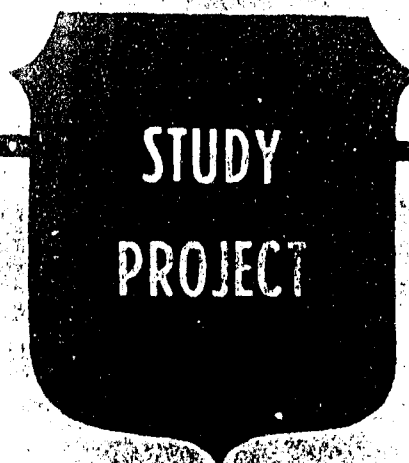


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CROSSED SIGNALS ON THE BATTLEFIELD

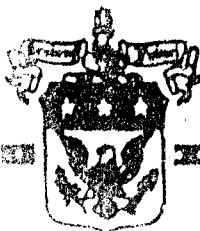
BY

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SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION U.S. Army War College		6b. OFFICE SYMBOL (if applicable)	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) Carlisle Barracks, PA 17013-5050			7b. ADDRESS (City, State, and ZIP Code)		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.
11. TITLE (Include Security Classification) Crossed Signals on the Battlefield					
12. PERSONAL AUTHOR(S) Lieutenant Colonel Jon P. Bird					
13a. TYPE OF REPORT Individual		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) 13 April 1992	
15. PAGE COUNT 59					
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) After the Gulf War ended, military publications throughout the U.S. heralded this effort as proof that General Abram's Total Force concept worked. But for the 335th Signal Command (RC) in Georgia, those trumpets blew a sour note. The 335th was one of three major subordinate reserve commands not mobilized by the Third Army, as it created new units out of whole cloth. What is the role of the Reserve Components (RC) in general and signal corps units in particular? What has the relationship between the Active Components (AC) and RC been? What should it be? What kind of historical baggage does the Signal Corps carry onto the modern battlefield? This paper looks at these issues, creating an historical perspective for both the RC and the Signal Corps, then uses the RC Signal Corps in the form of the 335th Signal Command to illustrate problems which apply across the RC spectrum. Finally, the paper focuses in on recommendations and new policies now being espoused to unite RC and AC signal					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☐ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION		
22a. NAME OF RESPONSIBLE INDIVIDUAL PATRICK T. THORNTON			22b. TELEPHONE (Include Area Code) 717-245-3721		22c. OFFICE SYMBOL AWCAC

DD Form 1473, JUN 86

Previous editions are obsolete.

SECURITY CLASSIFICATION OF THIS PAGE
Unclassified

Block 19. Abstract (Cont.)

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USAWC MILITARY STUDIES PROGRAM PAPER

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Crossed Signals on the Battlefield

AN INDIVIDUAL STUDY PROJECT

By

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Dist	Avail and/or Special
A-1	

ABSTRACT

AUTHOR: Jon P. Bird, LTC, USAR

TITLE: Crossed Signals on the Battlefield

FORMAT: Individual Study Project

DATE: 13 April 1992 (a)

PAGES: 59

CLASSIFICATION: Unclassified

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What is the role of the Reserve Components (RC) in general and signal corps units in particular? What has the relationship between the Active Components (AC) and RC been? What should it be? What kind of historical baggage does the Signal Corps carry onto the modern battlefield? This paper looks at these issues, creating an historical perspective for both the RC and the Signal Corps, then uses the RC Signal Corps in the form of the 335th Signal Command to illustrate problems which apply across the RC spectrum. Finally, the paper focuses in on recommendations and new policies now being espoused to unite RC and AC signal units. These programs find universal application throughout the Reserve Community and will be necessary to revitalize the Total Force concept which was mortally wounded on the burning sands of Kuwait.

INTRODUCTION

With the end of the Gulf War and the transition to Operation Desert Calm, U.S. troops began returning home on 8 March 1991. Their arrival started a series of celebrations that continued throughout the rest of the year. It seemed that every town and city wanted to welcome their heroes home, for unlike the servicemen who returned from Vietnam, these soldiers returned with a clear military victory under their belt. This quick, almost bloodless victory did much to erase the bad memories of the Vietnam conflict.

If you were in the military, either Active Component(AC) or Reserve Component(RC), this was a time to regain pride. If you were an American citizen, you could also gain a vicarious type of pleasure in the unity of feeling that swept the entire nation, one which had responded to a plea for help and had saved a weaker nation from domination by a stronger, darker power.

Immediately after the Gulf War was over, the general media began to herald this effort. Military publications also chimed in, calling Operations Desert Shield and Desert Storm a real success for the total force concept. Along with the more than 245,000 Army troops sent to Saudi Arabia, there were over 147,000 soldiers who were mobilized from the RC, about 84,990 U.S. Army Reserves (USAR), and 62,410 Army National Guard (ARNG).¹ Many of the reserves mobilized went to the desert, while many filled equally critical roles in Europe and back home.

Although the Gulf War did represent a landmark effort by both the Active Components and the Reserve Components, with the largest mobilization in 30 years, not all was sweetness and harmony. Since the majority of RC forces are located in the USAR and ARNG, this paper will look at various policy and utilization shortfalls, using the USAR Signal Corps as symptomatic of a larger problem that needs closer scrutiny in order for the Total Force policy to become truly viable and provide the level of national security which our nation deserves.

This paper will also provide a brief historical perspective of both the Army Reserves and the Signal Corps, then relate this history to the current situation, in order to draw some relevant conclusions. For in the words of George Santayana, "Those who cannot remember the past are doomed to repeat it."² The strategic visions which created both the Army Reserves and the Signal Corps, although relevant today, were partially ignored during the Gulf crisis. So these historical references serve to point the way to future roles and missions.

To link the AC/RC roles and missions more closely is the major goal of the Total Army policy. This paper will examine some of these concepts, by explaining some improvements coming and making recommendations concerning AC/RC integration, force structure composition, mobilization issues, plus training and RC accessibility.

While cities across our country were celebrating the Gulf victory, it is a good bet that there was not much joy down in East Point, Georgia, home of the 335th Theater Signal Command (TSC).

Victory here was truly bittersweet, for the Army leaders elected not to mobilize this RC command, a CAPSTONE unit whose training mission was focused in the Middle East, a mission that had been supposedly validated during participation in several exercises over the past several years.

The 228th Signal Brigade (HHC), South Carolina National Guard, part of the 335th's command downtrace, was also not mobilized or deployed, despite its mission to provide area signal support to Third Army/ARCENT. While RC combat units were suspect under AC scrutiny because of their readiness condition, why did our AC Army leaders also have trouble mobilizing RC combat support units which had already been validated as being ready to go?

BACKGROUND

Signal units like those mentioned are combat support units, so they should have had an easier time than direct combat units in being validated for mobilization. Yet, talks with personnel involved during the call-up of troops at the beginning of Desert Shield indicated otherwise. When the question of mobilizing the 335th TSC came up, one privately made comment at high levels seemed to sum up the attitudes of the Active Army leadership: "I don't want any south Georgia dirt farmers running my communications."

This same attitude was present when the 377th Theater Army Area Command (TAACOM), an Army Reserve combat service support headquarters, was also not called up under nearly identical circumstances. In both cases, the higher command headquarters was Third U.S. Army, which was assigned under U.S. Central Command (USCENTCOM) as the Army component command (ARCENT).³

The one USAR major subordinate command (MSC) that was called up, the 416th Engineer Command (ENCOM) from Chicago, Illinois, provided theater engineer support in the communications zone (COMMZ).⁴ Although this mobilization represented a real success for the Total Army concept, those involved in the mobilization have said that the AC leaders tried hard to avoid including the RC command structure. With these delays, it was not until mid-December that the 416th ENCOM become operational in Saudi Arabia.⁵

Total Force Concept

This pattern of attempted and successful RC exclusion contradicts General Creighton Abrams' Total Force concept,⁶ which he espoused back on 13 August 1974, when he noted in a letter:

Concurrently, we are committed firmly to the essential task of bolstering the readiness and responsiveness of the Reserve Components integrating them fully into the total force.⁷

Abrams never again wanted the U.S. to enter into combat without national support, which meant mobilization of the Reserves. Beginning with the Continental Congress, the concept of a small standing army with a reserve militia has been part of the national will, a concept that Abrams wanted to bring back to life.

As Chief of Staff and a veteran of three wars, Abrams understood the large swings in military readiness before and after wars. Abrams died two months after he drafted his dream for a revitalized Reserve force, one that 17 years later seemed to prove its worth.

Yet there were serious shortfalls in RC utilization during the Gulf incursion. While Abrams feared that the political leadership would lack the resolve to use Reserve forces in combat, this time it was the military leadership that failed to fully use RC forces.⁸

Unlike the Army National Guard that traces its roots back to the Massachusetts Bay Colony and the Preamble to the Constitution,⁹ the Army Reserve system is much more recent.

The National Defense Act of 1920 stated that the Army of the U.S. was composed of the Regular Army, the National Guard and the Organized Reserve Corps (ORC), the latter of which was to become an army an army of volunteers when war broke out.¹⁰

In mobilizing for World War II, the ORC with its 33 divisions (on paper) was called up, but only as individuals used to fill out Regular Army and Guard units, not as the "paper" ORC units.¹¹

To compound matters, ORC officers singled out as physically incapable of active duty were placed in the Inactive Reserve. This kept them out of the draft. But after May 1942, the War Department began discharging these officers, who were not even eligible for enlisted service.¹² With all these troubles, at least the ORC was an established military concept.

By not calling up the ORC units at first, Army leaders ignored the original pre-war mobilization plans. When ORC units were activated in 1942, their unit designations were used, but not the assigned personnel. Chief of Staff General George C. Marshall did start a better program late in 1942 to fix this ORC problem, staffing some officers (50%) and enlisted (15%) from regular forces for cadre divisions prior to a 13-week mobilization training program.¹³

A twist on this ORC scenario during the Gulf War found derivative unit identification codes (UIC) being used to strip RC units of needed operational cells, leaving the RC units short of personnel and equipment for call-up as whole units.

Signal Corps History

Where does the Signal Corps figure into this mobilization and RC scenario? A brief historical review of military signaling will show signaling as a perennial force enhancer, developed by those with strategic vision. Ignoring trained signal assets during ODS reveals a lack of strategic vision that Gen. Abrams was espousing.

