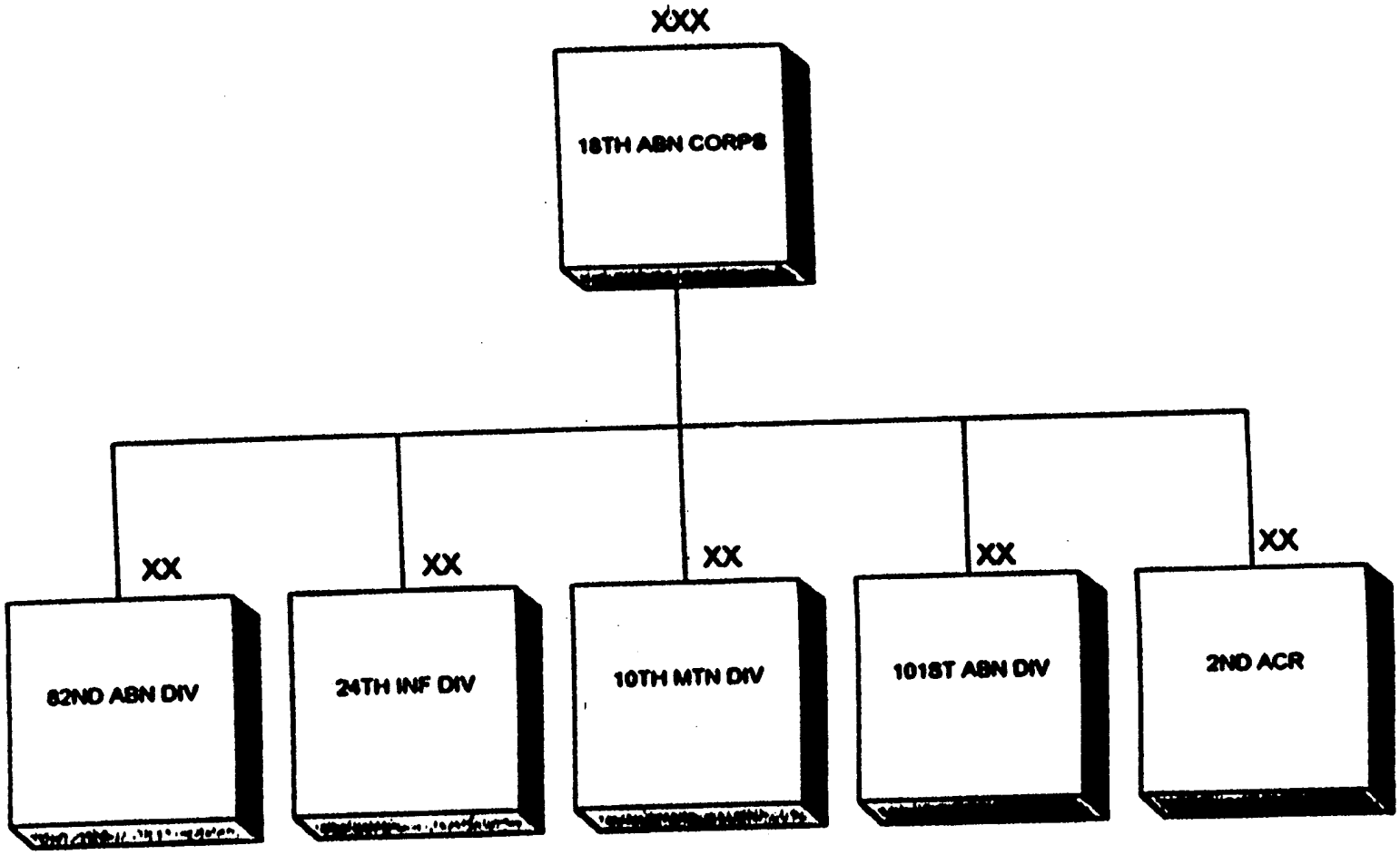



Figure II-1

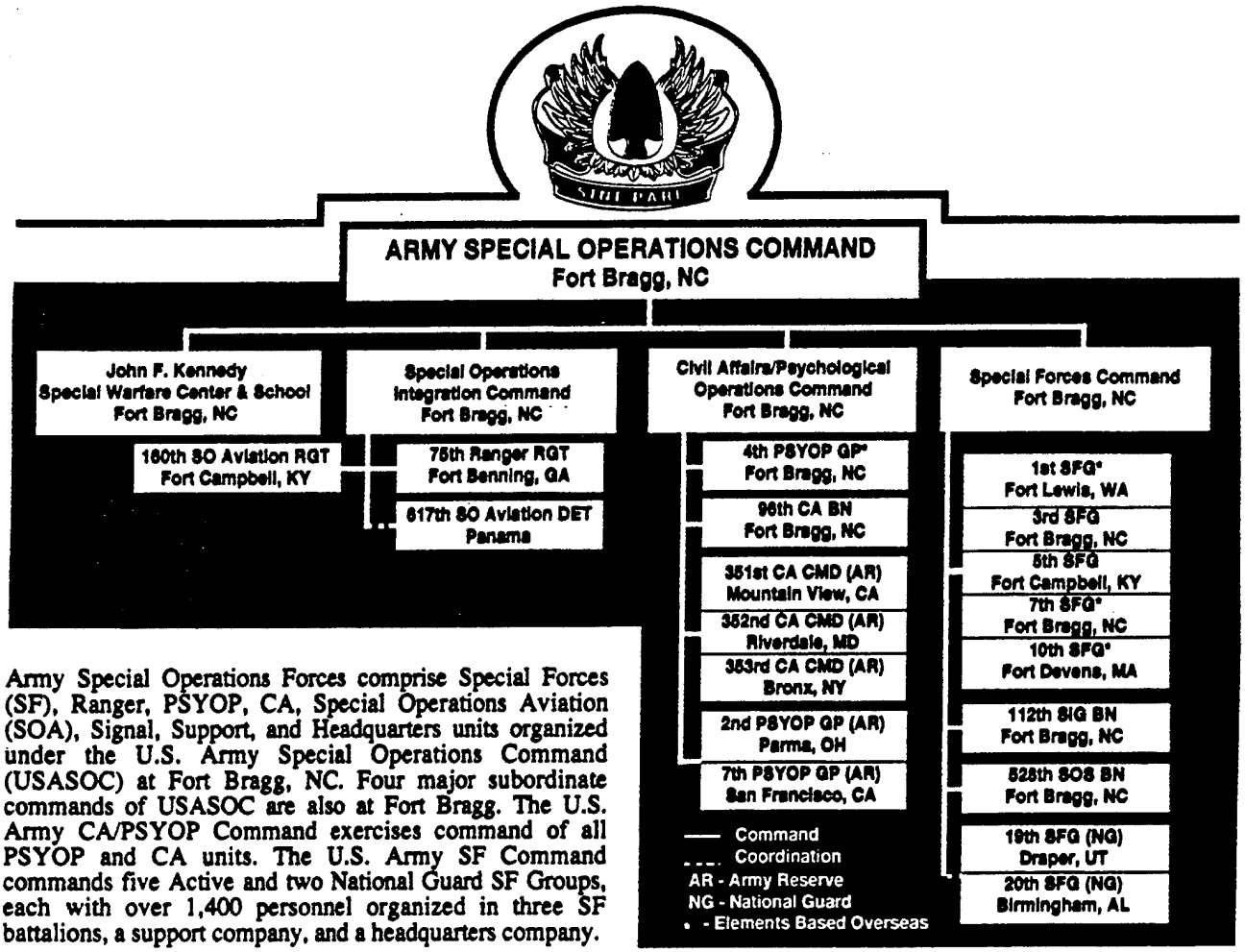

**ARMY**: The 30,000-member Army Special Operations Command includes Active and Reserve Special Forces, Special Operations Aviation, Ranger, Psychological Operations, and Civil Affairs units.

**NAVY**: The Naval Special Warfare Command is composed of 5,900 Active and Reserve operational and support personnel, which include Sea-Air-Land (SEAL) Teams, SEAL Delivery Vehicle Teams, and Special Boat Squadrons and Units.

**AIR FORCE**: The 11,500-member Air Force Special Operations Command includes 1 Active Special Operations Wing, 2 Special Operations Groups, 1 Special Tactics Group, 1 Reserve Special Operations Wing, and 1 Air National Guard Special Operations Group.

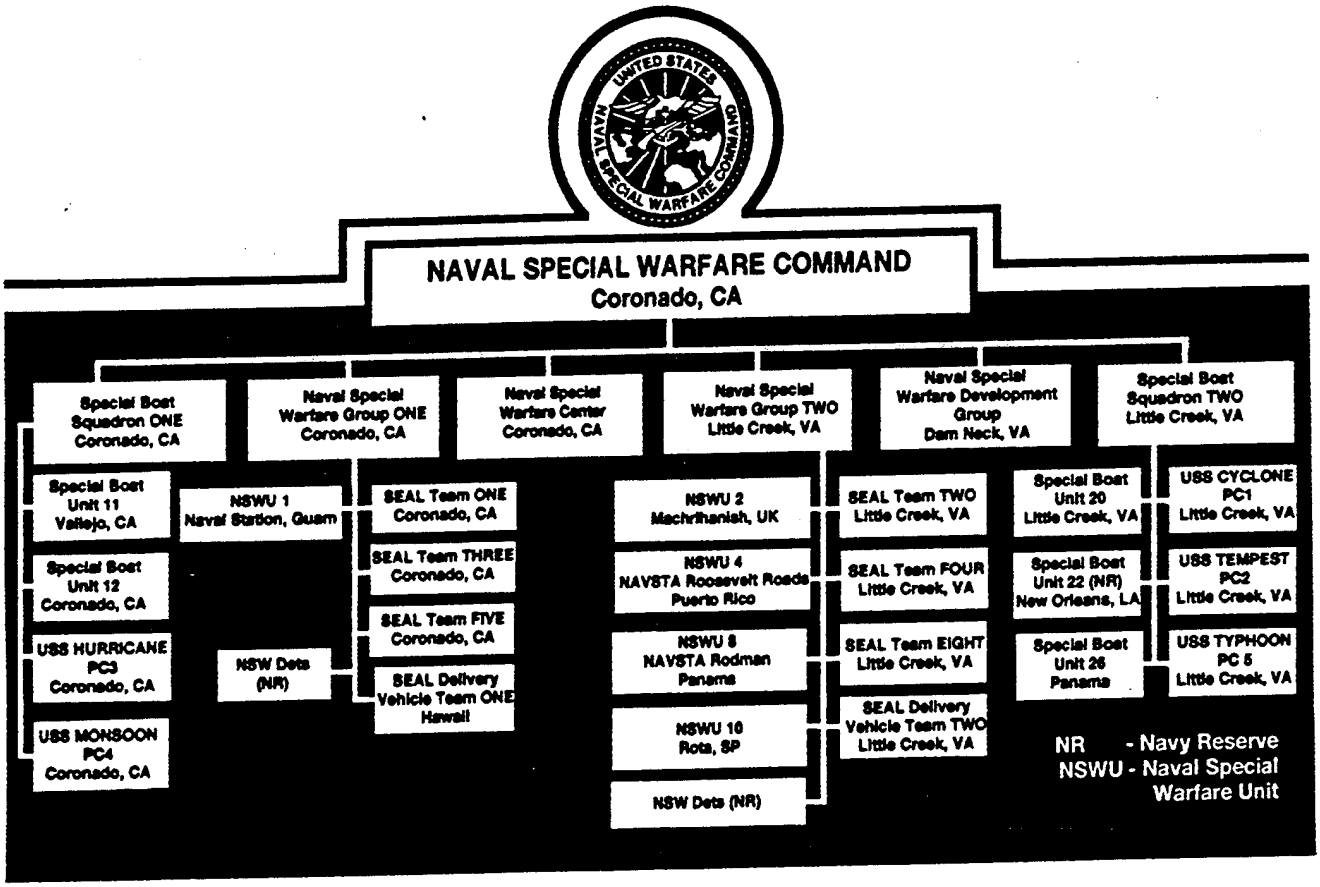
**JOINT SPECIAL OPERATIONS COMMAND:** The Command serves as a standing joint special operations task force responsible for special missions planning, training, tactics, and equipment development.

