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LTC(P) JOHNNY W. BROOKS

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
SCHOOL OF ADVANCED MILITARY STUDIES
ATTN: ATZL-SWV
Fort Leavenworth, KS 66027-6900
Com (913) 684-2138 DSN 552-3437

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Army Contingency Forces: What Should They Be?

A Monograph
by

Lieutenant Colonel Johnny W. Brooks
Infantry

School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

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Lieutenant Colonel Johnny W. Brooks

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Approved by:

Dr. James Schneider — Monograph Director

COL James R. McDonough, MS — Director, School of Advanced Military Studies

Philip J. Brookes, Ph.D. — Director, Graduate Degree Program

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ABSTRACT

ARMY CONTINGENCY FORCES: WHAT SHOULD THEY BE? by LTC Johnny W. Brooks, USA, 67 pages.

This monograph addresses the issue of US Army contingency forces: composition, size, potential use and orientation. The size and shape of the battlefield is fundamental in the type of forces needed in contingency operations. Most significantly, the need exists for forces that are capable of deploying rapidly, conducting forcible entry and designed with deployability and sustainability in mind.

In determining the requirements for the units, the aspects of deployability, lethality, flexibility and versatility are examined. An analysis of recent US Army involvements in Grenada, Honduras, Panama and South West Asia are used to take lessons of history and apply them to the contingency needs of the Army. Additionally, the French rapid deployment force is scrutinized as the way another country has solved the need for a contingency force.

Our own history tells us that contingency forces must be able to deploy rapidly, deter the enemy on arrival and, if necessary, conduct combat to defeat the enemy. In doing so, the forces must be deployable, survivable, capable of killing tanks and possess mobility to move around the battlefield. Therefore, the force must be light in order to preserve deployability, and possess aviation for mobility, fire support and tank killing ability. The contingency corps is organized around a base structure of two divisions. Each division is specially designed to insure deployability, mobility and lethality. The corps is further organized with elements capable of being tailored in the organization to provide a more powerful ability. The corps will rely heavily on aviation. All equipment is scrutinized with rapid deployment in mind. Finally, there should be two corps, one focused to the Pacific and one looking to the Atlantic. A contingency force of this type will best utilize strategic lift, present a strong deterrent and best be able to fight and win on the battlefield.

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INTRODUCTION

> Our force structure must constitute a credible deterrent, have a forward presence component and be mobile and capable of responding to a diverse set of contingencies across the spectrum of conflict.(1)

Dramatic political events recently have changed the world. While Communism has all but disappeared as a threat to the US way of life, there is still a proliferation of weapons of mass destruction giving power to many small and relatively inconsequential nations. At the same time the Soviet Union has faded as the perpetual enemy of the United States, a budgetary crisis exists throughout many countries of the world. Despots such as Saddam Hussein continue to emerge throughout the world with power to back their threats. These episodes have changed the manner in which we look at the world.

The US will no longer have the luxury to sit in forward-based positions ready to fight its conflicts. Today the US must be prepared to address the potential of war around the world from the shelter of its own shores. At the same time, the battlefield has changed with the advent of new technologies. The manner in which we will address war will likely be reflected in our doctrine. Yet, there are some

1. Office of the Secretary of Defense, Joint Military Net Assessment, (Washington, March 1991), p.1-8.

things that never change; as Dan Bolger stated, "Infantry legions on patrol are the stuff of superpower intervention."(2) We must insure we have the right force mix at the right time to remain a superpower.

The purpose of this paper is to address the changing US Army and the forces prepared for contingency operations. The finished product will be a proposal for the type and size of units that will form the contingency forces of the Army. The analysis of force structure will closely examine the qualities of the future force in terms of: flexibility, lethality, deployability and versatility. The analysis will also scrutinize recent US history and other national organizations. In addressing the issue correctly it is important to remember the words of Nathan Bedford Forest, "the Army that wins is the one that gets there the 'fastest with the mostest.'"(3) This must remain our Army's chief strategic goal. The balance of this paper is directed toward its attainment.

2. MAJ Dan Bolger, "The Ghosts of Omdurman," Parameters, (Autumn 1991), p.39.
3. GEN Carl Vuono, "A Strategic Force for the 1990s and Beyond," extract from, Joint and Combined Environments: Student Text 20-15, (CGSC, 1 Aug 1991), p.176.

THE NATIONAL SECURITY STRATEGY

> Despite the emergence of new power centers, the United States remains the only state with truly global strength, reach and influence in every dimension-political, economic and military. (1)

The New World Order has emerged and appears to be thriving. It emerged as a result of dramatic changes in the Soviet Union, emerging global challenges and a worldwide budgetary crisis. At the same time as the demise of the Warsaw Pact Treaty, a new and ominous set of threats surfaced: the proliferation of advanced weapons and the rise of many third-world military powers. These sets of circumstances demand a radical and thorough analysis of our whole national security policy.(2)

Despite the fact that the Commonwealth of Independent States possesses the capability to destroy the United States, "improvements in East-West relations have shifted our focus away from the threat of global war to regional threats of consequence to US vital interest." At the same time, our national security continues to be built upon the foundations of strategic deterrence and defense, forward presence, crisis response and reconstitution.(3)

1. U.S.Government, National Security Strategy of the United States, (August 1991), p.2.
2. Ibid., p 2-4.
3. Office of the CJCS, "The National Military Strategy for the 1990s," (6 Jan 1992), p.5.

Strategic deterrence will likely remain the number one priority of the United States. This entails that we maintain the proper mix and capability with our nuclear arsenal to insure that nuclear war remains unthinkable. At the same time we must maintain a response across the spectrum of chemical, nuclear and biological weapons, insuring a strong, continuous deterrent force against these same weapons.(4)

The second component of our strategy is forward presence. For over 40 years, we have maintained a US presence in regions vital to our national interests. This has been a key element in the avoidance of conflict. Today, however, the US is faced with the likelihood of being unable to maintain an appropriate level of deployed forces. The shift in forward presence may now include rotational deployments, combined exercises, equipment positioning, military-to-military contact and humanitarian assistance. Although the numbers of US forces forward-based will be reduced, US resolve will be demonstrated by these frequent deployments.(5)

Crisis response is the third element of the strategy. This requires an ability to respond to any

4. Ibid., p.6.
5. Ibid.

threat to our vital interests around the world. The response must be sufficient to accomplish any given mission. The US must be able to respond to multiple crises, should potential adversaries be tempted to take advantage of our preoccupation in any one region of the world.(6)

The fourth element of our national strategy is reconstitution. Our national strategy provides the US with a definition of its national vital interests and corresponding allocation of assets in order to secure those interests. Large scale involvement may result in the exhaustion of resources available at the time of deployment and regeneration of forces may be necessary. Reconstitution will include maintaining the industrial and technological base to continue the support of the armed forces. This insures that the armed forces will continue to possess the technological edge in decisive areas of military competition.(7)

Foundations of the National Military Strategy establish the basis for more definitive concepts known as the National Military Objectives. These objectives are founded on the premise that the US will continue to play a pivotal role in preserving

6. Ibid., p.7.
7. Ibid.

global peace and stability. These objectives in turn determine the whole purpose of our Armed Forces. They are:

*Deter or Defeat Aggression, in Concert with Allies--Deter military attack by any nation against the United States, its allies, and other countries whose sovereignty is vital to our own; and defeat such attack, singly or in concert with others, should deterrence fail.

*Ensure Global Access and Influence-Protect free commerce; enhance the spread of democracy; guarantee US access to world markets, associated critical resources, air and sea LOCs, and space; and contribute to US influence around the world.

*Promote Regional Stability and Cooperation-Contribute to regional stability through military presence, mutual security arrangements, and security assistance; and, to discourage thereby, in concert with other instruments of national power, policies and objectives inimical to US security interests.

*Staunch the Flow of Illegal Drugs-Stem the production and transit of illegal drugs and their entry into the United States.

*Combat Terrorism-Participate in the national program to thwart and respond to the actions of state-sponsored terrorist organizations.(8)

The changing nature of the strategic environment has significantly altered our military strategy. We will continue to deter and prevent nuclear attacks. We will also maintain the potential to engage in global conflict, should that eventuality occur. However, our resources, plans and energies will no

8. Department of Defense, Joint Military National Assessment 1991. (March 1991), p.2-2.

longer be largely oriented toward the Soviet Union. Our focus will shift most likely to regional threats equally threatening to our vital interests. Consequently, the US will be forced to broaden its vision in the new world order and to examine its response throughout all regions.(9)

9. Ibid. "The National Military Strategy For the 1990s, (Draft)," p.11.

THE DOCTRINE

> Separate ground, sea and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all services, as one single concentrated effort.(1)

As General Eisenhower stated, the US military will fight together as a unified effort, consisting of all branches of the service. The Army especially is dependent upon the other services in order to accomplish its assigned mission. Undoubtedly, any movement of Army forces over long distances requires cooperation from the Air Force and the Navy. In particular, contingency operations are especially demanding of joint support.

Contingency operations and the forces necessary to execute them are not new to the military. Joint Pub 3-00.1 defines a contingency as:

> an emergency involving military forces caused by natural disaster, terrorists, subversives or by required military operations. Due to the uncertainty of the situation contingencies require plans, rapid response and special procedures to ensure the safety and readiness of personnel, installations and equipment.(2)

Timeliness, according to our doctrine, may be the most significant aspect of successful contingencies.

