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TRADOC Historical Study Series

TRADOC SUPPORT TO OPERATIONS DESERT SHIELD AND DESERT STORM

A Preliminary Study

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A Preliminary Study

by

Susan Canedy
James T. Stensvaag
Anne W. Chapman
John L. Romjue
Charles H. Cureton

Henry O. Malone, Jr.
Editor

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1992

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U.S. ARMY TRAINING AND DOCTRINE COMMAND

General Frederick M. Franks, Jr.	Commander
Major General Donald M. Lionetti	Chief of Staff
Dr. Henry O. Malone, Jr.	Chief Historian
Mr. John L. Romjue	Chief, Historical Studies and Publication

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Henry O. Malone and John L. Romjue, General Editors

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Cover Photo: Fort Rucker soldiers load an OH-58 helicopter aboard a C5 aircraft—destination Saudi Arabia.

PREFACE

With the commitment of U.S. forces to the United Nations military action to counter the Iraqi invasion of Kuwait in August 1990, the Army Training and Doctrine Command played an important role in support of the subsequent U.S. Army deployment of 300,000 troops to the Persian Gulf as part of Operations Desert Shield and Desert Storm. Added to TRADOC's peacetime charge to prepare the Army for war were direct wartime tasks related to the mobilization, movement, and the training and combat-doctrinal development support of soldiers and supplies in and through the Army training and school installations that TRADOC commanded, together with care on the homefront for the families of the soldiers involved.

This TRADOC Historical Study is a preliminary examination of TRADOC support to Operations Desert Shield and Desert Storm. It was undertaken to provide the TRADOC commander and staff an early documented assessment of the command's support role in that joint and combined endeavor that culminated in the expulsion of Iraqi forces from Kuwait in early 1991. A comprehensive analytical record of the support which Headquarters TRADOC and its installations, schools, and activities rendered to the Army in the Persian Gulf operations will follow in a more detailed historical monograph to be published in 1994.

Extensive documentary files and numerous taped oral history interviews support the study. Those materials are described in a sources note at the end of this volume. Footnotes document the sources used in the study and include appropriate security identification, although the study itself is unclassified. Paragraphs carrying for "official use only" protection are so marked. An index facilitates location of specific topics.

This publication is a collaborative effort by the staff of the Office of the Command Historian. Dr. Susan Canedy, Archivist, collected and organized the records and conducted many of the oral interviews on which the narrative is based. Dr. Canedy also wrote Chapter III, on logistics and the CONUS replacement centers, and Chapter V, treating

family and community support. Dr. James T. Stensvaag, Chief, Historical Programs and Policy, contributed Chapter II on mobilization and personnel. Dr. Anne W. Chapman provided the coverage of TRADOC training, doctrine, and combat development support to the Gulf conflict contained in Chapter IV. Mr. John L. Romjue, Chief, Historical Studies and Publication, wrote the introductory overview in Chapter I and coordinated the planning and production of the volume. Dr. Charles H. Cureton, Chief, Museums and Historical Services, who served as a combat Marine historian with the I Marine Expeditionary Force and 1st Marine Division in Desert Storm, provided the appended discussion of war artifacts collected and acquired for the Army museums in TRADOC. Format development and manuscript word processing were skillfully executed by Mr. Joseph H. Mason III, Archives Technician. The undersigned exercised overall editorial responsibility for the volume.

Fort Monroe
9 April 1992

HENRY O. MALONE, JR., Ph.D.
Chief Historian



*General John W. Foss
Commanding General, Training and Doctrine Command
August 1989 — August 1991*



*Major General James W. van Loben Sels
Chief of Staff, Training and Doctrine Command
July 1989 — September 1991*

Chapter I

THE GULF WAR AND THE TRADOC ROLE

The military actions of 1990-1991 in the Persian Gulf, by which a United Nations coalition led by the United States reversed an Iraqi military strike of global impact, took place in the context of the major international power shift of 1989-1991. The historic retrenchment of Soviet power that the world witnessed in 1989 and after spelled the end not only of the Soviet threat to NATO Europe, but also marked the suspension worldwide of the hostile power moves and revolutionary activities by the Soviet Union that had characterized the nearly forty-five-year duration of the Cold War. The historic disintegration of communism in Eastern Europe in 1989, which set that retreat in motion, led to further economic and political decentralization in the Soviet Union itself. The resulting changes in Europe in 1990—the reunification of Germany on the Western model in October and the signing of the Conventional Forces Europe Treaty between NATO and the Warsaw Pact in November—signalled a fundamentally new power situation. As it moved toward democratic and free market structures, the Soviet Union drew back from the confrontational policies in the international sphere that it had pursued since the beginning of the Cold War era.

Paralleling the receding Soviet threat, however, was the rising concern throughout the 1980s of a proliferation of modern armaments in the armies of the growing regional powers of the third world. Particularly of concern were the weapon buildups in the one-party dictator regimes of the volatile Middle East. Such concerns were heightened by those regimes' state-sponsored terror strikes against Western targets, as well

as by the emergence in the 1980s of the major narcotics smuggling operations focused on the cities of North America.

For the United States Army, both major trends—the decline of the Soviet threat, and the rising specter of third world mayhem impinging on American interests—posed new strategic and doctrinal assumptions. Not Soviet hegemony over Europe, but regional power aggregations and aggressions in the third world would present the United States the challenge of maximum danger. That trend implied, for the U.S. Army, a fundamental force reorientation. From its historic stance of major forward deployment in Europe backed by reinforcement forces in the United States, the Army looked to a new posture of force projection from the base of a predominantly U.S.-situated Army.¹

The Invasion of Kuwait and the International Response

Upon this situation broke the invasion of the independent, small oil-rich state of Kuwait by Iraq on 2 August 1990. The seizure and subsequent annexation of Kuwait by the Iraqi dictator Saddam Hussein introduced a major regional security threat and potential world crisis. The Iraqi invasion was carried out by a modernized armored army, believed by defense analysts to be the world's fourth largest, and equipped with significant quantities of up-to-date Soviet and Western military technology. Iraqi massing of troops on the Saudi Arabian border suggested further plans by Saddam Hussein to invade that country. At issue was the threat of Iraqi seizure and control of most of the oil resources of the Persian Gulf on which the industrial world of Europe and Japan and much of the less developed world depended.

The United States and United Nations response, a concerted diplomatic, economic, and military initiative, resulted in decisions to deploy a multinational force of significant sea, air, and land strength to counter the Iraqi dictator's aims. Early U.S. military moves were directed at deterring or contesting an Iraqi move into Saudi Arabia. On 2 August, President George Bush froze the assets of Iraq and Kuwait and signed an executive order banning trade with them. On 3 August, he warned Iraq

¹ See TRADOC Annual Command Histories (ACH), 1989, pp. 2-9, and 1990, pp. 2-6 for a discussion of the consequences for the Army and TRADOC development mission of the recession of Soviet power in Europe.

not to invade Saudi Arabia and offered that nation U.S. assistance, which the Saudi ruler, King Fahd, accepted on 6 August. On 7 August, the United States began deployment of the 1st Tactical Fighter Wing and the 82d Airborne Division to Saudi Arabia, to be followed by the 7th Marine Expeditionary Brigade and the first of several strategically prepositioned supply ships based at the U.S. facility at Diego Garcia in the Indian Ocean. On 8 August, President Bush declared that "a line has been drawn in the sand," and that 50,000 U.S. troops might be sent to Saudi Arabia as part of a multinational force.²

The early U.S. response to the Saudi request rested upon concerted U.N. Security Council actions. Those actions were themselves dependent on the cooperation of the two permanent Council members who had traditionally opposed U.S. security measures: the Soviet Union, which supported the emergent resolutions, and China, which alternately supported or deferred to their passage. The initial Security Council Resolution, No. 660, passed on 2 August, condemned the invasion and demanded Iraq's unconditional and immediate withdrawal. Resolution 661, dated 6 August, imposed a trade and financial embargo, while 665, on 25 August called on U.N. members with warships in the region to enforce sanctions by inspecting arriving ships and cargoes. Resolution 678, passed on 29 November, demanded Iraq's unconditional withdrawal by 15 January 1991 and authorized U.N. members to use all necessary means to bring about withdrawal by that date. The early Security Council resolutions laid a legal basis, globally recognized, for the military buildup by the U.S. and by other U.N. members from both inside and outside the region. It was from this basis that diplomatic persuasion or military action would be subsequently mounted.³

Desert Shield and Desert Storm

Operation Desert Shield, launched by U.N. forces in August 1990, was a massive buildup of military forces by the United States and its allies to defend Saudi Arabia from Iraqi attack and intended to force Iraq's withdrawal from Kuwait. Desert Shield gave way to Operation Desert

2 (1) "Chronology," [of the Gulf War events], *Military Review*, Sep 1991, (hereafter: MR Chronology), pp. 65-66.

3 Sixteen U.N. Resolutions were adopted between 2 August 1990 and 9 April 1991 by the Security Council applying to the Iraq-Kuwait situation. See *Military Review*, Sep 1991, p. 79, for short digests.

The Gulf War and the TRADOC Role

Storm with the inauguration of a major U.N. air offensive on 17 January 1991, followed by the war's ground phase between 24-28 February. Operation Proud Return comprised the events by which, with victory secured at the cease-fire of 28 February, the redeployment was carried through. Space permits here only a brief summary of the course of the Persian Gulf actions of 1990-1991.

Supported by reserve call-ups, U.S. forces that deployed by air and sea in the first three months exceeded the manpower and deployment tonnage of any previous initial U.S. period of war.⁴ By the end of October 1990, 209,000 troops had arrived in the theater by air and another 1,600 by sea. U.S. Army strength in theater on that date exceeded 117,000. At the end of October, 1,380,000 tons of equipment and supplies had reached the Saudi Arabian ports by sea, with another 225,000 tons by air.⁵ U.S. Army corps, divisions, and other combat and support units deployed initially from the United States. Beginning in November, they were reinforced from U.S. Army Europe. The deployments from the United States and from Germany were sealift journeys of 25 and 20 days, respectively, port to port. Deploying in the initial wave from bases in the United States were the XVIII Airborne Corps, 82d Airborne Division, 101st Airborne Division (Air Assault), 24th Infantry Division (Mechanized), and the 1st Cavalry Division. Reinforcement troops followed from the Kansas-based 1st Infantry Division (Mechanized), joined in deployment by the VII Corps, 1st and 3d Armored Divisions, and the forward brigade of the 2d Armored Division, all stationed in Germany.

U.S. troop deployments reached 230,000 by mid-November, of which 130,000 were U.S. Army troops. With the reinforcing VII Corps units arriving, total U.S. strength was at 300,000 on 26 December, of which 189,000 were U.S. Army, and 325,000 on 2 January 1991, when the U.S. Army component reached 202,000. At the first of the year, committed

4 Handicapped by the great distances involved as well as by the paucity of fast sealift vessels, the early phase of the U.S. Desert Shield buildup could not be characterized as rapid. Troop strengths reached 50,000 on 28 August, 150,000 on 15 September, and 209,000 by 18 October. MR Chronology, pp. 67, 69.

5 (1) TRADOC briefing slides, An Overview of Desert Shield/Storm/Proud, June 1991 (hereafter: TRADOC Briefing, Jun 1991). (2) Chronology: Operation Desert Shield/Storm (draft) [July 1980 - April 1991], US Army Center of Military History (hereafter: USACMH Chronology), p. 41. (SECRET—Info used is UNCLASSIFIED)

coalition forces made up another 245,000 troops. As the VII Corps arrived in increasing numbers, the U.S. deployment exceeded 460,000 total troops and 253,000 U.S. Army soldiers by 20 January, following the launching of the air war three days earlier. U.S. troop totals passed 500,000 on 30 January and reached 523,000 on 16 February. U.S. Army strength in theater stood at 300,000 on 23 February, the day before the start of the ground offensive.⁶

Of thirty-six coalition nations committing ground, air, or naval forces to the effort, sizable troop contingents were fielded by Arab allies: Saudi Arabia—110,000, Egypt—40,000, United Arab Emirates—43,000, and Syria—21,000. Major NATO ground force contributions were from the United Kingdom—42,000, and France—20,000, with Turkey moving 120,000 troops to its border to deter possible Iraqi attack. U.S. troop strength at its ground-war peak in February 1991 exceeded 527,000.

The reserve component buildup was significant, with a 200,000 call-up of the Selected Reserve authorized by President Bush on 22 August 1990. Beginning on 23 August and at intervals to 19 January 1991, Secretary of Defense Dick Cheney authorized the Army to call up a reservist total reaching 220,000. Because of the brevity of the war, that figure was never attained. The total number of reserve units actually called up exceeded 1,000, numbering almost 150,000 personnel.⁸ Over 700 reserve units, totalling over 68,000 soldiers, were sent to Southwest Asia in the course of Desert Shield and Desert Storm. Other mobilized reservists manned Active Army units in the United States and Europe that had been stripped for the deployment to Saudi Arabia.⁹

The Desert Shield buildup, which had reached impressive levels by the close of 1990, manifested the determination of the United States and the U.N. coalition to force Iraqi withdrawal. The direction of the commitment was unmistakable following President Bush's announcement, on 8 November, of a doubling of the size of the force. That day, the VII Corps was ordered to deploy from its German kasernes. From an initial, defensive phase, the deployment shifted to an offensive-weighted operation.

6 (1) MR Chronology, pp. 69, 71, 72, 74, 75. (2) USACMH Chronology, pp. 47, 57, 60, 68, 91. (SECRET—Info used is UNCLASSIFIED)

7 "Forces Committed," *Military Review*, Sep 1991, pp. 80-81.

8 "The Reserve Component Call-up," *Military Review*, Sep 1991, p. 78.

9 TRADOC briefing, Jun 1991.

as the primarily armored units of the Germany-based divisions moved to port with their massive logistical train.

Neither the arriving tide of the U.S. armored army nor peacemaking efforts by third parties, however, succeeded in securing the Iraqi dictator's withdrawal. As a national debate raged on the wisdom of war versus sanctions—a debate accompanied by anti-intervention protests (soon to be eclipsed by pro-intervention rallies)—President Bush asked Congress on 8 January 1991 for authorization to use “all necessary means” to drive Iraq from Kuwait. Ensuing congressional debate yielded an affirmative vote by both houses on 12 January for the use of the force necessary to fulfill the U.N. commitments.¹⁰

Important considerations influenced the timetable of action. Foremost among them was the time needed, after the November decision to double the force, to get the assault force shipped to and in place in Saudi Arabia. Another significant concern was the approach of the Islamic holy season of Ramadan, which, it was feared, would flood Saudi Arabia with Iraqi operatives and terrorists infiltrating with the pilgrim throngs. A third decisive factor was the unacceptable prospect of delaying the assault into or beyond the desert summer. Thus, the window for action was narrow, extending from 15 January to no later than 30 March.

The deployed U.S. and other U.N. troops were organized in the theater under U.S. Central Command, the Florida-based U.S. joint command focused on contingencies in the Middle East and Southwest Asia regions. With headquarters moved to Saudi Arabia, the CENTCOM commander, General H. Norman Schwarzkopf, supervised all U.S. forces through the component Air Force, Navy, Marine, and Army Central Commands, CENTAF, NAVCENT, MARCENT, and ARCENT, respectively. By agreement between U.S. Secretary of State James Baker and King Fahd on 5 November 1990, a war decision was conditional on agreement by both the United States and Saudi Arabia. Arab and other Islamic troops came under the command of the Arab-Islamic Joint Forces Command, headed by Saudi Lt. Gen. Prince Khalid Bin Sultan. ARCENT, commanded by Lt. Gen. John J. Yeosock, was a two-corps command,

10 (1) MR Chronology, pp. 69, 71, 72. (2) The margin of the vote affirming use of force was comfortable in the House (Yes-250, No-183), narrow in the Senate (Yes-52, No-47).

along with its echelons-above-corps organizations. Constituting the XVIII Airborne Corps under Lt. Gen. Gary E. Luck, were the U.S. 82d and 101st Airborne Divisions and 24th Infantry Division, the French 6th Light Armored Division, the 3d Armored Cavalry Regiment, and other units. Commanding the VII Corps was Lt. Gen. Frederick M. Franks, Jr. Under him were the U.S. 1st Infantry Division, 1st and 3d Armored Divisions, the 1st Cavalry Division, the 2d Armored Cavalry Regiment, and the British 1st Armored Division. MARCENT included, with the 1st and 2d Marine Divisions, the 1st Brigade of the U.S. 2d Armored Division.¹¹

Following the congressional authorization permitting use of force, and the passage of the 15 January withdrawal deadline, coalition aircraft commenced the air offensive on 17 January, launching Desert Storm. Extending to 23 February, the joint, combined air phase of the war, in near around-the-clock operations against Iraqi military and strategic targets in Kuwait and Iraq, severely crippled the Iraqi warmaking potential and defensive capability. Against the thirty-five committed and reinforcing divisions of the 545,000-man Iraqi force in and around Kuwait, the air offensive severely reduced the effectiveness of all but a handful. The air action, in summary, reduced enemy forces on the Saudi border to a roughly equal force ratio; effectively neutralized the Iraqi artillery and the feared Iraqi nuclear and chemical potential; inhibited mass use of Iraqi Scud missiles; electronically blinded the Iraqi intelligence as to the U.N. ground operational plan; shaped the battlefield and set the stage for the ground war.¹²

Launched on 24 February, the ground offensive was a classic application of U.S. Army AirLand Battle doctrine. With Iraqi attention diverted by the threat of amphibious landings and occupied by the assault of the U.S. 1st and 2d Marine Divisions supported by Saudi forces across the eastern part of Kuwait's southern border toward Kuwait City, as well as by border probes farther west, the divisions of the XVIII Airborne Corps on the allied extreme left flank penetrated deep into Iraq, reaching the Euphrates Valley on the first day. In the meantime, to the west of the

11 (1) MR Chronology, p. 69. (2) "Coalition Maneuver Units," *Military Review*, Sep 1991, pp. 80-81.

12 TRADOC briefing, Jun 1991. The air offensive was judged to have rendered 15 of the 35 Iraqi divisions less than 50 percent effective and 13 more divisions less than 75 percent effective.

U.S. Marine divisions, Arab coalition forces penetrated the Kuwait-Saudi border barriers, deceiving the enemy into believing a frontal attack was under way. With XVIII Airborne Corps forces deep in the enemy's rear to isolate him and prevent reinforcement, the VII Corps with five divisions carried through a massive wheeling maneuver north and east to encircle the Iraqi forces as the attacking Marine Corps and Arab coalition forces pushed up from the south to liberate Kuwait City.

Hostilities ended on 28 February with a cease-fire declared 100 hours from the start of the ground phase. The air and ground assault rendered ineffective 40 of the 42 Iraqi divisions ultimately committed. It destroyed 75 percent of enemy tanks, 80 percent of artillery, and 65 percent of the armored personnel carriers. Over 100,000 enemy prisoners of war were taken in the collapse of Saddam Hussein's forces. Following the U.S. Marines seizure of the Kuwait City airport, Kuwait troops raised the national flag in Kuwait City on 27 February. A total of 148 U.S. battle deaths were reported. Iraqi battle deaths were estimated at 80,000 to 100,000.¹³

U.S. policy decisions foreclosed the further penetration of Iraq, and the war ended with all objectives attained. Post-hostilities U.N. Resolution 687 dated 3 April called for restoration of Kuwaiti sovereignty and return of its legitimate government while setting specific conditions for a formal cease-fire. U.N. Resolution 689 on 9 April provided for the establishment of the U.N. Iraq-Kuwait Observation Mission.¹⁴

Subsequent moves by remnant units of the decimated Iraqi army against a Kurdish revolt in the north of the country required further U.S. assistance in Operation Provide Comfort. But the redeployment of U.S. forces to their U.S. and German bases began soon after the end of hostilities. The first troops returned home on 8 March. A total of 141,500 had redeployed by the end of that month. The phased redeployment, termed Operation Proud Return, proceeded through August. Residual forces remained in Kuwait and Saudi Arabia as U.N. missions to monitor Iraqi compliance with the U.N. resolutions and to assist in the rebuilding

13 (1) MR Chronology, p. 77. (2) Bruce W. Watson et al., *Military Lessons of the Gulf War*. London and Novato, Calif.: Greenhill Books and Presidio Press, 1991, p. 247.

14 "UN Resolutions," *Military Review*, Sep 1991, p. 79.

and restoration of Kuwait. A limited number of reserve units deployed after hostilities ceased to replace the units left as cease-fire agents.¹⁵

Operations Desert Shield and Desert Storm defused, in rapid manner, a regional crisis of worldwide implications. As a concerted allied action, undertaken with the United States' Arab and NATO allies under United Nations auspices, it enlisted worldwide support. That support included the massive underwriting of the greater part of its costs by concerned Arab nations as well by affected industrial nations including Japan and Germany. The decisive U.S. and allied response had had the effect first, of deterring further Iraqi aggression. Second, Operation Desert Storm foreclosed the possibility of Iraqi hegemony in the world-critical Persian Gulf region. Third, the decision for war defeated, at a late hour, Saddam Hussein's attainment of nuclear blackmail capability.

