Philippine Air Force Visiting Fellow Program

Personnel Recovery for the Philippine Air Force

Federico C. Ercilla Jr.
Personnel Recovery for the Philippine Air Force

Combat Search and Rescue Operations Doctrine

Federico C. Ercilla Jr.

Air Power Studies Centre
RAAF Fairbairn
Canberra
1999
The Air Power Studies Centre

The Air Power Studies Centre was established by the Royal Australian Air Force at RAAF Base Fairbairn in August 1989, at the direction of the Chief of Air Force. Its function is to promote a greater understanding of the proper application of air power within the Australian Defence Force and in the wider community. This is being achieved through a variety of methods, including development and revision of indigenous doctrine, the incorporation of that doctrine into all levels of RAAF training, and increasing the level of air power awareness across the broadest possible spectrum. Comment on this publication or enquiry on any air power related topic is welcome and should be forwarded to:

The Director  
Air Power Studies Centre  
RAAF Base  
FAIRBAIRN ACT 2600

Tel: (02) 6287 6563  
Fax: (02) 6287 6382  
E-mail: apsc@dynamite.com.au

About the Author

Lieutenant Colonel Federico Capanang Ercilla Jr. O-7864 PAF graduated with a Bachelor of Science in Mechanical Engineering before joining the Philippine Air Force Flying School as an aviation cadet in 1977. He was commissioned as an officer in the regular force after completion of Under-Graduate Pilot Training in 1978. Since then, he was assigned to various tactical units in the Philippine Air Force.

Lieutenant Colonel Ercilla joined the 220th Heavy Airlift Wing flying the Nomad (N-22 B) aircraft for five years. He later transferred to the 205th Tactical Operations Wing flying the Huey (UH-IH) and Bell 205 Helicopters. He was upgraded to flight commander and test pilot of these type of aircraft after satisfying the programmed requirements. During his stint in this unit, he was awarded two flight safety awards on different occasions in recognition of his exemplary performance during in-flight emergency situations.

Lieutenant Colonel Ercilla was designated to various positions in the 205th Tactical Operations Wing (TOW), such as Squadron Commander of the 207th Tactical Helicopter Squadron, 208th Tactical Helicopter Squadron and Director for Personnel. After serving with the 205th TOW for eleven years, he was assigned to Headquarters Philippine Air Force in the office of the Assistant Chief of Air Staff for Personnel as Director for Personnel Plans and Program.

Lieutenant Colonel Ercilla is happily married to Sandra Guevara and blessed with two children, Kerstein and Jhon Heinrich.
Acknowledgments

I am most grateful to all those who have given up their time to assist in the production of this work.

Firstly, my thanks to all the staff at the Air Power Studies Centre under the stewardship of Group Captain Garry Dunbar, for sharing their thoughts, discussing ideas and commenting on numerous drafts in the development of this study. Most especially, to my mentor Wing Commander Col Price who always found the time to share valuable guidance and provided the encouragement that made this work possible. I would like also to extend my profound gratitude to Dr John Mordike and Mrs Sandra Di Guglielmo for the considerable time spent proof reading and editing, and Miss Ros Bourke for administrative support.

My thanks also to the staff of the Australian Defence Force Warfare Centre at RAAF Base Williamtown and in particular to Wing Commander Bill Evans for providing the forum to discuss my ideas and tour the facility, which has enhanced the quality of this paper.

To Lieutenant General Willie C. Florendo, AFP, Commanding General, PAF who gave his time to share his guidance and enlightenment with the end view of making our study more productive for the Philippine Air Force in the future.

Finally, to my loving wife Sandra, for her patience, and encouragement, and to my children Kerstein and Jhon Heinrich for their unrelenting support and understanding while I am away for three months during the course of my study.
Table of Contents

About the Author ii
Acknowledgment iii
Acronyms and Abbreviations vi
Introduction vii

CHAPTER ONE – Overview 1
PAF Personnel Recovery in the 1970s 1
Air Force CSAR History 3
Missions 3
CSAR Benefits 3

CHAPTER TWO – Organisation and Command and Control 5
General 5
Combat Rescue Forces Command Authority 5
Area Commanders 5
Area Command Air Component Commander 6
Commander, Composite Air Support Force 6
Joint Search and Rescue Center 7
Rescue Coordination Center 8

CHAPTER THREE — Air Force CSAR Elements 9
Rescue Coordination Center 9
Director, Rescue Coordination Center 9
Search and Rescue Center Duty Officer 10
Unit Commanders 10
Isolated Personnel 10
Combat Search and Rescue Task Force 10
| CHAPTER FOUR - Concept of Operation               | 15 |
| General                                             | 15 |
| Notification                                         | 15 |
| Initial Response                                    | 16 |
| Air Force SAR Capabilities                          | 16 |
| Threat Environment                                  | 16 |
| Employment Considerations                           | 18 |
| Mission Planning                                    | 18 |
| Locating of Isolated Personnel                     | 18 |
| Authentication                                       | 19 |
| Search Operation                                    | 19 |
| Risk Management                                     | 19 |
| CHAPTER FIVE - CSAR Planning and Considerations     | 23 |
| Operational Considerations                          | 23 |
| Intelligence                                        | 23 |
| Information and Services                            | 24 |
| Communications                                      | 24 |
| Support Planning                                    | 24 |
| Operations Security                                 | 25 |
| Military Deception                                  | 25 |
| Climate and Weather                                 | 25 |
| Astronomical Conditions                             | 26 |
| Safety and Risk Management                          | 26 |
| Technological Consideration                         | 26 |
| CHAPTER SIX - Training and Education                | 27 |
| Commanders' Responsibilities                       | 27 |
| Aircrews                                            | 27 |
| RCC Controllers                                     | 27 |
| Exercises                                           | 28 |
| Summary                                             | 28 |
| Glossary                                            | 29 |
### Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>Anti-Aircraft Artillery</td>
</tr>
<tr>
<td>ACACC</td>
<td>Area Command Air Component Commander</td>
</tr>
<tr>
<td>ADS</td>
<td>Air Defence System</td>
</tr>
<tr>
<td>AFDD</td>
<td>Air Force Doctrine Document</td>
</tr>
<tr>
<td>AMC</td>
<td>Airborne Mission Commander</td>
</tr>
<tr>
<td>AOC</td>
<td>Air Operations Center</td>
</tr>
<tr>
<td>ARS</td>
<td>Air Rescue Service</td>
</tr>
<tr>
<td>ATO</td>
<td>Air Tasking Order</td>
</tr>
<tr>
<td>C3I</td>
<td>Command, Control, Communication and Intelligence</td>
</tr>
<tr>
<td>CAF</td>
<td>Combat Air Patrol</td>
</tr>
<tr>
<td>CAS</td>
<td>Close Air Support</td>
</tr>
<tr>
<td>CSAR</td>
<td>Combat Search and Rescue</td>
</tr>
<tr>
<td>CSARTF</td>
<td>Combat Search and Rescue Task Force</td>
</tr>
<tr>
<td>DCM</td>
<td>Downed Crew Member</td>
</tr>
<tr>
<td>DOD</td>
<td>Department of Defence</td>
</tr>
<tr>
<td>E/R</td>
<td>Evasion and Recovery</td>
</tr>
<tr>
<td>EPA</td>
<td>Evasion Plan of Action</td>
</tr>
<tr>
<td>FAC</td>
<td>Forward Air Controller</td>
</tr>
<tr>
<td>FTX</td>
<td>Field Training Exercise</td>
</tr>
<tr>
<td>ISOPREP</td>
<td>Isolated Personnel Report</td>
</tr>
<tr>
<td>JOC</td>
<td>Joint Operations Center</td>
</tr>
<tr>
<td>JSRC</td>
<td>Joint Search and Rescue Center</td>
</tr>
<tr>
<td>NRT</td>
<td>Near -Real Time</td>
</tr>
<tr>
<td>OPCON</td>
<td>Operational Control</td>
</tr>
<tr>
<td>OPLAN</td>
<td>Operational Plan</td>
</tr>
<tr>
<td>OPSEC</td>
<td>Operational Security</td>
</tr>
<tr>
<td>OSC</td>
<td>On-Scene Commander</td>
</tr>
<tr>
<td>PJ</td>
<td>Para-rescue Specialist</td>
</tr>
<tr>
<td>PR</td>
<td>Personnel Recovery</td>
</tr>
<tr>
<td>RCC</td>
<td>Rescue Coordination Center</td>
</tr>
<tr>
<td>RESCORT</td>
<td>Rescue Escort</td>
</tr>
<tr>
<td>SAFE</td>
<td>Selected Area for Evasion</td>
</tr>
<tr>
<td>SAM</td>
<td>Surface to Air Missile</td>
</tr>
<tr>
<td>SAR</td>
<td>Search and Rescue</td>
</tr>
<tr>
<td>SARDO</td>
<td>Search and Rescue Duty Officer</td>
</tr>
<tr>
<td>SecDef</td>
<td>Secretary of Defense</td>
</tr>
<tr>
<td>SPINS</td>
<td>Special Instructions</td>
</tr>
<tr>
<td>STT</td>
<td>Special Tactics Teams</td>
</tr>
<tr>
<td>TACON</td>
<td>Tactical Control</td>
</tr>
<tr>
<td>UTC</td>
<td>Unit Type Code</td>
</tr>
</tbody>
</table>