Signaling as an organized military function can be traced back to Sun Tzu, Genghis Khan and Hannibal, so it is also an established military concept. The U.S. Army Signal Corps, of much more recent vintage, finds its own roots during the Civil War era, when Dr. Albert James Myer, a U.S. Army medical officer, proposed the establishment of a professional and separate military signal service.¹⁴

Myer actually developed a signal system which he called flag telegraphy, plus torch telegraphy for night usage. Both systems were lumped under the term aerial telegraphy. But the name that stuck, exemplified by the movements of the flags and torches, was wigwag. Myer had worked one summer as a telegrapher and had also developed a hand signing system for deaf mutes, forming the basis for his wigwag telegraphy, a system which he patented in 1856.¹⁵

Next, Myer wrote Secretary of War Jefferson Davis suggesting that the Army adopt this new, simple method of signalling as a tactical adjunct to the electric telegraph. Although his proposal did not fall on deaf ears, it was 1859 before Myer could present his system before a panel led by Lieutenant Colonel Robert E. Lee.¹⁶ A series of tests were conducted with Colonel Sam Cooper, the adjutant general in Washington, and in 1859, the new Secretary of War John B. Floyd recommended the adoption of this signaling system.

This proposal went before a Senate committee in the spring of 1860, chaired by Jefferson Davis, now a senator from Mississippi. He wanted to buy the system outright, but also wondered how the soldiers were going to learn the techniques. Missing was the concept of a separate signalling corps to serve the entire Army.

It was this concept that Myer proposed, asking the Senate to create a Bureau of Army Signals, headed by Myer as a colonel. A negotiated settlement followed. Myer turned down a cash sum of at least \$10,000 and the position of civilian instructor of signals, but accepted a commission at age 32 as a signal officer with the rank of major, without any financial reward.¹⁷

Major Myer proved his system in campaigns against the Navajos in New Mexico Territory. These successes helped Myer to recruit enlisted signalmen, impressed by the waving colored flags. By the summer of 1861, Jefferson Davis had become the Confederate States of America's first president, with Robert E. Lee and Sam Cooper as two of his first Confederate generals. So the key people who had learned Myer's signalling techniques were now on the wrong side.

The first Union signal school was set up at Fort Monroe, one terminal for the Civil War's first permanent wigwag line of communications, stretching over to Newport News.¹⁸ Myer's vision drove him to use signal flags on a tugboat in Hampton Roads to precisely aim Union battery gunfire against Confederate positions. This was the first Civil War battle with signalmen under fire.¹⁹

At the first battle of Bull Run, Myer failed in an attempt to use a balloon as a floating signal tower. The Confederates, with a signal team run by one of Myer's early trainees, played a key role in this Southern victory. The signalmen called up reinforcements against Union forces who were discovered during an attempted turning movement.²⁰ The South also had signal visions, but failed to capitalize on their capabilities in key battles like Gettysburg.

Myer also hit the political circuit in Washington to convert his Signal Department into a real signal corps with its own officers and troops, instead of volunteers. He drew up a Table of Organization (TOE) and presented it, along with his plans, to the authorities several times over a two-year period.

Seeking to expand the capacity of communications, Myer also developed a field telegraph train, the Civil War equivalent of mobile subscriber equipment. A wagon with telegraph wire, batteries, poles and connectors, would place itself midway between the headquarters and the nearest telegraph station, stringing wire out in both directions for a quick connection. General McClellan adopted this concept and by 1863, Myer had 40 field trains.²¹ Myer also created a cipher device for encoding his wigwag signals, to prevent the Confederates from reading them.

In early 1863, Myer used the success of the Confederate Signal Corps as his final effort to set up a Union Signal Corps. In March 1863, a minor clause attached to a huge appropriations bill was passed finally authorizing a regular Signal Corps for the duration of the Civil War. So, Myer got his corps through the back door. He was appointed as Chief Signal Officer in the rank of colonel on 18 September 1863, with rank dated from 3 March.²²

In 1864, Myer wrote A Manual of Signals, published with his own funds, to codify his concepts. Myer produced this book for joint use by Admiral David Farragut and Maj. Gen. Edward Canby in their campaign against Mobile Bay. As the ranking Army officer present at this battle, Myer accepted the surrender of Fort Gaines.

It was around this time that Myer, with Canby's approval, drafted a policy on collecting information from refugees and deserters, comparing it with similar material gathered by scouts and other sources, then communicating this information forward to the Chief Signal Officer of the headquarters concerned. This was the first attempt to systematize U.S. Army intelligence of this type.²³

Although the Signal Corps was disbanded at the war's end, Myer was reappointed as Chief Signal Officer in July 1866. General Grant as interim Secretary of War, directed the Chief Signal Officer to "equip and manage the field electric telegraph for use with active forces," making the Signal Corps totally responsible for telegraphy in the combat zone. The same law that put Myer back in charge also authorized the Secretary of War to detail six officers and 100 men from the Corps of Engineers to reconstitute the Signal Corps.²⁴

Myer expanded his vision by setting up a Department of Practical Military Engineering, Military Signaling and Telegraphy at West Point. He set up a smaller but similar program at Annapolis which also used Myer's revised Manual of Signals as a text. Thus joint signal interoperability was born. The Navy and Marines formally adopted Myer's book for their schools in 1870.

Myer next set up a Signal Training School with formal training in wire telegraphy, followed by the nation's first weather bureau. Within two years, there were 93 stations connected by telegraph. Bulletins and maps were published daily by Myer's office, perhaps the forerunner of the five disciplines of information management! Myer's Signal Corps was creating a tradition of innovation.

As this historical lesson shows, the Signal Corps was founded and developed through the concept of strategic vision, one that saw the synergy of communications on the battlefield. It is precisely this vision and synergy that was absent during ODS, particularly in applying RC Signal Corps assets, which now needs to be re-examined during this period of downsizing.

Signal Corps Strength Figures

Like the rest of the Army, the Signal Corps will be losing large numbers of personnel. From a total authorized strength of 117,213 in FY83 (AC: 67,528; RC: 49,685), the Signal Corps will shrink to 101,576 authorized personnel in FY93 (AC: 51,115; RC: 50,461), down to the desired end strength of 77,686 in FY95 (AC: 35,484; RC: 42,202). Note that while the overall reduction is programmed for 33%, the AC loses 47%, while the RC loses only 15% of total strength.²⁵ Compare these figures with those of TOE unit personnel losses below. Although the numbers are smaller, the trend is still the same.

MTOE Signal Organization Troop Strength

YEAR	COMPO 1 (AC)	COMPO 2 (ARNG)	(COMPO 3 (USAR)
FY91	34,528	16,827	6,120
FY95	22,147	12,689	4,585
CHANGE	-35.9%	-24.6%	-25.1%

[Source: Force Integration Office, OCAR]

These figures may change, but the implications are obvious: the RC will have to pick up a much larger share of the Signal Corps functions than they have had in the past. Appendix B provides a breakdown of USAR SC units and their probable future.

ISSUES AND DISCUSSION

Third Army, under which the 335th Signal Command serves, was truly the right army for Southwest Asia (SWA). Reactivated in 1982 as an exercise and planning headquarters, Third Army had just completed Central Command (CENTCOM) exercise Internal Look 90 in July, which included an army-building scenario.

When Lt. Gen. John J. Yeosock, commander of Third Army arrived in SWA on 6 August 1990, he had gone through this drill of building up an army and was at least partially prepared for the difficult task which was to confront him.

Yeosock wore three hats when he took this army to the desert: Commander of the CENTCOM Army component, commander of the theater army (TA) in SWA, and commander of a numbered field army. These tasks were assigned after a close, classic analysis of mission, enemy, terrain, troops and the supposed time available (METT-T).

The three hats allowed Yeosock and his staff to handle the responsibilities of joint and combined coordination, all theater support operations, and operational direction.²⁶

Army doctrine in most areas is clear, but it becomes fuzzy in the echelons above corps (EAC) arena. A Theater Army sits in this rarified atmosphere and is tailored to the job, in this case with two Corps and a support element. RC units like the 335th TSC and the 377th TAACOM are also supposed to function at this level.

Yeosock, in an article written after Desert Storm, discussed this issue and also made several comments on Reserve Components.

An initial cap on the number of reservists who could be mobilized and time limits on the length of Reserve Component (RC) service complicated the tailoring of forces. Many joint and combined responsibilities required a long-term presence and involved units that were unique to the RC.²⁷

As a commander under time constraints, Yeosock was truly concerned about how long it would take to get Reservists into SWA, and how long he could keep them. "The initial limit of six months of active duty for RC units influenced the flow of forces," he noted.²⁸

So when it came to look at mobilizing the 377th Theater Area Support Command, Yeosock obviously had second thoughts.

The decision to form SUPCOM in Saudi Arabia was made in the first days of the deployment, when RC units were not available. During the first months of Operation Desert Shield, the length of RC service and total number of reservists called to duty were limited, which further complicated the introduction of a Continental United States-based RC headquarters.²⁹

According to Yeosock, The Support Command (SUPCOM) created was smaller than a normal theater army area command like the 377th TAACOM, but was tailored to take advantage of host nation support. Third Army was ready to control up to five corps. Perhaps at that larger troop level, the 377th TAACOM would have been mobilized.

EAC units fell into four categories. The first category included those units that deployed already tailored for their jobs. The second group covered units built in-theater from existing staff sections. The third category included those units formed from other units, due to shortages or unique requirements. Finally, there was the category of doctrinal EAC units not deployed because other units assumed their missions.

In defending his position against RC mobilization, Yeosock said, "The Signal Command, Medical Command and Finance Command were built around existing staff organizations to augment theater capabilities while reducing the need to deploy additional units."³⁰ These units then fit into the second category of EAC units.

This issue may be arguable. The U.S. Army had three deployable Signal Commands, one from the AC (5th TSC: Worms, Germany) and two from the RC (335th TSC: East Point, GA; 261st TSC: Dover, DL). But only the 335th Signal Command had an SWA mission, had been certified as mission capable through exercises like Gallant Knight, Gallant Eagle, Bright Star Shadow Hawk and Eagle Light (Jordan), plus had worked closely for years with Third Army.³¹ Even the 5th TSC, which seemed to be an obvious choice, was not utilized.

RC Commands: Home Alone

Several officers interviewed for this paper noted that the RC MSCs often have Major Generals as commanders, as in the case of the 335th TSC. This rank structuring could have caused some political difficulties during the Gulf War, since the senior J-6 (CENTCOM) was only a Brigadier General. This situation plus an almost doctrinal distrust of RC general officers by their AC counterparts created a problem with an easy solution, according to those interviewed. Don't mobilize RC general officer commands, just strip them using derivative UICs.

When Third Army wanted an AC Theater Signal Command to support communications in SWA, it went to Information Systems Command (ISC) at Fort Huachuca for the solution.