1. Quote from GEN Eisenhower, Larry Grossman, "Beyond Rivalry," Government Executive, (June 1991), p.10.
2. Joint Pub 3-00.1 (Initial Draft), Joint Doctrine For Contingency Operations, (Oct 1991), p.GL-8.

By their very nature contingency operations are designed to respond to an unanticipated need for military resolve. Contingency operations do not simply happen, they are driven by certain circumstances. These are: an emergency or a crisis; National Command Authority directed involvement in national interests; rapid response operations; or a trigger event. Each circumstance notably denotes a rapid, crisis response by military action.(3)

Other important elements of contingency operations are: early response; rapid projection of military power; forcible entry; forces tailored to the situation; unambiguous command and control; thorough coordination among all forces; timely and detailed intelligence; strict OPSEC; sensitivity to political implications; quick resolution; the effect of national and international news and the reaction to instant communications by the National Command Authority.(4) As our doctrine suggests, contingency operations and forces employed must be specifically tailored to a specific mission.

As our strategy shifts from a forward deployed strategy to a regional focus, contingency operations take a more central position in our planning. Forces

3. FM 100-7, The Army In Theater Operations, (Coordinating Draft), (26 Dec 1991), p.8-1.
4. Ibid., p.8-2.

used in contingencies must first be located where they can have the greatest impact. Consistent with that premise, General John W. Foss, Commander, Training and Doctrine Command, described the Army of the future as: "the Army's strategic mission in the 21st century will be force projection."(5) Power projection places additional stress and constraints on the Army. Efficient power projection dictates prudent force structure decisions and realistic doctrinal expectations. Therefore, the fundamental requirement in contingency operations is the capability to project power.

GEN Foss has defined three fundamental qualities of contingency operations. The first of these qualities is versatility. The Army must be able to project contingency forces capable of meeting a variety of mission requirements. These contingency forces must be tailored with the proper mix of capabilities required by the mission. The ability to deploy heavy forces is also essential. The contingency task force (CONTAF) can easily be tailored for a maneuver brigade or larger. Versatility allows and requires the Army to use a greater part of the force structure in contingencies.

5. GEN John Foss, notes, "Establishing the Doctrine for Contingency Operations," (6 Nov 1990), p.1.

Versatility facilitates the Army in rapidly and selectively developing CONTAFs for specific missions. Flexibility and self-support are key elements of a versatile CONTAF in the early stages.(6)

The second quality is deployability. The initial force must be lift-compatible and self-sustaining to the maximum extent possible. Units must be structured to deploy more rapidly on less lift. It is therefore, essential that we develop equipment with that in mind. Critical decisions must be made early in the process to insure an adequate initial surge of forces with sufficient capability for mission accomplishment. Initially deployed, rapid response forces must be followed with additional forces throughout the entirety of the operation.(7)

The third fundamental quality is lethality. Lethality is a basic quality of any military force. US forces must be able to apply overwhelming, disciplined and controlled power as quickly as possible. The objective must be to use only the measure of military power necessary to accomplish the mission. Improper use of power will be counterproductive. Therefore, the degree of

6. Ibid., p.2.
7. Ibid., p.3.

necessary lethality is dependent on the enemy and the mission.(8)

Doctrine indicates that a contingency force must possess the same capabilities as any other military organization. The contingency force will always fight as a component of a joint force and should be capable of providing the headquarters to a joint task force. Paramount in the capabilities of such a force is the need to [illegible] to the region rapidly and to conduct forcible entry operations, if necessary. Contingency forces must be tailored as needed, versatile, possess necessary lethality, be tactically mobile, conduct AirLand Battle and maneuver warfare and be capable of conducting military operations across the continuum of military operations. In short, doctrine elicits a military organization that is capable of deploying to the changing battlefield with the right force, fighting, and winning.

8. Ibid.

THE BATTLEFIELD

> Army concepts have moved from how you fight on the developed battlefield to how you get there; how you build up your force; and how you fight that decisive battle.(1)

The most important factor in determining the employment of troops in a future conflict is the likely nature of tomorrow's battlefield. The battlefield of today and the future is changed by technology, force structure, complexity, economics and national resolve. Forces in contingency operations will be in the unique position of requiring operational and tactical design in order to fulfill their objectives. They must be able to get to the battlefield and conduct battle, with each aspect being of equal significance. For contingency forces the battlefield starts at home base, the departure port.

Tomorrow's battlefield will be joint. The strategic deployment will require a joint Army-Navy-Air Force-Marine effort. The airlift and sealift necessary to move US forces in support of strategic operations are essentially components of another service. Once arriving in the theater, joint operations will continue. The Army must be prepared

1. John Roos, "New Army-Air Force War-Fighting Concept Sees Joint Power Projection Operations," Armed Forces Journal International, (October 1991), p.14.

to participate as either the ground component or as the Army component. The Army must be prepared to provide command to this joint organization at whatever level required.(2)

The battlefield of the future will be nonlinear. Nonlinear warfare requires extreme mobility and forces capable of operational exploitation. The deep battle will be composed of vast, operational areas with "front lines" not necessarily clearly defined.(3) The size of armies will also dictate that warfare be nonlinear. Armies will not be able to occupy physically vast expanses of ground as they have in the past. Armies will be much smaller as nations continue to cut the size of forces.

Consequently, nonlinear warfare will create massive rear area vulnerabilities. The battlefield will also be deep in terms of defensive and offensive deployment. As the battlefield broadens, mobility requirements will increase and assume greater importance. Additionally, units will require the flexibility to disengage and reengage in support of rear area operations. This in turn will place a renewed emphasis on tactical mobility and logistical

2. GEN John Foss, "Establishing the Doctrine for Contingency Operations," notes, (6 Nov 1990), p.1-2.
3. MG Jack Galvin, "The Heavy-Light Concept," Armed Forces Journal International, (July 1982), p.66.

assets.(4)

The determination of a future threat on tomorrow's battlefield will be much more difficult than in the past. We no longer will be able to declare the Soviet Union or its surrogates the enemy. Future emphasis will likely be on non-Soviet conventional threat.(5) There are currently more than ten nations that each possess more than 1,000 main battle tanks. Additionally, it is estimated that by the year 2000 more than 15 developing nations will have ballistic missiles; 8 will have nuclear weapons; 30 chemical munitions and 10 biological weapons. The potential exists that any one of these nations might challenge our national interests.(6) Our forces must, therefore, be prepared for any threat that may surface in any region of the world.

The effects of high technology weapons will change the battlefield. Precision Guided Munitions (PGM) have already had a tremendous impact on modern armies. Massive concentrations of forces will be vulnerable to an opponent equipped with precision munitions or conventional munitions with increased

4. LTC (IDF) David Eshel, "US Army Light Division, Right or Wrong?" National Defense, (May-June 1987), p.60&63.
5. GEN Carl Vuono, "Desert Storm and the Future Conventional Forces," Foreign Affairs, (Spring 1991), p.51.
6. Richard Cheney, "US Strategy for an Era of Uncertainty," International Defense Review Defense 92, (1991), p.7.

lethality. PGMs will allow smaller and less technologically advanced nations the capability to engage larger, more powerful armies and to inflict excessive damage and casualties. The abundance of PGMs will force armies to develop more highly mobile forces that can move rapidly and stealthily around the battlefield.(7)

Advances in intelligence will also affect the battlefield. Radar, satellites and other airborne platforms make large scale operations against modern nations almost impossible.(8) The ability of news media to transmit rapidly reports from remote locations will serve all sides as intelligence. Operational Security (OPSEC) will be increasingly difficult to maintain. Contingency forces preparing to mount operations will be very difficult to conceal from the news media. As such, dispersion of ports of embarkation and rapid deployment assets will be critical.

Time will be of the essence. Warning time for a major contingency, against a great power, one with a large mechanized army will be lenghtened. Longer warning time will also allow the National Command Authority to examine the use of reserve component

7. Mazarr, p.132.
8. Richard Simpkin, Race to the Swift, (Brassey's, London, 1985), p.156.

forces. In particular, a lenghtened warning time will allow the Army the opportunity to activate the heavier reserve component forces for a major contingency. Correspondingly, lesser time will be available to respond to the lower side of the continuum of military operations.(9) Restrictive forward basing will also effect the time available to react. The lack of forward deployed forces will increase the time required to deploy.(10) Time is relevant in another respect. On the contingency battlefield, the initial response phase amounts to deterrent operations. The speed with which the US responds in the national interest is imperative. Rapid deployment must be by forces with the capability to project power. GEN John Foss summed up the rapid deployment requirement very succinctly,

> the firepower score on C+1 is much more important than the firepower score on C+90.

The battlefield of the future may also be not as easily defined as we would like. It is feasible that US forces can be deployed in to counter drugs; the field of battle may be in the US. In addition, short of war US forces could be asked to perform missions

9. DOD, Joint Military National Assessment 1991, (March 1991), p,1-7.
10. COL Robert Killebrew, "Force Projection in Short War," Military Review, (March 1991), p.37.

in support of nations in their efforts to maintain stability, law and order. Numerous other forward presence operations are likely. Force agility is important. Units will be required to perform more than one specialized mission.(11)

The battlefield on which future contingency forces will fight will be broad, demanding, highly technological and all encompassing. Since the most important element of a contingency force is deployability, that battle will begin upon notification to deploy. The environment will place new demands on OPSEC; place renewed emphasis on deception and alter the meaning of intelligence.

