

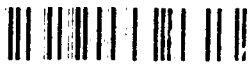
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LOGISTICAL SUPPORT OF SPECIAL OPERATIONS FORCES
DURING OPERATIONS DESERT SHIELD AND DESERT STORM

BY

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United States Army

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Targeted primarily for those in the special operations community, this research project is of benefit to anyone involved in theater sustainment planning and operations. Having served as the Director for Logistics, J-4 of Special Operations Command Central, the author provides personal insight to several of the key logistics issues confronting SOF planners.

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LOGISTICAL SUPPORT OF SPECIAL OPERATIONS FORCES
DURING OPERATIONS DESERT SHIELD AND DESERT STORM

AN INDIVIDUAL STUDY PROJECT

by

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INTRODUCTION

On 2 August 1990, military forces from Iraq invaded Kuwait. Almost immediately following the illegal occupation of Kuwait, Iraqi forces began massing troops and combat equipment along the northern border of Saudi Arabia. On 7 August 1990, President Bush announced the deployment of U.S. forces to Saudi Arabia. OPERATION DESERT SHIELD was officially underway.

Among the first forces to deploy were Special Operations Command Central (SOCCENT) and the special operations forces (SOF) assigned to United States Special Operations Command (USSOCOM). Operationally, these SOF, under the OPCON of SOCCENT, would play a significant role in the ultimate defeat of the Iraqi military and the liberation of Kuwait by U.S. Central Command (USCENTCOM) and the coalition forces.

As stated by General H. Norman Schwarzkopf, USCINCENT, during a post-DESERT STORM USCENTCOM press conference¹, much of the operational successes achieved in OPERATIONS DESERT SHIELD and DESERT STORM were attributable to good logistical support of the operations. This statement also applies to SOF. Although not always perfect or as responsive as most would desire, logistical support for SOF during the war in the Gulf contributed in part to the successes achieved by the various SOF units.

The purpose of this research is to discuss the logistical aspects of the recent Gulf operations to determine if existing logistics support structures and doctrine are viable as they

pertain to supporting deployed SOF. To accomplish this, logistical highlights and shortfalls are discussed for each of the SOF service components and the SOCCENT headquarters. However, the reader should be aware that the predominant effort of this research was focused on Army SOF (ARSOF), as is evident based on the space allotted to Army concerns in this paper.

PRE-DESERT SHIELD DEPLOYMENT:

DOCTRINE, PLANS, KEY EVENTS

To provide some background for logistical support operations conducted during OPERATIONS DESERT SHIELD and DESERT STORM, a brief explanation of SOF support doctrine and the roles of USSOCOM, SOCCENT, the military services, and the Service components will be beneficial. Additionally, in order to better appreciate the events which took place following the invasion of Kuwait, an understanding of some of the key planning events and considerations which occurred prior to August 1990 is necessary.

Day to day, most SOF not employed in another CINC's AOR fall under the command of USSOCOM.² Doctrinally, USCINCSOC is charged with providing combat ready and equipped SOF to the warfighting CINCs when directed by the JCS. Common item logistical support of these forces generally remains the responsibility of the parent Service. SOF peculiar supplies and equipment funding and procurement are the responsibility of USCINCSOC. To accomplish this task, USCINCSOC has his own budget: Major Force Program

(MFP) 11.³

In accordance with joint doctrine, in time of war or national emergency USCINCSOC provides the warfighting CINCs with SOF.⁴ Habitually, the CINC passes OPCON of these forces to his special operations component. In USCENTCOM, the SOF component is SOCCENT. As a sub-unified command, SOCCENT is an operational headquarters responsible for tactical employment of SOF. It is not responsible for the logistical support of the forces under its OPCON. Command less OPCON of these forces when deployed to the USCENTCOM AOR is the responsibility of the Service component commanders; U.S. Army Central (USARCENT), U.S. Central Air Force (USCENTAF), and U.S. Navy Central (USNAVCENT).⁵ As always, unless stated otherwise, command responsibility includes that of logistical support.

For planning purposes, the Joint Strategic Capabilities Plan (JSCP) provides a CINC with threat specific information, and allocates the forces available to him to counter that threat. The CINC uses these forces in the process of developing his OPLAN. Once an OPLAN is drafted, it is normally staffed among the Service components for comments and potential changes. After appropriate action is taken regarding the comments, the CINC submits the OPLAN to JCS for approval. If approved, the plan is returned to the CINC, and component commands have a specified amount of time to prepare and submit supporting plans. In the case of OPERATION DESERT SHIELD, a regional contingency operation, no approved, current OPLAN existed. As a part of the

deliberate planning process defined in the Joint Operational Planning and Execution System (JOPES), USCENTCOM was in the process of completely rewriting OPLAN 1002, an outdated, USCENTCOM regional contingency plan. The OPLAN was still in a draft stage of development, with only limited copies having been distributed to the component commands in July 1990, only weeks before the Iraqi invasion of Kuwait. No TPFDD conferences had been conducted to quantify specific support requirements or to establish and validate the transportation and sustainment portion of the plan. As a result, when notified for deployment, units had not completed any detailed logistical planning specific to this regional contingency. What did exist, however, were outdated previous regional OPLANS and COMPLANS, and the SOCCENT Standard Operating Procedures (SOP), all of which provided general logistical guidance to the SOF habitually allocated to USCENTCOM in the JSCP. Both the USCENTCOM SOP and the draft regional OPLAN were in the hands of the Service component commands. As was normally the case, the logistics sections and annexes, tasked the Service component commands to provide logistical support to their respective forces. These taskings came as no surprise to planners in the joint community as they were consistent with the requirements spelled out in JCS Pub 2. Dated in 1986, this reference specifies, "Implementation and execution of logistics functions remains the responsibility of the Service and the Service component commander."⁶ At the request of SOCCENT, in OPLAN 1002 (Draft), USCENTCOM included the

specific tasking to the respective Service component commanders, "Provide logistical support of SOF OPCON to SOCCENT".'

Although cognizant that the Service component commanders were aware of their logistical support responsibilities for deployed SOF, SOCCENT planners and commanders were concerned how the Service components would execute this support. Consequently, SOCCENT commanders and planners routinely pressed support of SOF as an issue individually with the Service component commands and collectively with the CINC and his staff. The primary reason for concern was centered around sustainment shortfalls generated by the planned flow for deploying forces. Existing USCENTCOM war and contingency plans called for the early deployment of SOF to the AOR, however, the units in the TPFDL that could logistically support SOF arrived in-theater as much as seven weeks later in the deployment process, causing a potential logistical shortfall. The solutions offered to each of the SOF components to offset this shortfall varied by Service component.

USCENTAF planned to provide its doctrinal logistic support to AFSOC⁸ units the same as they planned to support their organic combat elements; assignment of a host wing at each beddown location. These host wings, typically a tactical fighter wing, using their organic support squadrons and other resources, would be responsible for providing all life support and common logistical support to any tenant at a particular location. To facilitate rapid establishment of operations and reduce strategic airlift requirements, USCENTAF had prepositioned in the USCENTCOM

AOR significant quantities of supplies and base operating equipment and vehicles. By USCENTCOM tasking, USCENTAF was also required to provide support to the SOCCENT headquarters.