Introduction

Those who are possessed of a definitive body of doctrine and of deeply rooted convictions upon it will be in a much better position to deal with the shifts and surprises of daily affairs than those who are merely taking short views.

Winston Churchill

*Personnel Recovery for the Philippine Air Force: A Combat Search and Rescue Operations Doctrine* is a document which establishes operational doctrine for the Philippine Air Force (PAF) Combat Search and Rescue (CSAR) operations, and outlines the principles and procedures which guide the PAF in its CSAR organisation, command and control, force composition, employment, and planning considerations. The PAF organises, trains, and equips personnel to conduct CSAR and Search and Rescue (SAR) operations across the range of military operations.

The PAF in the 1970s were engaged in numerous air operations in the north and south of the Philippines where fighter planes and rotary aircraft were employed. These assets are vulnerable to enemy surface-to-air weapons. The probability that these assets could be forced down in a hostile environment is very slim, yet the PAF must be prepared and has the responsibility to provide these aircrew with the resources for the conduct of recovery operations based on effective CSAR doctrine.

The PAF philosophy on CSAR is to maintain a capability to recover the combat aircrews (pilots) and other isolated personnel from hostile or denied areas. Successful CSAR operation enhances the capability of the CSAR forces thus denying adversaries the opportunity to exploit the intelligence and propaganda value of captured personnel. Additionally, the presence of a robust and viable CSAR force increases the morale, and ultimately, operational performance of the combat aircrews and other isolated personnel.

The aim of this document is to provide the PAF the doctrine for CSAR operations. This document establishes the roles and responsibilities of air force personnel supporting CSAR operations and outlines the principles for planning and executing CSAR operations. It describes the mission, command relationships, force composition, and planning considerations necessary to conduct operations. It also discusses the relationship between the air force component and the joint search and rescue organisations and discusses the role of area command, tactical operations command, as well as CSAR organisation, responsibilities, capabilities, and procedures.
Chapter One

Overview

*Preserving the life and well-being of our civilians and Service members, who are placed in harm’s way while defending the Nation’s interest is, and must remain, one of our highest priorities.*

William J. Perry, United States Secretary of Defense
Secretary of Defense Memorandum, 26 January 1996

General

Air force CSAR is a specific task performed by rescue forces to effect the recovery of distressed personnel during war and Military Operations Other Than War (MOOTW). Accomplished with a mix of dedicated and augmenting assets, CSAR is an element of Personnel Recovery (PR). PR is the umbrella term for operations focusing on recovering captured, missing, injured or isolated personnel from danger. The air force organises, trains, and equips personnel to conduct CSAR operations across the range of military operations. However, downed crew members (DCMs) are the most likely air force personnel to require a CSAR effort during military operations. As such, our CSAR doctrine focuses on DCM recovery.

Area Commanders (AC) normally delegate the responsibility to recover isolated personnel to air component commanders. Area Command Air Component Commanders (ACACC) of the joint force have the primary authority and responsibility to plan and conduct CSAR in support of their own operations. The ACACC should establish a Rescue Coordination Center (RCC) to coordinate air force CSAR activities, including coordination with the National Search and Rescue Center (NSRC) and other component RCCs as appropriate.

By direction of the Chiefs of Staff AFP, the area combatant commanders should establish a standing JSRC or functional equivalent. They normally maintain a capability to coordinate and control area rescue efforts by designating one of the established component commanders responsible for managing and controlling joint CSAR operations. This component commander should be designated the supported commander for joint CSAR.

Philippine Air Force Personnel Recovery in the 1970s

On 11 January 1974, Lieutenant Colonel Col Antonio M. Bautista of the 9th Tactical Fighter Squadron, 5th Fighter Wing, led the fighter strike against more than one thousand Muslim rebels in Parang. He made two bombing and strafing runs against the rebel concentrations until he ran out of ammunition. Reporting hits from enemy ground fire Lieutenant Colonel Bautista attempted to land the aircraft at Jolo airport.

---

Seeing from the control tower that the aircraft’s landing gear would not lock down, Lieutenant Colonel Col Ravina, (a pilot who was assigned at the control tower) warned the pilot against attempting to land.

Meanwhile, Lieutenant Colonel Ravina, the Deputy Group Commander of Sulo Air Tasked Group organised ground rescue teams immediately for the pilot in distress. In this regard two Huey helicopters were put on alert for an impending rescue mission.

Lieutenant Colonel Bautista decided to approached from the west of the airport and eject over the runway due to the non-functioning landing gear. However, a strong wind pushed his aircraft away from the south-eastern perimeter of the airport defenses toward the enemy territory.

Lieutenant Colonel Bautista landed safely between the coconut trees. But as the Huey rescue helicopters approached the probable landing spot of the downed pilot, they were fired upon by the rebels controlling the area. The Hueys retaliated and engaged the enemy in a firefight, but the volume of fire and the lack of landing space prevented them from picking up the downed pilot. A short distance away, there was a small clearing perfect for pick-up. However, lack of survival radio equipment for direct communication hampered the situation and precluded the rescuers from issuing any directions to Lieutenant Colonel Bautista. The fighter pilot himself must have been disoriented from the forced ejection. Unable to get his bearing, he fired another shot into the air. It was a futile effort because this gave the rebels the cue to identify his position. Actually, the pilots of the Huey rescue helicopters knew where he was but continuous rebel fire kept them at bay.