Using an echelons above corps (EAC) focus, ISC worked with representatives from the 261st TSC and the 335th TSC to create the 6th Signal Command (Provisional) for Third Army. ISC pulled sections from its own unit, from the 5th TSC, the 7th TSC, CECOM, DA and other signal units from around the world, leaving the 335th TSC home alone. By 5 December, the 6th TSC (Provisional) was ready to go, but Third Army (ARCENT) had lost valuable time. In fact, parts of this new unit had to wait 30 days to deploy from CONUS.

With the pressing need for complex communications from day one, a TSC is needed early on to manage the communications network. But the 6th TSC didn't arrive until after Christmas. So the decision not to activate the 335th TSC, despite heavy pressure from external sources, severely limited ARCENT's ability to properly employ the tactical network in Desert Shield's early stages.

The result had the ARCENT G6 and the 11th Signal Brigade assuming responsibilities for which they were not equipped.³² Only HHC 11th Sig Bde's equipment arrived with the unit in late December, since the remainder had not been entered on the computerized movement data base, another oversight blamed on the fog of war.

Some of the needed digital switches used by the new 6th TSC came from the Air Force. The requirements for an "all-digital" TSC were among the other reasons why RC units with manual switchboards weren't called up, yet the AC structure couldn't field sufficient equipment on its own. Looking back on ODS, members of the 11th Sig Bde who were there now say that the late deploying 6th TSC (Provisional) was a broken concept from the very beginning.³³

Failure to activate the 228th Signal Brigade (SCARNG), another RC unit trained for the SWA mission, meant that AC area signal battalions were also resourced from outside the command, with little or no previous experience in this region,³⁴ complicating the problems which had surfaced in the 6th TSC (Provisional).

What were some of the other reasons for not using RC forces during ODS? One study quoted earlier may provide some clues, particularly comments made about the 377th TAACOM which seem applicable to the 335th Signal Command and its subordinate units.

First, either the unit or its commander was judged incapable of doing the job. Second, the Army simply didn't want a high level Reserve headquarters commanded by a general officer, even though the 335th commander is supposed to become the ARCENT G6 in war.³⁵

Third, perhaps ARCENT felt it simply did not need the 335th Signal Command, although in hindsight, the need for an EAC signal command should have been seen from the start. Creation of the 6th TSC by ISC was certainly one way for ISC to reinforce its own EAC mission, but the end result was less than satisfactory.

Fourth, the timing was bad. ARCENT could claim that they had already created a signal command before the Reserve call-up was begun, which would have brought the 335th over to SWA. The incremental RC call-ups are also linked to the question as to how long RC units could be kept on active duty, a problem for AC commanders.

Finally, the 335th TSC uses the old 11-302G series MTOE, which means that there was no digital mobile subscriber equipment (MSE) authorized by the "L" series MTOE of the AC units.

But signal commands don't really own equipment, they manage subordinate signal unit assets, and develop systems using these assets. The 335th TSC had been trained to manage and engineer systems with the more modern gear. The new L series MTOE (11602) was approved in October 1991, and will be adopted this fall by the 335th TSC. Again, the MTOE rationale seemed to be another excuse not to mobilize a much-needed MSC from the Reserves.

Anecdotal evidence suggests when Maj. Gen. John McWaters, commander of the 335th, offered his unit's services in line with his mission, some AC officers were offended by the aggressive approach. AC officers often feel that USAR and ARNG general officers are chosen as political appointees, so this factor that colors AC judgment about the qualifications of RC general officers.

OCAR Reaction

What was the official comment on this situation from the Office of the Chief, Army Reserve (OCAR)? In one after-action report entitled, "Disregard for Established Command Relationships within ARCENT," OCAR noted:

Many theater-level Reserve Component commands were replaced with other Active Component units. For example, the 377th TAACOM and the 335th Signal Command, were not activated to perform their CAPSTONE missions. Failure to activate peacetime headquarters units, fragmented the RC chain of command normalized through the CAPSTONE program. Other Active Component subordinate or provisional units were modified or created to perform traditional RC headquarters missions. Not calling up RC command and control structure disrupted the CAPSTONE alignment and caused morale problems within the Reserve command structure.³⁶

These somewhat parochial comments lead into other issues that also relate to the problem of RC individuals and unit usage in ODS.

Other Issues: Mobilization Tardiness

Timeliness of the decision to implement Title 10 of U.S. Public Law, Section 673, paragraph b has been criticized by both the AC and RC. This law, better known as the 200K callup, allows the President to activate up to 200,000 personnel by Executive Order.³⁷ But this decision came too late for many RC units to deploy according to CAPSTONE plans. Federal law also limited RC call-up to only 180 days (90+90) creating planning issues for AC commanders. A change in November allowed 360 days (180+180) for RC combat units.

The Selected Reserve, part of the total Ready Reserve, has 1.2 million personnel and includes Troop Program Unit (TPU) members, full-time Active Guard/Reserves (AGRs) and Individual Mobilization Augmentees (IMAs) who train regularly for pay. Individual Ready Reserves (IRR) are not part of the Selected Reserves, but can be mobilized as individual augmentees (even involuntarily for 15 days).

The Total Force concept was used during the Gulf War, but not as effectively as was desired. Mobilization was accomplished on a piecemeal basis, as shown by the chronology of USAR events in Appendix A. These events began with six full-time AGR signal officers deploying to SWA on 11 August, followed by five volunteers from the 228th Signal Brigade in support of ARCENT Headquarters.

By the time Desert Storm began, over 50,000 Reservists in units or cells had been called up. Some 5,536 volunteers were placed on temporary active duty for training (TTAD), along with 1,355 Retired Reservists, some with special skills who were involuntarily recalled.

There were two major shortfalls in this scenario. One was the failure to call the IRRs until the mid-January 1990. Some 13,170 IRRs were mobilized, 40% of them combat arms soldiers who could be used to augment AC units.³⁸ Why did the military leadership wait so long to tap this resource?

One basic reason was that the AC leadership had already started filling out its own AC units by creating cells of Reservists taken from TPUs through the device of the derivative UICs. These cells were treated as whole RC legal micro-units, which facilitated their attachment to AC units. This process forced late-deploying RC units to cross-level themselves from other RC units. All of this happened because the force planners within the AC units could not wait for the IRR call-up, which required partial mobilization.

This practice of breaking up RC commands to provide fillers for AC units and equipment, in addition to cross-leveling RC units, is one result of not having the IRR as a part of the Selected Reserve. But this is certainly not a new issue.

Selected Reserve Force: History of Futility

Between 1965 -1969, the Army set up the Selected Reserve Force (SRF) program as a strategic reserve to balance out the AC force deployment to Southeast Asia. The goal of the SRF plan was to field up to 150,000 troops in 976 units at 93% strength, all within seven days.³⁹ These units included two infantry divisions and three separate brigades, an armored cavalry regiment plus numerous CS and CSS units. But the Army experienced severe difficulties in keeping these SRF units at an acceptable readiness level.⁴⁰

The problems of trying to mobilize one of these SRF units, the 29th Infantry Brigade, during 1968, revealed what happened when the AC used this unit to supply themselves with extra equipment and personnel. Even though many of the SRF units demonstrated their ability to mobilize rapidly when they were equipped properly, the continued practice of AC units using the SRF for supply depots caused the program to be suspended in 1969.⁴¹

IMAs and AGRs: Underutilization

Another failure during ODS involved the 14,000 IMAs, trained and paid drilling personnel who have been selected voluntarily for specific training positions. These IMAs, who carry mobilization orders, can be called up rapidly for the duration of any conflict plus six months. Even with this micro-managed system, only 1,558 IMA soldiers were mobilized, less than 11%.⁴² Not all units with IMA soldiers used them, nor were they identified for other posts. This means that thousands of other Reservists were involuntarily mobilized when a better, faster choice was already available.

Authorized end strength for USAR AGR during the Gulf War was around 13,700. From this group of full-time Reservists, only 879 AGR soldiers (6.4%) were deployed in support of ODS. An additional 83 AGR soldiers attached to deploying units were not deployed for various medical, disciplinary or hardship reasons.⁴³

Again, it seems that the potential utility of the AGR system was not fully realized, since these active duty Reservists serve in support of RC interests and can be immediately activated just like their AC counterparts, against external requirements.

Building the 6th TSC: The Rest of the Story

During the build-up for the Gulf War, the signal community held EAC-level planning meetings at the Information Systems Command headquarters at Fort Huachuca, AZ. Among the attendees were representatives from both the 335th Signal Command (USAR) and the 261st Signal Command (ARNG).⁴⁴

Since the decision had already been made not to mobilize the 335th, some of these meetings were rather tense. But for those who came to assist, their task was to outline commercial applications for some long-haul communications, plus develop an initial command and control (C2) structure for the provisional theater signal command being created.

During these meetings, the AC versus RC issue first surfaced as an equipment problem. It took concerted efforts on the part of some RC officers to get even company-sized units like the 653rd Signal Company (light tropo) included in the command structure that was being built.⁴⁵

This difficulty was due, in part, to AC officers constantly harping on the "two generations behind" theory of RC equipment readiness. In some cases relating with lower echelon units, these statements were true. But they revealed a general lack of knowledge about RC units, a pandemic problem among AC decision makers.

Such comments may have been an attempt at eliminating RC unit participation in what they AC saw as "the only war in town." These perceptions may be emotional, but the results were that no RC signal unit above company level ever made it to the Gulf war.

ARNG SC Units in SWA

The 653rd Signal Company (Light Tropo/FARNG) from Florida was the largest RC signal unit sent to SWA. Set up in May 1989 and reorganized in September 1990, the 653rd Sig Co was mobilized on 6 December 1990. It went quickly through minor post-mobilization training and arrived in SWA on 6 January 1991, reaching Camp Thunderbird only three hours prior to the start of the air campaign.

The 356th Signal Company (Heavy Tropo/ARNG) from Arizona was also activated, but never deployed. None of the RC signal brigades or battalions were mobilized.

USAR SC Units in SWA

Signal assets provided by the USAR were more unusual in nature. The 408th Signal Detachment (Repro) from Fort Totten, NY went to SWA, where it printed operations orders and the propaganda materials for the psychological operations (PsyOps) units. The 324th Signal Detachment (DPU) from Huntsville, AL and its sister unit, the 344th Signal Detachment (DPU) from Ft. Belvoir, VA were mobilized to provide data processing support. Normally assigned to support separate headquarters, they served together in SWA to build 100% redundancy, a creative solution to a pressing problem.