Prior to hostilities in the Gulf, SOCCENT and AFSOC provided their respective wartime requirements to USCENTAF. Additionally, as a follow-up procedure, SOCCENT and AFSOC logistics planners met with USCENTAF senior support planners to reconfirm USCENTAF's ability to support SOF.⁹ Conceptionally, the concept of support was sound. To provide more detailed planning, additional information specific to requirements was requested of AFSOC by USCENTAF at that meeting. Unfortunately, this information was not provided by AFSOC prior to August 1990. However, the resulting impact on mission accomplishment was negligible.

In various planning conferences conducted at USCENTCOM during 1989 and 1990, USNAVCENT indicated the SOF under the command of NAVSPECWARCOM¹⁰ were logistically supportable. To address the "early on" sustainability issue for early deploying Navy SOF, the USNAVCENT position was that Navy SOF would deploy with sufficient supplies to self sustain operations for the first thirty days. After that period of time, traditional doctrinal support units would be in place and capable of meeting sustainment requirements. The exception to this concept of support was maritime and ground fuels which would have to come from U.S. military sources, or most likely, host nation support. To provide some redundancy to the support structure, USNAVCENT, in coordination with USMARCENT, had USCENTCOM task USMARCENT in

OPLAN 1002 (Draft) to also provide logistical support of Navy SOF OPCON to SOCCENT. Face-to-face discussion of this tasking between the SOCCENT J4 and USMARCENT G4 occurred during USCENCOM CPX INTERNAL LOOK (IL) 90 in Jun 90. Based on the low density of requirements anticipated to be generated by Navy SOF, with the exception of not being able to support unique equipment such as the Special Boat Unit's boats, USMARCENT planners felt they could provide common item support to Navy SOF on a "pull" basis. From a SOCCENT perspective it appeared that the concept of support of Navy SOF was viable, with the exception of supporting boat operations. Presumably, repair parts support would have to come from home station in accordance with SOF unique support doctrine, or through local procurement if available.

The lack of fuel storage and dispensing capabilities was an unresolved problem for Navy SOF. First recognized at the SOCCENT level during an O'CONUS combined exercise conducted in Jordan less than two months prior to the start of DESERT SHIELD, the deficiency seemed solvable if the users were operating in an area with access to modest docking facilities, or through the procurement and use of standard military collapsible fuel bladders. SOCCENT logistics planners also assumed that this would not be a significant wartime problem because the OPLAN called for the larger fuel capacity Mark III patrol boats as opposed to the smaller capacity, Setton High Speed Boats used in the Jordan exercise. During CPX IL 90, Navy SOF employed the larger boats, and no fuel issues were raised.

Regarding logistical support of ARSOF, Army Special Forces doctrine called for this unit as an Echelon Above Corps (EAC) force to receive necessary combat service support on an area support basis from an Area Support Group (ASG).'' In USARCENT logistics plans, this ASG was planned to be sourced from the Reserve Components (RC), under the command of the 377th TAACOM, also a RC unit. The issue of adequate support to early deploying SOF was of particular concern to SOCCENT with respect to ARSOF, especially when considering providing combat service support for ranger units. These ranger units could only self sustain for 3-5 days and were extremely dependent on external transportation and water storage capabilities. Coordination with ARSOF planners indicated the remaining ARSOF units could be self sufficient for up to 15 days for all classes of supply, except for bulk fuel.

During the USCENTCOM 1989 logistics conference, conducted in March 1989, the SOCCENT J-4 surfaced the recurring and unresolved issue of inadequate combat service support to SOF. Based on analysis of existing OPLANS and the supporting TPFDDs, no ASG would be available to support SOF for approximately seven weeks after SOF closure. During that conference, the USARCENT G4 acknowledged there was a shortfall for SOF support based on the current plans, and resolved to solve the shortfall by tasking the 1ST COSCOM to form an ad hoc support unit to deploy concurrent with SOF and assist until the theater matured. This solution seemed to somewhat offset the existing problem.

At this point, it is essential to discuss another key

element in the doctrinal theater support structure for ARSOF, the Theater Army Special Operations Support Command (TASOSC).¹² Prior to the Gulf War, the TASOSC was a relatively new Army SOF support concept. Its principle functions were to plan and coordinate sustainment for ARSOF employed in support of the five warfighting CINCs. The concept had been tested in Europe during 1988-1989,¹³ and subsequently approved for implementation by the CSA in August 1989.¹⁴ Specific levels of authorization for each of the five planned TASOSCs varied by theater. For the USCENTCOM AOR, the 5th SOSC (TA) was planned to consist of only seventeen personnel. Significantly larger SOSCs were planned in the European and Pacific theaters. The concept had been supported by the respective Army components in USEUCOM, USLANTCOM, USSOUTHCOM, and USPACOM.¹⁵ USARCENT, USCENTCOM's Army component was not supportive of the concept. Its position was that the number of ARSOF units apportioned to USCINCCENT under either the warfighting or contingency plans did not warrant the activation of a TASOSC.¹⁶ This position was not shared by either SOCCENT or USCENTCOM, both of which had supported the concept.¹⁷ Regardless of the differences of opinions, at the direction of HQDA, the 5th SOSC (TA) was scheduled to be activated in September 1990 at USARCENT headquarters.

In April 1990, in preparation for the upcoming USCENTCOM CPX, Internal Look 90, the SOCCENT commander, J-3 and J-4 went to USARCENT headquarters to provide a capabilities briefing for the new commander and his staff. In return, SOCCENT requested

USARCENT provide an update on the status of activating and filling the 5TH SOSC.

Following the SOF capabilities briefing, key USARCENT staff principals discussed the status of the SOSC. During this meeting it became clear that the two commands had differences of opinion with respect to manning of the new unit. The USARCENT plan was to man the entire unit, with the exception of the Intelligence Support Element (ISE), almost entirely with career management field 18 personnel. As the primary mission of this unit was to coordinate the sustainment of SOF, SOCCENT's position was that the majority of the authorized personnel other than those in the ISE should be filled from the combat service support career fields, primarily specialty codes 92 for the logistics requirements and 41 for the personnel management functions. This had also been the recommendation of the TRADOC proponent, USAJFK Special Warfare Center, as the result of a year long test program and functional assessment of the SOSC concept conducted in USAREUR.¹⁰ Although aware of the SOCCENT and TRADOC recommendations, and the manner the other theater component's were filling their SOSC positions, USARCENT held fast to their belief that the majority of the personnel should be experienced Special Forces operators vice logisticians.

It is important to reiterate that the SOSC's function was designed to be that of a planner and coordinator, not a logistical operator. The SOSC was not designed to be a cure-all for the long term support problems facing the ARSOF community.