After a while, the ground rescue teams arrived near the scene where Bautista is hiding and waiting for rescue but unluckily they were not able to penetrate the area because of heavy ground fire coming from the rebels.

Sensing that time was running out, Lieutenant Colonel Ravina scheduled another sortie for a combat search and rescue operation. Immediately, a thorough planning and briefing session was conducted by the pilots and aircrew of the Huey rescue helicopter. After dodging enemy ground fire they were able to locate and penetrate the area only to find the body of Bautista riddled with bullets and stripped of his uniform and valuables.

Lieutenant Colonel Bautista was posthumously awarded the Distinguished Conduct Star. Cited likewise were his rescuers who were awarded the Gold Cross for their valiant recovery efforts in retrieving Bautista’s body.

Three days later, Lieutenant Elum was one of the pilots scheduled to provide air strike missions against one of the rebel camps somewhere in Jolo Island. During the air strikes, he was hit by enemy ground fire. One of the pilots flying around the area heard Lieutenant Elum say over the radio that his aircraft was on fire. Search and rescue operations were undertaken immediately, but unfortunately he was never recovered.

Personnel recovery in combat operations in the 1970s has lessons learned that in effect contributed enormously to the accomplishment of the succeeding rescue missions. Personnel recovery is now considered a moral responsibility of the PAF to ensure that in the event of an aircraft being forced down during war, the survivor is given the best chance of survival with the ultimate aim of return to safety. The following is an example from World War II that shows the impact on combat aircrews of a strong commitment to personnel recovery:
The psychological impact on all crews of knowing that if they were forced down in inhospitable waters immediate help was on its way was a tremendous boost to morale and confidence. Facing death on every sortie was already an enormous mental strain; the realisation that every effort would be made to retrieve them from the additional hazards of a sea ditching relieved the crews minds of such extra doubts and worrying.²

Air Force CSAR History

On 20 March 1917, Captain D. Rutherford of the Australian Flying Corps stood in the sands of the Palestinian desert after force-landing his aircraft as a result of enemy ground fire. His companion, Lieutenant F.H. McNamara who was circling overhead decided to land his aircraft and pick-up Rutherford to save him from imminent death or capture from the approaching Turkish cavalry. That daring and successful feat not only won him the Victoria Cross but was also the first impromptu combat search and rescue conducted for an Australian airman.³

On 2 June 1995, Captain Scott O'Grady of the United States Air Force was hit by a Bosnian-Serb surface-to-air missile while flying his F-16 fighter over Bosnia on a combat air patrol mission in support of the United Nations Operation Deny Flight. He parachuted into the forest of Bosnia and a comprehensive CSAR operation was conducted to saved O'Grady which resulted in snatching him three days later from under the searching eyes of the Bosnian-Serb ground forces.

Missions

Air Force combat rescue forces deploy to conduct CSAR with dedicated rotary- and fixed-wing aircraft, specially trained aircrews and support personnel in response to area command tasked. The primary mission of air force CSAR is to recover downed crewmembers and other isolated personnel. Rescue forces may also conduct collateral missions unique to their capabilities, such as civil SAR, emergency aero-medical evacuation, disaster relief, and non-combatant evacuation operations. Basic aircraft and aircrew training and qualification permit aircrew to conduct rescue operations for these non-CSAR events and are approved on a case by case basis.

CSAR Benefits

Air force combat rescue philosophy is based on maintaining a capability to recover combat aircrews and other isolated personnel. This philosophy assumes that rescue forces, like any other combat forces, will also be placed at risk to recover personnel. Successful air force CSAR enhances the Area Commanders (AC) combat capability in at least three ways. First, CSAR operations return key personnel to friendly control, allowing them to fight again. Secondly, CSAR operations often influence the course of national politics by denying the adversaries the opportunity to exploit the intelligence and propaganda value of captured personnel. Lastly, the presence of a robust and viable CSAR force increases morale, with a resultant increase in operational performance.

Chapter Two

Organisation and Command and Control

Order or disorder depends on organisation.  

Sun Tzu

General

The Tactical Operations Command (TOC) coordination responsibilities and its combat rescue forces are assigned to Area Command in times of contingencies based on the particular Operational Plan (OPLAN) or task to be executed.

Tactical Operations Command is the Air Force authority for the CSAR mission. The TOC Commander exercises authority over all Air Force rescue forces. This authority includes responsibility for organising, training, equipping, administering and providing these forces to the Area Commander of that particular Area Command. TOC Commanders exercise this authority through subordinate Air Force units or Tactical Operations Wings (TOWs) and unit commanders. Area Commanders exercise authority over all rescue forces (army, navy and air force) assigned to their area through respective Tactical Operations Wings, the Army and Navy forces and subordinate unit commanders.

Combat Rescue Forces Command Authority

Normally, Area Commanders assign the appropriate level of authority over forces to the supported commander for joint CSAR. Normally, Area Commanders assign the appropriate level of authority over forces to the supported commander for joint CSAR. If the Commander, Composite Air Support Force (CCASF) or Area Command Air Component Commander (ACCC) is designated as the support commander, the latter has the operational control over the Air Force CSAR forces and other elements involved in a joint CSAR operation.

Area Commanders

Area Commanders (ACs) have the primary authority and responsibility for CSAR in support of Armed Forces of the Philippine (AFP) forces within their assigned Area of Responsibility (AOR), including civilian personnel such as civil rescue force crew members, and deployed technical representatives. Area Commanders should therefore establish a JSRC to plan, coordinate, and task components to support CSAR operations, review theater plans, and coordinate training and exercises. Since CSAR is inherently a joint operation and transcends component functional responsibilities and organisational boundaries, the JSRC should be staffed appropriately by each component to coordinate joint rescue requirements. During planning and execution, ACs should ensure that appropriate policies, laws, regulations, and capabilities are taken into consideration. ACs likewise should also
ensure joint force component commanders support the CSAR operations of the other components to the maximum extent possible. Figure 2.1 shows the organisation and command and control of Area Commander in every Area Command.

![Area Commander Organisation Diagram]

Figure 2.1: Typical Area Commander organisation and its command and control links

Area Command Air Component Commander

Unity of effort through centralised control of theater air assets is the most effective way to employ air power. The Area Command Air Component Commander (ACACC) provides Area Commanders the means to exploit the capabilities of air power in an area air campaign. The ACACC is normally the component commander with the preponderance of air assets and the command, control, communications and intelligence (C3I) infrastructure to support joint air operations. The ACACC’s responsibilities and command authority assigned by the AC include planning, coordinating, recommending apportionment, and tasking based on the AC apportionment decision. Using the ACs guidance and authority in coordination with other component and assigned or supporting commanders, the ACACC recommends to the AC apportionment of air sorties to various missions or geographic areas.

The supported commander for joint CSAR should be the commander with the preponderance of dedicated CSAR forces and C3I capability to control them. This commander should have overall responsibility and authority for planning, coordinating, and controlling joint SAR and CSAR operations within the geographical area assigned to the joint force, by using those assets made available by the joint force. If the ACACC is designated as the supported commander for joint CSAR, the ACACC recommendation would include sorties required to conduct planned or projected CSAR missions.