Figure II-2



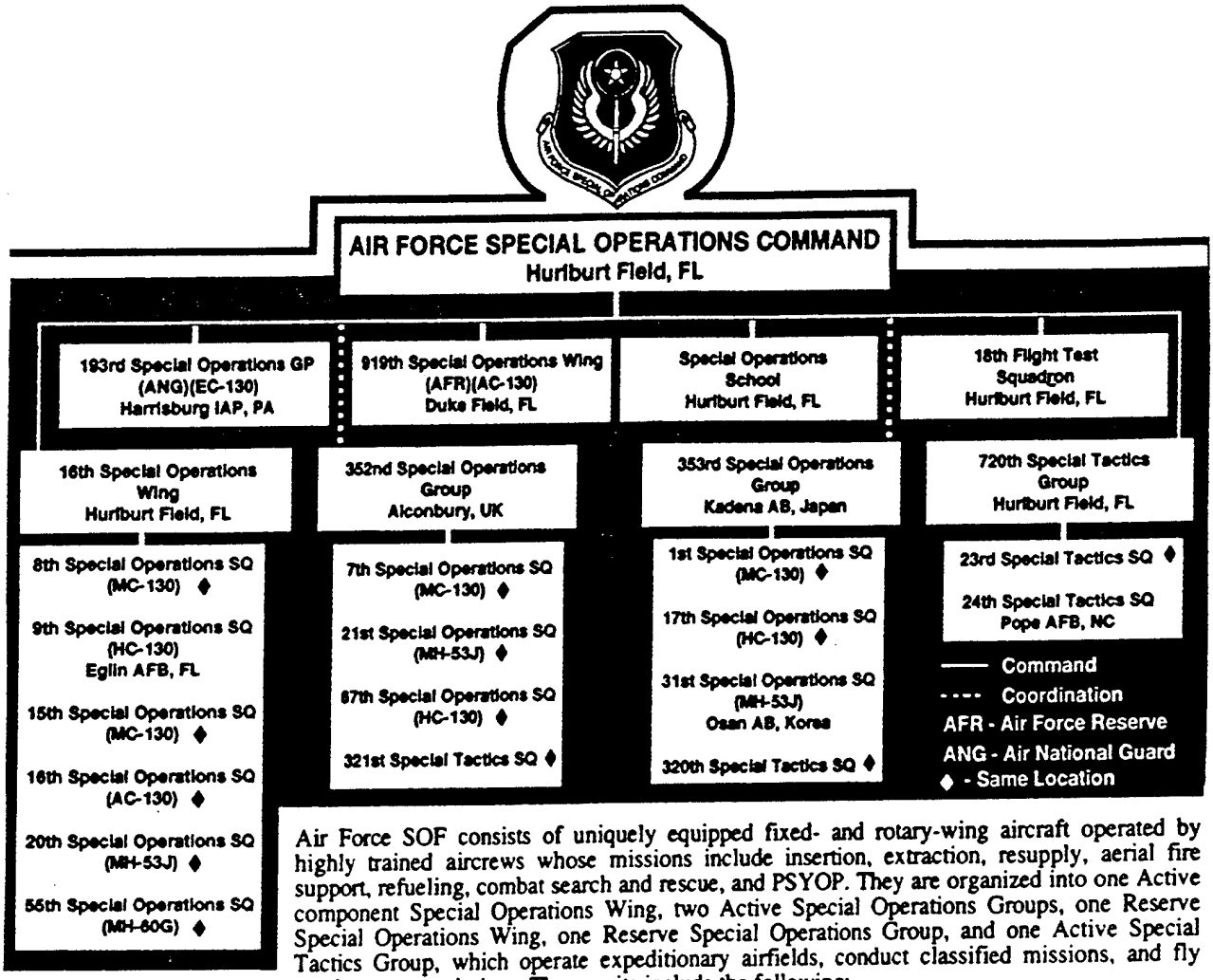

Army Special Operations Forces comprise Special Forces (SF), Ranger, PSYOP, CA, Special Operations Aviation (SOA), Signal, Support, and Headquarters units organized under the U.S. Army Special Operations Command (USASOC) at Fort Bragg, NC. Four major subordinate commands of USASOC are also at Fort Bragg. The U.S. Army CA/PSYOP Command exercises command of all PSYOP and CA units. The U.S. Army SF Command commands five Active and two National Guard SF Groups, each with over 1,400 personnel organized in three SF battalions, a support company, and a headquarters company.

Figure II-3




Naval Special Warfare (NSW) forces support naval and joint special operations within the theater unified commands. Missions are UW, FID, DA, SR, and CT. Mission priorities are determined by the needs of the theater CINC.

Figure II-4




Air Force SOF consists of uniquely equipped fixed- and rotary-wing aircraft operated by highly trained aircrews whose missions include insertion, extraction, resupply, aerial fire support, refueling, combat search and rescue, and PSYOP. They are organized into one Active component Special Operations Wing, two Active Special Operations Groups, one Reserve Special Operations Wing, one Reserve Special Operations Group, and one Active Special Tactics Group, which operate expeditionary airfields, conduct classified missions, and fly combat rescue missions. These units include the following:

Figure II-5


**JOINT SPECIAL OPERATIONS COMMAND**
**Fort Bragg, NC**

The fourth organization, under the command of USCINCSOC, is the Joint Special Operations Command (JSOC) at Fort Bragg. Established in 1980, JSOC headquarters and staff oversee matters pertaining to joint special operations and missions. JSOC's prime directives are to:

- Study joint special operations requirements and techniques.
- Ensure interoperability and equipment standardization.
- Plan and conduct joint special operations exercises and training.
- Develop joint special operations tactics.
- Provide the joint service expertise for a standing Joint Special Operations Task Force.

Figure II-6

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16. Ibid., p. III-35.

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22. Ibid.

# III

## JOINT PLANNING CONSIDERATIONS

Current doctrine focuses on joint warfighting. The signal community must plan accordingly. The "C4I For The Warrior" program sets forth DOD's joint service C4I interoperability policy. The C4I-for-the-Warrior concept establishes the vision and a roadmap for providing information support to the joint warfighter.[1] Joint contingency communications planning has thus become a critical process and an important portion of the operations plan. The signal planner should anticipate the commander's/staff information needs and requirements. To do this, an understanding by the signal planner of the operational plan is imperative so that proper integration of communications technology results. The following scenario illustrates the importance of contingency communications planning for a division size unit as part of a JTF.

First of all, the assistant division signal officer (ADSO) will be notified by the JTF J6 to attend, along with the other service counterparts, a coordination meeting (one of many) to discuss communications and information flow during all combat phases from predeployment to redeployment. The ADSO knows that the required information flow is critical and the means to accomplish the flow are very constricted.

Phase I predeployment activities may extend over months (deliberate planning) or merely hours (crisis planning). Regardless of duration, the majority of the planning process must be completed during Phase I. This planning is not limited only to

those activities taking place within this phase; rather, it should include all events anticipated during all combat phases. It should encompass such issues as interoperability of service communications equipment, locations and distances of service forces (this determines line-of-site or long haul requirements), types of platforms to be used (ships and aircraft), host nation signal facilities and expected support, use of single-channel or multi-channel assets, identification and use of cryptographic equipment, and enroute considerations.

A robust communications architecture will then be established as a sustainment base network to provide a local secure coordination means, to outload the division, and to provide connectivity among operation centers at higher headquarters (Corps), JTF headquarters, and any deployed forces supporting the operation.

Phase II covers the deployment itself. During this phase the main consideration is the enroute capabilities. Enroute to the crisis location, the ability of the division commander to communicate with various command levels is the key to command and control. Phase II command levels could include the JTF commander (who may be aboard a ship), various aircraft to receive updated intelligence (like the AWACS), force commanders also enroute aboard different aircraft, reconnaisance elements in and around the objective area, and the departure airfield (location of sustainment base). As Phase II closes, an initial early-entry communications base is set up for the transition to the next phase of the operation.

Phase III covers the early-entry operations. During this phase, initial local communications (primarily single-channel line-of-site) connect forces preparing for their missions and keep them in contact through the long haul back to the sustainment base (including all intermediate staging bases). Connectivity among the various command levels mentioned in Phase II should also be maintained.

Phase IV takes place during the combat operations period. This phase could be considered the most challenging for communications support, because it is usually complicated and has many of moving parts. Operations may not be executed as originally planned, so communications planning should provide considerable flexibility. Communications support is sustained as the operation proceeds, and communications officers anticipate more specifically the commander's needs as operational tendencies and ongoing mission requirements begin to emerge. A robust communications architecture continues to mature at the initial arrival airfield.

Phase V covers redeployment. This phase calls for much the same communications support as was provided during Phase II, deployment. Connectivity should be maintained with the same command levels as mentioned in Phase II. However, two areas will require special communications considerations: the original departure airfield needs communications to ensure proper coordination for receiving redeploying forces, and connectivity back to the initial early-entry arrival airfield is needed for operations updates and situation reports.

Upon returning to his CONUS base, the communications planner should remain focused in at least two areas. First, he should determine the length of time that deployed communications assets will remain in the objective area in accordance with the strategy of the supported combat forces. Second, he should begin reconstituting available communications equipment in preparation for the next operation.

If the right signal package is not tailored correctly for the mission and deployed in a timely manner, communications support to the JTF commander will or likely may fall short of being an "enabler." Contingency communications planning is thus a vital supporting factor for continuity from initial operations, through combat and ultimate battlefield success until redeployment is complete. To make this communications planning easier a contingency communications planning doctrine should exist.

## ENDNOTES

1. "C4I For The Warrior," Global Command & Control System, 12 June 1994, CJCS introduction.

# IV

# OPTIONS, RECOMMENDATIONS, AND CONCLUSION

This chapter states three options for contingency communications planning consideration. I then recommend one option along with reasons for selecting it.

## OPTIONS

I. Keep the current communications planning process status quo. This means that contingency communications planning would rely primarily on historical records and our knowledge of personal experiences obtained through interviews and conversations. It also keeps the signal planner in the current mindset: "Send all you have!" This option offers no new advantages. It keeps the signal planner operating in the industrial age philosophy.

II. Collect the communications after-action reports from all major service deployments beginning with Urgent Fury (Grenada) and including Just Cause (Panama), Desert Storm/Desert Shield (Saudi Arabia), and the deployments to Somalia and Haiti. Consolidate these after-action comments at the Signal Corps School at Fort Gordon and at the Combined Arms Center at Fort Leavenworth, thereby providing two centers signal planners can rely on for information necessary for contingency communications planning. Although such access would be a time- saving measure while planning, it would still be a burden to filter through these documents and select what may pertain to a specific

operation. It provides a better communications planning foundation than option I, but still leaves the signal planner without a single, codified source to use for a planning guide.

III. Establish and publish a contingency communications planning doctrine. This document should include joint service, allied, and other US government agency considerations. It should be largely based on the after-action reports from the recent deployments mentioned in option II (Grenada to Haiti). It should be updated annually to reflect current signal corps force development implementations, applicable state-of-the-art technology, recent deployments, and current DOD vision - all of which could lead to new doctrine. In the past, signal planners have not had such quick access to reliably up-dated planning doctrine. Instead, they have taken operational doctrine off the shelf, although they had every reason to suspect that it was not based on the state-of-the-art of combat communications. They need a current, detailed, single-source document that reliably and systematically addresses JTF contingency communications requirements (Appendix B).

## RECOMMENDATION

Select Option III, publication of a contingency communications planning doctrine. Such a comprehensive and detailed contingency communications planning document would best enable the signal planner to support US contingency combat forces and assist in achieving the critical initial combat victories.

# CONCLUSION

The U.S. Army needs a contingency communications planning doctrine. Force projection operations may well be part of the US NMS for the foreseeable future. So our planning must support joint operations. Contingency communications planning will facilitate support to the power projection missions across the entire range of military operations. Signal architecture, assembled according to the contingency communications planning process, could support global deployability, connectivity, operational flexibility, and tactical agility. The complexity of the future battlefield dictates that US combat forces should fight immediately upon arrival and win.

Today's signal planner must be as capable of thinking through the operational branches and sequels - the "what-ifs" - as does the operational planner himself. To determine information needs, we need skilled personnel to question the commander and establish his warriors' requirements. The signal officer of the future must be an information engineer, as proficient in both military operations and information decisions as in current technology...maybe more so. Phased contingency communications planning must be established as a doctrinal approach to joint contingency operations. This doctrine will assist the signal planner in meeting the need for horizontal and vertical information exchange required to present a picture of the modern battlefield to the Force XXI Warfighter.

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# APPENDIX A

## CURRENT CONTINGENCY SIGNAL ORGANIZATION AND CAPABILITIES

Units ranging from Corps to battalion size, to special joint unit configurations all require appropriate communications support. This support should be tailored, along with their supported combat unit, to rapidly deploy on short notice with special and downsized signal equipment. To provide the proper early-entry communications configuration and to be prepared to support follow-on forces during a rapid buildup of combat units, detailed contingency communications planning should be accomplished long before the actual deployment. The XVIII Airborne Corps and USSOCOM have robust Signal Corps units to support their missions.

The 35th Signal Brigade (Airborne) trains to maintain a crisis response Signal Brigade capable of providing rapidly deployable communications and information systems in support of XVIII Airborne Corps and regional combatant commanders. To accomplish this mission, the 35th Signal Brigade is organized into three active battalions, two National Guard battalions, and a separate Tropo company (Figure A-1). Each of the active battalions is assigned support units, with whom the parent units sustain a habitual relationship (Figure A-2). Major communication assemblages inherent in this Corps Signal Brigade include the Mobile Subscriber Equipment (MSE), Tri-Services Tactical Communications Systems (Tri-Tac), Contingency Communications

Platoon (CCP), multi-channel satellite, single-channel satellite, and tropospheric systems (Figure A-3).

