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PERSONNEL RECOVERY TACTICS, TECHNIQUES AND PROCEDURES (TTPs)

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NORTH ATLANTIC TREATY ORGANIZATION

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NATO LETTER OF PROMULGATION

4 November 2020

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS

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RECORD OF SPECIFIC RESERVATIONS

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CHAPTER 1 GENERAL

1.1 INTRODUCTION

The purpose of this Volume is to standardise all Tactics, Techniques and Procedures (TTPs) used in a Personnel Recovery Task Force (PRTF). It contains those planning elements relevant to the preparation and execution of the Personnel Recovery (PR) mission. Since the recovery force operates in the same environment as the isolated personnel, it is essential that the PRTF are familiar with all aspects of this publication.

1.2 OPERATIONAL CONSTRAINTS

Typical PR operational constraints include a limited capability and capacity of airborne assets to conduct searches in uncertain, urban or hostile operational environments, while ground force search capabilities may not be as limited. Armoured vehicles increase survivability and have extensive "loiter" time, can move into or through an area searching for an isolated person, depending on the nature of the threat. Alternate Course of Actions (COAs) should be developed to overcome these operational constraints.

1.3 COMMAND AND CONTROL

The baseline for Command and Control (C^2) is given in the PR annex to the Operation Plan (OPLAN), the PR Standard Operating Procedure (SOP) and the Communication Plan (COMPLAN).

1.4 PR THEATRE DOCUMENTATION

PR dedicated forces should develop an SOP for internal use. Specific mission needs may require to deviate from this SOP, however, the SOP is merely a collection of default actions in order to simplify mission planning time and execution. The SOP should cover both day and night operations.

1.5 MISSION ABORT AUTHORITY

All forces of the PR C^2 structure can recommend aborting a mission, including the Isolated Personnel (ISOP), as they have the best Situational Awareness of the situation. The authority to abort rests with Joint Forces Commander (JFC) / Component Commander (CC), On Scene Commander (OSC) and Recovery Mission Commander (RMC).

1.6 DIRECT LIAISON AUTHORITY

All participating units are granted Direct Liaison Authority (DIRLAUTH) with the Joint Personnel Recovery Centre (JPRC) / Personnel Recovery Coordination Cell (PRCC).

1.7 RISK

1. Effort should be made to identify and assess the threats to a recovery operation in order to mitigate the risks associated. These risks can be mitigated through;

   a. Proper route planning to avoid threat areas and utilise terrain cover wherever possible.

   b. Proper (task) force composition.

   c. Operations Security (OPSEC) measures.

1.8 MISSION PREPARATION AND PRE-EMPTIVE PLANNING

1.9 REPORT

Initial notification of a PR requirement is likely to come from the JPRC / PRCC through a 15-liner. It is imperative that the Special Instructions (SPINS) authentication data current at the time of the incident are “frozen” for all PR efforts associated with that incident (authentication data, codewords, Search And Rescue Point (SARDOT), Search And Rescue Numerical Encryption Grid (SARNEG), etc.). This information must be annotated on the 15-liner that will be distributed in turn to the PR units. Any asset that becomes aware of isolated personnel must notify the JPRC / PRCC as soon as possible.

1.10 LOCATE

1. To quickly locate or confirm the location of the isolated personnel, it is critical to assess the operational environment in the mission area (adversary threat, friendly capabilities, local population possible reaction etc.). The process also consists in authenticating the ISOP to discriminate friendly signals from enemy deception efforts. Depending on the threat, the search may be conducted by the recovery forces or a PRTF, if other stand-off means are not available.

2. Search Methods. Whether at sea or on land, obtaining accurate and timely location information of the isolated person’s position may present major challenges for PR forces, thus requiring the utilization of various search methods. If recovery is not imminent, the isolated person’s position should not be compromised. In addition, the

search method should be decided following consideration of the level of threat.

a. Electronic Search. Electronic search can be subject to jamming, deception, monitoring or intrusion, or limited by Line Of Sight or battery life. Sensor searches or monitoring for radio and beacon transmissions by airborne platforms, Unmanned Aircraft Systems (UASs), intra-theatre aircraft engaged in ongoing air operations, and/or satellites should be considered and planned, as appropriate. Electronic searches require an electronically permissive environment. If an electronic search is conducted, the following factors should be considered:

(1) **Altitude**. Determine an initial electronic search altitude based on threat and terrain (to maintain line of sight connectivity to Personal Locator System (PLS), beacons and radio communications).

(2) **Automatic Direction Finder (ADF)**. Caution should be used with ADF as Opposing Forces (OPFOR) may also employ Direction Finder (DF) techniques to locate isolated person. OPFOR DF and intelligence-gathering methods should be understood by all PRTF participants and isolated personnel prior to utilising DF locating methods.

(3) **Airborne or Surface Radar**. Airborne or surface radar should attempt to provide the isolated person's last known radar position to the JPRC / PRCC.

(4) **Satellite**. Satellite systems such as Cosmicheskaya Systemya Poiska Avariynich Sudov (COSPAS) / Search and Rescue Satellite-Aided Tracking (SARSAT) visibility and availability schedules should be published in the Air Tasking Order (ATO) daily SPINS.

b. Visual Search. Airborne search is a viable option, but may require the use of standoff assets due to the terrain or enemy air defence systems. Ground combat forces with secure communications capabilities can increase the search possibilities when airborne search is impossible due to the ground to air threat or the vegetation. Units should consider searching along the isolated person's intended route, areas offering concealment, and pre-briefed locations in accordance with the Evasion Plan of Action (EPA). They should avoid major lines of communications such as roads, railroads, large rivers or open valleys. These areas are normally frequented by people and often pose the greatest threat to PR forces and evaders.

c. Objective Area Search. This search is normally conducted by the OSC. The recovery forces will have to acquire visual on the ISOP once at the ISOP expected position. A visual search in the Area of Operations (AO)

can increase the risk to the ISOP and to the recovery forces. Efforts should be made to make the ISOP signal their location whilst minimising to highlight recovery assets and ISOP. Recovery vehicles can remain at a holding point while the OSC perform location and authentication. All recovery forces participants should be able to liaise with the isolated personnel in the Objective Area (OA). The search can be conducted electronically if the ISOP is equipped with beacon radios or survival radios able to transmit authentication and Global Positioning System (GPS) position.

1.11 SUPPORT

Support measures begin before even an individual becomes isolated. This support is manifested in the AO PR SOP, home-station arrangements and training prior to entry in to a specific AO, AO PR regulations, and the establishment of the AO PR architecture. All of these are component responsibilities that frame the support mechanism.

d. To the ISOP. Support is the planned effort necessary to ensure the physical and psychological sustainment of isolated personnel. This may include establishing two-way communications, providing morale-building support, aerial resupply or aerial escort to a cache. Support may also encompass the suppression of enemy threats to the isolated personnel and deception missions to hide the recovery operation. This may preclude capture for the isolated person and disrupt the adversary's response to PR efforts. When necessary, ground forces, recovery specialists (e.g. ()) and/or equipment may be pre-positioned to support the isolated personnel until the recovery phase.

e. To next of kin. Besides support to the isolated personnel, this task includes physical and psychological assistance to the isolated personnel's family to include information management (controlling release to media).

1.12 RECOVER

The recovery task involves the coordinated actions and efforts of commanders and staffs, forces, and isolated personnel. It starts with the launch of recovery forces, or the initiation of diplomatic or civil processes, and ends when the isop is handed over to the reintegration team. A successful recovery requires operational flexibility and multisystem redundancy. The recovery method will depend on the means available, the ISOP training and condition and the operational environment. To this end, a tailored PRTF will have to be organized against each PR event.

CHAPTER 2 PRTF COMPOSITION

2.1 INTRODUCTON

The PRTF is commanded by the RMC. The RMC is the person best suited to command the PRTF taking into account his ability to maintain Situational Awareness (SA) and exercise C^2.

2.2 MISSION COORDINATOR

The Mission Coordinator (MC) is the link for information exchange (voice and data) between the JPRC / PRCC and the PR assets. MC duties include:

a. Designating OSC.

b. Establishing communications among the PRTF elements in accordance with the COMPLAN.

c. Relaying threat warnings and any other information that may affect the mission in progress.

d. Requesting additional assets as required and ensuring that recovery and support forces arrive at designated locations to accomplish the PR mission.

e. Coordinating appropriate no-fire zones in the OA and advising PRTF participants and the JPRC / PRCC of mission progress.

2.3 AIRBORNE MISSION COORDINATOR

Within the “Air” community the MC is commonly referred to as Airborne Mission Coordinators (AMCs).

2.4 OSC

a. The OSC controls operations in the OA.

b. The OSC will follow the OSC checklist (see Annex E in Volume II.

c. Appropriate details are given in the PR SOP and the PR SPINS (see annex J).

2.5 RMC

The RMC will be appointed by the component / sector commander and will have responsibility for the planning and execution of the PR mission. The appointed RMC should be experienced in leading complex, multi-national, dissimilar type asset task forces. The RMC will have Tactical Control (TACON) of assets tasked for the recovery mission.

CHAPTER 3 AIRBORNE PRTF COMPOSITION

1. PR options may include single or multiple recovery aircraft, additional fixed and/or rotary wing air assets, conventional and/or unconventional ground elements, surface or subsurface naval assets, or any combination thereof. The RMC will command the PRTF and is designated by the PRCC / JPRC. If the PRTF is a complex formation of dissimilar type aircraft and / or multi-national composition, the RMC should be experienced in leading such formations:

a. **Recovery vehicles** The recovery vehicles will eventually pick up the isolated personnel. Recovery vehicles will be transport helicopters with the capacity to transport the extraction forces and the isolated personnel to be rescued. The decision to use one or more recovery vehicles is dependent on the tactical situation and the number and physical condition of the isolated personnel. Multi-ship operations may enhance combat effectiveness by providing mutual support and a back-up recovery capability. Depending on the threat, recovery vehicles should be equipped with the appropriate passive and active defensive aids. A checklist for the recovery vehicles is at Annex H.

b. **Extraction forces** The Extraction Force (EF) is the integral part of the recovery vehicle team that will deplane the recovery vehicle in the Pick-Up Zone (PUZ) to identify and authenticate the isolated personnel, provide initial medical care and bring the isolated personnel to the recovery vehicle. The EF may also be required to be inserted / extracted and engage in combat to ensure the safety of the isolated personnel and the whole PRTF. If the situation required unconventional recovery methods, such as infiltration/exfiltration, then a Special Operations Forces (SOF) unit will performing the EF role, under the Special Operations Component Commander (SOCC) lead.

c. **RESCORT** will neutralise any threat enroute and at the objective area. It may include fixed and/or rotary wing attached and detached options. A checklist for Rescue Escort (RESCORT) crews is at Annex G. Tactics and procedures for use by the RESCORT assets are included in Chapter 8.

d. **RESCAP** will neutralise any enemy aircraft and will ensure a local air superiority. The relative position of Rescue Combat Air Patrol (RESCAP) assets is determined by the needs of the forces along the intended ingress/egress route or at the objective area. The AMC should ensure de-confliction between the RESCAP and other Task Force aircraft.

e. **SEAD** will neutralise any enemy ground to air radar systems on a certain pre-determined route. This route should be carefully co-ordinated

through the JPRC / PRCC.

f. **Fire support / Suppression** assets will be used as necessary to create a threat environment that enables recovery. The OSC/RMC will plan these strikes and then, through the AMC, coordinate their execution. The OSC / RMC must decide how close to the objective strikes may occur, based on weapon types and effects. If the location of the isolated personnel is not known exactly, any suppressive strikes must be executed with extreme caution to prevent hitting the isolated personnel by accident. If able, the isolated personnel should assist in directing strikes in his close proximity.

g. **Mission support.** Supporting assets such as tankers, jammers, Forward Arming and Refuelling Point (FARP) etc. may also be added to a PRTF dependent on the circumstances under which a PR mission is to be conducted.

CHAPTER 4 SURFACE PRTF COMPOSITION

4.1 GENERAL

1. The personnel recovery (PR) recover task involves the coordinated actions and efforts of commanders and staffs, land forces, and isolated personnel to bring isolated personnel under the physical custody of a friendly organization. The recover task begins with the launch of designated forces or redirection of PR-capable forces, and ends when the recovery element hands off the formerly isolated person to the reintegration team. The recover task is accomplished through PR operation and mission planning (explained in Chapter 5, Mission Preparation and Chapter 6, Mission Planning of this Volume), and individual and collective actions of commanders and staffs, forces, and isolated personnel. No single recovery system, force, or organization is suitable to all situations or can meet all requirements in any given situation. This chapter and subsequent related information in subsequent chapters focus on land force recovery efforts conducted by a predominantly ground force-led Personnel Recovery Task Force (PRTF).

2. A PRTF is organized to execute a specific PR mission. A PRTF is capable of locating and authenticating isolated personnel, protecting isolated personnel from adversary threats, providing FP for itself, providing mission C2 systems support, and recovering isolated personnel. A PRTF can be dedicated, put on alert, or designated and tasked when needed by the JFC and composed of any combination of ground, maritime, air assets and personnel.

3. Ground maneuver and support units provide the JFC a viable capability for recovery of isolated personnel when the isolating event is in their vicinity, or in an area to which they can move to or be delivered. Ground forces can fight through adversary forces to reach isolated personnel and provide the PRTF with a survivable recovery vehicle. Ground forces can move into and through an area to search for isolated personnel when the exact location is unknown. Additionally, these forces are trained to establish check points to seal off small urban areas and prevent hostage takers from moving out of the area, and can conduct cordon and search operations to look for isolated personnel.

4. Land Forces Deliberate/Planned Recovery is normally conducted as a raid to recovery isolated personnel (ISOP). Accordingly, the TTPs associated with standard infantry raids are to be employed and are not reiterated here (see, for example NATO ATP-3.2.1, Land Force Tactics and ATP-99 Urban Tactics). Movement to the objective may be any method or platform. Unit leaders gain and/or maintain situational awareness using available communications equipment, maps, intelligence summaries, situation reports (SITREPs), and other available information sources. Unit leaders remain in constant contact with the Personnel Recovery Coordination Cell (PRCC), receiving the ISOP’s evasion plan of action (EPA) and isolated personnel report

(ISOPREP) information, and the 15-Line Brief (see Annex XX) for planning purposes and updates. The PRCC in conjunction with the JPRC will coordinate with and leverage available intelligence assets to assist in planning and execution of the recovery mission. Land force PRTF planners and commanders must be familiar with coordinating information contained in air-centric PR operations, such as the special instructions (SPINS) generally found in the Air Tasking Order (ATO), explained elsewhere in this publication.

5. Potential land force elements of a PRTF may include:

a. PRTF Commander. Appointed by the JFC or the supported commander for PR, the PRTF commander plans, coordinates, and executes the PR mission, using a force comprised of military forces and/or civilian departments and agencies. If serving as the Rescue Mission Commander, the PRTF Commander must coordinate and direct the activities of any air or maritime assets supporting the recovery. See Chapter 3 of this volume for further information.

b. On Scene Commander (OSC**).** The OSC is an individual in the immediate vicinity of an isolating event, who temporarily assumes command, with the best ability to communicate with C2 nodes, recovery forces, and isolated personnel. Once communications have been established with the isolated personnel, the OSC should continue to monitor the isolated personnel's radio frequency in case immediate actions are required to prevent capture. Communications on the isolated personnel's radio frequency should be minimized in order to decrease an adversary's ability to locate the isolated personnel via radio transmissions. Once a qualified RMC is in position to take control of the recovery effort, the OSC should perform a turn-over to include: isolated personnel's condition, authentication methods, location, threat, supporting assets, and other applicable information that will affect the recovery.

c. Rescue Mission Commander (RMC). The RMC is the individual specifically designated to direct and control recovery efforts and provide protection of the isolated personnel from ground threats in the objective area. The duties of an RMC are detailed in Chapter 2 of this Volume.

d. Ground Forces. The recovery team may include any number of task-organized vehicles, equipment, weapons systems and personnel, to include drivers, security, forward air controllers, medical and special operations forces, selected based upon the PR mission parameters, threat environment and available forces.

CHAPTER 5 MISSION PREPARATION

5.1 MISSION PREPARATION GENERAL

1. Successful PR operations depend on diligent preparation and planning by all members of the recovery force: commanders and staffs, recovery forces, and personnel at risk.

2. Pre-emptive planning is preparatory work, conducted before an incident occurs, which facilitates the recovery of potential isolated personnel. Every PR unit will set up its own operations room upon arrival in the Joint Operations Area (JOA). To facilitate proper C^2 with the JPRC / PRCC, a checklist of the minimum requirements of a PR unit opsroom in given in Annex A. Every PR unit should provide the JPRC / PRCC with the appropriate information regarding their assets (numbers, capabilities, disposition etc.) as requested. The units should also have prepared maps and documentation in accordance with the SPINS for the operation. Finally, the operators should be as familiarised with the terrain, weather and general threat conditions in the JOA as possible.

3. Once a dedicated PRTF is assigned, PRTF SOPs should be developed to facilitate planning and execution of a PR mission. A template of such an SOP is given in Allied Tactical Publication (ATP)-49.