Commander, Composite Air Support Force

The Commander, Composite Air Support Force (CCASF) has the primary authority and responsibility to plan and conduct Air Force CSAR in support of war plans. The planning of such operations should take into account the availability and capability of other components of the joint force including the Coast Guard, if available. The Air Force has traditionally been tasked to conduct the CSAR mission in support of joint requirements. Today, the Air Force organises, trains, equips, and provides a CSAR force, which includes aircraft, aircrews, and support personnel. The Air Force also has an established command and control mechanism, normally within
the AOC to support CSAR operations. CCASF responsibilities relating to CSAR normally include:

- Exercising OPCON of assigned Air Force rescue forces;
- Establishing an RCC or CSAR office as a primary responsibility with clearly defined responsibilities;
- Ensuring all Air Force personnel committed to a hostile environment are familiar with tactics employed by rescue forces during recovery operations;
- Ensuring intelligence data to support planning and training for evasion and recovery is available and disseminated to all personnel who have the potential of becoming isolated;
- Providing mutual support to national rescue operations as directed by Area Commanders;
- Providing command and specific rescue tactics, planning, and intelligence data to subordinate commands and units;
- Preparing rescue concept of operations plans or annexes to OPLANs or directives; and
- Providing the JSRC with Air Force component capabilities, limitations, and standard operating procedures for dissemination to other components as appropriate.

**Joint Search and Rescue Center**

![Diagram of JSRC and RCC organisation](image)

*Figure 2.2. The organisation and staff of JSRC and RCC*

The Joint Search and Rescue Center (JSRC) plans, coordinates, and tasks components to support CSAR missions, reviews plans, and coordinates training and exercises. Though staffed suitably by each component, the primary responsibilities of JSRC controllers are to coordinate CSAR operations between component RCCs, prevent duplication of CSAR efforts, and to facilitate the efficient exchange of information. CSAR support is based on real-time operations and requires extensive coordination with other joint air assets and support functions. If the ACACC is designated the supported commander for joint CSAR, the JSRC should be fully integrated into the ACACC’s Joint Operations Center (JOC).
Rescue Coordination Center

The CCASF should establish a Rescue Coordination Center (RCC) integrated with the AOC to coordinate Air Force CSAR activities. If the CCASF does not establish an RCC, these responsibilities will be delegated to a functional equivalent. In either case, a trained search and rescue mission controller is responsible for coordinating Air Force CSAR forces. When the CCASF is designated the ACACC and supported commander for joint CSAR the RCC may form the nucleus for the JSRC.
Chapter Three

Air Force CSAR Elements

The distinctive character of imprisonment in a North Vietnam prison camp was the suffocating monotony ... the pervasive sameness of the routine, over and over, day in and day out.

Robbie Risner
Prisoner of War for more than seven years.

Rescue Coordination Center

The RCC is the hub of air force rescue activities. Air force units requesting CSAR support will notify the RCC which initially assumes duties as the CSAR mission coordinator. RCC controller duties include the following:

- Initiating CSAR planning;
- Maintaining real time intelligence information on systems posing threats to CSAR activities;
- Designating isolated personnel reports (ISOPREP) control points;
- Obtaining ISOPREP data and Evasion Plans of Action (EPA) from units;
- Coordinating tasking among air force CSAR-capable forces;
- Coordinating CSAR activities with the JSRC, supporting agencies, and the requesting unit;
- Informing the JSRC if air force units or assets are capable of executing the mission; and
- Requesting additional recovery forces through the JSRC if Air Force CSAR forces are unable to execute the CSAR mission single-service.

The RCC is also responsible for reviewing and developing CSAR and evasion and recovery for Air Force supporting OPLANs, concept plans, and operational orders.

Director, Rescue Coordination Center

The CCASF directs Air Force CSAR operations through the director of the RCC. The director of the Air Force RCC is responsible for the day to day operations of the RCC. If the CCASF is designated as the ACACC and responsible for joint CSAR operations, the director of the RCC will normally be designated the director of the JSRC. Additionally, that person will still be responsible for Air Force RCC operations.
Search and Rescue Duty Officer

The Search and Rescue Duty Officer (SARDO) provides an effective means of communications between the RCC and the AOC. The SARDO, who should be collocated with the AOC and normally works in the combat operations divisions, coordinates quick response assets to support CSAR operations. The SARDO requests assets from ongoing operations that is Forward Air Controller (FAC), Close Air Support (CAS), Combat Air Patrol (CAP), or from those on ready alert through the AOC. Tactical Control (TACon) of these assets may be transferred to the Airborne Mission Commander (AMC) and/or On-Scene Commander (OSC).

Unit Commanders

Unit commanders should be prepared, based on inherent capabilities, to launch dedicated and augmenting CSAR assets to support their own operations or provide mutual support should be concurrently planned with ongoing offensive and defensive combat operations while accounting for the capabilities of other units. All CSAR requirements should be forwarded through established channels to the RCC. Unit commanders should:

- Ensure assigned personnel are familiar with this CSAR doctrine and joint tactics, techniques, and procedures;
- Train their personnel in reporting requirements when over flying areas where isolated personnel are known or suspected to located; and
- Ensure ISOPREPs and individual/unit Evasion Plans of Action (EPAs) are properly prepared, classified, current, and safeguarded.

Isolated Personnel

Isolated personnel can do much to enhance the success of their own rescue should the situation warrant. Isolated personnel can best prepare themselves to assist rescue efforts by:

- Completing and periodically reviewing their ISOPREPs;
- Developing, reviewing, and updating EPAs, as required;
- Thoroughly understanding notification and authentication requirements;
- Being intimately familiar with survival equipment and techniques;
- Being familiar with search and rescue concept of operations and procedures in order to assist CSAR forces to the maximum extent; and
- Remaining physically and mentally prepared to survive and evade for indefinite periods.

Combat Search and Rescue Task Force

A Combat Search and Rescue Task Force (CSARTF) is a mutually supporting package of assets tailored to meet a specific CSAR requirement. Although rescue assets may operate autonomously, CSAR capabilities and mission outcomes can be significantly enhanced by employing carefully tailored CSARTFs. Augmenting assets provide a variety of services to include: command, control, and
communications; location and authentication of isolated personnel; protection of
isolated personnel and task force elements from both air and ground attack;
navigation assistance; armed escort; combat air patrol. Command and control
arrangements and responsibilities must be clearly specified by RCC or JSRC to
ensure proper synergy and to effect successful CSARTF operation. CSARTFs require
thorough pre-mission and real time planning and coordination with the participating
elements and may consist of any or all of the following elements:

Airborne Mission Commander

An Airborne Mission Commander (AMC) may be designated by component
RCCs or higher authority to coordinate the efforts of several assets. The AMCs serves
as an extension of the RCC and if required, designates the OSC. Other multi-crewed
assets such as the C-130 or F-27 aircraft are also excellent AMC platforms. The AMC
coordinates and controls the flying missions for forces designated to support a specific
CSAR operation.