With its primary doctrinal mission being logistical coordination, it lacked what ARSOF really needed to fill sustainment shortfalls; dedicated combat service support. Doctrinally, and with respect to the ARSOF force structure, ARSOF had no dedicated combat service support units capable of providing effective CSS to deployed ARSOF. The only unit in the ARSOF community which came even close to being a combat service support unit was the 528TH Special Operations Support Battalion (SOSB). Activated in 1986, it was organized to provide limited support to deployable elements of 1ST Special Operations Command (SOCOM). As such, it would best be described more as a "headquarters commandant" unit as opposed to a true CSS unit.¹⁹ As a proposed bill payer for other SOF initiatives, the unit was scheduled to be deactivated in September 1990. During OPERATION JUST CAUSE, however, elements of the battalion had been deployed to Panama to offset some of the known sustainment shortfalls in the support structure of the deployed SOF units. After action reports following the operation credited the 528TH with substantial contributions to the operational successes achieved by the participating SOF units.²⁰ As a result of this success and to address previously identified SOF sustainment shortfalls,²¹ in March 1990, the VCSA, at the request of USCINCSOC, agreed to halt the deactivation of the 528TH SOSB pending an in-depth CSS review to be conducted by USSOCOM.²²

The events discussed above should provide a basic understanding of the status and key doctrinal and sustainment

issues of the forces comprising the three SOF Service components prior to being alerted for deployment for DESERT SHIELD. Before continuing on however, it is necessary to discuss SOCCENT itself. A joint component headquarters subordinate to USCENTCOM, peacetime manning of SOCCENT was just over thirty active duty personnel. To accomplish its wartime mission, plans to expand to over four hundred personnel were included in the command's joint manning document.²³ The additional personnel above the peacetime manning level were programed to come by activating selected reserve component personnel and from the other Services in the form of active duty personnel fillers. Logistical sustainment of the headquarters was planned to be accomplished by the existing six personnel assigned to the commandant section, augmentation from the sources previously mentioned, and from USCENAF as tasked by USCENTCOM. The latter not only included providing various life support services, it included providing additional supplies and equipment. Part of these supplies and equipment, primarily rations and vehicles necessary to support operations, were to come from the USCENAF prepositioned stocks, as previously mentioned.

To oversee logistical operations throughout the command, the headquarters was authorized an Army lieutenant colonel (the J-4), an Air Force major (Deputy J-4), and an Air Force master sergeant (Log Plans NCO). In wartime, the Logistics Directorate was planned to expand to as many as twenty-one personnel, four of which were Individual Mobilization Augmentees (IMAs).²⁴ The

directorates, as well as the rest of the headquarters, had exercised augmentation on numerous occasions during SOF exercises conducted both in and out of CONUS.

Prior to being alerted for deployment, SOCCENT had recently returned in late June 1990 from an exercise in Jordan. This was followed by participation in USCENTCOM CPX IL 90, conducted in northern Florida during early to mid-July 1990. Of note, with the exception of a few individual fillers, none of the actual O-6 level headquarters normally OPCON to SOCCENT in existing OPLANS participated in either of the two exercises. Non-participation of the major component headquarters in SOCCENT and JCS directed SOF training exercises was generally the rule versus the exception. Normally, the major headquarters would task a subordinate battalion or squadron to play their role; 5th SFG(A) would designate 1-5 SFG(A) to act in the capacity of the SF Group, and AFSOC would task 1st SOW to form and serve as an AFSOC. As a result, from a logistical standpoint, few if any of the commands' principal logisticians had worked or exercised together. Additionally, exercising the system of receiving combat service support from the respective Service had not been executed during any of the previous exercises; most support was executed in a pre-planned, pre-stocked "canned" manner, coordinated primarily by SOCCENT headquarters. During the USCENTCOM CPX, IL 90, logistics as a system was executed by "smoke and mirrors", lacking any semblance of realism, and was by design planned in such a manner not to impact on the operational

aspect of the CPX. Of note, during the CPX "hotwash", the USCENTCOM J-4 indicated that a contingency oriented LOGEX would be conducted the following year.

DEPLOYMENT AND INITIAL BEDDOWN

SOCCENT was notified on 7 Aug 90 to form a Special Operations Assessment Team (SOAT) and to deploy it along with the remainder of its headquarters as soon as possible to Saudi Arabia. USSOCOM component commands provided SOCCENT the necessary liaison personnel to conduct the assessment function. SOCCENT deployed two personnel (one operations action officer and the NCOIC of the Logistics Directorate) to Riyadh on 8 Aug 90. The SOAT, consisting of the COMSOCCENT, the primary SOCCENT staff officers, and the component representatives departed Macdill AFB for Riyadh on 10 AUG 90.

As had been exercised during IL 90, SOCCENT planned to collocate its headquarters with USCENTCOM in Riyadh. While airborne and enroute to Riyadh, COMSOCCENT was informed by the SOCCENT LNO to USCENTCOM that SOCCENT would no longer be establishing its headquarters in Riyadh due to space limitations. No alternate basing options were provided. Essentially COMSOCCENT was told to "find a suitable home" upon arrival. Once in-country, based on the missions assigned and after conducting a map analysis, COMSOCCENT requested King Khalid Military City (KKMC) as the location to put all SOF personnel. LT Gen Horner,

the senior U.S. officer on the ground, and acting CINC in-theater, denied the request based on KKMC's proximity to the Iraqi border and the perceived imminent threat of Iraqi invasion of Saudi Arabia. Still without an approved location to establish a base of operations, COMSOCENT, selected staff officers and SOAT members set out to the Eastern Area Command to both link up with host nations officials for operational matters and to find a suitable headquarters location.

Prior to departing Riyadh, COMSOCENT had learned of a civilian airport under construction in the Eastern Area Command area. It was described by the senior U.S. Air Force officer permanently assigned to Saudi Arabia as having a runway that was still under construction, but having no other facilities. The SOCENT J-4 and selected members of the SOAT found the facility on 12 Aug 90. They were met by the senior in-country personnel from Bechtel Corporation, a U.S. based, international company under contract by the Saudi government to construct an international airport, King Fahd International Airport (KFIA). After discussing the requirements and having conducted a brief site survey, the site was selected for the command's initial base of operation.

Although two years away from scheduled completion, KFIA was larger than Dallas-Fort Worth International Airport. Its two parallel runways were not operational but were usable for landing up to and including C-5 aircraft. Existing facilities included an uncompleted tower, terminal complex, and various contractor

buildings and facilities. Already completed and capable of being put into operation fairly easily was a bulk aviation fuel storage site with a storage capacity of over ten million gallons. Equally important, the compound had running, potable water, electricity, and a contractor operated dining facility. Additionally, because many of the laborers had evacuated the area for fear of Iraqi invasion, numerous trailer-type living quarters were available. These trailers in conjunction with Harvest Falcon temper tents from USCENTAF prepositioned assets would house all of SOCCENT and AFSOC personnel. The terminal complex was suitable for the ARSOF beddown and battalion level headquarters, and included ideal facilities to meet isolation requirements. The control tower and tower operations building were adequate to provide the space required for not only SOCCENT headquarters, but also the headquarters for the 5TH Group and AFSOC. With minimal coordination with Bechtel and Saudi officials, KFIA initially came under the military control of COMSOCCENT. Later, that control would pass to USCENTAF as KFIA was selected to base two A-10 wings. Additionally, KFIA became the home of the 101ST Air Assault Division, bringing the military population to over 30,000 U.S. personnel.

