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USAF Combat Search and Rescue

Untapped Combat Power

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Colonel, USAF

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Foreword

Expending every effort to recover distressed personnel from harm's way is an American tradition and one of the nation's highest priorities during conflict. The Air Force maintains a fleet of HH-60G helicopters and HC-130P aircraft along with a contingent of pararescue specialists dedicated to the recovery of personnel isolated on the battlefield. The traditional training, organizing, and equipping focus of this force is the recovery of downed aircrews. This focus stems from doctrine that draws from lessons learned in past contingencies, particularly the Vietnam War, where the Air Force experienced a large number of downed aircrew incidents. A robust capability dedicated exclusively to the combat search and rescue mission area was essential to ensure every effort was made to safely recover and return our aircrews to fight again.

While maintaining the capability to recover our aircrews remains sacrosanct for the Air Force, Colonel dePalo argues in this study that the capability exists to go beyond dedicating these forces exclusively to the combat search and rescue mission. The United States' ability to quickly and decisively win a major combat operation creates a situation where we can expect to operate more often in diverse and complex nonlinear battlespace, particularly in the long-term global war on terrorism (GWOT). The changing nature of the battlespace creates an environment much different from traditional combat operations where the Air Force's at-risk population primarily consisted of combat aircrews. The study draws from Colonel dePalo's extensive experience supporting combat rescue operations in the GWOT to demonstrate that the missions flown by USAF combat rescue crews in the GWOT are far different from the traditional rescue of aircrews behind enemy lines seen in more conventional conflicts. In fact, he points out that the Air Force assets have flown missions almost exclusively in support of other components' requirements since air component downed aircrew incidents are virtually nonexistent. Colonel dePalo challenges theater planners to reevaluate the effectiveness of keeping a capable force tied exclusively to a rarely executed mission when their combat power could be used to

support other joint force commander objectives in addition to providing combat rescue support.

Colonel dePalo believes that better application of the doctrinal tenets of airpower is needed for more effective and efficient utilization of USAF combat rescue forces. He uses the tenets of flexibility, concentration, and persistence to demonstrate that the current force can transform to more effectively support the global war on terrorism and adapt to new roles and missions leading to a more agile, multifaceted personnel-recovery capability worldwide. This force can ably support USAF combat search and rescue requirements while also supporting broader personnel-recovery requirements for both the military and civilians. The potential exists to expand even beyond personnel recovery to support other missions such as the infiltration and exfiltration of battlefield Airmen. He argues that it is important to define the force as a war-fighting capability instead of as an executable function. Better integration of the force into strategic planning will facilitate matching this capability to desired effects, leading to a force able to execute a broad range of missions in varying environments.

As with all Maxwell Papers, this study is provided in the spirit of academic freedom, open debate, and serious consideration of the issues. We encourage your responses.

ROBERT J. ELDER, JR.
Major General, USAF
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About the Author

Col Lee dePalo is currently assigned as director, Executive Review Secretariat, Headquarters US Air Force, Washington, DC, responsible for the planning, administration, and execution of Chief of Staff of the Air Force conferences and the administration of the Air Force Council process.

He has served as commander of the 41st Rescue Squadron, Moody AFB, Georgia, and operations officer of the 66th Rescue Squadron, Nellis AFB, Nevada. He completed other flying tours at Hurlburt Field, Florida; Naval Air Station (NAS), Keflavik, Iceland; Patrick AFB, Florida; and Fort Rucker, Alabama; and served a staff tour as chief, Southwest Asia Branch, and the commander's personnel recovery action officer at Headquarters US Special Operations Command, MacDill AFB, Florida. He is a command pilot with more than 3,500 hours in the MH/HH-60G, CH/HH-3E, UH-1H, and TH-55 helicopters and has flown multiple combat tours of duty in support of Operations Provide Comfort, Northern Watch, Enduring Freedom, Uphold Democracy, and Iraqi Freedom.

Colonel dePalo is a graduate with academic distinction of the Air War College, Class of 2005. He graduated from the Air Force Academy in 1986. He is a distinguished graduate of the Squadron Officer School, Maxwell AFB, Alabama; a graduate of the US Army Command and General Staff College, Fort Leavenworth, Kansas; and the Armed Forces Staff College, NAS Norfolk, Virginia; and holds a master of strategic studies degree from Air War College and a master of science degree in management from Webster University, Missouri.

Introduction

In the early morning hours of 20 April 2004, the 64th Expeditionary Rescue Squadron (ERQS), operating from a base inside Iraq, launched two HH-60G Pave Hawk helicopters to rescue the five-man crew of a US Army CH-47 Chinook helicopter reported shot down in the vicinity of Baqubah, Iraq. The mission went smoothly, with the combat search and rescue (CSAR) crew members and pararescue specialists ("PJs," formerly pararescue jumpers) conducting the operation exactly as they had trained. This CSAR mission was the second successful recovery of a Chinook crew in four days and the unit's 11th combat mission since arriving in early December 2003 to support Operation Iraqi Freedom (OIF).[1] While this was not the most harrowing mission the unit executed, it was still very significant since it was the unit's last combat mission tasking for the next eight months. These low-density/high-demand (LD/HD) forces, whose members had rotated in support of the global war on terrorism (GWOT) continuously since the GWOT began, spent more than 200 straight days after executing the above mission without performing any missions other than training in the Iraqi theater.

Many of these same individuals faced a similar situation when operating from Uzbekistan as part of the 46th ERQS in support of Operation Enduring Freedom (OEF) in 2002 and 2003. During this timeframe, the 46th ERQS launched only four missions in 16 months. All four occurred within the first four months in-theater, with the unit continuing its deployment for the next year without a combat mission tasking. The OIF and OEF situations highlight the need to reexamine the application of air and space doctrine to the CSAR mission area to determine if there are more effective means for utilizing CSAR forces in current and future contingency operations. They also demonstrate a need to review how effectively CSAR employment is integrated into the broader strategies used to achieve air component and theater campaign objectives.

The tremendous capabilities these forces possess are currently underutilized by theater planners because the potential goes unrecognized to expand beyond the traditional, Cold War–era concept of maintaining a dedicated

CSAR capability focused exclusively on rescuing downed aircrews. The USAF needs to expand the role of CSAR forces to take advantage of their unique capabilities in the new global battlespace that emerged in the GWOT.

This paper provides background information on how CSAR forces are currently utilized in the GWOT and highlights the need for better application of three doctrinal air and space power tenets, leading to more effective and efficient utilization of the force. It concludes with recommendations on how to better employ these forces to support a broader range of mission areas in this new era that requires rapid response to unexpected threats and crises both at home and abroad. USAF CSAR can be a more agile, multifaceted asset, able to rapidly respond to unexpected or emerging crises across the spectrum of conflict.

Background Information

The brave men and women who serve today, whether in Afghanistan, northern Iraq, or other theaters for the war on terrorism, can do so with the full confidence that if they are captured, become missing, or fall in battle, this nation will spare no effort to bring them home. This is our solemn pledge; however long it takes, whatever it takes, whatever the cost.

—Deputy Secretary of Defense Paul Wolfowitz, 2004

The USAF CSAR Force and Its Doctrinal Focus

Air Force Doctrine Document (AFDD) 2-1.6, *Personnel Recovery Operations*, dated 1 June 2005, defines CSAR as the Air Force's preferred mechanism for personnel recovery execution in uncertain or hostile environments and denied areas.[2] The USAF is the only service to train, organize, and equip forces solely to carry out this specific task. According to joint doctrine, each service and the US Special Operations Command (SOCOM) are responsible for performing CSAR in support of their own operations, consistent with assigned functions.[3] Joint doctrine assigns each service responsibility for its own CSAR because it is not feasible for any one service to field the force structure necessary to routinely conduct CSAR in support of another component's operations. However, this doctrine leads to a situation where

the CSAR capabilities that reside in each service vary widely, ranging from a very limited capability in the US Army to a robust, dedicated capability in the US Air Force. The assets in every service except the USAF are multifaceted and often tasked with additional or separate missions altogether while deployed.

