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JOINT PERSONNEL RECOVERY AGENCY
That others may live....To return with honor

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History of the POW MIA Flag

In 1971, Mrs. Michael Hoff, a missing in action (MIA) wife and member of the National League of Families, recognized the need for a symbol of our prisoners of war (POW)/MIAs. She contacted the vice president of Annin and Company that made the flags for all United Nations members' states. Sympathetic to the POW/MIA issue, he, along with Annin's advertising agency, designed a flag to represent our missing men. Following League approval, the flags were manufactured for distribution.

On 9 March 1989 an official League flag, which flew over the White House on the 1988 National POW/MIA Recognition Day, was installed in the U.S. Capitol Rotunda as a result of legislation passed overwhelmingly during the 100th Congress. In a demonstration of bipartisan Congressional support, the leadership of both houses hosted the installation ceremony.

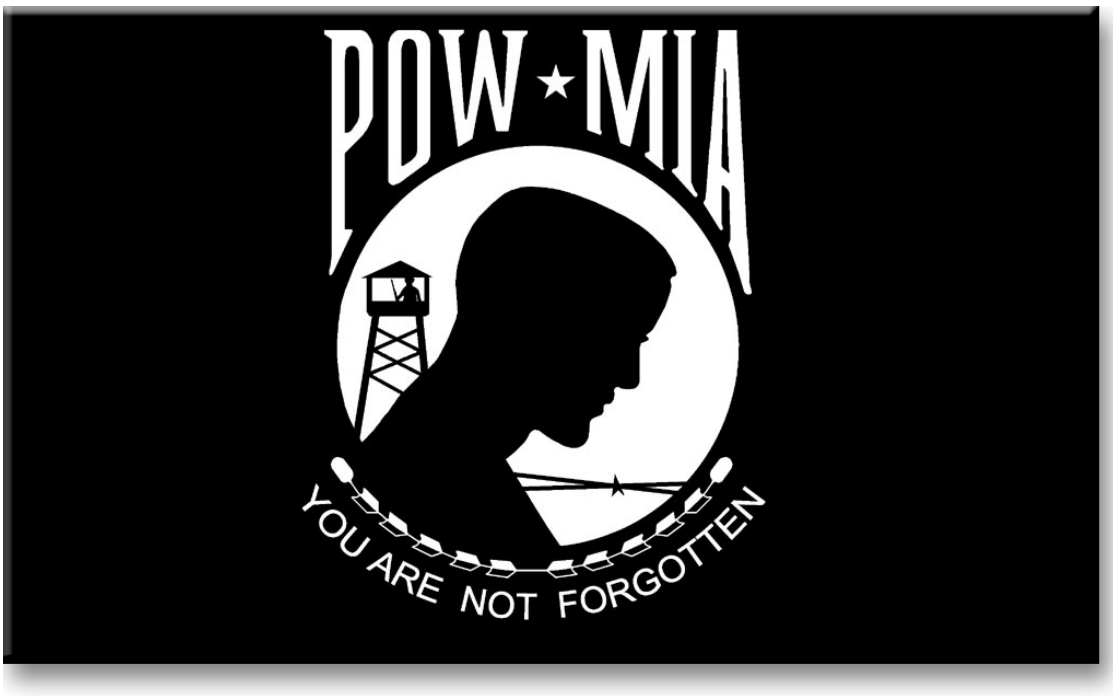
In 1990, the 101st Congress passed U.S. Public Law 101-355, which recognized the POW/MIA flag and designated it "as the symbol of our Nation's concern and commitment to resolving as fully as possible the fates of Americans still prisoner, missing and unaccounted-for in Southeast Asia, thus ending the uncertainty for their families and the Nation."

The POW/MIA flag's importance lies in its continued visibility, a constant reminder of the plight of America's POW/MIAs. Since 1982, other than Old Glory, the POW/MIA flag is the only flag ever to fly over the White House on National POW/MIA Recognition Day (the 3rd Friday in September.).

With passage of Section 1082 of the 1998 Defense Authorization Act during the first term of the 105th congress, the POW/MIA flag will fly each year on Armed Forces Day, Memorial Day, Flag Day, Independence Day, National POW/MIA Recognition Day, and Veterans Day on the grounds or in public lobbies of major military installations as designated by the Secretary of the Defense; in all Federal national cemeteries, the National Korean War Veterans Memorial, the National Vietnam Veterans Memorial, the White House, all U.S. post offices; and, at the offices of the Secretaries of State, Defense, and Veteran's Affairs and the Director of the Selective Service System.

For more information visit:www.pow-miafamilies.org

Editor's Note: Reprinted with permission of the National League of POW/MIA Families.



Message From the Director

BG Anthony A. Cucolo III, USA
Director, JCOA-LL

Soldiers, Sailors, Airmen, Marines, Coast Guardsmen, and deployed Civilians all face the threat of capture on today's battlefields. Once the primary concern of aircrews, a secondary concern for ground troops, and rarely a concern for civilians, insurgent needs for highly visible and newsworthy actions, as well as some perception of dominance over more powerful coalition forces, has brought kidnapping and hostage taking to the top of their focus of effort.

In a recent firefight near Salman Pak, Iraq, insurgents were in the midst of an assault on an ambushed and fixed convoy…a group of them, equipped with restraints (zip cuffs and ropes), advanced on the damaged vehicles and the wounded survivors…clearly intent on taking prisoners. We know this because a US Army Military Police relief force arrived as cavalry would, and ended their insurgent careers allowing us to discover these details post-mortem. Bottom line: a complex, well-resourced, and well-executed ambush was set by our enemies with the main purpose of securing living US personnel for exploitation and most probably "public" (internet) execution.

It is therefore comforting to know in this type of environment there is an organization such as the Joint Personnel Recovery Agency (JPRA). This quarter we highlight the current state of affairs within the joint personnel recovery community, one that is not well-understood by most of the joint community – particularly among those of us in the conventional forces. It is not as though no one feels this is important — not at all. Personnel recovery is always very much on the minds of senior commanders: I was present in Iraq when GEN Casey (Commander, Multi-National Force-Iraq) put out a force-wide message to observe the one-year anniversary of the capture of Specialist Matt Maupin, who remains missing. GEN Casey also mentioned CDR Scott Speicher, missing in action since the Operation DESERT STORM. The message was crystal clear: we will not forget you nor will we give up the effort to find you; all personnel must stay focused to this end.

But in this issue we talk about shortcomings…in education, training, planning, and operations. And being critical is good: we want to be better than we are now, and self-examination and self-critique are the hallmarks of a learning organization. Besides, what task is more important to "get right" than the preparation of our warriors and civilians to react properly to conditions of isolation or capture, and the requisite skills and abilities needed to recover them on today's fluid terror battlefield? "I will never leave a fallen comrade" is a part of the ethos in some form or fashion in each of our Services, and the JPRA is all about putting the doctrine, lexicon, training, and equipment behind that ethos.

Some of the articles herein make recommendations for change, some instruct through history, and others describe how personnel in the field – aware of our current shortcomings – are training even in the midst of combat missions to make sure unfamiliar forces put together in a joint task force can function when called upon to execute these dangerous and uncertain missions.

In my recent travels in the U.S. Central Command area of operations I had the great fortune of meeting some of these JPRA personnel – members of all the Services assigned to staff sections who contribute to the recovery effort. These include those who man the rescue coordination centers at various levels of headquarters. Oft-ignored because of robust quick reaction forces, these people are the champions of proper preparation and proper resourcing of the recovery effort. I have to admit, I have been deeply impressed by their energy and zealot-like nature to leave no individual behind.

So, thank you for picking up this issue about this group of highly trained and dedicated individuals who may, just possibly, be the men and women who pull you out of a tough spot one day.

Finally, as an aside, if you think you have it tough, or perhaps you think you're having a bad day, go immediately to the article about Air Commodore (Canada) Birchall's exploits before, during, and after his brutal captivity in the South Pacific during World War II. It is an incredibly inspirational story…and let there be no doubt, he deserves a place among the heroes who live by the coda "that others may live…to return with honor."

ANTHONY A. CUCOLO III
Brigadier General, U.S. Army
Director, Joint Center for Operational Analysis and Lessons Learned

JCOA-LL UPDATE

Mr.Bruce Beville, GS-15
Deputy Director JCOA-LL

The Joint Center for Operational Analysis and Lessons Learned (JCOA-LL) is less than two-years old and continues to grow and change as we progress towards our primary mission of serving the warfighter. Our mission continues to expand, lines of operations become more fully defined, and the number of high-level taskings is on the increase. In the last six-month period we have grown from a sixty-person organization to seventy-plus people. The JCOA-LL mission statement acts as our guide during this organizational transformation:

> "Lead — and where possible, accelerate — transformation of the joint force by producing compelling recommendations to change derived from direct observations and sound analysis of current joint operations, exercises, and experiments."

Two major developments have occurred since the last report.

First, we have expanded our collection efforts into Afghanistan while continuing to support U.S. Central Command (CENTCOM) with a steady state presence in Iraq. Our Afghanistan team is embedded in Bagrum and Kabul. For each mission, the team is given guidance and direction on where to focus their collection efforts. They have daily interface with analysts here in Suffolk, Virginia, who are dedicated to providing full support to our deployed teams, while compiling all the findings into issue papers that eventually comprise larger studies. These studies are a result of an extensive vetting and analytical process, and are then presented and briefed at all levels of government. Some of our next major studies for release are the Post Major Combat Operations (PMCO) Report, Global War on Terrorism (GWOT)Report, and the Haiti report.

Second, we have also begun a new initiative that opens up a two-way transfer of information with those organizations inside and outside the Joint Forces Command (JFCOM). Inside JFCOM we now interface with J7 (Training) and J9 (Experimentation) on a routine basis. We offer the injection of real-world lessons learned into training and experimental events as they are being planned and developed. The payback is obvious—outcomes from training and experimentation events that can make an immediate impact on the warfighter. As operational lessons learned are injected into events, new lessons are captured and analyzed as part of a cyclical process. Our J8 (Integration) coordination efforts continue to be an integral part of our internal JFCOM outreach in which both organizations are looking for ways to streamline the lessons learned process. Our external outreach beyond JFCOM has also become part of our routine business. Initial dialog and interaction with other combatant commands (COCOM) and the Services has opened up endless opportunities for operational benefits on all accounts. The sharing of information with other lessons learned organizations avoids duplication of effort and leads to a more universal view of all the available data.

As we continue to grow and change, we realize that in order to make a positive and relevant difference to the warfighter we must explore ways to accelerate transformation. To this end, we are working daily with the JFCOM staff to find ways to speed up our internal and external processes. Our recommendations are a result of real time, real-world collection efforts that eventually support real time, real-world warfighting requirements. The demands on JCOA-LL are expanding and they come from all levels. We are dedicated to adapting and changing to these new demands as our organization transforms to meet them.

> "It is absolutely essential that we review the performance of our people, platforms, weapons, and tactics while memories are fresh. We want to find out what worked well and what didn't work so well."
>
> Statement by Admiral F. B. Kelso, II, USN,
> before the House Armed Services Committee,
> 24 April 1991

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"That others may live…to return with honor"

Commander's Comments

The old Chinese curse "may you live in interesting times," hits home every day in the Joint Personnel Recovery Agency (JPRA). These are certainly interesting times, with more people at higher levels of risk for isolation in more areas of the world than ever before. Dealing with this "curse" is our daily challenge at JPRA.

Despite all efforts to maintain command, control, and accountability of our personnel during military operations, and despite all the effort we put into antiterrorism and force protection, we still—and will always—have people who find themselves in situations where they must survive the environment, evade the enemy, resist exploitation in captivity or detention, or escape a deadly captivity situation. This is especially true in light of a determined adversary that specifically targets our personnel for capture and exploitation to affect world opinion and our national will.

JPRA's mission is to shape the way the Department of Defense prepares for, plans, and executes personnel recovery, while ensuring the department adapts to meet future challenges. We also do all we can to enable the Services, the combatant commanders, and others to address the challenges inherent in meeting their personnel recovery responsibilities.

I would like to thank the Joint Center for Operational Analysis and Lessons Learned for focusing this issue on the JPRA and personnel recovery. I hope the reader will take something from the articles herein and make a difference in his or her command. Never has the need to transform historical paradigms to protect our personnel at risk been more relevant.

Colonel David F. Ellis, USAF
Commander, JPRA

A Systematic Approach to Address the Challenges of Personnel Recovery: Modeling the Essential Elements of Success

Col Mark E. Bracich, USAF
Deputy Commander
Joint Personnel Recovery Agency

Simply put (without being bound by the current conflicting, confusing, and outdated definitions), personnel recovery (PR) is the sum of military, diplomatic, and civil efforts to recover and reintegrate isolated personnel. Isolated personnel are US military, Department of Defense (DOD) civilians, and DOD contractor personnel who, while participating in a US-sponsored military activity, have become separated, as an individual or as a group, from their unit or organization and are in a situation requiring them to survive, evade, resist, or escape in order to be recovered.[1] The President or Secretary of Defense (SECDEF) may, of course, direct that PR capabilities be used in support of other missions, persons, agencies, or nations. However, the clear distinction between who is and who is not considered isolated personnel is vital in order to bound DOD's obligation and problem set. This definition ensures that DOD is held responsible for those the department places at risk. If the target set is to be expanded, then appropriate resources must be provided to DOD and interoperability concerns must be addressed.

Over the last decade, DOD has undergone a continuing revolution of sorts in the development of personnel recovery policy, concepts, and capabilities. However, even today, DOD components differ greatly in their levels of effort and success in meeting their responsibilities for PR set forth in DOD policy. Services struggle with how best to meet component responsibilities while providing a credible PR capability to component and joint force commanders. As we continue to act on the international scene in a coalition environment, the need to address PR as a multinational force is critical; yet, foreign disclosure issues inhibit the development of multinational tactics, techniques, and procedures designed to integrate diverse capabilities. The multi-agency[2] approach to many US missions gives rise to numerous concerns as well. In fact, there is a significant effort to create a National Personnel Recovery Architecture (NPRA), to ensure that any person (not just DOD personnel) placed at risk of becoming isolated while serving the interests of the United States has the proper training and can be assured that the U.S. Government (USG) has the mechanisms, and the will, to bring about their safe recovery.[3]

The Joint Personnel Recovery Agency (JPRA), on behalf of the Commander, US Joint Forces Command (USJFCOM)[4] is leading DOD efforts to shape the future of PR in this multidimensional environment. The number of players—each with a unique set of concerns and approaches to problem solving—attempting to address the complexities of preparing for, planning, and executing the PR mission, and adapting to lessons learned in an ever-evolving operational environment, necessitates a systematic approach to ensure coherent integration and interoperability. When coherently integrated, PR will be woven into the normal preparation, planning, execution, and adaptation processes of each Service, component, and combatant command. Interoperability enables each component to contribute important capabilities within the scope of its operations to ensure a viable joint[5] capability through compatible processes, procedures, training and equipment, as well as collaborative, adaptive planning. Integration and interoperability become much easier to achieve if the players agree upon an approach to mutual issues using common language, objectives, and measurements for success.

This article proposes a systematic approach to addressing challenges in the arena of personnel recovery to enable DOD and its partners to completely address relevant issues and achieve a synergy in PR not available to each component working alone. The approach represents the elements essential to success and is designed to be generic enough for use by any organization that places personnel at risk in the accomplishment of its mission.[6] The concepts contained herein are not new, but represent the culmination of over seven years of concerted effort by many dedicated people.[7]

Unity of Purpose and Effort

While the doctrine, organization, training, material, leadership, personnel, and facilities (DOTMLPF)[8] approach must be used to provide validated concepts to the formal DOD requirements process to produce a real capability, a much more specific approach is required

to capture and address the interplay between the specific multidimensional areas of concern that are both necessary and sufficient to ensure success in PR. Many recognize that DOTMLPF is still evolving and, in some cases, lacks the specificity to deal with certain issues at the proper levels. PR is one such issue. Currently, there is no comprehensive treatment of the subject that ensures a robust systematic approach to dealing with the challenges of personnel recovery.

Consequently, a model, or system, for personnel recovery is needed that provides unification of purpose and effort during preparation, planning, execution, and adaptation. By using generic terms to describe each area of concern and each element thereof, the system can serve as a Rosetta Stone, that can be used to translate the efforts or concerns of one group into a language other groups can easily understand. Certainly, a properly structured approach could be used not only by DOD and its components, but also by other departments, agencies, and nations who face the challenges inherent in caring for those they place at risk of isolation in dangerous environments.

Such a model is also needed as an analytical tool to evaluate proposed solutions to challenges and to guide future efforts. Any proposal or effort that fails to address all of the areas of concern must apply certain assumptions or limitations to be valid. The model, therefore, must be robust enough to capture all that is essential to success, but have enough fidelity to illustrate the applicability of any relevant effort. Such an approach provides an ideal framework for gap analysis—what is not being done that must or should be done? The results of any analysis using this model must, of course, be easily translatable into DOTMLPF or whatever "concept to capability" methodology a given department, agency, or other entity uses.[9]

"System" versus "Architecture"

An architecture is defined as a "formation or construction as or as if as the result of conscience act,"[10] or "an orderly arrangement of parts."[11] Whereas a system is, among other things, "a regularly interacting or interdependent group of items forming a unified whole," "a group of devices or artificial objects or an organization forming a network especially for…serving a common purpose," or "an organized set of doctrine, ideas, or principles usually intended to explain the arrangement or working of a systematic whole."[12]

It would seem the knowledgeable purveyors of words intend for us to view an architecture as something that has been studied, planned, and thoughtfully put into place. A system, on the other hand, is much more representative of something that has evolved. Likewise, the former insinuates the existence of an actual architect, while the latter insists on the persistence of those who would study it and strive to guide its further evolution. Perhaps someday we can claim we actually have an architecture, but not yet. For now, the model proposed herein, taken as a whole, will be referred to as the DOD Personnel Recovery System.

Modeling the DOD PR System

Anyone in DOD who has spent time in the PR business would perhaps consider it presumptive to say that DOD actually has a "PR System." On a daily basis, those tasked with PR responsibilities—or those who pick up the PR flag despite the lack of tasking—are able to gather evidence that points to the absence of any coherent approach to PR in DOD: leaders who fail to understand the need to prepare for PR…staff officers that cannot see how their work affects (or should affect) PR capability…inept decades-long efforts to provide basic capability to the troops in the field…the list goes on. Nonetheless, through the efforts of the DPMO [Defense Prisoner of War (POW)/Missing Personnel (MP) Office], JPRA, a few visionary senior leaders, and a small passionate group of Service and combatant command personnel, a system does, in fact, exist and continue to evolve.

What these people have learned over the past few years is that success in personnel recovery depends upon providing the right products and services to the right people to achieve the right objectives to enable them to accomplish the right tasks at all levels of impact in all applicable environments—and learning and adapting as we go.

There are seven areas of concern, or dimensions, that encompass the elements essential to the success of personnel recovery: products and services; people; enabling objectives; impact levels; planning factors; execution tasks; and adaptation. The elements of each dimension are designed to completely describe the dimension as it applies to personnel recovery. Figure 1 shows the PR areas of concerns that make up the dimensions and elements of the model.