TRADOC's Role

The Preparation-for-War Mission and the Decade of Modernization and Reform

As the mission product of the U.S. Army agency charged with preparing the Army for war, TRADOC's major contribution to Operations Desert Shield and Desert Storm was the trained readiness of the force itself. The factors of that readiness were the five elements of TRADOC's development and preparation mission: tactical and operational doctrine; individual, branch and Army-wide training programs; leadership development; the organizational design of the fighting and support units; and the definition of the operational requirements of Army weapons and equipment. The Army that deployed to the Persian Gulf in 1990-1991 to carry out the dictates of Desert Shield and Desert Storm embodied a trained preparedness deeply rooted in a decade and more of Army modernization and reform.

The U.S. Army of Desert Storm was the product of a concentrated period of training, doctrinal, and organizational reform that had begun in the mid-1970s and extended to the late 1980s. Accompanying the reforms was a sustained program of weapon and equipment modernization. Those efforts responded to the massive expansion and modernization of land

¹⁵ MR Chronology, pp. 77, 78.

forces the Soviet Union had undertaken during the U.S. Army's preoccupation with the Vietnam conflict in the 1960s and early 1970s.

The Army's modernization and reform efforts made fundamental changes to the fighting force. Leading those changes was the rewritten and initiative-oriented doctrine termed AirLand Battle and the new organizations of the "Army of Excellence," or AOE. The AOE was structured to accommodate the new generation of weaponry and to implement the principles of corps-directed AirLand Battle and rapidly-deployable light infantry and Special Forces. A new class of weaponry was standard. It had been introduced in the majority of fighting units by the late 1980s. The equipment included most prominently the M1 Abrams tank, the Apache attack and Black Hawk helicopters, the Multiple Launch Rocket System, the Patriot air defense missile and the Hellfire tactical missile, new and farther ranging howitzers, the Bradley Fighting Vehicle, together with such equipment as unmanned aerial vehicles, Mobile Subscriber Equipment, and the Armored Combat Earthmover. In addition, newer systems that would play significant roles in Desert Storm were coming along, such as the Joint STARS aerial intelligence system and the deep-striking Army Tactical Missile System. In the fighting in Kuwait and Iraq, the new generation of weaponry would prove operationally sound and highly effective.

In the same period, realistic and rigorously evaluated training, computerized training technology, and innovative simulated-fire, force-on-force battalion training in special Combat Training Centers in the United States and Germany had, by the late 1980s, greatly changed the way soldiers were prepared for war. By the close of the decade, all those developments together had physically and intellectually transformed the American field Army.

The Support Role and Its Elements

The direct TRADOC role in support of the Army in the Gulf War is the subject of this study. As the Army's trainer and combat developer and the manager of seventeen major Army installations in the continental United States, the command made significant direct contributions. Those sectors of support fell chiefly into the realms of mobilization and personnel; logistics and the continental United States replacement

centers; training and combat-doctrinal development support; and family, community, and morale support. The following chapters will address those topics in turn.

Chapter II

MOBILIZATION AND PERSONNEL

(FOUO) Strategic goals of actions such as those contemplated for Operation Desert Shield in Southwest Asia after 4 August 1990 went well beyond the capabilities of the active component of the nation's armed forces. Even a strictly defensive posture, or perhaps most especially a purely defensive posture, required mobilization of large numbers of reserve personnel, some capable of deploying to the theater of operations, and others tapped for support activities in theater and in the continental United States. Ultimately, force structure philosophy which governed the mix of reserve and active duty forces derived from two political realities. First was the congressional ceiling placed on the number of active duty soldiers. Second was the experience of the Vietnam War, which demonstrated the need to verify any war as an extension of the national political will. The concept of citizen-soldiers fighting alongside the active cadre, with their mobilization essential for operational success, worked toward that end. This philosophy led to development of the so-called "roundout brigades," which were reserve component units critical for the success of division-level operations. The self-evident need for augmenting active forces did not, however, tell planners which portions of the reserve structure needed to be called and when, nor answer nagging questions

about the readiness of units or individuals who were called. Mobilization plans in place during the first weeks of August 1990 were geared for scenarios and circumstances quite different from the Saudi Arabian desert, and offered guidance which was not always applicable to the specific requirements of Desert Shield.¹

Mobilization Planning

At the time of crisis in Southwest Asia, the mobilization process consisted of two levels and three distinct stages beyond peacetime planning, governed by Title 10 of the U.S. Code: a contingency call-up of a maximum of two hundred thousand (200,000, or "200K") reservists, authorized by the president of the United States for an initial period of ninety days with possible extension for an additional ninety days; partial mobilization, consisting of a presidential declaration of emergency, allowing for a call of up to one million reservists; and full mobilization, allowing for call-up of the existing approved force structure. Given the authorization to mobilize any number of troops, the Joint Chiefs of Staff defined force structure required to achieve strategic goals and, in the case of a partial mobilization, apportioned personnel allocations to the various services. The Army Mobilization and Operations Planning System (AMOPS) spelled out headquarters and major command responsibilities. The U.S. Army Training and Doctrine Command Mobilization and Operations Planning System (TMOPS) defined TRADOC's mission as, first, to assist the U.S. Army Forces Command (Forces Command) in mobilizing reserve component troop units, both those for which TRADOC installations served as coordinating installations and those for which installations served as mobilization stations; to expand the training base; to establish continental United States replacement centers (CONUS

¹ (1) Desert Storm Special Study Project, *Operation Desert Storm After Action Report*, n.d. (Sep 1991) (hereafter cited as DSSSP), Executive Summary, p. B-7; Vol. I, pp. 1-3-1 to 1-3-2. Unpublished manuscript in the Historical Research Collection, Office of the TRADOC Command Historian. (FOR OFFICIAL USE ONLY)
(2) Army Mobilization and Operations Planning System (AMOPS), Vol. I: System, Description, Responsibilities, and Procedures. (3) TRADOC Mobilization and Operations Planning System (TMOPS), Vol. I: System, Description, Responsibilities, and Overview (Both SECRET—Info used is UNCLASSIFIED)

replacement centers or CRC's), and to expedite combat developments. In a related area, TRADOC installations (e.g., Forts Jackson, Benning, and Eustis) were responsible for port of embarkation support at Charleston, South Carolina, Jacksonville, Florida, and Newport News, Virginia, respectively.² Replacement centers and ports of embarkation are discussed in a separate chapter, below, as are training and combat development considerations. This chapter provides a rough overview of TRADOC's role in supporting Forces Command through mobilization of reserve units, and personnel issues related to both active and reserve components, aiming toward providing a basis for a more detailed assessment to follow.

World events in late 1989 and into 1990 described in Chapter I conspired to lessen the appropriateness of the AMOPS and TMOPS, as well as documents derived from the planning systems, especially that which attempted to translate mobilization plans for soldiers. Publications such as the *TRADOC Mobilization Primer* (June 1990) used examples which assumed tensions between the Warsaw Pact and NATO building over time. Saber rattling and troubling intelligence information allowed for several months' adequate peacetime planning. Warsaw Pact exercises posed real enough threats to warrant a contingency call-up. Escalating tensions, in the *Primer* examples, sent the president to Congress, seeking partial mobilization authority. Finally, outbreak of hostilities in different parts of the world, most especially Europe, led to full mobilization.³

Initial Mobilization

(FOUO) Circumstances of the crisis in Southwest Asia, just two months after publication of the *Primer*, played much differently from this script. Initial events which provoked U.S. intervention were measured in hours and days rather than months. Desert terrain differed radically from verdant Central Europe. And not least, elements of the disintegrating

2 (1) *TRADOC Mobilization Primer*, Jun 1990, pp. 3-7. (2) Army Regulation 5-9, Intraservice Support Installation Area Coordination (1984), outlined responsibilities for "coordinating installations. In short, TRADOC installations which were not mobilization stations but which served as home stations for mobilized units were to support those units in their movement to their mobilization stations.

3 *TRADOC Mobilization Primer*, Jun 1990, pp. 17-43.

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Warsaw Pact, led by the Soviet Union, supported the coalition against the Iraqis, spearheaded by U.S. forces.⁴

Initial mobilization planning and the limited call-up of reservists precipitated by the Iraqi invasion of Kuwait and the U.S. decision to intervene, raised several questions concerning the readiness of reserve forces and the anticipated roles of units called up. If units came into TRADOC mobilization stations under strength, either in personnel or equipment, would assets come from Forces Command, excess stocks, or would TRADOC have to make up the difference? Army Chief of Staff General Carl E. Vuono had already made the decision that all combat units would deploy at a hundred percent strength, but what about combat support or combat service support units? TRADOC Commanding General John W. Foss thought he knew the answer, but the question still needed to be asked. Likewise, the TRADOC commander realized from the outset the strictures that would be placed on accomplishing the command's mission, particularly training, without the assistance of active component Forces Command units stationed on TRADOC posts that would be deployed and individual TRADOC soldiers who would deploy. Nevertheless, he expressed early on his wariness of using the reserve component to replace deploying units or individuals in the training cadre or responsible for base operations. Doing so risked putting troops in place who were unfamiliar with the mission, and limited the number of combat units and replacements available to the theater commander, given the limitations placed by the call-up process, even with presidential authorization. Ultimately, General Foss decided to consider use of reservists for TRADOC missions on a limited case-by-case basis, with each case considered and approved by Headquarters TRADOC before going on to the U.S. Army Personnel Command. Commanders of TRADOC subordinate organizations were not uniformly pleased by the decision, which also meant that additional missions levied by mobilization, such as port support, would come from

⁴ DSSSP, Chronology, pp. C-1 to C-19. (FOR OFFICIAL USE ONLY)

existing (i.e., dwindling) assets. The impact of General Foss's decision is discussed throughout this report. TRADOC planners hoped, but were not sanguine, that reserve units scheduled to man replacement centers would be included, despite emphasis on getting deployment rather than support troops into the system.⁵

Because of TRADOC's role in supporting, rather than planning, deployment, the command's ability to control use of its own assets was somewhat limited. After a period of indecision about what, precisely, constituted full readiness, U.S. Army Personnel Command assigned TRADOC responsibility for insuring that combat units deployed at a hundred percent strength. This required identification of replacement individuals from non-deploying active component Forces Command units at installations, or from TRADOC assets. In most instances, directives requiring individual deployment from TRADOC went directly to subordinate organizations from Personnel Command in the name of the Army's Deputy Chief of Staff for Personnel, bypassing Headquarters TRADOC. Depending upon the status of particular Forces Command units and manning at TRADOC installations, this direct-line tasking impeded efforts to adjust, or "cross-level," assets within organizations and across the command. TRADOC installations increased the length of the list of impaired mission requirements in direct proportion to the number of personnel levies from Personnel Command. Particularly hard-hit were installations such as Forts Knox, Sill, and Rucker dependent upon combat support and combat service support units which deployed with notable augmentation from TRADOC assets.⁶

5 (1) Memorandum for Record ATBO-JOE, 14 Aug 1990, subj: Operation DESERT SHIELD 131600Z Aug 90 Brief to CG. (2) Memorandum for Record ATBO-JM, 17 Aug 1990, subj: Operation DESERT SHIELD Summary #2. (3) Memorandum for Record ATBO-JM, 19 Aug 1990, Operation DESERT SHIELD Summary #4. (4) Memorandum for Record ATBO-JM, 22 Aug 1990, subj: Operation DESERT SHIELD Summary #7. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

6 (1) Memorandum for Record ATBO-JM, 16 Aug 1990, subj: Operation DESERT SHIELD Summary #1. (2) Memorandum for Record ATBO-JM, 17 Aug 1990, subj: Operation DESERT SHIELD Summary #2. (3) Memorandum for Record ATBO-JM, 22 Aug 1990, subj: Operation DESERT SHIELD Summary #7. (4) Memorandum for Record ATBO-JM, 28 Nov 1990, subj: Operation DESERT SHIELD Summary #27. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

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In other instances, anticipated needs of the Southwest Asia mobilization pointed out the critical shortage of soldiers fully trained in certain military occupational specialties (MOS), such as M1A1 Abrams tank crewmen, unit supply specialists, medical specialists, and motor transport drivers. These shortfalls, as well as shortages of MOS which would result from the exigencies of war, raised early questions in TRADOC about accelerated classes, cross-training of soldiers with similar skills, and the capability of the training base to sustain production of critical skills given the heavy impact of mobilization and the decision not to fill training vacancies with reservists on a one-for-one basis.⁷

(FOUO) President George Bush issued the presidential 200,000 call-up of reserve personnel on 22 August 1990, to be effective 27 August. First plans for the call-up fell into three phases—Phase 1, focusing on easily deployed forces aimed at deterring Iraqi aggression in the theater; Phase 2, mobilizing forces for defensive operations; and Phase 3, mobilizing units with an offensive mission. (As mobilization continued on into the new year, eight phases were eventually defined, each with subphases; subsequent phases were used for administrative purposes rather than to define missions, as other considerations drove activation sequencing). The following day, 23 August, the Secretary of Defense set the Phase 1 call-up level at 48,800. Public law limited the call-up to units and individuals from the Selected Reserve, composed of units, individual mobilization augmentees (IMA), and Active (National) Guard Reserve (AGR). Not included were members of the Individual Ready Reserve (IRR), who could be included only if partial mobilization were invoked. The Individual Ready Reserve was composed primarily of soldiers who had separated from the active force before the expiration of their service agreements. Specified categories for the initial call of Army personnel included installation support, Army Medical Department

⁷ (1) Memorandum for Record ATBO-JOE, 14 Aug 1990, subj: Operation DESERT SHIELD 131600Z Aug 90 Brief to CG. (2) Memorandum for Record ATBO-JM, 18 Aug 1990, subj: Operation DESERT SHIELD Summary #4 (Both SECRET/NOFORN/ WNINTEL—Info used is UNCLASSIFIED)

(AMEDD) support, training base expansion, strategic signal support, depot support, port operations, and theater defense. On the same date, 23 August, General Foss affirmed his intention to perform TRADOC's mission with existing TRADOC assets, using no reserve component units as replacements for deployed units. Use of individual mobilization augmentees would require justification based on direct support of Desert Shield, not on supporting peacetime missions affected by deployment.⁸

The Department of the Army issued its first mobilization order on 25 August, with an effective date of 27 August, calling up 45 units to TRADOC mobilization stations, four of which were medical. A second order carried an effective date of 28 August, adding eight medical units to the call-up and alerting 115 other units. Fourteen TRADOC installations served as mobilization stations, including Forts Benjamin Harrison, Benning, Bliss, Dix, Eustis, Gordon, Huachuca, Jackson, Knox, Lee, Leonard Wood, McClellan, Rucker, and Sill. Of these, Benning, Dix, Eustis, Gordon, Jackson, Knox, Lee, McClellan, and Rucker received personnel in the first wave, between 27 August and the end of the month; all but one of the activated reserve units had reported by 31 August. All mobilization stations had processed units by the end of September.⁹

Simultaneously with issuance of the first mobilization order on 25 August, the Secretary of the Army initiated STOP LOSS, a directive designed initially to suspend separations, whether by resignation, expiration of service agreements, non-selection for promotion, or regular retirement at less than twenty years, for soldiers in selected critical

8 (1) DSSSP, p. C-1. (FOR OFFICIAL USE ONLY—Info used is UNCLASSIFIED) (2) Memorandum for Record ATBO-JM, 27 Aug 1990, subj: Operation DESERT SHIELD Summary #8. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (3) TRADOC Mobilization Primer, pp. 16, 24-26. (UNCLASSIFIED) (4) Memorandum for Record ATBO-JM 11 Sep 1990, subj: Operation DESERT SHIELD Summary #13. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

9 (1) Memorandum for Record ATBO-JM, 27 Aug 1990, subj: Operation DESERT SHIELD Summary #8. (2) Memorandum for Record, ATBO-JM 2 Oct 1990, subj: Operation DESERT SHIELD Summary #19. (Both SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

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military occupational specialties (MOS). STOP LOSS was implemented on 1 September, and applied to reservists as well as the active component in the categories noted above, affecting mobilized and alerted units and individual mobilization augmentees. Moreover, on 11 September the secretary authorized involuntary mobilization of up to five hundred regular Army or reserve retirees. Volunteers from among the retired cadre with specialized skills were already being placed back on active duty as permission for an involuntary recall was received. Ultimately, STOP LOSS was extended on 1 December to include all MOS and to halt normal rotation from overseas assignments.¹⁰

(FOUO) Since mobilization plans were predicated on a temporal framework which did not exist in the case of the Gulf crisis, the two-weeks' delay between the onset of the crisis and initiation of the 200,000 call-up, coupled with inability to call the Individual Ready Reserve, caused severe problems. Active component units, which could deploy within hours or days, were hampered by the absence of reserve units serving ports. Likewise, the interval also handicapped mobilization of echelon-above-corps headquarters and the roundout brigades.¹¹

While in general terms the 200,000 mobilization proceeded smoothly between September and December, serious problems did challenge TRADOC. As noted above, reserve units appeared at mobilization stations in conditions of less than full readiness, based on a shortage of personnel, insufficient training, or a lack of proper equipment. Many of these issues are dealt with in detail in succeeding chapters of this monograph. TRADOC, not directly privy to the strategic plan for the operation, was not always aware of the criteria governing which units were alerted and activated, nor where or when, except as the Department of the Army issued orders. Questions arose about who had the authority to validate units as mission capable. Availability of transportation did not always synchronize with the readiness of units to deploy, or even get to ports of embarkation. Nor was the shipment of personnel and their equipment

10 (1) Msg, HQDA to distr, 240300Z Aug 90, subj: Suspension of Voluntary Separation of Officers and Enlisted Personnel (STOP LOSS) for Reserve and National Guard. (2) Msg, Cdr PERSCOM to distr, 292200Z Aug 90, subj: Suspension of Voluntary Separation of Officers and Enlisted Personnel (STOP LOSS). (Both UNCLASSIFIED) (3) Memorandum for Record ATBO-JM 6 Dec 1990, subj: Operation DESERT SHIELD Summary #28. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

11 DSSSP, Vol I, I-3-1 to I-3-2. (FOR OFFICIAL USE ONLY)

always well orchestrated. At the peak of the process, mobilization stations were full to overflowing, using facilities which were not always satisfactory. And special needs, most especially training, dictated a change in mobilization stations for some units, a circumstance not always pleasing to either the unit or the mobilization stations involved.