5.2 PREPARING FOR LAND FORCE PERSONNEL RECOVERY OPERATIONS

1. Land force commanders and staffs conducting the operations process for personnel recovery (PR) missions use judgment in applying the following principles to develop PR guidance for the force. Typically, guidance is a part of the general protection actions relayed to unit members. Commanders may provide guidance to protect the force without formally identifying it as PR guidance. In general, the guidance provided contains the direction unit commanders need to plan for, prepare, execute, and assess mandated PR activities. As a minimum, PR guidance must establish the following:

a. Communicate the commander’s concept for PR.

b. Establish PR command, support, and liaison relationships.

c. Specify subordinate commanders’ PR responsibilities.

d. Discuss the prevention initiatives required to prepare the force.

e. Establish isolated personnel criteria.

f. Direct when and where to establish PRCC(s).

g. Designate units to execute PR operations when the risk is deemed high

enough to warrant them on-call or in a higher state of readiness.

h. Delegate authority to execute recovery operations.

i. Incorporate PR activities in unit SOPs.

2. There is no fixed format for PR guidance; it is contained in various parts of the operations order, including the base order and appropriate annexes, appendices, tabs, and exhibits, as well as other operational guidance such as Theatre Entry Criteria. At the tactical level of PR, the PR guidance should be translated into specific actions for unit members who may become isolated (i.e., isolated person/soldier guidance). This guidance is always mission-specific and normally consists of directions to carry certain equipment such as Personnel Locator Beacons and survival radios, or learn the location of rally points, safe recovery zones, or communications frequencies. This guidance is applicable to all land forces within the command, as the uncertainties and complexity of military operations across the spectrum of conflict can expose everyone to risk of isolation. A general officer or other senior leader may be as vulnerable to isolation as any other unit member, perhaps more so given the need to travel long distances to show command presence and coordinate with subordinates.

3. Individual PR guidance should provide basic information on the initial actions to take when isolated. Education and training can reduce the psychological impact of isolation, but it still will remain a condition of the isolation and affect the actions taken by the isolated person. Many of the initial actions taken by an isolated person are those embodied in the combat skills initially taught in basic and advanced combat training. Things like the use of cover, concealment, and camouflage; movement; land navigation; first aid; marksmanship; communications; SERE; and CBRN defense and explosive ordnance defense are basic Soldier skills. Actions to take should be mission-specific and the list of actions to take should be simple and direct, such as stay with your vehicle unless discovered by enemy forces or be prepared to authenticate who you are by use of the daily password and countersign.

4. Isolation criteria are the circumstances under which a unit member or other designated individual should execute the individual PR guidance. Again, criteria are mission-specific and depend on the situation. Isolation criteria should be direct and easy to interpret. Generally, isolation criteria include:

a. You have no communication with your unit or higher HQ by any means for (specified) hours.

b. You have no contact with fellow unit members for (specified) hours.

c. Your aircraft makes a forced or precautionary landing in hostile or suspected hostile territory.

d. You are ordered to do so by your chain of command.

5. Well-trained and experienced units typically perform better in the chaos of combat.

6. Preparation and readiness for personnel recovery is an integral part of the individual and collective training of land force units and unit members. Commanders ensure that both individuals at risk of isolation and the PR recovery force is ready to execute their roles in a recovery mission. They supply the force with necessary equipment, up-to-date intelligence, and information on weather conditions and the status of the isolated persons and other friendly forces providing support. If necessary, they augment the force with air, ground or water assets. They staff the personnel recovery coordination section and augment the current operations integrating cell at senior headquarters with personnel recovery specialists to assist in decision-making.

7. The sample setup administrative checklist shown below may be used as a guide for the personnel recovery officers and staff sections at all levels of command.

a. Task organize. Select the staff of officers and noncommissioned officers with the appropriate area of expertise, and augment as required. Assign based on expected risk. Include a director, a deputy director, and controllers.

b. Determine roles and responsibilities of the personnel recovery staff. Determine exactly what the commander wants the section to do and how it should function as part of the overall mission.

c. Establish answers to specific questions, including:

(1) Who has the authority to direct a recovery operation?

(2) Who can terminate a recovery operation?

(3) Who is in charge of post recovery reintegration at the command level?

(4) Who maintains the authentication information from Isolated Personnel Report (ISOPREP), and evasion plans of action?

(5) What are the current available air, ground, and maritime personnel recovery forces?

(6) Where are the critical personnel recovery locations? (Transload locations for recovered personnel, medical treatment facilities, reintegration facilities, and recovery force commander location.)

(7) What are the responsibilities of the personnel recovery points of contact at higher, lower, and adjacent headquarters in the chain of command?

d. Develop a work schedule. Consider 24-hour operations, the potential for split-based operations (personnel recovery expertise at a main command

post and a tactical command post or other mission command facility), and the requirement to accompany the commander or a recovery force while staffing a personnel recovery coordination section at the protection or the movement and maneuver cell.

e. Obtain reference documents. Establish a reference library with hard copy and electronic copies of the necessary documents to maintain situational awareness. Include theater, command, and unit standard operating procedures. Maintain a master list; include regulations, plans, orders, points of contact, and instructions.

f. Check computers and communications equipment. Establish a direct or shared access to voice, image, and data systems to support situational awareness. Conduct the required user training. Identify the points of contact for equipment support. Establish liaison with the operators of other systems, including all Army and partner systems.

g. Validate communications information. Ensure effective information management, including the use of personnel recovery contact lists, call signs, survival radio, and other frequencies or systems.

h. Set up a personnel recovery identification system. Use the command personnel recovery coordination section standard operating procedure or other source documents. Establish a system for tracking the activities of the personnel recovery coordination section to support situational awareness, to meet recordkeeping requirements, and to support after action reviews.

i. Establish display protocols. Develop the necessary display items for the personnel recovery coordination section, for all types of media in use by the command. Include information on available personnel recovery assets and information on potentially isolated, missing, or captured persons. (Examples of items include logs, maps, coordination requirements, and procedures.)

j. Review procedures. Review the standard operating procedures and other information sources, including templates for various report and message formats per Field Manual 6-99.2.

k. Conduct training. Conduct orientation and training for personnel recovery coordination section members and associated liaison personnel. Coordinate with the chief of operations and the chief of protection to have personnel recovery activities included in mission readiness exercises and other pre-deployment or mission rehearsals.

l. Develop point of contact list. Obtain and maintain contact information of all personnel recovery organizations. Develop procedures for 24-hour contact of those with personnel recovery expertise in the command post and throughout the chain of command.

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CHAPTER 6 MISSION PLANNING

6.1 MISSION C2 NODES

Personnel Recovery Task Force (PRTF). The PRTF is organised to execute a specific PR mission and must be capable of locating, authenticating isolated personnel, protecting isolated personnel from adversary threats, providing Force Protection (FP) for itself, providing mission Command, Control (C2) systems support, and recovering isolated personnel. A PRTF can be dedicated, put on alert, or designated and tasked when needed by the JFC. A cohesive, interoperable force may consist of any variety of dissimilar aircraft, ground vehicles, or maritime vessels. Its size can range from a single recovery vehicle operating within a joint C2 context, to dozens of air, ground, or sea elements working in concert. Short-notice PRTF operations are extremely dependent on the ability to quickly and effectively marshal the required interoperable forces to effect a recovery.

a. **The PRTF Commander**. The Joint Force Commander (JFC) or the supported Commander for PR. appoints the PRTF Commander. The PRTF Commander plans, coordinates, and executes the PR mission, using a force comprised of national and/or multinational military forces and/or Governmental departments and agencies. The PRTF commander, in conjunction with the JPRC and PRCC, must deconflict both ground and airspace activities with PR mission plans to ensure safety and prevent adverse effects on other combat operations. Elements of the PRTF may include:

b. **Mission Coordinator (MC)**. The MC is responsible for coordinating JPR activities, supporting the On Scene Commander (OSC) and the recovery force in conducting their primary tasks, and for guiding the mission. This individual could be located within the JPRC / PRCC, on the ops room floor, or deployed as a ground or airborne element. The MC will/may also:

(1) Designate the OSC.

(2) Relay threat warnings and other information that may affect mission progress.

(3) Request additional assets from the JPRC / PRCC as required, and ensure that recovery and support assets arrive at designated locations in order to achieve the JPR mission.

(4) Manage logistic support to all JPR assets.

(5) Coordinate appropriate ACM and FSCM.

(6) Inform the recovery force, ISOP and JPRC / PRCC of mission progress.

c. **Airborne Mission Coordinator (AMC)**. The AMC is a MC operating from an airborne platform. In addition to the duties listed above, the AMC monitors, coordinates and controls aircraft ensuring flight safety and mission accomplishment. The AMC relays pertinent information such as threats, Early Warning (EW) and weather. The AMC platform may vary depending on complexity of the operation; an AWACS may be required in order to ensure the safety of airborne recovery assets through the provision of altitude separation, airspace and ground Battlespace management, environmental information, and the monitoring of fuel states. The AMC may be required to coordinate the refuelling of air recovery assets.

d. **Rescue Mission Commander (RMC)**. A Personnel Recovery Task Force (PRTF) is commanded by a RMC. The appropriate level commander, through the JPRC / PRCC, will appoint the RMC. The RMC will normally have TACON of assets tasked for the recovery mission and will lead the mission planning process in coordination with the JPRC/PRCC. The RMC will assume On-Scene Commander (OSC) duties when in the objective area. The RMC should develop communication plans, ingress and egress routes, and actions in the objective area. Depending on the threat, the RMC may request the PRCC to bid for Close Air Support, Rescue Escorts (RESCORT), Rescue Combat Air Patrols (RESCAP), tanker support, etc. The RMC must carefully coordinate with all ground forces, air forces, and supporting forces. During the recovery mission, the RMC should coordinate the recovery force's activities through the MC.

e. **On Scene Commander (OSC)**. The OSC directs operations in the vicinity of the ISOP until the arrival of the recovery force and keeps the PRMC/MC/AMC informed as required. The OSC should continuously monitor the ISOP frequency to provide/coordinate support as required. All assets participating in the recovery effort should contact the OSC/MC/AMC/PRMC before entering the Restricted Operating Zone (ROZ) covering the recovery mission. Any asset performing, but unfamiliar with, OSC duties will be supported by the JPR/ PRCC requesting/passing information as required. Once the RMC is in position to take control of the recovery effort, the OSC should perform a hand-over to include: ISOP's condition, authentication methods, location, threat, supporting assets, and other applicable information that will affect the recovery.

6.2 RECOVERY VEHICLES AND FORCES.

1. PR can be conducted by any force, utilising any vehicle, as long as it is appropriate to do so.

a. **Rescue Escort (RESCORT).** Depending on the threat in the mission area it may be necessary to deploy with a RESCORT in order to protect the recovery vehicles and the ISOP. Fixed or rotary-wing aircraft, land forces or maritime weapons carrying assets assigned RESCORT responsibilities should be capable of providing the recovery vehicles with reconnaissance, suppressive fire support, and, if possible, communications relay. When employed, the RESCORT and recovery vehicles of the task force should initially operate under the mission control of an OSC until the handover to the RMC.

(1) Typical RESCORT responsibilities may include conducting reconnaissance of the flight, ground or maritime routes, area reconnaissance of the objective area, and determining the level of adversary activity and suppressing surface threats to, from, and within the objective area. The RESCORT may also assist recovery helicopters, ground forces, and maritime vehicles in locating (i.e., objective area search) and authenticating ISOP, function as the OSC / AMC as designated by the PRTF commander, and coordinate and control activities of supporting recovery force elements in the objective area. Coverage should continue through egress until the recovery vehicles reach a permissive environment.

(2) On other than immediate response missions, recovery element briefings are mandatory and should include rendezvous points, communications, navigation points, number of helicopters, number of ground vehicles, number of maritime assets, helicopter landing site (HLS) positions, objective rally points, near and far recognition signals, and code words. Even immediate taskings will receive a ‘Ramp Brief’ prior to departure.

2. **Rescue Combat Air Patrol (RESCAP).** RESCAP aircraft are counter-air aircraft assigned to protect the recovery force and IP from enemy air threats. RESCAP forces should be available before committing recovery forces if adversary air activity is forecast along the intended flight, ground or maritime routes, or in the objective area. RESCAP may assist in detecting and establishing communications with IP due to their higher operating altitudes. Typical RESCAP tasks include the following:

a. Maintaining patrol over and protecting isolated personnel until other elements of the recovery force arrive in the objective area.

b. Assisting in locating isolated personnel.

c. Maintaining protection against, and ensuring suppression of, airborne threats.

d. Functioning as OSC until other elements of the recovery force arrive in the objective area.

3. **Support Aircraft / Tasks.** Tankers, AWACS, ISR assets, EW, and other aircraft may provide vital support to the recovery force. The following, not all inclusive, list of assets/capability could be part of a recovery mission:

4. **Suppression of Enemy Air Defences (SEAD).** SEAD missions are designed to minimize the surface-to-air threat to friendly forces. Joint SEAD operations can be accomplished through destructive and disruptive means described below, and using combinations of the two can maximize their effectiveness.

a. **Destructive Means.** Destructive means seek the destruction of the target system or operating personnel. The effects are cumulative and increase aircraft survivability, but destructive means may place large demands on the available combat capabilities/forces.

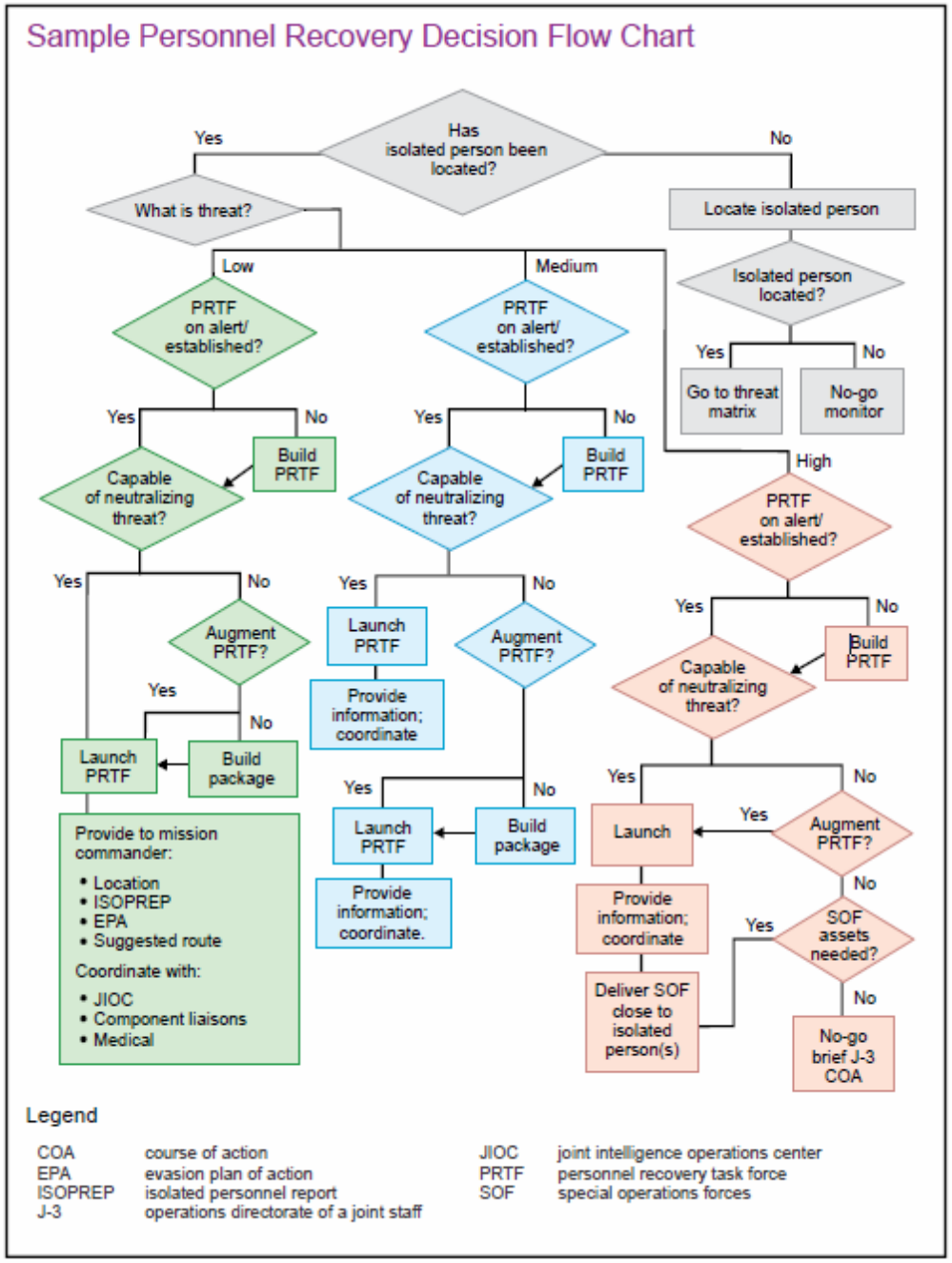
b. **Disruptive Means.** Disruptive means temporarily deny, degrade, deceive, delay, or neutralize enemy air defence systems to increase aircraft survivability. Disruptive means may be either active or passive. Active means include electronic attack (anti-radiation missiles, directed energy, electromagnetic jamming, and electromagnetic deception), expendables (chaff, flares, and decoys), and tactics (deception, avoidance, or evasive flight profiles). Passive means include emission control, camouflage, IR shielding, warning receivers, and material design features.