Simply listing the elements essential to success is of limited value. The model must show the relationship between

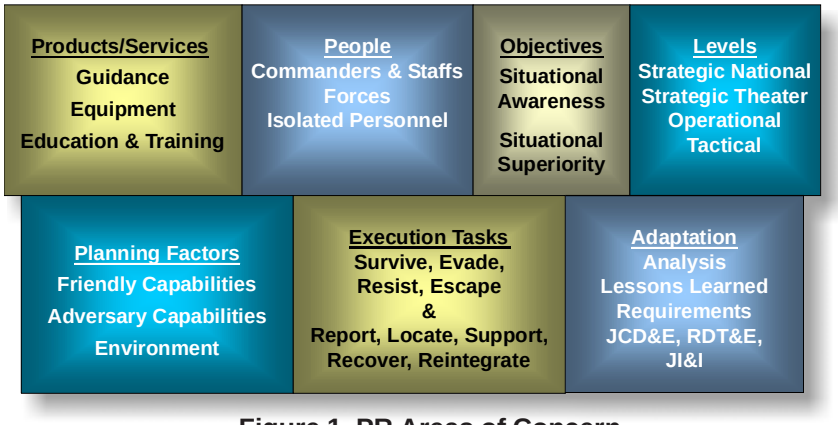

Figure 1. PR Areas of Concern

the dimensions and the elements within. Figure 2 offers one possible graphic representation of the relationships between the elements of the DOD PR System.

The DOD PR System has four main functions: Preparation, Planning, Execution, and Adaptation. These functions are not necessarily "phases" in a linear process.[13] Nor do all organizations perform all the functions of the system. An organization may address one or more of the functions at any given time. Some organizations will focus the majority of their effort in only one or two functions (e.g., a military department's responsibility to organize, train, and equip falls under preparation, while a combatant command will focus on planning and execution, with some necessary effort geared toward preparation and adaptation).

Preparation

Preparation involves everything it takes to build a useable architecture[14] for personnel recovery. This includes organize, train, and equip issues, as well as setting up the architecture within a combatant command. Basically, Preparation includes all activities required to

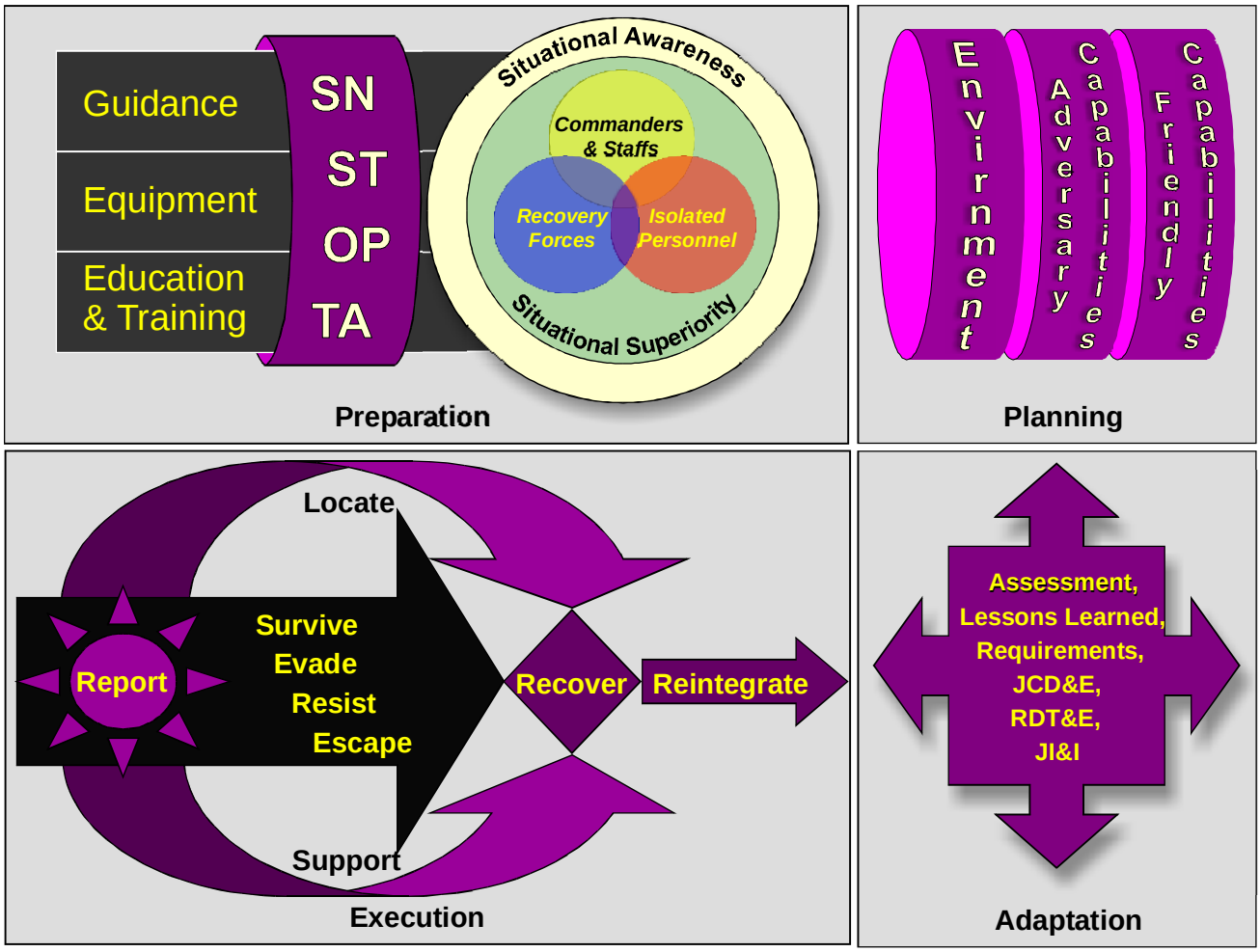

Figure 2. The DOD Personnel Recovery System

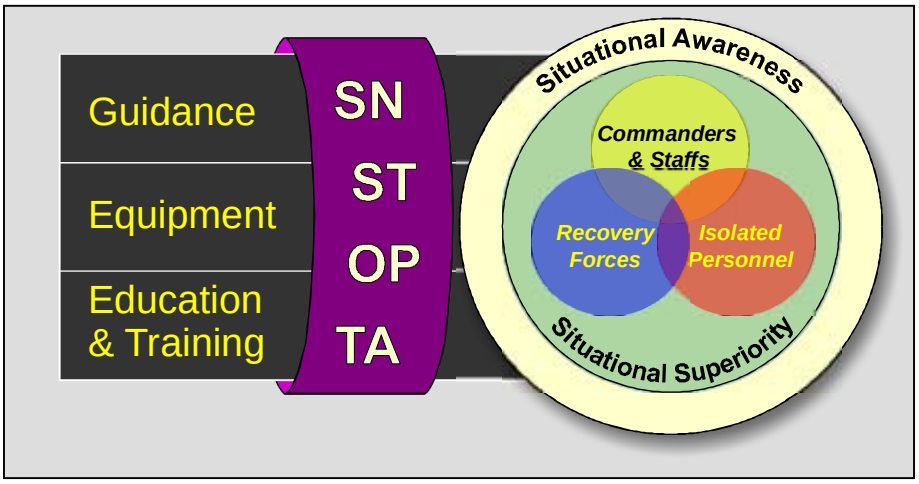

Figure 3. Preparation

build the "weapon system"—to put things in place that must be present to enable proper planning and execution when the time comes.

Products And Services

"Provide the right Products & Services…"

Products and services are the materiel and non-materiel approaches that DOD provides to address the challenges of developing PR concepts into PR capability.

Guidance

Policy and doctrine—and any other guidance that is issued concerning PR—contain the concepts, processes, procedures, and practices that components of DOD and the USG perform to get the job done. These processes must be captured in a well-developed "infrastructure of documentation" which coherently integrates all levels of policy and doctrine with respect to PR.[15]

Policy and doctrine must assign responsibilities and authorities. Policy, at all levels, must be clearly articulated, concise, and consistent in both PR-specific documents and other policy documents covering subjects such as special operations, the Universal Joint Task List (UJTL), and the Joint Operation Planning and Execution System (JOPES) where there may be PR-specific concerns.

Joint and Service doctrine must be articulated in joint and Service publications and implement policy, providing a clear command and control framework, and clear delineation of command relationships (operational control (OPCON), tactical control (TACON), supported/supporting, etc.). Joint tactics, techniques, and procedures (JTTP) and multi-Service procedures must seamlessly address the intricacies of components working together to execute the mission.

Commanders may use concepts of operations (CONOPS) to further articulate their specific guidance. Concepts of employment (CONEMP) may be created for specific tools. Units may write standard operating procedures (SOP) and checklists to detail planning and execution processes.

This is, by no means, an exhaustive list of processes, those who create them, and methods in which they are codified. The key is to provide guidance that is clear, concise, consistent, and complete.

Equipment

Equipment includes any tangible asset that enhances or provides a capability necessary to plan or execute the PR mission. This includes, but is not limited to computer systems (hardware and software), aircraft, weapons, evasion charts, radios, uniform items, even facilities and associated furnishings—anything that makes the people involved more efficient or more effective.

Education And Training

Education and training are necessary to provide people the knowledge, attitudes, and skills to perform to standard while carrying out guidance and using equipment.

The primacy of joint operations necessitates joint-focused education and training efforts in both joint and Service venues. Joint curriculum, such as that provided by JPRA and joint professional military education (PME) schools, must ensure students achieve the appropriate level of learning regarding PR concerns of the joint warfighter, and an appreciation for the capabilities and limitations of each component of the joint force. Joint training venues, such as the Joint Warfighting Center (JWFC), the Joint National Training

Capability (JNTC), and joint exercises must address PR considerations. Only then can we expect commanders and staffs of joint organizations to construct appropriate architectures, produce adequate plans, and make timely, informed decisions concerning PR.

The same holds true in Service programs. Not only must Services prepare personnel to execute their Service-specific duties through pipeline Air Force specialty code (AFSC), military occupational specialty (MOS), or rate skills training, PME, and exercises, but each must appropriately integrate PR-related objectives, lessons, modules, or courses to ensure the ability to perform Service/component-specific PR tasks, and to provide interoperable capability to the joint force commander. In some cases, Services must provide PR-specific, stand-alone curriculum, such as some aspects of survival, evasion, resistance, escape (SERE) training for potential isolated personnel.

Joint and Service venues must provide PR education and training through means that appropriately balance effectiveness and efficiency, taking full advantage of in-residence, mobile training team, and distributed learning methodologies.

These same principles hold true for any non-DOD agency, organization, or nation.

People

"…to the right People…"

Upon examination, we find the products and services critical to the success of PR are aimed at one or more of the following force elements: the commanders and staffs of both operational and support organizations; the forces employed to accomplish various execution tasks; and the isolated personnel, or those at risk of becoming isolated.[16]

Commanders And Staffs

Commanders, and by extension their staffs, at all levels may have PR responsibilities. They must set policy, establish guidance, and direct the programming and budgeting for, and the planning and execution of, the mission. Ideally, commanders will have PR subject matter experts appropriately integrated into the functional areas of their staffs. To ensure that PR efforts, which truly span most functional areas, are coherently integrated, commanders should assign a specific office the responsibility to coordinate the actions of the staff where PR is concerned. In fact, for some commands, this is a requirement in DOD Directive (DODD) 2310.2.

Forces[17]

Operational and support forces are employed to accomplish key tasks (discussed later) to bring about the successful recovery of isolated personnel. They include intelligence, surveillance, and reconnaissance (ISR) assets; air, sea, and land maneuver elements; recovery vehicles/elements; refueling support; and any other "force" that can be employed to affect the outcome of the recovery.

Isolated Personnel

Those at risk of becoming isolated personnel must be provided guidance, equipment, and training to ensure they are properly prepared to survive in any applicable environment, evade hostile forces, resist exploitation in any captivity environment, or escape in order to be recovered.

Levels

"…at all Levels of Impact…"

Personnel recovery is somewhat unique among military missions, operations, and tasks in that it involves key people at all levels of command in both operational and support organizations. The products and services described above must be targeted at key personnel at each level. DOD has long recognized that a PR event can have ***strategic national*** consequences. In fact, terrorists have successfully employed the strategy of specifically targeting individual personnel in order to affect a nation's will or national military strategy. Top governmental and military leaders must understand and be prepared to deal with the national implications of a PR event. At the ***strategic theater*** and ***operational*** levels, the combatant commanders' PR architectures must be adequately prepared to ensure PR events do not negatively affect the overall campaign plan. Leaders must provide seamless command and control, ensuring appropriate horizontal and vertical integration. At the ***tactical*** level, forces must employ focused, effective, interoperable tactics, techniques, and procedures.

Enabling Objectives

"…to achieve certain enabling objectives…"

Every person who participates, every process that occurs, and every piece of equipment that is used in any military activity should be aimed at one thing—success. In PR, success is far more likely if the people involved are properly organized, trained, equipped, and employed to gain and maintain situational awareness (SA) and situational superiority (SS). It is SA/SS that enable the warrior to achieve dominance in decisions and actions, thus bringing about the desired effect. Both are necessary.

Situational Awareness

Total SA is achieved when one has knowledge of everything within one's sphere of interest[18] and has the knowledge required to properly act within the situation, or to react to changes in the situation. In PR, like any military mission, detailed knowledge of the battlespace is crucial to success. Depending on the role one plays in the PR System, the level of knowledge about the order of battle, intelligence, terrain, weather, flora, and fauna are all things that can affect one's specific operation in one's specific portion of the battlespace.

Situational Superiority

While SA is critical, without the knowledge, skills, physical ability, confidence, will, and often courage to act on that awareness, one cannot knowingly impose one's will. Consequently, DOD PR products and services must be designed to provide: the necessary knowledge, attitudes, and skills to take advantage of situations faced during a PR event; tools for maintaining certain physical capabilities of those at risk of isolation; and recurring training to ensure confidence that enhances the will to succeed and the courage to act.

Situational superiority is the ability to take action in a given situation that will bring about the desired affect within one's sphere of influence. There are many ways to bring about the desired effect. Collectively or individually, we can act in an overt, clandestine, or covert manner using any combination of power, stealth, and deception.

Total dominance or superiority in the classic sense is often not necessary to achieve success in personnel recovery. It is useful here to borrow from the concept of precision engagement, which "allows the commander [or staff, or force, or individual] to shape the situation or battle space in order to achieve the desired effect while minimizing risk to friendly forces and contributing to the most effective use of resources."[19]

It is important to understand that even a captive can use his SA to achieve SS within his sphere of influence, even if that sphere is only as large as his own mind. If the captive takes as his mission to survive and return with honor, then he can use his SA to employ his SERE training to adhere to the Code of Conduct and bring about that desired affect.

Planning

"…in all applicable environments."

Planning includes all activities designed to employ the PR architecture in a specific theater or operation. PR must be an implied, if not specified, task in every operation or activity where personnel are at risk for isolation. Consequently, PR must be coherently integrated into deliberate, crisis, and mission planning. Failure to address PR in a plan that places personnel at risk of isolation means one of three things: the commander assessed the risk and decided to accept it (an acceptable course of action which should actually be documented in the plan); the staff failed to address PR or accepted the risk on behalf of the commander (neither of which is acceptable); or, the commander

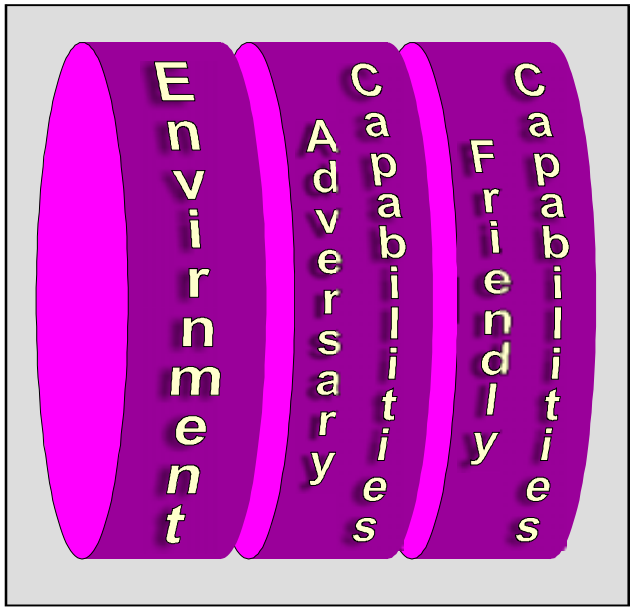

Figure 4. Planning

failed to follow DOD policy and is negligent in providing full dimensional protection to his forces.

There are many systems, models, and methods for planning operations. This model captures the most basic concerns: environment (operational, political, economic, diplomatic, physical, etc), adversary capabilities, and friendly capabilities. It does not attempt to capture the broader objectives or planning factors for the overall operation, but only those of the overall PR mission. The objective of the planning function is to "aim the weapon system"—to emplace processes and forces—so that when an event occurs, we can "pull the trigger" and reasonably expect a successful outcome.

Execution

"…to accomplish the right Tasks…"

Execution includes all activities designed to perform the necessary tasks to achieve the desired effect of returning isolated personnel to duty once an isolating event has occurred. This can be likened to "pulling the trigger" on the weapon system. Everything done in preparation and planning is designed to ensure the capability to perform the following tasks (which can also be thought of as "objectives") when an event occurs. Execution begins as soon as someone becomes isolated and ends when that person is successfully reintegrated.

Personnel recovery is a difficult mission with well-defined tasks (or objectives) that must be accomplished during execution. These tasks are common to all commanders faced with the responsibility for the mission, forces employed in a recovery effort, and personnel who find themselves isolated.

Current doctrine states that each component of a joint or combined force is responsible for the recovery of its own isolated personnel within its capabilities. However, each accomplishes those critical PR tasks in its own way, some using assets dedicated to the purpose, others taking the capability "out of hide." Some components do not have the inherent capability to accomplish all the necessary tasks. Different interpretations of guidance, terminology, and methodology, coupled with historical understandings of the mission, have led to confusion and conflict amongst the Services and components with respect to responsibilities. Regardless, each component must ensure it has the capability, or is able to articulate its limitations to gain access to the capability through the joint force, to accomplish all of the following tasks.

As we transform PR from a Service-centric to a joint-focused concern, we must realize that the best way to accomplish this mission is not to force each component to develop the complete capability to accomplish all the tasks using their own forces, but to employ the forces each already has, or is developing, to accomplish those tasks for which they are well-suited. Component commanders must identify those capabilities, as well as shortfalls within their portion of the battlespace, to the joint force commander (JFC) who, in turn, must shift capabilities to ensure that all the tasks can be accomplished throughout his area of responsibility (AOR) or joint operations area (JOA)—or consciously accept the risk of not doing so.

There are, of course, many tasks and activities at all levels that must be accomplished. However, they all support the accomplishment of these "execution tasks." Isolated personnel have four critical tasks they must accomplish (depending on their isolation situation), hopefully, supported by the combatant commander's PR architecture: ***survive***, ***evade***, ***resist***, and ***escape***. Isolated personnel must also contribute, within their capability, to the accomplishment of the five critical tasks for which commanders, their staffs, and the forces under

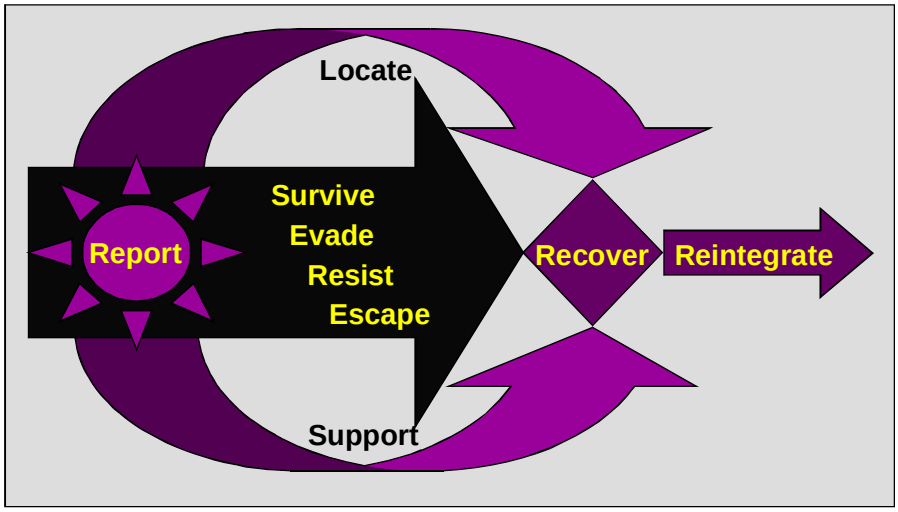

Figure 5. Execution

their control are responsible: ***report***, ***locate***, ***support***, ***recover***, and ***reintegrate***.