11. USATRADOC, Pamphlet 525-5, (Ft. Monroe, VA, 1 Aug 1991), p.38,39.

THE COMPETITION

> For military historians with backgrounds as professional soldiers, the idea of military history having a "use" is a perfectly natural one.(1)

A study of the forces of a nation would not be complete without an examination of the history of past conflicts and their relation to the future. In addition, an analysis of other nations and the manner in which they solve similar problems can serve as a structure of analysis. Since 1958, the US has been involved in at least 6 interventions where armed force was deployed in support of national interests. These operations have ranged from model cases where everything was outstanding to operations near total failure. A study of these operations will assist in determining forces needed in the future of contingency operations. These operations are listed below:

1958	Blue Bat	Lebanon
1965	Power Pack	Dominican Rep
1983	Urgent Fury	Grenada
1988	Golden Pheasant	Honduras
1989	Just Cause	Panama
1990	Desert Shield	Saudia Arabia

Crisis action seems to be on the rise and current world instability supports the potential for a further increase.(2) In the analysis of history we will

1. Quote attributed to Michael Howard.
2. Remarks to the National Press Club by BG Daniel Christman, Director, Strategic Plans and Policy, Deputy Chief of Staff for Operations and Plans, 19 Feb 1991.

examine the most recent of these crises.

Grenada

The first crisis examined here is the US participation in Operation Urgent Fury, October 1983. The National Command Authority ordered the seizure of Grenada, the protection and evacuation of US nationals and the overthrow of forces controlled by the Marxist regime. The crisis was spontaneous and the lack of time contributed to flaws in the plan and organization.

The overall commander was the Commander, US Atlantic Command (CINCLANT). The plan called for a Joint Task Force (JTF) to command forces in the area. JTF 120, with Vice Admiral Joseph Metcalf III in command, was located in the Caribbean. An "ad hoc" joint staff was assembled and flown to the USS GUAM. The planning was further complicated by the need to include small units from Caribbean countries in a peacekeeping role.(3) After debate and scrutiny, the plan called for participation from all branches of the US services to include Special Operations Forces (SOF). The SOF was placed under direct control of CINCLANT and not JTF 120. The plan allowed for the insertion of SOF, followed by an airborne assault to secure the airfield, an amphibious landing and a subsequent

3. Mark Adkin, Urgent Fury, (Lexington, Mass., 1989), p.127.

airlanding by forces on the secured airstrip.

The initial command and control arrangements called for the Commander, Joint Special Operations Command (JSOC), to command all Army forces. That included SOF forces, Rangers used to secure the airfield and the early arrival elements of the 82d Airborne Division. The plan was for SOF forces to seize and control Salines Airport in the south; the Marine Amphibious Unit (MAU) to land in the north and control the northern island; and the 82d to airland on the secure Salines airport and to expand the security zone and relieve the Rangers.(4) Little was known of the enemy on the island. Even less was known of Cuban forces and workers near Salines airport. These points, coupled with the expeditiousness of planning, the impromptuness of organizing the force and the fact that few units had worked together, were a recipe for disaster. While disaster was averted, many problems still existed.

Following the initial assaults, events went as planned. However, there were major command and control problems. The 2 battalions of Rangers that airdropped on Salines airfield were commanded by JSOC. The MAU reported to JTF Hq on the USS GUAM. The initial units of the 82d, reported to HQ, 82d who was a subordinate

4. Ibid, pp. 141-144.

unit of JTF 120. SOF and Rangers were to be extracted after 24 hours and 82d was to control all Army forces on the island. After 24 hours, the Rangers were attached to the 82d, unable to depart. Due to the lack of mobility, Army forces in the south were unable to make any gains. They were able to use the few helicopters for certain missions but were limited in ability to expand the area they controlled.(5)

Command and control problems were exacerbated by the types of units on the island. There was no single headquarters responsible for land combat. In addition the SOF, Air Force and JTF all reported to Norfolk, Va, where the overall operation was commanded. There was no unity of effort. Early in the operation, the Army alone had 2 Major Generals on Grenada commanding a force of less than 3 battalions. Cooperation between services and commands was questionable. However, it can be said that Grenada was an operational success; as large forces of lightly equipped troops were moved vast distances and won a decisive victory.(6)

Honduras

In March 1988, the US reacted to a potential Sandanista incursion into Honduras by rapidly deploying forces from the US to Honduras. Little has been

5. Ibid, p.364.
6. Richard Simpkin, Race to the Swift: Thought on Twenty-First Century Warfare, (London, 1985), p.186.

written on this deployment. However, it is an outstanding example of the use of light forces in deterrent operations.

Two brigades of infantry were used. One brigade from the 82d Airborne Division with the division headquarters was airlanded. The second brigade was deployed from the 7th Light Infantry Division (LID). In addition, large numbers of helicopters were airlifted to provide mobility in the difficult Honduran terrain. The 2 brigades were under command of the 82d. There are many possible reasons for the brigades coming from different divisions. The Army might have desired to deploy a light infantry force in a crisis manner in an attempt to validate the emergency movement procedures.(7) Secondly, other crisis spots in the world required the attention of the majority of the 82ds' combat power. Whichever is correct, the command and control was made more difficult.

An analysis of this operation is important in order to demonstrate the command and control difficulties caused by using brigades from different divisions. Additionally, the large movement of helicopters were required to project mobility. Also of significance was the potential to deploy 2 forces,

7. LTC Paul Soderlund, "Contingency Corps-Is One Enough for the 1990s?" USNWC, (June 1990), pp.4-5.

requiring the only forcible entry force of divisional size in the Army to look in 2 directions.

Panama

The US intervention in Panama began in March 1988 with the deployment of aviation elements to Panama. This deployment was followed in May 1989 by an infantry brigade from the 7th (LID) and the augmentation of the garrison, the 193d Infantry Brigade, with a mechanized battalion.(8) These large numbers of helicopters and the mechanized forces played a significant part in the plan to overthrow Manuel Noriega and oust the Panamanian Defense Forces (PDF). The plan called for elements in Panama to initiate combat at 0100 on 20 December 1989. On the Pacific side, these assault missions were conducted by the 193d Infantry Brigade. The use of mechanized forces was essential to facilitate movement in the urban area and provide firepower necessary to accomplish the mission. On the other side of the isthmus, a brigade of the 7th LID was to initiate action at the same time. Shortly after 0100, 2 battalions of Rangers were to airborne assault the airfields at Tocumen and Rio Hato, gain control of the airfields and receive relief from airland forces from the 7th LID. Additionally, a brigade from the 82d

8. Donnelly, Roth and Baker, Operation Just Cause, (New York, 1991), p.47.

was to parachute north of Panama City and move by air assault to seize objectives near Panama City.(9) Following all assault operations, airland units of the 7th LID were to clear the remainder of the country by extensive use of helicopters.

Despite minor problems with timings and drop zone locations, the operation proceeded basically as planned. Command and control was closely scrutinized. The 193d and the brigade from the 7th initially were controlled by the CG, JTF Panama, LTG Carl Stiner, the CG, XVIIIth Airborne Corps. The Rangers, although working somewhat independently, reported to the CG, JSOC. The CG, 82d retained control of the brigade from the 82d. The CG, 7th LID, was initially in control of all 7th airland forces and was subsequently given control of the brigade from the 7th on the Atlantic side. The transition to a more streamlined command and control arrangement with JSOC, the 82d and the 7th LID as major commands was easily accomplished. For the first two weeks after hostilities, 2 divisional headquarters were in Panama controlling 11 infantry battalions.(10)

Operation Just Cause was a highly successful operation. Initial assaults were largely commanded by

9. Ibid, pp.75-77.
10. Ibid, pp.80-85.

headquarters familar with the capabilities of the brigades tasked for the missions. This was an outstanding example of tailoring forces using the brigade as the combat component. The use of mechanized forces in urban areas was significant and contributed to the rapid success of the operation. Mobility in the form of helicopters was a key to the clearing of the countryside which was inaccessible by ground. The 7th Aviation Brigade flew countless hours ferrying the 8 infantry battalions of the division in efforts to subdue resistance in the rural countryside of Panama. The need for 2 divisional headquarters was questionable save the inability of the 7th to conduct the airborne assault. Except for the airborne operation, no need existed for more than a division of conventional infantry battalions.(11)

Desert Shield

When Iraq invaded Kuwait on 2 August 1990, the US was forced into a crisis response situation. To deter Iraq from invading Saudi Arabia and the oil rich Persian Gulf region, a credible response was needed. The President responded with the deployment of US air forces, naval forces and ground forces. The initial deployment was an F15 wing, closely followed by forces

11. This analysis is based in part on the author's participation in the planning and conduct of Just Cause.

of XVIIIth Abn Corps. Initial ground forces were the 82d Abn Division. They were selected because they were rapidly deployable, possessed tank-killing ability and could demonstrate US resolve in the region. They were followed by a brigade task force from the 101st Air Assault Division with mobility provided by helicopters and tank-killing ability of the Apache attack helicopter.(12)

Simultaneously, heavier forces from the 24th Infantry Division were loading ships and beginning deployment. Other heavier forces from the 1st Cavalry and 2nd Armored Divisions prepared to deploy. The Desert Shield/Desert Storm After Action Review summed up the importance of rapidly deploying a credible force, followed by heavier forces. "Desert Shield/Desert Storm demonstrated the deterrent value of rapidly deploying light forces while armored forces, with sustaining capabilities, deployed later to the theater. The armored, light and SOF force endstate was one of versatility and overmatching lethality."(13) Desert Shield was a successful example of deterrent operations. The US was able to move sufficient forces rapidly to make Saddam Hussein reconsider his next

12. LTC Moberly, LTC Murphy, and COL Tiberi, "Force Projection Seeds for a New Doctrine," (Research Paper, 1 May 1991), p.34.
13. Headquarters, Department of the Army, Desert Shield/Storm After Action Review, Book 2, (June 1991). p.138.

move. Had he continued and invaded Saudi Arabia prior to the buildup of heavy forces, the outcome could have been very different. Regaining a foothold would have been very difficult, in particular, because the major forcible entry capability of the US Army was in the region, and possibly would have been overwhelmed by the armored units in the Iraqi Army. Loss of the 82d would have left only 3 battalions of Rangers available for use in assault operations.

