Practicing tactical recovery aboard *USS Wasp.*

26th Marine Expeditionary Unit (Justin T. Watkins)

Joint Combat Search and Rescue—

Operational Necessity or Afterthought?

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Military and civilian leaders recognize the need to assign a greater priority to combat search and rescue (CSAR). Today a combat rescue has political and military implications that range from the tactical to strategic level. Public concern over casualties can intensify a situation that involves even one American life into a major crisis. Current joint doctrine stresses individual service CSAR that allows a joint effort when service capabilities are exceeded. Although service capabilities are being maintained, the Armed Forces emphasize joint planning, coordination, and execution of such missions as the norm, not the exception. Current doctrine should be revised to furnish reliable and flexible joint CSAR support to both CINCs and other joint force commanders (JFCs).

The military has conducted a range of operations—occasionally combat—in recent decades. Public support for committing forces has been difficult to achieve and maintain. Airpower is often perceived as a low cost way of demonstrating national will with lower risk than deploying forces on the ground. While the real danger to airmen—who most commonly precipitate CSAR—may appear low, manportable and larger surface-to-air missiles have proliferated.

Combat search and rescue operations are dangerous and complicated. They normally take place in enemy territory or contested areas. Time is limited and knowledge of the situation is hard to obtain. The decision to conduct a search and rescue operation in unfriendly territory and under uncertain conditions is difficult. There are many ways to minimize risks to CSAR forces, but key among them are tailored assets, detailed coordination, and timely execution. Moreover, it is critical that such forces be immediately available, highly trained in search and rescue, and equipped with specialized and capable land, sea, and air systems.

CSAR efforts frequently failed early in the Vietnam War. Leaders did not apply the lessons of previous conflicts or prepare for the mission. Later attempts were more successful because

June 1996—rescuing Scott O'Grady during Deny Flight.

U.S. Marine Corps (Dave A. Garten)

U.S. Marine Corps (Dave A. Garten)

of extensive on-the-job training and commitment of assets by commanders who, unlike their leaders, recognized the importance of CSAR.[1]

There are barriers to developing effective CSAR capabilities. Historically, U.S. forces have put little emphasis on it in peacetime and then expended tremendous resources on it in time of war. The Goldwater-Nichols Act called on each military service to incorporate joint capabilities in all warfighting mission areas. However, joint doctrine continues to stress service CSAR programs and operations at the expense of interoperability and standard procedures which waste resources.[2] Recent efforts demonstrate the challenges of conducting joint CSAR missions under joint doctrine.

joint doctrine continues to stress service CSAR programs and operations at the expense of interoperability

Recent Efforts

The A-Team Compromise. On February 24, 1991, the first day of the ground war during Desert Storm, a Special Forces team was discovered 140 miles inside Iraq by local children.[3] Like combat pilots, such assets are routinely deployed beyond friendly unit areas of operation. They are also deployed prior to or early in a conflict. When a team is compromised the operation transitions to a combat search and rescue known as a quick reaction force (QRF) mission.

The A-Team came under fire and evaded its pursuers until forced to choose a place to fight. Air Force F–16s and helicopters from the 160th Special Operations Aviation Regiment (SOAR) responded immediately to a call for emergency close air support and extraction. The F–16s arrived in just over two hours, suppressed the advancing Iraqis, and saved the team from being overrun. The UH–60s arrived shortly thereafter. Despite pursuit by bedouins, villagers, and Iraqi forces the entire team was rescued without casualties.

There are several lessons from this extraction. First is the value of habitual relationships between the forces being rescued and those who execute operations. Second, helicopter crews that exfiltrated the A-Team also took it in. Third, the 160th SOAR worked closely with Special Forces so that pilots and soldiers were well acquainted. Fourth, the aviation unit was an integral part of the mission and knew the threat. Finally, unit members had studied the situation and terrain before the need for rescue arose. Any other force would have required more time, and the chance of success would have been reduced. It is critical to have a dedicated rescue force intimately familiar with the specifics of an operational area, threat locations, system capabilities, and mission. Speed can make the difference between life and death. Had rescuers been even minutes slower the A-Team could have perished. Often the only opportunity for a rescue is immediately after the need becomes known. Otherwise an enemy has time to mount its own search.