Survive

All isolated personnel must be adequately prepared to **Survive** in any environment in which they are expected to operate. To survive is the fundamental task of any isolated person whether they are simply lost in the woods, evading enemy patrols, resisting captors, or escaping to friendly territory.

Evade

Evade is the task "whereby individuals who are isolated in hostile or unfriendly territory avoid capture with the goal of returning to areas under friendly control."[20]

Resist

Resist encompasses the ability of isolated personnel to thwart a captor's attempts to exploit a captive for intelligence or propaganda purposes.

Escape

Escape encompasses the employment of the knowledge, attitudes, and skills to gain and maintain one's freedom once captured. International law makes a clear distinction between evaders and escapers (or "escapees"[21]) that necessitates adequate preparation and planning for both, in anticipation of the differences during execution.

Report

Report is the recognition, proper notification, and acknowledgment that personnel have or may have become isolated. Accountability processes must be put in place and proactively managed. Commands must establish formal links between those accountability processes and the PR reporting process. Knowledge of the existence of a missing person cannot remain in personnel channels, but must be pushed to operations in a timely, accurate manner. Besides through a component's accountability mechanisms, reports can also be initiated based on visual sightings or sensor indications of an isolating event, or on communications with an isolated person. The report is the trigger that starts the procedures to validate the isolation event, collect information, and energize efforts to locate, support, and recover the isolated person.

Locate

Locate is the action taken to precisely find and authenticate the identity of isolated personnel. On scene forces that observe an isolating event must take immediate actions to gain and maintain the isolated person's location and authentication. PR architecture efforts begin as soon as the report of an isolated person is initiated, using all necessary means, and continue until the isolated person is recovered. Location can be obtained and verified by visual contact, through communications or intelligence, or by sensors.

Support

Support begins the moment an individual is reported isolated and continues until recovery. There are support-like activities during recovery and reintegration, which are covered under those tasks. Support has two elements.

The first includes those activities to mentally, physically, and emotionally sustain the isolated person. Support specifically includes: establishing two-way communications; building and maintaining the isolated person's morale; and providing SA, medical advice, and protection from hostile forces. Once the isolated individual(s) has been located, forces can provide supplies and more effective communication, SA, and protection. The objective is to enable the isolated person to gain and maintain situational superiority and proactively contribute to a successful recovery.

The second element of support involves the isolated person's next-of-kin (NOK)[22] and, as a relatively new concern, deserves some elaboration. We've all seen family members or friends of people in captivity on the world stage expressing their frustration at the apparent lack of government action, or extolling the virtues of their particular loved one and his ability to "shoot both eyes out of a running polecat with a single shot at 1000 yards ever since he went to sniper school." Such actions on the part of a family member or friend, however well intentioned, are almost certainly not going to help the isolated person…especially if his captors recently had an associate who happened to be a victim of your friendly neighborhood sniper-man. In fact, when NOK choose to speak to the media, they either become members of the team that is doing all it can to support the isolated person, or they inadvertently contribute to the team that is trying to exploit the isolated person.

By providing an appropriate level of support, we can ensure the former. Without that support, they usually fall into the later category. When an isolated person's identity is publicly known or about to become known, organizations must proactively seek out the NOK and provide support. Family members and key friends must be made aware that PR efforts are underway, and that if they desire to engage the media, there are themes that may be positively projected and certain information that must be protected. This will reduce both the frustration of the NOK and the likelihood of negative media impact on the isolated person's situation.

Recover

Recover includes any employment of forces, or diplomatic or civil processes, to gain custody of the isolated person and return him to friendly controlled territory. The recover task begins with the launch or re-direction of forces[23] or the engagement of diplomatic or civil processes, and does not end until the formerly isolated person is handed over from the recovery element to friendly forces for reintegration.

The recover task can be performed by diplomatic means, civil actors, or other methods (such as hostage rescue) that the established PR architecture does not control. The PR architecture must be coherently interoperable with the "owners" of those recovery methods.

To maximize the likelihood of success and minimize risk to forces, certain criteria should be met prior to committing forces in a threat environment: the force should have communication with the isolated person; the identity of the isolated person should be authenticated; the location of the isolated person must be known to a degree that enables the force to arrive in the objective area with an acceptable margin of error; the isolated person's intentions and medical condition should be known; and the threat situation must be clear.

Reintegrate

Reintegration[24] is the process of conducting appropriate debriefings and reintegrating the recovered isolated personnel back to duty and their families. The task begins as soon as the recovery force transfers the responsibility of the isolated individual to an entity specifically tasked with reintegration responsibilities, and ends when the individual is returned to duty and requires no further care.

Reintegration is aimed at the recovered isolated person, and usually necessitates direct support to NOK. The process beings with an immediate physical and psychological assessment, and is designed to give the individual time, space, and support to decompress after what has undoubtedly been a significant experience. For some, perhaps those who have experienced a short-duration survival or evasion episode, the process will be short. For others, especially those who have experienced a particularly long or brutal experience, the process will be much more involved and will last much longer.

A recovered isolated person, especially in the event of a long or well-publicized isolation, is a magnet for steely-eyed process owners who have blocks to check: intelligence, operations, legal, finance, personnel, public affairs, medical, dental, and psychological, at the very least. The objective is to weave the myriad of processes that occur upon the return of an isolated person—each with its own process owner and objectives—into a seamless flow designed to meet each process objective while maintaining the primacy of the health and welfare of the recovered isolated person.[25]

Adaptation

"…learning and adapting as we go."

Those who would profess passion for and influence over DOD's performance of personnel recovery, must embrace networked, dynamic, and adaptive behavior in the face of advances in technology and adaptive adversaries, and a world-wide threat that can alter the "AOR of concern" overnight. PR professionals and temporary practitioners alike must network to ensure the timely, accurate, and adequate sharing of any information that bears on personnel recovery. They must be dynamic—to go "looking for trouble" so they can rapidly address issues proactively. And they must be able to rapidly adapt the PR system to meet evolving conditions. Adaptation is no different from adjusting one's aim to account for weaknesses in the system or changes in the environment.

Assessment

It is crucial that any organization with PR concerns set standards and hold itself accountable for achieving those standards. Recognizing that PR is a concern in any operation in which personnel are placed at risk, it is

vital that PR be included in every combatant commander's Joint Mission Essential Task List (JMETL). Conditions and metrics must be sufficiently standardized amongst combatant commands to ensure the ability of Services to meet the needs of the warfighters. Given the possible strategic impact of a PR event, the ability of the Services to provide forces trained and equipped for PR, and the combatant commands to accomplish the PR tasks must be reported through the Defense Readiness Reporting System (DRRS).[26]

Lessons Learned

The **debrief** of applicable commanders and staffs (command and control nodes), recovery and support forces, and the isolated personnel as soon as possible after an event ensures the timeliness and applicability of the information obtained. The immediate need is to capture and disseminate crucial preparation, planning, or execution issues to increase effectiveness and efficiency, and to avoid the repetition of mistakes. Much of this information is intelligence and equipment related. The need to conduct, at a more appropriate time, more detailed debriefs of each of these elements to capture and validate lessons learned (LL) is obvious if not yet formalized.

The debriefing of recovered isolated personnel is incorporated into the reintegration process. JPRA owns processes designed to ensure the timely, accurate dissemination of those lessons learned. However, there is no formal joint methodology to ensure the capture of observations, issues, and lessons learned from the forces or the commanders and staffs. Current and emerging "lessons learned" processes do not adequately address all PR issues. The model proposed herein provides a framework which various owners of LL processes can use to ensure their areas of concern are covered, while providing those concerned with the entire PR system the ability to see what is missing and focus on addressing those areas as well.[27]

Requirements

Any formal requirements determination, validation, and programming processes must include PR considerations. As PR is integrated into JMETL and the DRRS, the identification of a warfighter's PR requirements will become more formalized. DPMO, US Joint Forces Command (USJFCOM), and JPRA must appropriately advocate PR material and non-material solutions to assist the Services in meeting combatant commander needs through the formal DOD requirements process. "Born-joint" initiatives must be marshaled through the Joint Capability Integration and Development System (JCIDS) in a way that garners Service support.

Additionally, the requirements process must take into account the importance of operating in an multiagency, multinational environment and allow for programming to ensure the interoperability of DOD's partners.

JCD&E, RDT&E, and JI&I

Joint Concept Development and Experimentation (JCD&E), Research, Development, and Evaluation (RDT&E), and Joint Integration and Interoperability (JI&I) activities must be actively engaged to address PR issues. JPRA's relationship with USJFCOM provides ready access to the DOD entity responsible for JCD&E and JI&I. Relationships with the various RDT&E venues must be continuously cultivated. JPRA and other PR offices must marshal PR initiatives through the various venues and processes to ensure valid concepts emerge as viable capabilities.

Using the Model: Concepts to Capability

The model is designed to ensure we address the necessary and sufficient concerns to achieve success in personnel recovery. The author hopes the reader places value on the dimensions, elements, and relationships contained in the model, and not necessarily in the graphic depiction provided in figure 2.

JPRA has been successfully using various evolutions of this model for the past four years in its efforts to shape PR policy documents, write PR doctrine, develop and provide PR education and training, and evaluate PR lessons learned. If currently on-going joint coordination goes well, this model will soon be codified in Joint Publication 3-50.

The model has been used successfully to engage USG interagency partners on PR matters in conjunction with DPMO's National Personnel Recovery Architecture (NPRA) effort. It has also been used in discussions with NATO partners to ensure an interoperable approach to PR issues of mutual concern. Additionally, the Department of the Army PR Office of Primary

Responsibility has energized that Service's preparation efforts using the preparation function contained herein.

Conclusion

Focus must be maintained on developing, implementing, and refining the processes and equipment that support potential isolated personnel, commanders, staffs, and supporting functions, as well as recovery forces. Those processes must be captured in a solid foundation of policy, doctrine, and JTTP. The processes and equipment must be designed to gain and maintain situational awareness within the sphere of interest and, in order to bring about the desired effect, gain and maintain situational superiority within the sphere of influence. We must educate and train all force elements, as well as give them a measure of their ability to plan and execute PR. Also, DOD must provide a capability to rapidly develop PR lessons learned and new concepts into capability for the warfighter. The model defined in this article provides a comprehensive approach to dealing with these challenges for personnel recovery. It has proven effective not only in DOD, but in some key USG interagency and international efforts as well. That said, this model must, itself, remain open to proactive adaptation in the face of today's—and tomorrow's—evolving threats.

About the author:

Col Mark E. Bracich is a US Air Force combat rescue helicopter pilot and former rescue squadron commander. He has been with the Joint Personnel Recovery Agency since February 2000—first as the Deputy Director for Plans, Exercises, Academics, and Doctrine (DJ5); then Director of Policy, Doctrine, and Training (J7); and currently as the Deputy Commander. Consequently, he has been fortunate to witness most of the revolution, and the continuing evolution, of thought with respect to personnel recovery. The original draft for this article was written during the summer of 2001.

ENDNOTES:

[1] The most-current DOD-approved definition of PR is found in DOD Directive (DODD) 2310.2 (Dec 00). A later, more accurate definition can be found in Chairman, Joint Chiefs of Staff Instruction (CJCSI) 3270.01A (Jul 03) (S), but the CJCSI does not take precedence over the DODD. "Isolated Personnel" is defined in JP 1-02. Both definitions require significant revision to capture DOD's increased understanding of this evolving mission area. The author advocates the concepts in the working definitions here for inclusion in the revision of Joint Pub 3-50 and all appropriate DODD directives and Joint Publications. As of this writing, the actual wording of the definitions is undergoing formal joint coordination.

[2] The term "multi-agency" is proposed as more inclusive than "interagency"; the latter, at least in Washington, inferring specific US Government agencies and processes. "Multi-agency" is intended to be more generic and include non-governmental agencies.

[3] The Institute of Defense Analysis (IDA) NPRA study, mandated by Congress and commissioned by the Defense Prisoner of War/Missing Persons Office (DPMO), broadens the DOD definitions of PR and Isolated Person to make them applicable at the national interagency level. One of the tenets of the NPRA study is that just as DOD requires policy to ensure its components take a coherent approach to PR within DOD, the interagency partners will require policy, in the form of a National Security Presidential Directive (NSPD), to ensure coherent integration of all USG efforts.

[4] Dept of Defense Directive (DODD) 2310.2 assigns the Commander, US Joint Forces Command, as the DOD Executive Agent (EA) for PR. JPRA is responsible for the execution of PR EA functions.

[5] Except where noted, the author paraphrased an idea he first heard from the Commander, USJFCOM, Admiral Edmund P. Giambastiani, and use the term "joint" to include the traditional meaning of the term in the military sense, as well as multiagency and multinational.

[6] The author has, in fact, used this model successfully in discussions with members of the USG Interagency community, NATO, and Partnership for Peace (PfP).

[7] The effort began with an ANSER study, completed in 2000, which attempted to define the "DOD Personnel Recovery Architecture" by completely enumerating every process that affected PR. While that study failed to provide a coherent, systematic approach to addressing the issues, it served as a starting point for JPRA subject matter experts. Since then, the model has undergone spiral development, with only minor modifications over the last two years. One need not look too far to see its effect in DOD's approach to PR.

[8] "DOTMLPF" is an acronym for "Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities". For further information, the reader is referred to CJCSM 3170.01A and 3170.01D, the primary publications on the Joint Capabilities Integration and Development System (JCIDS), which are, as of this writing, under flag review and scheduled for release in early 2005.

[9] In fact, JPRA used the model to develop PR lessons learned for Operations ENDURING FREEDOM and IRAQI FREEDOM. A portion of the results was developed into the USJFCOM OIF Major Combat Operations Lessons Learned DOTMLPF Change Recommendation (DCR) for Personnel Recovery. The resulting Joint Requirements Oversight Council Memorandum (JROCM) allocated over $21 million to address immediate PR concerns.

[10] Merriam-Webster Online (www.m-w.com)
[11] Dictionary.com, from The American Heritage ® Dictionary of the English Language, Fourth Ed., Copyright © 2000 by Houghton Mifflin Company.
[12] Merriam-Webster Online (www.m-w.com)
[13] Given that DOD's planning process begins with the highest-level guidance (National Security Strategy) and flows downhill from there, some could argue effectively that planning precedes preparation. The author's use of the terms here must be held in the context of the model. For those who simply cannot think independently of the DOD PPBES, I would offer the following alternative labels: Enable (Prepare), Emplace (Plan), Employ (Execute), and Evolve (Adapt).
[14] The use of the term "architecture" here is deliberate. The reader is referred to the definitions and earlier discussions.
[15] Lt Col Mark E. Bracich, "An Integrated 'Infrastructure of Documentation' to Support Personnel Recovery," *Air Land Sea Bulletin*, Fall 2001.
[16] There are, of course, other groups of people that PR "touches," but what DOD does to or for these people is not essential to the success of the mission. For example, while support to the next-of-kin (NOK) of isolated personnel could be considered essential to the success of the overall PR mission, the author has elected to categorize those processes under the preparation of commanders and staffs in dealing with NOK under the tasks of "support" and "reintegrate."
[17] This force element has usually been referred to as "recovery forces." It is important to use the more generic term "forces" to avoid the common misconception that only forces dedicated to the mission of PR need be considered in preparation, planning, and execution efforts.
[18] The author does not use the joint terms "area of interest" or "area of influence" because of the precise, and perhaps overly restrictive (for the purposes of this model) nature of the JP 1-02 definitions as they apply to commanders.
[19] Joint Vision 2020, pg 23.
[20] Definition for "*evasion*", Joint Publication 1-02, *DOD Dictionary of Military and Associated Terms*, as amended through 30 November 2004.
[21] *Ibid.* "Escapee. (DOD) Any person who has been physically captured by the enemy and succeeds in getting free."
[22] It is not the author's intent to define, or use, the term Next-of-Kin in any legal sense. It is vital that the agencies of concern provide appropriate support to those family members and friends who may prove to be influential or outspoken, without regard to any legal restrictions of the term.
[23] Some have argued that the recover task should begin with mission planning. Obviously, mission planning must be accomplished for all forces accomplishing or supporting any of the execution tasks. The author's intent is to include all planning activities (to include mission planning) under the planning objective of the model. This is primarily an academic argument that should not affect the warfighter.
[24] This task has historically been referred to as "return" and often, incorrectly in many cases, as "repatriation." The author advocates changing the name of this task to more accurately reflect what is included in the task and to eliminate confusion surrounding the phrase "*return* to friendly control" which is often used to describe the recovery process or PR in general. *Repatriation* is also unsuitable to describe the entire task since it assumes the isolated person has been in captivity and will return to the US upon completion of the process. *Repatriation* also creates confusion in the interagency community due to its use regarding the repatriation of American citizens following an evacuation or non-combatant evacuation operation, which does not include many of the processes vital to the successful accomplishment of this task.
[25] Reintegration will be well covered in the upcoming revision to DODD 2310.4 and the new Joint Publication 3-50.
[26] For information on DRRS, see DOD Directive 7730.65, "*Department of Defense Readiness Reporting System (DRRS)*", 3 June 2002 (certified current as of 2 February 2004).
[27] USJFCOM's Joint Center for Operational Analysis-Lessons Learned (JCOA-LL) provides the best hope for a complete treatment of PR lessons learned at the Operational (OP) level of war. JPRA is actively involved in JCOA-LL efforts. However, the OP focus leaves the Strategic National (SN), Strategic Theater (ST), and Tactical (TA) levels untouched by any officially recognized full-spectrum approach. JPRA is working to address this concern.

Transforming Personnel Recovery in USEUCOM

Lt Col David Kasberg

Transformation. Yes, it may be the latest buzzword, but it also accurately reflects what is occurring with the personnel recovery (PR) program in United States European Command (USEUCOM). Based on lessons learned from Operation ENDURING FREEDOM (OEF) and Operation IRAQI FREEDOM (OIF), anticipated changes in force structure, technological improvements, internal assessments, and the current nature of the area of responsibility (AOR), USEUCOM embarked on a program to transform its PR program. The vision: to design a flexible, lean, responsive, and ready, joint PR capability to respond to Commander, USEUCOM and Supreme Allied Commander Europe (SACEUR) requirements.

Command and Control (C2). USEUCOM observations during OEF and OIF indicate the need for a PR command and control (C2) node on the geographic combatant commander (GCC) staff. Traditionally, the PR C2 node for the GCC staff was the joint search and rescue center (JSRC), which normally falls under the joint force air component commander (JFACC). This JSRC also functions as the air component rescue coordination center (RCC). The distance the relevant PR information has to travel to meet GCC staff requirements increases the difficulty in handling and maintaining situational awareness on PR events. With the advent of the deployable Standing Joint Task Force Headquarters (SJTFHQ) in JFCOM, the need for a PR C2 function at the USEUCOM GCC Headquarters (HQ) will be even greater.