(FOUO) TRADOC Headquarters had been concerned with the validation issue from the outset of mobilization. No agency was more aware of the equipment and training status of the ready reserve than the Training and Doctrine Command, which ran schools attended by reservists and coordinated with the Army Reserve and the National Guard Bureau on reserve schools and Army National Guard training. Ultimately, of course, Forces Command was responsible for each unit's status, but could do little to flesh out personnel shortages or offer individual or unit training. Neither command knew, or could predict with any reliability, how many reservists would be non-deployable because of physical status such as illness, exceeding the weight profile, or advanced pregnancy. Offering up TRADOC personnel strained an already thin base operations cadre at a time when the workload rose exponentially. As noted, General Foss's decision not to use reserve units or individuals for peacetime operations was not well received or understood in the field. Nor would the TRADOC commander or chief of staff stretch rules governing soldiers who were found to be non-deployable to allow mobilization stations to use them for missions other than those related directly to Desert Shield. If individual soldiers were deficient in training or within reach of an acceptable physical profile, they were retained until they were ready for deployment. If the unit or the mobilization station made the decision that no recovery was possible, the individual was released from active duty and returned home. TRADOC officials expressed concern throughout the mobilization process that too many nondeployable soldiers slipped through home stations and coordinating installations, where many could have been identified and sent home. Sending personnel such as women in the third trimester of pregnancy to mobilization stations unnecessarily inconvenienced the individual and wasted time and money, both scarce commodities at TRADOC installations. The theater commander's requirement for panoramic dental x-rays (panorex), critical for casualty identification and accountability, and the requirement for a general dental screening prior to deployment, revealed a host of dental problems among

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reservists, most of which had to be corrected before deployment was allowed. This circumstance led planners to suggest that the selected reserve, at least, be allowed access to dental care during periods of inactive duty for training as well as active duty periods, so that such backlogs would not occur in the future. Because of the rapid buildup, reserve unit mobilization had peaked before procedures could be tightened sufficiently enough to resolve this problem. Remarkably, however, the percentage of non-deployables in the reserve and active components was about the same, approximately seven percent.¹²

Except for overarching categories of skills needed for general strategic goals, TRADOC planners were generally not informed regarding specific units to be mobilized at specific times, and learned these facts with the rest of the Army as orders were issued. In fact, for any given set of alerted units, activation priorities changed routinely in consonance with requirements articulated by the theater commander or because of predicted availability of transportation matching the profile of the unit. If, for example, a military intelligence battalion with light equipment requirements and an attack helicopter battalion were each alerted, the MI unit might receive higher priority for activation as planners anticipated the availability of aircraft transportation with no supporting sealift. Such information became critical to TRADOC insofar as it created a surge in arrivals at mobilization stations, straining facilities. Infrequently, units were allowed or required to change mobilization stations because of proximity to training required for validation or scheduled ports of embarkation.¹³

12 (1) Memorandum for Record ATBO-JM, 25 Sep 1990, subj: Operation DESERT SHIELD Summary #17. (2) Memorandum for Record ATBO-JM, 24 Oct 1990, subj: Operation DESERT SHIELD Summary #22. (3) Memorandum for Record ATBO-JM, 31 Dec 1990, subj: Operation DESERT SHIELD Summary #31. (All (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (5) DSSSP, Vol I, p. I-3-33; Vol V, p. V-5-4 to V-5-5. (FOR OFFICIAL USE ONLY)

13 (1) Memorandum for Record ATBO-JM, 17 Aug 1990, subj: Operation DESERT SHIELD Summary #2. (2) Memorandum for Record ATBO-JM, 19 Aug 1990, subj: Operation DESERT SHIELD Summary #4. (3) Memorandum for Record ATBO-JM, 21 Sep 1990, subj: Operation DESERT SHIELD Summary #16. (4) Memorandum for Record ATBO-JM, 25 Sep 1990, subj: Operation DESERT SHIELD Summary #17. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

Reserve units arrived at mobilization stations in all degrees of readiness; thus, some mechanism needed to be employed to determine when deployment was possible. Initially, TRADOC's concerns centered around the question of when a unit was considered deployable. As time went on, emphasis shifted from specific questions to general policies. As late as October, the TRADOC chief of staff knew of no adequate guidance on unit, versus individual, validation of readiness. As with many of the lessons learned in the process of mobilization, permanent solutions never really came before the immediate need was obviated by events.¹⁴

In general, transportation for deploying units was available as needed. Problems centered on accountability rather than availability; a lack of automation required manual creation of passenger and equipment manifests, and confusion arose over the transition of the peacetime U.S. Air Force Military Airlift Command (MAC) to the wartime U.S. Transportation Command (TRANSCOM). As discussed above, projected availability of transportation sometimes dictated the order in which alerted units were activated, and as requirements from the theater placed time pressure on deployments, demand rose for transportation of units and their equipment entirely by air. Difficulties in validating the readiness of some units delayed their arrival at the appropriate port of embarkation, which occasionally resulted in shipment of unit equipment unsynchronized with unit personnel movement. Truly serious transportation difficulties did not arise, however, until activation of replacement centers and mobilization of the Individual Ready Reserve, discussed below.

(FOUO) Activated reserve component units arrived at mobilization stations throughout the command to find facilities that were sufficient, if not totally adequate or up to standards. In many cases, particularly at Forts Knox, Jackson, Benning, and Rucker, units were housed in "temporary" wooden structures dating from World War II, which had been scheduled for destruction as part of the effort to modernize Army posts.

14 Memorandum for Record, ATBO-JM, 11 Oct 1990, subj: Operation DESERT SHIELD Summary #20. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) Some *ad hoc* solutions were implemented, such as deferring equipment repair to theater when maintenance units had already deployed.

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Occasionally, at peak processing times, off-post commercial housing was required. Likewise, facilities at ports of embarkation were adequate. In some cases, such as at Newport News, equipment was required from the port support installation to load ships.¹⁵

The Iraqi invasion of Kuwait was the first crisis requiring a 200,000 presidential call-up under the provisions of Title 10, 673(b), USC. Because of the uncertain political climate regarding the United States role in Southwest Asia, most especially in the Congress, sequencing of mobilization events did not always proceed smoothly as TRADOC would have wished. Buildup of men and materiel in the first 75 days of the operation, for example, made the need for a ninety-day extension of active duty an absolute necessity, yet the extension was not issued until 14 November, a week and a half before the initial mobilization period was to expire. Mobilization and deployment never ceased, or even wavered, but the nearness of the extension to expiration made planners exceedingly nervous. Moreover, the requirement for the extension demonstrated that, given the strategic implications of mobilization and deployment, the full 180-day term of the presidential call-up was insufficient. The 200,000 cumulative limit on call-up did not allow for sufficient manpower to implement fully the structure supporting mobilization, at least that which was drawn from the reserve component, especially if the theater commander's needs were to be given first priority; hence General Foss's decision not to use reservists from initial mobilization for TRADOC missions. And terms of the 200,000 contingency call-up did not allow for mobilization of the Individual Ready Reserve, a critical resource for replacing troops rotating from the theater and, in the event of hostilities, casualties. Despite the decision not to use reservists from the 200,000 call-up in TRADOC units, theater logistics needs were severely hampered and caused the theater commander a great deal of frustration in the early months of the deployment.

Partial Mobilization

Discussion of partial mobilization formally surfaced in TRADOC in mid-October. Advocates of partial mobilization pointed out that the presidential 200,000 call-up was an expedient, rather than a distinct level

¹⁵ DSSSP, Vol. I, p. I-3-62. See also Vol. 3, Chapter 5, subsection H. (FOR OFFICIAL USE ONLY)

of mobilization, designed to activate reserve forces quickly to meet immediate needs. Now that the scope of the operation was fairly clearly defined, the argument went, a declaration of partial mobilization was the next logical step. The Individual Ready Reserve was needed for both the sustainment base and for replacements. An increase of the call-up ceiling to a million reservists allowed sufficient flexibility to activate units critical to continuing deployment, such as those slated for expansion of the training base, easing the strain on continental United States forces and installations, activation of replacement centers, and sustaining logistical support both at installations and ports of embarkation. Deficiencies in the AMOPS and TMOPS as regards the specifics of the Gulf crisis notwithstanding, partial mobilization offered planners considerable breathing room not available using the 200,000 authorization.¹⁶

Planning for initiation of continental United States replacement centers, and limited activity aimed at activating the concept, began in early September 1990. Problems encountered in making the concept a reality, and the activation and operation of the centers themselves, are discussed below. It is sufficient to note here that two replacement centers, Fort Benning and Fort Jackson, activated on 9 December 1990, and processed active component unit replacements to expedite deployment and to test the system, despite the fact that no announcement of any plans for a move to partial mobilization had been made, nor was TRADOC aware of any decision to that end. The third replacement center, at Fort Knox, joined the other two in full structural implementation on 27 December, without, however, being fully manned. For a more thorough accounting of replacement centers, see Chapter III.¹⁷

Though still unable to "get into DA's headspace on just what their plans [were]," in the words of one briefer, TRADOC surmised by early

16 (1) Memorandum for Record ATBO-JM, 11 Oct 1990, subj: Operation DESERT SHIELD Summary #20. (2) Memorandum for Record ATBO-JM, 24 Oct 1990, subj: Operation DESERT SHIELD Summary #22. (3) Memorandum for Record ATBO-JM, 31 Oct 1990, subj: Operation DESERT SHIELD Summary #23. (4) Memorandum for Record ATBO-JM, 14 Nov 1990, subj: Operation DESERT SHIELD Summary #25. (5) Memorandum for Record ATBO-JM, 21 Nov 1990, subj: Operation DESERT SHIELD Summary #26. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (6) DSSSP, Vol. I, pp. I-3-1 to I-3-10. (FOR OFFICIAL USE ONLY)

17 (1) Memorandum for Record ATBO-JM, 18 Oct 1990, subj: Operation DESERT SHIELD Summary #21. (2) Memorandum for Record ATBO-JM, 24 Oct 1990, subj: Operation DESERT SHIELD Summary #22. (Both SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

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January that a presidential declaration of emergency and extension of mobilization was imminent. By 10 January, the Department of Defense had used all but ten thousand of the initial call-up; the remainder was offered to TRADOC "for early call of some RC training base units." The secretary of defense told reporters the day before that his department was looking into "regulatory authorities that would allow the extension of reservists for up to two years." And, in fact, a week later, concurrently with the beginning of the allied air strikes on 17 January and the advent of Desert Storm in place of Desert Shield, the secretary announced the presidential declaration of emergency, effective 19 January 1991, simultaneously extending the duration of existing call-ups to 360 days and authorizing mobilization of over twenty thousand individual ready reservists. Order number 3, which appeared the next day, authorized mobilization of training base units.¹⁸

(FOUO) As noted above, the Individual Ready Reserve was composed of those personnel who separated from the active component before the expiration of their length-of-service agreements. The Individual Ready Reserve could not be recalled involuntarily until the presidential declaration of emergency under partial mobilization. Of particular interest to mobilization planners were those in the Individual Ready Reserve with military occupational specialties in short supply and those identified as part of the RT-12, having been trained or on active duty in the previous twelve months. It is worth noting here that several thousand members of the Selected Reserve and individual ready reservists had volunteered for recall to active duty as the president issued the 200,000 recall proclamation. In fact, Forts Benning and Jackson received and processed several hundred volunteer individual ready reservists with military occupational specialty 88M (motor transport driver), or those willing to cross-train, through the first days of the new year. The placement of volunteers on temporary tours of active duty provided forces not

18 (1) Memorandum for Record ATBO-JM, 24 Oct 1990, subj: Operation DESERT SHIELD Summary #22. (2) Memorandum for Record ATBO-JM, 31 Oct 1990, subj: Operation DESERT SHIELD Summary #23. (3) Memorandum for Record ATBO-JM, 14 Nov 1990, subj: Operation DESERT SHIELD Summary #25. (4) Memorandum for Record ATBO-JM, 11 Jan 1991, subj: Operation DESERT SHIELD Summary #23. (5) Memorandum for Record, ATBO-JM 17 Jan 1991, subj: Operation DESERT STORM Summary #1. (6) Memorandum for Record ATBO-JM, 22 Jan 1991, subj: Operation DESERT STORM Summary #3. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

accountable against the 200,000 limit. While advantageous in this respect, volunteers drawn from reserve units left holes, which drew down unit readiness and hampered training.¹⁹

(FOUO) The Army Reserve Personnel Center sent mailgram orders to initiate the involuntary recall of members of the Individual Ready Reserve RT-12 as well as emergency travel warrants (ETO). About ten percent of the mailgrams proved undeliverable. Those who received notification were ordered to report to mobilization stations on 31 January 1991. Overall, about three-quarters of the RT-12 eventually reported as ordered, surpassing reserve personnel center expectations, given the state of RT-12 record-keeping. Mobilization stations experienced a whole host of difficulties in processing individual ready reservists, stemming in great measure from a lack of experience. Problems included mailgrams with significant errors requiring amendment or correction, reluctance of the carriers to accept the travel warrants, and personnel who arrived with no personnel or medical records, necessitating on-the-spot regeneration with all the inaccuracies inherent in such a process. Panorex were in most cases not available and needed to be generated. Since the reserve personnel center had not conducted sufficient prior screening of Individual Ready Reserve lists, non-deployable individual ready reservists reported as well, including those who had been originally discharged for medical reasons. Many individual ready reservists reported to mobilization stations that had no clothing initial issue points, were not the posts where their skills were trained, and were not the posts from which they would deploy, necessitating transshipment of soldiers and newly issued equipment. And, despite the fact that most of the RT-12 had separated from the Army less than a year before, some had training levels below necessary proficiency and others were required to cross-train or retrain into secondary specialties as a result of urgent requirements defined by Personnel Command in response to the theater commander. These issues are discussed in more detail in subsequent chapters on replacement centers and training.²⁰

19 See DSSSP, Vol V, Chapter 6. (FOR OFFICIAL USE ONLY)

20 DSSSP, Vol V, Chapter 6. (FOR OFFICIAL USE ONLY)

Civilian Personnel and Retirees

(FOUO) Increasing dependence of the Army on the civilian cadre, particularly in support activities, meant that TRADOC had to take notice of civilian mobilization as well as the military. Likewise, deployment of new and sometimes untried combat and weapons systems required deployment of contractor support. As with the military, scenarios for mobilization of civilian personnel focused on a European theater against a Warsaw Pact threat, and were therefore not always applicable. Few civilians already worked in Southwest Asia, and few procedures equivalent to replacement centers existed for processing civilians from the continental United States to the theater. This circumstance led to a requirement for developing procedures ad hoc, an enterprise which was less than totally successful. Part of the problem stemmed from the decentralized nature of civilian personnel management through local civilian personnel and finance offices, and the lack of any governmental control over, or accountability for, contractor personnel. Guidelines for selecting civilians were also not completely clear. Those in positions designated "emergency essential" were many times not the ones who were needed for deployment to Saudi Arabia, and many of the personnel with skills that were essential were not properly designated. TRADOC developed general procedures for processing civilian personnel and distributed them to replacement centers in January, but implementation was not uniform. Consequently, issuance of clothing and field gear and the gathering of medical and personnel information varied widely. Even with proper equipment, such as nuclear-biological-chemical masks and clothing, civilians had not received training in how to use it or what to do. Responsibility for health care and accountability was also not clearly delineated. The theater commander's requirement for panorex was not enforceable for civilians, and casualty identification and accounting would have been hampered considerably.²¹

Because of the need for increased base operations support, simultaneous with a diminishing cadre, TRADOC installations sought permission to hire temporary civilian personnel to fill needs created by

21 (1) Memorandum for Record ATBO-JM, 7 Nov 1990, subj: Operation DESERT SHIELD Summary #24. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (2) DSSSP, Vol V, Chapter 1, deals exclusively with civilian personnel issues. (FOR OFFICIAL USE ONLY)

the mobilization and deployment. The initial problem stemmed from a freeze imposed on the hiring of civilian personnel by the Secretary of Defense in January 1990. In mid-August, the secretary waived the freeze for positions demonstrably in support of Desert Shield. By the end of March 1991, more than sixteen hundred temporary hires were in place across TRADOC in support of replacement centers, maintenance activities, and base operations. Such hirings sometimes created awkward situations for commanders who, in the midst of the overall effort to cut the size of the Army, were conducting reductions in the permanent civilian work force. Some civilians on TRADOC posts whose permanent jobs disappeared moved into temporary Desert Shield positions, retaining employment for the short term.²²

(FOUO) As with some members of the Individual Ready Reserve, retirees reporting for active duty, whether voluntary or involuntary, often had *insufficient or nonexistent personnel and medical records*. Mobilization stations had in most cases to reconstruct records nearly from scratch. The concept of returning retirees to active duty, voluntarily or involuntarily, was unusual enough that some suffered financial hardship when civilian institutions had no experience in handling retiree recalls. Those who had been away from the Army for several years found organizational changes to be, in some cases, a severe handicap.²³

Synopsis of Mobilization

(FOUO) The Department of Defense declared D-day for Operation Desert Storm as having begun at 2400Z 16 January 1991, with the first air attacks on Iraqi targets. Ground operations began on 24 February and ended with imposition of a cease-fire on 28 February. The unexpectedly short ground war, which ended in a hundred hours with amazingly few casualties in relation to the number of troops involved, alleviated pressures on the mobilization process, such as operating replacement centers

22 (1) Memorandum for Record ATBO-JM, 31 Dec 1990, subj: Operation DESERT SHIELD Summary #31. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (2) Briefing, HQ TRADOC CPG, n.d. [Sep 1991], subj: How TRADOC Went to War. (UNCLASSIFIED)

23 (1) Memorandum for Record ATBO-JM, 14 Sep 1990, subj: Operation DESERT SHIELD Summary #14. (2) Memorandum for Record ATBO-JM, 21 Sep 1990, subj: Operation DESERT SHIELD Summary #16. (Both SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (2) DSSP, Vol I, pp. I-3-52, I-3-71 to I-3-72. (FOR OFFICIAL USE ONLY)

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at and beyond planned peak processing loads, which may have highlighted problems not apparent with diminished requirements. Mobilization stations and replacement centers functioned generally well, processing a total of 123,415 selected reservists in 1,038 units, and 22,343 members of the Individual Ready Reserve and individual mobilization augmentees. Coupled with the active component, these reservists comprised a population the size of the city of Atlanta, Georgia, which was marshaled and moved with sufficient supplies and equipment halfway around the world in approximately five months.²⁴

Redeployment and Demobilization

Massive mobilization and deployment required massive redeployment and demobilization at the conclusion of Desert Storm, in an operation dubbed "Proud Return." This process involved more than merely throwing existing organizations and procedures into reverse. In fact, planning for demobilization had begun within Forces Command as early as October 1990, prior to the first 90-day extension, with provision of rules for requests for release of reserve units from active duty. First written plans were sent out for comment later the same month. When Proud Return commenced in the days immediately after Desert Storm's completion, all three of the replacement centers began receiving returning personnel. By 15 March, Forts Benning and Knox closed their replacement centers; Fort Jackson remained open until 15 May to accommodate later returnees. The next month, Fort Dix opened a processing point for reserve and active duty units deploying to sustain forces still in theater for peacekeeping and humanitarian missions. It processed more than 3,500 troops before closing on 25 August.²⁵

24 DSSSP, Vol. I, pp. I-3-1 to I-3-8. (FOR OFFICIAL USE ONLY)

25 (1) Memorandum for Record ATBO-JM, 18 Oct 1990, subj: Operation DESERT SHIELD Summary #21. (2) Memorandum for Record ATBO-JM, 24 Oct 1990, subj: Operation DESERT SHIELD Summary #22. (Both SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (3) Briefing, HQ TRADOC CPG, n.d. [Sep 1991], How TRADOC Went to War. (UNCLASSIFIED)

Chapter III

LOGISTICS AND THE CONUS REPLACEMENT CENTERS

Logistics drove the train of war. The basic facts of military supply, movement, and quartering became very clear during the mobilization required for Operation Desert Shield and made possible the success of Operation Desert Storm. From the Headquarters TRADOC perspective, logistics concerns focused on the CONUS (continental United States) Replacement Centers (CRCs). In the main, TRADOC did not handle the logistics for deploying active component units. TRADOC's responsibilities were associated with the four basic wartime missions of TRADOC, those being assisting FORSCOM in mobilizing troop units, expanding the training base as necessary, establishing CRCs, and expediting combat developments.

Activation of the CONUS Replacement Centers: Lessons and Problems

One of the highlights of Operations Desert Shield and Desert Storm, from the TRADOC Headquarters vantage point, was the mobilization and activation of the CONUS replacement centers. The CRC concept dated from 1984, and had been exercised specifically at Fort Jackson and Fort Lewis, but for all intents and purposes had never been fully tested. With the initiation of mobilization, the replacement center concept came fully to life.

At the time of Operations Desert Shield and Desert Storm, designated replacement center sites included Forts Dix, Jackson, Lewis, Benning,

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Knox, Ord, Sill, and Leonard Wood. All but Forts Lewis and Ord were TRADOC installations. Any or all could have been activated for the Persian Gulf Crisis, had that been necessary. Generally the number of replacement centers to be activated and specific installations selected was dependent upon the location of the conflict and its intensity as well as the replacement center's geographic proximity to air and seaports. For Operation Desert Shield, three replacement center sites were eventually selected for activation—Forts Benning, Jackson, and Knox—based on their proximity to the eastern seaboard and the projection of a relatively short mid-intensity conflict. Other factors were involved as well. Initially, Fort Dix was considered because of its position in the northeastern corridor, proximity to air and seaports, and training center status. As late as 7 September, planners were still considering Fort Dix to receive overflow from the primary replacement centers at Forts Jackson and Benning, with Fort Knox designated to open a CRC facility at the commencement of hostilities. Fort Dix was ultimately not chosen, however, because under base realignment and closure policy it was slated to be closed. In its stead Fort Knox was added.¹

The first, and perhaps most significant, lesson learned concerning the CRC concept was the lack of knowledge surrounding it prior to the mobilization. Everything about it, from what the acronym stood for, to whom it belonged, and what it was supposed to do, was unknown to a great many people within the Army. This caused considerable confusion in the opening weeks as major players were briefed and rebriefed concerning the replacement center's status, organization, mission, and function.

The second most apparent lesson learned concerning the CRCs, according to all replacement center and installation participants, was the lack of a clear chain of command. This was echoed and stressed at all three replacement center installations. Those personnel who were actually operating the replacement centers had no idea who was in charge

¹ (1) TRADOC Mobilization Primer, June 1990. (2) TRADOC Pam 350-8, TRADOC Primer, February 1988. (3) FM 12-6, Personnel Doctrine, August 1989. (4) DRAFT CONUS Replacement Center Handbook (DA Pamphlet 600-XX), 27 March 1991. (5) Memorandum for Army Staff Working Group Conference on CRCs, HQ MTMC, 15 December 1986, subj: Transportation Issues Effecting CRC Site Selection. (All UNCLASSIFIED) (6) Msg, Cdr TRADOC to Cdrs Forts Jackson, Benning, Knox, Dix, 071735Z Sep 90, subj: Clarification of CONUS Replacement Centers Mission. (SECRET—Info used is UNCLASSIFIED)

above them as each higher headquarters—the Department of the Army, the Personnel Command, the Forces Command, TRADOC, and the Health Services Command—acted as if it was. All three replacement centers reported receiving guidance from each headquarters, all authoritative and all conflicting. Although not exercised for Operations Desert Shield or Desert Storm, that brought up the overall question of control. Given that two replacement center sites were located on FORSCOM installations, should TRADOC and FORSCOM share responsibilities for the CONUS replacement centers? Would the operation be more efficient with a single chain of command? The issue was never resolved during the mobilization.