Downed pilot. The highly publicized shootdown of Captain Scott O'Grady, USAF, during Operation Deny Flight in Bosnia-Herzegovina is an example of how a downed aviator and a CSAR effort can take on a significance beyond the tactical problem of recovering the pilot. One can only speculate on the public reaction had O'Grady

Assisting accident victims aboard *USS Stennis* in North Atlantic.

U.S. Navy (James E. Williams)

been captured and mistreated by the Serbs. There may have been greater condemnation of the Serb role in the civil war and more aggressive calls for active U.S. military involvement. Both courses would have had important diplomatic and political repercussions. In the event, the response was more measured than it might have been in the wake of an emotionally charged situation such as the capture of a Special Forces pilot in Somalia.

O'Grady evaded capture by Serbian pursuers in rough, unpopulated terrain after being shot down by a surface-to-air missile during a peacekeeping mission and landing in Serb-held territory far from friendly forces. Deny Flight was a combined air operation with several allies providing aircraft, including Air Force and carrier-based Navy assets. The Combined Air Operations Center in Vicenza, Italy, controlled the CSAR operation that began immediately after O'Grady ejected.

Once the captain made radio contact with search aircraft, the commander of Allied Forces Southern Europe was faced with a series of decisions. Knowing that O'Grady had evaded capture for six days, there was little doubt that action had to be taken without delay. The force that would go deep into Bosnia to extract the pilot had two options. First was the special operations aviation element in Italy that included both Army and Air Force helicopters and personnel. They were best suited and trained for night operations. A second option was the Marine Corps in the Adriatic Sea just off Croatia who were trained for tactical recovery of aircraft and personnel. Their aircraft and crews, along with security forces, got the mission. That decision was reached because the Marines were close and were the force of choice for daylight operations. Waiting for dark was ruled out because of the urgency of the situation. SOF units were repositioned to assume a backup extraction role or to perform a subsequent rescue mission.

The Marines succeeded in locating O'Grady, securing the landing zone, and completing the extraction. The airspace above them and along the routes was host to various Navy and Air Force aircraft in support of the operation. In particular, there were aircraft for close air support (CAS), suppression of enemy air defense (SEAD), and airborne command, control, and communications (ABCCC). The joint nature of this operation was demonstrated when the rescued officer stepped from a Marine helicopter onto the deck of a Navy ship as Army and Air Force helicopters serving as backup received word to return to their bases.

Simulated TRAP mission at Camp Lejeune.

Search and rescue demonstration, Apra Harbor, Guam.

U.S. Navy (Mark Kane)

2d Marine Division (Cheresa D. Clark)

The Limits of Doctrine

Although joint doctrine makes theater CINCs responsible for the rescue of downed airmen and other personnel, it does not sufficiently describe requisite joint capabilities. CINCs must rely on the services for support. Current doctrine does not force—or provide the incentives for—the services to upgrade and maintain an effective joint capability.[4] CSAR, as a service responsibility, potentially limits the ability of CINCs to employ rapid overwhelming force.

Overarching guidance on joint CSAR doctrine is summarized in Joint Pub 3-50.2, *Doctrine for Joint Combat Search and Rescue*:

Joint SAR and CSAR operations are those that have exceeded the capabilities of the component commanders in their own operations and require the efforts of two or more components of the joint force to accomplish the operation.[5]

This limits and inhibits operations by stating that components should consider joint CSAR only if their own capabilities are exceeded.

Doctrine should acknowledge that even if service capabilities are not exceeded, pre-planned joint CSAR efforts are practical and appropriate and also merit initial consideration. For example, service components may not send CSAR assets to support operations when it is impractical. If the Air Force were to provide strategic airlift to an area of responsibility (AOR) or joint operations area (JOA) for use by another component, deploying assets to conduct a rescue would be impractical. In other cases service components may enter operations knowing that they cannot field the needed assets for CSAR. In both cases supporters may argue that joint doctrine now resolves such issues. They might conclude that if service components exceed their capabilities to conduct CSAR before operations begin, a pre-planned joint effort is needed to support a mission. But this approach still considers joint CSAR as a final option only after service component capabilities are exceeded.

even if service capabilities are not exceeded, pre-planned joint CSAR efforts are practical and appropriate

In most instances service components plan to conduct their own missions. Problems arise when operational demands usurp assets needed for CSAR. Shortfalls or requests for assistance may not be identified until an operation is initiated. This implies that

joint CSAR is a backup to service efforts and that joint attempts are not pre-planned but are coordinated ad hoc when the need arises. This will mean joint missions must be quickly coordinated and executed during the initial phase of CSAR operations when timing, decision, and response are critical. Such planning usually leads to problems and possible failure.