5. **Rotary-Wing Aircraft.** Operational experience shows that helicopters are excellent pathfinders and recovery vehicles but each variant has its own strengths and weaknesses. Knowledge of the different aircraft types, their capabilities and procedures should be developed through PR training and exercises. Terrain, visibility, high-density altitude limitations, aircraft and component capabilities, and aircrew experience should be carefully considered when preparing to conduct a recovery. Recovery mission briefs should address flight integrity criteria, mission roles, and individual aircraft responsibilities.

6. **Fixed-Wing Aircraft.** Circumstances may warrant using fixed-wing aircraft as the recovery vehicle. The concept of employment would be similar to that of Tactical Air Transport aircraft conducting air-land operations. Airfields should be designated and surveyed by specialists. Fixed-wing aircraft provide greater range and speed, which could be invaluable capabilities. PR planning should identify suitable locations to cross-load recovered personnel from fixed-wing to rotary-wing aircraft, or vice versa, when appropriate.

7. **Extraction Force (EF)**. On board any type of recovery vehicle will be a EF. The EF will vary in size depending on a number of factors such as the threat, nature of the task, specialist skills required, etc. The role of the EF is to dismount from the recovery vehicle and obtain physical control of the ISOP. It may be necessary for the EF to physically extricate the ISOP from an airframe/vehicle, administer first aid, engage in close combat etc.

8. **Ground Forces.** Ground manoeuvre and support units can provide a viable capability for the recovery. If necessary ground forces can fight through adversary forces to reach ISOP and provide the PRTF with a survivable recovery vehicles. Ground forces can move into and through an area to search for ISOP when the exact location is unknown. Additionally, these forces may be able to assist JPR operations, for example by establishing cordons in order to try and prevent hostage takers from moving out of an area. They may also be used to conduct cordon and search operations in order to look for ISOP. Recovery forces will not normally be committed until after successful authentication, recovery forces will not normally be permitted to enter a hostile operational environment until the location, authentication of isolated personnel has been verified, and recovery is considered feasible. All Commanders and staffs from the JFC to unit level will require a systematic process to enhance decision making during a PR mission and develop a battle-rhythm between the various (C2) nodes. A decision process tool, whether it is a flow chart (e.g. go/no-go) or a procedure document, will guide decision makers from the time a report of isolated personnel is received through to the reintegration of those personnel. A decision process allows some criteria to be decided in advance and provides a reminder (checklist) of other items that should also be considered.


Sample Personnel Recovery Decision Flow Chart
Has isolated person been located?
Yes
No
What is threat?
Locate isolated person
Low
Medium
High
PRTF on alert/ established?
Isolated person located?
Go to threat matrix
No-go monitor
Capable of neutralizing threat?
Build PRTF
Augment PRTF?
Launch PRTF
Provide information; coordinate
Build package
Provide to mission commander:
• Location
• ISOPREP
• EPA
• Suggested route
Coordinate with:
• JIOC
• Component liaisons
• Medical
Launch
Provide information; coordinate.
SOF assets needed?
Deliver SOF close to isolated person(s)
No-go brief J-3 COA
Legend
COA course of action
EPA evasion plan of action
ISOPREP isolated personnel report
J-3 operations directorate of a joint staff
JIOC joint intelligence operations center
PRTF personnel recovery task force
SOF special operations forces

6.3 PERSONNEL RECOVERY TASK FORCE MISSION PLANNING CHECKLIST

Ser	Item	Remarks/Details
1	**Date-time-group notified**	
2	**Pre-Mission**	
2a	Record event on appropriate incident form	
2b	Plot isolated personnel on situation map	
2c	Determine PR plan of action	
2d	Complete PR worksheet:	
	i. Obtain current intelligence brief	
	ii. Obtain ISOPREP, authentication data, and EPA	
	iii. Determine threat level	
	iv. Obtain weather brief	
	v. Study terrain/obtain sea conditions	
	vi. Determine survival equipment	
	vii. Determine type of CBRN contamination, hazard, or threat	
	viii. Determine medical status	
	ix. Special considerations	
2e	Complete PR planning	
	i. PR plan (forces, timing, locations)	
	ii. Communications plan including backups	
	iii. Recovery forces informed	
	iv. Support forces requested (as required)	
	v. OSC/RMC appointed/notified	
2f	Coordination complete with all PR forces	
3	**Mission progress**	
3a	Monitor mission progress:	
	i. Start times	
	ii. Keep component PRCC/JPRC advised of actions	
	iii. Arrival times at scene	
3b	Arrange for transport of injured (as required)	
3c	Obtain additional recovery forces (as required)	
3d	Complete reports (as required)	
4	**Closing actions**	
4a	Rescue forces/personnel debriefed	

Ser	Item	Remarks/Details
4b	Intelligence debriefed (as required)	
4c	Component PRCC/JPRC notified of mission results	
4d	Recovered personnel entered into the reintegration process; status confirmed	
4e	Mission file completed, log updated, SARSIT message transmitted	
4f	Mission file forwarded to JPRC and/or JPRA, accordingly	

6.4 PERSONNEL RECOVERY TASK FORCE CHECKLIST

1. Items 1 -7 are to be briefed to the Rescue Mission Commander prior to mission execution.

2. All other information should be provided to the PRTF as applicable.

Ser	Item	Remarks/Details
	ISOLATED PERSONNEL INFORMATION	
1	Tactical call sign(s)	
2	Number of isolated personnel	
3	Location(s) (latitude/longitude, grid, range/bearing to/from SARDOT)	
4	Condition/injuries: Walking? YES NO UNKNOWN	
5	Equipment (communications/signal)	
6	Authentication complete? Yes/No When Method	
	RECOVERY AREA INFORMATION	
7	Threats (air/ground/missile)	
8	Elevation (nearest 1,000 feet, mean sea level)	
9	General terrain description	
10	Friendly forces in the recovery area	
	RESCORT PLAN	
11	Initial point	
12	Link up point (if not at initial point)	
12a	Ingress	
12b	Egress	
13	Ordnance	

Ser	Item	Remarks/Details
14	RESCORT tactics	
	RECOVERY VEHICLE PLAN	
15	Rescue tactics	
16	Communications/signaling procedures	
	REFUELLING PLAN	
17	Fixed wing assets	
18	Rotary wing assets	
19	Ground force assets	
20	Maritime assets	
	ADDITIONAL ITEMS/QUESTIONS	

6.5 PLANNING FOR LAND FORCE PERSONNEL RECOVERY

1. Commanders drive the operations planning process. They understand, visualize, describe, direct, lead, and assess. They assess during the plan, prepare, and execute phases of the operations process. Likewise, assessment is ongoing throughout the conduct of personnel recovery operations to determine the progress of the operation and adapt as required. Assessment helps commanders supervise recovery operations to better understand current conditions and determine how the operation is progressing. The commander maintains overall perspective, comparing the current situation to the one originally envisioned. Commanders use information received from subordinates to develop indicators to determine progress toward a successful outcome. When assessment reveals a significant variance from the commander's original visualization, commanders reframe the problem and develop an entirely new plan as required.

2. Commanders and staffs analyze their operational environments using the operational variables (political, military, economic, social, information, and infrastructure) plus physical environment and time. They analyze specific missions using the mission variables (mission, enemy, terrain and weather, troops and support available, time available, and civil considerations). Higher command echelons ensure their personnel recovery guidance is appropriate for the operational environment. Tactical-level commanders ensure the isolated personnel guidance is appropriate for the situation on the ground. Several adversary characteristics are important in determining the risk of isolation such as composition, disposition, capabilities, recruitment efforts, level of training, robustness of logistics support, and support among the population.

3. Land force planners use a basic problem-solving model to focus the personnel recovery planning effort. They define the problem, gather information, develop possible solutions, analyze and select the best solution and implement it.

4. The designated personnel recovery section within a unit synchronizes and integrates all personnel recovery actions horizontally within the headquarters and

vertically within the chain of command. This includes monitoring execution of all personnel recovery tasks: report, locate, support, recover, and reintegrate. Executing a personnel recovery mission centers on the recover task. However, personnel recovery operations are not complete before execution of the reintegrate task.

5. The following Operations Checklist details useful planning and coordination guidance applicable to most land force PR operations:

a. Conduct initial coordination. Coordinate with organizations in the personnel recovery structure, including those at the joint personnel recovery center, Department of State regional security office, and adjacent and subordinate military personnel recovery staff elements. Contact other unified action partners that have expressed a willingness to assist.

b. Coordinate with the functional and integrating cells and other staff elements. Coordinate appropriately for the echelon. Weight the main effort with available people to cover all components of the mission command facilities. Ensure persons representing the personnel recovery coordination section in functional and integrating cells are knowledgeable in personnel recovery doctrine and capabilities.

(1) Intelligence cell. Coordinate with the chief of intelligence for intelligence and information from unified action partners. (The theater-level joint personnel recovery center coordinates theater-level intelligence support with the combatant commands.)

(2) Movement and maneuver cell. Clarify the authority and responsibility of personnel recovery specialists with respect to this functional cell and then maintain a close relationship with it.

(3) Fires cell. Become familiar with the activities of the fire support element, the field artillery intelligence officer, and the electronic warfare sections of the cell. Coordinate for fires to fix enemy forces, to confuse and disorient potential threats, and to provide the fires portion of the common operational picture.

(4) Sustainment cell. Coordinate with the sustainment cell (including logistics, personnel, financial management, engineer, and surgeon sections) to facilitate the personnel recovery task each supports. (The importance of coordination with the sustainment cell is second only to movement and maneuver.)

(5) Protection cell. Maintain situational awareness and close coordination with the other sections of the protection cell (air and missile defense; chemical, biological, radiological, and nuclear; engineer; operations security; personnel recovery; force health protection; explosive ordnance disposal; and provost marshal).

(6) Mission command cell. Coordinate with the network operations

elements of mission command to maintain the necessary communications systems, especially those dedicated to personnel recovery activities and connections with unified action partners. Exploit civil affairs and military information support operations capabilities to reinforce the mission narrative so isolated persons stand a better chance of self-recovery.

(7) The integrating cells (current operations, future operations, and plans). Coordinate with the integrating cells as needed for situational awareness. At a minimum, maintain hourly contact with current operations cell as it tracks operations. Provide expertise to the plans cell to support decision-making and ensure personnel recovery is a part of plans and orders.

(8) Personal, special, and coordinating staff elements. Coordinate support needed from personal and special staff, as well as working groups, boards, meetings and other collaborative groups established for the command post.

(9) Coordinate with unified action partners. Coordinate with personnel recovery staff officers and their equivalents in partner organizations. Conduct liaison with the host-nation governmental and military organizations, depending on the echelon of command. Determine the command's authority, responsibilities, restriction on action, and procedures for personnel recovery.

(10) Coordinate with host nation and national Diplomatic and Civil authorities as may be required.

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CHAPTER 7 PR MISSION EXECUTION

7.1 PERSONNEL RECOVERY OPERATIONS

Personnel Recovery operations, by design, are unique; a PR response may be required in any location, land or sea, in any threat environment, and at a time and place not of the isolated personnel's or recovery crew's choosing. Many offensive operations can be successfully planned based on intelligence and targeting data; however, successful execution of CSAR operations often requires creativity, improvisations, and real-time intelligence, even when forces are well-trained and prepositioned. PR operations may include a single or multiple recovery aircraft, PRTF trained personnel, or other forces capable of providing personnel recovery support to isolated personnel (ISOP) such as conventional or unconventional ground elements, the employment of surface or subsurface naval assets, or any combination thereof.

7.2 PERSONNEL RECOVERY TASK FORCE (PRTF)

1. All operations should include a detailed plan for the recovery of ISOP and / or the recovery / denial of sensitive equipment. A PRTF is organised to execute a specific PR mission; it must locate and authenticate the ISOP, protect them from adversary threats, provide force protection for itself and the ISOP, and recover the ISOP. Different PRTF packages may be required depending on the nature of the scenario and the threat. The required PRTF composition may need to be altered in accordance with the enemy threat or situation.

2. Attempts should be made to resolve isolating events as quickly as possible. If recovery cannot be resolved at unit level, responsibility continues to the unit PRCC to coordinate PR efforts. A Rescue Mission Commander (RMC) will be appointed to plan the recovery mission.

7.3 RISK ANALYSIS

1. PR operations are subject to cost / benefit considerations and threat analysis in the same manner as any other military operation. The benefit gained from a PR operation should justify the cost associated with executing the operation. Risk should be appraised in accordance with the following criteria:

   a. **Risk to the Force**. This applies to the ISOP and the PRTF. What risks will the ISOP face if not recovered? What risks will the PRTF face when conducting the mission?

b. **Risk to the Mission**. What are the risks to the overall operation if the ISOP is not recovered? What are the likely impacts if the ISOP is captured?

2. PR operations should not:

a. Unduly risk the ISOP or the PRTF.

b. Preclude execution of higher priority missions.

c. Divert critically needed forces from on-going operations of higher priority.

d. Allow the overall military situation to deteriorate.

7.4 PRTF COMPOSITION

1. **The Rescue Mission Coordinator (RMC).** During the execution phase of a PR mission the RMC will be given Tactical Control (TACON) of assets tasked for the recovery mission and is responsible for leading the tactical planning and execution in coordination with the PRCC. The RMC should select the PRTF package, ingress / egress routes, the communication plan, and Objective Area (OA) tactics. During the execution phase the RMC should coordinate the PRTF's activities through the Mission Coordinator (MC) / Airborne Mission Coordinator (AMC). When in the OA the RMC will assume On Scene Commander (OSC) duties.

2. **On Scene Commander (OSC)**. The OSC directs operations in the vicinity of the ISOP until the arrival of the recovery force (the OSC then is likely to be a wingman or other asset that has established comms with an ISOP). The OSC should continuously monitor the ISOP frequency in order to provide / coordinate support as required (OSC responsibilities are outlined below).

3. **Mission Coordinator (MC)**. The MC is responsible for coordinating PR activities, supporting the OSC and the recovery force in the conduct of their primary task and for guiding the mission. The MC is the coordinator and link between the PRCC and the PRTF. An MC operating from an airborne platform is known as the Airborne Mission Coordinator (AMC) (MC responsibilities are outlined below).

4. **Airborne Mission Coordinator (AMC)**. The AMC is a mission coordinator operating from an airborne platform. The AMC monitors, coordinates and controls aircraft within the Restricted Operating Zone (ROZ); it also relays and updates pertinent information, advises the RMC on mission support requirements and mission progress. Where able the AMC will also coordinate the designation and use of appropriate Fire Support Coordinating Measures (FSCM). The AMC also provides the PRCC with updates. (AMC checklist is outlined below).

5. **Rescue Escort (RESCORT)**. The RESCORT should be able to assist in the

location and authentication of ISOP. RESCORT should also be able to escort the PRTF to and from the OA, and defend the PRTF when in the OA. (RESCORT responsibilities are outlined below).

6. **Rescue Combat Air Patrol (RESCAP)**. The RESCAP are counter-air assets assigned to protect the PRTF from airborne threats, required RESCAP will be requested through the JPRC.

7. **Recovery Vehicles (RV)**. The RV should be capable of deploying the Ground Extraction Force (GEF) and its equipment, communicating with the ISOP, communicating with the GEF and the wider PRTF, locating, authenticating and transporting the ISOP. The decision to use single or multiple RV is mission, enemy, terrain and weather dependent. The following RV capabilities should also be considered: (RV responsibilities are outlined below).

Ser	Equipment Item	Remarks
1.	Operable hoist.	With harness.
2.	Jungle Penetrator.	Where available.
3.	Life Raft.	
4.	Armament.	For self-protection and mutual support.
5.	Fast rope / heli abseil fits.	Aircraft clearances permitting.
6.	Stretchers.	
7.	Medical equipment.	Aircraft clearances permitting.
8.	Extrication Equipment.	

8. **Extraction Force (EF)**. The EF is an integral part of the RV; they will exit the RV in the OA in order to provide site security, carry out the final location and authentication of the ISOP, administer first aid, extricate the ISOP if required, and recover them to the RV. The EF may be required to infiltrate / exfiltrate to / from a stand-off location and engage in combat to ensure the safety of the ISOP and RV. However, the aim should always be to deploy the minimum possible EF footprint.

9. The EF also provide the RMC with PR planning expertise from the ground perspective, if required they may provide C2 and ground to air communications in the objective area. The GEF may be of varying size in accordance with the nature of the task / threat.

7.5 AUTHENTICATION

1. Even when in possession of precise location data recovery forces are still required to authenticate the ISOP prior to support and recovery operations. In order to minimise the amount of authentication data compromised, the different means of authentication used, and by who, are standardised throughout the recovery operation.