Initial ground forces would have had a difficult time at stopping the invasion of Saudi Arabia. They were limited in tank-killing capability and in mobility. This has compelled David Segal to comment, "Desert Shield was not an example of successful rapid deployment in that the US did not have the equipment to fight and win."(14) Saddam Hussein cooperated and the operation was a success and allowed the buildup of heavy forces. As LTG(Ret) John Cushman stated, "the most compelling lesson of Just Cause/Desert Shield/Desert Storm is the importance of going in quickly with maximum surprise and precision performance."(15)

Although highly successful, heavy equipment on the

14. David Segal, "Whatever Happened to Rapid Deployment?," Armed Forces Journal International, (March 1991), p.39.
15. LTG(Ret) John Cushman, "Command and Control of Theater Forces: The Future of Force Projection Operations," Harvard University, 1991), p.80.

ground earlier could have better prepared the force to fight the tank battle. Armor killing weapons were needed. There was also a need for tactical mobility. There was a need to get heavier forces into the region quicker. Despite the shortcomings, success was achieved by the capability to deploy forces into the area, a capability that existed because the force was light. Desert Shield was initially a contingency operation, in which US forces were responding rapidly to a crisis. After crisis response forces were in position, contingency operations ceased. Subsequent forces, III Corps and Europe forces were reinforcing forces, part of a major buildup.

French Rapid Deployment Forces

In 1983, the French saw the need to organize forces for out of area operations. As a result, they created a corps of highly mobile, light, rapidly deployable forces. The corps is comprised of a marine infantry division, a parachute division, a mountain division, an airmobile division and a light armored division.(16)

The French recognized the need for strategic and tactical mobility. All vehicles of the marine and the light armored divisions are capable of being

16. Gerard Turbe, "France's Rapid Deployment Forces," International Defense Review, (August 1987), p.23.

airlifted by C130. In addition, the light tanks of the armored division are wheeled.(17) The Force d' Action Rapide (FAR) was designed around light vehicles and helicopters. These assets provide outstanding tactical mobility. The force does have shortcomings. The divisions of the FAR do not train together. This is probably as a result of the realization that they do not possess sufficient strategic lift to move much of the force.(18)(19)

Despite lacking strategic mobility and the ability to carry oversized loads, the FAR provides the French a tremendous capability to deploy light to mid-weight forces. Current organizations offer acceptable protection, sufficient firepower and outstanding tactical mobility to units involved in operations. This organization has great merit.

Summary

Use of US rapid deployment forces goes back to the Kennedy era. Over the years, the force has grown in size and stature. The contingency force has evolved from the Rapid Deployment Joint Task Force to the US Army contingency corps, the 5 division, XVIIIth Abn Corps. Each intervention example demonstrated

17. Segal, Ibid, p.39.
18. Turbe, Ibid, p.26.
19. Michael Mazarr, Light Forces and the Future of US Military Strategy, (Brassey's, 1990), pp.133-134.

different forces, against different circumstances. Each example also shows the need for rapid strategic deployment, forcible entry, tactical mobility and a mobile tank-killing capability. The French appear to have a viable organization, within their own constraints. The FAR is strategically deployable, tactically mobile, possesses capable firepower and contains a forcible entry force. Each study of contingency operations and forces offers information to assist in determining the capabilities needed in the future.

THE FORCE CAPABILITY REQUIREMENTS

> As the President said at Aspen; "Our task today is to shape our defense capabilities to those changing strategic circumstances. We would be ill served by forces that represent nothing more than a scaled-back or shrunken down version of the one we possess at present.....What we need are not merely reductions--but restructuring."(1)

These historical cases all have one common theme: effective contingency operations require a significant crisis response capability. Forces designated to conduct power projection operations must be trained, organized and capable of responding rapidly. The response must be a credible deterrent force, capable of fulfilling the requirements of the national military strategy. Additionally, these forces must be able of implementing doctrine and fighting on the battlefield across the continuum of military operations. These forces must be able to succeed until follow-on forces arrive with more lethality and sustainability. Units must be designed with a structured look, based on a well defined role and anticipated mission.(2)

First and foremost, as in Grenada, Panama and Desert Shield, contingency forces must be able to

1. Remarks by LTG (USMC) George Butler to the Center for Defense Journalism, The National Press Club, (27 Sep 1990).
2. GEN (Ret) Carl Vuono, "National Strategy and the Army of the 1990s," Parameters, (Summer 1991), p.24.

rapidly project power in response to a crisis. Organizations must be lightly equipped in order to be able to utilize best strategic lift. Strategic lift utilized in crisis should be confined to airlift. The use of large numbers of heavy forces in crisis response should be limited. Equipment should be designed with rapid deployment in mind.(3)

The capability to combat the enemy across the continuum of military operations remains paramount. Recent historical examples of Honduras, Panama and Desert Shield are cases where rapid deployment forces were required across the continuum of operations. Rapidly deployable forces must have the weapons systems to fight armor. They must be able to engage in Low Intensity Conflict or to provide assistance in need of military support or disaster relief.(4)

Contingency forces must be prepared to fight as a member of a coalition or joint force. The organization must have the capability to serve as the joint force headquarters, ground component headquarters, or as the Army component headquarters. The structure of the headquarters should be developed with one of these options as the endstate.(5)

3. GEN (Ret) George Crist, "A US Military Strategy for a Changing World," Strategic Review, (Winter 1990), p.17.
4. US Army TRADOC Pamphlet 525-5, Airland Operations, (Ft. Monroe, VA, 1 Aug 1991), p. 39-45.
5. GEN John Foss, "Establishing the Doctrine for Contingency Operations," notes, (6 Nov 1990), p.2.

Contingency forces must have a forcible entry capability. Army contingency forces must be able to strategically deploy and conduct forcible entry by airborne assault. Although air assault operations are a form of tactical forcible entry, the distance limitations of helicopters restrict this operation and make it unreliable.(6)

Once the force is in the theater, tactical mobility will allow it to remain versatile and flexible. Panama and Desert Shield required ground and air mobility and were successful largely as a result of the mobility available. Flexibility and versatility will be maintained by possessing the ability to move by ground and air. A viable contingency force must have ground and air mobility.(7)

The force must be organized with sustainability in mind. Sustainable forces will need to have combat support and combat service support organizations integrated. Sustainment of forward deployed forces will require joint military effort. The structure of the force should be based on the combat maneuver brigade as the base. The combat brigade is

6. LTC Robert Moberly, LTC John Murphy and COL Paul Tiberi, "Force Projection Seed for a New Doctrine," Research Paper, (1 May 1991), pp.53-59.
7. Michael Mazarr, Light Forces and the Future of US Military Strategy, (Brasseys, 1990), p.10-12.

self-sustainable in combat support and combat service support elements. The brigade also offers exspansibility.(8)

A corps headquarters should be the lowest level of headquarters that participates in coalition or joint operations. This does not restrict brigades or divisions from conducting Army-only contingency operations, mainly in forward presence operations on the lesser ends of the continuum of operations. A corps is necessary to serve as the service or military interface with a unified command CINC.(9)

Just Cause, Desert Shield, and Grenada all suggest that future US Army contingency forces must be configured around a corps. The corps is the smallest element capable of serving as a joint force headquarters. The corps envisioned here would have as the basic unit the combined arms brigade. The combat elements of the corps must have a forcible entry capability, possess both ground and air mobility and be able to conduct combat across the continuum of military operations. Most significantly, the corps must be able to react in a crisis manner, respond by airlift and be tailored for each crisis.(10)

8. GEN Foss, Ibid, p.6-8.
9. GEN John Foss, "Airland Battle-Future," Army, (Feb 1991), p.36.
10. GEN Carl Vuono, "Desert Storm and the Future of Conventional Forces," Foreign Affairs, (Spring 1991), p.55-71.