USEUCOM's answer to fill this void is the joint personnel recovery coordination cell (JPRCC). The JPRCC will function as part of the European Plans and Operations Center, Joint Operations Center (EPOC JOC). The functions of the 24 hours per day/7 days per week (24/7) JPRCC are:

- Provide recovery expertise in HQ USEUCOM
- Advise CDR USEUCOM on use of conventional recovery and non-conventional assisted recovery forces
- Coordinate recovery operations in the AOR
- Monitor the status of recovery-capable component forces
- Coordinate supporting/interagency requirements

The JPRCC will provide the command the big picture when it comes to recovery, without getting into the weeds by attempting to directly manage the PR missions themselves. It will provide a better overall view of all aspects of PR to the GCC; and provide timely and relevant information to staff personnel in the best position to look at the overall political implications of courses of action. Finally, it will free the air component RCC to focus on executing recovery missions.

Rapid Reaction PR Assets. The very nature of the USEUCOM AOR requires dedicated, trained, and equipped recovery forces ready to deploy with little warning. There are numerous countries in the AOR that are on the brink of collapse and chaos (witness events in Liberia for example). In spite of the regional instability, American civilian leadership in theater and back home remain hopeful they can prevent a humanitarian disaster. Given the sheer numbers of Americans from all parts of the government and industry in the AOR, the potential for a request for assistance from the Department of State is truly only hours away.

The potential for non-combatant evacuation operations (NEO) with minimal notice are continually present. The link between PR and NEO may seem obscure, but in reality it is not. NEO are well-planned operations executed by professionals. Unfortunately, however, the very unstable situation in the country that necessitated the NEO in the first place also increases the chances personnel will become isolated while in harm's way and require rapid recovery. This is evident on a recurring basis, as when U.S. troops are employed in a foreign country that is failing—lawlessness, banditry, and terrorism lurk in the shadows. Many times, government or rebel forces do not want the U.S. to perform a NEO, because it lessens their credibility, so they may oppose a NEO. Other groups may even target U.S. forces to increase their stature with indigenous personnel, dubious transnational organizations, and terrorist groups to achieve political or monetary goals.

Based on the above and short-notice crisis PR requirements, CDR USEUCOM has established the requirement for joint PR forces in USEUCOM to prepare for shipment, up load, deployment, down load, reassembly, and then be ready for mission tasking within 48 hours of receipt of the deployment preparation order. The goal is that contingency operations in the USEUCOM AOR will not be delayed while waiting on PR forces.

Standing Joint Repatriation Teams. USEUCOM is establishing joint repatriation teams, readily available 24/7, to respond to repatriation taskings. Unlike doctrine, which states each component will provide repatriation teams, USEUCOM believes joint teams will meet the needs of the war fighter in a transformational way, while lowering operations tempo for USEUCOM personnel overall. These joint teams will be capable of responding within 24 hours of notification (12 hours during contingency operations), and be capable of providing Phase I and/or Phase II repatriation services at Landstuhl Regional Medical Center, Landstuhl, GE. As the primary Phase II repatriation site for both OEF and OIF, USEUCOM and Landstuhl stand ready to debrief and reintegrate our forces as quickly and smoothly as possible. The team members will be identified and trained in PR in general, and in repatriation in particular.

Transformation of PR. It is USEUCOM's goal to transform PR in theater from a garrison, often Service-centric force requiring months to prepare, mobilize, and begin the fight, to a flexible, lean, responsive, and ready joint force. As we prepare for the future, we continue learning from past operations, and applying the applicable lessons to the future battle space. With support from the HQ and Component leadership, USEUCOM is getting the job done–stepping out transformationally in PR.

Global Personnel Recovery System

Mr. Joe Laur
Mr. Mark Mangiacarne

Isolated, but not alone

"Shilo 34 has threats north and east of my position"… the data report received by the Tactical Operations Center, call sign Posse (also received near real-time by the rescue coordination center). "Request immediate recovery Posse"…"Posse copies Shilo 34 standby"…"Shilo 34 expect recovery in 25 mikes by Bradley from west." Imagine the warm fuzzy Shilo 34 would have by knowing that his command and control (C2) is aware of his status (isolated), position (global positioning system (GPS) coordinates), and has quickly advised him of "the plan" to effect his recovery. Assuming Shilo's successful recovery, the Bradley's platoon would subsequently advise the rescue coordination center (RCC) of the recovery mission's success. The enabling technology, which will support the demanding C2 linkage portrayed above, is the Global Personnel Recovery System (GPRS).

GPRS' inherent military utility promises to provide a truly transformational capability to the warfighter, as it will link the core players (isolated person (IP), recovery force, and C2 node) of a personnel recovery (PR) event to improve reaction time, situational awareness and, ultimately, IP and recovery force survivability.

The aforementioned scenario highlights the long-standing challenge that warriors face when they are separated from friendly forces and must quickly convey their new status to their C2 structure. During an isolating event, the adage "time is of the essence" takes on a far greater sense of urgency than perhaps any other type of event, save enemy fire. The ability to quickly, accurately, and transparently self-report your position, while at the same time maintaining two-way data communications with the C2 node, is paramount in order to ultimately assist and effect your own recovery. This is true regardless of whether the communication path is line-of-sight or over-the-horizon (OTH). Additionally, while it is important that the isolated person share critical situational awareness information with his C2 element, it is equally important to also "close the loop" with the recovery force (ground, air, or sea) in order to assist in the fragile and high stakes terminal phase of the recovery.

By using commercial satellite infrastructure, GPRS will provide a global two-way data communication and location and identification capability to allow warfighters to expeditiously self-report an isolating event.

Data and Tracking

The GPRS is a project being pursued by the Joint Personnel Recovery Agency (JPRA) at Ft Belvoir, VA, as part of the Personnel Recovery Extraction Survivability aided by Smart-sensors (PRESS) Advanced Concept Technology Demonstration (ACTD). GPRS provides a 2-way, over the horizon, tracking and data-communications capability for personnel recovery. The GPRS project is not building another radio; rather, it is developing a miniaturized transceiver, and the architecture to support it, which will be integrated into survival radios and other Blue Force Tracking (BFT) devices in the near future. The GPRS transceiver is a low power transmitter, which will improve the low probability of detection (LPD) and low probability of exploitation (LPE) capabilities of the radio. The low power also benefits the warfighter in terms of low power consumption, allowing for smaller batteries or longer life with existing (or common) batteries.

GPRS communicates through commercial satellites, using short data messages (i.e. text) between the IP, recovery forces, and the RCC or other C2 node. The miniaturized transceiver card, about the size of a fat credit card, will be small enough to easily be integrated into any number of the platforms, including ground vehicles and aircraft, putting the recovery force in direct contact with the IP.

The GPRS provides an inherent tracking capability by including a GPS position in the data transmissions. This position can be from an existing GPS, such as the mil-coded system onboard an aircraft, or from the GPS chip located on the card itself. The receiving system will use this to provide tracks on a display, whether Falcon View moving map or the Global Command and Control System's (GCCS) common operational picture (COP). On the recovery vehicle display, a moving map can show the IP and other members of the rescue task force, all updated automatically from the GPRS position messages.

Fills the Gap (or maybe "Documented Need")

During 1995 to 1999, Office of the Secretary of Defense/Acquisition and Technology (OSD/A&T) chartered a joint combat search and rescue (JCSAR)

joint test and evaluation (JT&E) to perform a comprehensive assessment of the JCSAR mission area, focusing particularly on the three areas of location/ identification; surface-based command, control communications, computers, and intelligence (C4I); and JCSAR mission execution. Significant findings from the JT&E included recommendations that LPD/LPE systems enhance IP survivability, future systems should minimize line-of-site limitations and dependency on airborne collection systems, and survivor-locating system should be placed on all recovery vehicles and recovery escort platforms.

In 1999, while considering candidate systems and technologies for the PRESS ACTD, JPRA began looking for something to better solve the location/ identification problem. Ideally, it should be LPD/LPE, include GPS and a unique identifier, not be dependent on line of site or airborne relay platforms, and be able to be integrated into aircraft and other recovery platforms.

What JPRA found was a new device, which came to be known as GPRS, based largely on a US Army program called "movement tracking system" (MTS). MTS was originally a logistics program for tracking Army equipment as it is moved around the country and the world. In recent years, the same technology has been adopted by the Army Force XXI Battle Command Brigade and Below (FBCB2) program and has evolved to support their real-time BFT system. The technology of MTS was reviewed by JPRA for the PRESS ACTD, with the objective of reducing the size of the transceiver to something small enough to fit into a handheld survival radio. This led to the requirement to miniaturize the transceiver circuitry to a 2" x 3" palm-sized card.

The technology of GPRS is somewhat unique in the world of Blue Force Trackers in that it operates in the L-band and S-band frequencies, avoiding the increasingly crowded ultrahigh frequency (UHF) band. In these commercial frequency bands, there is more room to spread the signal across a wider range. Spreading lowers the signal in any one frequency, making it harder to detect and exploit. The system architecture employs strong commercial encryption algorithms today for the PRESS ACTD, and has the ability to load National Security Agency (NSA) approved encryption algorithms when accredited to do so for operations in the future. Eventually, the plan for GPRS would be to expand to add S-band satellite support, providing additional support from more relay platforms.

Robust Architecture

The power of the GPRS to solve the CSAR location/ identification problem lies not simply in the miniature transceiver, but in the complete architecture that supports it. The GPRS architecture consists of the user segment (miniature transceiver integrated in user devices); the space segment (satellite relay supplemented by tactical relay platforms); and the command, control, communication, and computers (C4) segment (data down linked and provided to the combined air operations center (CAOC), joint search and rescue center (JSRC), or RCC). The architecture is illustrated graphically in Figure 1.

GPRS transceivers are the core of the user Segment. As previously described, they have been integrated into various aircraft and other recovery platforms under the PRESS ACTD. JPRA plans to demonstrate a fully functional PRC-112G CSAR transceiver with a GPRS transceiver card inside, providing an enhanced capability survival radio. The transceiver card will also allow GPRS to be integrated into other future platforms or computing devices, such as the Air Force Special Operations Command (AFSOC) small portable computing device for pararescue and special team members.

The space segment is made up of relay platforms to provide OTH capability for GPRS signals. Currently, the ACTD is using a commercial geosynchronous communications satellite to demonstrate the GPRS capabilities. The miniaturized transceiver, when delivered next year, will also support an S-band downlink, such as that provided by the Globalstar constellation of low-earth orbiting (LEO) satellites. LEO satellites have the advantage of requiring less transmit power from future user devices, and giving better signal strength for existing transmitters. The long-term goal of GPRS is to secure a spot on the next generation GPS Block III satellites to provide a relay platform. This would provide a robust constellation for receiving and relaying

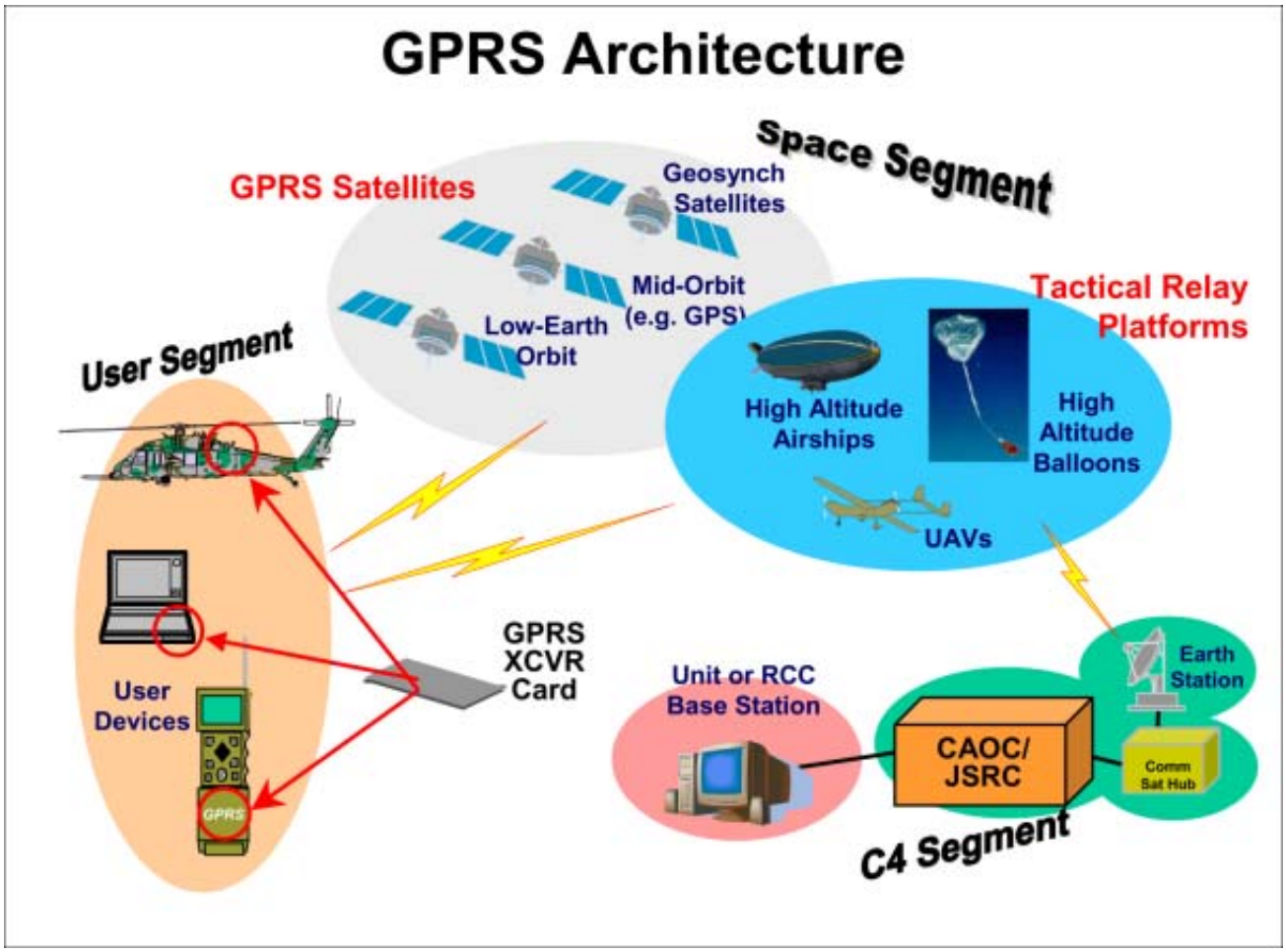

Figure 1 GPRS Architecture

GPRS signals worldwide. This will continue to be pursued through the National Search and Rescue Committee.

To supplement the satellite relay, JPRA is also investigating the use of tactical relay platforms for localized, over the horizon signal relay. Sandia National Laboratories, under contract to JPRA, demonstrated a high-altitude balloon with a communication relay payload in 2003. They are presently working on a UAV-based relay that specifically relays the GPRS L-band signal for demonstration in early 2005. The concept of employment for this would be to deploy it on a unmanned aerial vehicle (UAV), balloon, or high-altitude airship over a specific area to improve signal quality and lower the power requirement for the transmitter, which in turn could significantly increase battery life, or allow for a reduced battery size. Such an airborne relay could also supplement the satellite coverage in a particular region providing much improved reception in mountainous terrain or at high latitudes.

The last part of the architecture, which ties it all together, is the C4 segment, which is where the satellite earth stations capture the signal, and provide the essential data and communication to the command and control node to initiate the rescue. For a large operation, the C4 segment would connect to the CAOC and the JSRC to provide theater support for search and rescue. But it could as easily route the signal from an isolated person to a local RCC or to a specific unit's command post, for notification and communication with home base. GPRS uses a network management system called task force application server (TFAS) to dynamically configure the network and user devices. With TFAS, the JSRC, or RCC controller can coordinate the rescue, and control who sees and communicates with the IP.

The C4 segment also provides commanders and staff visibility into the status of the forces by feeding the position tracks from GPRS into the Global Command and Control System and theater battle management core systems at the JTF command center. The IP as well

as the recovery task force can be quickly promoted to the common operating picture to provide visibility to the commander, and for deconfliction with other ongoing operations in the area.

Demonstrated in Operational Environment

The GPRS was first demonstrated during Joint Expeditionary Force Exercise (JEFX) 2000, in which it was integrated on an Air Force HH-60G "Pavehawk" helicopter, a US Coast Guard Cutter (the "Key Biscayne"), a US Customs P-3 Orion aircraft, as well as the JSRC. This was an important milestone in the concept development for GPRS, as JEFX 2000 was the first time that the recovery force, isolated personnel, and JSRC had continuous contact; and thus, improved situational awareness, tracking, and mission C2 capability between all players. Additionally, JEFX 2000 was important for GPRS in that it was the first time the system was installed on operational aircraft and vessels.

JEFX 2002 was another noteworthy venue for GPRS, as it was the core technology for a PRESS ACTD technology demonstration. During this experiment GPRS demonstrated its ability to enhance combat search and rescue, Blue Force Tracking for Special Operations Forces (SOF) as well as providing a secure interface to the JSRC. GPRS was installed on both an MC-130E Combat Talon I aircraft and an AC-130U Gunship aircraft via a hatch-mounted installation kit. For JEFX 2002, GPRS data messages were successfully passed two-way through a security guard located in the CAOC at Nellis AFB, NV.

In December 2002, GPRS was installed on HH-60G aircraft of the 301 Rescue Squadron (RQS) (Air Force Reserve), Patrick AFB, FL. The 301 RQS became the first dedicated operational user to provide warfighter feedback to assist in the systems' development and improvement. Within the first week of installation on 301 RQS aircraft, it was successfully used during an extended over-water search and rescue mission (over 500 nautical miles) of a commercial fishing boat captain in medical distress to provide in-transit visibility and two-way data communications between the recovery aircraft and the 301 Rescue Operations Center.

Additionally, the 301 RQS operationally employed GPRS during Operation IRAQI FREEDOM (OIF), where they were the very first dedicated CSAR unit to cross into Iraq. During OIF, the 301 RQS set up a forward

operating location at Tallil, Iraq, very early in the war (there was still fierce fighting going on nearby). At that time, Tallil was an abandoned wasteland of an air base, where the only existing base service was a combat controller with a backpack radio. As there was only one UHF-SATCOM [satellite communications] frequency for theater-wide use, that meant that it was always busy, and there was great pressure not to inundate it with administrative traffic. Plus, theater communication security requirements induced many changes to the single SATCOM frequency, which ultimately resulted in significant times when SATCOM was completely inoperative and not available. Therefore, GPRS was invaluable as it provided the C2 connectivity, which allowed the unit to forward-base, thereby cutting 1.5 hours from their response time; this allowed the unit to reach the outskirts of Baghdad un-refueled. SATCOM issues prevailed throughout the 301 RQS deployment, and during one follow-on search mission for Dogwood 02 (Navy F/A-18), GPRS provided the only communications linkage between the JSRC and the on-scene aircraft that day. When the JSRC wanted to communicate with the helicopters that day, they called the expeditionary operations center (EOC) in Kuwait via landline, and the EOC then communicated with the helicopters via GPRS.