2. SPINS information will generally be used early in the recovery as this is likely to be the only information available unless ISOPREP data has been gathered. When using the word, number, or letter of the day (WOD, NOD, LOD), effort should be made to ensure that the amount of data compromised is limited when possible (e.g. “What is

the second letter of the WOD?").

3. ISOPREP data is likely to become available later in the mission as information on the ISOP is gathered. If ISOPREP data is available then the amount of information compromised during the authentication should be limited as much as possible. This should be achieved by using variations of the four-digit Authentication Number (e.g. "State the sum of the second and third digits of your authentication number") or by asking questions derived from the authentication statements.

4. ISOP should be re-authenticated after any time that positive control has not been maintained. The EF should also conduct a final authentication of the ISOP using the Personal Authentication Statements from the ISOPREP prior to extraction.

7.6 LAUNCH CRITERIA

1. Listed below are the desired minimum criteria to launch a recovery mission:

2. The risk to the recovery mission / recovery forces must be outweighed by the risk of not recovering the ISOP.

3. The approximate location of the ISOP, equipment, or aircraft must be known.

4. PRTF personnel must remain flexible. A competent authority (e.g. the JPRC / PRCC) may require additional launch criteria, however, given the time critical nature of PR operations, the Command or JPRC / PRCC may order a launch without all of the criteria being met.

5. **Launch, Execute and Abort Authority**. These authorities should be held as low as possible in order to enable rapid recovery.

a. **Launch Authority**. This is the authority to pre-position or move a PRTF towards the ISOP's location with the ultimate intention of recovering the ISOP. PR mission launches fall in to the following categories:

(1) **Immediate**. Immediate responses generally use available assets that are in the immediate vicinity of the ISOP, are on alert, or can be quickly diverted from other tasks.

(2) **Alert**. In order to decrease en-route time to the anticipated recovery area the PRTF may be forward located in anticipation of an execution order.

(3) **Deliberate**. The threat, asset availability, current operations, and ISOP situation may preclude an immediate recovery operation and require deliberate planning.

(4) **Hold**. A recovery mission may be placed on hold if the launch criteria are not met or if other tasks have priority.

b. **Execute Authority**. This is the authority for a PRTF that has launched to carry out the recovery of the ISOP, this authority will be granted once the ISOP has been located and authenticated by the PRTF. If there is doubt regarding the authenticity of the ISOP then the RMC may choose to abort the mission, or the ISOP may be held as a detainee until positive authentication is established.

c. **Abort Authority**. All elements of the PR C2 architecture, including the ISOP, can recommend aborting a mission based on their own situational awareness. The final decision will rest with the RMC.

7.7 PROCEDURES FOR FLOW IN TO THE OA

1. RESCORT / RESCAP shall:

   a. Contact and authenticate the ISOP where possible.

   b. Respond to any threat en route to, from and in the vicinity of the recovery location and deliver accurate suppressive fire.

   c. Pass HLS / LZ status and location to the RV.

   d. Support the recovery force; provide HLS / LZ brief to the RV as required.

   e. Provide attached escort on egress.

2. The RV shall:

   a. Position in the holding area.

   b. Push to the ISOP upon receiving the call / signal to do so.

   c. Listen for the location of the ISOP and RESCORT.

3. Ingress and egress procedures:

   a. RV reports checkpoint prior to ISOP.

   b. RV proceeds to the ISOP once communication has been established with, or a signal has been received from, the RESCORT. All calls must be acknowledged by the RV.

   c. The RV will report “ISOP inbound”, and the RESCORT will respond “Continue, established in BP…”

7.8 ACTIONS IN THE OA.

1. **Roles and Responsibilities**. The following roles and responsibilities are flexible, depending on the situation, but are provided as guidance:

2. **Rescue Mission Commander**:

   a. Confirm / refine the location of ISOP.

   b. Finalise the 15-Line and control the execution of the recovery.

   c. Secure the pick-up HLS / LZ prior to the execute call.

3. **On Scene Commander**:

   a. Initial notification of isolation event if appropriate.

   b. Gather information for the 15-Line and pass it to the AMC / RMC.

   c. In the absence of the RMC maintain situational awareness and be prepared to support execution.

4. **Airborne Mission Commander**:

   a. Relay information between the RMC and JPRC / PRCC / key personnel.

   b. Manage supporting assets.

   c. Ensure objective area de-confliction, reconnaissance, escort tactics and minimum delay are be adhered to.

5. **Recovery Vehicle**:

   a. Receive 15-Line information and request amplifying data as required.

   b. Develop the terminal area plan and relay it to the RESCORT / RMC.

   c. Coordinate with the recovery force.

6. **RESCORT**:

   a. Provide escort and fires in support of ISOP and RV.

   b. Confirm location of ISOP and authenticate if required / possible.

   c. If possible coordinate with the ISOP to mark the HLS / LZ.

   d. Provide HLS / LZ information to the RV (e.g. obstacles, marking, etc).

e. Be prepared to assume duties of RMC as required.

f. Make GEF deployment recommendations to the RV.

g. Confirm that the RV is in the correct location before deploying the GEF.

h. Relay to the RV the direction and distance to the ISOP.

7. **RESCAP**:

a. Posture to defend the recovery force from adversary threats.

b. Authenticate the ISOP if required / possible.

7.9 INGRESS AND EGRESS PROCEDURES.

1. The RMC confirms all assets have the current and correct information on the 15-Line report by conducting a 15-Line review. When all assets have the correct 15-Line and plan the RMC will push all assets in the OA to a common net such as SAR A to execute the recovery.

2. The RMC / RESCORT will conduct an OA search in order to locate and then authenticate the ISOP. RV will remain at a holding area (HA) until this has been achieved.

3. The RMC shall state “EXECUTE, EXECUTE, EXECUTE”. The execute call is held until all assets understand the plan and the LZ meets the commit criteria.

4. The RV shall report “ISOP INBOUND”. Prior to entering the ROZ all aircraft should be at the contract altitudes.The RESCORT shall respond “CONTINUE, ESTABLISHED (position)”.

5. The RV shall report “3 MILES” and “1 MILE” to provide time and space information to the RMC / RESCORT.

6. The RV shall confirm sighting when the ISOP is in sight. This signals that the RV has control of the ISOP and is assuming primary communications with them on the radio. If not visual with the ISOP the RV can report “VISUAL ZONE”.

7. If the RV does not confirm sighting of the ISOP the RMC / RESCORT should relay, if possible, the direction and distance to the ISOP from the RV once it touches down on the HLS / LZ.

8. When clear of the RV the GEF should check-in with the RMC / RESCORT on the net used for execution.

9. The primary means for the GEF to signal for extraction will be via radio. The

alternate should be specified in planning. Once signalled the RV should return to the HLS / LZ (if holding elsewhere).

10. The RV shall pass “30 SECONDS” prior to lifting in order to allow the RESCORT time to finish any attacks in progress and clear the egress route. If the egress has changed since last passed in the 15-Line the RMC should pass egress instructions.

11. The RV shall confirm when lifting and confirm the number the number of ISOP recovered. If the RV needs to lift and leave the GEF on the ground this information should also be given. The RV should pass to the OSC the number of personnel on the ground.

7.10 COMMUNICATION

1. After communications have been established with the ISOP the RMC should maintain an open communication link and avoid long periods of no communications. Should a communication gap be expected then the ISOP should be informed and provided with a time at which communications will be re-established. After initial communications with the ISOP have been established the RMC should also establish communication rules of engagement to limit any adversary’s ability to locate the ISOP. Specific rules will depend on the scenario and the nature of the threat, however the following list is provided for guidance:

a. Keep all transmissions to five seconds or less.

b. Talk only to the RMC unless introduced by the RMC to another asset.

c. Speak only when asked a question by the RMC or if in imminent danger.

d. Do not transmit locations in clear – use the SARNEG.

e. Do not signal unless asked to do so by the RMC / RV.

f. ISOP should inform the RMC if they see friendly aircraft / vehicles.

2. Throughout the execution of the recovery the RMC should provide the ISOP with reassurance and monitor their transmissions for any signs of panic, imminent threat or medical emergency.

7.11 ISOP PICK-UP PROCEDURES

a. Remain in a covered / concealed position until signalled by the recovery force.

b. Be prepared to authenticate either by radio or in person.

c. When the recovery force approaches, adopt a non-threatening posture and expect to be treated as a detainee.

d. If possible, ISOP should be prepared to provide navigational guidance (e.g. ITG, landmarks, etc.) to rescue aircraft, especially when NVDs are being utilised for night extraction.

7.12 REINTEGRATION

1. The reintegration task begins when physical control of ISOP is relinquished to a designated reintegration team member or organization in the reintegration process.

RESCUE MISSION COORDINATOR RESPONSIBILITIES

Ser	Item	Remarks/Details
1	Conduct tactical planning of the recovery mission	
2	Achieve OSC handover /approval	
3	Pass PRTF status brief to the RMC	
4	**Authentication**	(if required – if the RMC is assuming OSC duties from an OSC that has already authenticated the ISOP then use judgment as to whether re-authentication is necessary
4a	Authenticate ISOP	
4b	Confirm the number of ISOP	
4c	**Establish the number of communications**	For multiple ISOP
4d	**Determine OPFOR threat and local activity**	
5	**Location**	If required, or not passed by AMC / OSC
5a	Locate via Quickdraw or visual means	
5b	Develop ISOP visual signal plan if required	
5c	Note HLS terrain description / elevation	
6	**Threat suppression**	
6a	Suppress immediate threat to ISOP	
6b	Suppress threat that may affect recovery operations	
6c	Locate OPFOR positions	
6d	Pass all threat information to AMC if applicable	
7	**Establish the ISOP's condition**	If not passed by AMC / OSC
7a	Speak to ISOP in order to determine if there are any injuries	
7b	Provide advice where able	

8	**Pre Recovery**	
8a	Pass relevant 15 line brief to the RVs and RESCORT	
8b	Direct ISOP to	
	i. Prepare signalling device	Only use on orders
	ii. Report any threats	
	iii. Vector the RVs if required	
	ADDITIONAL ITEMS/QUESTIONS	
	iv. Approach the RVs when directed	Follow their instructions
9	**Actions at the pick up point**	
9a	Direct RVs as required	
9b	Direct the ISOP to signal / delegate control of ISOP to the RVs	
9c	Act as FAC(A) if qualified	
9d	Be prepared to vector the RVs to a safe area if an immediate threat emerges	
10	Egress in accordance with the plan once the ISOP are on board the RVs	
11	Pass in-flight reports / updates to the AMC (if applicable)	
12	Monitor PR code usage (minimise compromise)	

7.13 ON SCENE COMMANDER RESPONSIBILITIES

Ser	Item	Remarks/Details
1	**Authentication**	
1a	Authenticate ISOP	
1b	Confirm the number of ISOP	
1c	Establish the order of communications (if there are multiple ISOP)	
2	**Location**	
2a	Locate through electronic and / or visual means	
2b	Develop ISOP visual signal plan	
2c	Note OA terrain description and elevation	
2d	Time to BINGO	
3	**Determine the condition of the ISOP**	
4	**Threat Suppression**	**(using either own weapons or directing those of others if able)**
4a	Locate OPFOR positions	

4b	Suppress immediate threats to the ISOP	
4c	Suppress threats that may affect recovery operations	
4d	Pass threat data to the AMC	
4e	Provide threat suppression if able	
5	Monitor PR code usage	
6	Pass all ISOP positions along with threats in the OA to appropriate C2 assets or AMC / RMC	

7.14 MISSION COORDINATOR RESPONSIBILITIES

Ser	Item	Remarks/Details
1	Designating the OSC	
2	Establishing communications among the recovery force elements in accordance with the COMPLAN	
3	Relaying threat warnings and other information affecting mission progress	
4	Requesting additional assets as required	
5	Ensuring recovery and support forces arrive at the right location to achieve the mission	
6	Manage logistic support for all assets	
7	Coordinate appropriate air space control means and fire support measures in the OA	
8	Update the PRTF and PRCC on mission progress	

7.15 AIRBORNE MISSION COORDINATOR RESPONSIBILITIES

Ser	Item	Remarks/Details
1	Update the PRCC as frequently as possible	
2	Coordinate for launch approval (if not already approved)	
3	Ensure ISOP are located and authenticated	
4	Coordinate the rendezvous of PRTF elements if required	

5	Request additional assets if required	
6	Coordinate PRTF communications	
7	Update the RMC en route to the OA	
8	Coordinate the flow of PRTF assets to / from the OA	
9	Monitor PR effort – provide coordination and assistance as required	
10	Update the PRTF and PRCC on mission progress, threats and weather conditions	
11	Coordinate for execute approval (if not already approved)	
12	Monitor PR code usage	

7.16 RECOVERY VEHICLE RESPONSIBILITIES

Ser	Item	Remarks/Details
1	Rendezvous with RESCORT, receive brief from the RMC (if unable to plan / brief together), hold at the rendezvous until the execute order is given	
2	**Route**	
2a	Transit, as appropriate for terrain masking and threat avoidance, along the briefed route	
2b	Make checkpoint calls to the RESCORT as applicable	
2c	Use bearing and range calls to / from checkpoints in order to assist the RESCORT in maintaining contact	
2d	Update the 15-Line brief prior to locating the ISOP	
3	**En-route threat suppression**	
3a	Call threats by type, with range and bearing from the aircraft / reference point	
3b	Use own weapons systems if applicable	
3c	RMC will make the decision to continue, change route, or abort	
4	**ISOP recovery**	
4a	Update the PRTF with the location of the ISOP within the OA	

4b	Update the PRTF with latest authentication data	
4c	Establish comms with the ISOP if able	
4d	Call threats by type, with range and bearing from the aircraft / reference point	
4e	Provide threat suppression if able	
4f	Ask for appropriate signalling from the ISOP	
4g	Keep RESCORT updated regarding recovery progress	
4h	Call landing, the 30 seconds prior to lift call, and heading for take-off	

7.17 AIRBORNE MISSION COORDINATOR CHECKLIST

Ser	Item	Remarks/Details
1	Isolating event reported by	
2	Call sign of ISOP	
3	Accompanying aircraft call sign (if applicable)	
4	OSC call sign	
4a	OSC fuel stste	
4b	OSC load out	
5	Isolated aircraft type (if applicable)	
6	Location of isolated aircraft (actual / last known / estimated)	
7	Time of isolation	
8	Cause of crash (if known / applicable)	
9	Bailout location (if applicable)	
10	Number of parachutes seen (if applicable)	
10a	Seen by	
11	Bailout altitude / winds (if applicable)	
12	Number of isolated personnel	
12a	Reported by	
12b	ISOP location	
12c	ISOP condition	
12d	Last voice comms	
12e	Radio frequency	
13	Situation (threat in area)	
14	Authenticate ISOP (and means used)	
14a	PR Colour	
14b	PR Word	
14c	PR Letter	

14d	PR Number	
15	Pass information method information to PRCC and RMC	

7.18 RESCORT RESPONSIBILITIES

1. The RESCORT assists RV, ground forces and maritime vehicles locating, authenticating and recovering ISOP. The RESCORT may function as the RMC if designated by the PRCC. The following are RESCORT responsibilities during a PR mission:

Ser	Item	Remarks/Details
1	**Route (flight, ground, or maritime)**	
1a	Fly RESCORT as directed by the RMC, or as required by the threat	
1b	Use sensors for threat assessment and to update PRTF position to the AMC (if required)	
2	**En-route suppression**	
2a	Determine the level of adversary activity and suppress surface threats to, from, and within the OA	
2b	Call all threats by type using bearing and range from the PRTF until the threat is suppressed	
	i. If there is a threat to the PRTF immediately vector RVs to avoid the threat and then suppress when clear to do so	
	ii. If the threat cannot be suppressed, determine if the route can be changed and coordinate with the AMC / RMC for additional support if required	
	iii. Vector the PRTF around threats where able	
3	**Pick-up Point**	
3a	Locate and authenticate the ISOP (if required)	
3b	Provide RESCORT oversight in order to secure the OA	
3c	When secure, continue to provide over watch and security during the recovery	
4	**Monitor PR code usage**	

CHAPTER 8 FORMATION FLIGHTS AND RESCORT PATTERNS

8.1 ROTARY WING RESCORT

The primary recovery and extraction asset in most PRTFs is a helicopter; because helicopters operate at low-altitude, navigational assistance and suppression of enemy defences is vital. A typical RESCORT mission involves the steps listed in Figure 8.1. Successful RESCORT requires close coordination between all participants.