USAR Unit Control: One More Issue

Another issue related to RC effectiveness and utilization involves the command and control of USAR units. Placed under major U.S. Army Reserve Commands (MUSARCs) for administrative purposes during peacetime, USAR units find themselves under the command and control of Continental U.S. Armies (CONUSAs) during mobilization.

There really has been no high-level USAR agency to help manage Reserve units from a Reserve perspective. Establishment of the U.S. Army Reserve Command (USARC) as a major subordinate command of FORSCOM is designed to address this issue.

The USARC exercises command and control of all USAR units assigned to FORSCOM only, while the CONUSAs continue to concentrate on the readiness functions of training, operations, mobilization and deployment. The USARC will become fully operational by 1 October 1992.

USARC's mission initially centered on organizing USAR units. Over a period of time, this may mean the functional realignment of USAR units and missions to achieve an effectiveness which currently doesn't exist. USARC also supports mobilization as directed by FORSCOM, and is responsible for managing and executing all major funding categories which does provide some "power of the purse."

Some of these issues just mentioned will eventually lead to an improvement in the utilization of RC signal units in particular, as well as RC units across the spectrum of combat, combat service, and combat service support. Others will address the broader category of the Total Force concept, so necessary to the survival of U.S. military power in this uncertain world. The next section deals with such issues, as recommendations for consideration and as steps which are currently being taken.

RECOMMENDATIONS/POLICY CHANGES

Using Reserve Components in times of military crisis is part of General Abram's Total Force concept. One reason is to help build popular, public support for U.S. military efforts by directly involving Reservists and National Guardsmen. The RC comprise 54% of the U.S. combat, 58% of the combat support to include signal units, and 70% of the combat service support strength. Simply put, a smaller Active Army will have to rely more heavily on the RC. To make this concept successful, both AC and RC have to work together.

At this point in time, there does not seem to be a solid doctrinal link between AC and RC signal elements that makes the Abrams Total Force concept a continuing reality. Fortunately, reality has a way of changing as time passes. The opportunity to truly create the Total Force concept, not just for the Signal Corps, but for the entire RC/AC community, is at hand. The following pages will provide some realistic suggestions for improving RC/AC synergy, based on the problems and issues which have just been identified.

Strengthen RC General Officer Qualifications

Starting at the top of the command ladder, RC general officers all need to be branch-qualified in the Corps of the units that they command. Not only should they have the requisite branch advanced course, their schooling should also include everything up to and including a Senior Service College (MEL-1 level).

RC general officers also should have had command experience in other subordinate units within that type of Corps, whether it be Signal, Engineers, or Infantry.

In cases where an RC general officer's civilian job bears a direct correlation to his RC assignment, this experience should be given military credit and recognition. An RC Signal Corps officer with 20 years practical experience at the telephone company or a computer firm deserves to be recognized as a professional communicator. Building RC general officer credibility across the board will better serve the entire RC program and help to build the Total Force concept at the general officer level.

Expand AGR Program

The AGR program is another piece of the RC improvement pie, one that needs some serious rethinking. By law, soldiers in the AGR program are not considered to be in a career pattern, because there is no provision for making general officer.

No change is needed other than for the AGR program to become a career program, with the rank of Colonel as the cap. Position validation criteria need to be revised, for one way to link the RC closer with their AC counterparts is to have more extensive contact on a daily basis, contact that AGRs can provide in staff and line positions.

Further, to aid RC signal units in mobilizing quickly for various contingencies, flyaway planning and C2 cells are needed. These will be discussed a bit later, but AGRs can certainly man such slots, if validation criteria are adjusted.

Currently, the 13,700 USAR AGRs mentioned earlier in this paper are scheduled for programmed reductions of almost 32%, down to a baseline of 9,341 by FY97. Unless legal and programmatic changes are made soon, the RC will lose a large number of these valuable interfacing "tools."

AGR soldiers in this scenario are looked upon as Active Army by the AC side, but are really full-time active Reservists who can act as the "tools" needed to build the credibility with the Active units that is so vitally necessary for the Total Force.

Other Reservists (TPU, IMA, IRR) find developing this kind of rapport hard to do during annual two-week intervals. It may take several years, after which the AC counterparts rotate to a new post. The Army needs to keep these AGR "tools" strong in order to build strong AC/RC links throughout the Active Army.

With the draw down in the Active Army, many officers and soldiers alike will be reviewing various programs designed to ease their way out of the Army. Those Signal Corps officers, for example, who are close to a 20-year retirement, may be looking at some way to extend their active duty opportunities.

The AGR program is one such chance, but only if the AGR program strength is maintained and if new opportunities are created for AGR personnel, such as staffing full-time quick reaction mobile planning and C2 cells in RC units.

In order to develop the proper commitment to this program and to allow the AC soldier to start what amounts to a second career with the AGR, some cost to the individual might be involved.

One scenario might include a temporary reduction in grade for acceptance in the AGR, in a temporary status for a period of three years. This is similar to grade reductions that occurred during other periods of massive troop reductions, or like reverting from the old Army of the United States (AUS) status to USAR status. The initial sacrifice would be offset by the retirement opportunity.

Those soldiers who were applying would need to be able to provide a minimum of six years active duty in the AGR program before retirement in order to be considered for this program.

Unfortunately, the current program which is easing out Army officers with a variety of bonus payments, seems to prohibit them from joining any of the AGR, USAR or ARNG programs without large penalties, so a change in policy would be necessary here.

Build on the Four "R"s of Career Development

Assignments in recruiting, Readiness Groups and Reserve Officer Training Corps duty at some land grant college used to be called the "three R's," which many AC officers or NCOs faced. Now there is a real need to add Reserve Troop Program Unit (TPU) assignments as the fourth "R," to this old concept, while making a TPU tour required duty for all career AC soldiers.

These Reserve tours should be mandatory for both officers and NCOs prior to advanced military schooling or joint service tours. To make the Total Force concept work, this AC/RC interface must occur on a repeated basis. If RC units are not heavily decimated during the current troop cutbacks, then this concept has a good chance at success.

Fortify the IMA Reserve Program

The IMA program is another concept that looks great on paper and works well in the real world, but really has not been developed to its full potential. The IMA reservist is part of the Selective Reserve, and can be more easily mobilized than his IRR counterpart, since each IMA has pre-issued mobilization orders.

Only 11% of the 14,165 USAR IMAs were mobilized for the Gulf War, but those that were called up went to pre-selected training slots in which they had previously served, either to expand a headquarters staff (MOB TDA), crisis action team (CAT), functional element, or to replace someone else who had already deployed forward.

This "benchwarmer" concept could be expanded. Some IMA slots have become Drilling IMA or DIMA positions, which authorize 24 - 48 drill periods (half-days) of training throughout the year, in addition to the normal two-week training period required annually.

This opportunity should also be attractive to AC soldiers leaving active duty who can't find a TPU or AGR position, but who still want to remain current in their occupational specialty. Again, provisions must be made in the Army system to allow this transfer of needed skills and talents to take place.

One command that has an active IMA program is the U.S. Army Material Command (AMC). AMC has over 1,640 IMA positions in grades from Specialist to Major General, with some 1,100 of these positions filled. During Desert Shield/Storm, AMC brought 243 IMAs on active duty, supplemented by TPU and IRR individuals in temporary tour of active duty (TTAD) status.

AMC fully believes that the IMA is a mobilization asset, not a liability.⁴⁶ Even though AMC is facing the reality of building down, it wants to enhance its program by designating 400-600 slots as IMA Action Officers, with 200-250 of these IMA positions being classified as drilling IMA positions to more fully integrate these personnel into the AMC emergency response actions and exercises.⁴⁷

There are also a significant number of signal IMA positions on both the operations and staff sides of the communications-electronics house at all major commands, to include good joint assignments with U.S. Special Operations Command, as an example. This program of IMA integration in the G6 and J6 staff sections also deserves closer scrutiny with the aim of expansion.

Restructure the RC Signal Commands

With three Signal Commands in the Army (two - RC; one - AC), the RC's challenge is to make their two commands both more flexible and more easily deployable for contingencies in various theaters.

The RC needs to take the initiative in this arena, or else lose missions to the AC. The RC's switch to the 11062L MTOE series this year starts the ball rolling toward same-generation equipment compatibility at lower unit levels, although this is not really an issue at the TSC level.

Enhance the 261st TSC. The 261st Signal Command has recently set up a unique five-man forward planning signal cell which is located within the 1106th Signal Brigade at USARPAC in Hawaii, a long way from Delaware. But the 261st's CAPSTONE mission involves the Pacific Theater, so this cell provides physical forward presence.⁴⁸

This cell creates both the personal interface with their AC counterparts and the on-scene planning capability needed by the 261st TSC to review Joint Communications-Electronics Operating Instructions (JCEOIs), Operations Plans and EAC communications systems, then make fast, coordinated changes. This concept should help ensure unit utilization in future mobilizations.

In the near future, the 261st might also reorganize into a three-tiered structure, with a contingency package for missions of limited duration such as 60 days, followed by a sustainment package to extend that time beyond 60 days, with the remaining signal force structure for full mobilization or protracted involvement over a larger theater of operations. These last phases are the result of old war plans, the scenarios for which may need to be revised.

Rebuild the 335th TSC. Something similar is already in the works for the 335th TSC, due to take over all of the functions of the 6th TSC, which will be stood down by 1 May 1992. The flyaway planning or contingency cell will be manned on a full-time basis by 22 AC personnel. This planning organization should prove its worth in C3 contingency planning at the EAC level, where there is a weakness in the current AC structure.⁴⁹

During non-deployment periods, this cell could assist in C-E planning for higher and lower headquarters, provide technical control and coordination for signal operations, serve as liaisons for allies and host nation civilian communications agencies. It could also offer management, plans and support in the Information Management Area.⁵⁰

During deployment, this contingency cell would move in three increments, the first increment being a 22-person communications systems control element (CSCE).

This cell would be followed by a 35-person element to handle command and control C2 plus the information management area. The third deployment flow with six support personnel will follow last.

The 63-person contingency cell would provide C2 for signal forces deploying to an immature theater (and bring the 335th flag along with them), until the rest of the theater signal command is deployed.⁵¹

Some of these personnel figures may change. But a 22-person AC cell has been set up, while another 41-person AC cell, also part of the 335th TSC, is being established at 3rd Army to handle the daily communications issues for that headquarters. Note that the 335th now has this peacetime DOIM mission, in addition to having already taken over the 6th TSC's mission in SWA. This 41-person cell includes six AGR soldiers who provide an RC interface between the 3rd Army and the 335th TSC.