Three weapon systems encompass the dedicated CSAR capability in the USAF. The rotary-wing capability consists of HH-60G Pave Hawk helicopters capable of air refueling and flight in a wide variety of environments, day or night. The fixed-wing capability consists of HC-130P aircraft capable of refueling the helicopters and conducting airdrops of people and equipment in support of a CSAR. The final dedicated capability consists of highly trained and equipped individuals known as PJs, or pararescue specialists, and led by combat rescue officers (CRO) that specialize in the recovery and medical treatment of distressed personnel. The PJs are capable of operating from fixed- or rotary-wing assets and serve as the vital link between the isolated personnel and the rescue platforms.[4] They can also operate independently from the aircraft for extended periods of time if necessary. There are many other assets that contribute to the CSAR mission, such as fighter aircraft employed in rescue escort or on-scene commander roles, but they are not dedicated assets and will not be addressed as part of this paper.

On 1 October 2003 the CONUS-based Air Force CSAR capability moved from Air Combat Command (ACC) to the Air Force Special Operations Command (AFSOC). CSAR is a total force capability, with 42 percent of the total CSAR manpower located in the Air National Guard (ANG) and reserves.[5] CSAR in AFSOC consists of one active duty rescue wing, two ANG rescue wings, and one Air Force Reserve rescue wing. These wings have squadrons based at seven CONUS locations.[6] Additional CSAR units fall under the Pacific Air Forces and US Air Forces in Europe, with squadrons based in Okinawa, Alaska, and Iceland. Although the overseas units reside under different major commands, AFSOC is the lead command for all "AF related CSAR issues, HH-60, HC-130, CRO, PJ and Rescue Coordination Centers (RCC)."[7]

Due to the nature of past conflicts, doctrine dictates that CSAR forces concentrate on training, organizing, and equipping to recover downed aircrews. Before its June 2005 revision, AFDD 2-1.6 stated, "Downed aircrew are the most likely personnel to require a US Air Force CSAR effort during military operations; therefore, Air Force CSAR doctrine focuses on this type of operation."[8] This focus stems from the traditional, linear battlefield with a defined forward edge of the battle area (FEBA) or forward line of own troops (FLOT), where those operating beyond the FEBA or the FLOT were considered at high risk of capture. A high number of combat sorties against an enemy with adequate air defenses creates a situation where combat aircraft are at risk of being shot down. Department of Defense (DOD) Instruction 1300.21, *Code of Conduct Training and Education,* dated 8 January 2001, highlights those most at risk on a linear battlefield. "During war and operations other than war, personnel operating beyond the forward line of troops (e.g., all aviators, Special Operations Forces, long-range reconnaissance patrol members) are clearly in more danger than others of becoming prisoners of war."[9] The tactics, techniques, and procedures (TTP) used by CSAR forces today are based on recovering downed aircrews in this type of environment because it was considered the most likely environment in which they would operate. However, the GWOT appears to have changed the nature of the battlefield for all of the DOD.

The GWOT ushered in an era of warfare where combatants and support personnel are not easily distinguishable from each other and often face the same risks and combat environments. There is rarely a defining line like a FEBA or a FLOT beyond which the designated combatants fight while support personnel remain safely in the rear. If there is a FEBA or a FLOT, it will likely exist only for a short period of time during decisive combat operations and will quickly disappear as forces transition from major combat operations to security and stability operations. The nature of the threat itself is changing due to the overwhelming combat power possessed by the United States. According to the *National Military Strategy*, "Adversaries threaten the US throughout a complex, distributed battlespace where military operations may be dramatically different than the

high intensity combat missions for which US forces routinely train."[10] The likelihood of conducting the majority of a contingency operation in nonlinear battlespace against asymmetric threats increases the number of US military and civilian personnel that are susceptible to hostilities and the possibility of capture. This was seen most recently in OIF, even during major combat operations. Of the eight POWs captured in OIF, only two were aviators (both Army), while the rest were members of an Army maintenance company operating well into enemy territory to get supplies and equipment to frontline troops.[11] In the current phase of OIF, American military members taken hostage in Iraq consisted of two Army privates from a transportation company taken hostage after their convoy was attacked.[12] Insurgents in Iraq also captured a number of civilians from various nations. The changing nature of the battlespace in the GWOT creates an environment where moderate to high risk of capture applies to a larger, more diverse population.

While the at risk population increased in the GWOT, the nature of the enemy and the battlespace from which he operates also grew more diverse and complex. The *National Military Strategy* states, "Adversaries capable of threatening the United States, its allies, and its interests range from states to non-state organizations to individuals."[13] The Joint Personnel Recovery Agency's *Personnel Recovery Modernization Strategy* further breaks down the battlespace by stating, "The global strategic environment presents the US with a diverse assortment of complex security challenges that includes rogue states, the proliferation of weapons of mass destruction (WMD), transnational criminal enterprises, and ethnic and religious terrorist organizations. . . . US national interests, influenced by these threats, drive a broad spectrum of ongoing missions for US forces from combat operations to stability and support, humanitarian, and homeland security efforts."[14] In this operating environment, the likelihood of aircrews or other traditional high-risk-of-capture personnel becoming isolated will vary along with the nature of the battlespace.

The *Personnel Recovery Modernization Strategy* defines isolated personnel as "any individual who has become isolated in a hostile or uncertain environment and is, or may be, in need of support and assistance to return to friendly

control."[15] The traditional CSAR focus was on recovering aircrews isolated behind enemy lines, denying the enemy a potential source of intelligence, and preventing the exploitation of captured personnel in propaganda programs designed to influence our national interests and military strategy—all to maintain morale and the national will.[16] While these objectives remain vital, the nature of the battlespace must be closely examined to determine the true at risk population. In the GWOT, the quick shift from decisive combat operations in linear battlespace to transition operations in nonlinear battlespace appears to have reduced the likelihood of CFACC (combined force air component commander) aircrews becoming isolated. The ubiquitous presence of friendly air and ground forces in Iraq and Afghanistan since the end of major combat operations resulted in the immediate recovery of all aircrews downed through December 2004. There are no occurrences to date of CFACC isolated aircrew incidents since the end of major combat operations in OIF and OEF, so all downed-aircrew incidents were from other components. The type of missions flown and personnel rescued so far in the GWOT by USAF CSAR assets is much different than the traditional downed aircrews that Air Force doctrine considers most likely to require CSAR effort.

The Road to Combat Operations in the Global War on Terrorism

The road to successful combat recoveries executed in the GWOT was a difficult one for USAF CSAR. Combat search and rescue capability atrophied following the Vietnam War and remained stagnant until a slow buildup in capability started following the USAF CSAR's no-show in Desert Storm and their move from Air Mobility Command to Air Combat Command. Despite improvements to combat capabilities, USAF CSAR remained an afterthought and was noticeably absent in almost every contingency operation that preceded the GWOT. Special operations forces (SOF) filled the perceived capability gap and conducted all of the actual CSAR missions during this period except for the rescue of Capt Scott O'Grady, which was conducted by the Marine Corps. USAF CSAR gained some theater experience

supporting no-fly-zone operations in Operations Northern and Southern Watch, but these assets were not exposed to actual combat during their tenure. USAF CSAR also was tasked to support Operation Allied Force, but the orders came late and the war ended before these assets were fully employed. It became almost routine prior to the GWOT that CSAR was either not deployed or deployed too late to have an impact. The need for SOF, particularly AFSOC assets, to fill in was one of the driving factors of the move from ACC to AFSOC.[17] Another principle driver was the "synergy" gained by placing assets with similar capabilities under a command "that will look for ways to get US-based rescue forces to combat faster."[18] However, even before the move to AFSOC, the GWOT ushered in a new era for USAF CSAR due to the nature of the conflict and the combat missions executed by CSAR forces.