GPRS has also been demonstrated in the higher latitudes of the world, as evidenced during its successful operational demonstration in Anchorage, AK, during exercise NORTHERN EDGE (NE) 2004. During this exercise, GPRS was installed on 210th Rescue Squadron (Air National Guard) aircraft (HH-60Gs and HC-130P), a US Coast Guard Cutter (USS Rush), the 210th Rescue Operations Center (Kulis ANG Base, AK), and the JSRC (Fort Richardson, AK). For this demonstration, GPRS messages were sent and received by the JSRC via Secret Internet Protocol Routing Network (SIPRNET) through the use of the Radiant Mercury security guard located at the FBCB2 Program Office Operations Center at Fort Monmouth, NJ. During NE

2004, GPRS supported numerous exercise CSAR scenarios, as well as a real-world rescue conducted on 2 June 2004. During this event, the 210 RQS used GPRS to coordinate the rescue of a 17-year-old hiker who had become ill in the mountains. The hiker's location was in significant vertical terrain, which did not allow normal line-of-sight radio coverage. GPRS provided the two-way communications linkage between the aircraft and the 210th Rescue Operations Center during mission prosecution, while also providing real-time track position data of the recovery aircraft to the squadron's supervisor of flying.

Conclusion

The development of GPRS has laid the groundwork for its integration into the overall Department of Defense (DOD) global information grid architecture. GPRS leverages existing and future commercial technologies and assets, augmented to meet DOD's mission-critical user requirements. It is an enabling transformational technology, as it will enhance coalition and allied situational awareness and interoperability. Its development approach supports the integration of the GPRS transceiver into any number of devices and platforms—be they handheld, man-pack, vehicle, aircraft, or vessel. Although GPRS was specifically developed to enhance the personnel recovery mission, its inherent capabilities will obviously support a myriad of other missions; for example, homeland security, emergency response, and counter narcotics to name a few.

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DOD Personnel Recovery Education and Training: Transforming PR One Commander and Staff at a Time

Mr. Fred Kleibacker
Director, JPRA Personnel Recovery Education and Training Center

"Transformation is about more than developing new strategies and structures – it is about changing culture, about encouraging new ways of thinking so that we can develop new ways of fighting and provide our armed forces the tools they need to defend our way of life."

Donald H. Rumsfeld, Secretary of Defense

Since 11 September 2001, the rapid and historic transformation of America's strategic environment has significantly challenged the conventional wisdom about personnel recovery (PR). This changing environment is necessitating a change in how we view, prepare for, and execute personnel recovery operations. This is especially true at the operational level.

The evolution from deliberate to adaptive war planning coupled with the switch from large permanent organizations to smaller, highly-distributed joint task forces that integrate and decentralize combat operations (including PR) will heavily influence future joint and Service PR doctrine, planning, and execution. Case in point is the emerging Army PR doctrine that is rapidly adapting to the changes caused by this new operational environment. This new operational environment is also having a significant impact on the importance combatant commands place on PR education and training for commanders and staffs for their commands, for joint task forces (JTF), and for force providers.

The old combat search and rescue (CSAR) and high-risk of capture (HRC) models, while applicable in many cases, have been turned on their ears for the conventional Army and Marines. Gone are the days of the Army and Marine Corps saying, "PR's an Air Force, Navy, or special operations forces (SOF) mission." PR is now an implied tasking for every combat unit during every operation. This considerable shift in perception is driven by the changes in the operational environment and the growing understanding that the type of personnel presently at risk today has changed significantly.

While the traditional HRC personnel (Air Force pilots, Navy pilots, and SOF) are still at risk, they are not necessarily the most at risk in all situations anymore. What has emerged is a new kind of HRC paradigm: soldiers, marines, seamen, airmen, contractors, and civilians who proliferate the battle space with little or no training and/or equipment specifically designed to aid in their ability to survive, evade, resist, and escape capture or assist in their own recoveries. The nature of this asymmetric environment increases exponentially the difficulty of recovering these personnel, while recognizing traditionally long held PR capabilities might be unsuitable or incapable.

This nascent awareness at the Service and joint level is a noteworthy shift in cultural attitudes: there is a growing awareness among commanders and their staffs that not recovering someone in this asymmetric environment has had, and may have in the future, a significant operational and strategic implication for the joint force commander and for the nation. The solution is not just about the acquisition of more capacity or new capability. It is about understanding how to integrate organic PR capabilities within the joint force into campaign plans and ensuring the JTF staff has a clear understanding of their enabling PR roles and responsibilities. At this juncture, it is an issue of commanders and their staffs "not knowing what they don't know." Admittedly, many don't know much about PR. Correcting this deficiency requires a robust PR education and training system for commanders and staffs in both professional military education (PME) and joint PME curriculums.

The challenge is DOD's PR educational model is immature and clearly under-resourced. As the PR educational continuum evolves over the course of the next few years, the Joint Personnel Recovery Agency's (JPRA) and the Service's role in education and training will evolve, as well it should. JPRA's growing participation with the Joint Warfighter Center in preparing the JTF HQ is critical to ensuring we meet combatant commanders' PR requirements, however this alone is insufficient. Service and joint PR education and training must be married at the hip and dovetail into the Joint National Training Capability (JNTC), existing

pre-deployment training cycles, and in-resident PR courses (both in future Service schools and joint schools like the Personnel Recovery Education and Training Center). Additionally, mobile training teams before, during, and after mission rehearsal exercises (MRX) must contribute PR training to prepare staffs before deployments.

This MRX support must be a collaborative effort between the Service education and training commands, battle staff training programs, the Joint Warfighter Center, and JPRA to ensure we get the right people the right education and training at the right time. We first ensure commanders and their staffs are aware of their joint PR roles and responsibilities. This gives commanders time to identify the right people for education and training early in the pre-deployment training cycle, which in-turn permits these new PR planners time to develop better plans, concept of operations (CONOP), and battle drills that can be rehearsed and exercised long before deployment.

The emerging PR education and training continuum must develop individuals and organizations to plan and execute PR from a joint context. Joint force commanders and staffs must understand full spectrum joint PR from preparation to adaptation. Joint and Service planners must learn to think of innovative ways to adapt and execute PR during emerging crises across the continuum of combat operations. All must understand the necessity of, as well as the political landmines and pitfalls of reintegration and support to the next of kin of our isolated personnel.

Our goal within the joint PR education and training community must be to grow and proliferate joint PR subject matter experts by providing them robust educational and training opportunities and access to joint PR knowledge, concepts, and principles–whether from the traditional or virtual classroom. PR must be fully integrated into the JNTC. It is one thing to plan – it is another thing to exercise and rehearse. No plan survives first contact with the enemy: only through rehearsal and exercise will PR become intuitive to the joint force.

Arguably, we are a long way from the vision described above. But no matter how the education and training is accomplished, the most important thing we can do is to teach our students "how" to think as opposed to teaching them "what" to think. To quote Gen Peter J. Schoomaker, Chief of Staff of the Army, "We must train for certainty and educate for uncertainty." Our overarching joint PR education and training goals must be to teach and mentor our students to embrace and achieve unity of effort from a diversity of joint capabilities.

We must educate all commanders and staffs to transparently integrate PR into their deliberate and crisis action planning processes to ensure they can respond to rapidly changing and uncertain environments instinctively from a joint perspective. If we do our job well, we can prepare our joint forces to plan for and recover isolated personnel through whatever means available as long as the joint commander deems it feasible, acceptable, suitable, and supportable.

Ultimately, the vision is to create an enduring PR spirit within the joint force that embodies nothing less than a relentless pursuit to recover all of our isolated personnel and return them to their loved ones with honor. This requires a DOD PR education and training system that is transparently institutionalized into Service, individual and collective training, joint PME, and the Joint National Training Capability. We owe nothing less to the men and women who risk their lives daily for our freedoms. But perhaps more importantly, it is our moral obligation and duty as leaders, educators, and trainers to ensure we make this happen.

About the Author:

Mr. Kleibacker is Director of JPRA's Personnel Recovery Education and Training Center in Fredericksburg, VA. Mr. Kleibacker joined JPRA in 1997 to help develop and teach the PR 101 and 301 courses. He retired from active duty in 1994 after serving 20 years in the U.S. Army Special Operations Community.

Intelligence Support to Personnel Recovery: It's not Magic; It's Just Hard Work

Lt Col John D. Huffstutter
Commandant, Personnel Recovery Academy

Introduction

Personnel Recovery (PR) has come a long way in a short time. Since the establishment of the Joint Personnel Recovery Agency in 1999, the core of personnel recovery has shifted from Air Force intelligence and combat search and rescue (CSAR) to Joint operations supported by intelligence, employing a broad range of recovery mechanisms. Recognizing a practical need to protect our personnel from capture and exploitation, and a moral need to bring our people home after we send them into harm's way, the Department of Defense (DOD) has placed a great deal of emphasis on improving our PR capabilities.

Each geographical combatant command bears responsibility for establishing and conducting a personnel recovery program. PR has become (more correctly, it has been recognized) as a mission area to be planned, prepared for, and executed in the context of a theater campaign. A personnel recovery event (an evading person, hostage, detainee, or prisoner of war (POW)) can influence national policy or change the course of an ongoing engagement. A proactive program implemented by a trained and prepared team saves lives, mitigates the operational impact of an event, and ultimately preserves our precious human resources. Intelligence support is an elemental part of a theater's personnel recovery program, and requires no less attention than support to other mission areas.

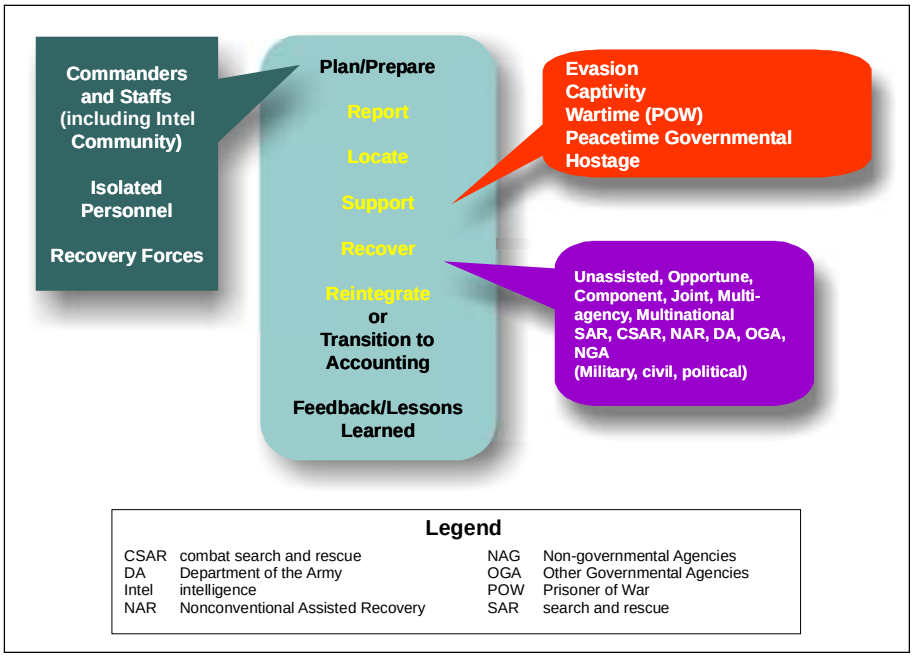
The Personnel Recovery Model

To help us think about the complexities of the personnel recovery mission area, Joint Personnel Recovery Agency (JPRA) courses are based on a model of personnel recovery that addresses key tasks arranged as a "kill chain." In a kill chain, each task must be performed in order to accomplish the mission successfully. In PR, there are five operational tasks: *report*, *locate*, *support*, *recover*, and *reintegrate*.

These operational tasks are preceded by the critically important step of planning and preparing for the mission. After the operational tasks comes the inevitable administrative feedback step (capturing lessons learned). If recovery efforts fail and a member remains missing or unaccounted for, at some point the unresolved case must be transitioned to the Defense Prisoners of War and Missing Personnel Office (DPMO).

There are three broad groups of people involved in the personnel recovery mission. The isolated person or potentially isolated person is someone who is or may become isolated (evader, peacetime government detainee, captive, hostage, prisoner of war (POW), duty status-whereabouts unknown (DUSTWUN), etc.).

Recovery forces might seem to be self-evident, but it is important to broaden from the traditional image of a helicopter with a jungle penetrator. Recovery methods range from shoe leather (walking out unaided) to recovery by friendly troops operating as a coordinated task force, from intensive political and diplomatic efforts to the efforts of private citizens (Rev. Jessie Jackson is, after all, two



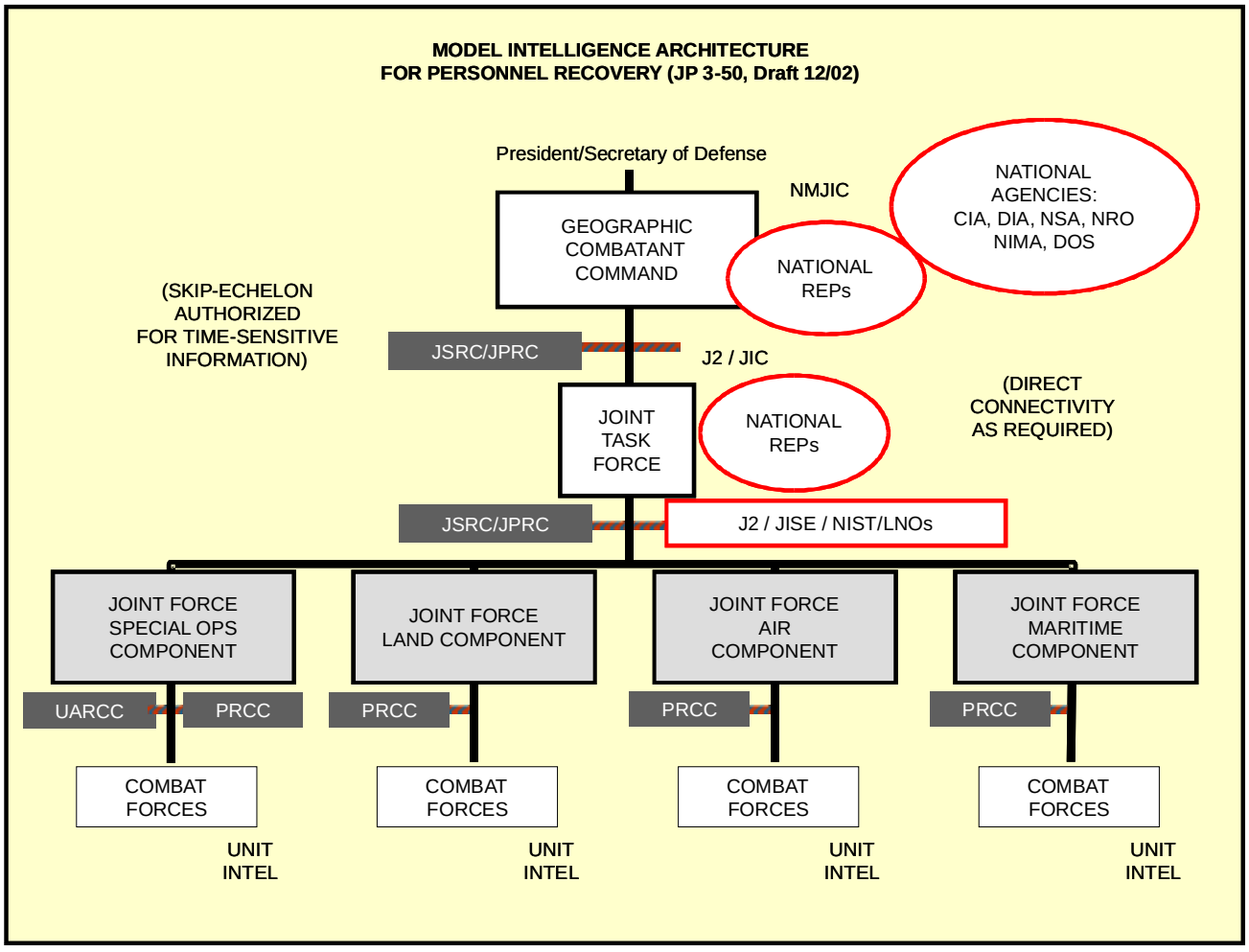
for two). And where more traditional recovery means are unavailable, non-conventional or unconventional assistance may be arranged to fill the need.

Commanders and staffs are the command and control and support structures conducting or supporting the PR mission. Obviously, this includes the theater combatant commander and his PR functional staff. It also includes less obvious elements, like the theater's intelligence center, national intelligence organizations, the Joint Staff and Department of Defense offices, and the Military Departments.

Personnel Recovery Architectures

Evolving doctrine for joint personnel recovery has created a model command and control structure that proved effective in Operations ENDURING FREEDOM and IRAQI FREEDOM. Traditional practice usually anchors the key PR node, the joint search and rescue center (JSRC) (or joint personnel recovery center) within the theater's joint or combined forces air component command (but it could be anywhere the joint force commander thought it best to put it). Each joint or combined component will also have a rescue coordination center (RCC) (or PR coordination center). The unconventional assisted recovery coordination center is normally attached to the special operations component. Wherever the JRSC resides, it is the central coordination point for all PR activities.

Greatly simplified, the concept of operations is this: on notification of an isolation incident/PR event, the cognizant RCC will notify the JSRC and other RCCs of the event, and start evaluating its ability to respond to the event. If the RCC is capable of executing a recovery, it will. If it is not, it will notify the JSRC that it is unable to respond and the JSRC will then refer the effort to an RCC that has the capability. If no immediate capability exists, the JSRC will task an RCC to begin planning a longer-term effort. Theater implementation instructions should clearly spell out decision-making and execution authorities along with rules of engagement (ROE).



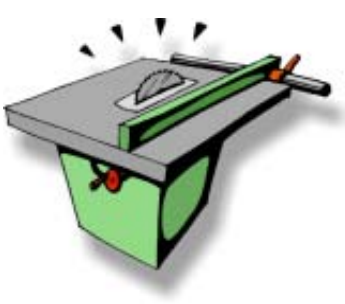
The simple answer to the question of intelligence support is an architecture that parallels the operational PR architecture (see the above illustration). Provision of the right intelligence to the right place at the right time is far easier if the architecture, required manpower, and resources are planned by the operations and intelligence planners working closely together during deliberate or crisis action planning phases.

National agencies provide a core of technical capabilities that range from responsive sensors and global communications and reachback, to in-depth, long-term analysis. The intelligence community (IC) POW/missing in action (MIA) analytical cell at the Defense Intelligence Analysis Center is a keystone part of the national-level core, blending responsiveness with unparalleled access and an ability to leverage virtually all of the intelligence community's capabilities. It is, however, "inside the Beltway" and does not presume to have the level or depth of knowledge that each theater's intelligence center would have on a geographical combatant commander's area of responsibility. That is why collaborative production responsibilities for intelligence support to PR (ISPR) are shared across the theater production centers.

The Joint Transformation Command for Intelligence (JTC-I) is the *lead* producer of the joint personnel recovery support products (JPRSP), the deliberate planning level product designed to provide "first-stop shopping" to theater consumers. Theater planners should use the JPRSP as a launching point to a variety of products and services to help them prepare their theater PR (and ISPR) architectures.

The ISPR Toolkit

Information and resources used by the entire PR community and beyond to prepare and respond to isolation and personnel recovery incidents can be categorized by the Home Depot frequent flyer as *Power Tools*. They include major intelligence sources like the intelligence community's formal production programs (involving Central Intelligence Agency (CIA), National Security Agency (NSA), non-governmental agencies (NGA), the intelligence community POW/MIA analytical cell, Defense Intelligence Agency (DIA), and Service and command intelligence centers). *Power Tools* include the kind of dynamic or archival information that doesn't have in-theater or "can't obtain without inside-the-Beltway" assistance. Think "Reachback."