Like most RC units, the 335th TSC has full-time support staff in the form of 24 AGR full-time support staff, to which two more AGR spaces have been added for a total of 26.

Although it looks like 57 RC slots have been given up to house AC counterparts (22 + 41, - 6 AGRs), the brain trust that is tweaking the 335th TSC has thoughtfully added an enhancement paragraph to the new MTOE of 58 RC spaces. In essence, this plan backs into a concept that could be labelled a mobilization TOE.

The 57 RC slots which were originally taken away to make room for the full-time AC positions and then replaced by the augmentation paragraph really serve to fill out the 335th TSC during times of mobilization. These slots can be filled by IMAs or drilling IMAs who will gain valuable training, while expanding the capabilities of this Reserve MSC.

Similar planning units would be applicable to other types of units as well, where they would be augmented on Mobilization Day (M-Day) by DIMAs who, under the current system, are funded to spend 24 days (12 days ADT, 24 four-hour drilling periods) annually in key MOBTDA positions.

Expand TSC Training

To keep the RC Signal Commands functional in tactical exercises, an East Coast wide program is being discussed for TY94. To be conducted in two-week increments over six weeks, the scenario will be written partly by the 87th Maneuver Area Command.⁵² Technical input for this large-scale training exercise will come from the 261st, the 335th and ISC. Signal sites will be broken into northern and southern areas, both linked to Fort AP Hill, VA.

A northern link to Fort Drum, NY, will be planned and manned by the 261st Signal Command, the 359th Signal Brigade, and the 187th Signal Brigade while a southern link to Camp Blanding, FL will be handled by the 335th Signal Command and the 228th Signal Brigade. The overall six-week duration will enable all subordinate RC units to participate as part of their Annual Training (AT), and will make some of the equipment installation work cost effective.

Training such as the example just given is another big issue in the arena of Reserve readiness and AC acceptance, one not really addressed fully here. One major step already mentioned, however, is to have both AC and RC units structured under the same 11602L MTOE. The result will be one AC and two RC theater signal commands organized and equipped to the same standards. This will make the training tasks easier. RC funding has been committed to make this a reality for the remaining forces.

For the RC, training has always been related to the CAPSTONE missions. But after Desert Storm, most RC signal units are having a difficult time believing this concept. As some AC units take on worldwide missions, RC counterparts may also follow this pattern.

Brigadier General(P) Joe Turner, the new commander of the 335th, and his deputy, Brigadier General Tommy Bonds, are both experienced signal officers who are working hard to develop a good working relationship with the Third Army, in order to create relevant missions and training.

The USARC, with its mission of training RC units, should also play a major role in helping arrange RC-oriented training exercises and coordinating EAC-level combined exercises with AC components.

Create New Home Station Training Opportunities

From an RC unit perspective, training must first start at home station. Interactive video disc training devices are now available which provide the next best alternative to hands-on training. The next echelon involves working with local US Army Reserve Forces (USARF) Schools to provide specific MOS training.

In situations where there are not enough students to fill the class, the USARF can be asked to categorize the desired MOS training as critical MOS training, which means that class size can be made smaller, so the chances of finding enough students is better.

Then the low-density classes can be linked to a floating pool of low-density critical MOS instructors sent out by the U.S. Army Signal Center (in the case of signal units), who could visit these USARF Schools on a rotating basis. Potential students could come from USAR, ARNG and AC units all within the local MUSARC or CONUSA.

Make Bold Shift Operate

FORSCOM, in setting a new RC readiness enhancement plan called Operation Bold Shift, will also be augmenting training programs. This will be accomplished by focusing mostly on contingency operations, plus the reconstitution and realignment of forces after the draw down. Selected RC units, to include all roundout and roundup brigades, plus some 35 other USAR and ARNG units, will fall under this program.⁵³

The task force developing this program includes members from OCAR, NGB, FORSCOM, the CONUSAs and MUSARCs, each with their own agenda. Bold Shift programs fall under the acronym RESULTS, which includes: Reorganization and realignment of CAPSTONE links; Emergency deployment readiness exercise (EDRE) plans; Soldier specialty training; Unit training; Leader training development; Training involvement throughout the CAPSTONE chain to include AC participation; Support by full-time civilian technicians and AGR personnel.⁵⁴ As a concept, Operation Bold Shift certainly sounds good.

But proponents of AC-only unit "force pooling" and "flexible response" who only give lip service to the Total Force concept may wish to slow Bold Shift down. Why? Because it will doctrinally link AC and RC units more directly through training efforts.

Link AC/RC Databases

One other way of linking the AC and RC is through an on-line database which would provide near real-time information regarding unit readiness, MOS qualification and equipment shortfalls, finance and accounting status, or even training schedules. The system designed to accomplish all of the above and more is called the Reserve Component Automation System (RCAS), a \$1.2 billion project awarded to Boeing Computer Systems.

Now being developed, tested and fielded in various stages through FY95 and beyond, RCAS will provide interoperability between National Guard, Army Reserves and the Active Component data systems, creating an electronic Total Force concept.⁵⁵ While RCAS will provide electronic access to RC units, perhaps the biggest complaint still remaining is the lack of early physical access to the Individual Ready Reserves.

Improve AC Access to RC Units/Individuals

When the President finally used his 200k call-up option to activate Selected Reserve (SelRes) members, this included only TPU members and IMAs, not the IRR. With the original 180-day mobilization period (90 days + 90 days), it was no wonder that AC commanders were hesitant to use RC soldiers in a status other than "good fill." RC access may be the biggest real issue uncovered so far.

Legislation which will lengthen this mobilization period for all RC soldiers, has been discussed and will be made into law in the very near future. Prioritized mobilization is also being considered. These steps will help improve the access issue.⁵⁶

One solution is to create a new category, the Selected Reserve Augmentee (SRA) pool, a part of the IRR which would fall into the Selected Reserve category and thus be part of the 200k call-up.⁵⁷

Legislative changes may be needed and there may also be some interest in increasing the size of the 200k call up by as much as 50,000 additional troops to accommodate this new program. Faster RC access means greater acceptability for the future.

Revisit the Cadre Concept

Expanding on the idea of the RC contingency cells for units like the 335th Signal Command, is the cadre system for RC combat units, in which cells and key positions within RC units are manned full-time by AC personnel. Like Joint Service assignments, cadre positions should be made a key step in career development, resulting in an additional skill identifier code. The cadre system can make RC combat units a viable concept, allowing the AC to swap some combat capability to the RC for CS and CSS units, keeping the same troop numbers, while creating a more viable AC/RC force.

Whereas the concept recommended earlier involved assigning one or two individuals to a TPU on a long-tour basis, what is being recommended here is a team approach of limited duration, e.g. six months or at least during critical training periods. This cadre concept certainly isn't new. It can be traced back over 170 years

to an unsuccessful attempt by Secretary of War John C. Calhoun as a way of reducing full-time military strength .⁵⁸

Our nation currently needs an AC force sufficient for immediate deployment. A cadre system would enhance USAR TPUs in support of such contingency operations, plus improve ARNG units in their mission of reinforcing early deployment.⁵⁹ The overall cadre concept also helps to bring the AC and RC closer together.

In this period of uncertainty and troop cuts, an AC cadre that would link RC troop program units (TPUs) with the AC CAPSTONE units could serve as part of a force enhancement package. Posted to the Ready Reserve TPUs, cadre would perform staff, maintenance, support and routine administrative functions now done on a part-time basis by Reservists, civilian employees or AGRs.

The cadre could also screen and train IRR soldiers within the RTU's geographic area.⁶⁰ The resultant increased readiness would allow for earlier deployment of such cadre-augmented Reserve units. Cadre systems have been proven to be effective in Switzerland and have also been battle-tested by the Israeli Defense Force (IDF).⁶¹

A second type of cadre system involves creating AC cadre cells from AC units standing down, with these cells maintaining the old unit's equipment and integrity. Cadre would also screen and train IRR soldiers within a the local area, merging the AC physical assets with IRR personnel.⁶² Cadre unit augmentation by non-deployable USAR and NG units, along with IMAs, could create another type of mobilization source, one providing single-function missions not requiring constant training.

This cadre concept requires a well thought-out plan for mobilization. Cadre-augmented TPUs such as contingency signal units should be at the top of the rapid mobilization list, followed by the second-tier IRR assemblages.

Utilize RC Combat Camera Teams to Document AC Activities

Other concepts are being introduced throughout the RC arena. Even though RC signal units are being reduced, one exception to the troop cutbacks is the introduction of combat camera (COMCAM) companies and teams in the RC.

These units will use still video cameras to provide near real time visual information on any deployment location, whether it be for terrain features, battle damage, or POW treatment. COMCAM platoons will support division headquarters, while teams will support brigades. This important official electronic film record and intelligence recording device will be sourced totally within the USAR,⁶³ expanding the utility of RC signal units.

CONCLUSION

This discussion of recommended changes and new plans coming on line has one goal, the creation of a more flexible, more viable RC Signal Corps in particular, plus an overall stronger RC in general. These suggested changes will help break the "Task Force Smith" paradigm of low-level readiness which occurs after every conflict and subsequent troop drawdown.

The Reserve Components remain as the embodiment of the national military will, as General Abrams had envisioned, because citizen-soldiers, whether USAR or ARNG, normally have strong links with the local community which full-time professional soldiers usually lack.

Because the U.S. Military has at its head, a civilian leader with mobilization powers, and a civilian Congress with the purse strings, these civilian links fostered by the USAR and ARNG become more important during this period of troop reductions.

Cutting RC units and hollowing out unit strength at a level equal to or more than the AC side of the force would be almost the same as reducing national resolve. Public support for the Gulf War surfaced only after the Reserve Components were mobilized.

This is a relevant fact which the Active Components need to learn and it is for this reason that the Congress is reluctant to cut RC forces.

Mobilization capability can be a perceived deterrent to war and while the Reserves are only one part of the mobilization picture, they are the one factor that catalyses public opinion in favor of the options which the military can provide.

Flyaway planning cells, a mobilization TOE or TDA, a stronger IMA program, earlier access on the mobilization timetable, dual cadre system, stronger senior RC leadership and the other suggestions for physically linking AC and RC will help make the Reserve Components more flexible, stronger and a more vital part of the mobilization process so critical to the strategic security of our nation.

The Total Force concept is alive, but it is hidden beneath bureaucracy and bruised feelings. These plans and suggestions will heal the rift and slice through the impediments to produce a very lean, but highly capable Reserve Component force.