Joint doctrine and military planning in general have come to emphasize joint operations in most areas, but CSAR lags behind. JFCs must consider search and rescue as joint at the onset of planning rather than rely on component CSAR. Components must plan for cross-service support even if their own capabilities have not been exceeded as specified in joint doctrine.

The A-Team rescue was joint. U.S. Special Operations Command during the Gulf War was able to receive requests for CAS and coordinate execution. CSAR operations involve aerial search and extraction almost exclusively. Navy, Marine Corps, and Air Force aircraft are suited for combat air patrols, air superiority, electronic warfare, SEAD, CAS, and search and rescue.

Combined with helicopters for search and extraction and ground forces to provide security, the planning, coordination, and control requirements for such operations are complex. All but the simplest CSAR operations are joint. Although service components may contribute capabilities and forces, JFCs must prioritize assets, planning, and execution. Ad hoc arrangements and redundant structures just add confusion and risk to an already challenging mission.

F–8 pilot ejecting over South China Sea, 1965.

Light Photographic Squadron 63 (Roy A. Zink)

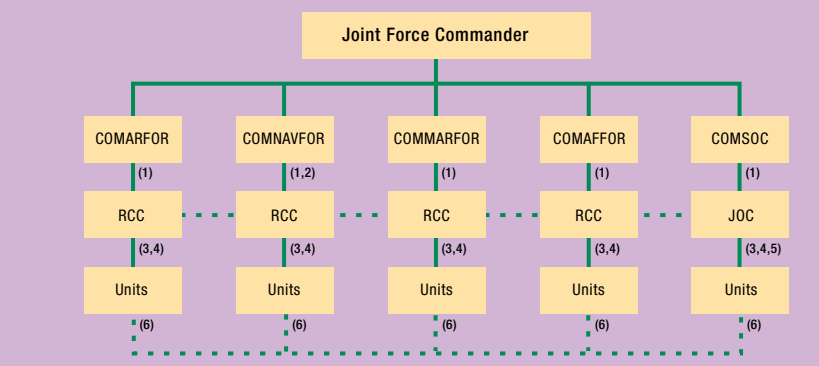
Nebulous Command and Control

Coordination of joint CSAR during operations is complicated by the command and control guidance contained in joint doctrine. Too many steps and unnecessary intermediaries act as serious hindrances. One reason the O'Grady rescue went well is that Deny Flight had earlier established command and control mechanisms and readily available air assets. It was a mature operation with two years of experience. There were prescribed procedures and dedicated assets for CSAR, with robust staffs and seasoned planners and operators. In addition, rescue elements had six days—as the downed pilot evaded—to plan ingress and egress routes and become familiar with the situation.

Joint Pub 3-50.2 states, "The JFC should establish a [joint search and rescue center] to monitor recovery efforts; to plan, coordinate, and execute joint search and rescue (SAR) and CSAR operations."[6] Also, "Component commanders should establish a rescue coordination center (RCC) to coordinate all component CSAR activities, including coordination with the JSRC and other component RCCs as appropriate." JFCs may either elect to place JSRC on their staffs or assign component RCCs. If JSRC is on a JFC staff, that commander designates a JSRC director who is the direct representative on all SAR matters. The individual units of the service components report to their respective RCCs.

During an operation, missions are initiated when a member of the CSAR hierarchy receives a distress indicator: a mayday call, nonreturn from a mission, overdue contact, emergency beacon contact, or sighting an aircraft or

Figure 1. Joint CSRC Relationships (Service Components)



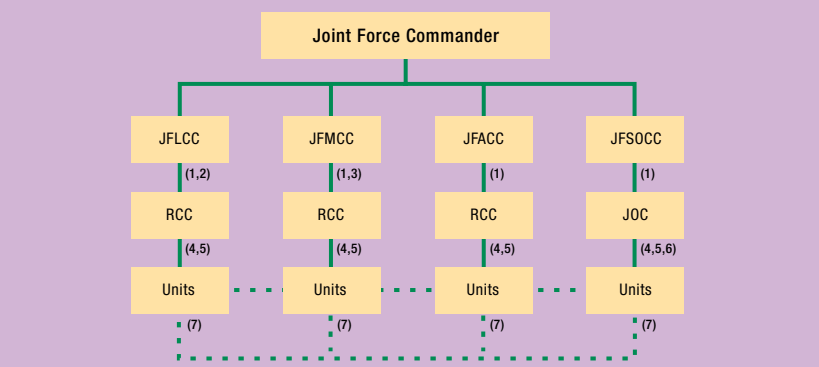
operational control / tactical control
coordination