The AMC responsibilities include coordinating the CSARTF radio net,
managing the flow of aircraft to and from the objective area, coordinating for
additional CSATF support, and monitoring the tactical air and ground situation in and
around the objective area and CSARTF. The AMC keeps the CSARTF moving
toward the objective. Any member of the CSARTF, to include the Rescue Combat Air
Patrol (RESCAP), can recommend termination of the rescue operation. However, it is
the AMC’s responsibility to attempt to rectify the situation by requesting additional
support forces or doing whatever else is necessary to accomplish the mission.

On-scene Commander

The On-Scene Commander (OSC) is the individual designated to control
rescue efforts at the rescue site. The Rescue Escort (RESCORT) flight lead is often
designated OSC. However, a wingman or Rescue Combat Air Patrol (RESCAP)
aircrew member may function as the OSC until the arrival of either the AMC.
Transfer of the OSC role must be clearly understood by all CSARTF participants. The
OSC helps to ensure effective asset management in the often chaotic and hostile
objective area.

Recovery Vehicle

Typically, a primary and a secondary recovery vehicle are flown to the
objective area to make the pick-up. The formation provides a backup mission aircraft
and offers mutual support should the primary recovery vehicle encounter problems.
The secondary recovery vehicle should be prepared to assume lead responsibilities
and accomplish the recovery should the lead aircraft abort the mission or be unable to
perform primary recovery responsibilities. Recovery vehicles may also be pre-
positioned to conduct operations from airborne orbits. From a designated point in
close proximity to the pick-up zone, the recovery vehicle formation lead or aircraft
commander will normally be the individual ultimately responsible for continuing the
mission.

Combined Fixed-Wing and Rotary Rescue Assets

Fixed-wing and rotary aircraft rescue assets should be capable of air-dropping
personnel and equipment to isolated personnel should recovery efforts be protracted.
Additionally, air land communications capability inherent of fixed-wing and rotary
rescue assets may increase the effectiveness and flexibility of a CSARTF mission.
Individual Pararescue Specialists (PJ) are rescue specialists trained in emergency trauma medicine, harsh environment survival, and assisted evasion techniques. PJs are the essential surface/air link in personnel recovery. They provide a rapid response capability and operate in the six geographic disciplines: mountain, urban, jungle and water, day or night, to include friendly, denied, hostile, or sensitive areas. Their training includes Survival, Evasion, Resistance and Escape (SERE); emergency trauma and field medical care; and security. PJs can move personnel and material to safety or friendly control when direct recovery by aircraft is not possible. They are employed in rotary and fixed wing assets by landing, or by insertion and extraction methods (hoist, fast rope, rappel), or by parachuting (static line and free fall). Their employment may include deployable watercraft or all terrain vehicles.

**Rescue Escort**

Ideally, a limited number of Rescue Escort (RESCORT) aircraft should be dedicated and available to the CSAR mission. The call signs vary for a designated RESCORT pilot who is specifically trained and qualified in search procedures, authentication techniques, and helicopter support tactics. The lead RESCORT is normally designated OSC for the CSAR missions. RESCORT aircraft should be tactical aircraft capable of operating within altitude and endurance regimes similar to that of the recovery vehicles. RESCORT aircraft also provide navigation assistance, armed escort, and assist in locating and authenticating isolated personnel. Although, slower aircraft are desired for RESCORT, faster aircraft have also been successfully employed. RESCORT aircraft normally carry ordnance effective in CSAR operations, such as rockets and guns.

**Rescue Combat Air Patrol**

Rescue Combat Air Patrol (RESCAP) aircraft are air superiority assets assigned to protect the CSARTF from airborne threats while enroute to and from the objective. Once established, RESCAP aircraft also maintain patrol over the objective area. RESCAP aircraft may also assist RESCORT aircraft in locating and authenticating isolated personnel. The notional CSARTF operation is shown in Figure 3.1.

**Forward Air Controller**

A Forward Air Controller (FAC) provides a CSARTF several significant advantages. A FAC may be able to locate and authenticate the isolated personnel before the arrival of other elements of the CSARTF and normally functions as the OSC until the CSARTF arrives. The FAC may also provide a current and accurate assessment of enemy activity in and around the objective area.

**Other Forces**

Other Air Force forces can aid in locating isolated personnel and assist in rescue operations. Air Force aircraft systems include the C-130 H, fighters, gunships, and other fixed- and rotary-wing support aircraft. Ground-based elements include control and reporting center forward air control posts, and Air Force special tactics teams. All appropriate assets should be integrated into recovery plans and employed to enhance rescue efforts.
Special Tactics Teams

Special Tactics Team (STTs) are ground combat forces assigned to Air Force Special Operations Wing. They are composed of combat controllers and PJs specifically organised, trained, and equipped to facilitate and expedite the utilisation of aviation assets and provide CSAR expertise when requested through appropriate channels.

Special tactics teams provide PR/CSAR planning expertise; facilitate contact, authentication and mechanical extraction; provide medical treatment at the paramedic level; facilitate movement and exfiltration for the recovery of personnel; and provide equipment not accessible to conventional CSAR resources. This may include unconventional assisted recoveries involving Selected Area for Evasion (SAFE) servicing and hand-over operations. Additionally, special tactics teams provide command and control, ground to air and point to point communications, air traffic control, terminal attack control, and artillery call for fire in the objective area.
CSAR Operations Doctrine
Chapter Four

Concept of Operation

*A captured man, he has to know that somebody is always out there coming after him, he has to have that hope.*

Lieutenant Colonel Horace Reisner  
Joint Personnel Rescue Center Commander  
Briefing to General William C. Westmoreland

General

Air Force rescue forces will receive notification of isolated personnel via the theater or joint task force command and control structure. A rescue can involve an aircrew who bailed-out over hostile territory, crash landing, ditching at sea, foundering naval vessels, or ground forces cut off from friendly lines. Although rescue forces may launch upon initial notification of a CSAR incident, they will not normally proceed into medium or higher threat areas until a positive location and contact can be made. Additionally, the recovery should not be initiated until the identity of isolated personnel can be positively authenticated. Single-ship operators may be employed, but combat rescue forces primarily train to as two-ship elements using threat avoidance techniques and on board defensive systems. A typical rescue might include:

- Awareness and notification
- Assessing the situation
- Planning the mission
- Launching the recovery vehicles
- Refuelling at a forward operating location or air refuelling prior to ingress
- Ingressing enemy territory to locate isolated personnel
- Locating isolated personnel
- Authenticating isolated personnel
- Recovering the isolated personnel
- Egressing enemy territory
- Recovering at a suitable friendly base

Notification

Threat conditions are permitting isolated personnel to attempt and establish a secure radio contact with a wingman, escort aircraft, or any other aircraft in the area using notification procedures outlined in the Special Instruction (SPINS) published in the Air Mission Order (AMO) or Air Tasking Order (ATO). In a threat environment, transmission should be as brief as possible to avoid detection and compromising location. While in a permissive environment, transmission should be long enough to allow for a direction finder plot of the aircraft or personnel position.
Initial Response

Once an actual or potential CSAR situation is observed, the RCC should be immediately notified through established channels, or any means available. Upon notification, the RCC assumes immediately CSAR mission coordinator responsibilities for missions involving air force isolated personnel. The RCC will then report the incident to the JSRC. The RCC also assumes CSAR mission coordinator responsibilities for missions involving joint or multinational aircrew members if tasked by JSRC. In concert with the JSRC, the Air Force RCC coordinates the appropriate CSAR forces and assets. The RCC or JSRC will notify responding units through appropriate channels and brief pertinent aspects of the mission. The response time and operations concept will depend on the enemy threat, environmental conditions, available assets, and other factors.