APPENDIX A: USAR CHRONOLOGY OF EVENTS DURING DESERT SHIELD/STORM

- 2 Aug 90** Iraq invades Kuwait, installs "provisional government." U.S. imposes trade embargo, freezes Iraqi and Kuwaiti assets. UNSC Resolution 660 condemns invasion, demands withdrawal.
- 3 Aug 90** Iraq masses troops on Saudi Arabian border.
- 4 Aug 90** President Bush decides on military option.
- 5 Aug 90** Annual training site of 1185th TTU redirected to the port of Savannah to outload 24th IN DIV (Mech).
SecDef Cheney sent to seek Saudi base access.
- 7 Aug 90** Desert Shield: Deployment order for initial forces.
OCAR, FMF Division, activates OCAR-CAT.
- 8 Aug 90** First elements of 82nd ABN DIV arrives in SWA.
- 9 Aug 90** Bush sends letter to Congress, consistent with War Powers Resolution."
- 10 Aug 90** OCAR FMF Division reviews, analyzes FORSCOM's 200K Troop list and sees initial troop/equipment shortages.
- 11 Aug 90** Six AGR soldiers from HQ 3RD Army deploy to SWA.
- 13 Aug 90** HQDA Army Opns Center staffs 200K call-up alert.
- 14 Aug 90** USAR volunteers are authorized, up to 179 days.
IMA Mobilization procedures set for DCOPS DA review.
- 15 Aug 90** VCSA visits HQ FORSCOM to discuss USAR call-up.
- 16 Aug 90** III Corp request deployment of AGR.
- 17 Aug 90** Civil Reserve Air Fleet I (CRAF I) activated.
- 17 Aug 90** FORSCOM msg on cross-leveling RC units when alerted; non-deployables to remain at home station.

18 Aug 90 AGR deployment guidance issued by DCSPER.

22 Aug 90 President authorized Selected Reserve (SELRES) activation under 10 USC 673b.

23 Aug 90 Army authorized initial 25K call-up ceiling.

Call-up procedures set for units, individuals.

Recruiting for activated RC units stopped.

AGR in TPU activated without consent; but if in HQs, must be volunteers.

23 Aug 90 Request for 1185 TTU to be extended beyond AT.

24 Aug 90 Alert to RC units.

25 Aug 90 Presidential Orders #1 & 2 Federalizing SELRES.

First Reserve Units activated.

26 Aug 90 CENTCOM HQS established in Saudi Arabia.

7 Sep 90 First Reserve units deploy to SWA.

11 Sep 90 Sec Army authorizes involuntary recall of up to 500 retirees (180 days).

24 Sep 90 Unit Status: 96 Activated,
16 Deployed.

27 Sep 90 Authority to withdraw equipment from RC units.

29 Sep 90 Unit Status: 144 Activated,
48 Deployed.

24 Oct 90 First USAR unit deactivation (1192nd TTU).

5 Nov 90 Defense Appropriation Act authorizes call-up of SELRES combat units for 190 + 180 days.

8 Nov 90 Bush orders massive new U.S. deployment to ensure an "offensive military option" if necessary.

13 Nov 90 RC call-up extended to 180 days.

Unit Status: 145 Activated,
89 Deployed,
29 CONUS support.

14 Nov 90 Army authorized call-up ceiling of 80K.

30 Nov 90 FORSCOM asks for use CONUSA boundaries for cross-leveling, in lieu of 300 mi. distance, to aid 3rd and 6th CONUSAs.

1 Dec 90 Army authorized 115K call-up ceiling.

5 Dec 90 Unit Status: 302 Activated,
122 Deployed,
42 CONUS support.

10 Dec 90 Unit Status: 401 Activated,
134 Deployed,
42 CONUS support.

19 Dec 90 "Every unit will not be combat ready until some time after February 1," says LTG Waller, Deputy CENTCOM Cdr.

20 Dec 90 Almost 122,000 USAR and NG personnel have been mobilized for ODS (all services).

28 Dec 90 One out of every four US Personnel in SWA is an RC member, according to Washington Post.

2 Jan 91 325,000 US Soldiers in SWA.

11 Jan 91 370,000 US soldiers in SWA.

13 Jan 91 USAR, NG personnel activated for ODS total 146 and 106, of which 102 and 172 are Army.

15 Jan 91 Unit Status: 509 Activated, 269 SWA, 23 Europe.

16 Jan 91 Desert Storm: offensive air campaign initiated.

17 Jan 91 Unanimous Senate vote supporting Bush, US troops.

18 Jan 91 Presidential Executive Order (10 USC, 673) for Partial Mobilization, call-up of Ready Reserves.

Sec Def implements CRAF II for airlift.

19 Jan 91 Pentagon prepares to call-up 170,000 Reservists.

Army authorized 220K call-up ceiling for 12 months.

Initial 20K IRR call-up made, effective 31 Jan 91.

20 Jan 91 USAR and NG personnel activated for ODS = 163,753, of which the Army = 112,511.

24 Jan 91 U.S. troops total 475,000; will go over 500,000.

- 2 Feb 91 DOD Spokesman comments, "DOD does not want, will not ask Congress for, and does not feel we need the draft."
- 3 Feb 91 USAR and NG personnel activated for ODS = 184,742, of which the Army = 121,623.
 MG Pagonis reports 60% of 40,000 log force = RC.
- 4 Feb 91 Unit Status: 604 Activated, 340 SWA, 25 Europe.
- 8 Feb 91 3-87th IN BN, USAR's only combat unit activated for ODS, arrives in Europe.
- 14 Feb 91 Washington Post story says sole or both parents for 17,500 families have deployed to the Gulf.
- 22 Feb 91 RC Units assigned to USCINCEUR as backfill.
- 24 Feb 91 Land war begins.
- 25 Feb 91 SCUD missile kills 28 Reservists in Dharhan barracks, largest single units casualty of the war.
- 27 Feb 91 Allies liberate Kuwait City.
 Bush stops offensive at 2400 hrs EST.
- 1 Mar 91 Desert Calm.
- 10 Mar 91 Re-deployment begins.
- 20 Mar 91 CONUS replacement centers at Forts Knox and Benning close.
- 29 Mar 91 FORSCOM publishes personnel demobilization processing guide.
- 6 Apr 91 Iraq Agrees to UN cease-fire terms.
 JTF Provide Comfort formed, deployed to Turkey by USCINCEUR.
- 15 Apr 91 Commander, Combined Civil Affairs TF and 352 CA CMD assumes command of Task Force Freedom, Kuwait.

APPENDIX B: STATUS/LOCATION OF USAR SIGNAL UNITS

Unit	Location	MTOE [Strength]	MTOE Change	Annual Training	Future
23rd Sig Det (DPU)	FT Sheridan, IL	11-450L [40]	None until CTAS II	Home sta- tion + ODT Cells	
35th Sig Bn (Area)	FT Allen, Puerto Rico	11-415H [857]	11-635L [539]	Golden Cir- cuit V; ODT	
HHC/35th Sig Bn	FT Allen, Puerto Rico	11-416H	11-636L	Same	
Co A/35th	Same	11-417H	11-637L	Same	
Co B/35th	Caparra Hqts, Puerto Rico	11-417H	11-637L	Same	
Co C/35th	Same	11-417H	11-637L	Same	
Co D/35th	Same	11-417H	11-637L	Same	Deacti- vate 940916
99th Sig Bn (Area)	Brooklyn, NY	11-415H [682]	11-669L [240]	Golden Cir- cuit V	
HHC/99th	Same	11-416H	11-669L	Same	
Co A/99th	Same	11-417H		Same	Deacti- vate 940616
Co B/99th	Same	Same		Same	Same

Unit	Location	MTOE [Strength]	MTOE Change	Annual Training	Future
Co C, 99th	Brooklyn, NY	11-417H		Golden Cur- cuit V	Deacti- vate:
156th Sig Plt	Milton, FL	11-500H [70]		OCONUS	Deacti- vate: 930915
262nd Sig Co (Cable & Wire)	TBD FT Gordon?	11-623L			Activate: 941010
301st Sig Co (Cable & Wire)	FT Pickett, VA	11-423H [195]	11-623L [212]	Home Sta- tion	New MTOE: 920916
304th Sig Det (Repro)	TBD: Ponce, Puerto Rico?	11-570L			Activate: 941010
305th Sig Co (HF Radio)	Tobyhanna, PA	11-303H (78)	Reorganize 920916 (84)		Deactiv- ate: 930916
319th Sig Bn (Area)	Stockton, CA	11-415H (510)	11-415L (507)	Golden Bear	Final MTOE: 950916
HHC 319th (Area)	Same	11-415H [682]	11-636L [240]	Same	
Co A, 319th	Fresno, CA	11-417H	11-637L	Same	
Co B, 319th	Dublin, CA	Same	Same	Same	
Co C, 319th	Sacramento, CA	11-417H	11-635L		Activate: 920916

Unit	Location	MTOE [Strength]	MTOE Change	Annual Training	Future
324th Sig Bn (Area)	FT Gordon, GA	11-415H (685)	11-635L (507)		New MTOE: 941010
HHC/324th	Same	11-416H	11-636L		Same
Co A 324th	Clemson, SC	11-417H	11-637L		
Co B 324th	Huntsville, AL	11-417H	11-637L		
Co C 324th	Athens, GA	11-417H	11-637L		
324th Sig Det (DPU)	Bedford, Ma	11-450L (40)	No change until CTAS II	Home Sta- tion	
327th Sig Det (DPU)	Ft Harrison IN	11-450L (40)	No change until CTAS II	Home Sta- tion + ODT Cell	
331st Sig Det (Repro)	TBD: FT Gordon?	11-570L			Activate: 941010
334th Sig Det (DPU)	FT Belvoir VA	11-450L (40)	No change until CTAS II	Mosby Ran- ger	
335th Sig Det (DPU)	Los Angeles CA	Same	Same	FT Shaf- ter, HI	
335th Signal Command	East Point, GA	11-302G (224)	11-602L (256)	Year round	New MTOE: 920916