Sources for technical support, planning assistance, policy guidance, and other products and services include the National Military Joint Intelligence Center (NMJIC), National Reconnaissance Office, NSA, Defense POW/Missing Personnel Office, and JPRA. Some other valuable sources are the media, diplomatic or consular information, the State Department and other governmental agencies, non-governmental agencies, and libraries—remember, much of the information about survival is readily available from open sources.

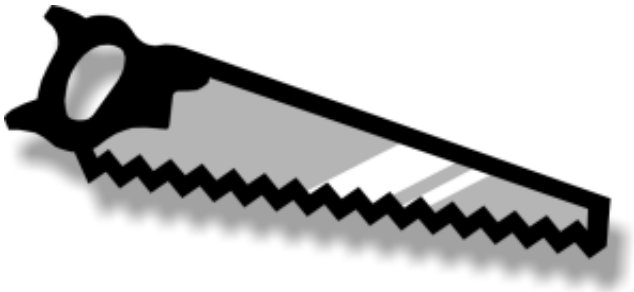
Bench Tools are information and resources used by isolated personnel, recovery forces, and commanders and their staffs to plan and prepare for isolation and personnel recovery incidents.

The JTC-I's JPRSP, as an operational level product focused on deliberate planning, is a prime example. It includes a wealth of archival and "static" information on terrain, geography, geodesy, cultural and political information, and imagery illustrative of the environment. Analytical products include studies of countries' prisons and detention facilities and search and rescue (and counter CSAR) capabilities. Through the JPRSP, customers can link to dynamic information, like orders of battle and theater products. US Joint Forces Command (USJFCOM) J2 [Intelligence] conducts an annual requirements call for the JPRSP. Each theater's prioritized production requirements are gathered, and prioritization criteria are established and agreed on. Then, using those criteria, USJFCOM forwards the next year's prioritized JPRSP production plan to the Joint Staff J3 [Operations] and J2 for approval.

Another *Bench Tool* is JPRA's Isolated Personnel Guidance. This tailored product incorporates an intelligence summary, survival/evasion/resistance/escape (SERE) information, and guidance on the legal

status an evader or detainee will have to guide them to an appropriate way to apply the Code of Conduct so that they can survive and return with honor.

Hand Tools are the knowledge, skills, and products that are needed close at hand. Information, products, and resources used primarily by isolated personnel and recovery forces, and produced primarily at joint task force (JTF) staffs and lower echelons to prepare for isolation and conduct personnel recovery missions.



The Joint Personnel Recovery Agency produces the most commonly known *Hand Tools* in the PR arena. JPRA administers the DOD Blood Chit program, and designs tailored evasion charts (EVC) that are produced in cooperation with the National Geospatial Information Agency (NGA, formerly National Imagery and Mapping Agency) and distributed through Defense Logistics Agency channels. JPRA also develops "pointee-talkees," graphical communication aids for a host of foreign languages, and makes them available for download from their web site.

Theater-Produced *Hand Tools* are the information and detailed PR program details at the execution level. They include information on the current environment (physical, political, etc.), weather, US/Allied/Coalition operations, the PR architecture, and available recovery assets. Intelligence *Hand Tools* include enemy orders of battle, capabilities, intentions, plans, tactics, and so forth. Details of PR plans and mechanisms (spider routes; evasion plans of action; isolated personnel reports (ISOPREP); SARDOT/SARNEG [rescue coordination navigation points]; contact points; letters/numbers of the day/week; and designated PR-related geographical areas) must be understood by all of the participants. The information may be disseminated through the air tasking order special instructions (SPINS), theater standard operating procedures, and directives, briefings, posters, etc.

Remember that as of 1999 selected areas for evasion (SAFE) and their accompanying SAFE area intelligence descriptions (SAID) are no longer produced centrally by DIA. These Cold War legacy products served a specific purpose and are now obsolete. In their place, the theater PR office of primary responsibility must examine planned operations and personnel recovery capabilities, determine what, if any, specific geographical areas require detailed study, and for what purpose they must be examined. Theater PR planners should coordinate closely with their J3 and J2 counterparts to identify the objectives of a planned campaign. Knowing that it will involve certain types of operations to be conducted in specific locations or against specific targets (for instance, along identified lines of communication; close to or maybe far from population centers; military concentrations; ports and harbors; industrial areas, etc.) PR planners can calculate areas where isolation or PR events are more likely to happen. Areas identified through this analysis can then be studied more closely to preposition PR capabilities or pre-plan focused intelligence efforts in reaction to an event. Each theater should identify its needs for geographical focus areas to the Joint Forces Command in the annual JPRSP requirement call.

The PR Kill Chain

The PR Kill Chain is useful in defining the intelligence support needed by the three PR interest groups. Looking at each step can help plan an effective ISPR architecture.

PREPARE—From basic survival and Code of Conduct training to a final glance at the SPINs in the pre-mission briefing before stepping into hostile territory, potential isolated personnel will receive intelligence support whether they know it or not. The most visible support they receive will probably come from unit-level intelligence specialists helping them build evasion plans of action and obtain products like evasion charts, JPRSP information, and isolated personnel guidance. In the Air Force, unit intelligence personnel are frequently involved in managing ISOPREP data and sharing continuing SERE education responsibilities with life support personnel. Recovery forces are also likely to rely heavily on assigned intelligence staffs for current intelligence, threat information, and potentially time-critical support from organic to national providers. Commanders and staffs, especially PR program managers, will need an understanding of enemies and potential enemies, and must know the national support capabilities available to them as they prepare their ISPR

architectures. Key considerations include: planning intelligence, surveillance, and reconnaissance (ISR) sensor coverage and reprioritization of collection and dissemination requirements in response to PR events; incorporating technical PR capabilities into theater architectures; establishing theater collection, production, and dissemination requirements; and planning required manpower and resources into operation plans (OPLAN) and time-phased force and deployment data (TPFDD). Don't forget to exercise the architecture using realistic scenarios.

REPORT—Reporting of PR events can come from a variety of sources. Search and rescue incident reports (SARIR) are normally the trigger mechanism for the PR system to respond, but national agencies may tip-off theaters to events, or administrative personnel systems (the J1) may be the first clue of a DUSTWUN soldier. Confirming the authenticity of an event and cueing sensors and reporting mechanisms should be in the forefront at this point.

LOCATE—Preparation is the keystone to an effective PR program, but without an accurate location of the isolated person a successful recovery is virtually impossible. National technical means, theater ISR sensors, and human intelligence (HUMINT) are valuable resources. The fidelity of information needed will depend on the circumstances of the event—and the decision-maker's comfort level. Intelligence capabilities or systems may or may not play a role in this step, but it is very likely that they will be critically important. Successful recoveries are more likely the sooner they are initiated, and the ability to respond is directly related to the level of preparation.

SUPPORT—The evader or captive need not feel too alone. Even if armed only with "the equivalent of a walkie-talkie and a railroad flare," the prepared evader should know that his most valuable tool is sitting on his shoulders. Other valuable tools may be in his pack or pockets, at his home unit or stateside. Intelligence needed to support an evader or captive includes information on enemy prisons and detention facilities, counter-CSAR capabilities, prisoner handling and interrogation techniques, police and paramilitary or civil search capabilities, and the like. Just to know that a US person is missing or captive increases our chance of bringing the person home. Knowing that the US Government will not leave anyone behind and will account for 100 percent of our personnel not only reassures our personnel, but also holds our enemies accountable and weakens their ability to retain US personnel secretly after we win and obtain release of our POWs.

RECOVER—Whether through unaided self-recovery, CSAR, tactical recovery of aircraft and personnel (TRAP), direct action, or long-term diplomacy–intelligence will have a key role in recovery. Mission planning for a recovery may be quite similar to time-sensitive or time-critical targeting, with similar demands for accuracy, timeliness, and depth of information. More difficult recoveries may require lengthy planning, dedicated collection, in-depth analysis, and specialized or technical capabilities. Political or diplomatic efforts by the US Department of State, or even third parties, are likely to involve theater, DOD, and national intelligence capabilities in some form or another.

REINTEGRATE—Returning a successfully recovered evader or captive to duty and family is a sensitive process. What seems obvious and intuitive is not, and painful lessons have been learned from previous repatriations. The primary concern must be for the returned individual's health and well-being. Specially trained SERE psychologists will be on hand to help balance the need for timely intelligence, SERE feedback, and a return to duty with potential for long-term health impacts. The military Department or Service component ultimately has responsibility for a returned military member, but the first stage of the process will likely occur within theater and by theater personnel. Immediate access to perishable intelligence ("Are there other US captives?" or, "Did you learn anything of value from your captors?") and prompt dissemination through intelligence channels to users at all levels is second only to the medical concerns.

Subsequently, in-depth debriefings of returnees covering detailed intelligence needs, SERE information, source directed requirements, and so forth can be combined or adjusted in coordination with medical personnel. The first phase (Phase I) of repatriation (in theater) may be followed with an intermediate phase at an overseas location (Phase II). If needed, a third phase (Phase III) in the continental US (CONUS) may precede what will hopefully be a return to full duty. Each phase offers debriefing or interview opportunities—but remember, media access, senior leaders, friends, and families will all be competing for a returnee's time. Anticipating debriefing needs and planning for smooth repatriation

processes can have a significant impact on a returnee's successful return to duty.

TRANSITION TO ACCOUNTING—Operation IRAQI FREEDOM saw the first time that the US ended hostilities with a full accounting of all personnel. The only US person missing in action at the cessation of hostilities was CAPT (then LCDR) Michael Scott Speicher, USN, who was actually the first person declared missing on the first night of Operation DESERT STORM eleven years previously. The importance of accounting for our personnel quickly and thoroughly cannot be overemphasized. It has not been clearly established when responsibility for unresolved missing personnel cases will transfer from a theater PR center to DPMO for accounting/case resolution. However, DPMO will require a fully documented case file in order to pursue the case effectively. In addition to continued intelligence efforts to locate missing personnel, intelligence personnel must plan to maintain accurate files on each case, documenting what was and what was not known throughout the life of the case, up to its transfer.

FEEDBACK/LESSONS LEARNED—The need for complete documentation of PR event case files is not just for unresolved missing personnel. In order to capture lessons learned and improve our PR capabilities, JPRA is charged with receiving documentation from each theater JSRC on all cases. Again, "snapshots" of what was known and what was not known at various points during PR events must be included in records of PR activities. Mechanisms to accomplish this are being developed.

PR and the Interagency Community

The importance of personnel recovery is being recognized beyond the Department of Defense as a national priority. Personnel recovery has advanced beyond CSAR, and the Global War on Terror (GWOT) has taken hostilities into theaters where civilians, diplomats, and contractors are as likely as military personnel to be isolated. Because of this, the importance of PR in the interagency process (multiple US Government Departments working together) is growing. This area is in its infancy, and intelligence aspects are challenging. Interaction at the interagency level depends on where it takes place. Most agencies have somebody in the Beltway that handles their intelligence functions, even if it's just one or two people. In theory, they plug into the intelligence community (IC) through the community management staff. In an overseas area, everything is supposed to happen as a part of the country team concept centered on the embassy and consulates. The team comprises the ambassador or senior Department of State (DOS) representative, the chief of station, the defense attaché (DATT) if there is one, and representatives from the various agencies in country. In reality, the "team" is more like a very loose confederation, with various players opting to participate or not, and very often opting for the "not." Even the DOD/DOS relationship can vary greatly from country to country and theater to theater. The chief of station is the first point of contact (POC). If a theater has a functional team and an established PR architecture, then plugging in may involve interface with the country team, or perhaps with an established DOD joint task force (JTF) or coalition headquarters (HQ) (or its attached joint intelligence support element (JISE)).

In order for non-intelligence government agencies to obtain intelligence information, they have to establish a need to know, clearances, and mechanisms to receive, handle, and protect the information. That means they have to start with the IC, unless agreements already exist. The good news is they normally do, but the bad news is it may be hard to find out where the agreements are, how they work, what are their limits, and so forth.

The big hurdle in the interagency is getting people to work together. Lots of history and culture interfere with establishing an actual "team" working together–for anything, much less PR. Who is in charge? The ambassador is the president's personal representative to a country; and as an appointee and often-ceremonial functionary, is nominally in charge but may not actually have a handle on every detailed function in his letter of instruction. The career diplomatic officer (the operations officer (OPSO) of the embassy) who actually runs the day-to-day operations will work the ambassador's agenda, as well as all of the other tasks, and may or may not place emphasis on building a country team. Don't forget that each embassy is unique in size and manning (and funding), and while the DOD has a theater combatant commander with geographical responsibilities, his area of responsibility (AOR) may not match the DOS's regional areas. While DOD is much better resourced than DOS, the theater combatant commander may still be pretty thin on resources and cannot necessarily execute a leadership role in every

country in his AOR. And if the ambassador, or senior career diplomatic officer, and the combatant commander don't interact well, then a vacuum will exist with nobody in charge. Working the multiagency problem has potential to be like herding cats.

The Bottom Line

There are several big issues, and a multitude of small ones, facing the ISPR community. Those being, for starters:

- Collaborative production management is broken, needs fixing, and the responsibilities must be delineated and documented (JFIC to theater).
- Theater requirements must be stated, documented, and worked on; architectures planned for.
- Training and education in PR and ISPR is needed at all levels (entry-level, on-the-job training (OJT), exercises, recurring training, Service and Joint professional military education (PME), etc.).
- Dissemination of PR intelligence and information needs work (such as during debriefings/ repatriations).
- Nonconventional assisted recovery needs to be demystified.
- Old paradigms and emotional attachments must be overcome and transformation accomplished.

The bottom line is that PR intelligence support requires planning, preparation, coordination, deliberate effort, and thoughtful hard work in advance.

About the Author:

Lt Col John D. Huffstutter is the Commandant of the Personnel Recovery Academy in Spokane, Washington. A career intelligence, surveillance, and reconnaissance officer, he previously served as the Director of Intelligence and Chief of Staff for the Joint Personnel Recovery Agency. He has flown as crew aboard RC-135S/U/V/W aircraft; deployed to Turkey and Saudi Arabia in support of operations NORTHERN and SOUTHERN WATCH; worked on the USAFE/ IN staff; and has performed two tours of duty in the Pentagon, one on the Air Staff and another in the headquarters staff of the Defense Intelligence Agency.

Personnel Recovery in USEUCOM's Collaborative Information Environment

Rick Barnes
EUCOM JPRA Representative

Application of personnel recovery (PR) planning and operations in US European Command's (USEUCOM) collaborative information environment (CIE) is an ongoing and steadily progressing effort. As USEUCOM implements the standing joint force headquarters concept in the form of the European Plans and Operations Center (EPOC), CIE has been an integral element of this evolutionary enterprise. Collaboration during PR planning and execution, like other combat missions, is critical to mitigating risk and contributing to eventual mission success. The advent of the CIE has provided the opportunity for good practices as well as challenges for the PR mission set.

PR planning and execution requires coordination transcending levels of command and including multiple operational and staff disciplines. The ability to simultaneously share critical information with the range of direct and supporting participants potentially results in reduced response times, better support, and mitigated risk. Revealing information not normally seen by some supporting functional areas regarding PR events, allows them to apply areas of expertise potentially not even considered by PR planners and coordinators.

Timely, accurate information–the hallmark of any successful combat mission–is possibly in even greater demand during PR missions. After all, something has already gone awry resulting in an isolation event, potentially increasing our adversary's awareness. Personnel across the spectrum of command and functional areas potentially provide or require information critical to the recovery operation. From the obvious (i.e., last known location, time of event, status of survivors, etc.) to the more obscure (i.e., location of host nation recovery assets, potential transload locations, reintegration sites, etc.), different functional areas have nuggets of information or perspective that might positively contribute to effective recovery operations.

Past collaborative tools have included face-to-face encounters, telephone and radio calls, and facsimile transmissions. As the information age influenced military planning and operations, these rudimentary collaborative efforts were augmented by e-mail and Internet relay chat. Today's CIE includes all the above and other software based tools, including InfoWorkSpace (IWS) and Defense Collaborative Tool Suite (DCTS), which includes Microsoft NetMeeting. Another collaborative tool subset not necessarily considered as part of the CIE, but extremely valuable, is the host of data display devices that project information from a computer or video input onto a screen, wall, or TV/monitor. The USEUCOM Joint Personnel Recovery Center (JPRC), located within the air component, has effectively used the combat search and rescue (CSAR) manager function imbedded in the Automated Deep Operation Coordination System (ADOCS) to conduct near real time coordination regarding exercise injected PR events. Major Gary Hill, from the 32nd Air Operations Squadron area of responsibility (AOR), tailored the CSAR manager to allow the air operations center (AOC) functional areas to quickly assess information and actions as recovery planning and prosecution progress. Finally, another collaborative tool scheduled for fielding in the USEUCOM AOR is the PR mission software (PRMS) tool that will assist recovery coordination center controllers to coordinate PR mission management functions. PRMS has an added bonus in that tactical level units can easily enter digital isolated personnel report (ISOPREP) information into a controlled access database. PR information sharing and coordination is well suited to use any combination of all these tools.

There are certainly drawbacks to the advent of technologically based collaboration. However, when it works it is not only illuminating, it transcends levels of command and control, and bypasses traditional stovepipes of information control. This allows access to the information at the action officer/noncommissioned officer level that can then apply functional area expertise to providing information or gaining situational awareness to the PR event. Conversely, there may be some information regarding the situation that should not be shared throughout the CIE: specific survivor identity or identity of known killed in action (KIA) personnel; even the extent of survivor injuries might only need to be shared with particular functional areas. While bandwidth and common software systems are often identified as weaknesses of the CIE, lack of a well thought out concept of operation (CONOP) by PR planners and coordinators is potentially an even greater drawback. Recent exercises conducted by Southern

European Task Force (SETAF), LION CHALLENGE 05 and UNIFIED ENDEAVOR 05 highlighted both the strengths and weaknesses of operating in a CIE.

The SETAF Joint Operations Center was well prepared to operate in a CIE. The foundation of the system was IWS, augmented by Microsoft Internet Relay Chat (IRC), backed up with a robust (secure) telephone system and supported by multiple data display devices. Along with other joint operations center (JOC) functional areas, the PR personnel in the personnel recovery coordination center (PRCC) used IWS displayed on a large screen to post information common to everyone's interest. Another technique successfully employed by the entire JOC staff was loudly announcing critical information to the entire JOC by voice. For PR events, this technique effectively focused critical functional areas on the incident, enhancing their ability to provide information. Information specific to particular functional areas or sensitive in nature was coordinated via Microsoft IRC, telephone, or face-to-face.

Like any skill set, operating in a CIE requires practice and the training audience steadily progresses in their ability to manipulate the various tools and migrate information from one application to another. Experienced PR personnel who know with whom, how, and when to coordinate PR missions in a non-technologically based environment may struggle to master the process using the CIE suite. Understanding the concept of CIE applications is far different than actually employing them. Exposure to the tools and practice using the process results in increased competence and successful coordination during PR mission management.

Maintaining situational awareness is difficult when the PR staff is overly focused on migrating information from one CIE application to another. This becomes particularly cumbersome for a small-staffed recovery coordination center (RCC). Knowing exactly what information belongs on which system, and the operation center's rules of engagement, is critical to RCC integration and effective use of the CIE strengths. Knowledge of both PR principles and CIE tools, and then practicing the integration of these in an exercise environment is as important as any other mission rehearsal subset.