This state-of-the-art communications equipment has enabled the 35th Signal Brigade to remain on the cutting edge of technology and to provide necessary support to the XVIII Airborne Corps. The Signal Brigade will support all five deployment phases of an XVIII Airborne Corps mission:

* Phase I - Predeployment Activities (Contingency Planning)
* Phase II - Lodgement (Deployment/Forcible Entry)
* Phase III - Stabilization (Force Build-Up/Military Operations)
* Phase IV - Restoration (Decisive Operations)
* Phase V - Redeployment

Figures A-3 through A-10 illustrate this five phase sequence and project a typical command and control (C2) concept from the sustainment base at Fort Bragg, NC, to the crisis location.

The 82d Airborne Division serves as the XVIII Airborne Corps' contingency division. It is prepared to deploy world-wide within 18 hours of notification, execute a parachute assault, conduct combat operations, and win.

The 82D Signal Battalion's mission is to provide communications and information services support to the 82D Airborne Division to facilitate command and control through any deployment. To accomplish this mission, the battalion is organized into a headquarters and three line companies. Each

company has habitual relationships with the division headquarters, six brigades, and the separate battalions (Figure A-11). Major communication assemblages within the 82D Signal Battalion include MSE, CCP, multi-channel satellite, single-channel satellite, and the Single Channel Ground and Airborne Radio System (SINCGARS).

The 82D Signal Battalion will provide communications in support of all deployment phases of an 82D Airborne Division:

* Phase I - Crisis Action/Predeployment
* Phase II - Enroute Communications
* Phase III - Heavy Drop/Personnel Drop
* Phase IV - Airland Operations
* Phase V - Combat Missions
* Phase VI - Redeployment

Figures A-12 to A-18 display these deployment phases and as well depict the CCP deployment concept and dual airfield seizure signal equipment configuration.

The 112th Signal Battalion (Special Operations) (Airborne) has the following missions:

- To provide rapidly deployable C3 systems between the unified commander, major SOF headquarters, subordinate commands, and other commands as directed - if necessary, in two theaters simultaneously.

- To provide rapid deployable C3 systems supporting a deployed Joint or Army Special Operations Task Force.

- To provide C3 augmentation to establish liaison communications at various levels within the host country and supported and adjacent commands.

- To provide augmentation required to enhance flexibility and reliability in SOF C3 Systems by providing a redundancy or displacement capability.

To accomplish these missions, the 112th Signal Battalion (SO) (ABN) is organized into two companies with the following equipment: multi-channel satellite, multi-channel high frequency (HF), single-channel satellite, single-channel HF, and SINCGARS.

Within 24 hours, the Quick Reaction Communications Package is airborne and upon arrival will provide the initial theater support (Figures A-19, 20). At 72 hours the follow-on theater slice will deploy and install the full theater system (Figures A-21, 22).

The Joint Communications Support Element (JCSE) is a joint signal unit and a Joint Chiefs of Staff (JCS) communications asset. The JCSE is not a dedicated unit. It receives its missions through the requested procedures as outlined in JCS Memorandum of Procedure (MOP) 167. The mission of the JCSE is to:

- Provide communications support to both joint task force (JTF) and special operations command (SOC) headquarters for the conduct of contingency military operations or disaster relief/evacuation activities.

- Augment or provide contingency/crisis communications support to meet critical operational and support needs of the

Joint Chiefs of Staff, the military services, commanders of unified and specified commands, defense agencies, and foreign governments.

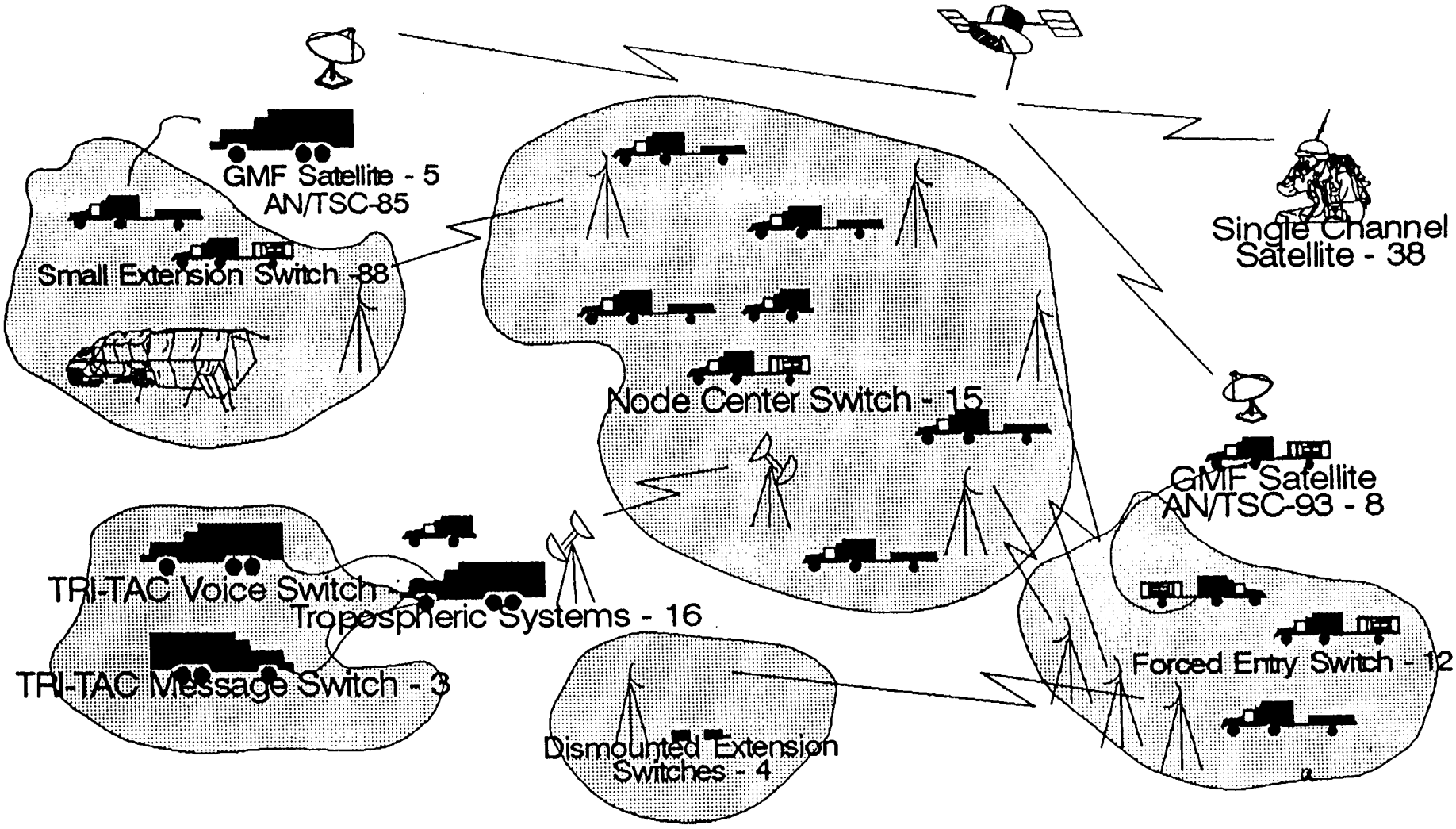
- Provide communications support for exercises on a non-interference basis.

JCSE is organized into four operational elements to accomplish their missions. Major communication capabilities include multi-channel satellite, multi-channel HF, single-channel satellite and single-channel HF.

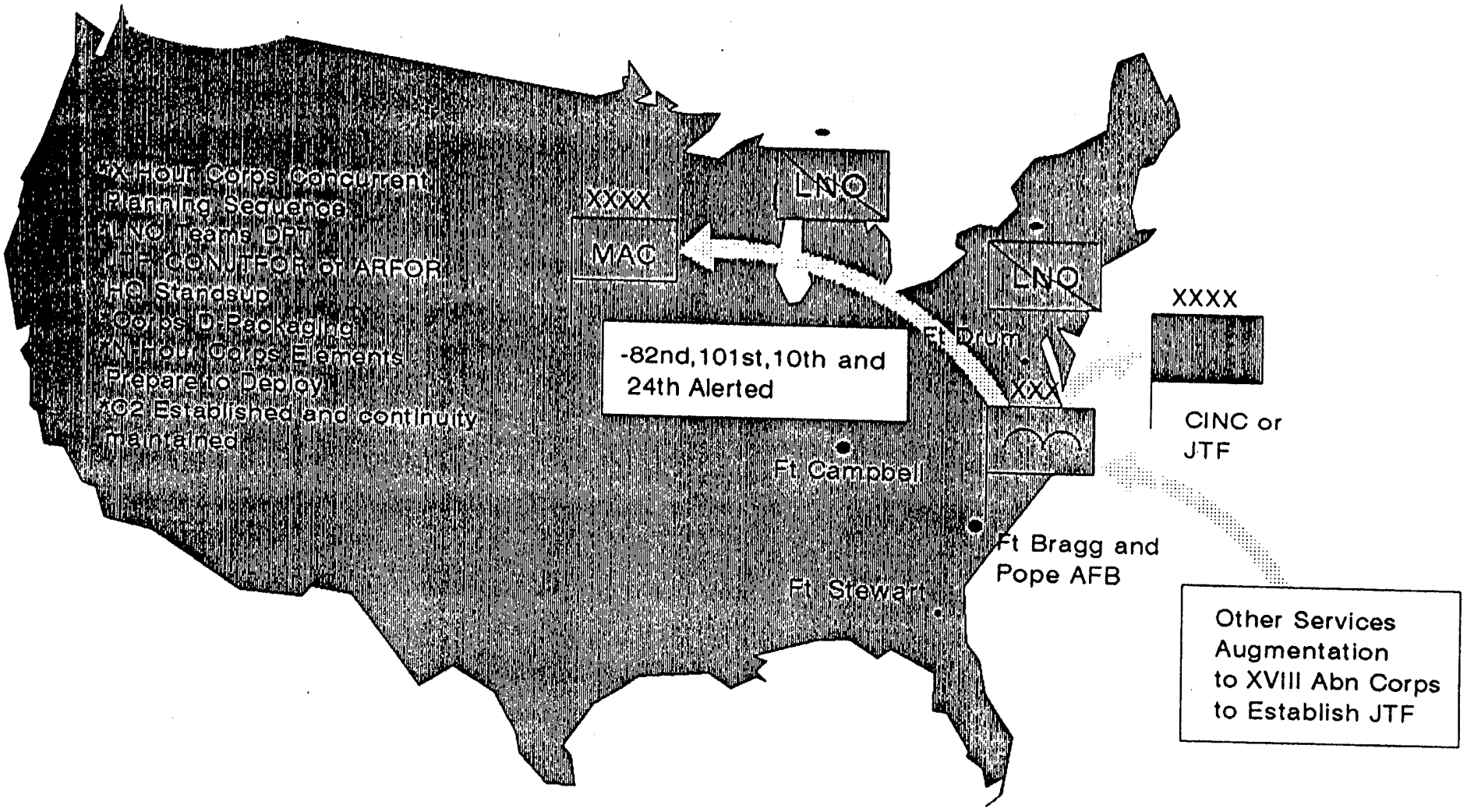
# Habitual Support Relationships

| Signal Battalion | Supported Units | | | |
|---|---|---|---|---|
| 50th Sig Bn | 82d ABN DIV<br>194th AR BDE<br>18th AV BDE | 20th EN BDe<br>Corps ACP<br>ARFOR HQ | Corps TAC White<br>Corps TAC Blue<br>Intitial JTF HQ | CTOC Alpha<br>Enroute Comms |
| 51st Sig Bn | 24th ID MECH<br>101st ABN DIV<br>2nd ARMD CAV | 44th MED BDE<br>18th FA BDE<br>42d FA BDE | 108TH ADA BDE<br>Corps ARTY<br>COSCOM | COSCOM ISB<br>COSCOM FSB |
| 327th Sig Bn | 10th MTN DIV<br>16th MP BDE<br>525th MI BDE | Corps Main<br>Corps Rear<br>CTOC Bravo | Sustainment Base<br>Corps EOC | |