Air Force CSAR Capabilities

Although all Air Force weapons systems have the inherent capability to support CSAR operations, the Air Force maintains certain rotary- and fixed-wing aircraft specifically dedicated to personnel rescue and recovery operations. Specially configured rescue helicopters operate up through the medium threat environment using threat avoidance procedures, countermeasures and defensive systems, and night vision devices. In addition, the C-130 aircraft are made available, capable of deploying PJs STTs and/or equipment to provide direct assistance to isolated personnel if delay is anticipated in the arrival of recovery of vehicle.

When threat avoidance is not feasible, specially trained aircrews operating RESCORT and RESCAP capable aircraft may be employed to suppress and degrade the threat to permit successful CSAR operations. A carefully tailored CSARTF can significantly enhance CSAR operations. The complexity of the package depends on the mission requirements and enemy threat. Combat rescue in a high threat environment requires force packaging to degrade the threat or employment of other forces trained and equipped to operate in high threat areas.

Threat Environment

A key consideration in CSAR mission planning is the enemy threat. Real-time intelligence data is a critical element in determining enemy threat levels. If available threat data is insufficient to adequately assess the threat, additional data should be requested. Commanders should consider not only the capabilities of dedicated CSAR forces but also capabilities of other available resources. The threat environment defines the enemy’s ability to detect and lethally engage rescue aircraft. The threat environment is divided into three general intensity levels: low, medium and high.

Low Threat Environment

The low threat environment consists of small concentrated enemy groups scattered over a wide area with a limited reconstitution capability. Weapons systems may include small arms, light optically aimed anti-aircraft artillery (AAA) up to .50 calibre (12.7mm equivalent), rocket propelled grenades, and hand-held infrared SAM’s. Tactics and techniques employed by friendly forces do not normally require significant planning measures prior to launch and the environment permits operations using passive counter-measures to avoid detection and engagement by enemy forces.
Medium Threat Environment

The medium threat environment contains significant threats; the concentration, mobility, and types of enemy weapons employed normally require both passive and active measures to avoid or degrade the threats and prevent subsequent engagement. Weapons systems typically include low-threat systems, early generations SAMs and aircraft with look-down, shoot-down capability. CSAR forces should expect to conduct extensive pre-mission and on-alert planning. During mission prosecution, tasked units should expect to employ extensive threat avoidance tactics and evasive techniques, on-board countermeasure and defensive systems, external threat suppression or force protection aircraft (RESCAP, RESCORT), and night operations to preclude lethal engagement. The enemy may possess limited radar and electro optical acquisition and engagement capability at medium ranges and a moderately Integrated Air Defence System (IADS).

High Threat Environment

The high threat environment contains hostile forces over a wide area of coverage, densely concentrated, and capable of rapid reconstitution and mobility. Enemy weaponry includes advanced or late generation SAMs, modern ground based radar, early warning systems, electronic counter-countermeasures, integrated AAA, and aircraft with look-down capabilities. High threat environments are characterised by fully integrated air defence systems, command and control networks, and electronic warfare capabilities that seriously diminish air support capabilities. Ground based systems may be hardened and difficult to destroy or render ineffective.
Operations in the high threat environment require extensive and detailed mission planning and force packaging to defeat or degrade the threat. Detection by modern ground based radar and IADS will likely result in lethal engagement of CSAR forces.

Employment Considerations

The Air Force should consider the capabilities of the host nation, other Services, functional components, and multinational forces during all phases of CSAR mission planning. In a relatively low threat environment, resources may respond to rescue tasksing with a minimum amount of mission planning. Operations in a medium threat environments normally require timely, accurate intelligence, and more extensive mission planning. The time required to conduct pre-mission planning can be significantly reduced for CSAR alert crews when real-time intelligence data is available and continuously updated through the theater information systems. Missions into high threat environments require significant degradation of the enemy threat and will require intensive mission planning and large force packaging by CSAR forces. An alternative may be the need to turn over the task to other forces trained and equipped to operate in high threat areas to ensure successful combat rescue operations. When used, CSARTF packages require closely coordinated planning to properly integrate the effort. The JFC can direct precautionary CSAR coverage (within a limited geographic area) in advance of a major operation. To facilitate recovery, combat aircrew should be knowledgeable of the rescue process, to include EPA operation, identified Selected Areas for Evasion (SAFE), and proper evasion tactics and techniques.

Mission Planning

The enemy threat levels dictate thorough mission planning interfaced with real time threat information and precise command and control coordination. The Air Force Mission System (AFMS) may be used to optimise planning effectiveness, however, all available information tools must be used to assure the best possible understanding of the situation. The specific information necessary for pre-mission planning and making the launch decision includes threat, weather, terrain, the objective, codes and authentication, safe passage corridors and air refuelling points. Direct communication with AOCs, the JSRC, and wing operations centers is essential. This direct communication is even more critical if augmentation by additional air resources, such as formation of a CSARTF, is warranted.

Locating of Isolated Personnel

Regardless of the threat level, friendly forces should locate and authenticate isolated personnel before committing CSAR forces to operating environments that present risk. Several methods exist to determine location such as theater electronic surveillance, reconnaissance, command and control aircraft, global satellites, wingman reports, battlefield radar control posts and center. Recovery vehicles, fixed-wing CSAR assets, and RESCORT aircraft equipped with personnel locator systems can also pinpoint the isolated personnel position when isolated personnel are equipped with specialised communications devices.
Authentication

During combat operations, the recovery of isolated personnel can depend on early authentication. Isolated personnel will normally not be recovered until their identity has been positively confirmed. An effective authentication system is essential to protect CSAR forces from enemy entrapment; therefore, authentication data must be strictly controlled and used in a manner that maintains security and viability. CSAR assets are extremely vulnerable during the recovery phase and need exact and reliable authentication information. Extreme care should be taken by the isolated personnel and the rescue forces to insure authentication information is never compromised. The information should be used in a manner that allows CSAR forces to continue to authenticate isolated personnel over extended periods. There are a number of means to authenticate isolated personnel in hostile environments, including ISOPREP data, ATO code words, letters, numbers and visual signals. Theater or area of responsibility procedures should be published in appropriate directives, OPLANs, and/or SPINs.

Search Operations

The concept of combat search associated with Air Force CSAR should be considered extremely limited in scope. In most cases, the search will be primarily electronic. The vulnerability of rescue forces in a threat environment precludes extended aerial search operations in all but permissive environment. Air force rescue efforts will be primarily dedicated to recovering isolated personnel from previously identified geographic positions.

Risk Management

Combat rescue is inherently a risky business. Although risk can never be fully eliminated, it can be effectively managed and limited through a combination of careful planning, pro-active troubleshooting, and the application of common sense techniques. The formal process of risk management includes: identifying the hazards; assessing the risk and benefits (and looking at things that will reduce the risk); deciding what to do; acting on the decision; and then reviewing the decision consequences and adjusting for the next time.