TRADOC, as the executive agent for the replacement center, had responsibility for its training and doctrine development; operational project stock development, distribution, and management; and budget program development. TRADOC provided training guidance to TRADOC replacement center installations, supported the replacement center mission during peacetime training, and provided base operations support during execution. The replacement center provided command and control of non-unit related personnel flowing to the theater of operations. Individuals were called up and reported to the replacement center from their mobilization station to spend approximately four days processing for deployment. The replacement centers received and processed all Army individual replacements, crews, teams, small detachments, and civilians; provided billeting, food service, and other required support functions; insured that replacements were prepared for deployment and verified their soldier readiness program, or SRP, requirements² (SRP requirements were to be completed at the home or mobilization station prior to arrival at the replacement center); and issued organizational clothing and individual equipment. In effect, the replacement center was a staging area.

Optimally, the CRCs received ready-to-fight replacements from CONUS installations, verified their SRPs, and staged them for movement

² The soldier readiness program replaced the familiar POR—preparation of replacements for oversea movement—and was the process whereby a soldier verified that he was ready to ship. SRP requirements included such things as an updated will, power of attorney, family care plan, necessary immunizations and dental work, and finance.

to the aerial ports of embarkation where transport aircraft from the Military Airlift Command would fly them to the theater. That was the sole mission and function of the replacement center.³ As ephemeral organizations, they only existed to fulfill their specific function. They had, therefore, no permanent structure as concerned buildings, equipment, or personnel. For Operations Desert Shield and Desert Storm, the replacement center functioned only to verify SRP, and their processing capability was limited. Many soldiers arrived having been incompletely prepared for oversea movement. Although preparation of the soldier was the responsibility of the losing installation, many installations either did not understand guidance issued in AR 600-8-101 or did not have the opportunity to complete the soldier readiness program process. As that process involved numerous stations, with varying degrees of complexity, incomplete SRPs created bottlenecks for the soldiers and increased workload for the cadre. Worse, SRP processing and verification, designed to be done quickly on automated equipment able to tap into an existing database, did not work. At all three replacement centers, equipment and systems were lacking or incompatible, causing laborious manual entry of data, inaccurate entries, and lost records. To say the mobilization effort was not automated going in was a definite understatement.⁴

Stocking the CONUS Replacement Centers

For Operations Desert Shield and Desert Storm, replacement center operations were housed on the three installations in what was colloquially termed "World War II wood." Those structures were generally outdated, substandard structures scheduled for demolition as new construction was planned. Ironically, had the structures not been available for use, installations would have been hard-pressed to provide the 2,000 to 2,500 billets and the necessary administrative offices required.

³ For Operations Desert Shield and Desert Storm, totals of 20,988 replacements arrived at the three CRCs and 19,115 departed.

⁴ Desert Shield oral history interview with Mr. Robert Houston, MISD, DCSBOS, HQ TRADOC, 1 April 1991, by Dr. Susan Canedy and Mr. Ed Burgess.

The replacement centers began receiving equipment from operational projects in early September.⁵ Weapons delivery began mid-month. Equipment lists had to be reviewed to provide necessary equipment for the desert scenario. Ideally, the replacement centers should have been able to take possession of the stockage from the operational project within a week's time. From that point the wholesale system was designed to feed the operational project. However, for this contingency, one of the initial, and major, problems was the fact that there was virtually no stock in the operational project.⁶ Consequently, stockage built up incrementally at all three replacement centers during the fall of 1990.

The Army had approved a \$485 million operational project, but had failed to fund it. Therefore, the operational project had received very little stock. What little stock had been put into it had been placed there by the Army Materiel Command (AMC). With the beginning of the deployment to Southwest Asia, AMC pulled stock from the operational project to fill urgent unit deployment requirements.⁷ Furthermore, there was insufficient organizational clothing and individual equipment in the wholesale system to stock the project for the replacement centers. Clothing and equipment had to be "scrounged" and apportioned across installation, major Army command, and, in the case of body armor and squad automatic weapons, across national armies. There was not enough accessible body armor in the United States to supply the anticipated surge for replacements. Squad automatic weapons were also obtained from other armies to fulfill training missions at Fort Benning.⁸ Clothing and equipment shortages were also keenly felt with chemical defensive gear, most

- 5 In the grand scheme of what was called the CRC flow, CRCs received organizational clothing and individual equipment to hand out to soldiers as they processed through. The equipment was the stockage that was held within the operational project. The operational project was the stockage level that was held in depots earmarked for specific contingency operations and was similar to the war reserve in concept.
- 6 Oral history interviews with Ms Dawn Hustus, DCSBOS Directorate of Logistics, HQ TRADOC, 30 April 1991; Mr. Payton Hutsell, DCSBOS Directorate of Logistics, 30 April 1991, both by Dr. Susan Canedy and Mr. Ed Burgess.
- 7 Oral history interview with Mr. Payton Hutsell, ODCSBOS, HQ TRADOC, 26 April 1991, by Dr. Susan Canedy and Mr. Ed Burgess.
- 8 Oral history interview with MG Craig Hagan, DCST, HQ TRADOC, 22 February 1991, by Mr. Jim Byrn, Dr. Susan Canedy, and Mr. Ed Burgess.

markedly masks. Again, masks were apportioned across installation and major command. The problem was an overall shortage of this very important piece of equipment. Masks in stock were being called to support unit deployments as well as those units and individuals already deployed. The replacement flow through the CRC was, in effect, third in priority. Operations Desert Shield and Desert Storm brought to the fore the reality that there was not enough current organizational clothing and individual equipment to support full replacement center operations. To compound that difficulty, there was not a designated operational project fund with which to buy the necessary stock.⁹ Haggling over necessary funding continued well into the operation, creating dissonance between logistics and resource management planners: Which major Army command's money should be used to pay for the stock? Disputes between major command and the Department of the Army occurred daily, primarily centered on funding constraints and difficulties which hampered, or at least aggravated, the entire span of the operation.

Most funding uncertainties stemmed from the fact that the United States never moved into full mobilization. With the declaration of full mobilization, a host of legalities and constraints would have been removed or eased; mobilization short of full required more expedients. That was, perhaps, one of the chief complaints surrounding the entire operation. Planning had never incorporated the detail at levels less than full mobilization. And while the detail might or might not have been usable, had it been there, at least exercising it at lower mobilization levels would have provided the familiarity with the system that could have precluded much unnecessary effort.

Shortages in individual items of equipment were identified almost immediately, and continuously thereafter. The first items to come up in short supply were the desert camouflage battle dress uniform (BDU) and battle dress overgarment (BDO), and chemical protective gear. Shortages were met by obtaining supplies from other installations and stocks, letting emergency contracts to manufacturers, and occasionally buying

⁹ Oral history interviews with Ms Dawn Hustus, DCSBOS, HQ TRADOC, 30 April 1991, by Dr. Susan Canedy and Mr. Ed Burgess; Lt Col Jerry Ellis, Deputy AG, Fort Jackson, S.C., 14 March 1991, by Dr. Susan Canedy and Mr. Ed Burgess; Mr. Dean Rhody, DCSBOS, HQ TRADOC, 8 March 1991, by Mr. Jim Bym, Dr. Susan Canedy and Mr. Ed Burgess.

from existing commercial sources. Chemical protective gear was especially critical, since the lack of it made the soldier nondeployable.¹⁰

Early difficulties were experienced with those items scheduled to be rebuilt, or for which no further production had been scheduled. Production capability for the M16A2 rifle, for example, hinged upon conversion of the M16A1 to the A2 model, which was scheduled to cease in February 1991. Since the transition was under way, both models were in the field. That precipitated problems with supply, both immediate and projected. Much the same was experienced with the M17A2 chemical protective mask. No new production was scheduled for that item, and when shortages were projected, there was no immediate remanufacturing capability. Rebuild capability was available, but because of the large requirement immediately projected, shortages were anticipated, especially in popular sizes. The mask's next generation replacement, the XM40 had not been type tested nor approved at that time.¹¹

The CONUS Replacement Centers Adjust

The CONUS replacement centers at Forts Jackson and Benning were activated on 9 December. Active component unit replacements flowed through the system immediately, and the first soldiers exited on the 14th.¹² Although it was not a regulation replacement center mission, unit soldiers were sent through them to expedite their deployment to Southwest Asia and provide on-the-job training for the CRC system. At that point, the replacement center structure was not yet complete. Installation commanders, as commanders of the CONUS replacement centers, initially ran them with existing installation assets. That was a direct result of General Foss' decision to channel as many reserve assets as possible to directly supply the Commander-in-Chief, CENTCOM. As noted above, the TRADOC commander's decision resulted in the operation of

10 Msg, HQDA to distr, 230705Z Feb 91, subj: CDE and Protective Masks for SWA. (UNCLASSIFIED)

11 (1) Memorandum for Record ATBO-JM, 6 December 1990, subj: Operation Desert Shield Briefing Summary #28. (SECRET—Info used is UNCLASSIFIED) (2) Msg, Cdr TRADOC to Cdrs Forts Jackson and Benning, 311730Z Aug 90, subj: Guidance for CONUS Replacement Center Logistics Operations to Support Desert Shield. (UNCLASSIFIED)

12 (1) Msg, Cdr FORSCOM to distr, 011655Z Dec 90, subj: CONUS Replacement Centers (CRC). (UNCLASSIFIED) (2) Msg, CDR FORSCOM to distr, 052220Z Dec 90, subj: CONUS Replacement Center (CRC) Activation. (UNCLASSIFIED)

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the replacement centers strictly with in-house resources, which in all three cases, were already strained. All three installations used their pre-existing reception battalion capability to provide early support and processing.

As Desert Shield began, Fort Knox was well along the road in execution of Operation Quicksilver, a Department of the Army-imposed cut in positions, which, at Fort Knox, would reduce the 194th Armor Brigade by 3,010 authorizations. Fort Knox was also in the middle of a major reduction-in-force of its civilian employees. On top of that, the fort was levied for individuals to fill FORSCOM units preparing to deploy to Southwest Asia. Those personnel actions concomitantly created the problem of a massive amount of equipment to bring up to maintenance standards for transfer out of Fort Knox. The actions additionally brought about significant reductions in the number of personnel in maintenance and other base operations support activities, and caused significant turmoil throughout the post.¹³ Tapped to fill those vacancies were primarily senior noncommissioned officers, which immediately reduced Knox's capability to perform the training mission effectively as it reduced the number of key instructors and crews needed to process training equipment.

Further into Operation Desert Shield, some Fort Knox FORSCOM units were alerted for deployment to Southwest Asia. The units included the two major military units supporting maintenance on the installation. Both the 530th Maintenance Company and the 76th Heavy Equipment Maintenance Company were forced to close down their support operations and load all equipment, further reducing the capability to process excess equipment resulting from personnel reductions imposed by Quicksilver. Through all of this turmoil, the training load of the 1st Armor Training Brigade and the Armor School increased significantly. And upon this already strained support base, the replacement center requirement was laid. While the operation of the replacement center itself was to be accomplished by an activated reserve component unit, the individual processing (logistics, personnel, medical, dental, and finance) was performed by the Fort Knox base operations organizations. Prior to the authorization of reserve units late in December, Fort Knox had approached bankruptcy in manpower and capability especially

¹³ Information Paper, DPCA ATZK-PC, Fort Knox.

considering the added mission to receive, assess, and train large numbers of the Individual Ready Reserve.

With the exception of the Quicksilver action, all three replacement center installations found themselves responding to the same mission overload. Fort Knox was unique in that it had to deal with Quicksilver together with the number of personnel levies, which weighed heavier on Fort Knox than on any other installation.

Fort Benning found itself unexpectedly responsible for the port support activity (PSA) at Jacksonville, Florida. For several years FORSCOM and TRADOC had haggled over responsibility for the PSA at Jacksonville which had been, up to that time, the responsibility of FORSCOM and delegated to Fort Stewart. Four days after Iraq invaded Kuwait, Headquarters TRADOC told Fort Benning to take over the port support activity with the immediate requirement to get the equipment of the 101st Airborne Division en route.¹⁴

The port support mission was handled by FORSCOM, as the Department of the Army executive agent for strategic mobility.¹⁵ The responsibility for port support for Jacksonville was passed to TRADOC under Fort Benning's auspices. Initially assigned to Fort Benning's Directorate of Logistics, a military infrastructure was created and manned by the 586th Float Bridge Company from Fort Benning. The PSA's immediate responsibility was to assume control, provide the military link, and insure the speedy deployment of the 101st Airborne Division. Over 25,000 pieces of rolling stock were processed through "PSA JAX". That represented a major accomplishment especially since the initial crew which ran the port support activity was unfamiliar with the organization or mission. The terminal transfer units, dedicated movement support units, were not brought on board until partial mobilization was declared in January.

Jacksonville was one of two ports that remained operational throughout the entire period of Desert Shield and Desert Storm. Fort

14 The PSA at Jacksonville was a success story in and of itself, the mission admirably carried out by heretofore inexperienced personnel. Oral history interviews with COL John Fuller, Chief of Staff, Fort Benning, 6 May 1991, by Mr. Jim Bym and Mrs. Janet Scheitle; and COL Ted C. Chilcote, DPTM, Fort Benning, 6 May 1991, by Dr. Susan Canedy.

15 FORSCOM Reg 55-1. Also FM 55-65, Strategic Deployment by Surface Transportation, May 1989.

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Benning ran the entire operation with existing resources and assistance from the Mayport Naval Air Station and the Military Traffic Management Command. Although Jacksonville port support was an operational success story, Fort Benning spent unnecessary dollars and manhours in preparation and assumption of an activity with which it was unfamiliar and unpracticed.¹⁶ Fort Benning also ran the aerial port of embarkation at Lawson Army Air Field, from which some 40 million pounds of equipment were airlifted, along with individual and unit replacements.¹⁷ All three CONUS replacement center installations were heavily utilized in all their missions. All three noted maximum use of their military and civilian workforce for the duration of the operation.

The formal replacement center structure was activated on 27 December 1990. The replacement centers were structured with U.S. Army Reserve replacement battalions and companies. The total authorized replacement center strength was eight battalions and sixteen companies. Each replacement center was authorized a replacement battalion and five companies except for Fort Jackson, which, because of its anticipated workload, was slated to receive six companies.¹⁸ The actual force structure in place, however, included only three battalions and nine companies overall, to be shared among the sites. In effect, then, each replacement center was run by a battalion and three companies. Any additional units were pieced together from existing assets. Replacement centers were organized at authorized level of organization (ALO) C (cadre). Augmentation, when and if necessary, was to be provided by the installation. Force structure, in the planning stages at least, determined anticipated flow rate. The replacement centers were structured to process 100 people per assigned company per day. A higher anticipated flow rate would require additional companies in the replacement center. Flow rate would be ultimately determined by theater needs.

16 Oral history interviews with CPT Trish Johnson, Fort Benning, 8 July 1991; and the PSA Commander COL Trez, 13 June 1991. Both interviews were conducted by Mrs. Cynthia Hayden, DPTM Historian, Fort Benning, Georgia.

17 (1) Msg, Cdr TRADOC to Cdr USAITC Fort Benning, 301700Z Aug 90, subj: CONUS Replacement Center Mission. (2) Msg, Cdr USATC Fort Jackson to Cdr USAATWD, 081800Z Sep 90, subj: Sitrep No. 22. (3) Msg, Cdr USAIC Ft Benning to distr, 232000Z Aug 90, subj: CONUS Replacement Center Mission. (All SECRET—Info used is UNCLASSIFIED)

18 Memorandum for Record ATBO-JM, 31 December 1990, subj: Operation Desert Shield Summary #31. (SECRET—Info used is UNCLASSIFIED)

Because of the short duration of Operation Desert Storm, the replacement centers never reached a sustained maximum flow rate. What they did experience, while preparing for peak flow, were inaccurate and unpredictable flow rate projections on a continual basis. Not only did that inaccuracy create havoc at the command level, but unreliable projections made it impossible to anticipate proper accommodations for arriving soldiers. Bed space, messing facilities, processing capability, range usage, and transportation all had to be resourced, readied, and contracted for; inaccurate projections caused unnecessary expense in dollars and manhours, both already in short supply.

Data processing compatibility with the Air Force Military Airlift Command (MAC), which provided all air transport, was never achieved, requiring passenger and cargo manifests to be updated manually. That was only one of several transportation problems which plagued the early operation of the replacement centers. Unclear plans and procedures supporting the transition between MAC peacetime responsibilities and TRANSCOM wartime responsibilities caused considerable confusion in the field. In addition, initial selection of aerial ports of embarkation (APOE) was based on common user considerations (in agreement with the Air Force) and did not adequately support replacement center operations. This was most apparent with the initial opening of the replacement center at Fort Jackson. Jackson's accompanying aerial port was Charleston, 114 miles to the south. That meant planeloads of soldiers had to be bussed down to the airport, a journey of several hours, to wait for a flight that might or might not show up. Flight information was inconsistent and conflicting as to arrival and departure times. The problem was due in part to the Personnel Command's inability to provide accurate projections of movement requirements, an inaccuracy that often resulted in empty aircraft seats and cancellation of missions. By the time soldiers arrived at the APOE, there were neither covered areas in which to wait, nor messing facilities, which inconvenienced and irritated soldiers and everyone else up and across the chain of command. Toward the end of the Fort Jackson replacement center's short life span, the APOE was moved to the nearby Columbia, S.C. Metropolitan Airport. The proximity

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of the replacement center to the Columbia airport eased transportation time and functioned as a buffer for fluctuating numbers and flight times.¹⁹

¹⁹ Oral history interviews with COL Blackwell, AG HQ TRADOC, 21 February 1991; Mr. Dick Anderson, DOL, Fort Jackson, 14 March 1991; Mr. Tony LaCaprucia, Fort Jackson, 14 March 1991. All interviews conducted by Dr. Susan Canedy and Mr. Ed Burgess.

Chapter IV

PREPARING THE ARMY FOR WAR

Training, doctrine, and combat developments planners in TRADOC viewed the Army, at the onset of Desert Shield, as ready for war. The training system that had evolved since the mid-1970s was solidly based on performance-oriented instruction, the Army Training and Evaluation System (ARTEP), the Soldier's Manual, and the Combat Training Centers (CTC) program. AirLand Battle doctrine provided the concepts necessary to successful combined arms operations. That doctrine was, by August 1990, firmly embedded in most doctrine and training literature and in all Army resident courses. Force modernization efforts, in progress throughout the 1980s, were well on the way to completion. Thus, TRADOC's mission support to Operations Desert Shield and Desert Storm in training, doctrine, and combat developments, involved making adjustments to what already was in place. Requirements were met as they emerged.

Training Support for Desert Shield and Desert Storm

The prospect of expanding the training base to support Operations Desert Shield and Desert Storm had a ripple effect throughout TRADOC as the command anticipated demands for more personnel, training ammunition and equipment, training literature, and other support. The special needs for certain types of training such as language training and truck driver training placed an additional strain on the system. With regard to the TRADOC schools, TRADOC guidance from the beginning was that

school commandants not allow more than 50 percent of those scheduled for classes to waive attendance. The necessity to reschedule classes throughout the TRADOC school system brought unprecedented challenges to the command's training managers. The call-up of large numbers of reservists also had an impact on the training system. In some cases, Forces Command (FORSCOM) units had to be withdrawn from training support, and instructors with vital military occupation specialties (MOS) were deployed to the Persian Gulf and thus lost to the training base.¹

The prospect of sustaining mobilization training over an extended period raised the concern that expansion of the training base might be required at the same time that deployment was increasing. Chief of Staff of the Army General Carl E. Vuono's directive that all combat arms units be deployed at 100 percent strength had the potential of severely draining the training base, especially if any large percentage of replacement personnel for deploying FORSCOM units came from TRADOC. Shortly after U.S. troops began deploying to Saudi Arabia in early August 1990, TRADOC commander General John W. Foss made two decisions that would greatly affect the way the command dealt with the crisis. First, he made it clear that actions concerning training for the Gulf crisis would be handled in such a way as to insure that the regular training program would not suffer. He also informed Headquarters Department of the Army that TRADOC would accomplish its mission in support of the operation without reliance on the reserve component units called up for active duty. He believed that all the spaces in the 200,000 call-up should be preserved for the CENTCOM commander.²

Effects on the TRADOC Schools

Many of the early issues that arose with regard to training had to do with policies affecting Active Army officers and soldiers already in the TRADOC schools. As a result of a lack of clear guidance from

- 1 (1) SSHR, ODCST, CY 90/II, p. 69. (2) Memorandum for Record ATBO-JM DCSBOS, 21 Aug 91, subj: Operation DESERT SHIELD Summary #6. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)
- 2 (1) SSHR, ODCST, CY 90/II, p. 69. (2) Memorandum for Record ATBO-JM, DCSBOS, 21 Aug 90, subj: Operation DESERT SHIELD Summary #6. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (3) Desert Shield/Storm After Action Report (Draft). n.d. Foss's decision was made on 23 Aug 90, the same day that the Secretary of Defense gave the secretaries of the military departments authority to order as many as 48,800 Selected Reservists to active duty.