Although the CSAR assets arrived over a month after combat operations began in OEF, they performed admirably, conducting daring recovery missions. Air Force CSAR forces demonstrated an ability to go beyond the traditional—and now infrequent—CSAR missions in support of downed aircrews to broader personnel-recovery (PR) operations. PR is an "aggregation of military, civil, and political efforts to obtain release or recovery of personnel from uncertain or hostile environments and denied areas whether they are captured, missing, or isolated."[19] It is an umbrella term that encompasses CSAR as well as a wide variety of other means "focused on the task of recovering captured, missing or isolated personnel from harm's way."[20] From the beginning of the OEF deployments, issues surfaced over how to best utilize these assets. The deployed expeditionary squadrons pushed hard to do more and conduct missions in support of other components' operations, but there was continuous resistance from higher headquarters to go beyond sitting CSAR alert. Missions that could potentially impact CSAR response to a CFACC downed-aircrew incident were routinely denied, even when the mission was in support of the theater's main effort. Despite the differing views on CSAR utilization, the CSAR force responded well whenever tasked. After decades without taking part in actual combat operations, USAF CSAR was finally given the opportunity to demonstrate a myriad of

unique capabilities to recover personnel under demanding and often dangerous circumstances.

CSAR Support to the Global War on Terrorism

To assess how effectively USAF CSAR forces are being utilized in the GWOT, it is beneficial to examine their experiences to date. USAF CSAR forces conducted recoveries under fire in OEF for the first time since the Vietnam War and ably applied lessons learned in OEF to OIF.

Some trends emerge when reviewing USAF CSAR's participation in the GWOT that indicate a need to examine the effectiveness of current utilization of the force and evaluate additional contributions it could make in support of CFACC or JFC objectives.

Operation Enduring Freedom

On 2 March 2002, members of the 66th ERQS were called into action in support of Operation Anaconda, a large offensive targeting Taliban and al-Qaeda strongholds in the Shah-e-Kot Valley in eastern Afghanistan. The 66th ERQS members knew very little about Operation Anaconda. The operation's planners kept it pretty well compartmentalized and did not foresee the need for recovery capabilities beyond those resident within Army and SOCOM aviation. Despite their having conducted six rescue missions since arriving in early December 2001, little was understood about the USAF CSAR capabilities outside of the CSAR community. Consequently, they were not factored into the Anaconda plan. However, on the first night of the operation, the 66th ERQS received an execute order and launched two HH-60G Pave Hawk helicopters, with a total of eight crew members and four PJs on board, toward the valley to rescue Army soldiers critically wounded during a fierce firefight.

Arriving at the designated landing zone, they encountered tremendous resistance from the enemy using rocket-propelled grenades, mortars, and small arms to deter the rescue. Under heavy fire, the PJs departed the aircraft to assist the most critically injured and load them on board. Miraculously, no one was hit, and the two aircraft de-

parted for a medical facility at a coalition air base, saving the lives of nine soldiers. This scene would be repeated the next night when CSAR forces saved the lives of three more Army soldiers under heavy fire. The aircrews and PJs from these missions were awarded a total of two Silver Stars and 22 Distinguished Flying Crosses for their heroics. The Anaconda missions were a defining moment for USAF CSAR because they brought the unique capabilities and skills these forces possess to the forefront. CSAR became an essential part of operations in OEF, and the lessons learned in Afghanistan would lead to success during major combat operations in Iraq.

The initial CSAR deployment in support of OEF began, just as past contingency operations, with CSAR forces arriving in-theater well after combat operations had begun. Special operations forces filled the gap in CSAR coverage for the CFACC as in past operations. All three types of dedicated CSAR assets deployed to support this operation, with the majority of personnel experiencing combat for the first time. CSAR forces all started at one location, but eventually grew in size and shifted operations to three geographically separated locations. With a limited threat to CFACC aircraft, the exact role these forces would play in support of OEF PR efforts was not entirely clear, particularly when it came to CSAR in support of other components' operations.

It took nearly a month and a half after their arrival for these forces to finally execute a combat recovery mission. On 17 January 2002, an HH-60G picked up an Australian Special Forces soldier with leg injuries from a land mine incident.[21] The soldier was brought to the airport at Kandahar, Afghanistan, transferred to an HC-130P, and transported to Bahrain for a transload to a C-17.[22] The crews and PJs on board the HH-60G and HC-130P were credited with the first combat save by USAF CSAR crews since the Vietnam era.

This mission was the first of many and was indicative of the type of taskings the CSAR forces would get while supporting OEF. The mission was categorized as a *casualty evacuation* (CASEVAC)/*medical evacuation* (MEDEVAC). These terms are used to "classify missions where there were no isolated or missing personnel involved, but where there was some degree of injury that required evacuation to a medical facility."[23] These missions are not normally

considered part of the PR function since they do not involve isolated personnel and do not necessarily require the unique capabilities possessed by dedicated CSAR assets; however, the majority of missions that CSAR forces conducted from December 2001 through June 2003 were classified as CASEVAC/MEDEVAC missions. Of the 43 combat missions flown by the HH-60Gs during this timeframe, 34 were classified as CASEVAC/MEDEVAC, three as SAR, and only six as CSAR (three of these during Operation Anaconda).[24] The changing nature of the battlespace in the GWOT was a major determinant of this apportionment, since there were fewer incidents of isolated personnel. Other trends also emerged for CSAR assets as they remained in this area of responsibility (AOR).

At the beginning of OEF, CSAR assets were flying nearly all their missions to rescue members of the coalition, particularly coalition SOF. The first 14 combat missions were in direct support of injured coalition members. This changed in May 2002 as the mission taskings shifted toward MEDEVAC missions flown primarily to recover injured Afghan nationals. Most of these missions were requested by firebases that provided initial medical treatment to the Afghans and made the determination that they required urgent medical care that the bases could not provide. Twenty-two of the 43 combat missions flown by the HH-60Gs from December 2001 through June 2003 were MEDEVAC missions to recover Afghans.

The US Army maintains assets that train, organize, and equip for the MEDEVAC mission similar to how the USAF maintains dedicated CSAR assets. They were in-theater as part of Combined Joint Task Force (CJTF) 180 and conducted these same types of missions in parallel to the CSAR forces, but had certain limitations in range and ability to operate under low-illumination conditions. Missions involving these circumstances would fall to the CFACC's forces after CJTF 180's analysis revealed that they could not accomplish the mission. Thirty-two of the 43 previously cited combat missions were flown at night after CJTF 180 requested CFACC assistance.

These trends indicated a different employment of CSAR forces in support of OEF and the GWOT than the mission they routinely train, organize, and equip to execute. Their ca-

pabilities were well suited, however, for accomplishing missions that other assets were unable to accept. OEF CSAR assets maintained continuous alert in the event of a CFACC downed-aircrew incident, but were never utilized in this capacity since there were not any missions of this nature. Instead, they were used primarily to conduct the non-PR role of CASEVAC/MEDEVAC when the dedicated MEDEVAC assets could not execute the mission. These missions were primarily at night under low-illumination conditions or in adverse weather. There were a few cases—such as an 11-hour mission to rescue three Afghan military force soldiers injured in a truck rollover—that were not under the conditions listed above but required the long-range capability of the HH-60Gs to air refuel with the HC-130P. As OEF operations progressed, the majority of the missions were in support of Afghan civilians. CSAR utilization in support of OEF evolved to primarily MEDEVAC support to CJTF 180 because of periodic requirements for their low-illumination, adverse-weather, and long-range capabilities. The HH-60G does not possess a truly unique adverse-weather capability, so the aircrews' ability to accomplish missions under adverse-weather conditions is more attributable to their training and experiences gained in assignments in places like Iceland and Alaska. The circumstances in Iraqi Freedom were somewhat different, but still led to questions on whether there was a coherent strategy for utilizing CSAR forces in the GWOT.