ACs and individual unit commanders set the tone for CSAR operations. CSAR operations should be planned during initial and follow-on phases of all military operations where hostile action is expected. Additionally, successful CSAR operations require detailed threat analysis, cost-benefit consideration, and prioritisation in the same manner as other military operations. The enemy may use unrecovered personnel as leverage to influence outcomes within an operation or campaign. CSAR should not:

- Unduly risk isolating additional personnel;
- Routinely expose unique, high value assets to extreme risk; or
- Allow the overall military situation to deteriorate.
Commanders at all levels should weigh the possibility of recovering isolated personnel and the psychological impact of those aware of the efforts (benefit) against the potential loss of additional resources and the impact of possibly diverting resources from ongoing combat operations (cost), before authorising a CSAR effort. It is often a challenge for commanders to ensure that blind enthusiasm does not supplant professional risk management considerations. Air Force RCCs should develop standing CSAR risk decision matrices in conjunction with JSRCs, tailored to current threat analysis, to assist planners and commanders in the decision-making effort. Figure 4.2 provides a representative flow chart to assist further in this evaluation.
Figure 4.2: CSAR Decision-making Flow Chart
Chapter Five

CSAR Planning and Support Considerations

Alert, alert! Rescue helicopters needed immediately.
Wounded soldiers in the jungle must be evacuated. Enemy closing in.
CSAR Scramble Call
Bien Hoa, 1966

Operational Considerations

CSAR is integral to combat operations and must be considered across the full range of military operations. The dynamic nature of CSAR operations and the need for flexibility dictates careful integration into the air campaign and clear delineation in the ATO. CSAR operations should be considered throughout the Joint Operations Center (JOC) and with other component liaisons, the Naval and Amphibious Liaison Element (NALE), and the Special Operations Liaison Elements (SOLE). Air Force personnel conducting or supporting CSAR operations should be thoroughly familiar with the rules of engagement.

Intelligence

Successful CSAR operations require timely and accurate intelligence support. Since the Air Force rescue mission is nationwide, the intelligence support function should be an integral part of RCCs and rescue units. Intelligence specialists should be assigned to, and deploy with, RCCs and operational rescue units and arrangements made for theater intelligence support. The threat level enroute to, and at, the objective area determines the appropriate CSAR response, including tactics, personnel, force composition, and support. Intelligence personnel must continuously update known and suspected enemy ground, air, and sea threats to CSAR forces. In addition, they must be familiar with the target area’s geography and the local population’s social and political climate. Rescue missions place unique requirements on mission planning and require intelligence personnel knowledgeable in rescue operations (especially in the low-altitude regime) to include RCC and JSRC operations, SAR SPINS and national systems and capabilities that can assist in CSAR. Since threat information changes rapidly, intelligence personnel should have access to Near-Real-Time (NRT) intelligence from the specific threat area or national sources and should be able to immediately relay situational updates to inflight crews. Routine time-consuming intelligence functions should be automated and mission-planning systems should interface with intelligence databases. These include, but are not limited to, threat analysis, targeting, collection management, and order of battle data.
Information and Services

Information products and services, maps and charts, and precise geodetic coordinates are critical to mission planning and should have accuracy commensurate with CSAR requirements and weapons systems supporting the operation. Intelligence personnel and mission planners must work closely with operations personnel to determine requirements and priorities.

Communications

Rapid, reliable, and secure communications is one of the most critical elements of successful CSAR operations. All CSAR forces should be able to communicate with a minimum of interference, intrusion, or probability of intercept. JSRCs and RCCs should have access to dedicated communication systems when integrated within the JAOC or AOC. Communication systems should provide redundant capabilities for secure inter-theater and intra-theater data and voice transmission. Knowledge of the enemy’s communication equipment and procedures could facilitate effective use of the communication spectrum. All personnel should employ communications deception countermeasures to degrade a potential intruder’s effectiveness. The keys to optimum use of communications are planning, coordination, and brevity. Communication planning requires integrating theater, component, and unit operating instructions and execution checklists. Successful contact procedures require thoroughly developed and coordinated planning, established contact procedures, and timely execution. Communications-out procedures, or procedures for handling situations when communications are disrupted or personnel/units are unexpectedly out of contact, are often warranted but should be commensurate with the enemy’s signal intelligence capability. The CSAR plan must provide alternate means of communications and actions to be taken in case of equipment or communications failure during any phase of mission execution.

Support Planning

Early identification of CSAR requirements and/or Time-Phased Force and Deployment Data (TPFDD) are keys to sustaining support. During crisis action and deliberate planning, Air Force CSAR planners should ensure CSAR Unit Type Codes (UTC) and other logistics considerations are included in the operations plan as applicable. Adequate preliminary crisis action and sustainment planning is conducted by the theater or joint logistics staff and passed on to the Joint Operation Center (JOC) to meet operational requirements and priorities.

Deployment Characteristics

Air Force CSAR forces should have the ability to execute time-sensitive deployments. Deploying forces should be able to respond and function in an environment with the strictest Operations Security (OPSEC) considerations. Dedicated rescue forces are mobile, flexible, and responsive, and can deploy with organic maintenance and logistic support with minimal notification. Rotary-wing aircraft may self-deploy but should be airlifted for greater distances by fixed-wing aircraft. Likewise, maintenance and support personnel and associated equipment will also require airlift support or surface transportation.
Air Force RCC Mobility Requirements

Since most CSAR operations involve operating from deployed locations, Air Force planners should consider establishing a deployable mobility package to provide the needed personnel to conduct RCC or JSRC operations. The standard Air Force Air Operation Center (AOC) should include SAR mission controllers and duty officers, communications support personnel, and associated communications and computer equipment to support the RCC. This AOC must be capable of providing 24-hour CSAR operations and, in many cases, will form the nucleus area of the Area Commander’s JSRC.

Operations Security

Security of information is vital to CSAR forces from initial planning stages through recovery and mission termination. OPSEC denies the enemy information about friendly capabilities and intentions, including advance notice of mission unique training, joint preparations, deployment, and employment. OPSEC should be carefully considered throughout the CSAR planning and execution phases by identifying, controlling, and protecting indicators and actions associated with the operation. Failure to implement an effective OPSEC program could result in mission compromise and loss of personnel and resources.

Military Deception

Commanders and operations planners should consider including military deception in deployment and battle plans and individual missions. Military deception techniques should be employed early in the planning process to effectively support objectives and enhance overall mission success rates. The military deception may help commanders sustain operational security and attain surprise by causing an adversary to mis-allocate combat and support resources in terms of time, place, or quantity. The military deception planning process should parallel and complement the normal sequence of operations planning actions.

Climate and Weather

Air Force CSAR forces require timely and accurate weather support during all phases of planning, deployment, employment, and redeployment. This allows CSAR forces to use weather conditions to their advantage. Temperature, barometric pressure, precipitation, humidity, ground and low level flight visibility, predicted winds, fog, cloud cover, radio frequency propagation, sensor detection ranges, and other hazards to recovery forces and the isolated personnel greatly impact CSAR planning and execution. Normally, the AMC monitors and tracks weather; however, this is a shared responsibility of all elements participating in a CSAR operation. The AMC or other assets can conserve valuable combat resources by advising the RCC or JSRC of adverse weather conditions.
Astronomical Conditions

Astronomical conditions, including sunrise, sunset, moonrise, moon phase, predicted ambient light, and hydrographic data affect CSAR operations much the same as weather data. Astronomical conditions play an important role in the timing and tempo of CSAR operations and should be considered as critical planning factors for CSAR operations.