# Brigade Capabilities

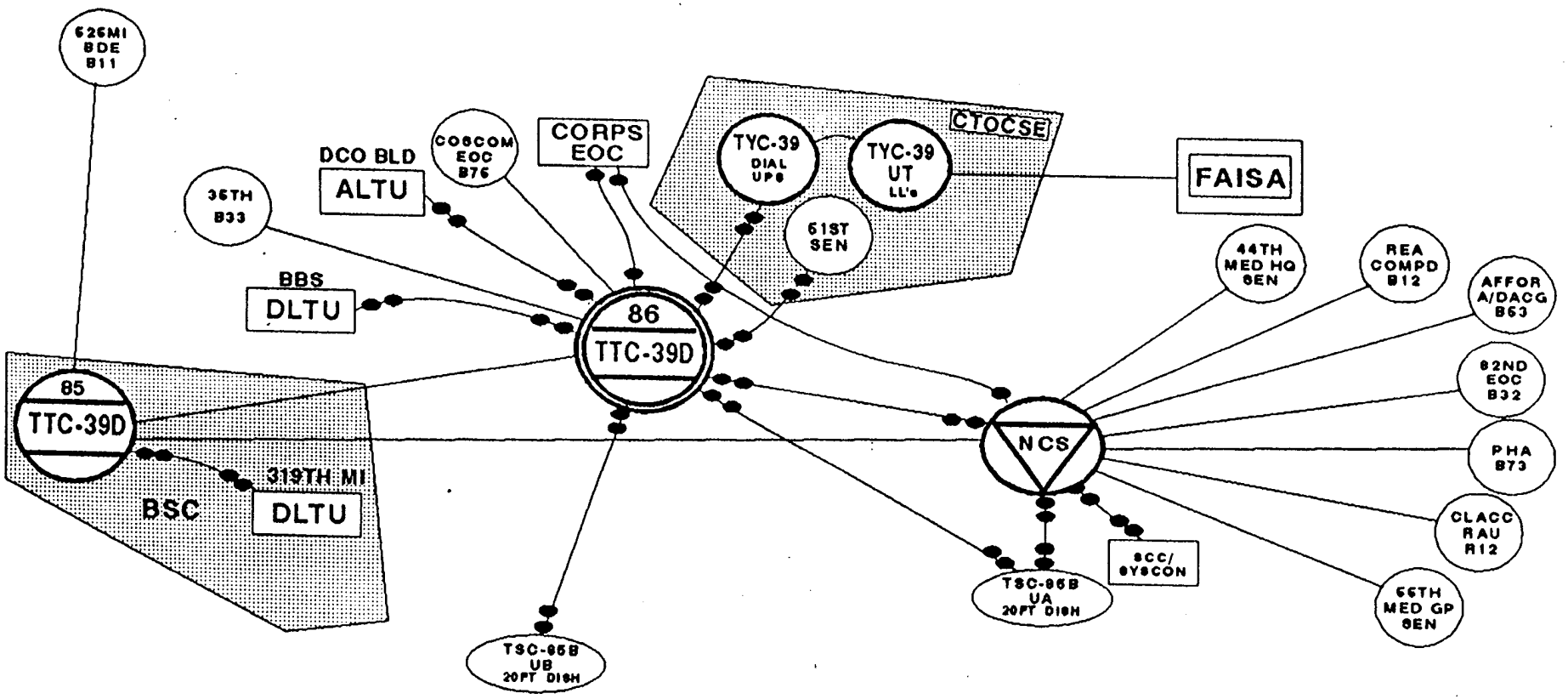


# Phase I Predeployment Activities



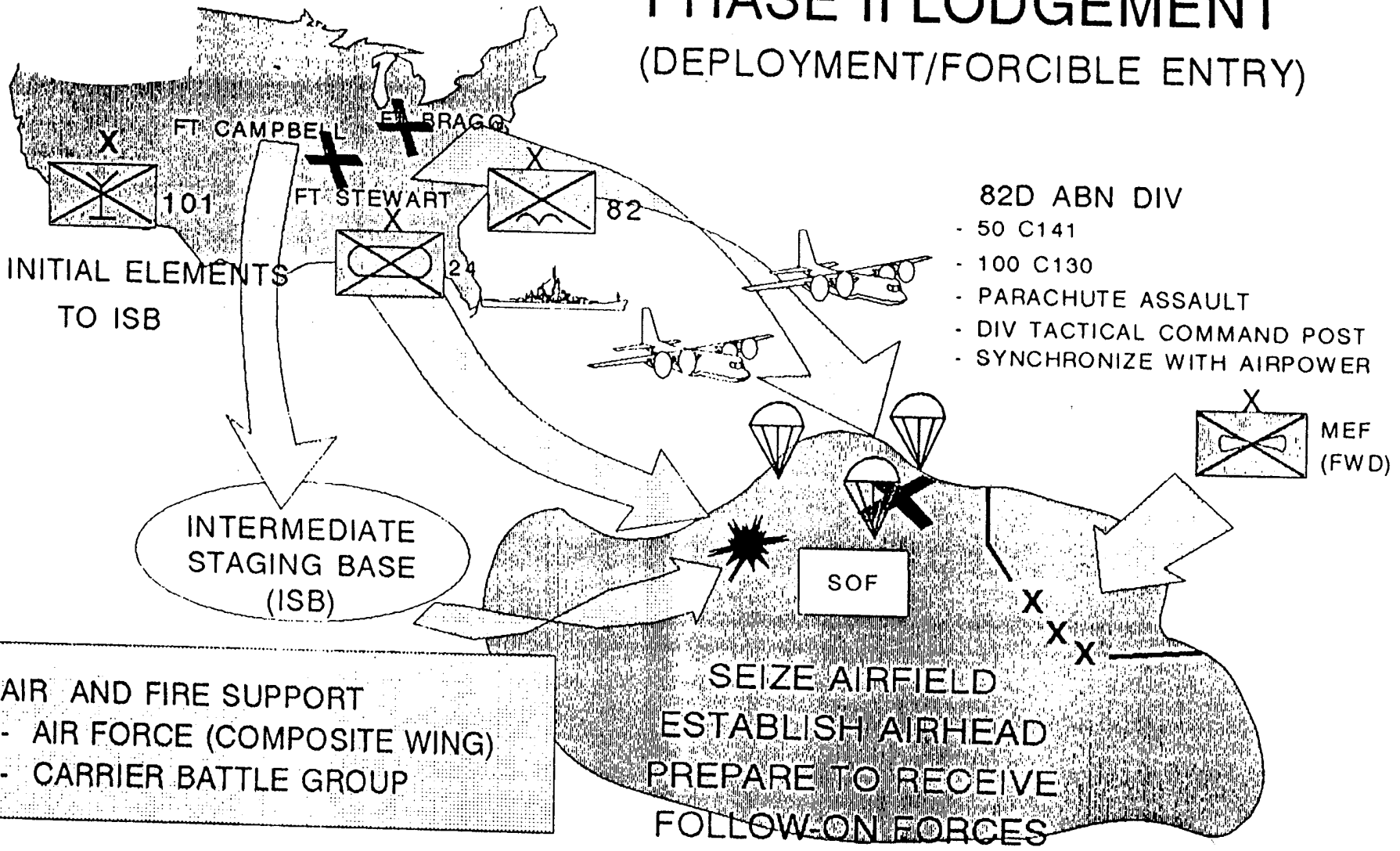
# PREDEPLOYMENT PHASE

## Sustainment Base



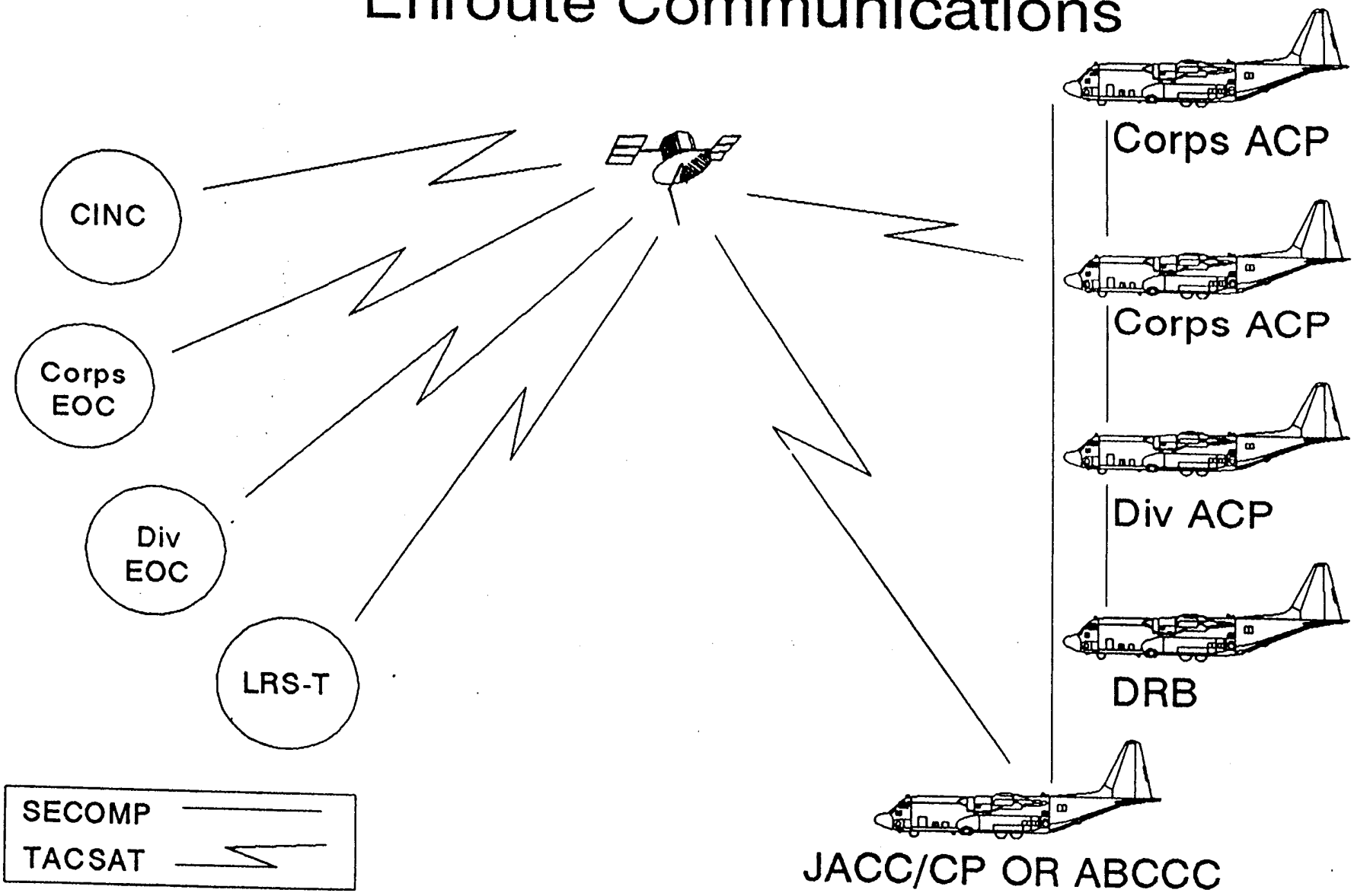
# PHASE II LODGEMENT

## (DEPLOYMENT/FORCIBLE ENTRY)



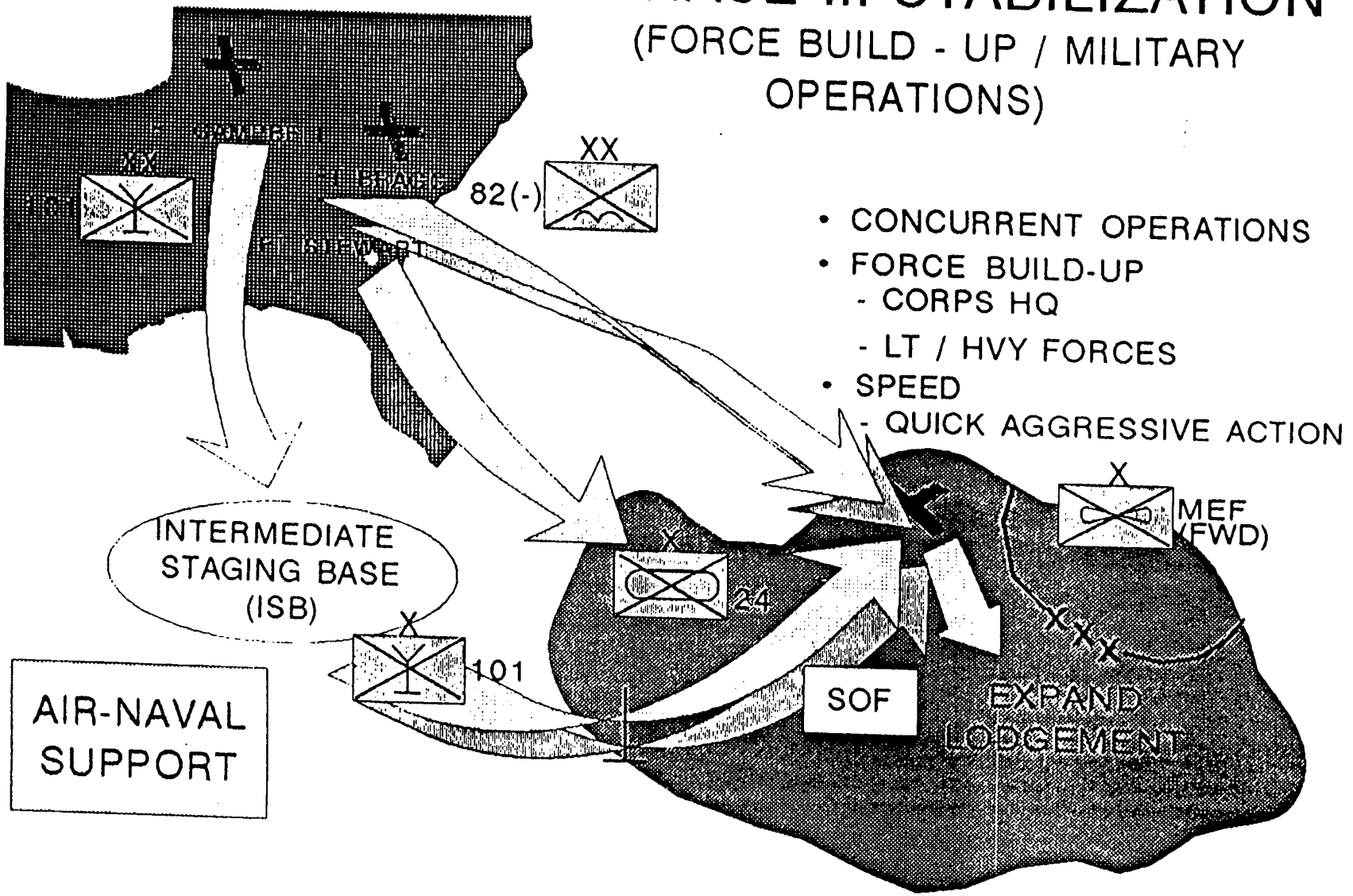

A-10

# Enroute Communications



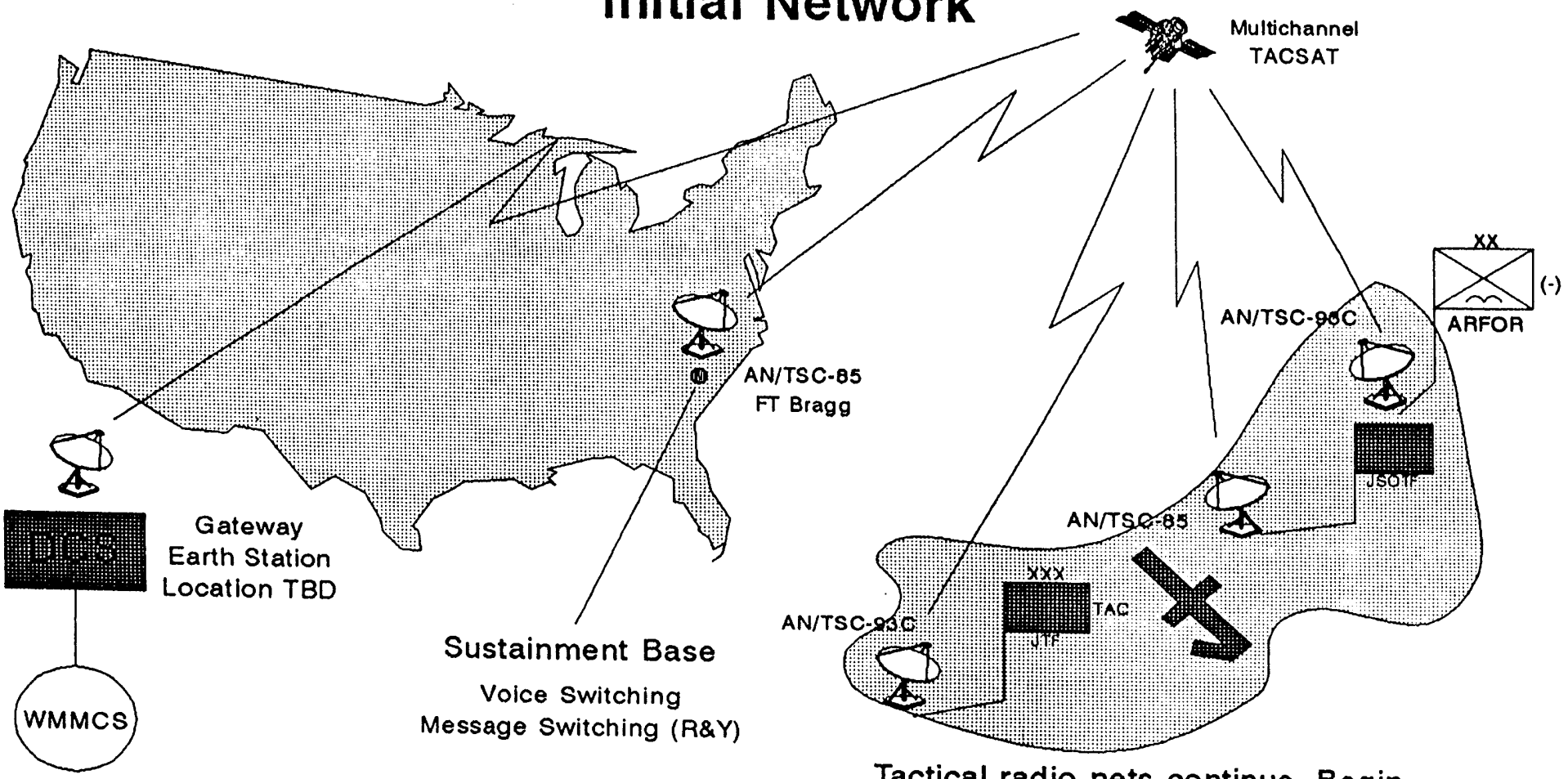