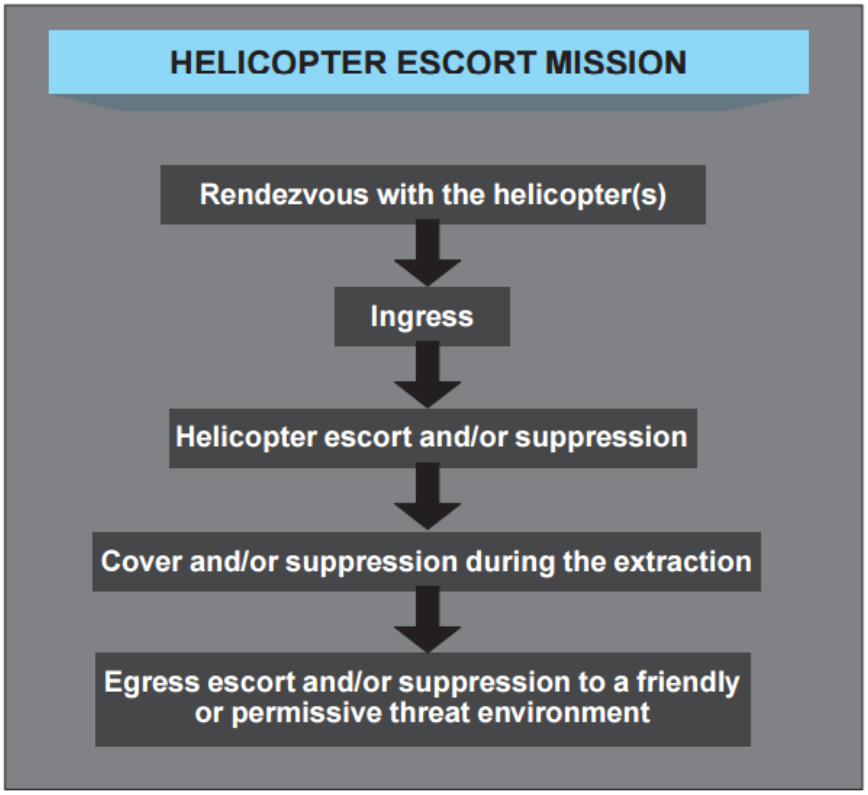

Figure 8.1 Helicopter Rescue Mission

8.2 GENERAL RESCORT CONCEPTS

1. Rotary wing aircraft assigned RESCORT responsibilities should be capable of providing the rescue helicopter with communications relay and suppressive fire support. RESCORT pilots should be specifically trained for PRTF operations. The RESCORT and other elements of the PRTF should operate under the tactical control of an Airborne Mission Commander, however the recovery asset and other elements of the PRTF contingent should be transferred to the tactical control of the RESCORT commander or OSC at a predetermined point near the objective area. RESCORT aircraft should have the ability to sweep an ingress route and rendezvous with the

escorted asset in the event of a route change or other action.

2. RESCORT aircraft should also be able to respond quickly to all threats in the vicinity of the LZ and deliver accurate suppressive fire while recovery assets are in the extraction phase of the mission. Coverage should continue through egress until recovery aircraft reach a friendly or permissive threat environment. If a recovery force is engaged, the primary emphasis should be to disengage with minimum damage or loss. After the initial evasive break, the recovery helicopters should disperse, using terrain-masking techniques, and evade away from the threat while attempting to maintain flight integrity.

8.3 RESCORT RESPONSIBILITIES

1. RESCORT tactics, routing, potential threat encounters, and countermeasures should be understood by all participants. RESCORT briefings are mandatory and should include rendezvous points, communications, navigation points, number of helicopters, LZ positions, and code words. The number and type of RESCORT aircraft may determine the success of a PRTF operation.

2. The recovery helicopters can augment RESCORT suppressive fire by employing their on board weapons. Recovery helicopter gunners must be thoroughly briefed on weapons conditions and the RESCORT location. Gunners should not engage targets beyond the RESCORT aircraft due to the probability of placing the RESCORT in a crossfire situation.

8.4 TYPICAL RESCORT TASKS

It may include:

a. Suppressing surface threats to, from, and within the objective area.

b. Assisting recovery helicopters in locating and authenticating isolated personnel.

c. Functioning as the OSC when designated and coordinating and controlling activities of supporting PRTF elements in the objective area.

8.5 RESCORT ORDNANCE DELIVERY

1. The recovery helicopter is vulnerable to threats ahead of its route of flight due to a lack of forward firing suppressive weapons. Helicopters are also extremely vulnerable to friendly fire. Strafe fans and bomb fragmentation patterns must be determined before employing ordnance near the helicopter. PRTF members should coordinate on engagement distances from the helicopter. One method to ensure deconfliction is for the helicopter to call the direction of break away from the engaging threat (e.g. “Rescue lead, breaking right, small arms”).

2. If a recovery force is engaged, the primary emphasis should be to disengage with minimum damage or loss. After the initial evasive break, the recovery helicopters should disperse, using terrain-masking techniques, and evade away from the threat while attempting to maintain flight integrity. As the recovery helicopters execute their evasive manoeuvres, RESCORT should manoeuvre to engage the threat. If practical, a RESCORT element should continue to escort the recovery helicopters during evasive manoeuvres until the recovery force is clear of known threats. When the recovery force is out of the threat envelope, RESCORT should disengage and rendezvous with the recovery force.

8.6 TYPES OF RESCORT

Several escort methods may be used during the en route phase, but the tactics used will depend on factors such as speed, altitude, distance, fuel, level of threat (low, medium, and high), weather conditions, terrain, and whether day or night operations are planned. Escort can be either attached or detached, advantages and disadvantages are shown in Figure 8.2.

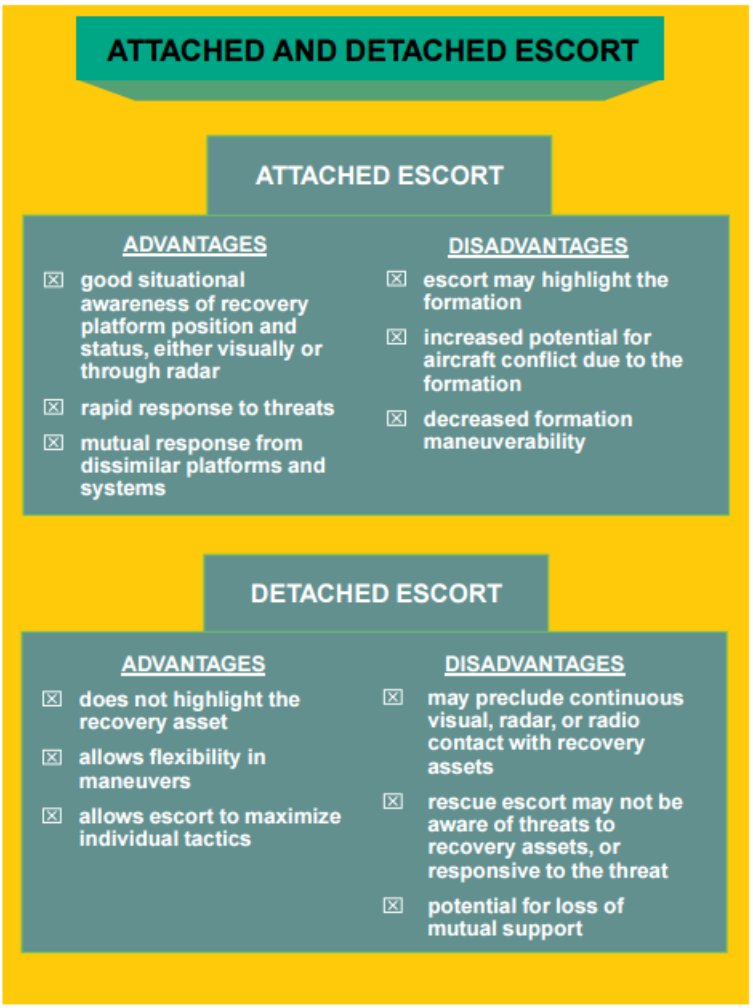

Figure 8.2 RESCORT advantages/disadvantages

8.7 ATTACHED ESCORT

This method allows continuous visual or radar contact of the recovery platform.

8.8 DETACHED ESCORT

This method includes route reconnaissance ahead of the recovery assets, trail escort, and proximity escort. Detached escort requires knowledge of routes and planned timing or position calls. Responsibilities include:

a. **Route Reconnaissance**: Route reconnaissance and sanitisation should be conducted when deemed necessary by any member of the PRTF. The AMC or OSC may conduct a search and direct a route sanitisation or change in routing. The RESCORT aircraft flies ahead of the recovery helicopter to suppress threats along the ingress route, or redirect recovery helicopters to avoid enemy activity. The RESCORT should detect and neutralise threats or direct a routing change. Route reconnaissance and sanitisation techniques should be thoroughly planned and briefed.

b. **Trail Escort**: Trail escort employs RESCORT in a rear quadrant following the recovery helicopter route. As the recovery aircraft progresses along the ingress route, the escort force follows. The RESCORT aircraft maintains course position by a series of turns at low altitude or orbits at high altitude. Low-altitude escort should be low enough to avoid detection and engagement while maintaining the advantage of surprise against air and ground threats. In trail escort, the recovery helicopter and RESCORT must maintain situational awareness and communications capabilities to ensure flight and weapons safety. This should be done by using established orbit points and definitive transition points to ensure adequate vertical and horizontal airspace deconfliction. Situational awareness can be further enhanced by succinct communications and code word procedural guidance. Trail escort provides flexibility for escorting a recovery helicopter already en route. The only requirement is that the RESCORT and recovery asset both know the initial or rendezvous point. This should be a prominent geographic landmark or reference, grid coordinates, or a latitude and longitude position.

8.9 HELICOPTER GUNSHIP RESCORT

Armament, speed, range, and defensive countermeasure systems are critical factors in the assignment of a RESCORT mission. Armed helicopters are highly maneuverable, provide suppressive fire capability, provide minimum detection and possess good objective area endurance time, however the most critical limitation is its lack of airspeed; this is essential to effect RESCORT operations. Utility and assault helicopter airspeeds may be greatly degraded depending on configuration. Fully

configured, the armed helicopter may be unable to maintain airspeed parity with escorted helicopters of the same type. When combined with an attack helicopter as a RESCORT element, the armed helicopter may have a detrimental effect on total RESCORT capability. The advantages and disadvantages of helicopter rescue escort assets are listed in Figure 8.3.

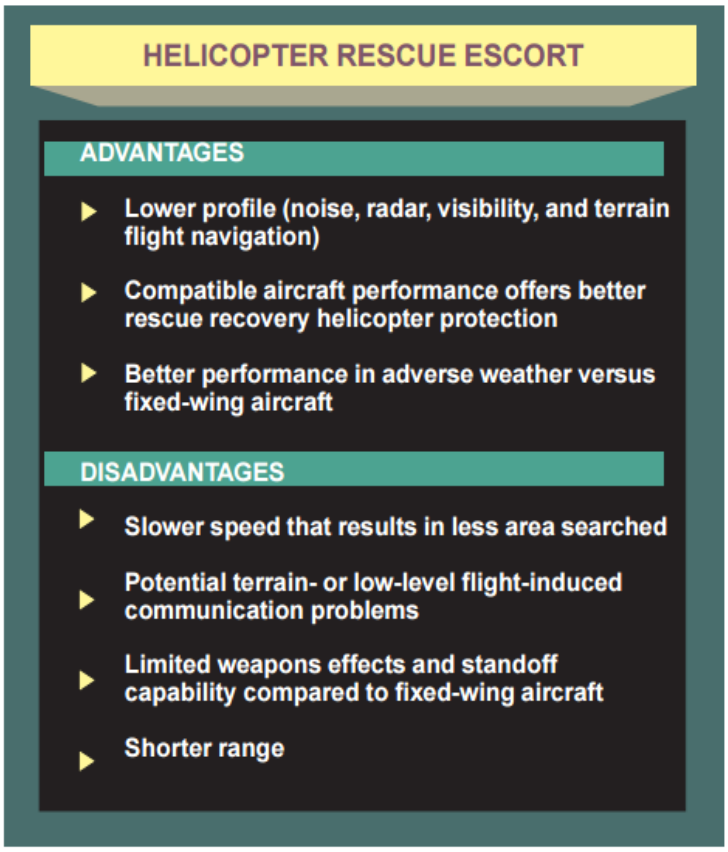

Figure 8.3 Helicopter RESCORT

8.10 HELICOPTER RESCORT TACTICS

Recovery formations may be escorted by attack helicopters. Attack helicopter formations should adjust their speed and altitude, and should use terrain masking to avoid visual or electronic detection. All RESCORT formation positions are derivations of the basic box pattern which provides 360 degrees of weapons overlap coverage. This is a viable formation in a permissive environment, a terrain flight regime, or over flat, open areas. Nearly all patterns are derived from the basic box pattern.

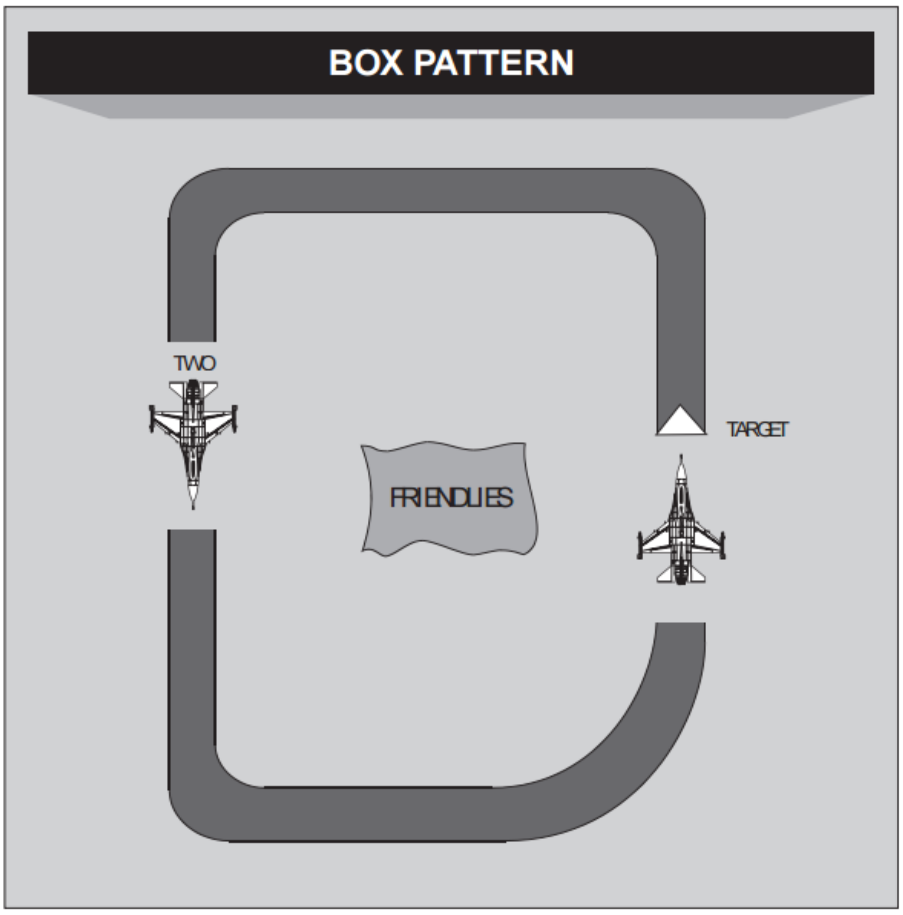

Figure 8.4 Box Pattern

8.11 RESCORT PATTERNS AND PROCEDURES

8.12 DAISY CHAIN

The primary RESCORT pattern used either during the day or at night with NVDs should be the Daisy Chain. The two- or three-ship Daisy Chain pattern but may be unsuitable for fast moving aircraft. The Daisy Chain is essentially a wheel pattern applied to a moving target (See Figure 8.5.)

8.13 ADVANTAGES OF THE DAISY CHAIN.

a. Navigation is easier because RESCORT flight path parallels and then crosses the recovery helicopter's flight path.

b. Maintaining visual contact with the recovery helicopter is easier because it is at the centre of the moving wheel.

c. The RESCORT aircraft maintain sight of the recovery helicopter.

d. The RESCORT aircraft never aim forward-firing munitions through the helicopter's position.

e. Transition to hover cover for the extraction and back to the Daisy Chain for egress is relatively simple.

f. Adjustment of a RESCORT turn for weapons employment is easier when the recovery helicopter breaks away from threat if engaged.

8.14 DISADVANTAGE OF THE DAISY CHAIN.

a. Continuous RESCORT coverage is difficult to maintain.