Safety and Risk Management

Commanders can best preserve CSAR capability by minimizing unnecessary risk of specialized personnel, equipment, and materiel. Safety staffs should be immediately notified of hazards associated with employing weapons systems. Corrective actions must be carefully balanced to satisfy operational and training requirements while meeting mission objectives.

Technological Considerations

Effective Air Force CSAR capability is critically dependent on the most modern technology. It is imperative CSAR forces be equipped with state of the art weapons; interoperable and scalable C3I systems; space-based navigation aids; and personnel locator systems to ensure continuous and total integration with other combat operations.
Chapter Six

Training and Education

War is not an affair of chance. A great deal of knowledge, study, and meditation is necessary to conduct it well.

Frederick the Great

Commanders’ Responsibilities

To optimize weapon systems employment, each crew member should have a thorough understanding of mission planning and execution by the joint forces. The success of CSAR operations is directly proportional to, and dependent upon, effectiveness of the tactics, education and training programs at all levels. The following points are crucial:

- Commanders should take an active role in evaluating local training programs to ensure aircrew training and proficiency levels meet combat readiness requirements. They should also ensure that unit CSAR training programs support joint CSAR interoperability concepts, are integrated with the other forces, and that training and exercise programs are realistic and effective.

- Flight discipline, crew coordination, mission planning, and mutual support of participating CSAR forces are essential to effective Air Force combat rescue force employment. Commanders should ensure CSAR aircrew planners, and support personnel are thoroughly familiar with the principles outlined in these documents and can apply them at the operational and tactical level.

Aircrews

Air Force aircrew members should be prepared to assist rescue forces by ensuring they are familiar with CSAR tactics, techniques, procedures and personal survival techniques. All rescue crew members should receive combat survival training and threat systems capabilities and limitations training on a recurring basis. Aircrews are trained to respond to CSAR as their aircraft capabilities permit, and a limited number of fighter/attack aircraft pilots receive CSAR training. All Air Force crewmembers receive Survival, Evasion, Resistance and Escape (SERE), and water survival training.

RCC Controllers

RCC controllers are the focal point for coordinating CSAR assets and supporting forces. All RCC controllers should complete a locally developed, CSAR-oriented, mission management course in addition to the Joint Combat Search and
Rescue Coordinators Course. Other training oriented towards search and rescue, including the inland SAR and maritime SAR courses taught by the Coast Guard is also desirable. Additionally, personnel who may command and control CSAR operations should consider attending appropriate Air Force battle management courses and the Air Force Joint Doctrine Air Campaign Course. These courses teach development of air campaign plans, including integration of CSAR operations.

Exercises

To ensure inter-operability and a smooth transition to combat, Air Force CSAR staffs and forces should conduct exercises with augmentation personnel and forces on a regular basis. Commanders at all levels should participate in these exercises to familiarise themselves with the complexities and details of CSAR doctrine and operations. The top priorities are Joint Chiefs of Staff field training exercises (FTX) and CAF Flag Exercises allowing for joint operations and employment of the air component RCC and Air Force flying units. The second priority is to participate in command post exercises allowing for RCC employment and emphasising command, control, communications, and intelligence coordination procedures. These exercises provide invaluable experience for RCC controllers, which is normally not available during FTX participation. The CAF exercise schedules include both active duty and Air Reserve Component (ARC) forces and are coordinated at exercise planning conferences.

Summary

CSAR represents an important application of aerospace power across a range of military operations. It is a key element in sustaining the morale, cohesion, and fighting capability of friendly forces. CSAR consist of those air operations conducted to recover distressed personnel at all levels of conflict, it preserves critical combat resources while denying the enemy a potential intelligence source.

CSAR represents a total force team of air force throughout the PAF. During contingencies these forces may be provided to the Area Commanders (AC) who normally delegates planning and execution authority to the CCASF who in turn establishes an RCC to coordinate all CSAR activities.

A CSAR operation typically progresses through deliberate stages designed to locate, contact, and recover personnel while minimizing the risk to CSAR assets. Though risk is inherent in CSAR operations, CSAR forces employ specially configured platforms designed to operate in hostile or denied environments. Thorough CSAR planning and training, and specialised tactics to minimize vulnerability to threats is particularly important. Frequently, CSAR forces operate within a mutually supporting aircraft package that may include airborne command and control, armed escort, combat air patrol, and other support. Whether operating alone or in a large package, CSAR assets represent a specialised application of aerospace power integral to PAF combat operations.
Definitions

**Airborne Mission Commander** - The commander serves as an airborne extension of the executing component’s rescue and coordinating center and coordinates the combat search and rescue effort between the combat search and rescue task force and the RCC by monitoring the status of all CSARTF elements.

**Combat Search and Rescue** - A specific task performed by rescue forces to effect the recovery of distressed personnel during war or military operations other than war.

**Combat Search and Rescue Coordinator** - The designated person or organisation selected to direct and coordinate support for a specific CSAR mission.

**Evasion and Recovery** - The full spectrum of coordinated actions carried out by evaders, recovery forces, and operational recovery planners to effect successful return of personnel isolated in hostile territory to friendly control.

**Isolated Personnel Report** - A DOD form containing information designed to facilitate the identification and authentication of an evader by a recovery force.

**Area Command Air Component Commander** - The ACACC derives authority from the AC who has the authority to exercise operational control, assigns mission, direct coordination among subordinate commanders, redirect and organises forces to ensure unity of effort in the accomplishment of the overall mission. The AC will normally designate an ACACC. The ACACC responsibilities will be assigned by the Area Commander.

**Joint Search and Rescue Center** - A primary search and rescue facility suitably staffed by supervisory personnel and equipped for planning, coordinating, and executing CSAR operations within the geographical area assigned to the area command. The facility is operated by equitably staffed and trained personnel drawn from the area command or major service.

**Military Deception** - Actions executed to deliberately mislead adversary military decision makers as to friendly military capabilities, intentions, and operations, thereby causing the adversary to take specific actions that will contribute to the accomplishment of the friendly mission.

**On-Scene Commander** - The person designated to coordinate the rescue efforts at the rescue site.

**Para-rescue team** - Specially trained personnel qualified to penetrate the site of an incident by land or parachute, render medical aid, accomplish survival methods, and rescue survivors.
Personnel Recovery - The aggregation of military, civil, and political efforts to obtain the release or recovery of personnel from uncertain or hostile environments and denied areas whether they are captured, missing, or isolated. PR is the umbrella term for operations that focuses on the task for recovering captured, missing, or isolated personnel from harm's way.

Rescue Coordination Center - A primary search and rescue facility suitably staffed by supervisory personnel and equipped for coordinating and controlling search and rescue; and combat search and rescue operations.

Special Tactics Teams - An Air Force team composed primarily of special operations combat control and para-rescue personnel. The team supports the operation by selecting, surveying, and establishing assault zones, providing assault zone terminal guidance, conducting direct action missions, and providing medical care and evacuation.