Operation Iraqi Freedom

On 1 April 2003 USAF CSAR forces responsible for the western sector of Iraq successfully rescued the crew of an F-14 Tomcat isolated in enemy territory. This was the first mission flown by CSAR assets in support of CFACC personnel isolated behind enemy lines and remains the only mission of its type executed by USAF CSAR assets to date.

There were two phases in OIF for USAF CSAR assets. The first consisted of major combat operations. CSAR forces focused on recovering isolated personnel due to the linear nature of the battlespace and the high probability of a downed air component asset beyond the FEBA. USCENTCOM planners put together a robust PR architecture that resulted in

tremendous success. Air Force lieutenant general Norton "Norty" Schwartz told conferees attending the 2004 Worldwide Personnel Recovery Conference that "personnel-recovery specialists set an unprecedented record of accounting for every serviceman and woman at the end of major combat operations in the spring of 2003 during Operation Iraqi Freedom."[25] USCENTAF reported 55 PR missions executed and 73 lives saved, all run by the largest JSRC (joint search and rescue center) in history during this phase of OIF.[26] For the CFACC, lessons learned from OEF were applied to OIF. For the first time since the Vietnam War, USAF CSAR assets were put in place prior to the start of combat operations, and they deployed in sufficient numbers to execute multiple PR missions at the same time.

The first phase of OIF ended relatively quickly, and the USAF sent much of its robust CSAR capability home. What remained in Iraq was a small contingent of helicopters, HC-130Ps, and PJs tasked to recover isolated CFACC personnel. The HC-130Ps left OIF after a few months since the need for air refueling was offset by the large number of forward arming and refueling points. The small force that remained faced a situation similar to that in OEF, where the nature of their taskings was unclear due to the change to a nonlinear battlespace. The sizable presence of coalition soldiers throughout Iraq, combined with a greatly reduced air defense threat to CFACC assets, decreased the likelihood of a CFACC PR incident. In addition, the MEDEVAC capability deployed by the US Army was very substantial and spread throughout the country, leaving virtually no area unreachable. Finally, the MEDEVAC assets in OIF did not operate under the same low-illumination restrictions as in OEF. These factors combined led to very few mission opportunities in OIF and zero mission opportunities from April through October 2004.

The few missions tasked to USAF CSAR after the end of major combat operations in OIF were all in support of the ground component, much like OEF. For the most part, the factors that led to these taskings did not evolve into definable areas as they had in OEF. Adverse weather was the one element that remained the same. Of the 11 missions flown from December 2003 to November 2004, four were tasked due to adverse weather, which grounded the majority of the

helicopters in the AOR. These missions did not utilize any unique capability onboard the helicopter. Rather, they depended on the skill and daring of the CSAR aircrews to do things like descend below a 100-foot cloud deck over a lake and wire hop to the objective, or fly through a blinding sandstorm at 30 feet above the ground for 20 minutes to reach a crash site. USAF CSAR forces are often viewed as having an all-weather capability, which is incorrect but stems from their success in these demanding environments.

Another unique utilization issue that emerged from OIF was the use of PJs apart from the aviation assets, which is an inherent capability for the PJs but is rarely utilized. Two missions utilized the PJ's dive training to search for personnel lost in a river and to recover sensitive items from the crashed helicopter.[27] In another case, the PJs were tasked with a difficult mission to rescue a soldier injured by an improvised explosive device and trapped in the Humvee wreckage. They used their specialized skills and employed their Rapid Extrication Deployment (REDS) kit and lifting bags to extricate the soldier from the vehicle.[28] The PJs were the capability required for these missions, not the aircraft. Of the seven missions in OIF that resulted in lives saved, only two were CSAR missions, both flown in support of downed CJTF 7 helicopters. The other five were CASEVAC/MEDEVAC missions.

The end of major combat operations in OIF brought a change in the nature and type of captivity for coalition personnel. A new, asymmetric threat from insurgents and terrorists emerged, changing the type of captivity from prisoner of war (POW) to hostage and targeting personnel who were previously considered to be low risk of capture. The deputy assistant secretary of defense for POW/Missing Personnel Affairs summarizes this in his speech at the 2004 DOD Worldwide Personnel Recovery Conference: "The enemy in today's battlespace has found new targets. Whereas we have traditionally been concerned with recovering our uniformed personnel, we are now faced with an environment where the primary targets are the 'soft' targets—the untrained and unprepared civilians—DOD contractors, US Government civilians, journalists, humanitarian workers, and others that are so unprepared for isolation."[29] The population vulnerable to captivity in this type of battle-

space increases tremendously, but the chances of isolated CFACC personnel decreases. There is little USAF CSAR can do in this environment to recover individuals before they are taken hostage since they are taken without warning.

This new OIF battlespace, along with the robust in-theater MEDEVAC capability, resulted in very few mission taskings for CSAR assets in that theater. When a force operates for more than 200 days in a combat zone without getting tasked, it is necessary to reexamine its role in the operation to determine if a requirement still exists for its capability and to evaluate its capacity to conduct alternative missions. How USAF CSAR forces are utilized in the current GWOT operations and in future contingency operations is critical to making the best use of these LD/HD assets in this long-term war. Next is the analysis of three tenets of air and space power that will lead to more effective and efficient utilization of these forces.

Tenets for Effective Utilization of CSAR in the Global War on Terrorism

"Military Effectiveness is the process by which armed forces convert resources into fighting power. A fully effective military is one that derives maximum combat power from the resources physically and politically available. Effectiveness thus incorporates some notion of efficiency."[30] This definition of military effectiveness provides a good perspective for the utilization of USAF CSAR assets in combat, particularly combat operations in support of the GWOT.

The current doctrinal emphasis on utilizing these forces to recover downed aircrews in isolated territory does not maximize the combat power of these unique resources. The PR events in the current and future GWOT will involve very few downed aircrews due to the change in the nature of the threat from a nation-state's military to "adversaries that are decentralized, autonomous and capable of conducting independent operations and swarming on targets of opportunity."[31] The battlespace has changed, so the doctrinal precepts upon which CSAR utilization is based must change with it. All of the tenets of air and space power apply, but the three tenets outlined below are key to pro-

viding a basis for more effective utilization of these forces to maximize their combat power.

Flexibility

> *For many people, the word "rescue" conjures up the image of a helicopter hoisting a fighter pilot from the jungles of Southeast Asia. While that era is largely gone, the personnel-recovery community has yet to mature beyond that heroic legacy.*
>
> —Lt Gen Norton Schwartz, 2004

Through December 2004, USAF CSAR executed seven combat missions in the GWOT to recover downed aircrews, with only two of these crews under the operational control of the CFACC. The remaining aircrew missions were executed for downed US Army helicopters in OIF and OEF, and for a C-130 crew from the special operations component operating in Afghanistan. The fact that these missions represented a very small number of the total missions flown, and only one was a traditional CSAR for aircrews behind enemy lines, does not mean that the capability to recover downed aircrews should disappear. On the contrary, it is still critical that our downed aircrews are quickly recovered and returned to friendly control. However, the limited number of missions—particularly in direct support of the CFACC assets that CSAR forces train, organize, and equip to recover—indicates that the capacity exists for CSAR forces to go beyond the traditional, narrowly focused CSAR mission scope in current and future contingency operations.