# PHASE III STABILIZATION

## (FORCE BUILD - UP / MILITARY OPERATIONS)



# Phase III - Stabilization (Force Build-up)

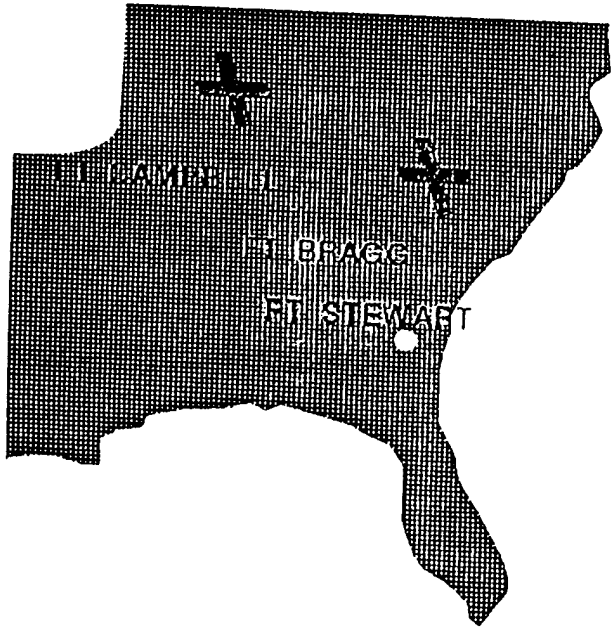
## Initial Network

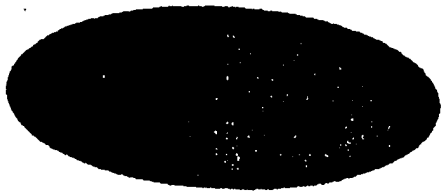



Tactical radio nets continue. Begin expanding an austere comm system.

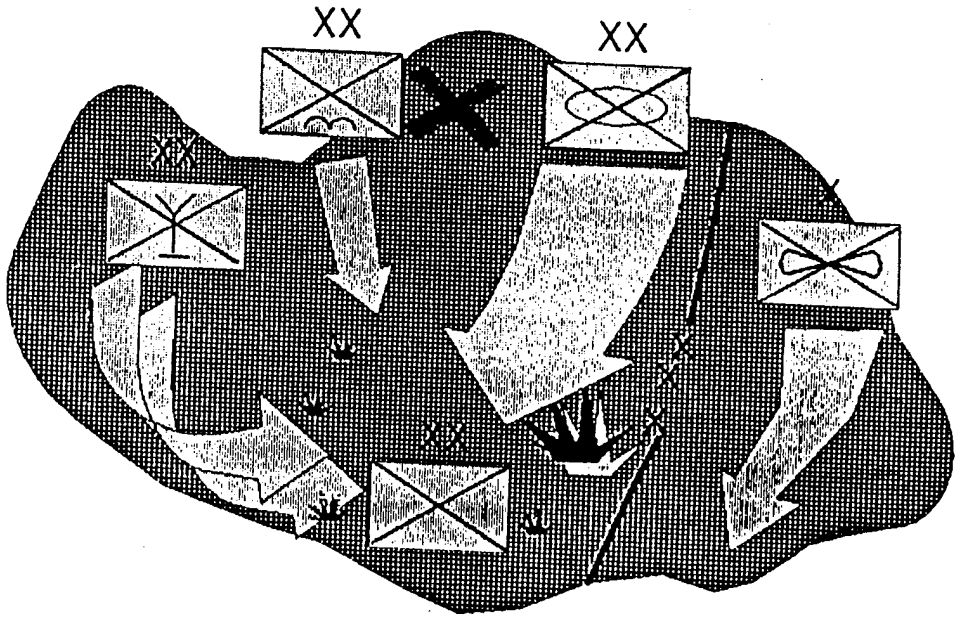
# PHASE IV RESTORATION
## (DECISIVE OPERATIONS)

- WIN THE WAR
  - SHORT AS POSSIBLE
- OPERATIONAL METHOD
- COMPLEMENTARY JOINT OPERATIONS (AIR AND GROUND)
  - QUICK AGGRESSIVE OPERATIONS