THE STRATEGIC DIVISION

> We are entering a new era. The defense strategy and military structure needed to ensure peace can and must be different.(1)

The new approach to the defense of the nation coupled with fiscal constraints beckons to new and innovative approaches to accomplish the mission. Army forces in contingency operations must be versatile, flexible, lethal and deployable. Forces must be designed with these four qualities as prerequisites.(2)

Based on historical analysis of recent contingency operations, the basic organization of the corps should be the combat brigade, organized as a self-sustaining body with maneuver, combat support and combat service support forces. The brigade organization allows the corps commander to tailor his force.(3) For normal operations, 3 combat brigades would be integral to a division. Interchangeability of brigades gives the corps commander multiple options. This strategic division would be the backbone of the contingency corps.

The strategic division must possess capabilities

1. Dick Cheney, Annual Report to the President and the Congress, (US Government Printing Office, Jan 1991), p.131. This quote is from the President's Aspen Speech.
2. Authors opinion based on earlier presented analysis.
3. GEN John Foss, "AirLand Battle-Future," Army, (Feb 1991), p.25.

espoused earlier. The division must: have a forcible entry capability; be highly deployable on USAF aircraft; possess the capability to conduct operations across the continuum of military operations; be lethal and tactically mobile.(4)

The strategic division would be predominantly infantry with 3 infantry brigades (Figure 1) configured along similar lines of the current Light Infantry Brigade. One brigade would be airborne capable, providing the forcible entry capability. A second brigade should be equipped with a light-skinned armored vehicle similar to the LAV. The LAV is an interim solution until an improved vehicle can be procured. The third brigade will be light infantry brigade.(5)

The divisional aviation brigade (Figure 2) provides the second element of tactical mobility. This brigade would have the ability to airlift a major portion of an infantry brigade with the 62 UH-60s.(6) The aviation brigade also will provide the lethality to kill armor vehicles with the OH-58D (Appendix A). The division air cavalry squadron can deliver timely and accurate intelligence with a

4. Ibid, pp.20-25.
5. Authors recommendation based on study.
6. Results of the Aviation Requirements for Combat Structure of the Army-V, Appendix B.

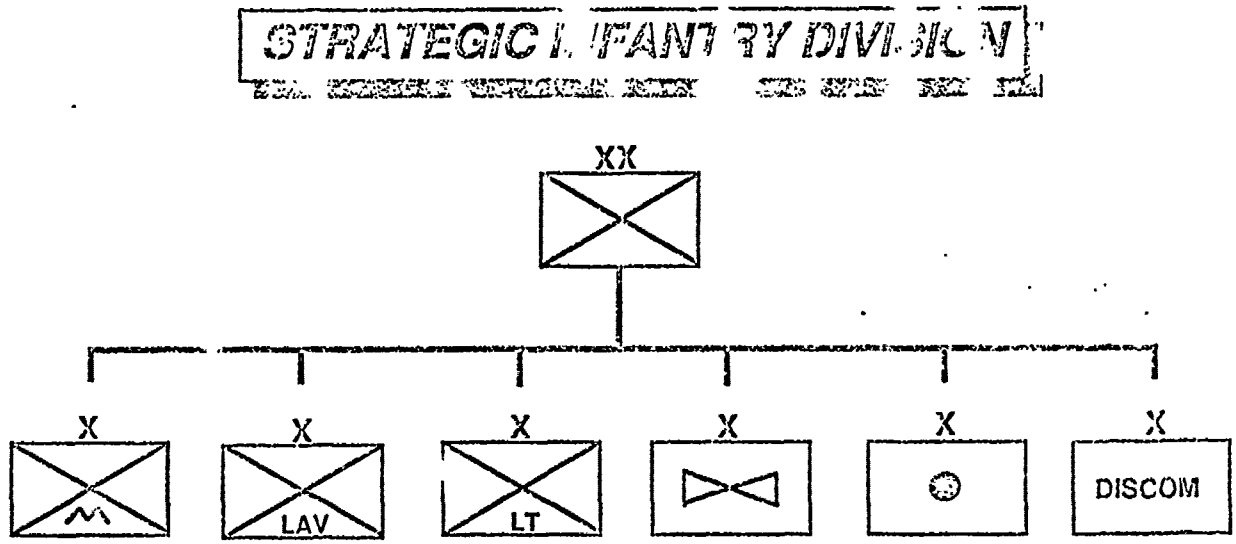

FIGURE 1. STRATEGIC INFANTRY DIVISION

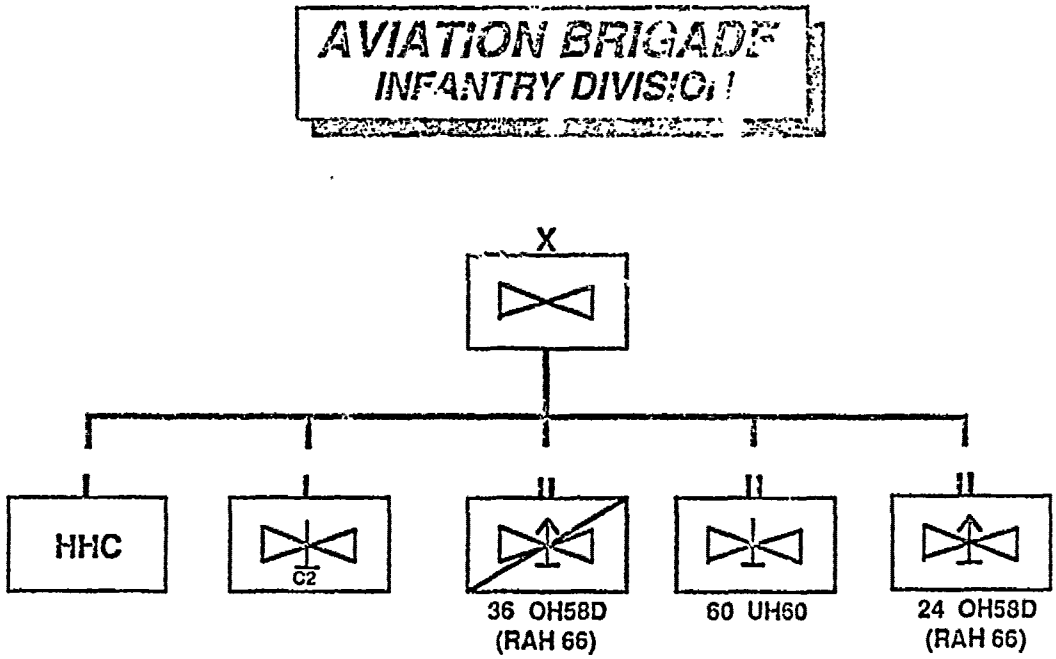

FIGURE 2. AVIATION BRIGADE - INFANTRY DIVISION

secondary mission of combatting armored vehicles. Only rapidly deployable OH-58Ds and UH-60s would be in this brigade. The advent of the RAH-66 (Appendix A), Comanche, will improve the lethality and deployability.(7)

The deployability of this division is its greatest asset. The light and parachute infantry brigades require 138 C141 equivalent aircraft to deploy. All brigades deploy as a combined arms task force complete with a sustainment package. The LAV brigade requires 228 C141s. With proper use of Maritime Prepositioned Shipping, the requirement for the LAV brigade can be reduced by 90 aircraft. The airlift requirement for the Division Support Command would be smaller than the current 82nd or 101st requirement, but is beyond the scope of this paper.(8)

The airlift requirement for the aviation brigade shows no increase despite the increase in the number of aircraft. The increase is negated by the reduction in aircraft needed to lift the OH-58D instead of the AH-64 (Appendix A). The airlift requirement decreases from 186 to 176 C141s when the

7. MG Rudolph Ostovich, "Kiowa Warrier: A Success Story," Army Aviation, (31 Jul 1991), p.10.
8. Military Traffic Management Command, Deployment Planning Guide, (Newport News, VA, Sep 1989), calculations made using numerous tables.

OH-58D replaces the AH-64.(9) This is with a slight increase of 15 UH-60s in the brigade. The loss of the AH-64 in the division is an insignificant tradeoff for the increase in tactical mobility and strategic deployability. With the arrival of the RAH-66, the lethality, deployability and flexibility actually improve.(10) The division would retain the division artillery and support command. The separate battalions would remain. The airlift requirement to deploy this division is similar to the requirement today to deploy the 82d Abn Division; however, this division would have much better tactical mobility.

The strategic divisional infantry brigades would possess the strategic deployability of the Light Infantry Divisions. It also would have much better tactical mobility than the current LID. The aviation brigade would have the ability to combat armored vehicles. The addition of the LAV (Appendix A) and the firepower of the LAV enhance the ability to destroy light-skinned armored vehicles and a significant percentage of the tanks in the world today. This division would be an excellent deployable infantry division with staying power across the continuum of military operations.