"Flexibility allows air and space operations to shift from one campaign objective to another, quickly and decisively."[32] Current utilization of CSAR forces in the GWOT does not abide by the flexibility tenet of air and space power. These forces remain on a continuous, short-notice alert posture to recover isolated CFACC aircrews, but are very unlikely to get tasked to conduct this mission on a nonlinear battlefield against an asymmetric threat. The narrow mission scope leaves highly trained combat forces with sophisticated equipment sitting in-theater with few combat taskings. This limited activity signifies that the potential exists to employ USAF CSAR more efficiently by expanding the scope and looking for untapped roles and missions, turning

a limited, rarely used capability into a full-spectrum combat force.[33]

Gen George Kenney once said, "It really is remarkable what you can do with an airplane if you really try; anytime I can't think of something screwy enough, I have a flock of people out here to help me. . . . We carry troops, feed them, supply them with ammunition, artillery, clothes, shoes, and evacuate the wounded."[34] General Kenney's flexibility with his airpower in the Pacific theater during World War II provided General MacArthur the support he needed in his drive toward victory over Japan. Utilizing CSAR forces more flexibly will enable more effective employment of their combat power.

One measure for increasing flexibility is to expand the mission envelope for USAF CSAR from the more narrowly focused CSAR to the broader based mission of personnel recovery. This broader focus will increase the spectrum of operations, since PR is conducted for any type of isolated, captured, or missing personnel to include coalition and interagency personnel. It also provides opportunities for CSAR to support other subsets of the personnel-recovery umbrella such as nonconventional assisted recovery (NAR). Nonconventional means of recovery utilize trained recovery teams or preestablished recovery mechanisms to return isolated personnel to friendly control. The more extensive PR mission provides planners greater latitude in employing CSAR assets and gives them the ability to direct these assets toward areas most likely to experience a PR event, particularly if forces in this area do not have imbedded PR capability.

During the first year of contingency operations in OEF, USAF CSAR capability was requested numerous times to accompany Army aviation assets conducting large-scale air-assault operations in Afghanistan, but the requests were routinely turned down at the air component level because they did not want to shift focus away from a potential, although unlikely, CFACC downed-aircrew event. The fallacy in this situation was the notion that USAF CSAR had to remain static to react to a CSAR event, when the forces could easily redirect inflight or from a forward-staged posture toward an incident occurring away from the air assault. A mission change from CSAR to PR increases

flexibility by enabling CSAR assets to focus on personnel that face the highest risk of isolation or incident, while continuing to maintain the capability to redirect toward a CFACC downed-aircrew incident. The broader mission scope provides the joint force commander (JFC) an increased capability and greater flexibility to meet theater PR objectives.

Secretary of Defense Donald H. Rumsfeld in a 2002 speech at the National Defense University said, "An ability to adapt will be critical in a world where surprise and uncertainty are the defining characteristics of our new security environment."[35] The ability to adapt quickly to new challenges is an untapped capability of the USAF's CSAR force that can readily increase flexibility. These forces are capable of executing roles and missions beyond PR when the requirement for their unique capabilities is limited, as it is now in OIF. However, CSAR assets are rarely utilized in other areas since CSAR alert for downed aircrews remains the paramount concern of the air component. Conducting operations beyond PR is possible while still maintaining the PR mission but is best suited to contingency operations where the risk of an executable (not a hostage situation) isolated-personnel incident is remote.

CSAR forces in OIF conducted non-PR operations in support of local base defense after an increase in rocket attacks caused the wing commander to look for other means to deter the attacks. However, they were never relieved of their stringent CSAR alert commitments, so they could only support a limited number of base defense missions. Releasing them from alert commitments by giving this mission higher priority or loosening the stringent alert requirements would have resulted in more effective support to the base-defense mission. Organizing, training, and equipping people and aircraft to launch short-notice to recover isolated personnel threatened by enemy forces requires a myriad of skill sets that are applicable to mission areas beyond PR. Infiltrating PJs to a downed survivor's location and protecting them on the ground translates easily into roles requiring similar skills but focused on different objectives. These LD/HD assets are normally limited in the amount of combat power deployed, so it is prudent to not overextend the force when flexing from CSAR operations to

other roles and missions. However, utilizing these forces to conduct operations beyond CSAR is another method for increasing flexibility.

The principal purpose of USAF CSAR assets should remain the recovery of isolated personnel, but the mission scope needs to expand from CSAR for downed aircrews to PR for personnel at high risk of isolation or a PR incident for more effective utilization. These assets possess unique capabilities—such as long-range flight with aerial refueling, scuba- and jump-qualified PJs, and multiple infiltration/exfiltration means—that could prove useful in other roles and missions. As long as the LD/HD force is utilized only when a requirement exists for its unique capabilities, expanding the mission to PR and broadening into other roles will make the CSAR force more flexible by increasing the opportunities for combatant commands to employ its combat power.

Concentration

"Airmen must guard against the inadvertent dilution of air and space power effects resulting from high demand."[36] Increasing the flexibility of the CSAR force could result in the demand exceeding the available force, resulting in fragmentation of effort; so achieving "concentration of purpose" is essential, particularly through the principle of economy of force.[37] It is critical to concentrate CSAR assets at the "right time and right place" when a requirement exists for their unique capabilities.[38] When the risk of an isolated personnel incident is minimal and another component's assets can accomplish the PR mission in their absence, CSAR forces do not need to deploy, can return home for reconstitution, or can conduct other roles and missions. This situation exists in OIF today and existed in OEF in the past.

"Dedicated personnel-recovery forces are stretched supporting ongoing combat operations," Lt Gen Norty Schwartz noted in an address to the 2004 DOD Worldwide Personnel Recovery Conference. "We can't afford to respond to requirements inefficiently."[39] The GWOT is a long-term conflict that will involve many fronts, so it is essential to look at how USAF CSAR forces are concentrated in the war. As

the conflict in Iraq evolved toward security and stability operations in a nonlinear battlespace, the need for USAF CSAR's capabilities decreased, as is evidenced by the lack of missions for over 200 days. The lack of missions is not a stand-alone indicator of a lack of requirement for CSAR, as demonstrated by the years spent on alert in Northern and Southern Watch without a mission. In those operations, a requirement always existed for CSAR due to the linear battlespace where friendly aircraft operated beyond defined enemy lines. However, it is a better indicator in the nonlinear battlespace against an asymmetric threat. OIF has evolved into a counterinsurgency operation with more than 160,000 coalition troops on the ground. The USAF still has fighter aircraft deployed to support the ground forces, but maintains complete air supremacy. In the event that there is an air component downed-aircraft incident, there is little chance of an isolated-personnel situation due to the abundance of ground and aviation forces in the AOR. The ground component assets are more likely to make the recovery in OIF, even with CSAR in-theater, due to the ground component's ubiquitous presence. Out of approximately 33 downed-aircraft incidents (at least 20 by enemy fire) between May 2003 and December 2004, USAF CSAR assets solely executed three of these recovery missions and assisted other components in three others.[40] The remaining recoveries were conducted by the ground or SOF components. Of the six missions recovering or assisting in the recovery of and/or search for downed crew members, only one required unique capabilities beyond those possessed by the ground component. That mission involved a flight of two HH-60Gs flying into a sandstorm at 20 feet off the ground to recover a five-man crew of an Army CH-47 that crashed due to the adverse weather. The success of the mission was attributable to the bravery of the highly trained aircrews more than to any unique equipment on board the helicopters. The robust presence of the ground component in Iraq should alleviate the requirement to maintain a USAF CSAR presence in-theater, particularly one focused narrowly on the CSAR mission. Using economy of force, the USAF can rely on the ground component in the unlikely event of an air component downed-aircrew event and reconstitute the force to ensure readiness for concen-

tration in a future contingency with a requirement for CSAR's unique capabilities.