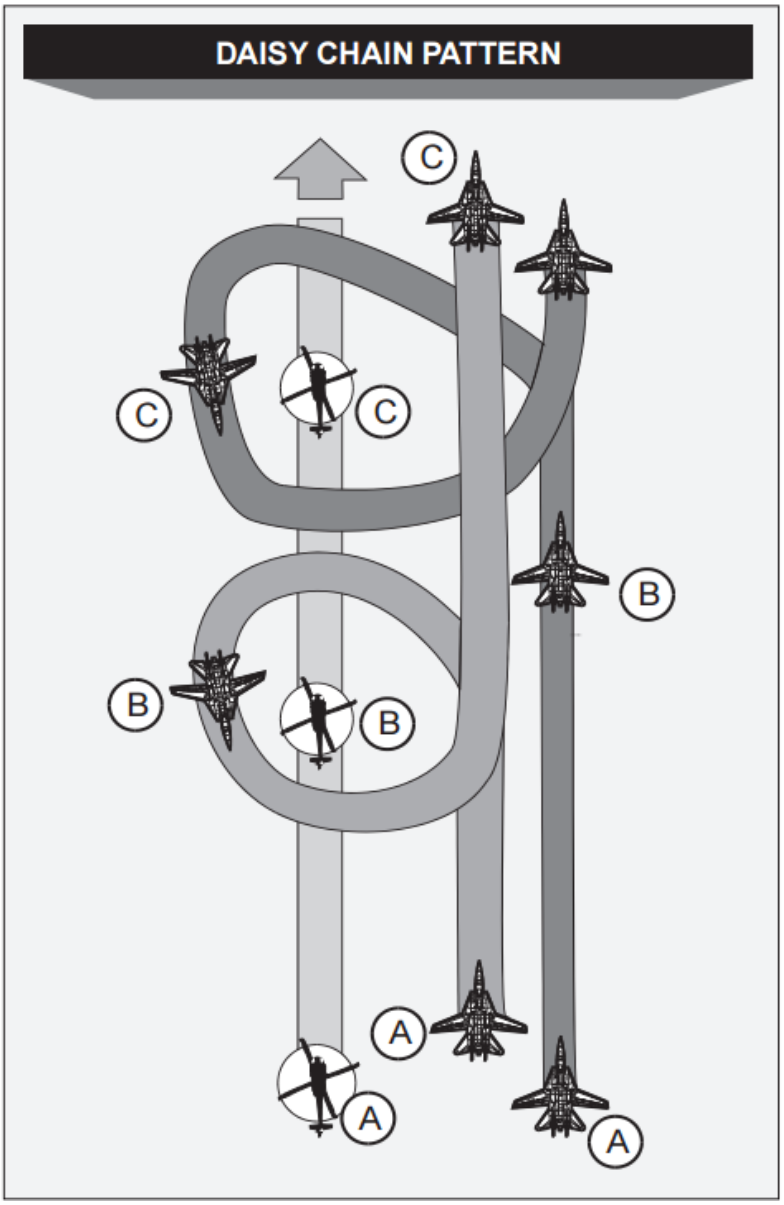

Figure 8.5 Daisy Chain Pattern

8.15 S-WEAVE PATTERN

The S-Weave represents a second choice for RESCORT with two aircraft (See Figure 8.6). The geometry of the pattern makes navigation and helicopter protection more difficult than the Daisy Chain. The flight has the option to have both aircraft weave behind the rescue vehicle. The speed of the helicopter determines the angle to cut across the helicopter's route of flight.

8.16 ADVANTAGE OF THE S-WEAVE

a. Good 6 o'clock and side coverage of the recovery helicopter.

8.17 DISADVANTAGES OF THE S-WEAVE

a. It is a difficult formation to re-establish if the helicopter breaks due to threat engagement.

b. It is difficult to transition into or out of hover cover.

c. RESCORT pilot tasking is extremely high.

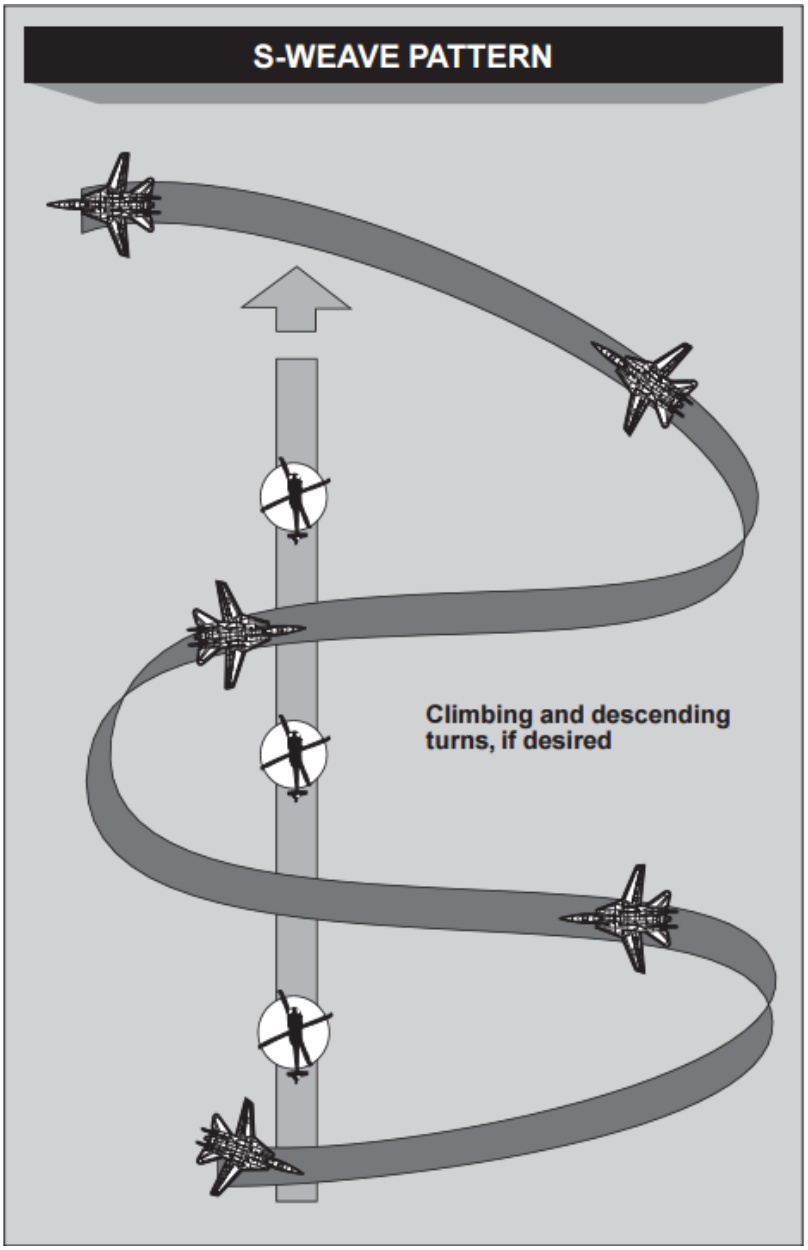

Figure 8.6 S Weave Pattern

8.18 FIGURE EIGHT PATTERN

The Figure Eight pattern is designed for 360 degree attack capability. Although providing good mutual support, this pattern requires slower than optimum airspeeds for fixed wing escort aircraft. The pattern is designed to allow the helicopters to proceed in front of the RESCORT following each firing pass. If the escort aircraft find themselves in front of the helicopters, either because of the helicopter airspeed or a desire by the RESCORT to increase their airspeed, a series of cross-turns can be used to reposition the RESCORT flight in trail.

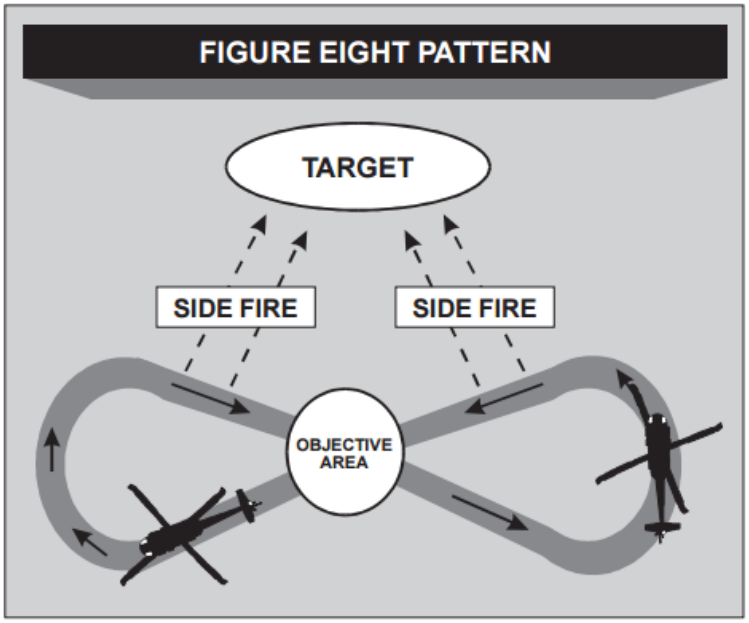

Figure 8.7 Figure Eight Pattern

8.19 RACETRACK PATTERN

The Racetrack pattern is designed for higher airspeed RESCORT. This formation requires more coordination and response time to position suppression aircraft than the Figure Eight pattern. The Racetrack pattern can be oriented and flown parallel or perpendicular to the recovery platform's axis of advance. If flown perpendicular, RESCORT will trail the helicopter and can minimize time spent out of weapon's engagement position by ensuring that one RESCORT is always pointed towards the helicopter's route (See Figure 8.8).

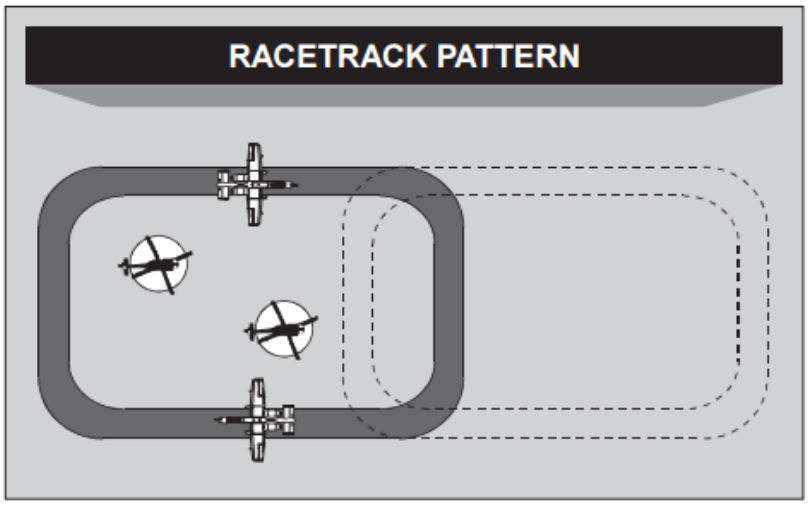

Figure 8.8 Racetrack Pattern

CHAPTER 9 COMMUNICATIONS

9.1 GENERAL

Communications play a major role in PR missions to prepare, plan, execute and coordinate PR operations at and between tactical and operational level. Joint and component communications planning should contain potential PR requirements, to include component communications interoperability, including air-to-air, air-to-surface, surface to surface, or subsurface. PR communications should be rapid, reliable, secure, redundant, and flexible. A combination of secure / non-secure commercial and landline, Satellite Communications (SATCOM)) radios and phones, Ultra High Frequency (UHF) / Very High Frequency (VHF) / High Frequency (HF) radios, collaborative tools and systems, and computer/network “chat” capabilities should be built into communications plans. These communications nodes should be dedicated and integrated systems in the JPRC, PRCCs, Unconventional Assisted Recovery Coordination Cell (UARCC), and other pertinent organizations, units and functions that should interact in real time to prosecute PR missions.

9.2 COMPLAN

The JFC or designated CC will publish a COMPLAN capable of supporting PR operations. The COMPLAN should cover the following, and will be detailed throughout this chapter:

a. JPRC / PRCC communication requirements.

b. Emergency / distress / PLS (which should comply with NATO Standardization Agreement (STANAG) 7007).

c. SATCOM nets, if available.

d. Codewords / Authentication. This section should include PR word / letter / number / colour, SARNEG code and duress word, if not already included into the SPINS.

e. Callsigns.

f. Messages.

g. Emission Control (EMCON) plan.

h. Anti-jam nets.

i. Radio relay.

j. Identification Friend or Foe (IFF), to include procedures for non-IFF aircraft.

k. PRTF frequencies including as a minimum:

(1) Isolated personnel to / from EF.

(2) Ground to Ground Frequencies.

(3) EF to / from C^2 platform.

(4) C^2 platform to / from JPRC / PRCC.

(5) EF to / from JPRC / PRCC (ground communications).

(6) PRTF to JPRC / PRCC (if PRTF is ground forces unit).

(7) PRTF intra-flight / internal frequencies.

9.3 RADIO COMMUNICATIONS

Whenever appropriate, secure communications have to be applied all the time. Brevity communications will be used to the maximum extent possible. When using non secure communications, code words and procedures will be used, such as Numerical Encryption Grid (RAMROD), SARNEG, SARDOT, bulls eye, duress.

9.4 BREVITY WORDS

To shorten communications, increase effectiveness and prevent ambiguity North Atlantic Treaty Organization (NATO) approved brevity as published in APP-7 should be used. These brevity words can be used in planning or executing a PR mission. An excerpt of most frequently used brevity words can be found in Annex L.

9.5 LOCAL AUTHENTICATION CODES

Some remotely deployed tactical units may not be able to access or safely store and disseminate the PR information contained into the SPINS. They may have to create their own authentication and evade and escape procedures. This information will have to be locally documented and forwarded to the appropriate PRCC. Should an isolating event occur, this information, combined with the ISOPREP, will be readily available to the recovery planners and forces at the JPRC and PRCC. It is imperative that the PR codes current at the time of the incident are “frozen” for all PR efforts associated with that incident (authentication data, code words, SARDOT, SARNEG, etc.)

ANNEX A HELO OPS SET-UP CHECKLIST

1. Make inventory of available national assets and characteristics.

3. Review location and back-up procedures for communications with JPRC / PRCC.

4. Brief supporting personnel on their duties.

5. Develop quick reference list of key personnel and phone numbers (i.e. JPRC / PRCC; DetCo's; Wing Ops Centre (WOC); Multinational Logistics Centre (MNLC), maintenance chiefs etc.).

6. Establish procedures for after duty hour notification.

7. Collect all ISOPREP and EPA data [1] of the crews participating in the operation / exercise and centralize their storage.

8. Check radio equipment:
   a. Conduct familiarisation training for ops personnel
   b. Set-up secondary / mobility radios as required
   c. Develop and review frequency list and sweep
   d. Coordinate communication procedures with available facilities

9. Develop and display two wall charts:
   a. Assets board & maintenance status
   b. Incident / mission table

10. Draw and post the planning map with:
   a. Universal Transversal Mercator (UTM) designator letters
   b. Low level routes
   c. Spider points
   d. Tactical / Designated Areas of Recovery (DARs) / FARP areas
   e. Orbits / refuelling tracks
   f. Reference points (SARDOT)
   g. Recovery resource locations (with type and numbers)
   h. FLOT and Forward Edge of the Battle Area (FEBA) when applicable
   i. Known OPFOR threats (received from intel)
   j. Transload locations

[1] This may need to be re-accomplished once a month.

k. HCP /waypoints

l. Fire support coordination line

m. Field hospitals

n. OPFOR / friendly forces

o. Airspace Control Measures (ACM)

p. Current as of Date / Time Group (DTG)

11. Analyze the ATO for active operations areas (this analysis will be a major factor in determining if follow-on activity is needed).

12. Separate the ATO package into general SPINS, PR SPINS and PR tasked missions.

13. Set-up mission folders and miscellaneous worksheets.

14. Set-up two message folders (incoming and outgoing). Divide the folders into classified and unclassified sections, with log sheets.

15. Start, set-up procedures for maintaining a 24hr events log.

16. Develop a work schedule.

17. As needed, review:

a. Authentication / encryption / decryption procedures

b. Plotting of UTM / Geographical Reference (GEOREF) coordinates

c. Plotting of Tactical Air Navigation (TACAN) radials and Distance Measuring Equipment (DME) (SARDOT/Bullseye)

d. ATO / SPINS format and procedures

18. Start a mission log.

ANNEX B CAPABILITIES & EQUIPMENT[2]

B.1 General

All PR platforms should have compatible communications. Recovery vehicles should be capable of:

a. Deploying recovery personnel and equipment.

b. Communicating with isolated personnel and PRTF.

c. Locating and transporting recovered isolated personnel.

B.2 Recovery vehicles

1. The recovery vehicles and their crews should be capable of operating as part of a PRTF in any given threat environment. In addition, an EF may be required in each recovery vehicles to extract the isolated personnel. The recovery vehicle and crew should be capable of (some of the following considerations only apply to helicopters):

   a. Carrying personnel and related equipment capable of extracting isolated personnel.

   b. Locating and authenticating the isolated personnel (e.g. operating a PLS, conforming to STANAG 7007).

   c. Executing a isolated personnel pick-up (potentially with a hoist) and transporting a litter-borne patient. Self protection (e.g. operating with chaff and flare equipment, armour plating, component redundancy and self-defence weaponry).

   d. Operating avionics, to include: precision navigation equipment, secure communications, IFF and a data-link system.

   e. Operating in poor weather / low light level night conditions with equipment such as: NVD and compatible lighting; IR devices and Terrain Avoidance System (TAS) with Obstacle Warning Capability (OWC).

2. In addition, it is highly desirable for recovery vehicles to have:

   a. An Air to Air Refuelling (AAR) / Helicopter Aerial Refuelling (HAR)

[2] See also asset sheet in Volume I, Annex C

capability.

b. An Altitude Hover Hold System (AHHS) and a Hover InfraRed Suppression System (HIRSS).