Headquarters Department of the Army, confusion existed about procedures regarding the release of students to return to their units. In mid-August, the Department of the Army Deputy Chiefs of Staff for Operations and Plans and for Personnel directed that only mission essential personnel in "TDY and return" status could be released. TRADOC further specified that any student released had to be assigned to a deploying unit. Officers at the Combined Arms and Services Staff School at Fort Leavenworth (CAS³) would remain in school until graduation.³

Shortly after the buildup began in Saudi Arabia, the Department of the Army directed an increase in the recruiting mission by 2,500 accessions comprising twenty-three MOSs considered to be critical. Projections were for an increase of 3,000 additional accessions by the end of September 1990. The Training Operations and Management Activity (TOMA) of the TRADOC Office of the Deputy Chief of Staff for Training (DCST) began scheduling additional classes and determining the training support necessary for their basic combat training (BCT). To meet the possibility of actual hostilities, in mid-September, Headquarters Department of the Army directed TRADOC to increase its initial entry training (BCT and AIT) goals for the first quarter of FY 1991 by 9,400. That action raised the training mission for that quarter from 32,000 to 41,400. The Office of the Deputy Chief of Staff for Training estimated that TRADOC could train the resulting additional 5,448 students by using seats earlier scheduled for elimination as part of the Quicksilver force reductions ongoing in 1990. But when General Foss made known his decision that Quicksilver assets would not be restored, the estimated training capability dropped to a maximum of approximately 2,900 additional seats. That number of students could be trained only by planning for back-to-back class starts and maximum class sizes.⁴

Commandants at a number of the schools responsible for AIT had problems scheduling and resourcing their courses. In some cases there were insufficient funds, a shortage of spaces, or a lack of equipment and

3 Briefing Slides as attachments to Memorandum for Record ATBO-JM, DCSBOS, 16, 17, 21 Aug 90, 31 Oct 90, subj: Operation DESERT SHIELD Summary #1, #2, #6, #23. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

4 (1) SSHR, ODCST, 91/1, pp. 54-55. (2) Memorandum for Record ATBO-JM, ODCSBOS, 17, 18, 23 Aug 90; 11 Sep 90, subj: Operation DESERT SHIELD Summary #4, #7, #13. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

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instructional materials. Those problems were especially severe at the schools responsible for MOSs deemed critical. Chief among those MOSs were 19K (Abrams armor crewman), 19D (cavalry scout), 88H (cargo specialist), and 96B (intelligence analyst).⁵

Because of those difficulties and because of the necessity to train as many soldiers as rapidly as possible, the Chief of Staff of the Army canceled FY 1991 Operation Exodus to support overall mission requirements for Desert Shield. Exodus, scheduled for 20 December 1990 to 2 January 1991, was the period during the Christmas to New Year's holiday season when TRADOC customarily suspended training. Cancellation of Exodus in TRADOC effectively accelerated training in a! BCT, most AIT, and in selected professional development courses. The goal was to maximize the number of MOS qualified soldiers by the middle of January 1991.⁶

In December 1990, the Army Vice Chief of Staff assigned the TRADOC Deputy Chief of Staff for Training to analyze the impact of Desert Shield on officer and noncommissioned officer training. Soldiers assigned to deploying Desert Shield units were unable to attend officer advanced courses, CAS³, the Command and General Staff Officer Course (CGSOC), the Basic Noncommissioned Officer Course (BNCOC), and the Advanced Noncommissioned Officer Course (ANCOC). That situation resulted in a shortage of students attending classes and created potential problems for officer and NCO professional development as well. The command needed to insure that officers deployed to Desert Shield were afforded opportunities for career progression comparable to officers who were not deployed.⁷

In coordination with PERSCOM, a study team from TRADOC analyzed the problem and prebriefed the TRADOC Deputy Chief of Staff for Training and the Commanding General, TRADOC, prior to briefing

5 (1) SSHR, ODCST, CY 90/II, p. 52.

6 (1) Msg, TRADOC ODCST to distr, 211905Z Nov 90, subj: Operations Order FY 91-1 Cancellation of EXODUS. (2) Msg, TRADOC CofS to distr, 261930Z Nov 90, subj: Suspension of Christmas-New Years EXODUS for Army Schools. (3) Briefing Slides, "How TRADOC Went to War," prepared by HQ TRADOC CPG, September 1991.

7 (1) SSHR, ODCST, 90/II, p. 69. (2) Briefing Slides, ODCST, "An Analysis of the Effects of Desert Storm on OAC, CAS³, and CSC,; n.d. [The study title employed Desert Storm rather than Desert Shield since the study was concluded after Desert Storm began.]

the Vice Chief of Staff of the Army and the Deputy Chief of Staff for Personnel. The study group believed that if classes were conducted at FY 1991 maximum levels, the OAC backlog created by deployments to the Persian Gulf could be reduced within 12-24 months. Some schools such as Quartermaster, Military Police, Field Artillery and Air Defense might have to schedule additional classes. CAS³ could, the study group postulated, reduce its backlog in 12 months and CGSOC in 24 months if operated at currently scheduled levels. The study team recommended that until Desert Shield ended, as many officers as possible should be sent to OAC and CAS³ regardless of prior scheduling. If non-deployed reserve component officers were sent immediately, seats would then be available for Active Army officers after their return. Another recommendation was that deployed officers be swapped on a one-for-one basis in the theater with graduates of the CGSOC. The deployed officers could then return home to attend school.⁸

To ease concerns about delayed promotions, the board for selection to major was to be instructed that attendance at CAS³ should not be a prerequisite for those unable to attend because of Desert Shield. Likewise, the board for selection to lieutenant colonel was to be instructed that, for promotion purposes, selection for CGSOC be considered as equivalent to attendance. With regard to BNCOC and ANCO, as early as 10 August 1990 the Department of the Army had directed that all courses scheduled for the remainder of the fiscal year be conducted even if they fell below established minimums for class size.⁹

For those deployed officers enrolled in nonresident CGSOC and CAS³, the problem arose as to their reduced opportunity to complete the course in the allotted time. The solution adopted for officers assigned to the 24th Infantry Division (Mechanized) was to extend the completion deadline to include the time served in Desert Shield. Nevertheless,

8 (1) SSHR, ODCST, CY 90/II, p. 69. (2) Briefing Slides, ODCST, "An Analysis of the Impact of Desert Storm on OAC, CAS³, and CSC," n.d. (3) Msg, HQDA to distr, 101515Z Aug 90, subj: Noncommissioned Officer (NCO) Training.

9 (1) Briefing Slides, ODCST, "An Analysis of the Impact of Desert Storm on OAC, CAS³, and CSC, n.d. See note # 7. (2) Msg, HQDA to distr, 101515Z Aug 90, subj: Noncommissioned Officer (NCO) Training.

officers serving in Saudi Arabia were encouraged to continue to send in course work, and the CGSC promised that course materials would be provided on a timely basis. A problem regarding the requirement for soldiers to take Skill Qualification Tests also emerged. For those soldiers deployed to Desert Shield for fewer than nine months, Headquarters Department of the Army, granted a special exemption. Those deployed for more than nine months would take the test upon their return.¹⁰

Preparing to Expand the Training Base

TRADOC anticipated that in the first thirty days after hostilities opened, more than 14,000 additional troops would be needed. After sixty days, 23,000 more would be necessary. If, after ninety days, hostilities continued, 16,000 additional military personnel would have to be deployed. Those supplementary forces would at least partially have to come from the training base, and expansion would be necessary to accommodate the increased workload. Training base expansion included classroom space, instructors, training support materials, training ranges, land, ammunition, lodging, dining facilities, and increased medical and dental services. At Headquarters TRADOC, the Training Operations Management Activity provided planning and programming for training base expansion. That agency focused primarily on training from the basic combat training level through the officer advanced course, and refresher and reclassification training for the Individual Ready Reserve.¹¹

At the beginning of the deployment to the Arabian Peninsula, the Army's training base output requirement (TBOR) system was based on a European scenario. As such, it identified projected training requirements for MOSs likely to be in short supply in the event of a European war. The TBOR for Europe was also based on the assumption that replacement personnel would all come from the training base. Convinced that planning for expansion of the training base could not successfully

10 (1) *Msg Cmdt, CGSC to Cdr 24th ID (M), 071730Z Dec 90, subj: 24 ID Nonresident CGSC and CAS³ Students.* (2) *Memorandum for Record ATBO-JM, ODCSBOS 31 Oct 90, subj: Operation DESERT SHIELD Summary # 23.*
(SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

11 (1) *Information Paper ATMH, 7 Jan 91.* (2) *SSHQR, ODCST, 91/I, pp. 54-55.*

proceed according to those criteria, the TRADOC Deputy Chief of Staff for Training requested in late October 1990 that the Department of the Army Deputy Chief of Staff for Personnel develop a TBOR specifically to support Desert Shield.¹²

By mid-December, TRADOC had a training base output requirement for Desert Shield. That document was based on the Central Command commander-in-chief's assessment of replacement requirements (worst case) and on the ability of the Army to provide replacement personnel from the Active Army, the Individual Ready Reserve RT-12 personnel, and training graduates. The TBOR was built around two options: the replacement of casualties, and the replacement of reserve component (RC) personnel after 180 days. Under the casualty replacement option, sixty-five AIT and one-station unit training (OSUT) MOS courses would be especially critical. Under the RC replacement option, TRADOC identified thirty-seven AIT-OSUT courses that would be critical in providing replacement troops for desert warfare. Both options examined courses that would be overcrowded and identified the potential costs.¹³

Thus when Operation Desert Shield gave way to Operation Desert Storm, planning measures were in place in TRADOC to support an expanded training mission. The expanded capabilities, however, were not fully utilized, since the ground war only lasted four days.¹⁴

Status of Personnel, Weapons, Equipment, and Ammunition for Training

As soon as U.S. Army troops began deploying to the Persian Gulf in early August 1990, TRADOC headquarters faced the need to determine what resources were available for the increased training load anticipated. The command found it had to deal with a number of shortages identified

¹² Briefing Slides, ODCST, attachments to Memorandum for Record ATBO-JM, DCSBOS, 21 Sep 90, 24 Oct 90, subj: Operation DESERT SHIELD Briefing Summary #16, #22. (Both SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

¹³ Briefing Slides, ODCST, attachments to Memorandum for Record ATBO-JM, ODCSBOS, 7 Nov 90, 14 Dec 90, subj: Operation DESERT SHIELD Briefing Summary #16 #24, #29. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

¹⁴ SSHR, ODCST, 91/I, p. 55.

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throughout the command. The Field Artillery Center at Fort Sill needed howitzers. The Aviation Center at Fort Rucker had a shortage of instructors for aviation training. The Infantry Center at Fort Benning needed Squad Automatic Weapons (SAW). From the outset, Forts Knox, Sill, and Benning all were short of some critical MOSs. There was also a shortage of training ammunition throughout the command, due primarily to transportation difficulties.¹⁵

In mid-September, Fort Sill identified a requirement for twelve M109 155-mm. howitzers for use in training. The Field Artillery Center's first solution to the howitzer shortage was to obtain the howitzers from the U.S. Marine Corps Reserve. However, eleven M109s awaiting shipment to the National Training Center at Fort Irwin were located at Fort Hood. Forces Command agreed to allow their use for up to sixty days and they were shipped directly to Fort Sill. One additional howitzer was transferred to Fort Sill from Fort Knox. But, when the Fort Hood artillery pieces arrived at Fort Sill, they proved unsafe for firing, and FORSCOM declared them "not mission capable." Preliminary estimates of the time and cost of repair ranged from 45 to 50 days and \$700,000 to \$800,000. The upshot was that the Army borrowed the twelve howitzers from the Marine Corps after all.¹⁶

At Fort Benning, training on the M249 SAW for infantry soldiers in one-station-unit-training (OSUT) was also affected by shortages. To help ease the shortage, Forts Lee and Jackson transferred twenty operational SAWs to Fort Benning. In return, the Infantry Center transferred a like number of nonoperational SAWs to Fort Jackson and Fort Lee for use in

15 (1) Information Paper ATMII, OCH 7 Jan 91. (2) Desert Shield and Desert Storm Interview with Maj Gen Craig A. Hagan, TRADOC DCST, 22 Feb 91, by Dr. Susan Canedy, Mr. Jim Bym, Mr. Ed Burgess, and Lt Col Dave Nickum.

16 Briefing Slides, ODCST, attachments to Memorandum for Record ATBO-JM, 21, 26 Sep 90; 24 Oct 90, subj: Operation Desert Shield Summary #16, #17, #22. Memorandum for Record ATBO-JM, 2 Oct, 6 Dec 90, subj: Operation DESERT SHIELD Briefing Summary #19, #28. (All SECRET/NOFORN/WNINTEL.—Info used is UNCLASSIFIED)

maintenance training. Twenty-five M249s were shifted from Ranger training at Fort Benning to OSUT. When this distribution of SAWs still failed to satisfy Fort Benning's training needs, more of the weapons were expediently purchased from the Canadian armed forces.¹⁷

Forts Benning and Sill also suffered a shortage of training personnel as troops deployed to the combat theater. General Foss's directive that no reserve component units be used as replacements for those troops, together with unqualified applicants and a hiring freeze affecting the civilian workforce, made personnel difficult to come by. The commanders at Forts Benning and Sill feared that over time, the absence of training realism would devalue the students' training experiences. TRADOC headquarters directed that Fort Benning identify the training shortages and alternatives, and establish the resources needed. Unable to use reserve units, Fort Benning developed a revised training strategy that involved, among other things, the substitution of mortars for 105-mm. howitzers, the replacement of tanks with Bradley Infantry Fighting Vehicles, the reduction of opposing forces for force-on-force training, and the postponement of combined arms live-fire exercises.¹⁸

As with the Infantry Center, the Field Artillery Center at Fort Sill rapidly developed a manpower shortage as soon as deployment began. Fort Sill's request to TRADOC headquarters for relief called for the activation of a reserve component 155-mm. howitzer battalion. General Foss's directive pertaining to the use of reserve elements to perform TRADOC missions precluded that solution. Ultimately, a provisional TDA was drawn up to which 470 MTOE spaces would transfer from III Corps to the Field Artillery Center. When FORSCOM, the III Corps parent command, transferred only 419 spaces, Fort Sill was short 51

17 (1) Briefing Slide, ODCST, attachment to Memorandum for Record ATBO-JM, DCSBOS, 31 Dec 90, subj: Operation DESERT SHIELD Summary #31. (2) Memorandum for Record ATBO-JM, 3 Jan 91, subj: Operation DESERT SHIELD Summary #32. (3) Memorandum for Record ATBO-JM, DCSBOS, 25 Jan 91, subj: Operation DESERT STORM Command Briefing #5. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (4) Desert Shield and Desert Storm interview with Maj Gen Craig A. Hagan, TRADOC DCST, 22 Feb 91, by Dr. Susan Canedy, Mr. Jim Bym, and Mr. Ed Burgess.

18 Memorandum for Record ATBO-JM, DCSBOS, 22 Aug, 25 Sep 90, subj: Operation DESERT SHIELD Summary #7, #17. (Both SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

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spaces and claimed that training on the 155-mm. howitzers would have to cease for at least fifty days. As he had with Fort Benning, the TRADOC chief of staff made clear that no soldier was to leave Fort Sill without adequate training and directed the senior officials to find a way to solve the problem.¹⁹

Some of the most critical shortages in personnel and equipment occurred in the realm of aviation training. The Aviation Center entered FY 1991 short of sufficient instructor pilots to accomplish the training scheduled for that fiscal year. Some of the pilots were deployed to support the operations in the Persian Gulf. The immediate impact was deferment or cancellation of classes. Faced with the need to support Desert Shield with aviation assets, the Aviation Center, TRADOC headquarters, and the Department of the Army undertook staff actions to retain instructors, and to provide enough instructors to train the necessary number of pilots. One of those actions was the cancellation of OH-58D aerial fire support observer (AFSO) training and the subsequent application of the funds saved to pilot training. The Department of the Army also required that FORSCOM provide some experienced instructor pilots, flight engineers, and aircraft to Fort Rucker by 10 December 1990. As an exception to his position on the use of reserve personnel, General Foss directed the call-up of selected Army Reserve and Army National Guard pilots. U.S. Southern Command and the Army Materiel Command also sent instructor pilots to the Aviation Center by early February.²⁰

Shortages or delays were also encountered in training ammunition supplies. Although the TRADOC training planners reported no shortages of training ammunition as of the first of October 1990, a number of schools and centers experienced shipment delays as Desert Shield received priority. At that point the problem was with transportation, not the ammunition stockpile. But by the middle of October, even the stockpiles were beginning to run low as RC units were mobilized and trained, and deploying units received priority for training ammunition. The shortages were especially critical at Forts Dix, Gordon, McClellan, Rucker,

19 Briefing Slides, ODCST, attachments to Memorandum for Record ATBO-JM, DCSBOS, 4 Aug, 21 Sep 90, subj: Operation DESERT SHIELD Summary #11, #16. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

20 (1) SSHR, ODCST, CY 90/II, p. 93 (2) Msg, CDR TRADOC to HQDA, 211205Z Nov 90, subj: Termination of OH-58D Aerial Fire Support Observer (AFSO) Training. (3) Msg, HQDA to distr, 281415Z Nov 90, subj: Aviator Training—Tasker No. 1.

Eustis, Leonard Wood, and Lee. By the end of December 1990, 64 ammunition shipments were overdue to 10 installations. To help solve the problem, the U.S. Army Armament, Munitions, and Chemical Command (AMCCOM) established a special office to track and assist TRADOC shipments. After the beginning of Desert Storm, AMCCOM began rerouting ammunition shipments not intended for Desert Storm units away from the heavily burdened Southwest Asia channels. As Operation Desert Storm shipments took priority, schools and centers experienced increasing delays. A backlog of requisitions exacerbated the problem.²¹

In an interview conducted shortly after the end of Operation Desert Storm, Col. Alfred G. Isaac, Director of the Individual Training Directorate of the TRADOC Office of the Deputy Chief of Staff for Training, was asked to comment on the command's experience with driver training during the operations. He commented that "we had a very interesting challenge with trucks in general." He went on to say that TRADOC had the capacity to "train the requirement, but the problem was that nobody knew what it [the requirement] was." His reference was to the fact that during Operation Desert Shield, many of the drivers of logistics support vehicles in the theater were local nationals. It was anticipated—and later confirmed—that if hostilities escalated, some of those drivers might not stay to drive the trucks forward "in harm's way." The Army had to put soldier drivers in those trucks, but how many? In addition, although the Army believed it had enough "MOS 88Ms" (motor transport operators) in the system to meet "normal" requirements—that is, combat in Europe with POMCUS (prepositioning of materiel configured to unit sets) stocks—the requirements of the desert operations were extraordinary. Heavy equipment sent to the Persian Gulf would arrive in a region with few ports and long overland distances. There were two choices. The heavy equipment could be driven to destination, in some cases several hundred miles, or it could be hauled by heavy equipment transporters

21 (1) Briefing Slides, ODCST, attachments to Memoranda for Record ATBO-JM, DCSBOS, 11 Oct 28 Nov, 31 Dec 90; 3, 11 Jan 91, subj: Operation DESERT SHIELD Summary #20, # 27, #31, #32, #33. (2) Memoranda for Record ATBO-JM, DCSBOS, 17, 22, 27 Jan 91, subj: Operation DESERT STORM Command Briefing. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

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(HET). The implication of driving the equipment was obvious in terms of maintenance and time difficulties. That situation created the need to train an additional 1,000 heavy equipment drivers quickly.²²

Because of the urgency of the requirement, the Transportation School developed a new AIT course for MOS 88M which reduced the training time from 8 weeks and 3 days to only four weeks. After the accelerated program began, most of the training on HETs as well as on heavy expanded mobility tactical trucks took place at Forts Dix and Leonard Wood. Throughout the expanded effort, there were never enough vehicles despite hasty reassignment and the negotiation of a contract to lease 110 commercial HETs at a cost of \$1.3 million. When there were not enough tanks to provide realistic transport training with the HETs, trainers replicated a sixty-ton tank by placing tanks of water on the bed of a tractor trailer.²³

All in all, given the nature of the effort, the MOS 88M augmentation program was successful. But some problems did arise. The TRADOC school support structure was significantly affected by the loss of so many of its heavy equipment drivers. Army Reserve Transportation Corps instructors were often required to augment mobile training teams (MTT) from the Transportation Center. Some of the reservists proved to be unlicensed or unqualified. The MTTs, once on site, lacked adequate quantities of operators manuals and support vehicle drivers. In most cases, the training cadre overcame the obstacles through substitution and innovation.²⁴

Training the Kuwaitis

TRADOC was involved in training not only U.S. soldiers but also three contingents from Kuwait. On 20 December 1990, Headquarters Department of the Army, alerted the command to be prepared to train 300

22 (1) Desert Shield and Desert Storm Interviews with Col Alfred G. Isaac, ODCST, 24 April 91 and Maj Gen Craig A. Hagan, 22 Feb 91, by Dr. Susan Canedy, Mr. Jim Byrn, Mr. Ed Burgess, Mr. Ray Abell, and Mrs. Janet Scheitle.