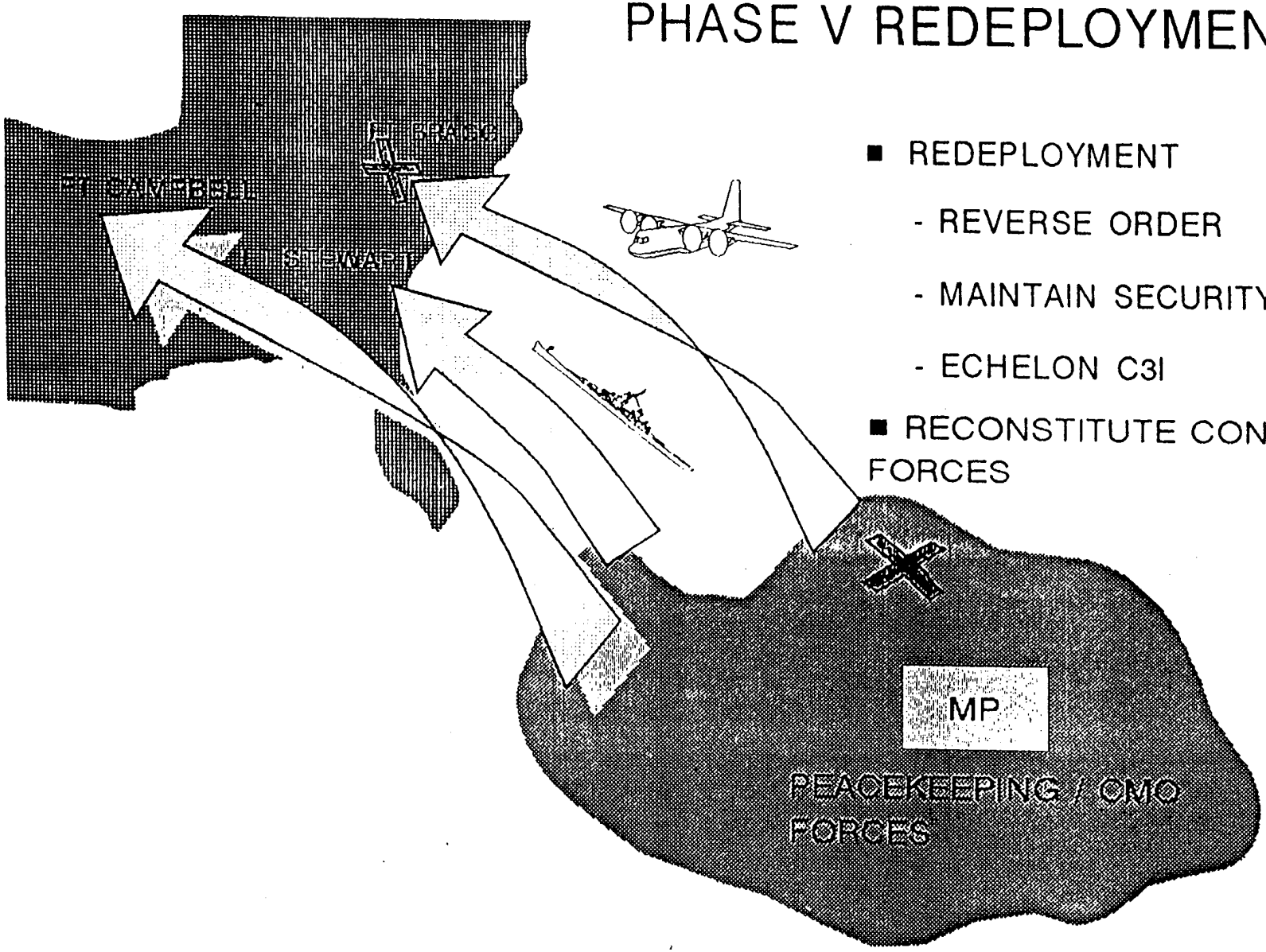


AIR - NAVAL SUPPORT



# PHASE V REDEPLOYMENT




- REDEPLOYMENT
  - REVERSE ORDER
  - MAINTAIN SECURITY
  - ECHELON C3I
- RECONSTITUTE CONTINGENCY FORCES

# 82D AIRBORNE DIVISION

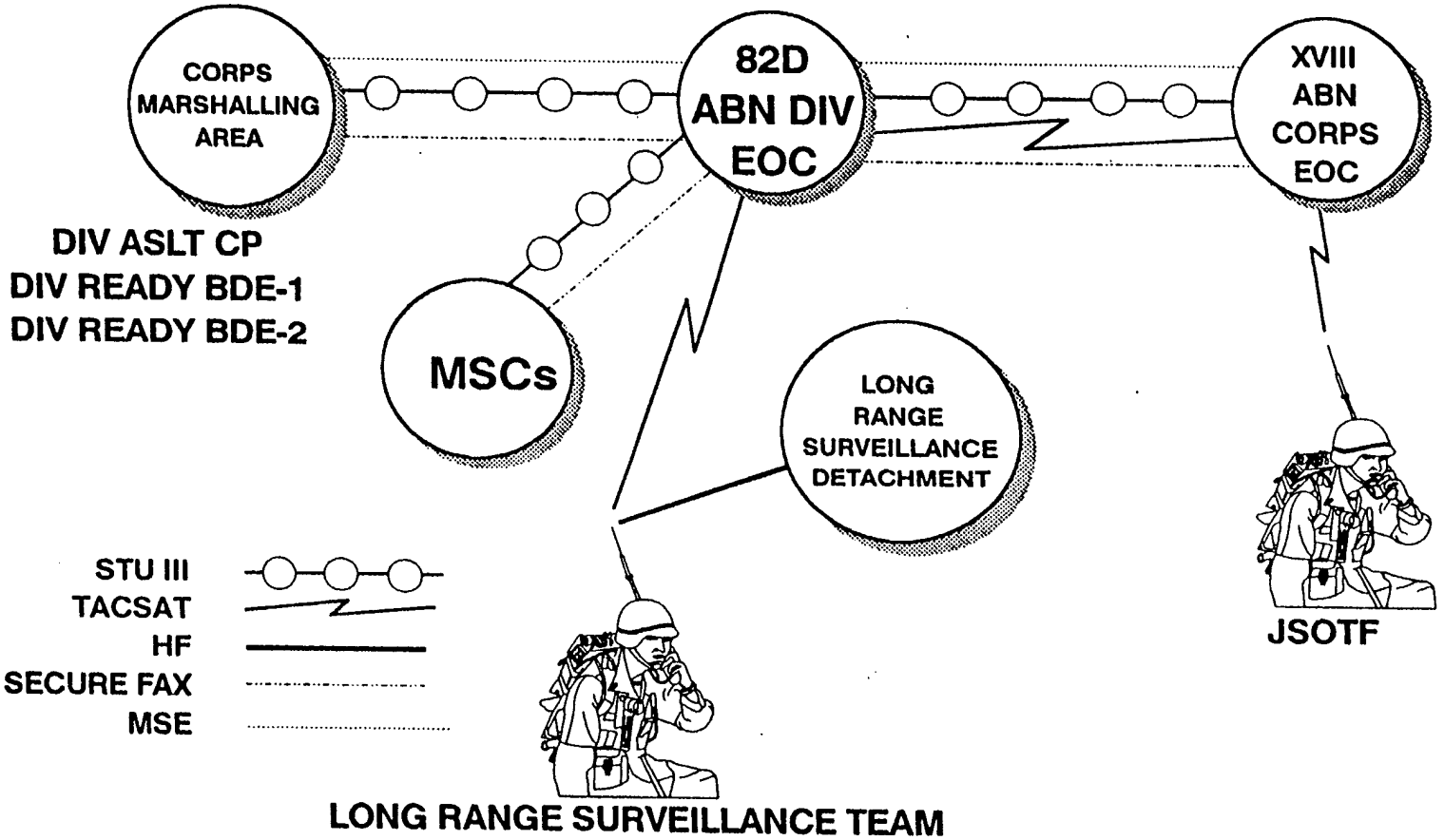
## 82D SIGNAL BATTALION

### TEAM LABELS/HABITUAL RELATIONSHIPS

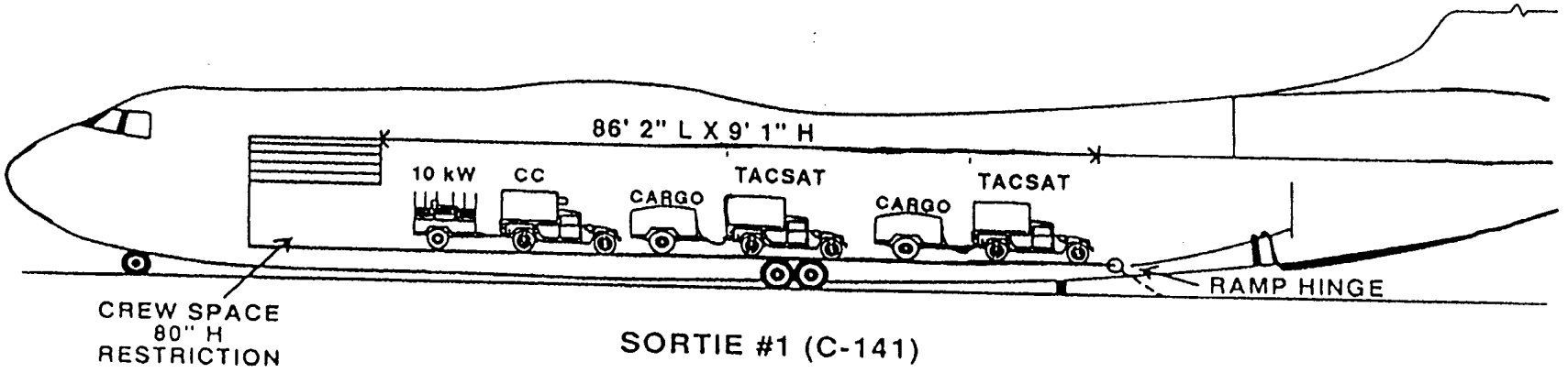
** DENOTES CNRI CAPABLE SEN (ALL CCPS/CCES HAVE CNRI)

| TEAM | A COMPANY NC PLT | B COMPANY NC PLT | B COMPANY CCPS | C COMPANY NC PLT | C COMPANY CCPS |
|---|---|---|---|---|---|
| NC | 50-A222/223 | 51-B122/123 | | 53-C122/123 | |
| CCPS | | | CCPS 52-B221 DMAIN | | CCPS 54-C221 DISCOM |
| CCES | | | CCES 55-B242 1 BDE TOC | | CCES 57-C242 3 BDE TOC |
| CCES | | | CCES 56-B252 2 BDE TOC | | CCES 58-C252 AVN FOB |
| REMOTE RAU | R50-A282 | R51-B182 | | R53-C182 | |
| SEN V1 | F01-A252/253 DREAR | F04-B152/153 3-4 ADA | | F10-C152/153 307 EN ** | |
| SEN V1 | F02-A262/263 DMAIN | F05-B162/163 3/73 AR ** | | F11-C162/163 313 MI | |
| SEN V1 | F03-A272/273 DTAC ** | F71-B172/173 1 BDE BSA (SEN V2) | | F12-C172/173 AVN TOC | |
| SEN V2 | F70-A242/243 DIVARTY | F72-B142/143 2 BDE BSA | | F73-C142/143 3 BDE BSA | |

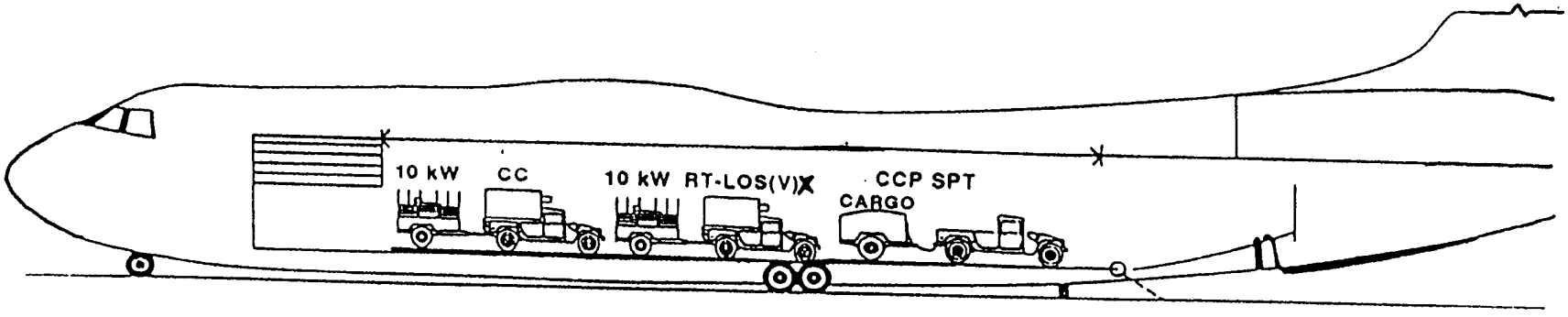
# PHASE I
## (CRISIS ACTION / PREDEPLOYMENT)



# CCP DEPLOYMENT CONCEPT

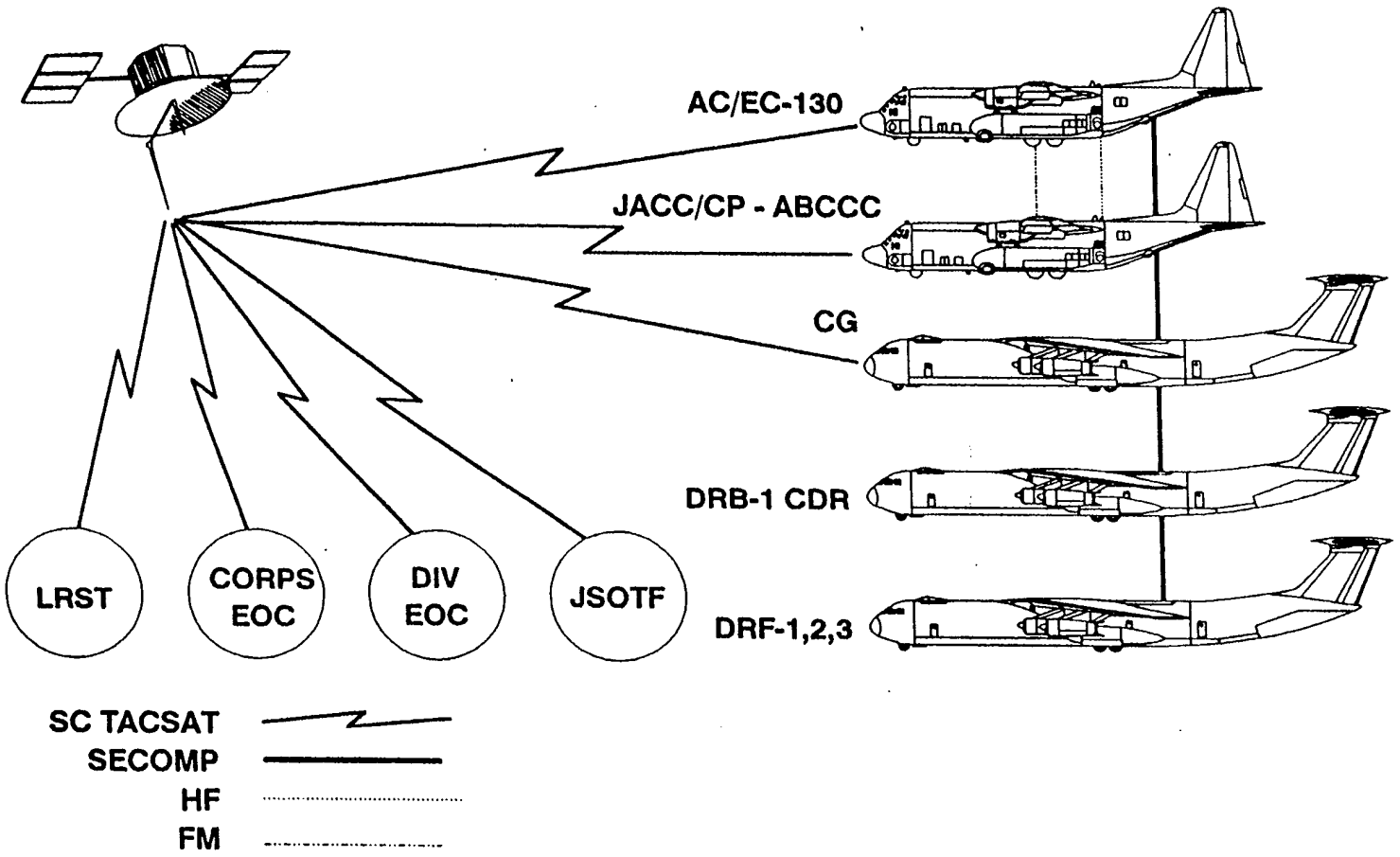



SORTIE #1 (C-141)