B.3 Extraction force

1. The EF must be trained and equipped to suit the mission, threat and environment of the Area Of Responsibility (AOR). The only essential equipment is self-protection and communication between the EF and the recovery vehicle. The skills and equipment presented here represent samples – not exhaustive lists – of the possible skills and equipment that **MAY** be required:

a. Small unit (infantry) tactics and procedures.

b. Insertion / extraction methods.

c. Landing techniques such as:

d. Fast-roping.

e. Rappelling.

f. Rope ladder.

g. Hoist operations.

h. Deploying into the water.

i. Survival, Evasion, Resistance and Extraction (SERE).

j. Rescue swimming.

k. Authentication procedures.

l. Intelligence Preparation of the Battlefield (IPB).

m. Fire support request.

n. Contact with the special or subsurface forces.

o. Contact with isolated person.

p. Interfacing with other special teams such as Army and Navy Special Forces for quick integration.

q. OSC procedures (EF leader is the OSC for ground operations).

r. Combat engineer

s. Mine clearing

t. Combat medic

2. The EF equipment to perform this mission **MAY** could include (but is not limited to):

a. Light weight infantry rifle.

b. Pistol.

c. Grenade launcher.

d. Sub-machinegun (if required).

e. Small calibre machine gun.

f. Combat optical gun sight (both day and night).

g. Combat optical gun sight reflex.

h. Binoculars.

i. NVD.

j. IR pointer.

k. GPS receiver.

l. Signalling devices.

m. Communication systems.

B.4 RESCORT

Ideally, aircraft tasked for RESCORT role should:

a. Be equipped with multiple (redundant) and secure radios.

b. Be equipped with stand off sensors (IR / optical pods) to locate the isolated personnel and to track the recovery vehicles.

c. Be equipped with interoperable data-link.

d. Have A / A self defence capability.

e. Be able to carry A / G weapons, mixed load capable.

f. Excellent low altitude performance (turn radius) and experienced in low altitude operations.

g. Long low altitude loiter time.

h. Accurate forward firing guns, rockets, and/or air-to-ground missiles.

i. An AAR / HAR capability.

j. An AHHS and a HIRSS.

k. Be Forward Air Controller (Airborne) (FAC-A) qualified.

l. Be quickdraw equipped and trained.

m. Be able to Locate and authenticate the isolated personnel (e.g. operating a PLS)

B.5 FW or RW RMC

Ideally, FW or RW aircraft tasked for RMC role should:

a. Be equipped with multiple (redundant) and secure radios.

b. Be equipped with stand off sensors (IR / optical pods) to locate the isolated personnel and to track the recovery vehicles.

c. Be equipped with interoperable data-link.

d. Have A / A self defence capability.

e. Be able to carry A / G weapons, mixed load capable.

f. Excellent low altitude performance (turn radius) and experienced in low altitude operations.

g. Long low altitude loiter time.

h. Accurate forward firing guns, rockets, and/or air-to-ground missiles.

i. Quickdraw equipped and trained

j. Forward Air Controller (FAC)-A qualified and well trained in Close Air Support (CAS) procedures

ANNEX C TO
APRP-3.3.7.7 - Vol. II

ANNEX C PR REPORT FORMATS

C.1 PRIR

Obtain the following information and pass it to JPRC / PRCC as it becomes available

Part 1ALL USERS		
1	Report	
1a		DTG This report
1b		DTG Initial report (STAFF ONLY)
2	Reporter	
2a		Callsign / name
2b		Name unit
2c		Comms with reporter
2d		PR capabilities
3		Incident
3a		DTG of incident
3b		Location of incident
3c		Cause of incident
4		ISOP
4a		Callsign / name
4b		Name unit
4c		Comms with ISOP
4d		# ISOPs
4e		Nationality
4f		Status of isops (injury)
4g		Authentication (yes/no/how)
5		Threat in the area
5a		Opposing forces
5b		Civilians in the area
5c		Hazards
5d		Terrain
5e		Weather
6		Remarks
6a		Possible pick-up location
6b		Suggested approach direction FROM
6c		ISOP marking method
6d		Recovery equipment required
6e		Medical assistance required (yes/no/what)

Part 1ALL USERS		
6f		Other remarks
PART 2 STAFF ONLY		
7	ISOP	
7a		ISOPREP(s) available
7b		EPA(s) available
8	ROZ	
8a		Established (yes/no)
8b		Dimensions (centre, Radius, altitude)
8c		Until when (DTG)
9	OSC	
9a		OSC Callsign / name
9b		Bingo time (DTG)
9c		Comms with OSC
10	Recovery force	
10a		OCC Callsign / name
10b		Name unit
10c		Location
10d		Comms with RMC
11	Recovery mission	
11a		Launch approval (DTG)
11b		Execute approval (DTG)
11c		Reintegration activated
11d		ETA Pick-up
11e		ETA drop-off ISOPs
11f		Location drop-off ISOPs
11g		SNR(s) informed (yes/no)
12		Miscellaneous

C.2 PR mission message

Once the RMC has completed the planning the RMC should provide the JPRC / PRCC relevant information of the plan through the PR mission message.

a. Unit / Point Of Contact (POC)

b. Isolated personnel

(1) Callsign

(2) Location

(3) Number of isolated personnel

c. Routing

d. Threat assessment

(1) Ingress route

(2) Isolated personnel location (area description)

(3) Egress route

e. PRTF mission package

f. Additional support requirements

g. Launch location

h. Launch weather

i. Estimate Time En-route (ETE) to isolated personnel

j. Ingress weather

k. AAR / HAR track / FARP location

l. Estimated Time of Arrival (ETA) isolated personnel location (DTG)

m. Weather at isolated personnel location

n. Estimate time on station

o. Isolated personnel transload/recovery base

p. Re-entry location friendly territory

(1) Re-entry time (DTG)

(2) Re-entry altitude (ft acsamsl / acsagl)

(3) Re-entry heading (degrees)

q. ETA transload/recovery base (DTG)

r. Recovery base weather

s. Estimated mission complete time (DTG)

t. Commander assessment

u. Rules of Engagements (ROEs)

v. Go / no go

C.3 15-line pick-up brief[3]

1. Callsign.
2. Number of isolated personnel.
3. Isolated personnel's location (secure), source and date/time stamp.
4. Isolated personnel's condition.
   a. Ambulatory.
   b. Not ambulatory/not critical.
   c. Critical.
   d. Dead.
5. Equipment (comm/signal).
6. Authentication complete? Y/N, method.
7. Threats.
8. Elevation of object location.
9. Description of object location.
10. IP.
11. Routing:
    a. Ingress.
    b. Egress.
12. Ordnance.
13. RESCORT tactics.
14. Recovery tactics.
15. Comm/signal procedures.

[3] Line 1 to 9 are minimum information.

C.4 Explanation

1. Callsign(s): Give the complete Callsign(s) of the concerned crewmember(s).

2. Number of isolated personnel: Ideally, this number will correspond to the number of call signs. However, if call signs are unknown or are incomplete, knowing the number of isolated personnel will help recovery forces.

3. Location(s): The location of each isolated personnel in Lat / Long, UTM / MGRS grid, or range and bearing to a known point (SARDOT, waypoint, etc.). Provide the coordinates / range and bearing in the original format as received from the source (HOOK 112 GPS coordinates, accompanying aircraft over flight, etc.). Also provide the source of the location by circling the appropriate descriptor (GPS, Map, Flyover, Other) and the date / time stamp or code of that location. For example, if an aircraft flew over the isolated personnel and recorded the position, circle flyover and include the Zulu date / time of this location or code (e.g. 281403Z or Location B). If given GPS coordinates from the isolated person, circle GPS. The source of information can be critical when loading into navigation systems due to the different datum and navigation system defaults. Having the information in its original format will limit errors induced by various conversions that are handed down from one controlling agency to another.

4. Isolated personnel condition: Most important is can they walk or not? Answer YES or NO. This will assist the recovery vehicle in determining the amount of time the ground team will need. If time permits, provide additional information concerning the type and extent of injuries.

5. Equipment (Comm / signal): Coordinate the following for the isolated personnel area: the passing of specific OSC duties from RESCORT to the recovery vehicle and back, who has control of the isolated person frequency, and who is responsible for coordinating isolated personnel signalling and when. Provide the recovery vehicle with the signalling devices available to the isolated person.

6. Authentication completed? YES or NO and how the authentication was accomplished (ISOPREP data, letter of the day, etc.). Inform recovery forces of authentication information previously used and compromised, to include ISOPREP data, PR word, letter, or number of the day.

7. Threats: Threats that will affect the recovery vehicle or RESCORT. Include OPFOR foot soldiers, tanks / armoured vehicles, known or suspected chemical / radiation hazards, AAA, Surface to Air Missiles (SAMs), etc. Include enroute threats during ingress and egress if known.

8. Elevation: Provide the MSL altitude (or nearest 1000 ft) of the isolated personnel location if known. Elevation is critical above 4000 ft AMSL and / or surface air temperature is 25 degrees Celsius or greater. These factors are used for calculating the recovery vehicle’s power available and power required for various hover heights.

9. Description of isolated personnel area: Some possible descriptors: flat, rocky, hilly, sloped, 80-foot trees, valley, and ridgeline. For example, “ZORBA 01B is on the south slope of an east / west running ridgeline halfway up in rocky terrain”.

10. IP: IP to be used.

11. Routing

a. Ingress Route: Provide the ingress route for the recovery vehicle to the actual isolated personnel location from the IP.

b. Egress route: Provide an egress route from the isolated person location to a planned exit point, FEBA / FLOT crossing, etc. Ingress / egress routes should avoid threat exposure to the recovery vehicles. Use spider points / routes if available.

12. RESCORT ordnance available: List and describe all available ordnance and quantity per RESCORT aircraft type.

13. RESCORT tactics: Describe patterns of both attached and detached RESCORT. Also describe pre-planned reaction against encountered threats, type and location, along the Rescue track.

14. Rescue tactics: Describe the recovery vehicles type of progression (speed, height, etc.) related to the position on the track. Announce the type of recovery to be performed (landing, hoist, etc.). Also describe the final options for all the recovery vehicles (landing, hover for protection, split to recover a distant isolated person, etc.).

15. Comm / Signal procedures: Remind the main Codewords, frequencies, check and isolated personnel recovery procedures to be used.

16. Additional Items / Questions: Any other business if deemed necessary.

ANNEX D AMC RESPONSIBILITIES CHECKLIST

D.1 AMC responsibilities

1. Update JPRC / PRCC as frequent as possible.

2. Update RMC enroute to the OA.

3. Coordinate rendezvous of the PRTF / recovery forces.

4. Request additional assets as required.

5. Coordinate PRTF / recovery forces communications connectivity.

6. Coordinate flow of PRTF assets / recovery forces to and from the objective area.

7. Coordinate asset re-fuelling including AAR / HAR, surface locations including maritime, land vehicle refuel points and FARPs.

8. Monitor PR effort; provide coordination and assistance as required.

9. Update mission progress, threats and weather conditions to the PRTF / recovery forces and the JPRC.

10. Coordinate and obtain launch approval.

11. Coordinate and obtain execute approval.

12. Monitor PR code usage.

D.2 AMC checklist

Notified by		
Callsign		
Accompanying A/C / vehicle callsign		
Aircraft / vehicle type		
Persons On Board (POB)		
Location		
Actual/last known/estimated Time		
Cause of crash (if known)		
Bailout location (if applicable)		
Number of chutes seen (if applicable)	seen by	
Bailout altitude/winds (if applicable)	ft.	kts.
Number of isolated personnel	reported by	

Crew position		
Location		
Condition		
Last voice contact		
Frequency		
Situation (threat in area)		

1. Authenticate survivor (and means used):

PR colour	
PR word	
PR letter	
PR number	

2. Pass authentication info to JPRC / PRCC.

ANNEX E OSC RESPONSIBILITIES CHECKLIST

1. Authentication:

   a. Authenticate isolated personnel (PR SPINS authenticators, etc.).

   b. Confirm number of isolated personnel.

   c. Establish order of communications (multiple isolated personnel).

   d. Determine physical / psychological condition of isolated personnel.

   e. Determine / confirm OPFOR threat and local activity.

2. Location:

   a. Locate through electronic and / or visual means.

   b. Develop isolated personnel visual signal plan.

   c. Note PUZ terrain description, elevation.

3. Threat suppression:

   a. Suppress immediate threats to the isolated person.

   b. Suppress threats that may affect recovery operations.

   c. Locate OPFOR positions.

   d. Pass all threat data to AMC.

4. Monitor PR code usage.

5. Pass all ISOP location information along with threats in OA to appropriate C2 asset via most secure means possible including SARNEG.

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ANNEX F RMC RESPONSIBILITIES CHECKLIST

1. Achieve OSC handover / approval.

2. Receive PRTF status brief from AMC.

3. Authentication:

   a. Authenticate isolated personnel (ISOPREP, etc.) (Note: If RMC assumes OSC from previous OSC who has previously authenticated isolated person(s), use judgement whether re-authenticating the isolated person(s) is necessary. Reauthenticating unnecessarily may needlessly burn ISOPREP or PR codes data that may be critical in a long term survival situation that spans several ATO days.).

   b. Confirm number of isolated personnel.

   c. Establish order of communications (multiple isolated personnel).

   d. Determine physical / psychological condition of isolated personnel.

   e. Determine / confirm OPFOR threat and local activity.

4. Location:

   a. Locate through electronic and / or visual means.

   b. Develop isolated personnel visual signal plan.

   c. Note PUZ terrain description, elevation.

5. Threat suppression:

   a. Suppress immediate threats to the isolated person.

   b. Suppress threats that may affect recovery operations.

   c. Locate OPFOR positions.

   d. Pass all threat data to AMC.

6. Isolated personnel condition:

   a. Query isolated personnel as to their general health.

   b. Direct isolated personnel to assess all survivors for external and internal

injuries.

c. If injured, provide isolated personnel with medical care as required.

d. Encourage isolated person(s) to hydrate.

7. Pre-recovery:

a. Pass 15-line brief to recovery vehicles, RESCORT (see Annex C).

b. Direct isolated personnel to:

(1) Prepare signalling devices but to use them only as briefed or when directed by authenticated PR forces.

(2) Report threats.

(3) Vector recovery vehicles.

(4) Approach recovery vehicles when directed and follow their instructions.

8. Actions at PUZ:

a. Direct recovery vehicles as required to proceed from the IP to PUZ.

b. Direct isolated personnel signalling, or delegate isolated personnel control to the recovery vehicles.

c. If required and qualified, act as FAC-As for RESCORT overhead.

d. Be prepared to vector recovery vehicles to safe area if immediate threat occurs.

9. Egress i.a.w. plan once isolated personnel are on board the recovery vehicles.

10. Pass in flight report to AMC.

11. Monitor PR code usage.

.

ANNEX G RESCORT RESPONSIBILITIES CHECKLIST

1. Route:

   a. Fly detached or attached RESCORT pattern as dictated by RMC or as required by threat.

   b. Use sensors for threat assessment and to update recovery vehicles position.

2. En-route suppression:

   a. Call all threats by type using bearing and range from recovery vehicles or spider point until suppression of threat.

   b. No threat to recovery vehicles: hold or vector recovery vehicles to last known safe spider point.

   c. Threat to recovery vehicles: immediately vector recovery vehicles to avoid threat and then suppress when recovery vehicles is clear.

   d. If threat cannot be suppressed, determine if route can be changed.

3. Pick up zone:

   a. Attached and detached RESCORT secure the OA.

   b. When secure, continue to provide overwatch and security.

4. Monitor PR code usage.

5. Egress i.a.w. plan once isolated personnel are on board the recovery vehicles.

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ANNEX H RECOVERY VEHICLE RESPONSIBILITIES CHECKLIST

1. Rendezvous at RV with RESCORT, receive brief from RMC when unable to plan and brief together and hold at RV until reception of execute order.

2. Route:

   a. Transit as appropriate for terrain masking and threat avoidance along the briefed spider points.

   b. Make checkpoint calls to RESCORT as applicable.

   c. Use bearing and range calls to or from checkpoints to assist RESCORT in maintaining contact if applicable. Use aircraft lighting as last resort.

   d. Complete 15-line brief before leaving RV.

3. En-route threat suppression:

   a. Call threats by type with bearing and range from aircraft, checkpoint or geographical reference. PRTF members should use typical “avoid-suppress-kill” threat prioritisation procedures. Return to last safe checkpoint and hold.

   b. Make checkpoint calls to RESCORT.

   c. RMC will make decision to continue, change route or abort.

4. ISOP recovery:

   a. Update the EF or personnel manning weapon systems on threat avenues of approach and isolated personnel location in the OA.

   b. Update authentication data with recovery team.

   c. Switch frequency to isolated personnel when directed.

   d. Make threat calls as bearing and range from aircraft, or geographical reference.

   e. Provide threat suppression.

   f. Ask for appropriate signalling from isolated personnel.

   g. Keep RESCORT updated on ISOP recovery process.

h. Call landing, 30 seconds code word and heading for take-off (helicopter operations).

ANNEX I RMC MISSION BRIEFING FORMAT

All elements to be taken from standing orders (SPINS, COMPLAN, Airspace Control Order (ACO), ATO, etc.) where applicable.

I.1 General

The Personnel Recovery Mission Brief (PMB) is the PRTF core elements' briefing conducted by the RMC, in which supporting staff and all involved mission elements brief their part of the PR mission. The PMB contains the plan of the recovery vehicles commander, RESCORT commander and EF commander. After the PMB all details regarding the tasked mission should be clear to all mission elements.