9. Ibid.
10. Stephen Conver, "Procurement Dilemma," Army Green Book, (October 1991), p.238.

THE CONTINGENCY CORPS

> The Army of the future will be versatile, deployable and lethal. Consequently, the exact composition of the Army element needed to overcome any specific threat will be determined on a case-by-case basis.(1)

It is at the corps where the capabilities and assets become available for operations. The corps headquarters is the major link between joint assets and national intelligence. It is the corps that is the primary building block in intervention operations.(2) It is the corps that "remains the base of organizing the Army for combat and for executing AirLand Battle doctrine."(3)

The type of formation that will serve as the basis will switch from the division to the brigade. Brigades will continue to be organized 3 per division. The brigade will be the base organization upon which the corps is built.(4) The corps must have the type of brigades available to tailor a force to fight across the continuum of operations. If we

1. GEN Carl Vuono, "A Stratgegic Force for the 1990s and Beyond", extract from Joint and Combined Environments: Student Text 20-15, (CGSC, 1 August 1991), p.162.
2. LTC Paul Soderlund, "Contingency Corps-Is One Enough for the 1990's?" (Research Paper, USNWC, June 1990), p.20.
3. GEN John Foss, "AirLand Battle-Future," Army, (Feb 1991), p.36.
4. Richard Simpkin, Race to the Swift: Thought on Twenty-First Century Warfare, (Brassey's, London, 1985) pp.157-158.

look for a panacea corps, it would likely become too unwieldy. As BG Peter Boylan stated, "worldwide interests of the US preclude us from building a force for every contingency."(5)

The corps must be governed by the same requirements of deployability, versatility, and lethality.(6) The corps must also "be characterized by tactical mobility and armor defeating capability."(7) To meet the requirements the corps must be relatively light. As Don Snider and Gregory Grant stated, "the utility of a heavy corps force in any regional contingency save a repetition of a Gulf War, is questionable!"(8)

The largest component of the corps (Figure 3) will be the strategic division. Two divisions of this type provide the corps with forcible entry, ground and air tactical mobility and outstanding strategic deployability. The 6 infantry brigades (2 parachute, 2 LAV, and 2 Light Infantry) provide the corps commander flexibility in his ability to assault

5. BG Peter Boylan, "Power Projection, Risk and the Light Force," Military Review, (May 1982), p.63.
6. GEN Carl Vuono, "Desert Storm and the Future of Conventional Forces," Foreign Affairs, (Spring 1991), p.58-62.
7. Michael Mazarr, Light Forces and the Future of US Military Strategy, (Brassey,s, US, 1990), p.10.
8. Don Snider and Gregory Grant, "The Future of Conventional Warfare and US Military Strategy," Washington Quarterly, (Winter 1992), p.219.

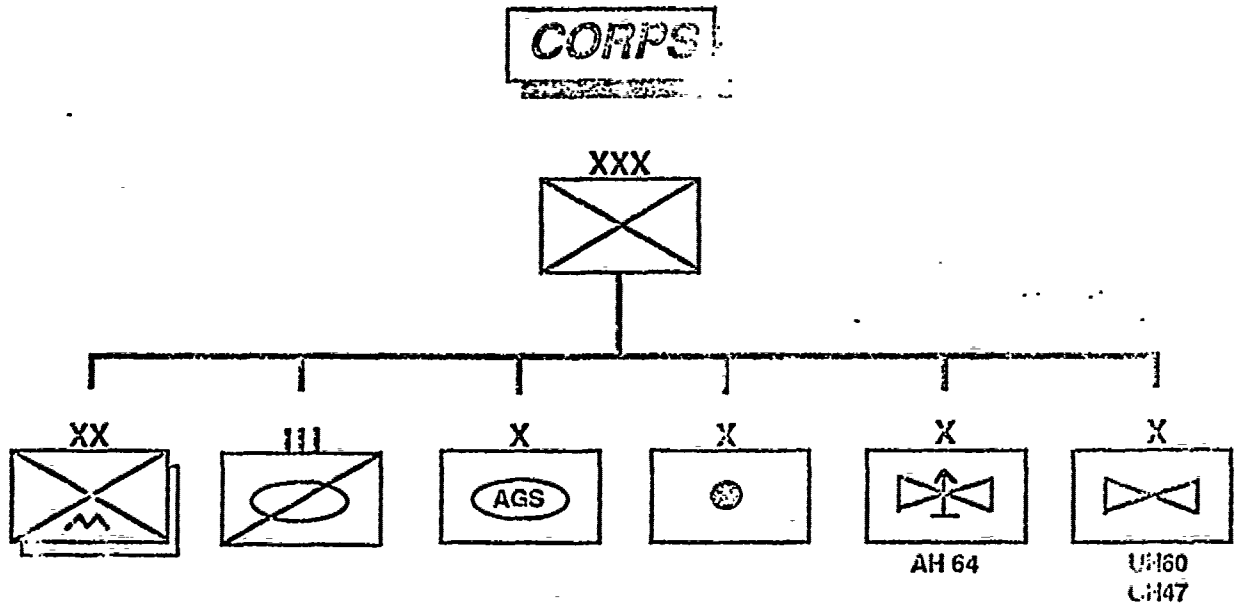

FIGURE 3. CORPS

the enemy by helicopter, airborne assault or mounted assault. The large number of ground units supported by the aviation assets are ideal for operations across the continuum of military operations; from combat, to non-combatant evacuation operations to disaster relief and peacekeeping. Each division brings with it a composite Air Force Wing (Appendix A) of tactical airlift and close air support aircraft.

The corps will have under control a brigade of assault gun systems (AGS)(Appendix A). Placing AGS organizations in the divisions defeats the flexibility with which the AGS can be deployed, since contingencies will probably call for a force larger than a battalion. The principle advantage of a light armored brigade is flexibility.(9)

The second combat multiplier brigade of the corps will be the attack helicopter brigade. The attack brigade consists only of AH-64, Apache, helicopters. This unit of attack helicopters provides the corps the tank-killing power and day-night operations that may be required. A brigade of AH-64s increases the combat power tremendously.

A general support aviation brigade is needed.

9. CPT Richard Saunders, "Light Armor: Necessary Addition to the Light Infantry Division?" Armed Forces Journal International, (Nov 1984), p.83-84.

This organization would contain battalions of utility helicopters; UH-60s and CH47s. An organization of this capability allows the commander to tailor his forces for the contingency. It would also allow the corps commander to support his divisional commanders in attack and lift helicopters.

The heaviest formation of this rapid response corps will be the armored cavalry regiment (ACR). This regiment is organized along similar lines to the standard ACR. Although it requires more airlift than a current Light Infantry Division, its presence in the force offers lethality and flexibility as options. This organization provides the commander a heavy armor capability. Additionally, it also is the reconnaissance element for the corps, essential in prolonged warfare following contingency operations. For rapid response operations, it would take 45 C141 and 39 C5s to deploy 100 tank-killers. This is an option that the commander must possess.(10)

The corps would be logistically supported by the Corps Support Command (COSCOM). The smaller complexity and size of the Corps will allow the size of the COSCOM to be smaller than current COSCOMs. This has positive impact in a smaller army.

10. LTC A.J. Bacevich and LTC Robert Ivany, "Deployable Armor Today," Military Review, (April 1987), pp.15-19.

Additionally, the smaller COSCOM would have fewer Reserve Component units; thus improving the agility, flexibility and deployability of the corps.

The corps remains the command and control headquarters of need and choice. In maneuver warfare and AirLand Battle, the corps span of control is tested and the fewer divisions to control, the more efficient.(11) A type corps would also contain the normal corps troops: engineers, air defense artillery, artillery and military police. This corps is definitely joint and is the Army's basis of contribution to a Joint Task Force in contingency operations.

11. GEN John Foss, notes, "Establishing the Doctrine for Contingency Operations," (6 Nov 1990), p.3.

CONCLUSION

> The contingency force is the tip of the spear, first into action and followed as required by heavier forces and longer sustainment.(1)

Most of the conclusions of this paper already have been attained. We have defined the organization of the strategic division, the majority of the corps and the supporting brigades of the corps. It remains to be determined how this all relates to the Army of the future.

"Our ability to project power overseas from units based in the US and our ability to generate forces as needed in response to regional crises are the cornerstones of our strategy for the 90's and beyond..," so stated BG Daniel Christman.(2) Our new national military strategy calls for the ability to respond to regional crises with sufficient force. We must be able to project power to Europe, the Middle East and Asia.(3) We need the appropriate forces to sufficiently meet these contingencies.

The Army's contingency forces must be focused globally. We must commit forces to this effort. It

1. LTG (USMC) George Butler, remarks to the Center for Defense Journalism, The National Press Club, (27 Sep 1990).
2. BG Daniel Christman, remarks to the National Press Club, (Washington, DC, 19 Feb 1991).
3. GEN Colin Powell, National Military Strategy 1992, (29 Jan 1992), p.11.

is with this in mind that we must have 2 crisis response corps, one focused to the Pacific and the other focused to the Atlantic. Crisis response requires rapid response. As such, the corps as designed earlier in this paper seems to be the best solution. XVIIIth Abn Corps should be focused toward the Atlantic and I Corps to the west, to the Pacific.(4) Each Corps is capable of serving as a JTF headquarters. What about other potential trouble spots, in particular, the western hemisphere? Each corps must be apportioned another area for operations. XVIIIth Corps should look to the Middle East and I Corps to Latin America. There will never be enough forces, so each must be flexible.

The third corps of this US based contingency force would be the heavy-reinforcing corps. This corps, III Corps, would provide the heavy forces needed in contingencies which are not rapid response and involve sustained operations. This corps would be much heavier, much more lethal and be able to conduct land combat for extended periods of time. Correspondingly, the heavy corps will take much more time to deploy to the conflict. III Corps will be the heavy component of the contingency force.