An additional test using IWS and the other collaborative tools used to coordinate PR event planning occurred during exercise ABLE WARRIOR 05. EPOC PR personnel used IWS to coordinate PR planning during the preparation phase to support exercise events. Future testing and training for planning and conducting PR events in the CIE are scheduled during upcoming exercises in the EUCOM AOR.

In general, the challenge for the PR community is managing and standardizing PR planning and operations in the CIE. A deliberate, methodological approach must be pursued to evaluate, select, discard, or merge the various applications that are currently fielded. Technology will continue to improve and, as new systems are fielded, must either be able to integrate with existing systems or replace them entirely. We are already beginning to become saddled with legacy systems whose functions are replicated by newer technology. PR experts must find the time to participate in user groups and technology workshops to provide fidelity to the process of selecting future collaborative tool direction.

About the Author:

Rick Barnes is a retired USAF Special Tactics Officer and Team Leader. During his Air Force career he also served in signals intelligence, communications, and combat control team functional areas. In 1997 Mr. Barnes began working at the Joint Services SERE Agency, subsequently Joint Personnel Recovery Agency, and spent approximately five years developing and presenting PR training and education. Since 2003, Mr. Barnes has been the JPRA EUCOM Theater Representative.

Core Captivity Curriculum

Margi Strub
Chief, Education & Training Support Division
JPRA J72

The dramatic transformation in America's strategic environment demands an equally dramatic transformation in how we prepare our military forces. Historically, the Department of Defense (DOD) survival, evasion, resistance, and escape (SERE) schools prepared our military forces to survive, communicate, organize, resist, and escape captivity in a wartime environment. The terrorist attack of 11 September 2001, and the subsequent Global War on Terrorism, have significantly changed the nature of captivity our military forces may potentially face. Today's armed forces may encounter captivity threats in any one of three traditional captivity environments (wartime, peacetime governmental, or hostage), as well as many variations thereof, all potentially occurring within one operational mission. We can no longer assume any member of our military force serves without risk of isolation or exploitation. It is essential all DOD personnel understand how to resist and survive in a multitude of captivity environments. This can only occur if training evolves to support this transformed strategic threat.

Implementation of full-spectrum captivity training by the DOD SERE schools has been constrained by facility and manpower shortages. In an effort to help the DOD SERE schools operate within those constraints, the Joint Personnel Recovery Agency (JPRA) proposed an alternative training concept. Titled "Core Captivity Curriculum," this concept transforms the traditional discete training paradigms into a single curriculum designed to enable students to employ situational awareness to observe, orient, decide, and act; thus, enabling them to respond appropriately throughout the spectrum of captivity.

In a 2001 scientific review conducted by Drs. Bruce Jessen and Gary Percival, the DOD SERE Psychologist and JPRA SERE Psychologist, they observed, "This concept is similar to the instruction of land survival skills at the Service SERE schools. Land survival has taught skills based on the assumption that land survival is a unitary topic with climactic and physical variants; i.e., procuring food and providing shelter are basic to all land survival. A survivor adapts a basic skill set to fit his environment. Applying this same concept to captivity will reduce the time and complexity of full-spectrum resistance training."

In July 2003, JPRA facilitated the first joint-Service Core Captivity Curriculum Working Group. Following multiple working groups, where focus and determination overcame differences of policy, approaches, and opinion, Core Captivity Curriculum is now ready for its maiden tryout. In February 2005, two pilot courses were conducted by a joint-Service cadre for a joint-Service audience. The results of this concerted initiative will be a new training methodology for the Service SERE schools that will provide a broader skill set for their students, and enabling them to deal with today's threat to captured personnel.

About the Author:

Mrs. Margi Strub is the Chief, Education and Training Support Division, Policy, Doctrine, and Training Directorate at the Joint Personnel Recovery Agency. She has worked for the Department of Defense for almost 30 years in training-related positions. Her first experience with personnel recovery was in 1990, when she took a writer-editor position with the USAF Survival School. From there, she moved to the Joint Services SERE Agency (now known as the Joint Personnel Recovery Agency), where she was responsible for courseware development, scheduling, and academic instruction. Ultimately, she became the Chief of the Training Division. In 2002, Mrs. Strub relocated to HQ JPRA at Ft Belvoir, VA to standup the Education and Training Support Division of the newly established Policy, Doctrine, and Training Directorate. In this position, she was assigned the responsibility of facilitator for the Joint-Service Working Group assembled to develop a full-spectrum captivity training program. Following almost two years of development, the first pilot course was successfully conducted 7-11 February 2005.

Rescue Operations in the Second Gulf War

Col Darrel D. Whitcomb
USAFR, Retired

The press called it "shock and awe." Beginning on 19 March 2003, coalition military operations against the Baath regime in Iraq moved quickly and decisively, overwhelming the Iraqi military forces and deposing Saddam Hussein. As a matter of policy, the United States never deploys military forces anywhere in the world without providing a capability to rescue or recover personnel who may become isolated or captured in enemy territory. This mission, known as personnel recovery (PR), refers to the sum of all the efforts our nation will make with each of its instruments of power to recover our young men and women. This national imperative, which includes combat search and rescue (CSAR), has the backing of a strong rescue capability and a country willing to use it.

Among the US military Services, the Air Force traditionally has maintained, both on active duty and in its Reserve components, the largest and most robust rescue force. During Operation IRAQI FREEDOM, three Air Force rescue force packages deployed to the theater. One package—consisting of the 66th Rescue Squadron (RQS), flying the HH-60 helicopter; the 71st RQS, flying the HC-130 tanker aircraft; and the 38th RQS, providing pararescue jumpers (PJ)—deployed to locations in Jordan. These active duty units came from Nellis AFB, Nevada, and Moody AFB, Georgia. A second package—consisting of the 301st RQS, flying HH-60s; the 39th RQS, flying HC-130s; and the 304th RQS, providing PJs—went to Kuwait. These Air Force Reserve units, called up under presidential directive, hailed from Patrick AFB, Florida, and Portland, Oregon. A third package—consisting of the 129th RQS, flying HH-60s; the 130th RQS, flying HC-130s; and the 131st RQS, providing PJs—deployed to Turkey. These Air National Guard units, also called up under the presidential recall, came from Moffett Federal Airfield, California.[1] Additionally, all three force packages were collocated with A-10 units to allow close coordination between the recovery helicopters and their support aircraft. Anticipating a swift-moving ground campaign, the task forces were organized and equipped to move forward into Iraq as coalition forces seized enemy airfields.

When the Iraqi airfield at Tallil fell on 4 April, one of the first flying units to arrive was a detachment of rescue helicopters and PJs from the 301st and 304th RQS's.[2] After the installation of supporting communications, their crews went on immediate alert. As special operations forces (SOF) from the United States, Great Britain, and Australia seized other airfields in the west and north, the other detachments in Jordan and Turkey did the same, dramatically reducing their response time across Iraq.

Naval Reserve helicopter rescue units were also activated and deployed to the region. Veterans of combat in Operation DESERT STORM, the sailors from Helicopter Combat Special Support Squadron 4, based at Norfolk, Virginia, and from Helicopter Combat Special Support Squadron 5, from San Diego, California, deployed with 180 personnel and eight HH-60H Seahawk helicopters.[3]

Rescue aircraft perform air-to-air refueling

The Marine Corps, Army, and SOF did not have formed rescue squadrons; rather, their tactical units contained embedded teams of helicopters and personnel designated to respond for immediate rescue. The Marines had "tactical recovery of aircraft and personnel" (TRAP) teams, and the Army had "downed aircraft recovery teams" (DART). Teams from the 5th Battalion of the 158th Aviation Regiment, known as Raptors, were

organized to move with attack-helicopter units on deep attacks and provide an immediate rescue capability for any downed aircrews.[4] "It's an American thing," according to Chief Warrant Officer 5 (CW5) Warren Aylworth, tactical operations officer with the Raptors. "We always want to get our people out. We take that more seriously all the time."[5] Prior to the initiation of combat, the Raptors had been augmented with AH-64 helicopters, forming into Task Force Gabriel. Attached to V Corps, they would be immediately available for PR missions.[6] SOF designated helicopters for rescue duties within each formed assault element or task force. This preplanned element made for an almost seamless operation when its capabilities were needed. Additionally, SOF were also prepared to employ non-conventional assisted-recovery assets when necessary.[7] Clearly, the coalition forces enjoyed significant rescue support.

The rescue units and elements in the region came under the operational or tactical control of the theater joint search and rescue center (JSRC), brilliantly collocated with the combined air and space operations center (CAOC) at Prince Sultan Air Base in Saudi Arabia. Directed by Lt Col Keith Sullivan, the JSRC had up to 52 personnel from all Services and coalition partners assigned to it during the conflict.

The collocation of the JSRC in the CAOC did not occur by happenstance. Prior to combat operations, Gen Tommy Franks, Commander of US Central Command (CENTCOM), had appointed Lt Gen "Buzz" Moseley of the Air Force, the joint force air component commander, to serve as the theater's personnel recovery coordinator (PRC) as well. After reviewing his designated responsibilities and authorities, General Moseley issued strong guidance:

> I am the PRC and am therefore responsible to [General Franks] for ensuring the recovery of the joint force that may find themselves isolated from the main body. I hereby task and empower the JSRC to insure that this is done by the quickest, most capable PR force able to respond to the individual event, regardless of the component of "ownership." The JSRC will task the most appropriate RCC [rescue coordination center] to conduct the recovery taking into account the individual capabilities and the requirements of the specific mission with time being the most critical factor.[8]

This arrangement gave Colonel Sullivan direct access to units that could actively search for and locate missing personnel or provide critical support to any task force designated for a recovery mission. As the battles ebbed and flowed, 27 subordinate rescue coordination centers, located with various component headquarters and task forces, reported to the JSRC. All of them were well integrated by multiple communications links and interoperable computer systems. As mandated by the JSRC, these headquarters would actually direct rescue or recovery missions as they occurred. Because of the physical presence of the JSRC in the CAOC, Sullivan could very quickly coordinate with commanders there for any needed support. For the duration of the conflict, 55 assorted missions were executed at the direction of the JSRC.[9] The available loss data indicates that five fixed-wing coalition aircraft (a British Tornado as well as an F-14, F-18, F-15E, and A-10) went down in enemy territory.

CENTCOM reported that a Patriot missile downed the Tornado, call sign Yahoo 76, on 23 March, killing both crew members—Flight Lt Kevin Main and Flight Lt David Williams from 9 Squadron, forward-based at Ali Al Salem in Kuwait. Helicopters from the 301st RQS and a helicopter team from Task Force Gabriel launched and spent several hours searching for the crew. They found one body before British troops arrived to secure the site. Proper communication, navigation, and traffic-control procedures should have prevented such an unfortunate turn of events.[10] A subsequent investigation indicated that the identification, friend or foe (IFF) system on the Tornado had failed. Since the aircraft had just started to descend as it approached Kuwait and the pilot had not yet made radio contact with the traffic controllers, the aircraft was identified as an inbound antiradiation missile, and the Patriot battery fired in self-defense.[11]

A similar incident occurred less than 24 hours later. A flight of four F-16 CJs from the 22d Fighter Squadron was supporting a large formation of strike aircraft hitting targets in the Baghdad area when a Patriot battery of the 5th Battalion, 52d Air Defense Artillery Regiment, located near An-Najaf, accidentally targeted it. Unfortunately for the Patriot unit, these particular F-16s were equipped to locate and destroy enemy surface-to-air-missile (SAM) forces. To the detection gear on the F-16, the Patriot radar signal appeared as an SA-2 site. Since the Iraqi air-defense units still used the SA-2 system, the flight lead assumed that the site

was an enemy position trying to shoot them down. Reacting instinctively, he launched a missile which guided to the site and did considerable damage to the radar equipment but did not harm the Patriot crew.[12]

Navy sources reported that mechanical failure involving the fuel system forced down the F-14, call sign Junker 14, on 1 April. Assigned to Fighter Squadron 154 aboard the USS Kitty Hawk, the aircraft was over southern Iraq when the crew safely ejected.[13] Two Air Force HH-60s from the 66th RQS, led by Major Chris Barnett and using the call signs Vampire 25 and 26, scrambled to pick up the crew members, who landed 80 miles southwest of Karbala. They rendezvoused with a flight of A-10s led by Major Dave "Rainman" Stephenson from the Massachusetts Air National Guard, who had located the survivors and acted as the on-scene commander. The survivors' lack of familiarity with their rescue equipment and procedures caused some confusion among the rescue forces. Regardless, under the watchful eye of the "Sandy" A-10s, the helicopters proceeded directly to the survivors' locations and successfully rescued both men. "Once we heard the guys coming to get us it was a great feeling," said the pilot, Lt Chad Vincelette.[14]

Disaster struck the Kitty Hawk again the next day when an F-18, call sign Dogwood 02, from Fighter Squadron 195 aboard that ship went down southwest of Baghdad. Task Force Gabriel launched a helicopter team that initiated the search for the pilot, Lt Nathan White, but he had died in the crash. Helicopters from the 301st RQS also responded and joined the intensive search for White. The recovery crews found the wreckage of the F-18 and the remains of the pilot. Two weeks later, a spokesman for CENTCOM revealed that a Patriot missile had downed White's aircraft.[15] Concerned about such incidents of surface-to-air fratricide, Gen Richard Myers, Chairman of the Joint Chiefs of Staff, said, "We'll have to investigate each one of them, see if it was a breakdown in our techniques or our procedures, or if there was a technical breakdown that we have to shore up."[16]

On 6 April an Air Force F-15E, call sign Borax 56, from the 333d Fighter Squadron, based at Seymour Johnson AFB, North Carolina, went down near Mosul. Specifically designed for low-level attack, the aircraft apparently flew into the ground. A rescue task force of helicopters and A-10s launched and proceeded to the crash site, despite the number of active enemy air defenses in the vicinity. A large aerial armada gathered over the area, prepared to battle enemy defenses in order to enable rescue operations. During suppression of the threat, even KC-135 and KC-10 tankers took in the area so as to sustain operations.[17] But the rescuers never made contact with the two crew members; on 23 April the Department of Defense announced that the pilot, Capt Eric Das, and weapons-systems operator, Major William Watkins III, had been killed. A special forces team recovered their remains.[18]

The next day, a handheld SAM hit an A-10. The explosion damaged the right engine and flight controls, knocking out both hydraulic systems. But the pilot, Capt Kim Campbell of the 75th Fighter Squadron from Pope AFB, North Carolina, flew the A-10—designed to survive severe battle damage—back to Kuwait and landed at Ali Al Salem Air Base. Her calmness and professionalism saved the aircraft, obviating the need for another rescue mission.[19]

A-10 from the Massachusetts ANG

On 8 April, an enemy SAM hit another A-10, call sign Facing 43, as it supported the advance of the 3d Infantry Division through the southern suburbs of Baghdad. The pilot, Major Jim Ewald of the 110th Fighter Squadron from the Michigan Air National Guard, was advised that he could use the Baghdad airport, recently secured, as an

emergency field. His aircraft still flyable, Ewald instead chose to head south in hopes of returning to Tallil or perhaps Kuwait. He flew for about 10 minutes until the aircraft began to yaw uncontrollably and then ejected. His wingman, Facing 44, assumed on-scene command responsibilities, noted his position, and began to initiate CSAR procedures.

Floating to the ground, Ewald took shelter among some reeds along a canal. Concerned about Fedayeen Saddam paramilitary units active in the area, he heard his aircraft crash and mistook the exploding ordnance as enemy fire. Fortunately, an Army tactical headquarters in the area was monitoring the situation and requested the 54th Engineer Battalion of the 3d Infantry Division to dispatch troops to recover him. A forward team in an M-88 Tank Recovery Vehicle quickly moved to his location. Jim heard what he thought were American voices but remained cautious. Hearing the clarion call, "Hey pilot dude! Come out, we are Americans," Ewald broke cover and sprinted to the M-88, whose soldiers pulled him inside and sped away. He then pulled out his survival radio and let Facing 44 know that he was with friendlies. An hour after arriving at a nearby field hospital, Ewald was on his way back to Kuwait in a helicopter from the 301st RQS under the command of Major Steve White. Two days later, he resumed flying combat missions.[20]

Overall, coalition fixed-wing aircraft flew 15,825 strike sorties during the war.[21] Only the one A-10 was lost to enemy action for a minuscule loss rate of .0063 percent, continuing a trend of ever fewer aircraft lost per combat sortie that reaches back to World War II. Many reasons account for this trend: better-built aircraft; better tactics; better support equipment, such as electronic jamming pods and decoy flares; better crew training; and a well-established ability to seize air superiority by quickly destroying any significant aerial resistance.

The Iraqis, however, claimed to have shot down numerous coalition aircraft, at one point early in the war even staging what appeared to be the capture of coalition Airmen who had parachuted into the Tigris River in downtown Baghdad. The Al-Jazeera satellite-television channel duly covered the event as Iraqi troops combed the reeds growing along both banks and fired their rifles into the water in a vain attempt to flush out hiding Airmen. When queried, both US and British spokesmen denied that any aircraft or personnel were missing.[22] Truthfully, Iraqi air defenses did achieve some level of success, shooting down a number of unmanned aerial vehicles (UAV), which the United States and its allies had begun to use more frequently.[23] British forces used their Phoenix UAV extensively for artillery spotting and forward air control duties, losing four to enemy fire. Orbiting at low altitudes and slow speeds, these aircraft made easy targets. The British reported the loss of 23 UAV in the conflict, several when they purposely flew them beyond range because of operational necessity.[24] From a PR perspective, their losses were unimportant because UAV do not need rescue operations. Obviously, the best PR tactic is to prevent any manned aircraft from being shot down.

Dedicated rescue forces were also used on several occasions for medical evacuation of ground personnel. Although such evacuation is not doctrinally a PR mission, CENTCOM commanders decided to use rescue assets when available for this vital task. In another action on 23 March, a rescue task force of HH-60s, A-10s, and an HC-130 tanker scrambled to recover critically wounded personnel in an Army special forces team trapped near Baghdad. Reminiscent of the recoveries of such teams along the Ho Chi Minh Trail during the war in Southeast Asia, the A-10s flew combat air patrol, suppressing fierce enemy action as the helicopters swooped in and extracted the endangered troops. The

USN Lt. Devon Jones rescued during Operation DESERT STORM. Two MH-53J Pave Low aircraft from the 20th SOS picked him up. Sgt Ben Pennington was the PJ that met him at the back of the Helo.

HC-130 then descended below the low clouds to refuel the helicopter so that it could return to home base.[25] The same scenario occurred almost verbatim on 7 April when a similar rescue task force recovered another trapped Army team. As one Air Force rescue pilot remarked, "It really comes back to that cliché that we don't leave anybody behind."[26]

Surely the most dramatic PR event of the conflict was the operation on 2 April to rescue the Army's Pfc Jessica Lynch, taken prisoner several days earlier when Iraqi forces ambushed her unit—a maintenance company—in the city of An Nasiriyah, killing several fellow soldiers and capturing five others. Rescue forces per se did not conduct this operation. Rather, a joint special operations force carried out this direct-action mission, which was conducted concurrently with a large Marine diversionary action carried out by Task Force Tarawa nearby and an air strike by AV-8 Harriers on a Baath Party headquarters. Additionally, Marine snipers and special forces teams entered the city to kill Baathists and collect intelligence. Marine CH-53 and CH-46 helicopters inserted the large joint force ground element as a large armada of Air Force AC-130 gunships, Marine AH-1W attack helicopters, and Army AH-6 Little Birds orbited above to provide immediate fire support. Moving quickly, the substantial force neutralized the area, entered an enemy-held hospital in the city, and recovered Lynch.[27] In terms of audacity, it rivaled the great Son Tay raid into North Vietnam in 1970—although, unlike that raid, it actually freed an American, the first one since World War II. More importantly, it showed to the world the lengths to which the United States would go to rescue its personnel.