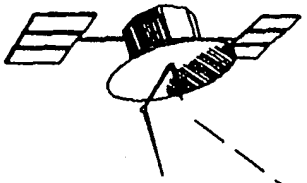

SORTIE #2 (C-141)

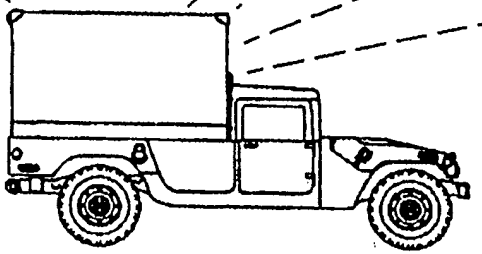
# PHASE II
## (ENROUTE COMMUNICATIONS)



# PHASE III

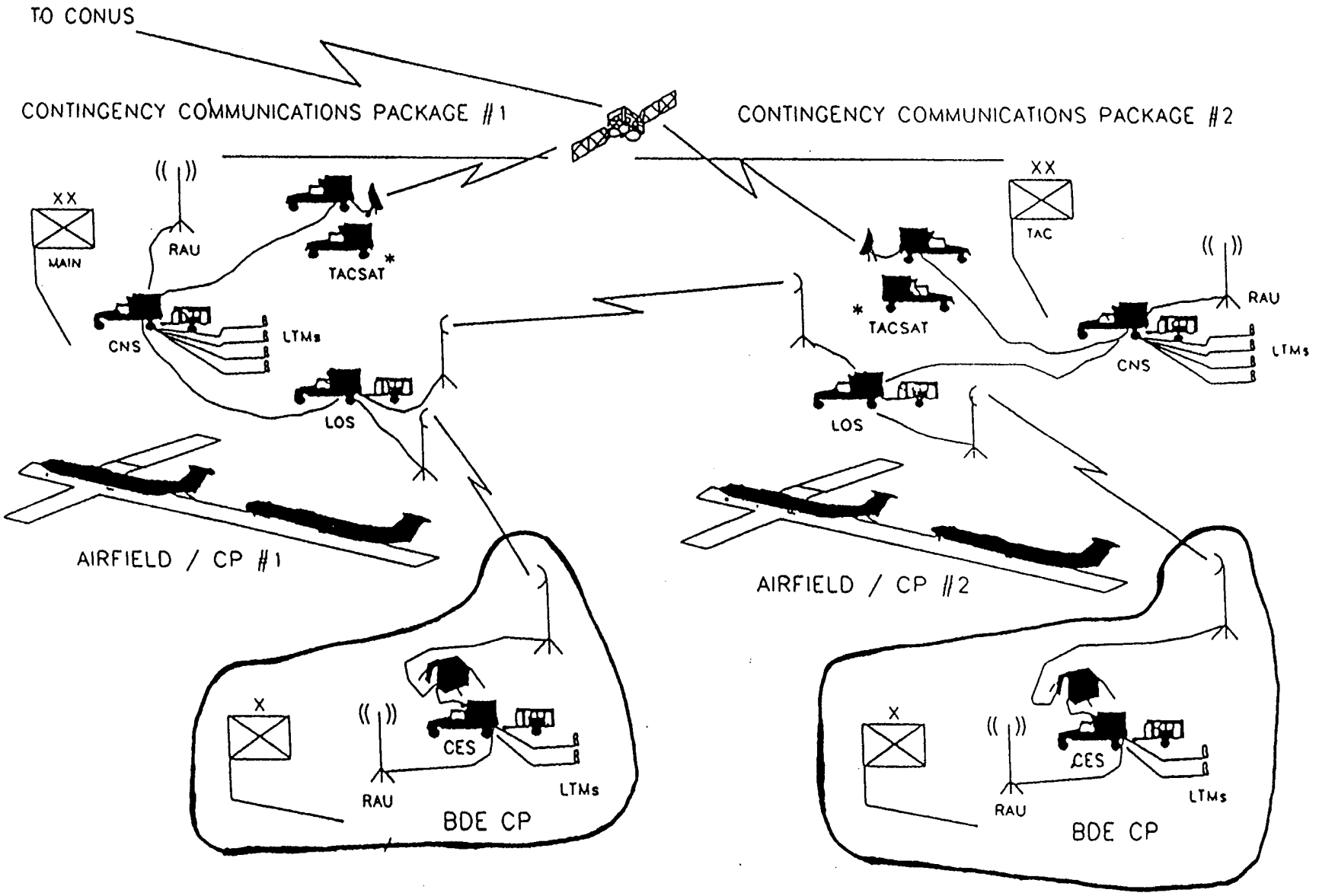
## SINGLE CHANNEL SYSTEMS REMOTED FROM SHARK TO DIVISION ASSAULT COMMAND POST



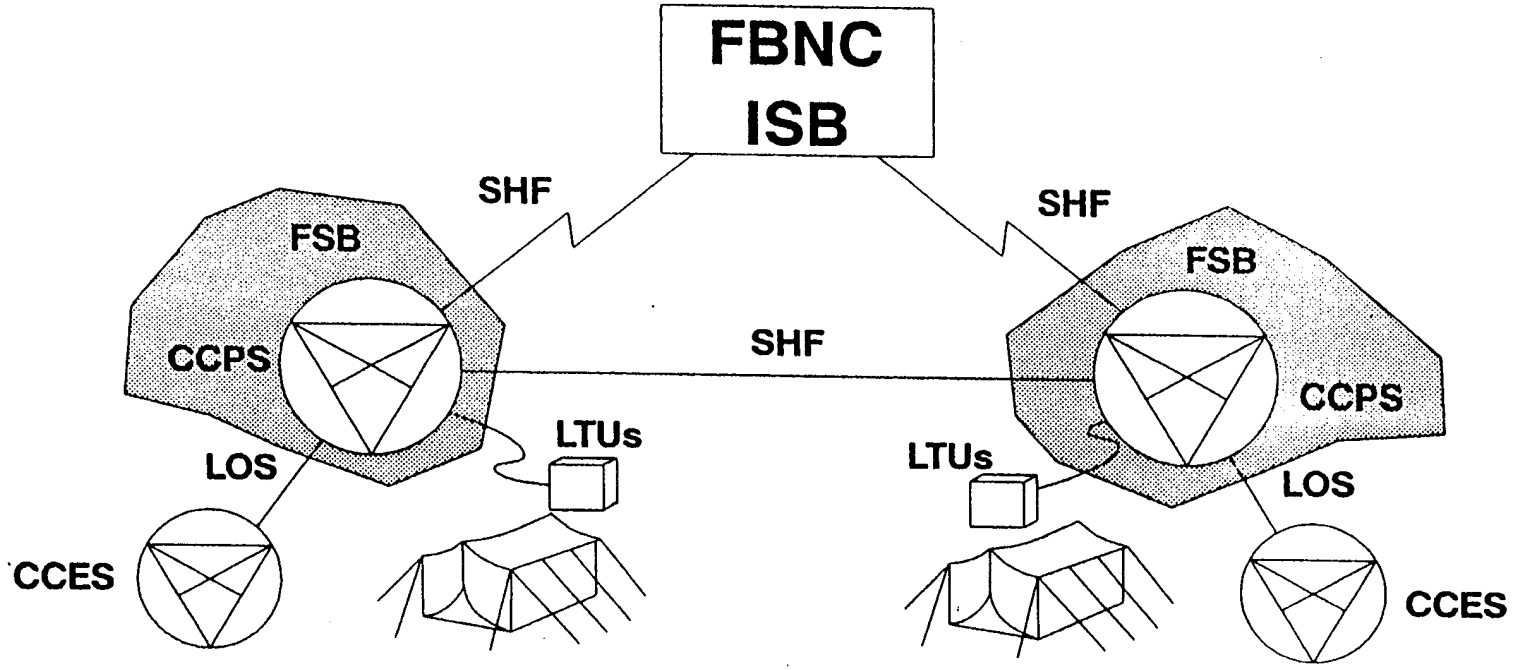


- 2 x TACSAT NETS
  - INTEL / DATA
  - COMMAND
- 4 x FM NETS
  - FSE
  - INTEL
  - COMMAND
- 1 x HF NET
  - COMMAND
- FACSIMILE

- DIVISION ASSAULT COMMAND POST VEHICLE (SHARK)
- HEAVY DROP
- REPLACES MANPACK SYSTEMS

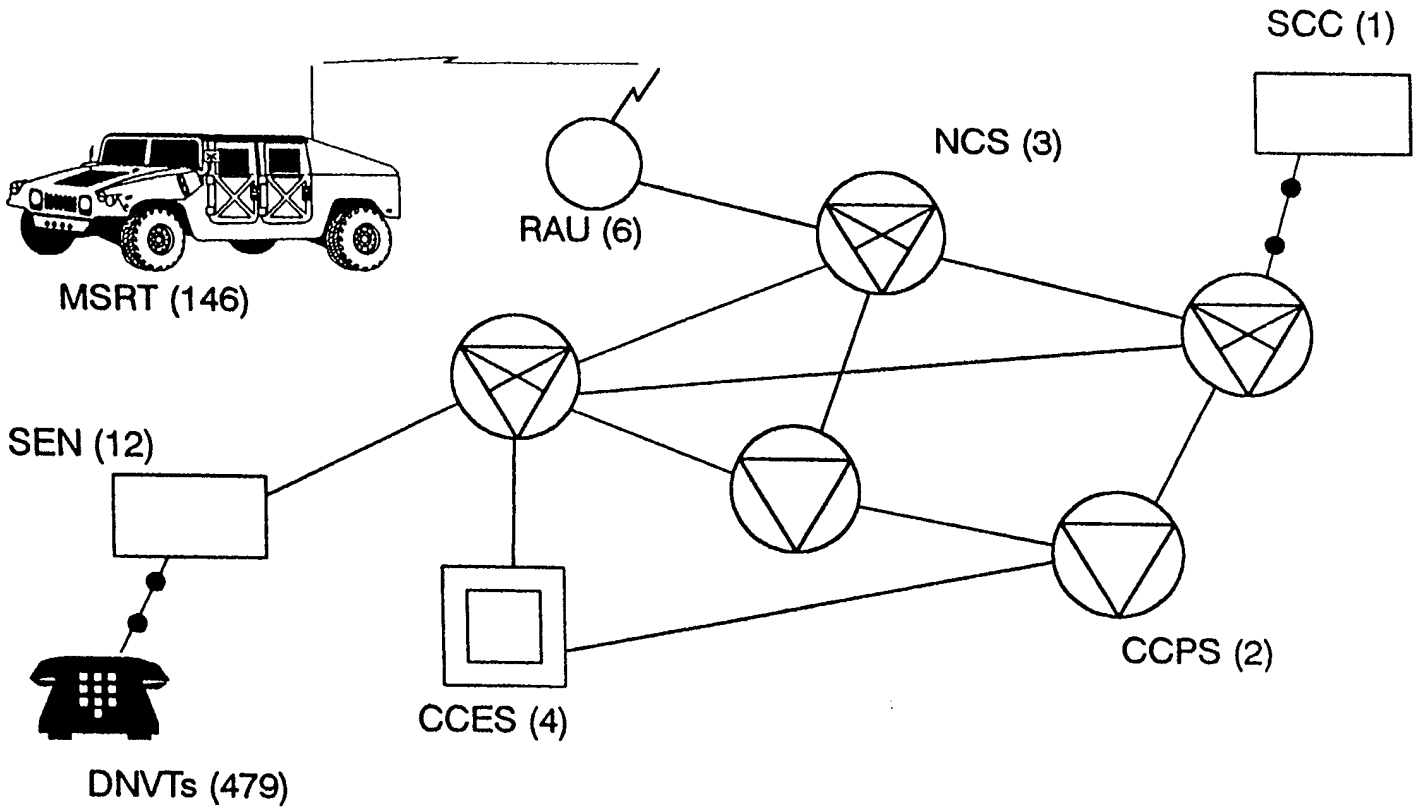

TO CONUS
CONTINGENCY COMMUNICATIONS PACKAGE #1
CONTINGENCY COMMUNICATIONS PACKAGE #2
XX
MAIN
RAU
TACSAT
CNS
LTMs
LOS
AIRFIELD / CP #1
X
CES
RAU
LTMs
BDE CP
XX
TAC
TACSAT
RAU
CNS
LTMs
LOS
AIRFIELD / CP #2
X
CES
RAU
LTMs
BDE CP

# PHASE IV
## FOLLOW-ON COMMUNICATIONS




CCPS - CONTINGENCY COMMUNICATIONS PARENT SWITCH
CCES - CONTINGENCY COMMUNICATIONS EXTENSION SWITCH
LTUs - LINE TERMINATION UNITS