Within the first few days of occupation, and prior to the arrival of contracting officers, SOCCENT coordinated with the Bechtel officials to accelerate completion of the runway lighting system and the control tower. Besides enhancing internal operations, bringing those critical assets on line would permit

deployment aircraft to use KFIA as an APOD. Additional coordination was effected to expand the existing dining facility operations, improve existing facilities, and make the company ground fuels station available for military use. In mid-August, SOCCENT's contracting officer, an augmentee to the SOCCENT staff, arrived and transformed the initial informal coordination effected by the J-4 into formal contracts between the U.S. and Saudi governments.

In retrospect, the deployment for SOCCENT and the components under its OPCOM went relatively well. Over 225 C-141 aircraft equivalent sorties were required to deploy SOF. As a supporting CINC, USCINCSOC provided specific SOF units to USCENTCOM, and in accordance with existing procedures, coordinated for their deployment to the theater. By no means was the deployment without problems. The ability to get on-load, departure, and arrival times from USTRANSCOM was sketchy at best. In CONUS, departing units often did not learn about specific deployment data until the aircraft arrived at the APOE. In-theater, U.S. Air Force Air Lift Control Element (ALCE) personnel routinely had inaccurate arrival data which proved not only frustrating but also hindered logistics personnel in adequately supporting the arriving personnel and cargo. The Joint Deployment System (JDS), the automated system designed to give up-to-the minute deployment information was not an effective tool during deployment. The primary cause of this was MAC's inability or unwillingness to keep their data up-dated. To gain control over the situation,

SOCCENT's deployed logistics directorate worked with USSOCOM and controllers at the 321ST Airlift Command and enroute air bases by telephone, to obtain the data necessary to facilitate the deployment and reception of forces. By doing so, adequate coordination for inbound flights was effected, but most importantly, most serious errors with respect to destination locations were able to be corrected. This frequently prevented second destination transportation requirements, and at this early stage of the deployment, the line haul transportation capability in-theater was almost non-existent.

Another problem area encountered during deployment was that of continuous changes to the airflow priorities. As mentioned earlier, the regional contingency OPLAN was being rewritten and was in a draft stage of development. No TPFDD had been developed to support the plan. As a result, during deployment, USCENTCOM planners initially attempted to rely on outdated and incorrect TPFDL information from the previous OPLAN 1002-88, which caused confusion between the components and MAC. To add to the confusion, USCENTCOM failed to establish and publish a priority of airflow. Once the priorities were established and the flow was somewhat under control, changes to the priority seemingly occurred daily. This particularly had an adverse impact on the deployment and initial combat effectiveness of AFSOC. Mission essential sustainment equipment and supplies required for aircraft readiness, War Readiness Spares Kits (WRSKs), were scheduled to flow as part of an established Unit Line Number

(ULN) sequence within the TPFDD. Prior to its movement however, USCENTCOM changed the priority of flow, resulting in a two week delay in getting the essential WRSKs married up with the SOF aircraft that they supported.²⁵

The ARSOF deployment also had its share of problems. First, after arriving in-theater and assessing the situation, operational planners realized that ARSOF would require more MH 47 helicopters than MH 60s as had been planned. This resulted in deleting the deployment of one scheduled battalion and later adding into the flow the deployment of a different, unscheduled battalion for the 160TH SOAR. A well thought out, conscious decision on behalf of the commander and SOAT, it resulted in delaying the closure of the 160th SOAR. However, the delay had no adverse impact on the initial employment of SOF, as AFSOC assets were able to fulfill the initial mission requirements.

Another problem encountered by ARSOF, as well as other deploying forces, was that of having to request additional aircraft after airlift requirements had been computed and the flow had been scheduled. This was caused by USASOC's submission of out-of-date air load data, and the fill of shortages of minimum essential equipment (MEE). In the later case, equipment provided to bring the 5TH SPG(A) up to 100% fill was substantial. Additionally, it did not all arrive in time to accompany the Group during deployment of the main body. Consequently, a significant number of aircraft were required to deploy the equipment that arrived after their departure.²⁶

On the positive side, delays in getting the ARSOF deployed were in some cases beneficial. After conducting site surveys and reassessing the enemy threat, it was decided that KKMC would be the base of operations for the 3-160TH SOAR and two of the FOBs. Due to the delays in the airflow, portions of those units were diverted directly into KKMC as opposed to KFIA, thus saving significant intra-theater ground and air movements.

Initial beddown at KFIA has been discussed to some extent. Contracted support was the key to success, but was not the only factor. Portions of USCENTAF's base assets prepositioned in-theater began arriving via C-130 aircraft at KFIA about a week after SOCCENT's initial arrival. Included were not only the tents previously mentioned, but also other critical items such as rations and support vehicles. The rapidity in which these essential assets arrived played a significant role in getting AFSOC operational.

Besides KFIA, SOF initial beddown locations included Half Moon Bay and Ras al Mishab for the NSWTG, and KKMC for ARSOF. Navy SOF had not anticipated, nor were they adequately prepared for, the requirement to establish an inland beddown site. Insufficient and inadequate tentage, lack of mobile kitchen trailers, and inadequate power generation equipment were some of the problems encountered." Fortunately, by establishing some informal arrangements with the Army SUPCOM at Dhahran Air Base and Marine units in the vicinity of Al Jubail, and by borrowing tentage and other support equipment from SOCCENT, essential life

support requirements were met.

Similar to KFIA, the facilities at KKMC far exceeded the wildest hopes of SOCCENT planners. Almost newly constructed and mostly empty upon initial occupation by SOF, KKMC significantly enhanced the beddown of the force and provided an excellent location for the accomplishment of various missions assigned to SOCCENT. SOF received outstanding host nation support from the Saudi officials at KKMC. This support included use of operational runways, parking ramps, hangar space, furnished headquarters buildings, barracks with latrines and showers, laundry service and a dining facility. Formal agreements between SOCCENT and the Saudi military were established and up-dated as required. To facilitate continuous interface with the host nation personnel at KKMC, SOCCENT established a forward headquarters at that location manned with a deputy commander and representatives from each staff directorate.

All things considered, the initial beddown of SOF went well. For the most part, cooperation among units and between the Services routinely prevailed as everyone had a common reason for being in Saudi Arabia. Without question however, the beddown was executed successfully primarily due to the existing available facilities and extensive host nation support received. SOF's early arrival was also a contributing factor; had SOF arrived at KFIA after August, or KKMC after September, few of the facilities would have been available.

SUSTAINING THE FORCE

The first SOF component to close and the first to receive missions was the NSWTG. Besides the initial beddown problems previously identified, sustaining the Navy SOF offered several challenges during both operations. The first of these challenges was obtaining tactical vehicles for the SEAL teams charged with coordinating close air support for the forward deployed Saudi forces. This mission, and subsequently the vehicles and equipment needed to support it, was not envisioned during OPLAN 1002 development. Consequently, no specific plans had been made to provide for these end items. A request for assistance from USNAVCENT eventually led to the issuing of twelve HMMWVs to the NSWTG from USMARCENT Maritime Prepositioned Stocks (MPS). Although reluctant to assist, USMARCENT agreed to the issue providing it was temporary in nature. To provide a long term fix, SOCCENT requested assistance from USEUCOM, tasked by JCS as a supporting command during the operation. USEUCOM responded both willingly and rapidly. Within a matter of a few days, sixteen HMMWVs complete with radios and speech secure equipment were flown into Dhahran airport for use by the NSWTG.