Combatant command planners need to also take a look at PR requirements from a joint perspective. There are cases in the GWOT where too much force is concentrated on PR because the PR assets come from different components. Economy of force would free up a portion of this redundant capability, enabling reconstitution or utilization in other areas. Recently in OEF, there were USAF HC-130 aircraft and PJs on CSAR alert sitting side-by-side with SOF MC-130E Talon I aircraft, also on alert. One of the principal roles of both aircraft was to refuel CSAR and SOF helicopters conducting operations in Afghanistan. Each weapon system also had other, slightly divergent roles such as resupply of SOF for the MC-130 and air-dropping PJs to conduct PR for the HC-130. However, these divergent roles were within the capabilities of either type of weapon system. A joint perspective employing the principle of economy of force would require only one of these aircraft types along with the PJs to conduct missions in support of the air component and the SOF component, freeing up LD/HD assets to reconstitute or conduct missions elsewhere. This not only concentrates the right force in the right place, but also increases flexibility in utilization, making more effective and efficient use of available assets. Economy of force when assets with similar capabilities are in the same area is a more efficient and effective use of LD/HD assets.

To more effectively concentrate CSAR forces in the GWOT, war fighters need to use a methodology that addresses whether the unique capabilities these assets possess are required for that contingency. This puts the focus on the requirement and desired effects and moves away from the more service-oriented perspective of maintaining a CSAR presence solely because air component assets are operating in the AOR. The first criterion to evaluate is the possibility of an isolated personnel event, particularly one behind defined enemy lines. There is no question that a robust CSAR force focused on its core mission of downed aircrew recovery was required in the early stages of both OEF and OIF. Air component assets were vulnerable to shoot down in enemy territory, and dedicated CSAR capability was necessary to get them out of harm's way. CSAR

assets were also used beyond their scope to conduct PR missions for in extremis exfiltrations of SOF, which took advantage of the rapid-response capability of the CSAR force. As major combat operations ended and ground forces were present throughout the AOR, new criteria were needed to determine whether USAF CSAR assets were still required.

The second criterion to evaluate is whether the PR requirement in-theater exceeds the capabilities of the other components. Two specific areas to examine are the environment and the threat. Environmental conditions can drive the requirement for USAF CSAR's unique capabilities when the other components' assets fall short in capability. While the mission in OEF has evolved from PR to MEDEVAC, it is difficult to redeploy the CSAR assets in-theater because they have capabilities not matched by the ground component's assets. There are parts of the country that the Army cannot reach with its non-aerial-refuelable helicopters, while the USAF can reach these areas via helicopter or by air-dropping PJs on site. The ground component has also restricted its MEDEVAC helicopters from operating under low-illumination periods, which creates a void that is currently filled by the USAF. Until planners decide to turn to other capable assets like SOF helicopters or the ground component improves its low-illumination operating capability, environmental conditions drive a requirement for a USAF CSAR presence in OEF. This contrasts with OIF where there are no unique environmental conditions that impel a requirement for a USAF CSAR capability.

War fighters must also evaluate the threat conditions to determine if they create a requirement for USAF CSAR, particularly a requirement to penetrate deep battlespace to recover isolated personnel. If there are operating areas that exceed the threat threshold of the other components' PR assets but are still within the threat threshold of the USAF's CSAR assets, then a requirement exists to maintain the CSAR in the AOR until the threat situation is mitigated enough for the other assets to operate. This is not the case in either OIF or OEF, but is an area for evaluation in future GWOT contingencies.

The August 2004 USSOCOM *Commander's Intent* newsletter states, "We cannot afford for all of our units to

be worn out in rotations to Afghanistan and Iraq."[41] SOCOM recognizes the long-term nature of the GWOT and the need to concentrate force "in exactly the right place at the right time facing the right adversary."[42] War fighters must view the LD/HD CSAR assets in the same light and concentrate them in the locations where and when their capabilities are required. USAF CSAR is more effectively utilized by employing when there is a linear battlefield with a chance of isolated personnel behind enemy lines or when the PR requirement exceeds the capability of the other components' assets. Using these criteria today, USAF CSAR would continue to operate in OEF until the Army improves its capability, but could draw down operations in OIF. This would reduce the current helicopter commitment by 50 percent and the PJ commitment by about 25 percent, enabling the forces to reconstitute for the next battle. With proper preparation, this force can rapidly deploy back to theater should the situation change and the requirement for the USAF CSAR capability reemerge.

Persistence

"Air and space power does not have to occupy terrain or remain constantly in proximity to areas of operation to bring force upon targets."[43] Throughout DOD, transformation is emphasizing the need to be prepared at home and rapidly deploy to fight the GWOT. In a speech to the Veterans of Foreign Wars, Pres. George W. Bush said, "We'll move some of our troops and capabilities to new locations so they can surge quickly to deal with unexpected threats. We'll take advantage of 21st century military technologies to rapidly deploy increased combat power."[44] USAF CSAR assets can better meet the air and space power tenet of persistence by being more rapidly deployable and self-sufficient upon arrival.

Since the Vietnam War—with the exception of OIF—dedicated CSAR assets have not arrived until after the beginning of the contingency or were not deployed at all. An existing presence, lead time, and lessons learned from OEF enabled planners to put a robust CSAR force in place prior to the start of the war in Iraq. However, the USAF's CSAR force still operates on cumbersome timelines that do not

match the rapid mobility requirements of other forces like SOF. Air Force CSAR can offer combatant commanders a more effective and persistent CSAR capability by transitioning to a force capable of rapid, global mobility to unexpected contingencies across the spectrum of conflict at home or abroad. Offering a rapid response capability that arrives prior to the fight will help preclude combatant commands from keeping forces deployed "just in case," as is the situation in OIF today.

In his 2002 speech to the National Defense University, Secretary Rumsfeld stated, "The future will require us to think differently and develop the kinds of forces and capabilities that can adapt quickly to new challenges and unexpected circumstances."[45] This is the type of force USAF CSAR must transition toward to match the rapid movements of other forces and provide persistent PR capability to the combatant commands.

Work at the tactical (squadron) level on a CSAR rapid response concept known as Lightning Bolt was completed in October 2001, but the concept did not make the leap to the operational or strategic level. Lightning Bolt is a concept to rapidly deploy a lean, versatile, agile package that has the capacity to provide support across the spectrum of rescue operations.[46] It reduces the conventional deployment timeline significantly and cuts the airlift requirement by 50 percent. When properly organized, this small package of helicopters, aviators, PJs, and support personnel provides a combatant command with PR capability within 24 hours of notification anywhere in the world via one C-5 or two C-17 aircraft. The package provides rotary-wing rescue operations for 14 days, contingent on resupply requirements as dictated by operations tempo, and with full unit type code (UTC) augmentation can continue for the duration of any contingency. While Lightning Bolt is not the answer to every PR requirement, it does provide a rapid-response PR capability to combatant commanders that can position quickly to support short-duration or emerging operations in the GWOT. This type of concept needs to be pushed beyond the tactical level to provide a more persistent PR capability worldwide.

To offer persistence, CSAR forces must also be more self-sufficient so they can better position themselves intheater. Lightning Bolt provides rapid capability but also

requires a source of base operations support (BOS) for basic requirements like fuel, food, and billets. A BOS provider is necessary for all but the shortest duration operations, but improvements in self-sufficiency will enhance the effectiveness of the force. OIF and OEF demonstrated the requirement and the ability for CSAR assets to leap forward to bare-base locations, placing PR capability closer to the fight. However, the equipment and manpower in existing UTCs does not match the type of combat operations USAF CSAR forces were asked to conduct in the GWOT and will likely be asked to conduct in the future.[47] OEF was particularly difficult during the initial leap into Afghanistan due to the Army not understanding their BOS responsibilities and the lack of suitable organic communication capability to properly command and control combat operations. The situation improved in OIF due to the lessons from OEF as well as initiatives at the tactical level to acquire equipment needed in a bare-base environment. However, effective CSAR capability depends on making this force as self-sufficient as possible for future operations relying only on BOS from others, such as fuel, that are well beyond the scope of CSAR UTCs.

As DOD transforms to a CONUS-based force capable of rapidly responding to emerging threats worldwide, USAF CSAR must transform to provide a relevant and persistent PR capability to combatant commanders. The key components of this persistent capability are rapid deployability and self-sufficiency. Combined, these components help create a force more capable of responding quickly to crisis worldwide.