Unit	Location	MTOE [Strength]	MTOE Change	Annual Training	Future
HHC, 335th	East Point GA	11-302G	11-602L	Year Round	New MTOE: 920916
359th Sig Bde (HHC)	No. Syracuse NY	11-410H (92)		Keen Edge; ODT	Deactivate : 941010
392nd Sig Det (Repro)	Little Rock, AR	11-570L (14)	Due for relocation		
404th Sig Co (Area)	Waterloo, IA	11-417H (177)	11-669L (240)	F. McCoy, WI	New MTOE: 941010
408th Sig Det (Repro)	FT Totten, NY	11-507L (9)			
410th Sig Co (Med Opns)	Junction City WI	11-127H (138)		228th Sig Bde FTX	Deacti- vate: 950925
536th Sig Co (Med Opns)	Salt Lake City, UT	11-127H (138)		Ft Hua- chuca, AZ	Deacti- vate: 950925
539th Sig Co (Med Opns)	Rexburg, ID	11-127H (138)		Rapid City, SD	Deacti- vate: 950925
558th Sig Co (Cable & Wire)	Frederick, MD	11-423H (184)	11-623L (212)	FT Hua- chuca, AZ	New MTOE: 941010
621st Sig Det (Repro)	FT DeRussy, HI	11-570L (9)			
670th Sig Det (Repro)	San Antonio, TX	11-570L (9)		Golden Bear	

Unit	Location	MTOE [Strength]	MTOE Change	Annual Training	Future
671st Sig Det	Richard Geb- aur AFB, MO	11-507L (9)		FT Leonard Wood, MO	
672nd Sig Det (Repro)	FT Snelling, MN	11-507L (9)		FT McCoy, WI	
804th Sig Co (Area)	FT DeRussy, HI	11-415H (175)	11-628L		New MTOE: 990915
807th Sig Co (Cable & Wire)	Caparra Hqts, Puerto Rico	11-423H (180)	11-623L (208)	Golden Circuit V	New MTOE: 941010
812th Sig Co (Med Opns)	Kings Mills, OH	11-127H (184)		Ft Jackson SC	Deactivate : 950915
820th Sig Co (Cable & Wire)	North Little Rock, AR	11-423H (184)	11-623L (212)		New MTOE: 920916
842nd Sig Co (Lite Tropo)	Pensacola, FL	11-367H (136)	11-667L (178)	FT Gordon, GA	New MTOE: 941010
HHD/845th Sig Bn (Comp.)	Junction City WI	11-127H (138)		228th Sig Bde FTX	Deacti- vate: 950925
2361st Sig Det	Akron, OH	TDA: W8N7AA	Relocate to FT Mc- Coy, WI	Year Round	
2362nd Sig Det	Blacklick, OH	TDA: W8N8AA	Transfer job to MN ARNG	Camp Rip- ley, MN	
2363rd Sig Det	Dayton, OH	TDA: W8N9AA	Transfer job to IN ARNG	Year Round	

Unit	Location	MTOE [Strength]	MTOE Change	Annual Training	Future
2364th Sig Det	Boise, ID	TDA: W7VZAA	Transfer job	Year Round	
2365th Sig Det	FT Drum, NY	TDA: W7VVAA	Transfer job to MA ARNG	Year Round	
2366th Sig Det	FT George Meade, MD	TDA: W7VWAA	Move to FT A.P. Hill, VA	FT A.P. Bill, VA	
2367th Sig Det	FT Pickett, VA	TDA: W7NTAA	No change	Home Sta- tion	
2368th Sig Det	West Palm Beach, FL	TDA: W7VYAA	Transfer job to FL ARNG	FT Bland- ing, FL	
2369th Sig Det	Chatta- nooga, TN	TDA: W7VXAA	Transfer Job to MS ARNG	CP Shelby, MS	
2370th Sig Det	FT Chaffee, AR	TDA: W7VRAA	No change	Home Sta- tion	
2371st Sig Det	North Little Rock, AR	TDA: W7VQAA	Transfer Job to AR ARNG	FT Sill, OK	
2372nd Sig Det	Selfridge, MI	TDA: W7UVAA	Transfer Job to MI ARNG	CP Gray- ling, MI	
2373rd Sig Det	San Francis- co, CA	TDA: W7VSAA	Transfer Job to CA ARNG	CP Roberts, CA	
2374th Sig Det	Annville, PA	TDA: W7XLAA	No change	Home Sta- tion	
3003rd Civil Prep Spt Det	Thomas- ville, GA	TDA: W78GAA			
____th Sig Det	TBD: 3 places	11-626L Combat Camera	Activations		Activate: 941010
____ HHD Sig BN (Comp)	TBD	11-626L	Activation		Activate: 941010

ENDNOTES

1. Roger W. Sandler, "When the Call Came Reserve Was Ready," Army 1991 Green Book Vol. 41, No. 10 (hereafter referred to as the Green Book), (October 1991), 100.
Stephen M. Duncan, "Little Margin for Error Exists," The Officer Vol. 68, No. 2 (February 1992): 30.
2. Emily Morison Beck, ed., Bartlett's Familiar Quotations, from George Santayana, The Life of Reason, Vol. 1, Reason in Common Sense. Little, Brown & Co., Boston, MA (1980), 514.
3. John R. Brinkerhoff, "The Case of the Unit That Was Not Called: The 377th Theater Army Area Command," Andrulis Research Corp., Arlington, VA., March 1991, 3.
4. Terrance D. Mulcahy, "Engineer Support in the COMMZ," Military Review vol. 72, no. 3 (March 1992), 14-16.
5. Ibid., 14.
6. Lewis Sorley, "Creighton Abrams and Active-Reserve Integration in Wartime," Parameters 21, no. 2, Summer 1991, 44.
7. Ibid., 48.
8. Ibid., 49.
9. Gary L. Adams and Dwain L. Crowson, The Army National Guard in a Changing Strategic Environment, Military Review Vol. 71, no. 10 (October 1991), 35.
10. John McAuley Palmer, America In Arms, (New Haven, CT: Yale University Press, 1941), 131-32.
11. Charles E. Heller, The New Military Strategy and Its Impact on the Reserve Components, (hereafter referred to as "The New Military Strategy"), Strategic Studies Institute, U.S. Army War College, Carlisle, PA., 7 December 1991, 7.
12. Richard B. Crossland and James T. Currie, Twice the Citizen: A History of the United States Army Reserve, 1908-1983, Washington, D.C.: OCAR, 1983, 68-70.
13. Robert R. Palmer, Bell I. Wiley and William R. Kent, U.S. Army in World War II: The Army Ground Forces: The Procurement and Training of Ground Combat Troops, Washington, D.C.: GPO, 1948, 442.

14. Max L. Marshall, ed., The Story of the U.S. Army Signal Corps (hereafter referred to as The U.S. Army Signal Corps), New York: Franklin Watts, Inc. 1965, 3.
15. Ibid., 8-9.
16. Ibid., 13.
17. Ibid., 14.
18. Kathy R. Coker and Carol E. Stokes, A Concise History of the U.S. Army Signal Corps (hereafter referred to as A Concise History), U.S. Army Signal Center and Fort Gordon, GA (February 1991), 8-9.
19. Ibid., p. 8.
20. The U.S. Army Signal Corps, p. 23-25.
21. Ibid., 38-39.
22. Ibid., p. 50-53.
23. Ibid., 60-61.
24. Ibid., 79-80.
25. Kerry G. Adams, U.S. Army Signal Center Briefing, "The Signal Corps from Visual Signals to the Information Age, prepared on 20 September 1991 for presentation by BG David J. Kelley, Deputy Commandant, Signal Center and Fort Gordon, before Signal Corps Officers, Army War College Class of 1992.
26. John J. Yeosock, "Army Operations in the Gulf Theater," Military Review, Vol. 71, No. 9 (hereafter referred to as "Army Operations") (September 1991), 3.
27. Ibid., 8.
28. Ibid.
29. Ibid., 10.
30. Ibid., 12.
31. The Citizen Patriot, Vol. 3, No. 1, (7 January 1991), 4.
32. "Requirement to Deploy a Theater Signal Command to Manage the Communications Network," Desert Shield/Storm Lessons Learned: Doctrine, Source: OCAR, Force Development, Washington, D.C.

33. These comments were drawn from the interviewees listed who were in critical signal positions during ODS, but who didn't want to be quoted directly.

34. "Activation of the 228th Signal Brigade (SARNG)," Desert Shield/Storm Lessons Learned: Doctrine, Source: OCAR, Force Development, Washington, D.C.

35. This statement is based on comments from 335th TSC personnel.

36. Memorandum for Chief, Force Structure, Mobilization and Force Modernization Division, ATTN: DAAR-FMF, "Disregard for Established Command Relations Within ARCENT," 16 May 1991.

37. Wayne J. Morgan, Reserve Component Special Forces Background Study, U.S. Special Operations Command, MacDill AFB, FL., July 1991, 61.

38. William F. Ward, Army Reserve Special Report 1991, a published statement made before the Committees and Subcommittees of the U.S. Senate and the House of Representatives, first session, 102nd Congress, 1991, 8.

39. C.K. Turner, A Mobilization Concept for the Future, U.S. Army War College, 28 April 1989, 11-12.

40. Ibid., 12.

41. Ibid.

42. Memorandum for Chief, Force Structure, Mobilization and Force Modernization Division, ATTN: DAAR-FMF, "Use of Individual Mobilization Augmentees (IMA)," 14 May 1991.

43. "USAR After the Storm," Senior Army Reserve AGR Officer/Enlisted Conference, St. Louis, MO. (14-16 November 1991): B-11, F-1.

44. Information gathered from interviews with members from 261st TSC and 335th TSC.

45. Ibid.

46. U.S. Army Materiel Command, General Officer Reserve Components Policy Council, Action Plan: AMC Individual Mobilization Augmentee Task Force, (July 1991), 5-6.

47. Ibid., 7.

48. Interview with MAJ Fred B. Fowler, Jr., Plans Officer, 261st TSC, Dover, DL (13 Nov 91).

49. Interview and subsequent correspondence with Lieutenant Colonel Lowell C. Detamore, Operations Officer, 335th TSC, at Fort Gordon, GA (5 Dec 91).

50. U.S. Army Signal Center, Theater Signal Command (Army) Briefing, Fort Gordon, GA, 15 May 1991, 6-8.

Interviews and subsequent phone conversations with Major Donna Dacier, Force Development/ Mobilization, Office Chief of Army Reserves, Washington, DC (12 Nov 91).

51. Ibid., 9.

52. Interview with MAJ Fowler, 261st TSC.

53. "USAR After the Storm," Senior Army Reserve AGR Officer/Enlisted Conference, (14-16 November 1991), G15.

54. Ibid., G16.

55. Ibid., C1-7.

56. Interviews with Lieutenant Colonel Stuart Crane and Lieutenant Colonel Robert Fritz, Force Development/Mobilization, Office Chief of Army Reserves, Washington, D.C. (12 Nov 91).

57. "USAR After The Storm," B5.

58. Charles E. Heller, "A Cadre System for the US Army," Military Review 71, No. 10 (hereafter referred to as "A Cadre System") (October 1991), 14-15.