Supporting these vehicles also presented some problems. Navy SEALs were not familiar with the proper operation of the HMMWV. Additionally, the organizational structure of the NSWTG did not provide for wheeled vehicle maintenance. These factors, coupled with the extreme heat resulted in Navy SOF experiencing a

high engine failure rate in the HMMWV fleet. During the course of the deployment, six engines had to be replaced by the 528TH SOSB, tasked by SOCCENT to provide limited direct support to the NSWTG. This was an excessively high failure rate, particularly when compared to the ARSOF fleet of over 50 HMMWVs which experienced no engine failures.²⁸

In addition to the HMMWVs, to further offset their mobility problems, the NSWTG was allocated some commercial four wheel drive vehicles from USNAVCENT.²⁹ Although not the quantities requested by the NSWTG, these vehicles were a tremendous asset.³⁰

Fuel storage and distribution were additional problems for the Navy SOF. Not authorized the assets required to conduct these functions, this adversely impacted on sustaining both ground and maritime operations. To offset this shortfall, after receiving no support from NAVLOGSUPFOR,³¹ the NSWTG obtained some collapsible fuel bags from the Army. Additionally, SOCCENT leased a commercial fuel storage tank from a local vendor for use by the NSWTG.

Maintaining their boats operationally ready was a constant challenge for the NSWTG's Special Boat Unit (SBU). "Hand-me-downs" from another Navy SOF unit, the high speed boats took a continuous beating during daily operations in the Gulf. When parts were not on hand or the maintenance required exceeded their capability, the SBU frequently used local vendors to resolve the problem. Additionally, out-of-theater support was received from NAVSPECWARCOM not only in the form of SOF unique repair parts,

but eventually in the form of end item replacement for the boats themselves.

Overall, support from CONUS for the NSWTG was responsive throughout the operations. One of the best illustrations of USSOCOM's ability to act in a timely manner pertains to the acquisition of Stinger missiles for the Navy SEAL teams. Due to limited theater assets, USARCENT turned down a SOCCENT request for Stingers for the NSWTG. NAVLOGSUPFOR located some missiles in Navy stocks in Italy and coordinated shipment to the NSWTG. However, these missiles were not complete as they lacked grips and the equipment necessary for distinguishing friendly from enemy aircraft. USSOCOM responded immediately by obtaining the necessary funding, coordinating procurement through HQDA, and expediting the delivery to the theater. The time involved from request to delivery was remarkably short, particularly when considering the complexity of the transaction between Services and the distance involved in transporting the items. This was one of many positive actions taken by USSOCOM, demonstrating a highly professional response on behalf of the command's Crisis Action Team (CAT) logisticians.

Sustainment of AFSOC forces and equipment probably represents the best example of theater logistical support being executed in accordance with Service and SOF doctrine. Support of AFSOC in theater was the responsibility of USCENTAF. To execute this support, USCENTAF tasked the 354TH TFW to act as the host wing for Air Force units at KFIA. To assist, USCENTAF provided a

colonel from their staff to serve as the base commander. Not prepared to serve in this capacity, at first support from the host wing was thin at best. Complicating the issue was that AFSOC's ad hoc staff initially had no qualified logistician on their staff, resulting in SOCCENT having to get involved on even the smallest of logistical actions. Eventually the problems were minimized after a combination of events occurred: (1) USCENTAF relieved the acting base commander and the 354TH TFW filled the position with one of their own colonels quickly deployed from home station; (2) The 354TH TFW deployed the principle logisticians from their home station base operations; and (3) AFSOC deployed a qualified senior logistician to serve on the deployed AFSOC staff. In a short time, logistics actions were handled more efficiently and through doctrinally proper channels. AFSOC common support requirements were passed by AFSOC to the host wing. When the host wing could not meet the requirement, AFSOC passed the request to USCENTAF. SOF unique support requirements were passed back to the AFSOC's Logistics Readiness Center (LRC) at Hurlburt Field for appropriate action.

Common support received from or coordinated by the host wing included rations, expendable supplies, aircraft fuel, barrier material, and bottled water. Much of this support was obtained through local acquisition by the wing contracting office. One of the items the host wing could not provide in sufficient quantities to satisfy AFSOC was transportation for crews. AFSOC initially received several leased vehicles through SOCCENT, and

latter received additional vehicles from the wing contracting office. These vehicle were primarily sedans; what was needed were vans and small busses to transport flight crews to and from the flight line. Unable to obtain these assets from the host wing transportation office, AFSOC passed the requirement to USCENTAF in Riyadh. Busses and vans were in high demand throughout the theater, however USCENTAF logistics personnel were able to eventually satisfy the AFSOC requirement.

A better example of the support received from USCENTAF is found in the establishment of Forward Operating Locations (FOLs) necessary to support Combat Search and Rescue (CSAR) operations. CSAR mission analysis and aircraft limitations dictated that FOLs be established closer to the Iraqi border. In addition to the established locations at KFIA and KKMC, remote FOLs were established at Al Jouf and Ar'Ar. At the request of AFSOC through SOCCENT, fuel, rations, and security were coordinated for by USCENTAF. To provide for sustainment at these locations, SOCCENT coordinated with the JMCC and established a scheduled C-130 route from KFIA to Ar'Ar to Al Jouf and back to KFIA. Keeping the FOLs supplied with fuel was the major challenge, particularly when A-10s began operating from these sites. Although there were times stockage levels ran extremely low, at no time did fuel at either remote location adversely impact on combat operations.

As previously mentioned, SOF unique support was coordinated for by AFSOC headquarters at Hurlburt Field, Florida. An example

of this support can best be illustrated in the support of Line Repairable Units (LRUs). Critical to the operation of various control systems unique to AFSOC aircraft, these "black boxes", or LRUs, require specialized maintenance conducted in a dust free environment. To cut down on turn-around time, AFSOC established a LRU intermediate maintenance facility at Rhinemein Air Base, Germany. Available channel missions between KFIA and Europe enabled maintainers to rapidly evacuate and return these assets. By doing this, inoperable LRUs did not have to be returned to CONUS for repair, resulting in higher operationally ready rates for deployed AFSOC aircraft.