# PHASE V
## DIVISION MSE SYSTEM

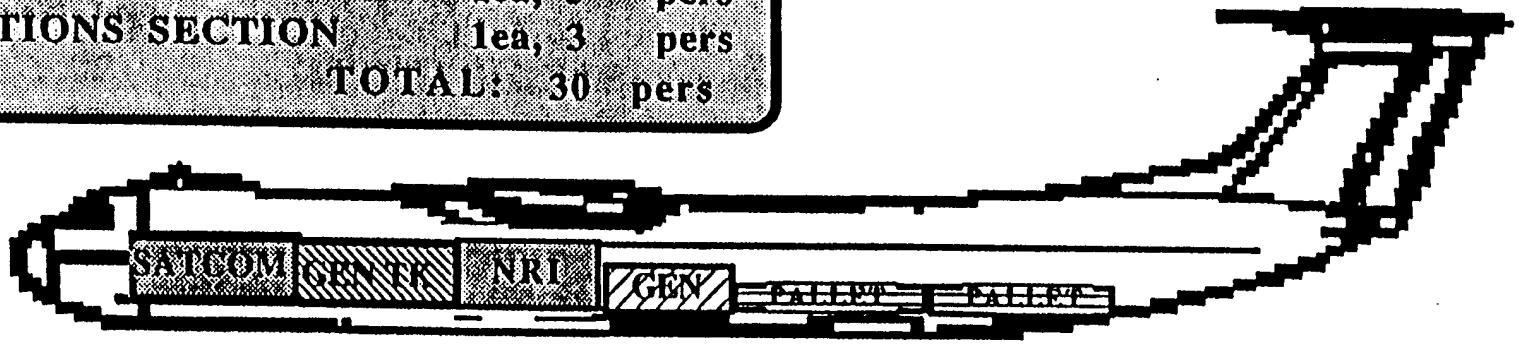



DIVISION AO = 4000 SQ KM

# QUICK REACTION COMMUNICATIONS PACKAGE

**RESOURCES**

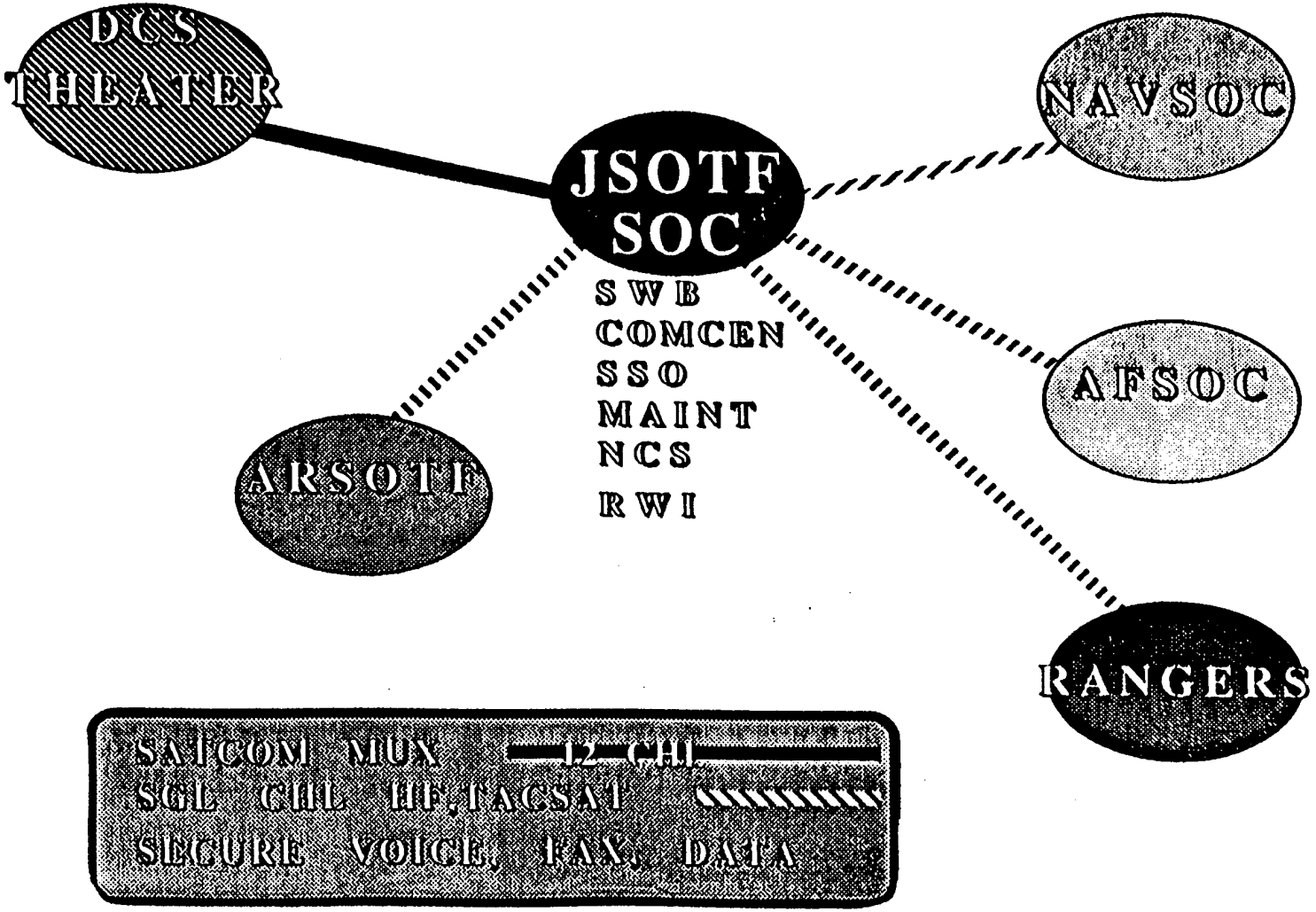
| | | |
|---|---|---|
| SATCOM MULTICHANNEL | 1ea, 3 | pers |
| SOCA/NRI RADIO TEAMS | 5ea, 15 | pers |
| SWITCH BOARD TEAM | 1ea, 3 | pers |
| ELEC/COMSEC MAINT TM | 1ea, 2 | pers |
| GENERATOR REPAIR | 1ea, 1 | pers |
| COMCEN TEAM | 1ea, 3 | pers |
| OPERATIONS SECTION | 1ea, 3 | pers |
| TOTAL: | 30 | pers |



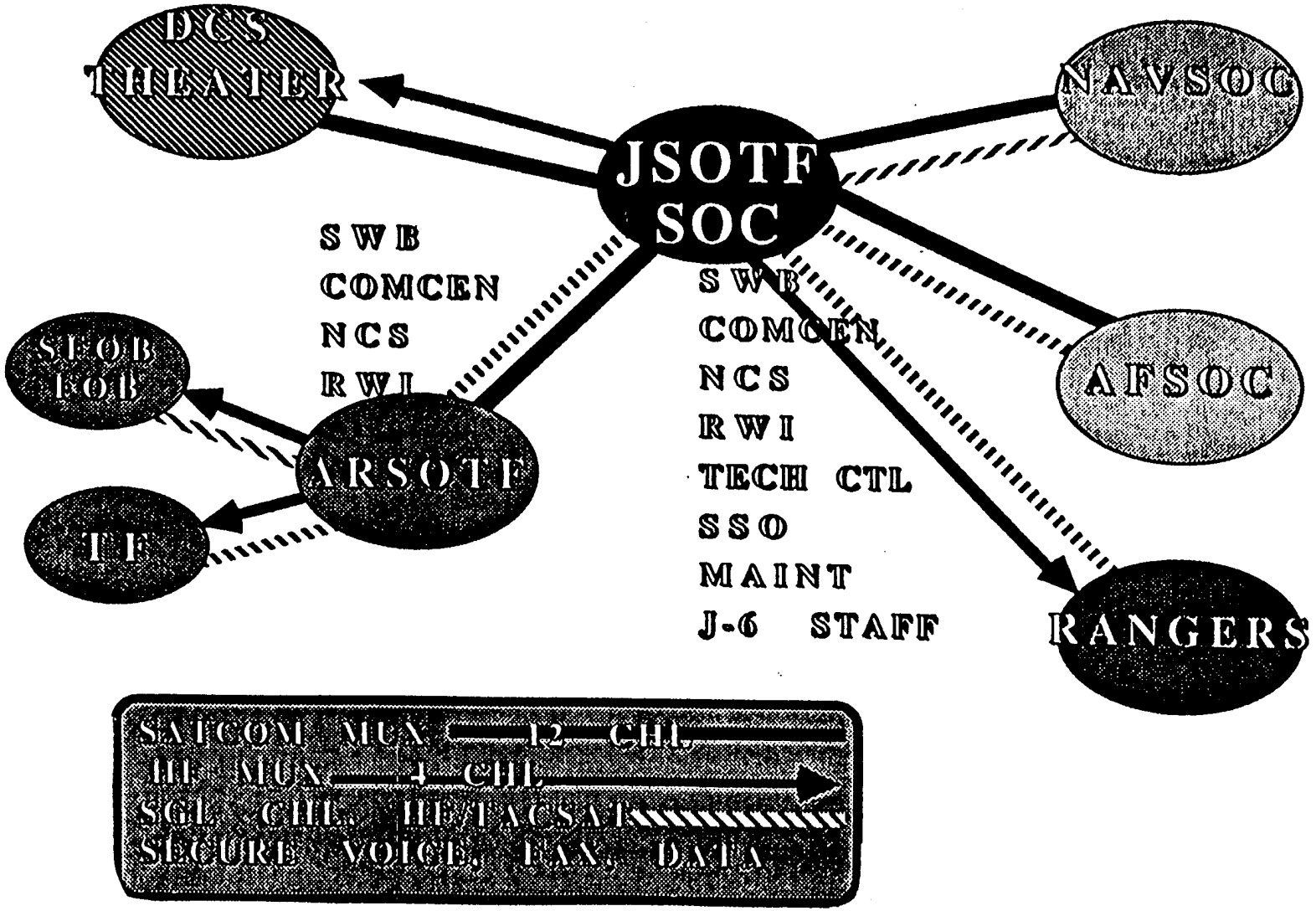

**CAPABILITIES**

- DCS ENTRY: 12 CHLS:AUTODIN, AUTOVON, SSO
- 30 LINE SWITCHBOARD
- SINGLE CHANNEL HF;TACSAT;FM;
- NRI
- SECURE VOICE, FAX, DATA
- ELECTRONIC/COMSEC MAINT
- GENERATOR MAINT
- SIG OPS STAFF

# INITIAL THEATER SUPPORT



# FULL THEATER SUPPORT



LONG HAUL/WORLDWIDE CAPABILITY
HQ
HQ
HQ
HQ
HQ
HQ
JSOTF
DCS

## APPENDIX B

## CONTINGENCY COMMUNICATIONS PLANNING OUTLINE

1. Mobilization Phase
   a. Identify Deployment Packages
   b. Activate Emergency Operations Center (EOC)
   c. Establish Sustainment Base Communications
   d. Identify COMSEC to be used, i.e., ICP or ...

2. Predeployment Phase
   a. Finalize Early-entry Communications Packages, Intermediate Staging Base (ISB) Requirements, LNO Packages, Follow-on Package
   b. Enroute Communications Identified
   c. Develop JSOI
   d. Issue Comsec And Identify "Freeze" Requirements
   e. Identify Single-Channel Satellite Requirements
   f. Identify Multi-Channel Satellite Requirements
   g. Identify IHFR Requirements
   h. Identify FM Requirements
   i. Identify Data Requirements
   j. Identify Defense Communications System (DCS) Entry Locations
   k. Identify Commercial Requirements, i.e., INMARSAT
   l. Identify Echelons Above Corps Requirements, i.e., TRI-TAC
   m. Identify MSE Requirements
   n. Identify Airborne C2 Platforms, i.e., ABCCC or JACCC/CP
   o. Identify Command Post (CP) Requirements
   p. Identify Air and Sealift Packages
   q. Prepare Telephone Directory
   r. Identify Joint Requirements
   s. Identify Combined/Allied Requirements
   t. Identify Other Government Agencies Requirements
   u. Based On The Combat Operations, Identify Signal Requirements Anticipated Through Each Phase (Entry, Combat Operations, Post-Conflict Operations, And Redeployment) and Plan For Backup
   v. Perform Operational Checks Wherever Possible
   w. Identify Any Possible Host Nation Support

3. Deployment Phase
   a. Install and Operate Enroute Communications

4. Entry Operations Phase
   a. Install Initial Communications, Local and Long Haul Back To Sustainment Base
   b. Prepare CP Communications
   c. Prepare For Arrival Of Follow-On Packages

5. Combat Operations Phase
   a. Support Combat Operations As Planned
   b. Monitor Initial Communications Structure; Architecture Will Mature As More Resources Arrive

6. Post-Conflict Operations Phase
   a. Prepare For Redeployment
   b. Identify/Isolate Damaged and Non-Functional Signal Equipment

7. Redeployment Phase
   a. Install and Operate Enroute Communications

8. Reconstitution Phase
   a. Turn-in Of Damaged and Non-Functional Equipment
   b. Perform Post Operational Checks Of Equipment
   c. Posture In Preparation For Next Alert

NOTE: These are merely broad bullet areas and each should be further developed in detail. Coordination, both internal and external needs to be accomplished in most areas and points of contact established. This list is by no means all inclusive but an example of the type information to be included in a contingency communications doctrine document.