I.2 Mission elements

1. AMC
2. OSC
3. RMC
4. RESCORT commander
5. Recovery vehicles commander
6. Extraction forces commander
7. Intel

I.3 Preparation

Supporting Staff and all involved mission elements must have their part of the PMB ready, including overlays and sketches. There must be a map 1:100.000 of the operation area and a map 1:50.000 of the objective area. The PUZ, when known, will be briefed by using a large-scale sketch and/or photo of the area.

I.4 Briefing format

1. **Slide 1**: PRTF mission (RMC)
    a. Roll call
    b. Time hack

c. References (versions of):

(1) ATO

(2) Map

(3) Communications Card (COMCARD)

(4) EPA

d. Time zone used

2. **Slide 2**: General overview (RMC)

a. Higher commander's intent

b. Mission

c. Risk level (including collateral damage)

d. Political Planning Indicator (PPI)

e. Objective

f. Time On Target (TOT)

3. **Slide 3**: ROE

a. ROEIMPL version

b. National caveats

c. Special considerations

4. **Slide 4**: Intel update

a. Intel update:

(1) General

(2) Enroute

(3) In / around the OA

b. PRTF PR codes

(1) RAMROD

(2) SARDOT

(3) SARNEG

(4) Duress

(5) PR word

(6) PR letter

(7) PR number

(8) DAR

5. **Slide 5**: Weather / Notice to Airmens (NOTAMs) / birdtam

a. Weather update:

(1) General

(a) Visibility / cloud base / precipitation

(b) Wind

(c) Temperatures / freezing level

(d) Ephemerides

(e) Illumination by night in Lux / thermal x-over IR

(f) Sea-state

(2) Homebase

(3) Enroute

(4) In / around the OA

(5) Diversion

b. NOTAM update

c. Birdtam update

6. **Slide 6**: Domestics

   a. Flightplans

   b. Base status

   c. Local Operating Procedures (LOPs)

7. **Slide 7**: Route

   a. Detailed route description

      (1) ACO

      (2) Ingress, IP, OA, egress

      (3) Hazards (obstacles & power lines) / Minimum Safe Altitude (MSA)

      (4) Speeds

      (5) Altitude de-confliction plan

      (6) Splits

8. **Slide 8**: Route contingencies

   a. Threat reaction

   b. Timing (lose / add)

   c. Divert airfields

   d. Latest take-off to stay within TOT window

   e. Adverse weather

9. Slide 9: Holding plan

   a. Location

   b. Altitude(s) / heading / speed / turns

   c. Re-join plan

   d. Adverse weather backup

   e. Push flow

10. **Slide 10**: FARP plan
    a. Location / frequencies
    b. Joining / leaving procedures
    c. Holding point / altitude
    d. Fuel required vs. available
    e. Information on COMCARD
    f. Contingencies
    g. Emergencies
11. **Slide 11**: FW RESCORT
    a. Tasks
    b. Tactics
        (1) Ingress
        (2) OA
            (a) Sanitise
            (b) Authentication of isolated personnel
            (c) Request Execute approval through AMC
            (d) Frequency management
        (3) Egress
        (4) Contingencies
12. **Slide 12**: Suppression of Enemy Air Defence (SEAD)
    a. Tasks
    b. SEAD plan overview
        (1) Flow
        (2) Orbit
        (3) Electronic Order of Battle (EOB)

(4) Pre-Emptive launch (PET) times / coverage

(5) Vul time

(6) Communications / code words

c. Threat reactions

d. Contingencies

13. **Slide 13**: FW RESCAP

a. Tasks

b. ROE / ID criteria

c. Tactics overview

(1) Sweep plan

(2) Detached / embedded escort plan

(3) CAP position

d. Contingencies

14. **Slide 14**: OSC

a. Authentication

b. Isolated personnel information update (9 / 15 liner)

c. Frequency usage

d. Risk / threat level

15. **Slide 15**: OA; ingress

a. Flow

b. Formation

c. Route

d. Tactics

e. Contingencies

16. **Slide 16**: OA; Fire zones / areas of responsibility (Picture vertical cut through of who is within which cylinder)

17. **Slide 17**: OA; overall

a. OA description

(1) Elevation

(2) Isolated personnel location

(3) Obstacles

(4) Landing zone

b. Operations (FW / RW RESCORT / recovery vehicles)

(1) Flow

(2) Formation

(3) Tactics

(4) Contingencies

18. **Slide 18**: OA; extraction force

a. Terrain

b. Threat

c. EF tactics

d. Authentication

e. Contingencies

19. **Slide 19**: OA; egress

a. Flow

b. Formation

c. Route

d. Tactics

e. Contingencies

20. **Slide 20**: OA contingencies

    a. Threat handling

        (1) ROEs

        (2) Techniques

    b. Weapons employment

        (1) Fratricide

        (2) Collateral damage

21. **Slide 21**: COMPLAN

    a. COMCARD

    b. Codewords

    c. Bullseye

    d. IFF procedures

    e. EMCON procedures

    f. Communications flow

        (1) Priorities

        (2) Jamming – chattermark procedures / authority

        (3) Spoofing – Gingerbread procedures

        (4) EOB update

        (5) Airborne Early Warning (AEW) agreements

            (a) Service provided

            (b) Radio coverage

            (c) Radar coverage

            (d) AMC manager

        (6) Controlling agency fallout

22. **Slide 22**: Snapshots

    a. Taxi and take-off

    b. En-route

    c. Holding

    d. At IP

    e. Ingress

    f. On the ground

    g. Egress

    h. En-route

    i. FARP

    j. Landing and taxi

23. **Slide 23**: Contingencies

    a. Go / no-go

        (1) Threat vs. risk level

        (2) FARP fallout

        (3) No AMC

        (4) Minimum self protection

        (5) Minimum RESCAP

        (6) Minimum SEAD

        (7) Minimum RESCORT

        (8) Minimum recovery vehicles

        (9) Minimum EF

24. **Slide 24**: Emergencies

    (1) Inadvertent Instrument Meteorological Conditions (IMC)

    (2) Blind

    (3) Others as required

25. **Slide 25**: Questions (ALL)

ANNEX J RMC MISSION DE-BRIEFING FORMAT

J.1 TBD

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ANNEX K EXTRACTION FORCE MISSION PLANNING GUIDE

K.1 Extraction force planning

The extraction of the isolated personnel is the core of the recovery mission. This part link to body of the mission should therefore be thoroughly planned. The planning should take as a minimum the following steps into account:

a. Study the mission

b. Plan use of time

c. Study terrain and situation

d. Study intelligence, prepare IPB

e. Organise the team

f. Select men, weapons, and equipment

g. Issue warning order

h. Coordination (continuous throughout)

i. Request reconnaissance

j. Complete detailed plans

k. Issue operation order

l. Brief-back (to the tasking authority)

m. Supervise (at all times), inspect, rehearse

n. Execute the mission

K.2 Extraction force briefing guide

1. Time hack
2. Mission Overview:
   a. Situation.
   b. Intel.
   c. ISOPREP Review.
   d. EPA Filed.

3. Pre-Launch / Staging Area Activities:

   a. Number of Personnel.

   b. Team Composition.

   c. Manifest / Orders.

   d. Aircraft / Vehicle Numbers and Parking Location.

   e. Aircraft / Vehicle Configuration.

      (1) Restraining devices.

      (2) Team leader location.

      (3) Aircraft familiarisation briefing.

   f. Team splitting / loading plan + Out / In Rehearsal.

   g. COMPLAN.

   h. Communication Check.

   i. Load Time.

4. Equipment:

   a. Team Equipment.

   b. Weapons.

   c. Personal.

   d. Specialized.

   e. Radio Comms

5. Bump Plan:

   a. Effects of delays.

   b. Abort criteri

6. Launch / Ingress:

   a. Weather.

7. Objective / Terminal Area (Insertion):

   a. Feints / False Inserts.

   b. Primary and Alternate HLZ Location / Identification / TOT.

   c. Expected Landing sequence.

   d. Go around procedures.

   e. Actions in the event of hot LZ.

   f. Insertion options (Hoist / Fast Rope / Rapelling/parachute / etc.).

   g. Weapons status / firing fans.

   h. Immediate / Delayed Extraction Plan (Actions at the Objective).

8. EF Ground TTPs:

   a. Command / Control.

   b. Applicable ROEs / conditions to open fires

   c. Scheme of Manoeuvre.

   d. Survivors Identification / Authentication.

   e. Care & Handling of Casualties (ISOP).

   f. Communications Plan.

      (1) Aircraft callsigns.

      (2) Team callsigns.

      (3) Primary frequency.

      (4) Secondary frequency.

   g. Team Markings:

      (1) Day – (Panel...).

      (2) Night – (IR Strobe / IR Chemlight / glint tape...).

h. Target Markings:

(1) Day – (Smoke / tracer...).

(2) Night – (Tracer / LASER).

i. HLZ Marking:

(1) Day – (Smoke / panel...).

(2) Night – (LASER “Rope” / chemlight...).

j. j. Aircraft Markings.

k. k. Emergency Extraction:

(1) Comm-out: Day – Red Smoke / Night – IR Strobe + LASER/Tracer.

l. l. Recall

(1) Comm-out: Land or Hover with AIE device deployed.

m. Negative Contact.

n. Resupply.

o. Close Air Support / Fire Support Requirements:

(1) JTAC Callsign.

(2) Frequencies.

p. Medical Treatment Plan.

q. Isolated Team Member Procedures.

9. Extraction plan

   a. Primary and Alternate HLZ Location / Identification / TOT.

   b. Expected Landing sequence.

   c. Loading plan.

   d. Actions in the event of hot LZ.

   e. Extraction options (Hoist / Special Purposes Insertion Extraction (SPIE) / etc.).

   f. Weapons status / firing fans.

10. Egress:

11. Aircraft Emergency / Downed Aircraft:

   a. Emergency exits (location and operation).

   b. Emergency shutdown (fuel shutoff, rotor brake).

      (1) Destruction procedures (sensitive equipment).

12. Evasion & Recovery Plan:

   a. CONOPS.

   b. DARS / Contact Points.

   c. Destruction of Aircraft and / or equipment.

13. Recovery:

   a. Trans-load.

   b. Survivor Delivery / Repatriation /Reintegration.

   c. Airfield Location.

   d. Security Requirements.

14. Medevac Plan:

   a. Other supporting agencies.

   b. Medical Facilities (Coordinates / Frequencies).

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ANNEX L COMMUNICATIONS

L.1 Brevity words and code words

To shorten communications, increase effectiveness and prevent ambiguity NATO approved brevity as published in APP-7 should be used. These brevity words can be used in planning or executing a PR mission. Additional and/or different brevity or code words may be used. An excerpt of most frequently used bcodes can be found in Annex L. All brevity words to be used in an operation should be inserted in the SPINS.

L.2 COMCARD

1. It is assessed that it may not be possible to create a standardised format for a COMCARD that fullfils all requirements. However, a COMCARD should contain as a minimum the following information:

   a. Composition of the task force;

   b. PR codes for the ISOP;

   c. ISOP location(s);

   d. Callsigns and frequencies;

   e. Depiction of the route;

   f. Relevant codewords;

   g. ...

2. Figures L.1 and L.2 shows a generic example of a COMCARD to be used[4].

[4] We should attempt to come up with one single COMCARD example that should be good enough to replace all existing national COMCARDs.

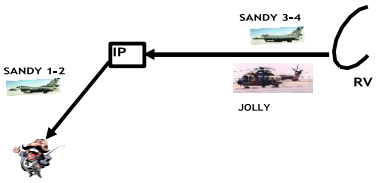

Figure L.1: A COMCARD example

MISSION SECRET (WHEN FILLED IN)

..... COORDINATION CARD

DATE: | PACKAGE: | AMC: | RMC:

CALL SIGN	MSN	ACFT	M1	M 3	M3 2#	TAXI	T/O	VHF	TAC

PACKAGE INFORMATION	SARNEG		HO			
INITIAL CHECK-IN :	0 1 2 3 4 5 6 7 8 9	DAY				
CLEARANCE						
TOT WINDOW		WOD				
REATTACK WINDOW	WORD OF THE DAY					
LAST OUT TIME		NET				
SARDOT	PR NUMBER / LETTER					

LOCATION OF ISOLATED PERSONNEL

SURVIVOR CALL SIGN

STP	LAT	LONG	ELEV	POINT		SPIDER POINTS		
1					A1		B5	
2					A2		C1	
3					A3		C2	
4					A4		C3	
5					A5		.	
6					A6		.	
7					B1		.	
8					B2		.	
9					B3		.	
10					B4		.	

CODE WORDS				IFF	
				MOD I	MOD III

..... COORDINATION CARD

DATE: | PACKAGE: | AMC: | RMC:

CALL SIGN	ROLL CALL	HOLD	VFR	IFR	PUSH TIME	INGRESS ALT	IP ALT

X (GPS) TIME WILL DECLARED BY CAOC TO START PR MISSION

USE .....LOCAL ALTIMETER SETTING /

FREQUENCIES

CALL SIGN	RV	ROUTE	IP	AREA	ERP

U-Y	U-X	AUXILIARY U-X

BIG PICTURE

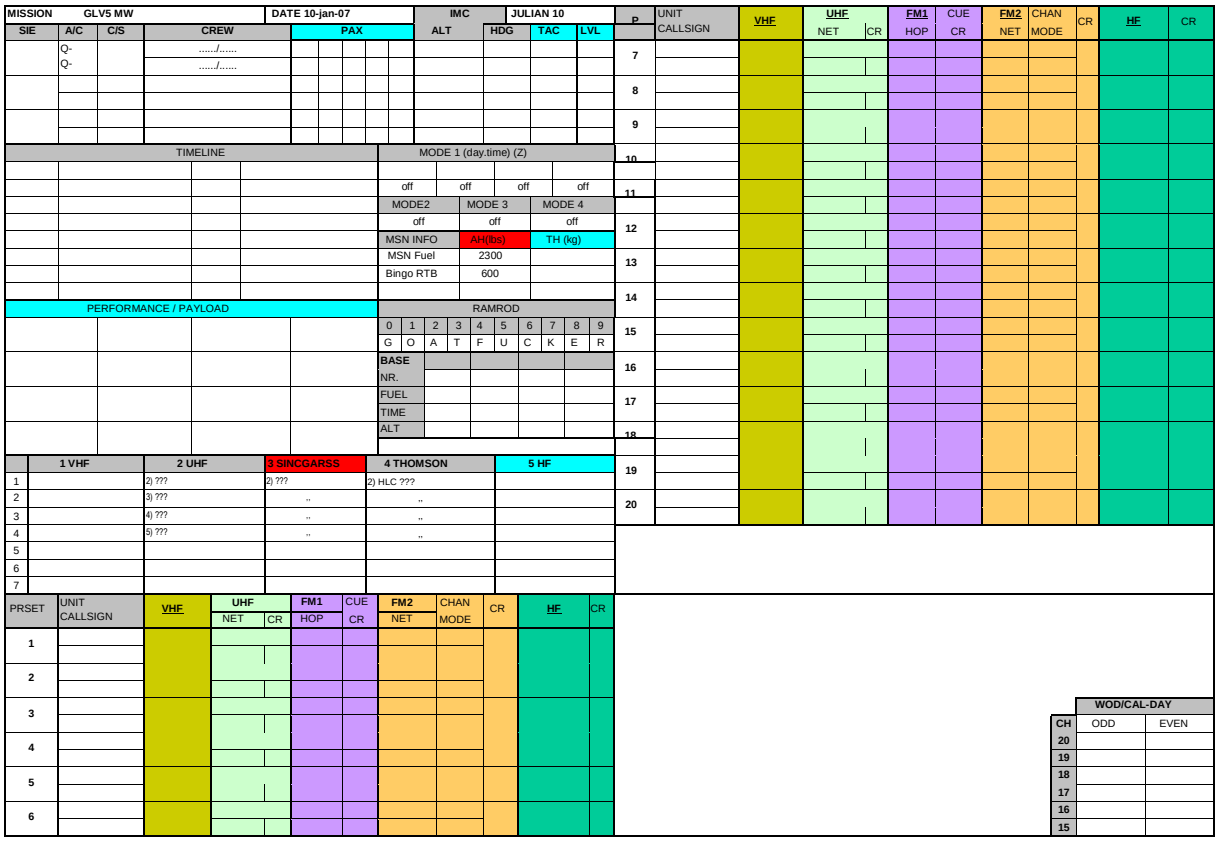

Figure L.2: Another COMCARD example

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ANNEX M HELO LEAD TO RESCORT BRIEF

This checklist is to be used in case of an airborne join-up of the PRTF.

1. Helo callsign
2. Number and type
3. Ingress routes
4. 4 ETA to holding point
5. 5 Egress routes
6. Endurance.
7. Pick-up capabilities
8. Pararescuemen (PJs)
9. Recovery method
    a. Hoist
    b. Special Insertion and Extraction (SPIE)
    c. Litter
    d. Forest penetrator
10. Guns
11. Speed
12. Chemical, Biological, Radiological, Nuclear (CBRN) protection
13. Pick up technique
14. 14 Helo wingman plan.

APRP-3.3.7.7(A)(2)

VOLUME II