COMARFOR Commander, Army Forces
COMNAVFOR Commander, Navy Forces
COMMARFOR Commander, Marine Forces
COMAFFOR Commander, Air Force forces
COMSOC Commander, Special Operations Command
JOC joint operations center
RCC rescue coordination center

(1) May be assigned joint force CSAR responsibilities
(2) Includes Coast Guard forces assigned to joint force
(3) Designated as joint search and rescue center (JSRC) when component commander is assigned joint force CSAR responsibilities
(4) Also performs component RCC duties as required
(5) JOC coordinates special operations forces CSAR with the JSRC
(6) Organic search and rescue units (operational control) or other CSAR-capable units performing a joint CSAR mission (tactical control)

Source: Joint Pub 3-50.2, *Doctrine for Joint Combat Search and Rescue*.

Figure 2. Joint CSRC Relationships (Functional Components)



operational control / tactical control
coordination

JFACC joint force air component commander
JFLCC joint force land component commander
JFMCC joint force maritime component commander
JFSOCC joint force special operations component commander
JOC joint operations center (special operations component)
RCC rescue coordination center

(1) May be assigned joint force CSAR responsibilities
(2) Includes Marine air-ground task force (MAGTF) (land operations)
(3) Includes Coast Guard forces assigned to joint force and MAGTF (maritime operations)
(4) Designated as joint search and rescue center (JSRC) when component commander is assigned joint force CSAR responsibilities
(5) Also performs component RCC duties as required
(6) JOC coordinates special operations forces CSAR with the JSRC
(7) Organic search and rescue units (operational control) or other CSAR-capable units performing a joint CSAR mission (tactical control)

Source: Joint Pub 3-50.2, *Doctrine for Joint Combat Search and Rescue.*

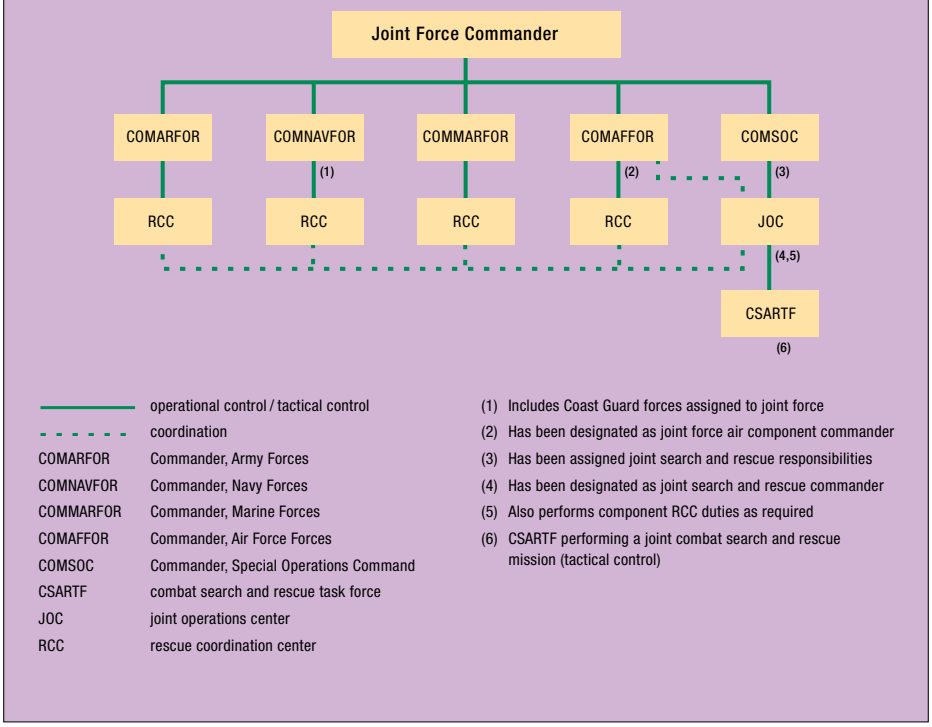
vessel going down. Experience indicates that action during the first 15 minutes contributes significantly to a successful recovery. If units have organic capabilities to conduct CSAR the process merely requires keeping RCCs advised on mission conduct. If the units call for additional assistance, coordination becomes more complex.