Future Utilization in the War on Terrorism

We need every nickel, we need every innovation, every good idea to strengthen and transform our military. A new idea overlooked might well be the next threat overlooked. If we do not fix what is broken and encourage what is good and what works, if we do not transform, our enemies will surely find new ways to attack us.

—Secretary of Defense Donald H. Rumsfeld, 2004

Better application of the tenets of air and space power to USAF CSAR doctrine will help transform the force to more effectively support the GWOT and adapt to new types of roles and missions. They will lead to a more agile, multifaceted personnel-recovery capability able to quickly provide combat power worldwide. A more flexible, persistent force concentrated in the right places at the right time provides a vital capability to combatant commanders. There are three mission areas for the USAF CSAR forces to focus their capability for better utilization in the war on terror. The first is PR in direct support of military operations, which is the core mission that the CSAR force trains, organizes, and equips to execute. The second is collateral PR support primarily for nonmilitary people affected by a terrorist incident, a major disaster, or isolated on the battlefield. The third area includes ancillary missions not directly related to PR but where CSAR assets provide a viable capability to a joint force commander's air component. These three mission areas are not necessarily accomplished separately, but can run concurrently, if required.

Personnel Recovery in Support of Military Operations

As DOD transforms to deal with the new global security environment brought on by the end of the Cold War and the direct threat from terrorists and rogue nations, "The United States must refine its capabilities from a force designed to fight only high intensity, conventional battles to a force prepared to face a wide range of future contingencies across the spectrum of conflict."[48] Air Force CSAR must operate across this same spectrum of conflict to provide robust PR capability in direct support of military personnel. This support ranges from the traditional battlefield where the main effort is on recovering isolated personnel behind enemy lines to the more fluid and dynamic nonlinear battlespace with asymmetric threats and a broader range of personnel at risk of capture. Personnel-recovery support to military operations is not new for CSAR forces, but the scope and diverse types of PR operations required in the GWOT are a change from the traditional downed-aircrew focus the force maintains.

To better utilize the CSAR force in the future, the USAF should move away from defining this force in terms of its executable, narrowly focused mission and move toward incorporating the force into the broader, effects-based strategies employed by the joint force commander's air component. This starts by recognizing when and where to provide PR support across the wide range of operations required from the "1-4-2-1" national defense strategy (NDS).[49] "The '1-4-2-1' construct in the NDS directs a force sized to defend the homeland, deter forward in and from four regions, and conduct two overlapping swift defeat campaigns, one of which we must win decisively."[50] The USAF CSAR force maintains the combat power to provide PR support across this construct as long as the assets are utilized only when a requirement exists for their unique PR capabilities. To properly assess when to utilize USAF CSAR, air component planners need to use defined employment criteria tied into the broader air component strategy. If a viable requirement exists, rapidly deploy the force to conduct PR operations until the criteria for further employment are no longer met. Personnel recovery in future GWOT operations will likely go beyond the support that CSAR traditionally provided to air component downed aircrews. Future operations range from this traditional role to support for the entire joint force, to include possible support of the nonconventional realm of personnel recovery. No matter what the scope of employment is for the CSAR force, it is imperative that it is utilized as a capability designed to assist in meeting the joint force commander's campaign objectives and not just put in place so the CSAR block can be checked on a planner's checklist.

This application of CSAR combat power fits nicely with the USAF's vision of global strike (GS) and global persistent attack (GPA). "Through the GS CONOPS [concept of operations], the Air Force projects airpower rapidly and at great distances, to counter threats designed to deny access to our joint follow-on forces, while denying the enemy sanctuary."[51] To meet the demands of the GS concept, USAF CSAR would rapidly deploy to the AOR ahead of the initial air strikes and would use capabilities like aerial refueling and shipboard compatibility to ensure the strike force had proper PR coverage. The CSAR force would operate

from a safe country or a ship initially, until it was secure enough to leap forward to a bare-base location in country. USAF CSAR would provide PR coverage for SOF forces, including battlefield Airmen, and operate behind enemy lines if requested.

As operations move from GS to GPA, CSAR would continue with PR coverage until the ground component gained a good foothold and the likelihood of isolated personnel was minimal. "GPA provides a spectrum of capabilities from major combat to peacekeeping and sustainment" so the continued presence of the CSAR is dependent on the requirement for its unique capabilities.[52] If there are no unique PR requirements or requirements to support ancillary missions, the force redeploys for reconstitution and preparation for other contingency operations. The support to GS and GPA is just an example of PR support to the military but demonstrates the need for a persistent capability, able to concentrate when needed and redeploy when the PR requirement no longer exists. Better integration of CSAR utilization within strategic planning will facilitate matching capabilities to the desired effect. The capability to achieve this effect may or may not include the USAF CSAR force, depending on the level of combat power required.

Collateral Personnel-Recovery Support

Training, organizing, and equipping to conduct personnel recovery of isolated personnel from enemy territory is a challenging task, but creates a highly skilled force capable of conducting operations outside of the traditional PR arena. Support to civilians is one of these areas where intrinsic skills are applied outside of the core mission area. There are many applications of this type of collateral mission, but three areas where the CSAR force makes a vital contribution are homeland defense, disaster-relief/humanitarian-relief operations, and interagency support. All three take on greater importance in the GWOT.

The same tactics, techniques, and procedures utilized to execute the rescue of personnel in combat translate well in support of homeland defense. The use of DOD assets for domestic incident management (DIM) in "emergency circumstances, such as managing major accidents, terrorist

use of weapons of mass destruction (WMD), natural disasters, enemy attack, or other catastrophes in support of civil authorities" is one of three areas in which DOD may be involved in homeland defense according to the Air Force directive on homeland security.[53] This is the area where USAF CSAR forces can assist the most due to their ability to medically treat and move injured civilians. It is Air Force policy to "champion and develop dual-use war-fighting capabilities that enhance homeland security capabilities."[54] With little additional training, USAF CSAR can support homeland defense by responding with its specialized aircraft and PJs to assist civilian agencies overwhelmed by a mass casualty event. They can also support homeland defense by responding to an area contaminated by a WMD incident. The ability to medically treat civilians under this circumstance is very limited, but crews are trained and equipped to operate in an NBC environment and can move injured civilians to a more suitable location for decontamination and treatment.

CSAR forces ready to rapidly respond to contingencies globally can apply this same response posture to a CONUS-based incident. Units are spread throughout CONUS and could be provided to the US Northern Command (NORTHCOM) to support homeland defense. NORTHCOM oversees standing, subordinate groups such as Joint Task Force Civil Support, which provides specially trained military forces to support civilian agencies by responding immediately to chemical, biological, radiological, nuclear, and high-explosive attacks.[55] With proper coordination and exercise, USAF CSAR could fall under this type of JTF in support of homeland defense. The inherent capabilities present in the CSAR force make it suitable for support to this type of operation.

A persistent CSAR capability with the flexibility to move outside the mission to recover isolated personnel anywhere in the world is useful in a disaster-relief/humanitarian-relief operation. This is already considered a collateral mission for CSAR, and assets supported this mission area in the past by conducting flood-relief missions in Mozambique and, more recently, tsunami-relief efforts in southern Asia. The ability to get supplies to the victims quickly is a key component of relief efforts. Only the USAF has the capacity to conduct the massive airlift necessary early in a

crisis.[56] Air Force CSAR can assist this effort by providing a rapidly deployable capability able to deliver relief supplies to remote areas upon arrival or by providing a recovery capability immediately following a disaster. The Lightning Bolt package is a useful tool for this type of operation because it puts capability in place quickly with little airlift cost. The CSAR forces begin operations immediately upon arrival, providing capabilities that may not be available in the AOR. The United States will likely get involved in a number of these types of operations in the future, most of which will be short-duration contingencies. Air Force CSAR can provide combatant commanders with a rapidly deployable recovery and resupply capability during the initial stages of relief operations. As with support to military operations, when the CSAR force's unique capabilities are no longer required, it should redeploy to reconstitute for its core personnel-recovery mission.