59. Ibid., 22.

60. Ibid., 23.

61. Ibid., 20.

62. Ibid., 23.

63. "USAR After the Storm," (14-16 November 1991), F6.

BIBLIOGRAPHY

- Adams, Gary L. and Dwain L. Crowson. "The Army National Guard in a Changing Strategic Environment." Military Review Vol. 71, No. 10 (October 1991): 35-44.
- Adams, Kerry G. U.S. Army Signal School Briefing. "The Signal Corps from Visual Signals to the Information Age." Fort Gordon, GA. (20 September 1991).
- Andrulis Research Corporation. U.S. Army Reserve Participation in Port Operations for Operation Desert Storm. Arlington, VA. (May 1991).
- Association of the U.S. Army. Special Report: The U.S. Army in Operation Desert Storm. (June 1991). 1-26.
- Beck, Emily Morison. Ed. Bartlett's Familiar Quotations. Little, Brown and Co. Boston, MA. 1980.
- Binkin, Martin and William Kaufmann. US Army Guard and Reserve: Rhetoric, Realities, Risks. (Reprint, Chapter 1). Course 3, Lesson No. 3-18-2. (21 November 1991). 1-19.
- Brehm, Philip A. Restructuring the Army: The Road to a Total Force. Strategic Studies Institute, U.S. Army War College. Carlisle, PA. (21 February 1992).
- Brinkerhoff, John R. "The Case of the Unit That Was Not Called: The 377th Theater Army Area Command." Andrulis Research Corp. Arlington, VA. (March 1991).
- Brown, Frederic J. "Reserve Forces: Army Challenge of the 1990s." Military Review Vol. 71, No. 8 (August 1991): 2-19.
- Concepts and Doctrine Directorate, Combined Arms Command. EAC Command and Control White Paper, A Proposal for an EAC HQ for Operations and Sustainment. Command and General Staff College. Fort Leavenworth, KS. (24 January 1992).
- Coker, Kathy R., and Carol E. Stokes. A Concise History of the U.S. Army Signal Corps. Office of the Command Historian, U.S. Army Signal Center and Fort Gordon, GA. (February 1991).

- Crossland, Richard B., and James T. Currie. Twice the Citizen. A History of the United States Army Reserve, 1908-1983. Office of the Chief, Army Reserve. Washington, D.C. 1984.
- Department of the Army. Army Focus. Washington, D.C. (June 1991). 16-37, 52-56, 29-65.
- Department of the Army, U.S. Army Reserve Personnel Center. Memorandum for Chief, Army Reserve. Subject: "U.S. Army Reserve Personnel Center (ARPERCEN) Desert Shield/Storm Lessons Learned." (14 May 1991). 1-3.
- Desert Shield/Storm Lessons Learned: Doctrine. Source: OCAR, Force Development, Washington, D.C. (November 1991).
- Dowling, Robert C. Theater Signal Command (Army) Briefing. U.S. Army Signal Center. Fort Gordon, GA. (15 May 1991).
- Duncan, Stephen M. "Gulf War Was a Test of Reserve Components and They Passed." Officer. Vol. 67, No. 6. (June 1991). 21-27.
- _____. "Performance of Guard, Reserve Forces A-One: War Confirms Total Force Policy." Officer. Vol. 67, No. 7. (July 1991). 80-85.
- Englehardt, Joseph P. SSI Special Report: Desert Shield and Desert Storm, A Chronology and Troop List for the 1990-1991 Persian Gulf Crisis. Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, PA. (25 March 1991).
- Guidotti, John A. "The 35th Signal's New go-to-war Concept." Army Communicator. Vol. 16, No. 4. (Fall/Winter 1991): 20-23.
- Heller, Charles E. "A Cadre System for the US Army." Military Review Vol. 71, No. 10 (October 1991): 14-24.
- _____. The New Military Strategy and Its Impact on the Reserve Components. Strategic Studies Institute, U.S. Army War College. Carlisle, PA. (7 December 1991).
- Kreidburg, Martin A. and Martin G. Henry. History of Military Mobilization in the United States Army: 1775-1945. Government Printing Office. Washington, D.C. 1955.
- Marshall, Max L., ed. The Story of the U.S. Army Signal Corps. Franklin Watts, Inc. New York. 1965.
- Morgan, Wayne J. Reserve Component Special Forces Background Study. U.S. Special Operations Command. MacDill AFB, FL. (July 1991).
- McCarthy, Terrence D. "Engineer Support in the COMMZ." Military Review Vol. 72, No. 3 (March 1992): 14-21.

- Office of the Chief, Army Reserve. "USAR After the Storm." Senior Army Reserve AGR Officer/Enlisted Conference Read Ahead Package. (14-16 November 1991).
- Office of the Chief, Army Reserve, Public Affairs Office. "U.S. Army Reserve Report 1991." Washington, D.C. 1991.
- Office of the Chief, Army Reserve. "The Chief, Army Reserve's Long-Range Plan 1990-2020." Washington, D.C. (August 1990).
- Office of the Chief, Army Reserve. "USAR Chronology of Events." Operation Desert Shield and Desert Storm, Part III. (12 June 1991). 1-10.
- Palmer, John McAuley. America in Arms. Yale University Press. New Haven, CT. 1941.
- Rees, Raymond F. "The Largest Mobilization in 30 Years," The 1991 Army Green Book, 110-113. Association of the U.S. Army. Arlington, Va. (October 1991).
- Ritterpusch, David S. The Army Reserve and U.S. National Defense Strategy. U.S. Army War College. (18 April 1988).
- Rozman, Thomas R. "Reserve Components' Tactical C2." Military Review Vol. 71, No. 10 (October 1991): 25-34.
- Sandler, Roger W. "When the Call Came Reserve Was Ready," The 1991 Army Green Book, 100-106. Association of the U.S. Army. Arlington, Va. (October 1991).
- Shaver, David E. Closing Ranks: The Secret of Army Active and Reserve Component Harmony. Strategic Studies Institute, U.S. Army War College. Carlisle, PA. (11 February 1992).
- Sorley, Lewis. "Creighton Abrams and Active-Reserve Integration in Wartime." Parameters Vol. 21, No. 2 (Summer 1991): 35-50.
- Stuckey, John D. and Joseph H. Pistorious. Mobilization of the National Guard and Army Reserve: Historical Perspective and the Vietnam War. Strategic Studies Institute, U.S. Army War College. Carlisle Barracks, PA. 1984.
- Taylor, Charles W. Alternative World Scenarios for Strategic Planning. Strategic Studies Institute, U.S. Army War College. Carlisle Barracks, PA. 1990.
- Taibl, Paul E. Graduated Mobilization Response: A Key Element of National Deterrent Strategy. Mobilization Concepts Development Center, Institute for National Strategic Studies, National Defense University. Washington, D.C. (April 1988). 1-21.
- The Citizen Patriot, Vol. 3, No. 1. (7 January 1991): 4.

- Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. University of Chicago Press. Chicago, IL. 1987.
- Turner, C.K. A Mobilization Concept for the Future. U.S. Army War College. Carlisle Barracks, PA. (28 April 1989).
- U.S. Army Central Command. Lessons Learned from Desert Storm. 1991.
- U.S. Army Materiel Command, General Officer Reserve Components Policy Council. Action Plan: AMC Individual Mobilization Augmentee Task Force. Alexandria, VA. (July 1991).
- U.S. Army Signal Center. Signal Center TAA 99 Issues. U.S. Army Signal Center. Fort Gordon, GA. (14 June 1991).
- _____. Signal Proponent Handbook. U.S. Army Signal Center. Fort Gordon, GA. (1 October 1991).
- "USAR After the Storm." Senior Army Reserve AGR Officer/Enlisted Conference. St. Louis, Mo. (14-16 November 1991).
- U.S. Army War College. Army Command and Management: Theory and Practice. Carlisle Barracks, PA. (19 August 1991).
- U.S. Department of Defense. Joint Pub 1-02. Department of Defense Dictionary of Military and Associated Terms. Washington, D.C. (1 December 1989).
- Ward, William F. Army Reserve Special Report 1991. A published statement made before the Committees and Subcommittees of the U.S. Senate and the House of Representatives, first session, 102nd Congress. 1991.
- Yeosock, John J. "Army Operations in the Gulf Theater." Military Review Vol. 71, No. 9 (September 1991): 2-15.

SOURCES/INTERVIEWS/DATES

Colonel Michael D. Angelo. G-6 Forward, ARCENT. Contacted at US Army Reserve Command, Fort MacPherson, GA. [Nov-Dec 91, Jan 92].

LTC Barry Bruder. USAR Advisor, J6, US Forces Command, Fort McPherson, GA. [6 Dec 91].

Brigadier General Tommy Bonds. Deputy Commander, 335th Signal Command. Interviewed at Fort Gordon, GA. [4 Dec 91].

Lieutenant Colonel Stuart Crane. Force Development/Mobilization, Office Chief of Army Reserves. Washington, D.C. [12 Nov 91].

Major Donna Dacier. Force Development/Mobilization, Office Chief of Army Reserves. Washington, D.C., [12 Nov 91].

Lieutenant Colonel Lowell C. Detamore. Operations Officer, 335th Signal Command. Interviewed at Fort Gordon, GA. [5 Dec 91].

COL Wallace W. Dickerson. Deputy Assistant Commandant, USAR Affairs, U.S. Army Signal Center. Fort Gordon, GA. [4 Dec 91].

Captain Robert C. Dowling. Chief, Force Integration Branch. U.S. Army Signal Center. Fort Gordon, GA. [6 Dec 91].

Brigadier General Manuel R. Flores (IMA), US Army Materiel Command. Interviewed at US Army War College, Carlisle, PA. [12 Dec 91].

Major Fred B. Fowler, Jr. Plans Officer, 261st Signal Command, Delaware Army National Guard. Dover, DL. [13 Nov 91].

Lieutenant Colonel Robert Fritz. Force Development/Mobilization, Office Chief of Army Reserves. Washington, D.C. [12 Nov 91].

Major Russell Gambrell, US Army Signal Center and Fort Gordon. Fort Gordon, GA. [4 Dec 91].

Colonel Gene Neelly. DCS Operations, 335th Signal Command. Interviewed at Fort Gordon, GA. [5 Dec 91].

Major Frederick J. Stone, C-E Systems Officer, 359th Signal Brigade. Interviewed at Fort Gordon, GA. [5 December 1991].

Brigadier General (P) Joe Turner. Commander, 335th Signal Command. Interviewed at Fort Gordon, GA. [4 Dec 91].