23 (1) SSHR, ODCST, 91/I, p. 7. (2) MFR ATBO-JM, 27 Jan 91, subj: Operation DESERT STORM Command Briefing # 6 (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (3) Desert Shield and Desert Storm Interview with Col Alfred G. Isaac, ODCST, 24 Apr 91, by Dr. Susan Canedy, Mrs. Janet Scheitle, and Mr. Ray Abell. (4) JULLS 61030-34200 (00001), subj: MOS 88M Deficiency in Southwestern Asia.

24 JULLS (61030-34200) (00001) subj: MOS 88M Deficiency in Southwestern Asia.

to 325 Kuwaiti personnel for service as linguists and intelligence analysts with selected U.S. Army units in the Persian Gulf. Persons to be trained were Kuwaiti college students attending school in the United States. The Kuwaiti government-in-exile offered to underwrite the cost of the training and equipment. The Intelligence School, Fort Devens, received the mission, with base operations and drill sergeant support to be furnished by the Army Training Center at Fort Dix. The hurriedly-put-together training program, dubbed "Desert Owl," included instruction in basic combat subjects, military terminology, and United States military organization. The students also received training on the M16 rifle, and in NBC tasks.²⁵

The 292 students, all male volunteers, were inducted into the Kuwaiti Army on 5 January at a ceremony in Washington, D.C. Training began on 7 January 1991 and ended on 14 January with deployment from McGuire Air Force Base to follow. As with short-notice training for American troops, Operation Desert Owl experienced shortages of weapons and equipment. Fort Dix issued BDUs from its own stock until AMC could replace them.²⁶

A second group of sixty Kuwaiti trainees trained at Fort Devens from 28 January to 4 February. A third group of 269 Kuwaiti students, 10 of whom were female, arrived at Fort Dix on 14 February for a slightly longer training cycle. The last group of Kuwaiti trainees deployed to Southwest Asia on 26 February 1991 to serve as interrogators, assistants to military police in POW operations, assistants to the Staff Judge Advocate in war crime investigations, translators for medical personnel, and supporters of civil affairs operations.²⁷

25 (1) SSHR, ODCST, CY 90/II, pp. 12-13. (2) *Army Times*, 30 Dec 90. (3) *The Post*, 18 Jan 91, Fort Dix, N.J., p. 1.

26 (1) *Army Times*, 30 Dec 90. (2) Memorandum for Record ATBO-JM, DCSBOS, 3 Jan 91, subj: Operation DESERT SHIELD Summary #32 (3) Memorandum for Record ATBO-JM, DCSBOS, 29 Jan 91, subj: Operation DESERT STORM Command Briefing #7. (Both SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

27 (1) Memo ATTG-I, 11 Jun 91, subj: After Action Report for Operation Desert Shield/Storm. (2) Memorandum for Record ATBO-JM, DCSBOS, 7 Feb 91, subj: Operation DESERT STORM Command Briefing D+21. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (3) Msg, 072100Z Feb 91, subj: Training for Kuwaiti Personnel in CONUS, TRADOC Msg 2.

Training the Reserve Components

In line with the concept of the "Total Army" and to fill the need for an increasingly larger force in Saudi Arabia, the reserve components played an important part in the planning and execution of Operations Desert Shield and Desert Storm. In announcing President George Bush's decision to deploy additional troops—both Active Army and Army Reserve—to the Persian Gulf, Secretary of Defense Dick Cheney made clear that the Defense Department would "not compromise on training [the reserve component] which will enable our soldiers joining their comrades in Saudi Arabia to accomplish their missions."²⁸

At that same time Secretary Cheney called to active duty the 48th Infantry Brigade (Mechanized) of the Georgia Army National Guard; the 256th Infantry Brigade (Mechanized) of the Louisiana Army National Guard; and the 155th Armored Brigade (Separate) of the Mississippi Army National Guard. All three were "roundout" brigades for Active Army divisions. Training for the Army National Guard troops was conducted at mobilization stations and at FORSCOM installations in the continental United States. The 48th Infantry Brigade trained at Fort Benning and at the Army's National Training Center (NTC) at Fort Irwin, Calif. The Louisiana and Mississippi units trained at Fort Hood. Many observers both in and outside the Army considered the integration of part-time soldiers with their active duty counterparts to be a laboratory to test the readiness of combat Guardsmen and reservists and the total force policy that would become more important as the number of active duty soldiers and officers was reduced. The three National Guard units were the first reserve component combat units to be mobilized since the Vietnam conflict.²⁹

The training programs for the roundout brigades encountered a number of difficulties. The proficiency of many of the soldiers in gunnery and marksmanship was not up to Army standards. Some of the National Guard Bradley crews lacked cohesion. In some cases, no programs of instruction were available for the type of training a particular unit or individual required. Those programs had to be rapidly developed. Some of the reserve units did not have the proper equipment or their equipment

28 Msg, HQDA to distr, 082315Z Nov 90, subj: Public Affairs Guidance for Deployment of Additional Forces to Operation Desert Shield.

29 (1) *New York Times*, 11 Nov 90, p. E-4. (2) SSHR, ODCST, CY 90/II, p. 86.

was old. Much equipment had been poorly maintained. Leadership, too, proved to be a problem at levels from squad to battalion commander. All these considerations combined to cause the training to take much longer than the thirty days expected. As a result, the 48th Brigade did not deploy with the 24th Infantry Division (Mechanized), and the 155th Armored Brigade (Separate) did not deploy with the 1st Cavalry Division. For the 256th Infantry Brigade the issue was moot: its parent division, the 5th Infantry Division (Mechanized) was not deployed to the Persian Gulf.³⁰

Immediately after the 200,000 call-up, a question arose as to just what Army policy was with regard to training those reservists who had not attended or who had not completed initial entry training (BCT and AIT). Mobilization planning provided for development of initial training requirements based on the accelerated entry of untrained and partially trained members of RC units activated in a presidential 200,000 man call-up that was a *preliminary phase of full mobilization*. That planning was based on the premise that all members of activated units would be mobilized with their unit, and that those who had not completed IET, being nondeployable, would be replaced. The 200,000 call-up for Operation Desert Shield was part of a "contingency" action and not formally a phase of transition to full mobilization. Thus the policy did not apply. Desert Shield policy at that time provided for exemption from mobilization for the individuals in question, and their replacement with MOS qualified personnel at the unit's home station.³¹

For planning purposes, TRADOC needed a speedy clarification of the mobilization policy on initial entry training for those personnel involved. It had long been TRADOC's plan that soldiers from activated RC units would be integrated into the training base. Personnel from that source, along with the Delayed Entry Program, were regarded by the command as a bridge between peacetime and conscription. A legal representative of Headquarters Department of the Army determined that under 10 U.S. Code (USC) 673b, activation of reserve component unit members who

30 Desert Shield and Desert Storm interviews with Lt Col Danish of Bradley NETT, and Col Hand of 29th Infantry Regiment, Fort Benning, Ga., 15, 17 July, by Cynthia Hayden, DPTM historian.

31 (1) Title 10 U.S. Code 672, Reserve Components Generally; 673(a), Ready Reserve: Member Not Assigned to or Participating Satisfactorily in Units; and 673(b), Order to Active Duty Other Than During War or National Emergency. (2) JULLS 01029-97816(00915), Title: Individual Training Requirements—Contingency-Based 200K RC Callup.

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had not completed IET was illegal. That ruling only further confused the issue, because 10 USC 672(a), covering full mobilization, and 10 USC 673(a), treating partial mobilization, contained exactly the same wording as 10 USC 673(b), thus it appeared that the same legal prohibition against activating unskilled unit members applied at all levels of mobilization. If so, the Army would be in a position of never being able to activate such personnel, even though at full mobilization, the Department of Defense planned to activate all the force structure of the reserve components, the Individual Ready Reserve, and retirees, and request implementation of a draft. TRADOC requested that the interpretation of 10 USC 673(b) be reviewed and that clear guidance be provided, so that the command could make the necessary decisions.³²

On 22 January 1991, Department of the Army headquarters provided instructions for the acceleration of initial entry training for reserve component soldiers. Soldiers would be activated with their units. On alert of order to active duty, the unit would be responsible for providing the guidance counselor at their local Mobilization Entrance Processing Station (MEPS) with the information necessary to obtain an accelerated training reservation for those unit members who had not completed IET. Those soldiers affected would report to the mobilization station with the unit before moving to the training base. Should a reservation for training not be secured before the unit moved to the mobilization station, soldiers would mobilize with their units and be assigned to the garrison, at which time the commander or his representative would act on behalf of the unit to secure a reservation, prepare orders, and arrange transportation to the training site. Upon completion of training, the soldier would return to the installation where his unit had been mobilized. There he would be reassigned and deployed to join his parent unit, used in his MOS on the installation, or placed in another mobilized unit, according to that priority. Soldiers who had not completed IET when their parent unit was demobilized would remain on active duty and complete all initial entry training before being returned to their reserve component unit assignment.³³

32 JULLS 02812-58930 (00299), subj: Activation of Personnel in RC Units Who Require Initial Entry Training (IET).

33 Msg, Cdr FORSCOM to distr, 081430Z Feb 91, (referencing msg of 22 Jan) subj: Implementing Instructions to Provide for Acceleration of Initial Entry Training for Reserve Component Unit Soldiers.

On 19 January 1991, Secretary of Defense Cheney announced partial mobilization. The orders in support of that action extended the current forces, authorized the call-up of 20,103 members of the IRR who were to report 31 January, and mobilized the training base units. Those directives marked the first involuntary recall of Individual Ready Reserve soldiers in the nation's history. It was TRADOC's responsibility to provide refresher training to those soldiers prior to deployment. The Chief of Staff of the Army and the FORSCOM commander made it clear that all of them would be MOS certified. TRADOC based its planning on the assumption that some refresher training in basic skills would be necessary for all IRR soldiers, even those who had been out of the Army less than a year. The command's training strategy called for utilizing the annual training portion of the so-called "RC³" reserve component-configured courses for refresher training. The strategy had to be modified to accommodate the limited time the soldiers would remain in the training base. The normal two-week annual training portion of the RC³ courses was shortened to eight days. To meet the demands for instructors, FORSCOM recalled more than 700 instructors from the U.S. Army Reserve Forces Schools.³⁴

As it happened, the expanded training base was not needed and was never fully utilized, since the conflict was so short. An associated problem for the Army trainers was that, at any given stage in expanding the training base, they did not know how many soldiers they would have to train and over what period of time. The number of Individual Ready Reserve personnel TRADOC was asked to train ranged from an initial estimate of 100,000 to an actual number of 15,000. As the number of IRR

34 (1) SSIIR, ODCST, CY 91/I, p. 17. (2) Msg, Cdr FORSCOM to distr, 011845Z Feb 91, subj: Assignment and Processing Instructions for Individual Ready Reserve (IRR) Accessions for Operation Desert Storm. (3) Desert Shield and Desert Storm Interview with Col Alfred G. Isaac, ODCST, 24 Apr 91, by Dr. Susan Canedy, Mr. Jim Byrn, Mr. Ed Burgess, Mr. Ray Abell, and Mrs. Janet Scheitle. (4) Msg, Cdr TRADOC to distr, 102030Z Feb 91, subj: Mobilization of IRR - A2 Package. (5) Memo ATBO-KM, 14 Jun 91, subj: Success Stories for Desert Shield/Storm Executive Summary. Plans were for call-up of the IRR in several "packages." The A-1 package was comprised of "RT-12" soldiers, or those who had been out of the Army less than twelve months. The A-2 package was made up of approximately 818 volunteer members of the IRR. The B package was not called up, but it would have contained recalled retirees as well as regular IRR.

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soldiers to be trained dropped, the command was faced with a dilemma. When the instructors were all present at the training sites, there were enough of them to support training for 37,000 soldiers and officers. With only 15,000 to train, the training sites had difficulty providing the instructors with meaningful work at all times. Being uncertain how long the war might last or what direction it might take, TRADOC's senior trainers made a conscious decision not to inactivate the reserve component personnel called up to support training, despite the lack of immediate need. Instead the reservists were given professional development opportunities, such as functional courses in their specialties.³⁵

A second problem TRADOC had to deal with was "tracking" of IRR soldiers called to active duty. Having no system in place to record arrivals at the training site, releases from active duty, or departure to follow-on assignments, the Department of the Army made the decision to modify the Army Training Resource Requirement System (ATRRS), which was a "school seat" training management system. The system proved unable to perform in a satisfactory manner as a personnel tracking system. While it could provide a record of the soldiers trained, which was a continuation of the training management process, it proved to be an inadequate personnel accounting system. The system created an impact on base operators in that instead of having to process information once or twice, they had to do it at least four times. In some cases that meant that information about the status of IRR personnel was not available to TRADOC headquarters in a timely manner. The result was that the command had to do its accounting manually and by telephone for the Individual Ready Reserve soldiers.³⁶

One of the most important lessons learned from Operations Desert Shield and Desert Storm was that the Army needed to take a more systematic view of training for the IRR. As noted earlier, those operations provided the first major test of the all-volunteer, Total Army concept in

35 (1) Memo ATBO-KM, 14 Jun 91, subj: Success Stories for Desert Shield/Storm Executive Summary (2) Interview with Col Alfred G. Isaac, ODCST, 24 Apr 91, by Dr. Susan Canedy, Mr. Jim Bym, Mr. Ed Burgess, Mr. Ray Abell, and Mrs. Janet Scheitle.

36 (1) Memorandum for Record ATBO-JM, DCSBQS, 22 Jan; 14, 19 Feb; subj: Operation Desert Storm Command Briefing. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (2) Desert Shield and Desert Storm interview with Col Joseph Kendra, ODCST, 29 Mar 91, by Dr. Susan Canedy, Mr. Jim Bym, Mr. Ed Burgess, and Mrs. Janet Scheitle.

which former Active Army soldiers returned to active duty as individual replacements. With a very few exceptions, peacetime training for those soldiers was voluntary. Of the IRR's 300,000 personnel, only about 10,000 received any annual training. Most of those who did receive some peacetime training were officers or soldiers with MOSs in staff and clerical fields. It was clear that the Army needed to plan for and provide mandatory pre-mobilization refresher training and post-mobilization sustainment training, especially for those with critical MOSs.³⁷

Mobile Training Teams, New Equipment Training Teams, and Language Training

One of TRADOC's major challenges in training the force for Desert Shield and Desert Storm was the fielding of mobile training teams (MTT) and new equipment training teams (NETT). As current equipment received upgrades and units began receiving mine clearing and other new equipment, a critical need for those teams developed. The MTTs and NETTs served in the United States, the Middle East, and in Europe. In early November 1990, Army Forces, U.S. Central Command (ARCENT) requested expediting the fielding of mine rollers for the detonation of buried explosives, plows for breaching the minefield, and the Cleared Lane Marking System. By mid-November TRADOC had one NETT in the field, with a second to follow. After the beginning of Desert Storm, ARCENT requested a combat engineer MTT to deploy to the theater as soon as possible to train Egyptian forces in mine clearing operations. By 3 February, TRADOC had a team in the field for that purpose. A seven-man MTT from the U.S. Army Sergeants Major Academy went to the National Training Center at to train the 48th Brigade of the Georgia National Guard in TOW (tube launched, optically tracked, wireguided)

³⁷ (1) *Desert Shield and Desert Storm Interview with Col Alfred G. Isaac, ODCST, 24 Apr 91, by Dr. Susan Candy, Mr. Jim Bym, Mr. Ed Burgess, Mr. Ray Abell, and Mrs. Janet Scheitle.* (2) 1st End ATTG-I to Memo ATBO-JM, ODCST, 30 May 91, subj: After Action Report for Operation Desert Shield/Storm. (3) 1st End ATOM-O to Memo ATBO-JM, 30 May 91, subj: After Action Report for Operation Desert Shield/Storm.

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anti-tank missile operations, leadership, maintenance, accountability, counseling, and discipline.³⁸

When the decision was made to ship 616 120-mm, main gun M1A1 Abrams tanks to Saudi Arabia from Europe, there was great demand for new equipment training teams (NETT) to train tank crews who were familiar only with the older 105-mm, M1 Abrams. TRADOC fielded two NETTs in Southwest Asia and one in the continental United States for that purpose. The accelerated production schedule for the M1A2 tank also increased the demand for NETTs, in order to train soldiers making the transition from the M1 or M1A1. In addition to M1A1 and M1A2 training, NETTs in the United States and in the Persian Gulf aided crews in making the transition from the M2 and M3 Bradley Fighting Vehicles to the M2A1 and M3A1 models. Other NETTs trained Army National Guard troops who were replacing the M113 Armored Personnel Carrier with the Bradley.³⁹

As with new equipment, the need for language training, especially in Arabic and its Iraqi dialect, placed heavy demands on TRADOC. The Defense Language Institute (DLI) at the Presidio of Monterey, Calif. provided extensive language training support to Operation Desert Storm, most of it improvised and on very short notice. The major problem in the months leading up to Desert Storm was not the capability to provide training, but rather the ability of the field to define its needs and to provide soldiers for training. Arabic-Iraqi language training at the Presidio of Monterey and the DLI element in Washington, D.C. was increased. A number of special courses of varying lengths were developed. Course length depended on soldier availability rather than the proficiency desired. DLI rapidly developed "video teletraining" capability and used it to provide training to deploying units at Forts Campbell,

38 (1) Memorandum for Record ATBO-JM, DCSBOS, 14,28 Nov; 5, Jan, subj: Operation DESERT SHIELD Summary #25, #27, #32 with ODCST Briefing Slides. (2) Memorandum for Record ATBO-JM, DCSBOS, 30 Jan 91, subj: Operation DESERT STORM Command Briefing. (3) Briefing Slide, ODCST, attachment to MFR ATBO-JM, 19 Jan 91, subj: Operation DESERT STORM Command Briefing. (All SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

39 (1) Briefing Slide, ODCST, attachment to Memorandum for Record ATBO-JM, DCSBOS, 24, 31 Oct 90, subj: Operation DESERT SHIELD Summary #22, #23. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED) (2) SSSR, ODCST, CY 91/I, p. 70.

Hood, and Riley. The institute also arranged training through the British Defense School of Languages and assisted in the establishment of unit language training programs in Southwest Asia. Language MTTs assisted the XVIII Airborne Corps with training in the Iraqi dialect. The shortage of those in the military and civilian communities with proficiency in Arabic, as with the shortage of some critical MOSs, was yet another example of the effect of the United States pre-Desert Shield focus on the European theater.⁴⁰

Doctrine, Weapons, and Equipment

TRADOC's concept, doctrine, and development planners provided support to Operations Desert Shield and Desert Storm in a number of ways. As with training, the command's doctrinal and force modernization efforts over the past eighteen years paid hefty dividends when put to the test in the Arabian deserts. Some TRADOC personnel employed in those development missions were sent to the theater, while others provided advice to agencies more directly involved in military operations. Doctrine and materiel development and procurement were expedited to meet critical needs. TRADOC headquarters' international army programs staff, with the support of the TRADOC liaison officer network, worked to meet the need for increased information exchange regarding the concepts and doctrine; the tactics, techniques, and procedures (TTP); and the logistics of the allied armies. Efforts were made to establish a program to capture the lessons learned in the campaign to free Kuwait. Finally, TRADOC centers and schools called on the headquarters to provide intelligence support to assist the mobilization and deployment effort.⁴¹

The Effect on Training and Doctrinal Literature Development

As Operation Desert Shield unfolded and preparations for Operation Desert Storm began, a number of doctrinal gaps became apparent which compelled TRADOC doctrine developers to work quickly to field new or revised concepts and TTP. In addition, the operations in the Persian

⁴⁰ SSHR ODCST, CY 91/I, p.16. Arabic is a difficult language. Up to a year of instruction is required to achieve basic proficiency.

⁴¹ Transmittal, Action, and Control Form 30 ATBO-JM, 21 Jun 91, subj: TRADOC After Action Report for Operations DESERT SHIELD/STORM (ODS).