4. Army Focus, (Department of the Army, June 1991), p.14.

This position is enhanced by the possibility that all forward based units in Korea and Germany may eventually be recalled or deactivated, whereupon, the US based Army will essentially be a contingency Army. The Army will be able to project power anywhere, rapidly, for any mission. In the words of former Chief of Staff, General Carl Vuono, "the Army of tomorrow [is] the new strategic Army of power projection."(5)

5. GEN Carl Vuono, "National Strategy and the Army of the 1990s," Parameters, (Summer 1991), p.12.

APPENDIX A: DEPLOYABILITY REQUIREMENTS

> Any potential force structure changes should be designed to improve agility and deployability without sacrificing lethality.(1)

Crisis response and rapid deployment require equipment designed with rapid deployment in mind. This equipment must be capable of being economically airlifted. Since the preponderance of the Army will be based in the US, the deployability of forces becomes imperative. Power projection becomes the premier mission of a strategic Army. Former Chief of Staff, GEN Carl Vuono felt so strongly that he stated, "deployability thus becomes sine qua non for all Army forces."(2) A brief examination of strategic mobility capabilities and essential, highly deployable equipment is necessary in order to insure the most efficient force possible.

1. GEN John Foss, "Airland Battle-Future," Army, (Feb 1991), p.25.
2. GEN Carl Vuono, "National Strategy and the Army of the 1990s," Parameters, (Summer 1991), p.7.

APPENDIX A-1: Strategic Mobility

The means to move the rapid response portion of a strategic Army is airlift. Currently the US possesses the largest fleet of strategic airlifters in the West. The fleet of C5a, C141 and C130 aircraft is quite large but is declining. The C141 is also approaching the end of its product life. The C130 is declining slowly by attrition.(3) Currently, US Air Force maintains: 109 C5as, 234 C141s, and 462 C130s. Additionally, there are 57 KC10s, mainly used by the AF to deploy its own assets.(4) In addition the C17 is beginning to be deployed, with the first 2 aircraft flown this past fall. The C17 is the future of strategic airmobility. As such we will examine the impact of the C141 and C5a; with the C130 being mainly a tactical airlifter. The C17 will not be deployed in sufficient numbers until the end of the decade for the impact to be felt.

Current US Army contingency forces require the following number of aircraft to deploy the indicated organization.(5)(6)

3. LTG(ret) William Odom, "It's Time to Plot a New Force-Building Goal," Army Times, (19 August 1991).
4. Dick Cheney, Annual Report to the President and the Congress, (US Government Printing Office, Jan 1991), p.117.
5. Military Traffic Management Command, Deployment Planning Guide, (Newport News, VA, Sep 1989), numerous tables and documents. In the author's opinion, some of these tables are questionable and appear erroneous; they are, however, used as a sole source. All calculations are made for a self-sustaining Bde with maneuver, combat support and service support forces.
6. It must be noted that organizations will not deploy as configured but they will be tailored organizations configured for the operation that is required. This questions the utility of the chart other than as a guide, for comparison and for information.

Unit	C141	C5	C17
Abn Inf Bde	180		5
or	176	7	
Air Assault Bde	234		12
or	239	11	
Armored Bde	402		293
or	263	261	
Infantry Bde(L)	137		9
or	133	7	
Mechanized Inf Bde	348		157
or	282	130	
Armored Cav Regt	552		149
or	495	110	

As shown above, the airlift requirements on heavy forces, mechanized infantry, armor and armored cavalry are extensive. The airlift requirement alone beckons the question concerning the viability of these forces as rapid response forces. The conclusion can be reached from this that heavy forces are of questionable utility in a crisis response mission. The aircraft sortie requirement on all forces begs the requirement to design equipment and forces with deployability as a prerequisite.

Sealift is the second component of the strategic mobility triad. There are 8 SL-7, Fast Sealift Ships (FSS) designed to move expeditiously heavy Army forces. The entire fleet of ships is required to move 1 heavy division.(7) This is far from the requirement to move a multi-division corps anywhere in the world in 30 days.(8) There are many more

7. Odom, Ibid.
8. GEN Carl Vuono, "Desert Storm and Future of Conventional Forces," Foreign Affairs, (Spring 1991), p.63.

ships in the US inventory ranging in all sizes and degrees of deployability and dependability. However, the 8 FSS are the only ships designed with deployability as the object. Congress has placed in the current budget (at the initiation of Congress) initial monies to develop and field 20 Large Medium Speed Ro-Ro (LMSR) ships. Each will be twice the size of a FSS and have the speed of a Ro-Ro ship, 24 knots. Upon completion of the fielding these 20 ships will be able to lift simultaneously 5 heavy division equivalents.(9) Should the launching of these ships come to fruition, we will have the ability to move a corps anywhere in 30 days. For contingency operations, sealift should also be used for sustainment and reinforcement.

The third part of the strategic mobility triad is Maritime Prepositioned Shipping (MPS). This has tremendous potential for expanding the deployability of Army forces. The Army use of MPS has been sustainment supplies and equipment. The Mobility Requirements Study resolved that the total mobility requirement will result in the need for the Army "to deploy (by 1997) an afloat pre-positioned package of approximately 2 million square feet of Army combat

9. This information was obtained from the Department of the Army Staff, ODCSOPS, Force Requirements, CPT Brittain.

and combat support equipment. This package will be carried on 9 LMSRs in the pre-positioning configuration. ...This additional force, added to the quick-reaction forces already in the DOD program, will provide an adequate capability to respond in force within the first few weeks to any regional crisis that threatens US interests."(10) This program will be excellent for pre-positioning medium forces of crisis response elements. Additionally, the sustainment and logistical capabilities are outstanding. Effective use of this program will reduce the mobility package needed to sustain rapid response and follow-on forces. Although situationally dependent MPS also has potential to reduce the number of aircraft sorties necessary to deploy initial deterrent forces.

10. Department of Defense, Mobility Requirements Study, (Washington, Jan 1992), p.ES-5.

APPENDIX A-2: Rotary Wing Utility Helicopters

The tactical mobility of any force is enhanced by the presence of helicopters. The one difficulty with helicopters in crisis response is the large number of aircraft required to lift them to the region. Our analysis of Panama, Desert Shield and Honduras has determined that a viable contingency force must possess tactical mobility. Therefore helicopter mobility is important to any contingency operation.

The helicopter used for utility purposes is the UH-60, Blackhawk. It is used in modes from utility to special operations and is a very good choice of utility helicopter for rapid response. The UH-60 is essential to units participating in deep operations on the nonlinear battlefield as a means to offer logistical flexibility to the force.(11) UH-60s are capable of being airlifted, 6/C5 or 2/C141.(12) The UH-60 is self-deployable but has limited range. If augmented with special equipment and fitted for inflight refueling, it is self-deployable most places, in particular in the Western Hemisphere.

11. MAJ Charles Jacoby, "Light Infantry in Airland Battle Future: Organizing for Success," (USACGSC, SAMS, 9 Apr 1991), p.18.

12. Military Traffic Management Command, MTMCTEA PAMPHLET 700-2, Logistics Handbook For Strategic Mobility Planning, (Newport News, Va, Aug 1989), p.56.

APPENDIX A-3: Anti-tank helicopters

A crisis response force must have the ability to fight and kill tanks. The AH-64, Apache, provides that capability. 6 Apaches can be deployed on a C5.(13) The Apache is a tremendous day/night, ground support, all-weather anti-tank helicopter. The major shortcoming is the requirement to be airlifted by C5a and the corresponding runway requirement to land the C5. However, the aircraft is such a tank killer that any force fighting armored vehicles should be equipped with them.

The replacement for the Apache is the RAH-66, Comanche. This aircraft is being built with rapid deployment and lethality in mind. Once arriving in the theater on strategic aircraft, the Comanche can be tactically deployed by C130.(14) Besides the C130 capability, 3 can be carried by a C141, 4 on a C17 and 8 on a C5. An entire air cavalry troop or attack company can be lifted on 1 C5 or 2 C17s. As Army Aviation said, "the deployability of tomorrow's force will be revolutionized by the Comanche. It is faster, easier, and requires less manpower to deploy

13. Ibid.
14. Stephen Conver, "Procurement Dilemma," Army GreenBook, (October 1991), p.138.

to a theater of operation than the AH-64, OH-58 or AH-1."(15) It is projected there will be 1292 aircraft in the inventory by 2000.

The OH-58D, Multi-Purpose Light Helicopter, will serve as a capable substitute until the Comanche is fielded. The OH-58D is a rapidly deployable aircraft capable of providing tank killing support and suppressive fire support for units. The aircraft is deployable with 13 on a C5, 4 on a C141 and 2 on a C130.(16) The aircraft is already replacing the Apache in the 82d and other rapid deployment forces.(17)

Crisis response contingency forces equipped with the RAH-66, OH-58D and UH-60 will be lethal, versatile and flexible. These forces will be able to get to the theater with more lethality than past rapid response forces. They will have a tremendous capability to provide tactical mobility to the commander on the ground. These aircraft will provide rapid deployment forces with capabilities they never have had before. The force must be equipped with the OH-58D and UH-60, and followed with the revolutionary RAH-66 as soon as it can be developed.