Whereas the support of AFSOC best resembled doctrine and the planned concept of support, the opposite is true in the case of the ARSOF. As was stated earlier, doctrinally ARSOF would be supported on an area support basis by an ASG, as an Echelon Above Corps (EAC) force. By the plan, these ASGs were to be part of the 377TH TAACOM, a reserve component unit. The 377TH TAACOM was never activated, and the ASGs that eventually were created as part of the USARCENT SUPCOM to service EAC units were essentially hollow units capable of providing little, if any, support.²² As an example, the repair parts company located within the ASG at KKMC arrived in country with no repair parts. Although that unit's leadership wanted to provide support, they were unable to do so due to a lack of parts. To complicate matters, USARCENT plans did not identify the units from which ARSOF should draw support. This same problem had been addressed but unresolved

during USCENTCOM CPX IL 90. When informal arrangements were established, often the unit agreeing to provide support would move on short notice to provide support to their specified customers. Asset visibility and management were often non-existent. For an EAC unit to locate a needed repair part routinely required unit personnel to drive to various support units to determine if it was in stock, and if so, essentially a "scrounging" versus supply transaction occurred. With respect to ammunition, on most occasions when approved draws were attempted to be executed at the designated ASP, the ammunition was not present even though stock records reflected otherwise. Only through persistence, and on occasion by driving some 750 miles to alternate ASPs, were ARSOF able to complete an ammunition issue in theater. Overall, with the exception of ration and water support, USARCENT support of ARSOF was poor.

With such poor support, why didn't logistics adversely impact on ARSOF operations? One of the main reasons was the unplanned addition of the 528TH SOSB to the ARSOF task organization. Upon being alerted for possible deployment to Saudi Arabia, COMSOCENT was asked by the commander of the USARSOC what assistance he could provide. On top of the list was a request for the 528TH SOSB. Recognizing the weaknesses in the USARCENT support structure and knowing the lessons learned during OPERATION JUST CAUSE regarding the support battalion's contributions, it was deemed essential that a dedicated support unit be included in the task organization. USSOCOM quickly

approved the request. The first elements of the SOSB arrived at KFIA on 31 August 1991. Closing by 8 September 1991, the battalion was available to provide direct support long before the USARCENT SUPCOM was fully organized.

The SOSB provided CSS from KFIA primarily to the 5th SFG(A) and 1-5 SFG(A). On a smaller scale, support was also provided to the NSWTG, elements of the 8TH Psychological Operations Battalion, USSOCOM's support element, and SOCCENT. Towards the end of September, the battalion established a Forward Area Support Team (FAST) at KKMC to support 2-5 SFG(A), 3-5 SFG(A), and 3-160TH SOAR. Additionally, the FAST provided limited support to non-ARSOF units at KKMC to include SOCCENT Forward, elements of AFSOC, and a few fire support control teams from a USCENTAF tactical reconnaissance squadron. In January, the main body of the battalion deployed from KFIA to KKMC in order to more effectively support forward combat operations. A small FAST remained at KFIA to continue to support units at that location, to include the arriving SFOB 30, FOB 31, and the 4-17TH Cavalry Squadron. Before the conflict was over, the battalion had to form an additional FAST at Kuwait International Airport to support ARSOF employed in that vicinity.

Not designated from which units the SOSB should be supported by in USARCENT support plans, the SOSB received its support from numerous sources. From August to December the SOSB met most its support requirements through informal coordination and cooperation with 1st COSCOM organic support units. This

cooperation occurred primarily because of relationships formed at home station; the COSCOM and SOSB both are from Fort Bragg. In December, over three months after the SOSB closed in theater, the SOSB began receiving support from a SUPCOM ASG. This support included Class 1, 2, 3 (packaged), 4, 6, and 9. Class 2 and 9 supplies received were very limited due to inadequate ASLs. The bulk of these requirements were met by the SOSB passing requisitions through the 2d MMC (1st COSCOM) back to the CONUS wholesale system. Water and Class 3 (bulk) requirements were almost totally satisfied through host nation sources. Although difficult to obtain because of poor management and inaccurate asset visibility, Class 5 requirements were processed through the 2d MMC until December, and through the 321st MMC (SUPCOM) for the remainder of the operation. Backup maintenance support was coordinated with a 1st COSCOM maintenance company and the 101st Air Assault divisional maintenance battalion, although very few demands were placed on these units by ARSOF.

To state that the battalion was stretched thin would grossly understate the problem. Regardless of being assigned a mission designed for a unit significantly larger and better equipped, members of the SOSB were able to make a substantial contribution to the campaign. The statistics speak for themselves. During the operation, the battalion provided over 700,000 meals of various types and over 600,000 gallons of bottled water. In the area of fuels support, close to 600,000 gallons of jet fuel, 60,000 gallons of diesel, and 125,000 gallons of mogas were

pumped. The unit assisted in moving over 7,500 short tons of supplies via ground transport, driving close to 300,000 accident free miles. This included drawing and issuing over 300 short tons of explosives, at times having to drive over several hundred miles just to make the pick-up. Tasked to assist in C-130 aircraft sustainment operations, they moved over 2,000 short tons of supplies, and coordinated the movement of thousands of passengers.

Demands against their ASL were high; over 23,000 requisitions were received, 86% of which were filled. From a maintenance standpoint, over 250 jobs were completed, and 5 recovery missions executed.³³

Throughout both operations, but particularly during the early phases of DESERT SHIELD, the 528TH SOSB played a crucial part in the combat readiness of ARSOF. Without their expertise and responsive support, ARSOF would not have been able to accomplish their missions.³⁴

Equally important to ARSOF was the assistance continuously provided by USSOCOM with respect to procuring and delivering equipment required by ARSOF to accomplish assigned missions. Untiring energy and millions of dollars were expended during this process. Examples of equipment provided include special weapons, bullet proof vests, laser target designators, beacon transponders, global positioning systems, and various types of radios desperately needed to conduct the numerous tasks generated by the Special Forces' role in support of the coalition forces.

The support received from USCINCSOC in his role as a supporting CINC and in fulfilling his doctrinal role of providing SOF low density equipment far surpassed that expected by SOCCENT logistics planners, and was essential to ARSOF mission accomplishment.

On a less positive note was the method in which ARSOF support was requested and coordinated. As the organization with the specific doctrinal mission of coordinating ARSOF logistical requirements, the 5TH SOSC, activated during the early phase of DESERT SHIELD, was almost ineffective in that capacity. ARSOF mission analysis frequently generated requirements for equipment not on hand. Generally, requests to fill these requirements should have remained in Army channels. If unable to fill the requirement through routine means, the SOSC should have attempted to obtain the equipment required through USARCENT. If not available in-theater, and if the equipment was essentially not peculiar to SOF, it should have been obtained through Army channels (HQDA or AMC) by USARCENT. SOF peculiar requirements should have been coordinated between the SOSC and USASOC at Fort Bragg, USSOCOM's Army Service component. Requirements beyond USASOC's capability to provide should have been passed up to USSOCOM. Due to the SOSC's inexperience as a unit and lack of qualified logisticians, SOCCENT ended up as the ARSOF action agent in-theater for most Army common equipment and all ARSOF low density requirements. In almost all cases, these requirements were passed back to the USSOCOM logistics representative in the

USSOCOM Crisis Action Center for action. The logistics directorates of the SOCCENT and USSOCOM staffs worked closely together via phone, autodine, or WIN message traffic throughout the conflict to insure the supported forces had the equipment necessary to conduct their mission. The amount of time expended by key logistics personnel in those joint headquarters solving ARSOF equipment issues was extensive, and adversely impacted on the amount of time available to devote to other high priority tasks.