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Gulf bid fair to influence in a major way future doctrinal efforts embedded in TRADOC Pam 525-5, AirLand Operations, and the revision of FM 100-5, *Operations*. Much of the expedited doctrine was developed jointly with the U.S. Air Force.⁴²

One of the more significant joint doctrinal efforts was the development of an initial operational concept and tactics, techniques, and procedures for the Joint Surveillance Target Attack Radar System, or JSTARS. JSTARS was a prototype system deployed in Desert Storm five years before its planned fielding. Headquarters TRADOC provided support for the doctrine development project which was sponsored by the joint Air Land Forces Application Agency (ALFA) at Langley Air Force Base, Va. The initial operational concept for the airborne intelligence system, specifically designed for the U.S. CENTCOM theater of operations, was developed within ten working days of the request for assistance and was used throughout the remainder of the campaign in Kuwait and Iraq.⁴³

Other joint projects on which the operations in the Persian Gulf had a direct effect were the development of an Army-Air Force air base ground defense manual and a joint rear area manual. The Air Base Ground Defense manual set forth the general operating procedures for air base ground defense and described the Army and Air Force actions necessary to plan and execute the defense of air bases in rear areas. The JCS-sponsored joint rear area manual allowed for a joint force rear area commander designated by the joint task force commander and vested with appropriate responsibility and authority for the security of the joint rear area.⁴⁴

The Iraqis' strategy included the construction of large obstacles and barriers. One of TRADOC's contributions to the war effort was the development of new doctrine for breaching operations. Similarly, Army doctrine governing the large scale use of heavy equipment transporters

42 (1) TRADOC Annual Command History, CY 90, p. 26.

43 Transmittal, Action, and Control Form 30 ATBO-JM, 21 Jun 91, subj: TRADOC After Action Report for Operations DESERT SHIELD/STORM.

44 (1) TRADOC Annual Command History, CY 90, p. 54, 59. (2) Transmittal, Action and Control Form 30 ATBO-JM, 21 Jun 91, subj: TRADOC After Action Report for Operations DESERT SHIELD/STORM.

(HETs) for resupply, evacuation of equipment, and reconstitution was refocused on operational moves. Doctrine developers at TRADOC worked to refine doctrine for the employment of large numbers of heavy equipment transporters, a capability that proved important in the four-day ground war.⁴⁵

Material Developments

The war in the Persian Gulf was the first to take advantage of the new possibilities of the military technological revolution that was occurring by the late-1980s. During the Gulf War, TRADOC personnel concerned with combat, combat support, and combat service support requirements worked with the Department of the Army staff, materiel developers, and procurement agencies to accelerate the development and acquisition of some new items, and to speed up the production of others, in order to meet the needs of the forces in the Persian Gulf. Some equipment, weapons, and munitions were still in the developmental stages and were fielded before test and evaluation schedules were completed.

The conflict tested an entire generation of new weapon systems. Among them was the Global Positioning System (GPS). The Army moved quickly to field the maximum number of GPS ground receivers. The GPS consisted of a network of earth-orbiting satellites grouped so as to communicate signals used by land, sea, or air based receiver units to enable a commander to determine position location. Another major system subject to accelerated fielding was JSTARS, the effort to establish working doctrine for which was discussed earlier. Although still a prototype, the JSTARS proved extremely effective in detecting enemy ground forces in Desert Storm, in rapidly targeting enemy tactical aircraft, and in assisting long-range against enemy ground units.⁴⁶

Some new systems made valuable contributions to the winning of the war. The Nuclear, Biological, and Chemical Reconnaissance System (NBCRS) vehicle, better known as "Fuchs" (Fox) was adapted to U.S. use and provided to the U.S. Army by the German government. The Fuchs vehicle was deployed for use in the detection of possible chemical

45 Transmittal, Action, and Control Form 30 ATBO-JM, 21 Jun 91, Subj: TRADOC After Action Report for Operations DESERT SHIELD/STORM.

46 (1) U.S. Army Field Artillery Center and School, Annual Historical Review, CY 1990, p. 96. (2) TRADOC After Action Report, 21 Jun 91.

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attacks. Unmanned aerial vehicles (UAV) allowed commanders to gain battlefield insight and gather intelligence with minimal risk. UAVs were designed to fly over, alongside, and beyond the forward line of troops, loiter if necessary, and gather and transmit targeting information.⁴⁷

Perhaps the most visible of the Army's modern weapons systems in the operations in the Middle East was the Patriot tactical air defense system. The Patriot was originally designed to defend against medium-to high-performance aircraft, rather than to act as an anti-tactical ballistic missile system to protect cities from the threat of such weapons as Iraq's Soviet Scud missiles. The Army, however, adapted the weapon system to meet the area defense needs of the hour. On 18 January, only hours after the start of hostilities in Desert Storm, a Patriot missile hit and destroyed an Iraqi Scud missile over eastern Saudi Arabia. The event marked the first time an antimissile missile had been used in combat. The Patriots were also fired successfully in the antimissile defense of the Saudi capital, Riyadh, as well as Tel Aviv and other Israeli cities.⁴⁸

The operations in Saudi Arabia and Kuwait also battle-tested an important development in field artillery systems. The Army Tactical Missile System (ATACMS) was fielded to Saudi Arabia in September 1990, instead of to Europe as originally planned. The semiballistic missile, intended as a deep-striking non-nuclear replacement for the Lance missile, used modified launch equipment from the shorter-ranged Multiple Launch Rocket System (MLRS).⁴⁹

Materiel developers at TRADOC were called upon to accelerate the development and acquisition of a number of items of individual equipment. Those included laser eye protectors, upgraded combat vehicle crewman helmets, desert camouflage uniforms, desert boots, and

47 (1) TRADOC Annual Command History, CY 90 p. 100-01. (2) Briefing Slide, ODCST, attachment to Memorandum for Record ATBO-JM, 24 Oct 90, subj: Operation DESERT SHIELD Summary #22. (SECRET/NOFORN/WNINTEL—Info used is UNCLASSIFIED)

48 (1) *The Weapons of Desert Storm* with Introduction and Consultation by Col Walter J. Boyne USAF (Ret) (Lincolnwood, Ill.: Publications International, Ltd., 1991), p. 85. (2) Otto Friedrich, ed. *Desert Storm: The War in the Persian Gulf* (Boston, Toronto, and London: Little Brown and Co., 1991), p. 175. (3) J. Britt McCarley, "The Rockets Red Glare: The Patriot Air Defense Missile System," Draft, September 1991.

49 (1) TRADOC Annual Command History, CY 90, p. 98. (2) *Weapons of Desert Storm*, p. 81.

individual microclimate cooling gear. While the threat of nuclear, biological, and chemical warfare had always been one of primary importance and significance, the real possibility of the use of chemical weapons by Iraq served to focus attention on protective gear and measures.⁵⁰

Operations Desert Shield and Desert Storm served as a laboratory to test the results of TRADOC's efforts to prepare the Army for war. Actual combat allowed the command to assess the effectiveness of the training, doctrine, and combat development programs that had been evolving since TRADOC's establishment in 1973. The desert operations also allowed for the identification of problem areas and the subsequent formulation of plans for future programs to correct deficiencies.

⁵⁰ TRADOC After Action Report, 21 Jun 91.

Chapter V

FAMILY AND COMMUNITY SUPPORT

The crisis in the Gulf and the attendant mobilization that deployed hundreds of thousands of troops left literally hundreds of thousands of family members to wait out the crisis. As the Total Force concept was put to the test, so too was tested the concept of the Total Army—an Army composed of both Active Army and reserve warfighters, along with their civilian counterparts and family members.

Relationships and communication between the active component and the Army Reserve and National Guard, although addressed in mobilization plans, required fine tuning throughout the operation. As was found to be true in many aspects of Operations Desert Shield and Desert Storm, mobilization plans did not address, to a helpful degree, the family support mission. Both the TRADOC Mobilization and Operations Planning System (TMOPS) and the installation mobilization plans gave family support only a broad brush. Supporting details and guidelines were absent.¹ The community and family activities portion of the base operations plan laid out partial and full mobilization, but plans for partial mobilization were identical to the peacetime requirements.² Plans were

1 For example, state area commands, or STARCs, were responsible for providing family assistance within their respective states, but the FORSCOM mobilization plan did not call for STARCs to be mobilized until full mobilization. Most state area commands, therefore, used state and federal active duty personnel, recruiting personnel, borrowed manpower and volunteers to provide necessary family assistance. (1) Oral history interview with Ms Shirley Young, CFAD, HQ TRADOC, 24-25 April 1991, by Mrs. Janet Scheitle. (2) TRADOC Mobilization and Operations Planning System (TMOPS), Vol. I: System, Description, Responsibilities, and Overview. (SECRET—Info used is UNCLASSIFIED)

2 Deputy Chief of Staff for Personnel, Administration, and Logistics Mobilization SOP, HQ TRADOC, May 1988.

extremely vague, indicating missions but not methodologies. Methodologies were only emplaced as the operation progressed.

At the beginning of Operation Desert Shield, it became immediately apparent that there was no definitive guidance on family support for the Army Reserve and National Guard. Headquarters TRADOC quickly issued guidance to Army Community Service personnel and family assistance centers covering family support to deploying soldiers and their families.³ Family support coordinators at the state area commands and major U.S. Army reserve commands, and even down to the National Guard armories, had been established and were monitored and assisted from the active component level.

Hotlines

A myriad of issues and activities sprang up at the outset. First among the issues that had to be addressed was the need for information. Timely and accurate information proved to be a most valuable commodity throughout the duration of the operation, keenly felt at the family and community level. By 14 August the Department of the Army had established a family hot line which consisted of phone numbers which those with a need to know could get access for information on their family members and friends. The hot line was in reality four toll-free telephone trunks, at least one of which was operational 24 hours a day, 7 days a week. The trunks were manned by staff of the Army Community and Family Support Center, the Office of the Chief of Army Reserves, and PERSCOM.⁴ The lines were put to use and immediately swamped to the point that additional operators had to be brought on board to man them.

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- 3 (1) Msg, Cdr TRADOC to distr, 201531Z Aug 90, subj: Operation Desert Shield: Army Community Service (ACS) Guidelines for Services to Family Members. (2) Msg, Cdr TRADOC to distr, 271201Z Aug 90, subj: RC Unit Linkage to Installation Family Assistance.
- 4 OCHAMPUS established a hotline on 31 August 1990. Msg, OCHAMPUS to distr, 311530Z Aug 90, subj: OCHAMPUS Initiatives in Support of Operation Desert Shield.

Early on, operators were instructed to refer callers to the soldier's mobilization station or to the nearest military installation, forcing many installations in turn to set up hotlines.⁵ A commandwide hotline was set up at Headquarters TRADOC at Fort Monroe on 22 August 1990. The hotline was staffed by the Community and Family Activities Directorate of the Office of the Deputy Chief of Staff for Base Operations Support and was aimed at installation level family support personnel seeking clarification or assistance.⁶ Most of the installations ran their own hotlines. Typical was the one established by the Family Support Division at Fort Jackson, South Carolina. Fort Jackson's hotline came on line in August 1990. The toll-free number was distributed to reservists through their information packets handed out at their mobilization in-processing validation center or CONUS replacement center, and announced at all pre-deployment briefings. Fort Jackson reported an average of 100 calls per day coming in on its hotline.⁷

The Family Support Mission

Family support was an important mission during Operations Desert Shield and Desert Storm. Family support systems were established at once, and augmented and refined over the course of the operations. Headquarters TRADOC established the Soldier/Family Planning Group at the headquarters level to support installation activities and problems. The group was made up of experienced action officers from the base operations support and morale, welfare, and recreation directorates. Their mission was to resolve systemic problems, respond to hotline calls of an unusual nature, and provide a link for the field to the command. Some of the issues addressed by the group were family care plans, casualty assistance, orders, financial problems, housing concerns, and

5 Memorandum for Record ATBO-JM, 16 Aug 91, subj: Operation Desert Shield Summary #1. (SECRET—Info used is UNCLASSIFIED)

6 Draft manuscript, "Out of Hide: A History of the U.S. Army Training and Doctrine Command Base Operations Support of Operation Desert Shield and Desert Storm", edited by Mr. Jim Byrn, 1992. Interestingly, only one call was logged in on the hotline for the entire span of ODS.

7 Oral history interview with Ms Audrey Wise, Family Support Division, Fort Jackson, S.C., 14 March 1991, by Mr. Jim Byrn and Mrs. Janet Scheitle.

crisis counseling.⁸ Headquarters TRADOC also developed and sent out Army Community Service (ACS) guidelines for services to family members and sent the guidelines down to the supporting installations, although by that time, most installation ACS activities had developed their own in the vacuum. Family support coordinators at all levels organized and participated in family assistance briefings aimed at both the soldier and his family and covering all aspects of deployment. For the installations, family support organizations included the family assistance centers, rear detachments, and family support groups.

Family Assistance Centers

Over 520 active and reserve component family assistance centers (FAC) were established in all the states and affected installations in Europe.⁹ FACs operated as one-stop referral and assistance centers. Generally the family assistance centers were manned by representatives from Army Community Service, the Red Cross, CHAMPUS, and the finance, personnel, legal, dental and medical, and the chaplain's offices, as well as agents from the inspector general's office, the directorate of logistics, the directorate of engineering and housing, and the public affairs office. Most were operated 24 hours a day, 7 days a week. Forts Lee, Eustis, and Benning were the first to establish family assistance centers operating such a schedule.¹⁰ As early as 20 August 1990, TRADOC issued information to the FACs concerning family support to deploying troops.¹¹ That was quickly followed with guidance on family

8 (1) Draft manuscript, "Out of Hide: A History of the U.S. Army Training and Doctrine Command Base Operations Support of Operations Desert Shield and Desert Storm", edited by Mr. Jim Byrn, 1992. (2) Oral history interview with Ms Shirley Young, CFAD, HQ TRADOC, 24 April 1991, by Mrs. Janet Scheitle.

9 Desert Storm Special Study Project, Operation Desert Storm After Action Report (hereafter cited as DSSSP), 16 Oct 91, p. V-2-1. Unpublished manuscript in the Historical Research Collection, Office of the TRADOC Command Historian. (SECRET—Info used is UNCLASSIFIED)

10 (1) Center for Army Lessons Learned Special Bulletin No. 91-2, The Yellow Ribbon, Fort Leavenworth, Kan., June 1991. (2) Memorandum for Record ATBO-JM, 16 August 1990, subj: Operation Desert Shield Summary #1. (SECRET—Info used is UNCLASSIFIED)

11 Msg, Cdr TRADOC to distr, 201531Z Aug 90, subj: Operation Desert Shield: Army Community Service (ACS) Guidelines for Services to Family Members.

support to the reserves.¹² The family assistance centers were established at the installation commander's discretion, thus they were not uniformly established throughout TRADOC. Some installations chose not to establish them at all, placing the burden of family support instead on Army Community Services or other individual family support agencies. Some installations established a center at the corps level, as did Fort Sill, while some others at the brigade level, as did Fort Lee.

Resourcing the family assistance centers was the installation responsibility. For Operations Desert Shield and Storm, FACs had to scramble for facilities which were often inadequate, lacking waiting areas, meeting rooms, training centers, and other space to accommodate a twenty-four hour operation. Telephones, furniture, and office equipment were lacking in many cases.¹³ Staffing came out of installation resources as General Foss's decision not to use call-up forces to man base operations dictated. Staffing for family support was tricky business. Redistributing staffing assets more equitably throughout the installation was deemed out of the question, as most family support personnel were civilian. The temporary hire pool did not meet the special needs of the job. Most installation commanders found themselves diminishing ongoing services and stretching existing manpower.¹⁴

12 Msg, Cdr TRADOC to distr, 271201Z Aug 90, subj: RC Unit Linkage to Installation Family Assistance.

13 Center for Army Lessons Learned Special Bulletin No. 91-2, The Yellow Ribbon, Fort Leavenworth, Kan., June 1991, pp. 16-18.

14 (1) Draft manuscript, "Out of Hide: A History of the U.S. Army Training and Doctrine Command Base Operations Support of Operation Desert Shield and Desert Storm", edited by Mr. Jim Byrn, 1992. (2) Oral history interview with Col Frost, DPCA, Ft Knox, 13 March 1991, by Mrs. Janet Scheitle. (3) Family support personnel interviewed at Forts Knox, Benning, and Jackson indicated that this situation occurred with varying degrees of impact. Fort Jackson, which was able to hire high quality temporaries to serve as action officers did not feel the impact of this as much as Forts Knox and Benning.

The resourcing shortage was most keenly felt at Forts Benning, Knox, and Jackson, the three installations that housed CONUS replacement centers (CRCs). Units processed primarily through mobilization in-processing validation centers while individuals flowed through the CRCs. In both cases, family support services were concentrated with the center to facilitate the in-processing. The stickiest, and most time-consuming issue handled by family support personnel during the mobilization was that of family care plans. Although technically an adjutant general responsibility at the unit level, the problem of lack of adequate family care plans became problematic with the call-up of the Individual Ready Reserve.¹⁵ Due to the nature of that population, many soldiers reported to their mobilization station or CRC with less than satisfactory or no family care plan. Family care plans allowed for the care of a soldier's family during his absence. Lack of an adequate family care plan made the soldier nondeployable. Family care plans surfaced as an issue on 7 November 1990 when reserve units began processing through the CONUS replacement centers.¹⁶ At Fort Benning, twenty-five soldiers did not deploy because they could not put together an adequate family care plan.¹⁷ Headquarters TRADOC studies indicated that, overall in TRADOC, two percent of deploying soldiers had problems with their family care plans, except for Fort Benning where the breakout was almost five percent.

15 Oral history interview with Chaplain (Colonel) Roy Mathis, HQ TRADOC Chaplain, 6 March 1991, by Dr. Susan Canedy and Mrs. Janet Scheitle; Mr. Gerry Compton, Director, Community and Family Activities, HQ TRADOC, 6 March 1991, by Mrs. Janet Scheitle; and Ms Audrey Wise, Chief, Family and Community Support, Fort Jackson, 14 March 1991, by Mr. Jim Byrn and Mrs. Janet Scheitle.

16 (1) Memorandum for Record ATBO-JM, subj: Operation Desert Shield, Summary #24, 7 November 1990. (SECRET—Info used is UNCLASSIFIED) (2) JULLS #3122908931 (00007), title: Family Care Plans. (3) JULLS #10112-84633 (00006), title: Family Care Plans for RC Soldiers. (4) JULLS #42251-37587 (00808), title: Single Parents' Family Care Plans.

17 Oral history interview with COL Frost, DPCA, Fort Knox, 13 March 1991, by Mr. Jim Byrn and Mrs. Janet Scheitle.

Family assistance teams tackled a variety of on-the-spot unique problems, all requiring attention and all with an accompanying sense of immediacy. Reserve and National Guard families, following their sponsors, arrived on installations, swamping the installation and local community resources.¹⁸ A few soldiers arrived with children in tow, and some women soldiers arrived pregnant. Many arrived in their own cars, requiring installations to provide secure long-term storage. Over the course of the mobilization, families arrived minus their already departed sponsor, needing family support assistance. Unaccompanied family members returning from the Middle East sought guidance and assistance as well.¹⁹

One of the missions of the family assistance centers was to support and link the rear detachment and the family support groups to the active component structure. The rear detachment was the unit-inherent structure responsible for supporting the families of deployed soldiers. In addition, the rear detachment, as that part of the unit left behind, accomplished unit tasks for installation support, training of replacements, and property accountability. The rear detachment had to be capable of handling a variety of problems, many of them family related, with attention and care.²⁰

Family Support Groups

Family support groups (FSGs) were groups of volunteers within the unit that assisted the rear detachment in sustaining families by

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- 18 (1) Draft manuscript, "Out of Hide: A History of the U.S. Army Training and Doctrine Command Base Operations Support of Operations Desert Shield and Desert Storm", edited by Mr. Jim Byrn, 1992. (2) PROFS msg from Dilworth to Garrison Commanders and Chiefs of Staff, 29 Jan 91, subj: Processing of IRRs Requiring a Family Care Plan. In this message Brig Gen Dilworth requested installations to be prepared to assist IRRs, including billeting, messing, and temporary child care.
- 19 Msg, CDR TRADOC to Director, Army Community Service, 231331Z Aug 90, subj: Unaccompanied Family Members Returning from the Middle East.
- 20 The role of the rear detachment, and some of the problems generated by Operations Desert Shield and Desert Storm, are discussed in section I of The Yellow Ribbon, Center for Army Lessons Learned Special Bulletin No. 91-2, Jun 91.

exchanging support and transmitting information. FSGs were primarily made up of unit spouses, but often included guardians of dependent children, parents, and other friends as well as soldier volunteers. The FSG was an organized group with the very important mission of providing links between families, deployed soldiers, unit rear detachments, and local support agencies.²¹ The support groups played a key role in Operations Desert Shield and Desert Storm reassuring families, reducing feelings of isolation and anxiety, and sustaining morale. Often they played a major role linking the active structure to the reserve as family assistance centers strove to work through the family support groups. Due to their makeup, some groups were better than others, personnel turnover was high as soldiers returned and spouses dropped out, and "burn-out" was a common problem.²²

Chaplain Support

Family support was also addressed at the chaplains' level of activity. At all installations, chaplains organized family support groups through their family life centers and chapel activities. Both community and family activities personnel and the Chaplain Corps prepared for and staffed group activities, counseling sessions, family support groups, and casualty assistance programs. Activity was such that, and mobilization to a level that, the chaplains, Army-wide, were stretched quite thin.