Units requesting support should notify the component RCCs, which should notify JSRCs. RCCs then assume duties as coordinators and task subordinate units. If component resources are inadequate, RCCs will request assistance through JSRCs whose directors may elect to designate new mission coordinators who could be the initial component coordinators, other component RCC coordinators, or the JSRC directors.

Coordinators could change frequently over a short period. This amounts to a possible switch in tactical control during a critical phase of a demanding mission. Even given the best communications possible, this would still be confusing to the executing units. One moment they would answer to the unit CSAR coordinator, the next to the RCC coordinator, and the next to the JSRC-designated coordinator. Different units could be working under different mission coordinators if a change in control were not adequately transmitted and received amongst the various participants.

In addition, the organizational charts in figures III-1 through III-3 in Joint Pub 3-50.2 show no clear chain of command from the units through the components to JFC. Nor do they clearly indicate how JSRC fits into the organization or whether RCC is responsible to the JSRC director or the service component commander. They merely imply that RCC is responsible to the component commander. However, the pub states that the JSRC director is the JFC representative for CSAR and can thus "task component commands to support CSAR missions." The RCC coordinator could well receive conflicting guidance from the commander and director. Which should he answer to?

Figure 3. Typical JSRC Relationships (Service Components)



Source: Joint Pub 3-50.2, *Doctrine for Joint Combat Search and Rescue.*

The chart in figure III-3 shows the commander of the special operations component having been "assigned joint force CSAR responsibilities" but does not explain the implications of this structure. It implies that services are not responsible for their own CSAR, contradicting the rest of the document. Furthermore, both the chart and document fail to explain the relationship between RCC, JSRC, and the CSAR task force.

A joint force commander must establish a single point of contact for command and control—a sort of CSAR 911. JSRC should be the primary focal point for planning, controlling, and coordinating all such missions for the joint force. The components could still be tasked to conduct their own CSAR, but JSRC would determine the best mix of assets and coordinate all joint SAR.

The JSRC director, as JFC's direct voice, should have tactical control of all CSAR resources during missions. Should JSRC and component commander guidance conflict regarding the use of assets, JSRC need only resolve it with JFC or his representative for the overall operation.

Duplication of Effort

Coordination between JSRC and component RCCs is the most critical flaw in the current arrangement. It can cause delays and confusion that lead to mission failure, personnel captured or killed, and loss of CSAR assets. Lesser problems must also be solved. The present duplication of effort among services wastes assets, training, and manpower.

a joint force commander must establish a single point of contact for command and control—a sort of CSAR 911

In many cases JFC will call for establishment of a JSRC in a crisis. The individuals needed to operate it (described above) will likely be the same trained personnel the service components would have used in their RCCs. Many responsibilities assigned to JSRC must be accomplished on the component level by RCC. For example, both centers are tasked with maintaining "a database and file on each isolated person until recovery is complete."

Not only is manpower wasted when several organizations produce similar products, but multiple efforts mean multiple products. Units in the field must then commit time to learning different procedures. The problem caused by the duplication of effort comes across loud and clear in the joint pub itself:

Unit commanders should ensure that assigned and attached personnel are familiar with this publication, joint force CSAR SOPs [standard operating procedures], *and any specific component CSAR TTP* [tactics, techniques, and procedures] *that have been developed.*

Just how many procedures do we want our aircrews to learn? In most cases CSAR is not a mission of the individual unit.

The same section of the joint pub tells unit commanders that "CSAR requirements exceeding available capabilities should be forwarded to the component RCC." The majority of units—certainly Air Force fighter or bomber squadrons—lack the indigenous assets to conduct CSAR. The Air Force RCC would be flooded with requirements if unit commanders followed this guidance. Each unit will produce a very similar list that could be prepared at RCC or a properly manned JSRC, reducing the duplication of effort among units.

The joint pub establishes a loose framework to implement joint CSAR. Unfortunately, to execute it under this framework all players must coordinate throughout the process and make CSAR a top priority at the expense of other missions. History shows that this is unlikely without strong direction.