On the positive side, the 5TH SOSC was effective in assisting ARSOF obtain over 50 four wheel drive and administrative vehicles. These vehicles were contributions to the United States from the Japanese government, and were particularly important to the ARSOF as they were not only short vehicles by authorization, but also had extensive vehicle requirements generated as a result of their coalition forces mission.

In addition to the coordination effected with USSOCOM, the SOCCENT logistics directorate played a significant role with respect to force sustainment. Augmented by both active duty personnel and IMAs assigned to SOCCENT, the directorate grew from three to twenty personnel during the operation, working out of three separate locations in Saudi Arabia and later Kuwait. The IMA's were able to make a significant contribution immediately upon arrival. As had been expected, training the active component augmentation personnel was a time consuming but

necessary process. Besides coordinating the acquisition of mission essential equipment, the directorate's most significant contributions to US force sustainment were in the areas of contracting, transportation, and coordinating the SOf theater medical plan."

During the course of the conflict, SOCCENT's J-4 Contracting Office initiated over 1,200 contracts totaling in excess of eight million dollars. Typical items contracted for included food, water, facilities, ground transportation, laundry service, barriers, and expendable supplies. Not limited to basic life support requirements, contracts were established to place into operation the runway and control tower at KFIA making it useable for day and night operations by A-10 aircraft as well as CRAF assets. Another SOCCENT initiated contract which impacted on all personnel at both KFIA and KKMC was the acquisition of necessary satellite and support equipment in order to receive CNN. This multimillion dollar contract affected the morale of over 70,000 personnel.

Responsible for validating and coordinating all intratheater airlift for use by SOf, the directorate validated and coordinated for over 225 C-130 missions, moving over 1,200 passengers and 1,300 short tons of cargo. In addition to establishing the scheduled intratheater airlift routes previously discussed, intratheater airlift was essential in the initial establishment of forward bases and sustainment of SOf operations. Without the responsive airlift support which prevailed throughout the

operation, SOF would have not been able to effectively sustain critical operations.

A part of J-4, SOCCENT medical planners were responsible for coordinating the theater SOF medevac plan and coordinated all internal and external medical assets necessary to support CSAR. In addition to the organic SOF assets, this support included obtaining a USAF Mobile Aeromedical Staging Facility (MASF), and five rotary wing medevac aircraft. During the liberation of Kuwait, anticipating high numbers of casualties, J-4 medical planners coordinated US assets from Germany, Oman, and Saudi Arabia to establish a Joint Casualty Collection Point planned for employment at Kuwait International Airport. Although never employed due to the low casualty rate, the surgical and advanced trauma support capabilities provided by this initiative would have saved numerous lives.

CONCLUSIONS

At the onset of this project, it was assumed that DESERT SHIELD and DESERT STORM seemingly provided a worse case scenario from which logistics planners could evaluate SOF support. In retrospect, this may not be the case. Although the US support infrastructure was not in place in Saudi Arabia, considerable host nation support and existing facilities were available and provided to SOF which dramatically reduced unfilled support requirements. The availability of resources on the local economy

enabled logisticians to use local procurement and contracting extensively as a primary means of support. These important factors should be considered and appropriately evaluated when planning for future operations.

Generally, AFSOC and SOCCENT were supported as planned in that USCENTAF provided preplanned, prepositioned assets necessary in part to establish bare base operations, and a host wing was designated to provide for base support and sustainment operations. Although the degree of how effective that support was may be argued by some, overall it met the basic mission support requirements, and as such validates the concept of a Service component providing for logistical support of its respective forces.

With respect to Navy SOF preplanned and doctrinal logistical support, DESERT SHIELD and DESERT STORM did not fully validate the concepts of support. Navy SOF were unable and ill equipped to effectively establish initial bare base operations, and relied on other Services and headquarters to provide for sustainment of the force. Essentially, informal agreements generated by the unit as opposed to the supporting Service component were the primary means of obtaining support. With respect to sustainment, receiving support from other Services should not be misconstrued as being inappropriate. Common item support requirements for Navy SOF are relatively small, and can easily be met by the Army theater Service component or by the ARSOF SOSB, providing it is expanded as will be discussed in a moment. This support

relationship should be preplanned and formalized in both OPLAN taskings and interservice support agreements.

The doctrinal concept of supporting ARSOF on an area support basis using an ASG is effective in concept only. The reality of SOF's early deployment, the current lack of organic support vehicles and personnel, and the volatility of units moving around the theater makes this concept invalid in execution. DESERT SHIELD and DESERT STORM as well as other previous contingencies fully document the necessity for a dedicated combat service support battalion. This shortcoming has been recognized by the Army and SOF senior leadership, and positive actions are being taken to resolve this longstanding problem. During FYs 93-95, the 528TH SOSB will expand in size from 163 to 724 personnel. The battalion will consist of a headquarters, a main support company, and three forward support companies, capable of providing DSS to ARSOF employed simultaneously in two separate theaters.³⁶

Although for the most part the 5th SOSC was ineffective during the recent Gulf war, the SOSC (TA) concept remains valid. The 5th SOSC was a new unit, activated after DESERT SHIELD had already begun. From a logistics standpoint, few of the personnel assigned to the 5th SOSC were trained or qualified to accomplish their mission. Consequently, it would not be prudent to evaluate the SOSC concept based solely on the performance of the 5th SOSC.

The continued need for the SOSC as a part of the ARSOF total support structure has been recognized by key Army personnel.

Tasked to plan for and coordinate the sustainment of deployed ARSOF, the SOSC (TA) will be complementary to, not in competition with, the enhanced SOSB.²⁷ Simply stated, SOSCs will plan and coordinate the support for ARSOF, and the SOSB will be the primary provider of that support. The addition of these units to the force structure however, does not by any means negate the need for the theater Army component combat service support structure. Just as a divisional S&S or Forward Support Battalion requires the support a divisional MMC and other DS or GS Corps CSS units, Direct Support Units (DSUs) will be required to back up and support the SOSB. Effecting the coordination necessary to make that happen remains the primary function of the SOSC.

Since the conclusion of DESERT STORM, USARCENT has formally reversed its previous position of non-support of the SOSC concept. Post-conflict analysis, to include lessons learned during PROVIDE COMFORT, indicate USARCENT's desire to retain a logistically oriented SOSC in the force structure.²⁸

Fully validated during both operations was the plan and doctrine with respect to USSOCOM's responsibilities for providing SOF unique, or low density, equipment. The bulk of this support was directly managed by the USSOCOM CAT, but equally effective was NAVSPECWARCOM's ability to sustain SBU operations, and the AFSOC LRC's ability to sustain deployed aircraft over an extended period of time. The ability for USSOCOM to be this responsive in meeting SOF requirements on short notice can be directly attributable to USCINCSOC having budget and acquisition

authority.