TRADOC had responsibility for providing chaplains to active component units mobilized at TRADOC installations and to reserve forces passing through TRADOC sites. Unit ministry teams (UMTs) deployed as the units deployed. Assigned to troop units at the battalion level, each UMT consisted of a chaplain and a chaplain's assistant. In peacetime, the teams served at the installation level. With the mobilization for Operation Desert Shield, installation assets were drawn down to support the

21 FSGs are covered in DA Pam 608-47, *A Guide to Establishing Family Support Groups*.

22 (1) See section II of *The Yellow Ribbon*, Center for Army Lessons Learned Special Bulletin No. 91-2, Jun 91. (2) JULLS #51931-25100 (00008), title: Family Support Group Role, Authorized Support, and Training. (3) JULLS #10108-25893 (00005), title: Assistance to National Guard and Reserve Component Families.

deploying forces. For example, Fort Benning lost fifteen unit ministry teams almost immediately as units deployed. That left twenty-five teams to do the work that was previously done by forty. That work included serving the families, maintaining ongoing religious services, officiating over weddings and funerals, hospital duty, and community ministering.²³ To make the situation even more complex, deploying units required the correct mix of chaplains to serve the various religious needs of the soldiers. Almost immediately a critical shortage of Catholic and Jewish chaplains was noticed.²⁴ Fort Benning was left with two Catholic chaplains to serve the installation, and they worked alternate days, twenty-four hours a day. Fort Bliss operated with one Catholic chaplain.²⁵ Fort Story was left with only one chaplain for the entire installation. All the while, TRADOC installations saw an increase in attendance at chapel services and an increased need for family support.

The Army as a whole experienced a shortage of chaplains throughout the mobilization. The shortage was keenly felt in TRADOC. During a mobilization, additional chaplains to augment the active component would by plan come directly from the reserve force. General Foss's decision not to use reserve assets to support base operations short-circuited the normal procedure. Chaplains were taken off installations and shared across TRADOC to insure the active component was

23 (1) Draft manuscript, "Out of Hide: A History of the U.S. Army Training and Doctrine Command Base Operations Support of Operations Desert Shield and Desert Storm", edited by Mr. Jim Byrn, 1992. (2) Oral history interview with Chaplain (Colonel) Roy Mathis, TRADOC Chaplain, HQ TRADOC, 6 March 1991, by Dr. Susan Canedy and Mrs. Janet Scheitle.

24 TRADOC UMT Training Conference, Radisson Hotel, Hampton, Va., 6-8 May 1991.

25 (1) Ibid. (2) Draft manuscript, "Out of Hide: A History of the U.S. Army Training and Doctrine Command Base Operations Support of Operations Desert Shield and Desert Storm", edited by Mr. Jim Byrn, 1992. (3) JULLS #10305-90344 (00422), title: Attendance at Chapel Services.

adequately manned. By September 1990, with the mobilization of the reserves and National Guard, the pool of available chaplains had evaporated and requests for reserve chaplains surfaced at Headquarters TRADOC.²⁶ That Headquarters' policy of not using reserve forces to augment base operations mandated that requests be considered at the headquarters level on a case by case basis. Headquarters TRADOC did authorize an individual mobilization augmentee chaplain for Fort Knox on 8 September 1990. For the entire operation, ten chaplains were brought in from the reserve pool.²⁷

Adding further strain, the Chief of Staff of the Army advised that casualty assistance centers would be staffed with two chaplains. As TRADOC operated sixteen such centers throughout the command, a statement of immediate need was sent forward. A call-up of retired Army chaplains was initiated through the Army Reserve Personnel Center (ARPERCEN).²⁸ The call-up of retired chaplains was not unlike the call-up of the Individual Ready Reserve in terms of quality control, or more specifically, lack thereof. ARPERCEN initially called for active duty terms of 30 to 90 days, later changing the term to up to one year. Some chaplains called were over-age. Most important, the callup was too late. ARPERCEN had ordered the chaplains to report on 4 March 1991. The ground war began on 24 February, ending 100 hours later. Had the war turned out differently—had the Iraqis fought back, had chemical weapons been used, had the United States suffered the mass casualties that were projected—manning at the casualty assistance centers would have been inadequate.²⁹

26 An underlying difficulty as regards chaplain availability was that FORSCOM and HSC had, over time, drained off many of the reserve chaplains. Memorandum for Record ATBO-JM, 4 Sep 90, subj: Operation Desert Shield Summary #11. (SECRET—Info used is UNCLASSIFIED)

27 (1) Oral history interview with Chaplain (Colonel) Roy Mathis, TRADOC Chaplain, HQ TRADOC, 6 March 1991, by Dr. Susan Canedy and Mrs. Janet Scheitle. (2) Memorandum for Record ATBO-JM, 11 Sep 90, subj: Operation Desert Shield Summary #13. (SECRET—Info used is UNCLASSIFIED)

28 Due to the organization of the Chaplain Corps, there was some confusion, and resulting delay, as agencies squabbled over jurisdiction. ARPERCEN, OCCH, and Command Chaplains Offices all were involved in the call-up.

29 (1) Oral history interview with Chaplain (Colonel) Roy Mathis, TRADOC Chaplain, HQ TRADOC, 6 March 1991, by Dr. Susan Canedy and Mrs. Janet Scheitle. (2) TRADOC UMT Training Conference, Radisson Hotel, Hampton, Va., 6-8 May 1991. (3) JULLS #31952-57700 (00505), title: Timely Call-Up of Retiree Chaplains.

Appendix

DESERT STORM ARTIFACTS IN TRADOC MUSEUMS

Beginning in the early 1980s, Army museums in the Training and Doctrine Command underwent internal improvements to become actively involved in soldier training and education at all levels. As an element of the Army Historical Program, the Army branch museums in TRADOC developed exhibitions and provided on-site presentations for officer and enlisted course students to complement the basic curricula. The branch museums used their artifact and archival collections in support of technological research to provide historical perspective. By concentrating activities on the branch that they served, the museums provided officers and soldiers an enhanced awareness of the equipment and material developed by their branch. Exploitation of captured enemy material served to illustrate the influence of technological exchange.

Officers and soldiers who participated in Operations Desert Shield and Desert Storm brought with them a sensitivity to the lessons of the military past. Operational planning benefitted from a realistic appreciation of enemy capabilities based on Iraq's performance in the Iran-Iraq War, and of the technical sophistication of Iraqi army equipment. Capabilities of American forces were viewed from a historical perspective. Allied capabilities were not ignored or assumed. The offensive plan for Operation Desert Storm was informed by knowledge of the historical strengths and weaknesses of both sides.

With the onset of the desert operations, the Army museums in TRADOC, as well as the Museum Division in the U.S. Army Center of

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Military History, took steps to acquire the equipment, material, technical and field manuals, technical reports, and other documentation necessary to carry out the museums' historical mission in support of future officer and soldier training. The acquisition of historical property followed two parallel courses. At the Department of the Army, the Center of Military History's Museum Division dispatched a three-person team of Army reservists experienced in museum operations. They were charged to obtain representative examples of American, allied, and captured enemy material of all types, ranging from weapon systems to camp equipment and personal equipment and clothing. The team departed for Saudi Arabia in March 1991 and returned six months later. Moving throughout the American zone of operations, they acquired approximately 18,000 objects. Some of those items were obtained in response to requests received from the Army museums prior to the team's departure. The balance of the collection, excepting those items set aside for the National Army Museum, was scheduled to be distributed to the branch and unit museums.

At the level of the branch museums, the acquisition process for the Gulf War depended primarily on the traditional receipt of donations by returning individuals or units. Those donations formed the initial inventory of Desert Shield and Desert Storm material in the branch museum collections. An initial survey of holdings follows:

U.S. Army Air Defense Artillery Museum, Fort Bliss, Tex.

Captured Iraqi uniforms, personal field equipment and comfort items, maps, and documents; U.S. desert uniforms, personal field equipment and comfort items, letters, and insignia.

U.S. Army Aviation Museum, Fort Rucker, Ala.

Two Iraqi Army helicopters—a Soviet-made MI-25 (Hind) and an MI-17, miscellaneous personal items; U.S. airmen uniforms and flight equipment used in the combat operations. The museum has prototypes of U.S. helicopters used in Operations Desert Shield and Desert Storm.

U.S. Army Chaplain Historical Holding, Fort Monmouth, N.J.

U.S. soldier-built field altar, chaplain kits, desert camouflage uniforms and equipment used by chaplains.

U.S. Army Chemical Corps Museum, Fort McClellan, Ala.

U.S. and Iraqi chemical masks; U.S. MOPP (mission oriented protective posture) suits, detection equipment, personal decontamination equipment, and a complete desert camouflage uniform worn by a member of the Chemical Corps; a Kuwaiti flag.

U.S. Army Engineer Museum, Fort Leonard Wood, Mo.

Iraqi Army communications equipment, chemical-biological equipment and clothing, uniforms, small arms, mines, towed howitzer, antiaircraft guns, and other equipment; U.S. Army desert camouflage uniforms and equipment identified to individuals, Global Positioning System equipment, and miscellaneous personal material; a highway sign.

U.S. Army Field Artillery and Fort Sill Museum, Fort Sill, Okla.

The following Iraqi equipment: 120-mm. mortar (two), 155-mm. G-5 gun-howitzer, 130-mm. M-46 gun, 152-mm. type 83 gun, 152-mm. D-20 gun-howitzer, small arms, Iraqi Army uniforms and personal equipment.

**Fort Huachuca Museum and Intelligence School Museum,
Fort Huachuca, Ariz.**

As an installation museum, the Fort Huachuca Museum approached coverage of Operations Desert Shield and Desert Storm solely from the perspective of the units deploying from the installation. This approach limited the depth of the collection effort. The museum's initial coverage of the war was a film detailing signal and military intelligence unit activity. In early 1992, the museum anticipated receiving material from the Center of Military History collection.

Fort Jackson Museum, Fort Jackson, S.C.

Captured Iraqi nuclear-biological-chemical material. As of early 1992, the museum had requested artifacts from the Center of Military History. A monograph was compiled describing Fort Jackson support of Operations Desert Shield and Desert Storm.

**U.S. Army Military Police Corps Regimental Museum,
Fort McClellan, Ala.**

During Operations Desert Shield and Desert Storm, the museum sent letters to MP unit commanders requesting they provide examples of MP uniforms and equipment as well as captured material that came into their possession in the course of carrying out the enemy prisoner of war

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mission. As a result, the museum received Iraqi uniforms and personal items from enemy prisoners. The museum also received several Army desert camouflage uniforms worn by MPs, together with insignia and related equipment.

U.S. Army Museum of the Noncommissioned Officer, Fort Bliss, Tex.
Iraqi small arms, army uniforms, and equipment.

National Infantry Museum, Fort Benning, Ga.

The following Iraqi equipment: two Republican Guard uniforms, officer field dress, miscellaneous uniform items, chemical equipment, personal equipment and comfort items, camp equipment, headgear, small arms (captured by the 1st and 24th Infantry Divisions), sub machine guns, rocket launchers, three assault rifles, a radio transceiver R-105M, three 60-mm. mortars, 82-mm. mortar, 120-mm. mortar (incomplete), type 80 antiaircraft gun, ZU-23 antiaircraft gun, type 65 twin antiaircraft gun (Chinese), BRDM-2 scout car, BMP-1 vehicle, T-72M tank, 152-mm. howitzer type 83 (Chinese), motorcycle (East German), SPG-9 antitank weapon. The following U.S. items were procured: soldier equipment, uniforms, personal items, propaganda leaflets, U.S. prisoner of war uniform.

U.S. Army Ordnance Museum, Aberdeen Proving Ground, Md.
An Iraqi armor recovery vehicle.

Patton Museum of Cavalry and Armor, Fort Knox, Ky.

Iraqi Republican Guard armor officer's uniform and personal equipment (complete), small arms, nuclear-biological-chemical material, personal equipment, T-72M1 tank, T-72M tank, two BMP-1 vehicles, one BRDM vehicle, and field maps, manuals, and overlays. U.S. armor uniform with equipment (complete). The museum provided familiarization training on Soviet equipment for units departing for Saudi Arabia.

U.S. Army Quartermaster Museum, Fort Lee, Va.

A Kuwaiti flag; photographs; U.S. rations and food preparation equipment, desert camouflage clothing from depot stocks, combat equipment, and desert boots.

U.S. Army Signal Corps and Fort Gordon Museum, Fort Gordon, Ga.
Iraqi uniforms, equipment, personal items, chemical protective

equipment, and communication transceivers and equipment; U.S. PRC-638 radio and related equipment, and switchboard.

3d Cavalry Museum, Fort Bliss, Tex.

A complete U.S. Army desert uniform with related field equipment, flak jacket, and helmet used by a member of the 3d Armored Cavalry Regiment.

U.S. Army Transportation Museum, Fort Eustis, Va.

U.S. Army uniforms and equipment used by members of the 7th Support Group; U.S. HMMWV (high mobility multipurpose wheeled vehicle) and CUCV (commercial utility cargo vehicle); allied uniforms and equipment; German MAN truck used by 419th Transportation Battalion and a German TATRA large equipment hauling truck used by the 3/2 Air Defense Artillery Battalion; captured Iraqi clothing and equipment, and two captured Iraqi 5-ton trucks used by the 180th Transportation Battalion; Bedouin tent.

Women's Army Corps Museum, Fort McClellan, Ala.

U.S. desert clothing and personal items used by a woman soldier who trained United Arab Emirates women soldiers at Khawla Bint Alacwar Military School.

List of Acronyms and Abbreviations

AC	active component
ACS	Army Community Service
AFSO	aerial fire support observer
AG	adjutant general
AGR	Army (National) Guard Reserve
AIT	advanced individual training
ALFA	Air Land Forces Application Agency
ALO	authorized level of organization
AMC	U.S. Army Materiel Command
AMCCOM	U.S. Army Armament, Munitions, and Chemical Command
AMEDD	Army Medical Department
AMOPS	Army Mobilization and Operations Planning System
ANCOC	Advanced Noncommissioned Officer Course
ANG	Army National Guard
APC	armored personnel carrier
APFDS	armor piercing fin stabilized discarding sabot
APOE	aerial ports of embarkation
ARCENT	U.S. Army Central Command
ARPERCEN	Army Reserve Personnel Center
ARTEP	Army Training and Evaluation Program
ATACMS	Army Tactical Missile System
ATRRS	Army Training Resource Requirement System
BASOPS	base operations
BCT	basic combat training

List of Acronyms and Abbreviations

BDO	battle dress overgarment
BDU	battle dress uniform
BNCOC	Basic Noncommissioned Officer Course
CAC	casualty assistance center
CALL	Center for Army Lessons Learned
CAS ³	Combined Arms and Services Staff School
CENTAF	U.S. Air Force Central Command
CENTCOM	U.S. Central Command
CFE	Conventional Forces in Europe (Treaty)
CGSC	Command and General Staff College
CGSOC	Command and General Staff Officers Course
CONUS	continental United States
CRC	continental United States (CONUS) replacement centers
CTC	Combat Training Centers
DA	Department of the Army
DCSBOS	Deputy Chief of Staff for Base Operations
DCST	Deputy Chief of Staff for Training
DEH	directorate of engineering and housing
DLI	Defense Language Institute
DOL	directorate of logistics
FAC	family assistance center
FM	field manual
FORSCOM	U.S. Army Forces Command
FSG	family support group
GPS	Global Positioning System

List of Acronyms and Abbreviations

HEMTT	Heavy Expanded Mobility Tactical Truck
HET	Heavy Equipment Transporter
HSC	U.S. Army Health Services Command
IET	initial entry training
IG	inspector general
IMA	individual mobilization augmentees
IRR	Individual Ready Reserve
JAG	judge advocate general
JCS	joint chiefs of staff
JSTARS	Joint Surveillance Target Attack Radar System
MAC	U.S. Air Force Military Airlift Command
MACOM	major Army command
MARCENT	U.S. Marine Corps Central Command
MEPS	mobilization entrance processing station
MIVC	mobilization in-processing validation center
MLRS	Multiple Launch Rocket System
MOPP	mission-oriented protective posture
MOS	military occupational specialty
MTT	mobile training team
MUSARC	major U.S. Army Reserve Command
NAVCENT	U.S. Navy Central Command
NBC	nuclear, biological, chemical
NBCRS	Nuclear, Biological, and Chemical Reconnaissance System
NETT	new equipment training team
NTC	National Training Center

List of Acronyms and Abbreviations

OAC	Officer Advanced Course
OCIE	organizational clothing and individual equipment
OSUT	one-station unit training
PAO	public affairs office
PERSCOM	U.S. Army Personnel Command
POMCUS	prepositioning of materiel configured to unit sets
PSA	port support activity
RC	reserve component
RC ³	reserve component configured courses
ROTC-CC	Reserve Officers' Training Corps Cadet Command
SAW	Squad Automatic Weapon
SOUTHCOM	U.S. Southern Command
SRP	soldier readiness program
STARC	state area command
STRAC	Standards in Training Commission
SWA	Southwest Asia
TAC	U.S. Air Force Tactical Air Command
TACFIRE	Tactical Fire Direction System
TBOR	training base output requirement
TDA	table of distribution and allowances
TMOPS	TRADOC Mobilization and Operations Planning System
TOE	table of organization and equipment
TOMA	Training Operations and Management Activity
TOW	tube launched, optically tracked, wire guided
TRADOC	U.S. Army Training and Doctrine Command

List of Acronyms and Abbreviations

TRANSCOM	U.S. Transportation Command
TTP	tactics, techniques, and procedures
TVM	track via missile
UAV	unmanned aerial vehicle
UMT	unit ministry team
USC	U.S. Code
U.N.	United Nations

Headquarters TRADOC Source Materials for Operations Desert Shield and Desert Storm

During and following Operations Desert Shield and Desert Storm, the Office of the Command Historian, Headquarters TRADOC, has amassed a considerable collection of documents covering those operations. The single most extensive group of documents is the Headquarters' incoming and outgoing message traffic for the duration of the operation, to include redeployment. Message traffic from and to TRADOC's subordinate installations is included as well as traffic from and to Department of the Army, U.S. Army Personnel Command, U.S. Army Forces Command, Army Reserve Personnel Center, Army Materiel Command, Defense Intelligence Agency, Commander-in-Chief Forces Command, Headquarters U.S. Air Force Military Airlift Command, Headquarters U.S. Air Force Tactical Air Command, and U.S. Commander-in-Chief Atlantic. Those messages address a host of issues, not limited to mobilization, training, logistics, the CONUS replacement centers, port support, personnel, intelligence, and family support.

Similar to this primary group of materials are two separate message traffic files. The first comprises Green Force messages, the weekly military situation summaries from 15 September 1990 through 28 February 1991. These note and chronicle coalition military movement, entry into the theater, positioning, weaponry and equipment, realignment of forces, battle lines, and individual national updates. The second comprises message traffic for Proud Eagle 90, the joint exercise mandated by law to exercise the National Command Authorities, Office of the Secretary of Defense, Joint Chiefs of Staff, Services, unified and specified commands, and Department of Defense agencies in crisis management procedures. The documents span September through November 1989 and are of particular interest as many of the issues noted during Operations Desert Shield and Desert Storm were chronicled during Proud Eagle.

Another valuable research resource is the oral history file. Taped oral history interviews were conducted with all Headquarters TRADOC

Source Materials

major players as well as participants at Forts Benning, Knox, and Jackson, the three CONUS replacement center sites. There are sixty-five such interviews, taken with a base operations support perspective. The oral history file remains active. Added by February 1992 were over fifty interviews taken at Fort Benning covering a variety of areas and many other smaller groupings awaiting transcription and cataloguing. A typed transcript of each interview is deposited in the TRADOC Historical Research Collection, along with the audio tape.

Many of the documents within the TRADOC Desert Shield and Desert Storm file are naturally base operations support oriented. Worthy of mention are the Headquarters TRADOC civilian personnel message traffic and issue papers, and Headquarters TRADOC community and family activities directorate message traffic and issue papers. Both are complete for the duration of the operation and contain a wealth of information. Also of note are documents relating to the CONUS replacement centers to include historical implementation papers, handbooks, lessons learned, and after action reports.

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