Downed CH–46 crew arriving on board *USS Constellation.*

U.S. Navy (Roger W. Dellinger)

Joint Pub 3-50.2 properly establishes that "JFCs have primary authority and responsibility for CSAR in support of U.S. forces within their AORs or JOAs." But the next paragraph returns to business as usual: "JFCs normally delegate responsibility to recover personnel to the joint force component commanders." Similarly, the publication calls for the establishment of a JSRC and then (as discussed above) turns it into an additional coordination node in what should be a streamlined process. The joint pub is an excellent starting point, but without clear direction (teeth) it cannot fix the continuing problems in the CSAR mission.

DOD Initiatives

The lack of CSAR coordination has been acknowledged at the highest levels within DOD. There are initiatives underway to improve doctrine and capabilities. A former Director of the Office for Missing Personnel, James Wold, stated that "personnel recovery [is] a very important issue to the Secretary of Defense." The Secretary initiated the tasking to establish a CSAR executive agent. Though the Vice Chief of Staff of the Air Force initially delayed the executive agent's standup, the Secretary appointed commander of Air Combat Command (COMACC) to that post. The command then directed formation of an integrated product team to address the task. A team lead was named and built an organization. The team worked with ACC and Air Force staffs to resolve issues raised by the Vice Chief. During mid-1996 the executive agent still required manpower, operations and maintenance funds, and a responsible staff organization at ACC headquarters.[7]

The Air Force, specifically ACC, has been tasked to develop standards for equipment, training, and procedures to be coordinated with all the services. ACC Director of Operations has updated the combat air forces concept of operations for CSAR, signed by the ACC director for Plans and Programs in April 1995. Establishment of an executive agent and lead organization is clearly a positive step towards effective joint capabilities. It should be followed by publication of an updated Joint Pub 3-50.2 that will not only detail CINC CSAR responsibilities but give them capable assets and the authority and command structure to effectively execute this critical mission.

An ad hoc organization or hastily prepared force would not have been up to the challenges posed by the CSAR examples described above. Key decisions guiding high-stakes missions were necessarily raised to the attention of theater commanders. Tailored assets drawn from three or four services were united in joint operations whose success was largely determined by the command's ability to synchronize actions across traditional service boundaries.

As previously stated, JSRC should be established as a focal point for all CSAR. Dedicated rescue forces with expertise and training in joint operations should be available to CINCs and other JFCs. The Armed Forces should rely more on joint efforts to optimize the use of available assets. And JFCs must consider CSAR a joint undertaking at the onset of planning while each component must plan for cross-service support.

While current joint doctrine and DOD initiatives stress the necessary joint nature of CSAR operations, they do not forcefully ensure that organizations and procedures are indeed joint. They do not guarantee that the lessons learned from recent successes are incorporated on the combatant command and joint task force level. Joint Pub 3-50.2 should be updated to provide CINCs with capable assets, command structures, and the authority to execute critical missions. The difference between forcefully stating joint doctrine, as proposed here, and the tacit acceptance of less stringent standards embodied in current doctrine may appear insignificant. But the reality is that the nature of CSAR makes it essential to have unambiguous doctrine, highly trained and specialized forces in all services, an uncompromising dedication to organizing joint staffs, and joint command authority for planning and execution. **JFQ**

NOTES

[1] John R. Bone, in "Combat Search and Rescue—Military Stepchild," research report for Air War College (April 1988), reviews CSAR efforts from Vietnam through the late 1980s.

[2] Russell M. Ziegler, "Combat Search and Rescue (CSAR): Time to Find a Real Fix," paper for Naval War College, February 1993. Ziegler asserts that, despite DOD reorganization, the services still fall short of an effective joint capability.

[3] George C. Wilson, "Death Trap in Iraq," *Army Times*, February 5, 1996, pp. 11–14.

[4] Russell D. Carmody, "Theater Combat Search and Rescue," thesis, Command and General Staff College, May 1993.

[5] Joint Pub 3-50.2, *Doctrine for Joint Combat Search and Rescue*, p. I-1. Joint Pub 1-02, *DOD Dictionary*, defines joint CSAR in essentially the same terms.

[6] Ibid., p. viii.

[7] ACC Director of Operations staff memorandum, COMACC update, July 16, 1996.