It would be improper to end this study without further discussing the issue pertaining to manning levels within the SOC. Prior to deployment, known shortfalls existed in deployed force sustainment. Significantly understaffed in peacetime, coupled with an aggressive O'CONUS exercise program, the SOCCENT Logistics Directorate had not effectively pursued these shortfalls with the theater and SOF Service components. Once deployed and adequately augmented, the SOCCENT Logistics Directorate had the capability to resolve critical shortfalls, and routinely took the initiative to fill both internal and external gaps in SOF component CSS. To preclude inadequate planning and offset wartime crisis management, in the future it is imperative that all regional SOCs be sufficiently manned during peacetime. As a minimum, the unit should be manned at least at 50% of its authorized peacetime manning level. Using SOCCENT as an example, this would provide for fifty personnel as compared to the pre-DESERT SHIELD strength of thirty-two. This will not negate the need for wartime augmentation, it simply provides the minimum amount of personnel to conduct effective staff work during peacetime.

In summary, as in all combat operations, logistics played an important part during DESERT SHIELD and DESERT STORM SOF operations. Working within established doctrinal parameters to the maximum extent possible, SOF logisticians both in CONUS and deployed to the AOR did their part in enhancing combat readiness.

No SOF missions were cancelled or adversely affected due to a lack of adequate logistic support. True in every contingency, numerous lessons were learned. With respect to better supporting future contingency operations in which SOF will be employed, positive actions are being taken within the SOF community and the Army to increase support capabilities and enhance the overall force structure.

ENDNOTES

1. USCENTCOM press conference, 27 Feb 1991, Riyadh, Saudi Arabia.
2. USSOCOM was created as the result of the Cohen-Nunn amendment to the Defense Authorization Bill for FY 1987 (PL 99-661). As a follow-on to the Goldwater-Nichols DOD Reorganization Act of 1986, it established USSOCOM to unify all SOF under one command.
3. ASD (SO/LIC), Special Operations Status Report (Washington, D.C.: March 1991), Section 2.
4. The SOF discussed in this project do not include the SOF habitually associated with USCINCSOC's Joint Special Operations Command (JSOC).
5. U.S. Marines Central (USMARCENT) is also a component of USCENTCOM. It is not mentioned here as it has no command inherent logistical support responsibilities for SOF as do the Army, Navy and Air Force component commands.
6. U.S. Joint Chiefs of Staff, Joint Pub 02: Unified Action Armed Forces (Washington, D.C.: December 1986), 3-57.
7. USCENTCOM, OPLAN 1002 (Draft), (July 1990), Annex D.
8. Air Force Special Operations Command (AFSOC) is a major subordinate command of USSOCOM. It is the parent command of all air force SOF units.
9. In order to adequately prepare for Exercise Internal Look 90, a USCENTCOM regional contingency CPX, and to effect the required component coordination for a USCENTCOM regional OPLAN, SOCCENT planners, accompanied by logistics planners from AFSOC, met with key personnel at USCENTAF headquarters in April 1990.
10. Navy Special Warfare Command (NAVSPECWARCOM) is a major subordinate command of USSOCOM. It is the parent headquarters for all Navy SOF units.
11. HQ, Department of the Army, Field Manual 31-20: Doctrine For Special Forces Operations (Washington, D.C.: 20 April 1990), Chapter 14 (hereafter referred to as "FM 31-20").
12. The terms "TASOSC", "SOSC (TA)", and "SOSC" are used interchangeably in this report.
13. USAJFKSWCS, Assessment Report for the Theater Army Special Operations Command (TASOC) (10 August 1989), 1-34 (hereafter referred to as the TASOC Assessment Report).

14. USASOC, Combat Service Support Review (31 January 1991), 2.
15. TASOC Assessment Report, Appendix I.
16. COMUSARCENT message, 101335Z July 1989, Subject: Theater Army Special Operations Command.
17. COMSOCCENT/USCENTCOM coordinated message to USARCENT, 211800Z July 1989, Subject: Sustainment of Army Special Operations Forces., and COMSOCCENT/USCENTCOM coordinated message to JFK Special Warfare Center, 181510Z May 1989, Subject: Theater Army Special Operations Command.
18. USAJFKSWCS, Assessment Report for the Theater Army Special Operations Command (TASOC) (10 August 1989), pg 3.
19. LTC Norman Gebhard, USA, commander 528TH SOSB, interview by author, 14 November 1991, Fort Bragg, N.C.
20. USSOCOM, OPERATION JUST CAUSE: After Action Report (15 March 1990).
21. CSS sustainment shortfalls have been repeatedly noted in the HQDA SOF Support Conferences conducted annually from 1984-1990.
22. USASOC, Combat Service Support Review (31 January 1991), 2.
23. USCENTCOM, Joint Manpower Program (10 May 1989), II-2, II-3.
24. Ibid, II-2.
25. USSOCOM, OPERATION DESERT SHIELD/STORM After Action Report (Draft), undated, (not numbered).
26. Ibid.
27. SOCCENT, DESERT SHIELD/STORM JULLS input, JULLS number 51536-15937 (00684), (6 Jun 1991), 135-136.
28. LTC Gebhard interview. In the opinion of the SOSB maintenance warrant officer, all but one of the six failures were attributable to operator abuse and poor operator daily preventive maintenance.
29. The Government of Japan (GOJ) provided several hundred four wheel drive vehicles to the United States as part of their contribution to financing the war. USCENTCOM allocated these vehicles to the Service components, who in turn allocated them to their forces.
30. NSWTG, DESERT SHIELD/STORM JULLS input, JULLS number 51541-21394 (00752), (6 Jun 1991), 211.

31. Navy Logistics Support Force (NAVLOGSUPFOR) was the support unit tasked by USNAVCENT to provide combat service support for the NSWTG. It was located in fixed facilities in Bahrain.
32. LTC GEBHARD interview.
33. 528TH SOSB Memorandum to the CG, USASFC, Subject: Support Provided (1 April 1991).
34. USSOCOM briefing to VCSA (Washington, D.C.: 27 June 1991).
35. In addition to overseeing and coordinating support for US SOF, the SOCCENT J-4 played a significant role in the reconstitution of the Kuwait Army. Given the mission to fully equip three Kuwait brigades, the end result was the establishment of multiple FMS cases totaling in excess of 225 million dollars.
36. USSOCOM briefing for VCSA (MacDill AFB, FL.: 17 June 1991).
37. HQDA, Office of the Chief of Staff memorandum to USCINCSOC, Subject: Army Special Operations Forces Combat Service Support Review (24 April 1991).
38. USCINCSOC is currently in the process of reviewing the TASOSC concept. Per conversation with LTC Rogers, HQDA, Special Operations Forces Branch (MOSO-ODF), one of the options being reviewed is to eliminate the TASOSCs in order to pay the bill for increasing the peacetime manning of the theater SOCs. An interesting turn of events, USARCENT has formally expressed the desire to retain the TASOSC in the force structure. Their recent 241000Z Feb 92 message to JCS, USCINCSOC, HQDA, and other addressees indicates that the lessons learned during DESERT STORM, PROVIDE COMFORT and recent exercises validates the need for a logistically oriented SOSC. As indicated in this report, this is a complete reversal of USARCENT's pre-DESERT SHIELD/STORM position.

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