15. MG Ronald Andreson and LTC Fred Brown, "Comanche: Ready for the Warpath," Army Aviation, (June 30, 1991), p.14.
16. MTNCEA PAMPHLET 700-2, Ibid.
17. Charles Lines, "Multi-Purpose Light Helicopter," Army Aviation, (31 July 1991), p.32.

APPENDIX A-4: Light Armored Vehicle

It has already been determined that the lack of tactical mobility for contingency forces severely limits the ability to fight. In particular, current US Army rapid deployment forces: the 82d Abn Div, 101st Air Assault Div and the LIDs are handicapped by lack of mobility. The addition of a Light Armored Vehicle (LAV) to these formations in some form would add mobility and muscle.(18)

The LAV is a light skinned, wheeled, armored vehicle capable of carrying a crew of 3 and a 6 man team. The vehicle also comes in mortar, anti-tank, command and other variants. It is capable of mounting a 30 Caliber weapon similar to the Bradley Fighting Vehicle. The wheeled vehicle ability gives the vehicle a less maintenance intensive capability. Two LAVs can be airlifted by C141 and a C5 can carry 8. An LAV can also be tactically transported by C130.(19) The LAV will give light units tactical mobility, firepower, the ability to react in rear area protection missions and cost far less than light tracked vehicles.(20)

18. David Segal, "Whatever Happened to Rapid Deployment?" Armed Forces Journal International, (March 1991), p.40.
19. David Segal, "Army Light Infantry Divisions: Are They Fit to Fight?" Armed Forces Journal International, (Oct 1988), p.68.
20. LTC Tom Rozman, "Making Light Forces More Flexible and Responsive," Armor, (Jan-Feb 1991), p.20.

APPENDIX A-5: Assault Gun System

With the initial fielding in the next year of AAWS-M, the individual tank-killing weapon, perhaps the most needed asset in the rapid deployment forces is a armored gun system (AGS), capable of fighting enemy tanks and destroying bunkers and buildings. As BG (ret) Bolte stated, "A good capability may not be as good as a perfect one, but it is better than none at all."(21) The AGS should be wheeled in order to reduce weight and maintenance. The main gun should be at least 105mm. Other Army requirements are that it be less than 22.5 tons and airliftable by C130.(22) One solution to the problem is to mount a 105mm gun on a LAV. The US Marine Corps is testing and developing this weapon. Another solution is the Cadillac Gage Commando, V600, 6 wheeled vehicle. This vehicle is in numerous armies, weighs less than 20 tons and has a 105mm main gun.(23) An AGS is desperately needed in order to give the commander options in tailoring forces to fight any enemy.

21. BG (ret) Phillip Bolte, "A Case of Foot-Dragging: The Mobile Protected Gun System," Armed Forces Journal International, (July 1983), p.76.
22. CPT Richard Saunders, "Light Armor: Necessary Addition to the Light Infantry Division," Armed Forces Journal International, (Nov 1984), p.83-85.
23. R.M. Ogorkiewicz and Christopher Foss, "Wheeled-Gun Vehicles, Part 2," International Defense Review, (November 1989), p.1559.

APPENDIX A-6: Air Force Composite Wing

The Army element of the contingency force should be supported by a tactical wing of Air Force aircraft. The wing would provide flexibility to the Army Corps with tactical airlift from the C130 squadron. Additionally, the squadron of A-10, tank-killer aircraft, would provide another lethal way to fight tanks and provide close air support to ground forces. The third squadron of the wing would provide close air support and local air cover with the F-16. This wing would train in peacetime with the Army division it would support in hostilities. Currently, there is a composite wing being organized at Pope AF Base, NC, to support the 82nd Abn Division. Each rapid response division would have a designated wing in support. The addition of this wing would increase the flexible response of the force, provide lethality and insure versatility.(24)

24. Information provided in an interview with the Assistant Division Commander, Operations, 82nd Airborne Division, 18 Feb 1992

APPENDIX B-Aviation Requirements for Combat Studies of the Army-V

6 NOV 91 6NNTO1A

1995 ACFT BY COMPONENT

(OPTION 3: 12 SCOUTS IN ATTACK; ARM RECON W/24 A/C IN LID)

	COMPO 1						COMPO 2/3				
	AH64	OH58D	AH1 (ILO OH58D)	UH60	UH1 (ILO UH60)	CH47D	AH64	AH1 (ILO AH64 & OH58D)	UH60	UH1 (ILO UH60)	CH47D
--XVIII CORPS--											
CORPS AVN	72	36		146		48	24	12	64		60
RAS(18 CORPS)	8	36		30							
101AASLT	36	60		174		48					
82ABN		36		68							
7LID			24	62							
1CD	18		36	23			18	12	4		
24MX	18		36	23			18	12	4		
TOTALS	(152)	(168)	(96)	(526)	0	(96)	(60)	(36)	(72)	0	(60)
--V CORPS--											
CORPS AVN	72	36		146		24	24	12	19		84
11RAS	8	36		30							
DIV N	36	48		27							
DIV S	36	48		27							
49AD							18	66		27	
38MX							18	66		27	
TOTALS	(152)	(168)	0	(230)	0	(24)	(60)	(144)	(19)	(54)	(84)
--III CORPS--											
CORPS AVN	72		36	71		48			90		60
3RAS	8		36	30							
1MX	18		36	23			18	12	4		
4MX	18		36	23			18	12	4		
5MX	18		36	23			18	12	4		
TOTALS	(134)	0	(180)	(170)	0	(48)	(54)	(36)	(102)	0	(60)
--I CORPS--											
CORPS AVN				45					32		
278RAS								44		30	
42AD							18	66		27	
28MX							18	66		27	
35MX							18	36		27	
29LID								24		62	
2MX	36		48	27							
25LID			24	62							
TOTALS	(36)	0	(72)	(134)	0	0	(54)	(266)	(32)	(173)	0
34(cadre) ***								0		0	
40(cadre) ***								0		0	
TOTALS								0	0	0	0
EAC (3 ea)				(51)							
KOREAN THEATER				(4)							
	AH64	OH58D	AH1	UH60	UH1	CH47D	AH64	AH1	UH60	UH1	CH47
	474	336	348	1,115	0	168	228	482	225	227	204

	AH64	OH58D	AH1	UH60	UH1	CH47D	TOTAL
A/C IN UNITS	702	336	830	1,340	227	372	3,807
TNG/ATTRITION	87	(21)	60	64	63	74	327
TOTAL A/C	789	315	890	1,404	290	446	4,134

*** Do not structure until the future.

6 NOV 91 6NO1AOBJ OBJECTIVE ACFT BY COMPONENT

(OPTION 3: 12 SCOUTS IN ATTACK; ARL RECON W/24 A/C IN LID; ONLY 492 AH64)

	COMPO 1						COMPO 2/3					
	AH64	RAH66	UH60	UH60 (C2)	UH60 (V)	CH47D	AH64	RAH6	UH60	UH60 (C2)	UH60 (V)	CH47D
--XVIII CORPS--												
CORPS AVN		108	85	16	45	48		36	47	2	15	60
RAS(18 CORPS)		48	22	8								
101AASLT		96	160	14		48						
82ABN		36	58	10								
7LID		24	54	8								
1CD		54	13	10				30	2	2		
24MX		54	13	10				30	2	2		
TOTALS	0	(420)	(405)	(76)	(45)	(96)	0	(96)	(51)	(6)	(15)	(60)
--V CORPS--												
CORPS AVN	48	60	85	16	45	24	24	12	2	2	15	84
11RAS		48	22	8								
DIV N		84	15	12								
DIV S		84	15	12								
49AD								84	15	12		
38MX								84	15	12		
TOTALS	(48)	(276)	(137)	(48)	(45)	(24)	(24)	(180)	(32)	(26)	(15)	(84)
--III CORPS--												
CORPS AVN	72	36	40	16	15	48			45		45	60
3RAS		48	22	8								
1MX	18	36	13	10			18	12	2	2		
4MX	18	36	13	10			18	12	2	2		
5MX	18	36	13	10			18	12	2	2		
TOTALS	(126)	(192)	(101)	(54)	(15)	(48)	(54)	(36)	(51)	(6)	(45)	(60)
--I CORPS--												
CORPS AVN					45				9	8	15	
278RAS								48	22	8		
42AD							36	48	15	12		
26MX							36	48	15	12		
35MX							36	48	15	12		
25LID								24	54	8		
2MX		84	15	12								
25LID		24	54	8								
TOTALS	0	(108)	(69)	(20)	(45)	0	(108)	(216)	(130)	(60)	(15)	0
34 (cadre)							36	48	15	12		
40 (cadre)							36	48	15	12		
TOTALS							(72)	(96)	(30)	(24)		
EAC (3 ea)			(27)	(24)								
KOREAN THEATER			(4)									

	AH64	RAH66	UH60	UH60 (C2)	UH60 (V)	CH47D	AH64	RAH66	UH60	UH60 (C2)	UH60 (V)	CH47D
	174	996	743	222	150	168	258	624	294	122	90	204

	AH64	RAH66	UH60	CH47D	TOTAL ACFT
A/C IN UNITS	432	1,620	1,621	372	4,045
TNG/ATTRITION	60	243	155	74	532
TOTAL A/C	492	1,863	1,776	446	4,577
PROC OBJ	492	1,292	1,404	446	3,634
BALANCE	0	(571)	(372)	0	(943)

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