An emerging area of interest within DOD is interagency personnel-recovery support. "With increased requirements of peacekeeping operations, humanitarian assistance, counter-narcotics operations, OIF, OEF, and the global war on terrorism, numerous US military, civilian and contractor personnel have deployed overseas in harm's way."[57] While the military provides PR support for its forces, there is no such coverage or guidance for civilians supporting the same contingency operations. A detailed discussion on interagency support goes beyond the scope of this paper, but leveraging CSAR's capabilities when CSAR assets are deployed in-theater is one potential means of providing some PR support for other government agencies. Currently, interagency support is ad hoc at best because, while DOD maintains a personnel-recovery system designed to locate, recover, and repatriate its isolated personnel, no such system exists for government civilians and contractor personnel.[58] Interagency PR support would require prior coordination with the air component staff and a memorandum of agreement to provide PR support during an isolated personnel situation. USAF CSAR could support this type of collateral mission while simultaneously providing its core PR support to the military. This capability is particularly useful for any interagency aviation assets operating in-theater.

Broad-based support on an interagency basis is likely beyond the means of one service, but PR support as a collateral activity to the principal PR mission is within the capabilities of USAF CSAR forces. This, and the other possible support to civilians mentioned above, is not something CSAR forces specifically train, organize, and equip for, but the capability to provide PR support to civilians is imbedded within their existing capabilities.

Ancillary Missions

A force that is capable of conducting long-range operations utilizing a wide variety of insertion and extraction methods in a threat environment with little prior notification is a force that possesses tremendous combat power. In the GWOT, the USAF CSAR force maintains a high personnel tempo, but the force's combat power is often underutilized. Air component planners need to start thinking of means to better harness this capability, particularly when a robust PR requirement does not exist. As Darrel Whitcomb points out in an *Aerospace Power Journal* article, "CSARing is war fighting—pure and simple."[59] These same skills and capabilities that apply to a recovery during a CSAR can also apply to ancillary missions. USAF forces were involved, to a limited extent, with air base defense in OIF and with a recovery operation for sensitive technology on an unmanned aerial vehicle in OEF, but these were not preplanned applications of the combat power to support air component or JFC objectives.

While there are too many ancillary mission possibilities to discuss in this paper, one area that has tremendous potential for the CSAR force is the infiltration/exfiltration of battlefield Airmen. The tremendous success of Airmen operating on the ground acting as "human sensors to identify targets, control attacks, and assess results" in OEF and OIF will undoubtedly lead to further integration between the SOF community, where most of these battlefield Airmen reside, and the USAF.[60] This integration opens up an opportunity for USAF CSAR assets to infiltrate and exfiltrate these Airmen behind enemy lines. This mission is in line with existing CSAR training, which encompasses infiltrating PJs to the isolated personnel location, protecting

them while they are on the ground, and then exfiltrating them back to safety. The biggest difference between the two types of missions is the time allotted for mission planning. Combat rescues are inherently short-notice operations with little time for mission analysis, while infils/exfils are accomplished with a longer planning cycle. The skill set possessed by the CSAR force translates easily into a capability to support battlefield Airmen.

The battlefield Airmen used in the early stages of a conflict are normally SOFs working under a joint special operations task force (JSOTF). The JSOTF possesses its own aviation capability, but USAF CSAR support to this type of operation provides an opportunity for economy of force, freeing JSOTF assets for other missions. This is particularly true when the CFACC is the supported commander for an operation and the JFSOCC is a supporting commander, like the situation that occurred during the counter-Scud hunt during major combat operations in OIF.[61] The marriage of SOFs operating principally to support the air component provides the opportunity for CSAR forces to function as the infil/exfil/resupply asset for battlefield Airmen without confusing command lines. This is an example of an ancillary mission that effectively utilizes the CSAR's combat power through flexibility and concentration.

The USAF's dedicated CSAR fleet is a highly trained force capable of operations ranging from its core mission of PR for isolated personnel to ancillary missions that effectively take advantage of CSAR's unique capabilities. A force trained, organized, and equipped for a mission as demanding as CSAR is a combat resource that provides combatant commands additional combat power when not needed to support PR or in addition to their PR requirements. Support to battlefield Airmen is one means of applying CSAR assets to a non-PR role in the GWOT.

Conclusion

Air Force CSAR assets routinely train in the dangerous and volatile combat environments that exist in Iraq and Afghanistan. They train to maintain some semblance of combat skills, since mission taskings are infrequent. They

must stay ready in the combat zone because combat missions normally occur under challenging flying conditions. Routinely training in a combat zone instead of actively supporting the combatant commander's objectives is a huge indicator that USAF CSAR forces are not effectively employed in the GWOT. There is too much combat power sitting for lengthy periods of time without a viable mission, while still facing the same risks as other combat assets in the course of training to maintain readiness. With the US military facing a very high operations tempo for the foreseeable future, every asset employed must be utilized efficiently and effectively. Efficient utilization is even more important for LD/HD assets already operating at high operations tempo with relatively few assets. Maintaining a force dedicated to a mission that rarely occurs, and is unlikely to occur in large numbers until the United States faces a near-peer competitor, is neither effective nor efficient.

The USAF needs to reexamine the CSAR function in light of the changing nature of the global battlespace and the transformational efforts taking place throughout DOD. It is important to define the force as a war-fighting capability instead of by an executable function. Application of the doctrinal tenets of air and space power demonstrates that CSAR assets possess greater capabilities and can contribute more to the fight than current GWOT taskings dictate. It is time to realistically assess the need to employ CSAR forces dedicated exclusively to the CSAR function and expand the range of employment options for these forces. CSAR assets are a proven capability under adverse conditions in the GWOT. Expanding upon this base of experience into personnel-recovery operations across the spectrum of conflict in support of both military and civilian distressed personnel, along with the application of this combat power to other mission areas, will result in more effective utilization. Predator aircraft were not originally designed to release Hellfire missiles, but creative thinking resulted in a leap in combat capability for this aircraft by tying the sensor directly to the weapon. There are undoubtedly ancillary applications that exist for CSAR forces supporting the GWOT as well.

The *National Military Strategy* states that the United States will face persistent and emerging challenges identi-

fied as "traditional, irregular, catastrophic, and disruptive challenges that will require the Armed Forces to adjust quickly and decisively to change and anticipate emerging threats."[62] CSAR missions are more likely to take place during traditional military operations, but there is a greater likelihood that the United States will face irregular, catastrophic, and disruptive threats in the future rather than traditional threats. Objectives outlined in the latest strategic planning guidance reflect "new Pentagon thinking that traditional warfare capabilities must go hand in hand with a broader set of skills to deal with new security challenges presented by the global war on terrorism."[63] Today's CSAR force can ably execute the CSAR function, but there is too little probability of CSAR mission tasking for the force to remain so exclusively focused. New strategic planning guidance points to changes in how the US military organizes, trains, and equips, reflecting the realities of the GWOT and future threats.[64] USAF CSAR is a tool that can conduct personnel recovery as well as ancillary missions across this spectrum of challenges persistently, if postured to rapidly respond. The force is capable of executing a broad range of missions in environments ranging from the traditional to the unconventional. Viewing the CSAR force as a war-fighting tool instead of a force confined to a narrowly defined, infrequently executed mission will provide a much wider array of capabilities to the combatant commands.

Notes

1. Mission statistics are from a personal log kept by the author. Of the 11 missions flown, seven of them resulted in a total of 17 combat saves. From the remaining four missions, two were river search missions that ended without finding victims, and two were picked up by Army units before the 64 ERQS crews arrived.

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