At the same time, another task force of mostly intelligence personnel was combing through liberated Iraqi intelligence centers and prisons, looking for an American Navy pilot still missing from the Gulf War of 1991. Capt Michael Speicher's F/A-18 went down on the first night of the conflict. He never made contact with search aircraft or elements, and his precise position remained unknown until the wreckage of his aircraft was found after the war. Initially, he was classified as killed in action, but the secretary of the Navy reclassified that status as "missing in action, captured" in October 2001.[28] All efforts to date have failed to locate Speicher; however, what appear to be his initials were found scratched into a cell wall in the Hakimiyah prison in Baghdad. His case remains open, even as all personnel missing from the Gulf War of 2003 have been found.[29]

Rotary-wing (helicopter) losses were higher than those of fixed-wing aircraft, described above. Open reports indicate that as many as 15 helicopters were lost, although only three to enemy action. Regardless, all were tragic. Intraservice rescue operations recovered most downed personnel. On 19 March 2003, the crew members of an Air Force Special Operations Command (AFSOC) MH-53, the first coalition-aircraft loss of the war, were picked up by their wingman and flown back to home base. The aircraft itself was destroyed.[30] The same day, a Marine CH-46E of Helicopter Squadron 268 from New River, North Carolina, crashed in Kuwait as it ferried troops to Umm Qasr in southern Iraq, killing all 14 American and British soldiers aboard. There was no rescue operation.[31] Also lost at the beginning of combat operations, an AH-64 Apache assigned to the 11th Aviation Regiment from Illesheim Airfield, Germany, was shot down as Army forces began their move into Iraq. Helicopters from Task Force Gabriel began to launch for recovery operations when they received notification that other Army units had recovered its crew.[32]

AF Pararescuemen going to and from work

As events were unfolding in Iraq, a terrible tragedy in Afghanistan reminded us American forces —including rescue elements—were still engaged in that remote nation. On 23 March, a US Air Force HH-60G from the 41st RQS, based at Moody AFB, Geogia, crashed, killing all six troops on board. It went down on a night mission to evacuate two Afghani children with head injuries.[33]

A second AH-64, this one assigned to the 1st Battalion of the 227th Aviation Regiment (1/227) from Fort Hood, Texas, went down in a multi-battalion raid against enemy armored units near Karbala, on 24 March. Commanded and controlled by the 11th Aviation Regiment, the attack was designed as a classic "deep-strike" mission; something that Army aviation has been developing for several years. Gen Wesley Clark, USA (retired), described it on Cable News Network as "the first Army doctrinal deep attack mission. We've trained for this mission for about 18 years. It was designed to go against the Soviets. We applied it against the 2nd Brigade of the Medina Division. We had good results on this mission. We took out a bunch of T-72s, artillery, and infantry. On the other hand, it was a firefight, and we took return fire."[34]

Unfortunately, the raid suffered from poor planning. Supporting and suppressive fires lacked proper coordination, and the action was not synchronized with parallel operations by Air Force, Navy, and Marine fighter attacks. Additionally, instead of attacking from the west over a larger lake, the helicopters were routed directly over well-lit urban areas, affecting the night vision of the crews and alerting the Iraqis.

Concentrated and massive enemy small-arms fire downed the Apache, call sign Vampire 12. Other Army helicopters tried to recover the crew, but fire from enemy forces in the area kept them away. Another Apache, Palerider 16, also sustained heavy damage but managed to fly out of the area as a wounded crewmember blocked the emergency frequency with continuous calls for help.

Scheduled to launch with the strike force, Task Force Gabriel had no fuel because its tanker trucks had not arrived at the refueling point at Objective Rams, 80 miles south of Baghdad. Consequently, the helicopters remained on the ground 20 minutes away, unable to help. Alerted for the mission, HH-60s of the 66th RQS received quite a surprise when they learned that the downed aircraft was using the call sign Vampire 12—a confusing turn of events because the two rescue helicopters' call signs, assigned by the air tasking order, were Vampire 11 and 12. As a result, they did not launch, but two A-10s from Al Jaber did support the rescue effort. The 1/227 Commander, flying in a UH-60, tried to get in to rescue the men; however, he had to abandon the attempt when blocked radio frequencies and stiff enemy resistance prevented him from either communicating with or finding the survivors. The crew, CW2 Ronald Young and CW2 David Williams, was captured.[35] The men of Task Force Gabriel were very upset about their inability to launch and at least attempt the recovery. In fact, their helicopters would not receive any fuel until 27 March.[36]

One enemy commander used a simple expedient to defend against the Apaches: seeing them in flight, he used his cell phone to call nearby units and warn them. Alerted, they concentrated fire from their massed guns against the interlopers, inflicting considerable damage on the aircraft as they tried to hover and direct their precision missiles against Iraqi targets. Army planners had just not dedicated enough support to eliminate or suppress the guns so that the Apaches could safely operate. This expensive lesson taught the aviation unit commander to adjust tactics so that subsequent raids followed Air Force and Navy attack aircraft, which beat down the guns and achieved a level of air superiority sufficient for helicopters to operate. According to Lt Gen William Wallace, V Corps Commander, "We learned from our mistakes, we adjusted and adapted based on what we learned, and we still used the Apache helicopter in a significant role during the course of the fight."[37]

Other instances of helicopter casualties, both combat and non-combat, occurred during Operation IRAQI FREEDOM, all of them tragic losses. On 21 March, two Royal Navy Sea King helicopters collided over the northern Arabian Gulf, killing one US and six British personnel.[38] Nine days later, a UH-1N assigned to Marine Helicopter Squadron 169 from Camp Pendleton, California, crashed on takeoff at night from a forward operating location in southern Iraq and killed three troops on board. Rescue forces evacuated a fourth marine critically wounded in the crash.[39] On 1 April, a Marine AV-8 Harrier crashed while trying to land at night on the USS Nassau. A Navy search and rescue helicopter recovered the pilot, who had successfully ejected.[40] The next day a UH-60 from the 2d Battalion of the 3d Aviation

Regiment, Fort Stewart, Georgia, was shot down by small arms fire near Karbala. Task Force Gabriel was alerted for the mission, but an armored task force reached the site first, recovering the four wounded soldiers and seven bodies.[41] Two crew members lost their lives when their AH-1W, assigned to Marine Helicopter Squadron 267, also from Camp Pendleton, crashed in central Iraq on 3 April from non-combat causes. Overall, enemy fire badly damaged 49 Marine helicopters. None was lost, but some required extensive repairs.[42] Finally, after a US Navy CH-46E crashed in the Mediterranean Sea during deck-to-deck resupply operations, local rescue elements picked up the crew.[43]

As the war sped towards its inevitable conclusion, allied intelligence sources searched in vain for the soldiers captured with Private Lynch and for the two helicopter pilots shot down in the massive AH-64 raid on 24 March. Had the soldiers been positively located, another special forces raid undoubtedly would have attempted to rescue them. But, as Marine Task Force Tripoli moved north towards Tikrit, an Iraqi civilian informed one of the lead elements that seven Americans were being held in a small village just to the north. Moving cautiously, the marines entered the village and liberated the soldiers—the five from Lynch's unit and the two Apache crew members. Helicopters from Task Force Gabriel flew them to their repatriation site. All seven were in good condition, although three had been wounded in the process of being captured. CW2 Ronald Young, one of the rescued pilots, said, "We feel like we won the lottery of life."[44] Advised of their release, President Bush stated, "Today is a great day for the families, comrades, and loved ones of the seven MIAs who are now free. . . . It's a good way to start the morning, to be notified that seven of our fellow Americans are going to be home soon in the arms of their loved ones."[45]

CENTCOM reported that 55 recovery missions—almost half of them medical evacuations—saved a total of 73 personnel. Additionally, it noted the following:

1. All personnel reported as missing were either recovered or accounted for.

2. The Lynch recovery was the first successful liberation of a prisoner of war (POW) since World War II.

3. The JSRC was the largest and most integrated ever.

4. The dedicated PR force deployed to the theater was the most robust since Vietnam.

5. Non-conventional assisted recovery assets participated in many rescues, the liberation of the POWs, and all accounting actions.[46]

After the conflict, all major Service components produced lessons learned. Based on inputs from the combatant commands (especially CENTCOM), the Joint Personnel Recovery Agency at Fort Belvoir, Virginia, developed several such lessons specifically for the personnel recovery mission area. They are now being addressed for corrective action.

Overall, as the results noted above show, our personnel recovery operations in Operation IRAQI FREEDOM were very successful. But the issues under consideration in these lessons learned indicate that much work remains. Regardless, our strong and steadfast commitment to personnel recovery is encapsulated in the timeless motto of the Joint Personnel Recovery Agency: *That others may live—to return with honor.*

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Joint Combat Search and Rescue Training in Afghanistan

Major Nathan K. Watanabe
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As recent events have shown, surface to air threats against Army aviation in today's contemporary operating environment pose a real and tangible threat. Shoot downs continue as Army aviation faces a dedicated enemy with increasingly sophisticated tactics and weapons. This enemy is firing against outdated, ineffective aircraft survivability equipment in mission profiles that put both pilot and aircraft at risk. Aircrews today must be trained in combat search and rescue (CSAR) and survival, evasion, resistance, and escape (SERE) procedures. Task Force (TF) Knighthawk is doing just that – training on certain aspects of search and rescue operations – in conjunction with Air Force combat search and rescue at Kandahar Army Airfield, Afghanistan, during Operation ENDURING FREEDOM IV.

TF Knighthawk is a multi-component aviation task force, providing combat aviation support to coalition ground forces in Southern Afghanistan. It is built around the active component Headquarters, B (Assault) and D (Aviation Unit Maintenance) Companies of 2-10 Aviation Regiment from Fort Drum, New York, and includes: C Company, 1-130 Aviation, an AH-64 attack company from the North Carolina Army National Guard; G Company, 104th Aviation, a CH-47 company from Pennsylvania and Connecticut; and a detachment from the 717th Medical Company (Air Ambulance) from New Mexico and Oklahoma. With the cooperation of active-duty Air Force crews from the 59th Expeditionary Rescue Squadron (59th ERQS) "Geckos" from Nellis Air Force Base, Nevada, TF Knighthawk is conducting joint search and rescue training focused on preparing its personnel in downed aircrew recovery procedures, and in establishing and refining AH-64 rescue escort (RESCORT) procedures.

PLANNING AND PREPARATION

Early in TF Knighthawk's deployment to Afghanistan, the Commander recognized and emphasized the value of aircrew familiarization with CSAR procedures and directed his operations staff to develop a search and rescue exercise (SAREX) focused at the tactical (operator/aircrew) level to accomplish two objectives: 1) familiarize TF Knighthawk aircrews with the personnel recovery procedures contained in the air tasking order (ATO) special instructions (SPINS), and 2) employ Air Force assets based at Kandahar. As planning progressed, the goal to conduct a joint exercise waxed and waned with the different Air Force CSAR units, but fully matured with the Nellis-based crews to integrate the AH-64 into providing RESCORT.

Despite combat operations, weather and lunar cycles, and unit rotation schedules, a plan between the Knighthawks and the Geckos finally came together that called for an administrative insertion of simulated downed aircrew "survivors"; notification, coordination, and launch of Air Force HH-60 CSAR and Army AH-64 RESCORT aircraft; survivor authentication and signaling of the recovery aircraft; and survivor authentication and extraction by Air Force pararescuemen (PJ).

Planning began with initial coordination between Task Force Knighthawk and the 59th ERQS. Training objectives and concepts were discussed and agreed upon, and dates and schedules confirmed. Texas Helicopter Gunnery Range, or "Texas Helo," just south of Kandahar Airfield, on the edge of the Margow Desert, was selected as the survivor pickup zone due to proximity to the airfield, controllability of the land and airspace, and absence of an identifiable enemy threat.

Army AH-64 and Air Force HH-60 Crews plan and rehearse the upcoming CSAR mission. The sand table assists in visualizing most aspects of the mission.

As planning progressed, tactics, techniques, and procedures (TTP) were developed and discussed, integrating AH-64 Apaches in the RESCORT role, either to substitute for, or to replace A-10 "Sandy" airborne forward air controllers. When A-10 support fell away, the AH-64 "Aces" assumed primary lead for RESCORT duties. Additionally, personnel recovery procedures (as per the SPINS) were reconfirmed, and "dummy crew" isolated personnel reports (ISOPREP), evasion plans of action (EPA), and other search and rescue (SAR) data were formulated, coordinated, and distributed to all players. Notice to airmen (NOTAM) reports were published reserving airspace at both the airfield and the pickup zone at Texas Helo. Planning culminated with a detailed aircrew mission brief that synchronized all Army and Air Force air and ground actions; led a "sand table" mission rehearsal for the Army and Air Force flying crews; and a personnel recovery rehearsal between Air Force PJs and the Army aircrew survivors.

The sand table rehearsal was an invaluable tool that allowed flight crews to visualize and synchronize their actions on a scaled table top array of the Texas Helo range. Routes of flight, timing, frequencies, callsigns, expected radio calls, and actions in flight and on the objective were discussed and practiced; contingencies were rehearsed; and alternate plans of action formulated. By the time the rehearsal was complete, every aircrew had a detailed understanding of the concept and execution of the exercise. While the flight crews were coordinating their actions, the Army aircrew survivors reviewed their actions in detail with the "Grizzly" PJs. Radio and signaling procedures required by the SPINS were discussed and rehearsed, as were actions in the objective upon arrival of the paramedics. The contents and use of the AIRSAVE survival vests and the AN/PRC-90 and AN/PRC-112 radios were also discussed, so that at the end of this training the survivor trainees had a complete understanding of their requirements for recovery.

Aircrew knowledge of personnel recovery procedures as mandated by ATO SPINS is critical in the tense moments in the recovery PZ.

EXECUTION

The day of the first iteration of the SAREX began with an update brief to review the current weather and the actual, as well as notional, enemy situation. Weather was highly favorable; no significant weather events were expected, and temperatures were moderate—perfect for a crawl-phase exercise. Recent bombings in Kandahar City had no effect on the exercise and the current enemy threat was low. Another quick walk through on the sand table reconfirmed the scheme of maneuver for the aircrews, while the survivors and support personnel conducted pre-combat checks of their equipment.

The command and control UH-60 and an escort AH-64 took off first to clear the range and insert the administrative team at the designated pickup zone (PZ). Once on the ground, the admin team, consisting of an observer-controller/officer in charge, security detail, medic, and media personnel conducted a security sweep and established ground-to-air communications with the overhead command and control (C2) aircraft. While the C2 aircraft departed to pickup the first trainees, the AH-64 remained on-station providing security for the ground admin team.

Upon arrival, the survivors were in-briefed on the layout of the PZ and given quick refresher training on the fundamentals of survival, signaling, ground-to-air communications, and personnel recovery procedures. Meanwhile, the C2 UH-60, acting as the airborne CSAR coordinator, initiated the rescue sequence. The HH-60s and AH-64 quick reaction

force (QRF) package were alerted and departed for the PZ. In the RESCORT role, the AH-64s led the rescue package, providing reconnaissance of the air route and security for the following HH-60s. As the Apaches approached the PZ, they authenticated and verified the location of the survivors, relayed the information to the Geckos, and established an outer security ring at their designated altitude. The Gecko HH-60s conducted their authentication and verification, established an inner security perimeter, and air-landed to insert their PJs.

Upon approach of the rescue vehicle, the survivors were pre-staged on the PZ in groups of three and assumed non threatening postures. The PJs dismounted, quickly secured the PZ, and approached the survivors under the rotor wash of the HH-60 to again authenticate and verify the survivors. Once complete, and still covered by the overhead HH-60 and AH-64s, the PJs moved their survivors to the waiting aircraft, secured them inside, and departed. This scene was repeated until the PZ was clean, and the rescue package of AH-64s and HH-60s departed for survivor repatriation and a cold "near-beer" back at Kandahar Field.

An Observer-Controller reviews basic survival, communications, and signaling procedures with a group of "survivors" prior to the arrival of the rescue aircraft.

LESSONS LEARNED

This scenario was repeated several times that week and also included several live hoist extractions. While it was a welcome break from routine operations, the value of the training hit home during the post-mission after action reviews and debriefs. A number of strengths and weaknesses with the exercise itself were identified, as well as general lessons pertaining to both personnel recovery and SAR. Among those lessons learned:

- Personnel recovery and SAR are perishable skills and must be thoroughly briefed, understood, and practiced by the entire aircrew to ensure familiarity and understanding. Current ATO SPINS relating to personnel recovery are complex and lengthy, but it is still the responsibility of the aircrew member to understand his responsibilities and actions to contribute to a successful rescue. He must be thoroughly familiar with his responsibilities in personnel recovery to prevent putting himself and his rescuers at risk.

- The importance of the ISOPREP and related SAR data cannot be overemphasized. All too often, crews are going out with just rudimentary knowledge of the actions required of downed aircrews and haphazardly brief SAR data during pre-mission crew briefings.

- Crews should not only be familiar with personnel recovery procedures and SAR data, but be thoroughly familiar with the location and use of their survival equipment as well. It will be an inopportune time to learn the placement of the infrared strobe, flares, and PRC-112 when downed at night in unfriendly and unfamiliar territory with one fractured wrist. Additionally, entire aircrews, not just pilots but crew chiefs and flight engineers as well, must be well-versed on the use of survival equipment, and on personnel recovery procedures as required by the ATO SPINS. There is no guarantee that the pilots will survive and be present to assist with the personnel recovery procedure, so the non-rated crewmembers must be able to function, survive, and effect their rescue alone.

- Emphasis must be placed on personnel recovery as a complete process, not just SERE. While most Services' survival programs focus on "eating bugs" (survival), cross-country navigation (evasion), and prisoner of war conduct (resistance, escape), comparatively little training is given on personnel

recovery actions and procedures–the actions immediately after crash and upon approach of rescue forces. Survivors must understand and be able to apply personnel recovery procedures such as radio communications and signaling, and the proper use of ISOPREP and other SAR data. The successful application of these procedures may well preclude the necessity of having to exercise the other SERE skills.

- These small-scale exercises, conducted by TF Knighthawk and the Geckos, focused on familiarizing the Knighthawk aircrews with SPINS procedures and reinforcing their use of various signaling devices. Given the mission profiles and modes of flight in which Army aviation usually operates, such training may seem unnecessary, but there are no guarantees that rescue of an Army aircrew will always be conducted by a wingman, a trail helicopter, or another Army crew–and so familiarity with joint procedures remains a must.

AH-64 AS RESCORT

A tremendous outcome of the exercise was the demonstration of the value and utility of the AH-64 Apache in the rescue escort role. This mission, traditionally conducted by other Air Force – usually fixed wing – assets, can readily and practically be performed by properly trained and equipped Apaches. Due to the collocation of the Pave Hawks with the Apaches at Kandahar Army Airfield – using Army assets reduced response time and improved coordination between the aircrews prior to launch. Indeed, as this joint training continues between Army and Air Force units, coordination turns to integration, and standardized procedures further decrease any friction or unknowns between the units. In addition to crew compatibility through continued training, the airframes are also compatible in terms of communications and range, given the Apaches are outfitted with internal auxiliary fuel tanks, giving them operating ranges compatible with the Pave Hawks.

KEYS TO SUCCESS

This small-scale SAREX employed five aircraft and had limited, tactical (operator/aircrew) objectives, but was a resounding success for all concerned – the Army aircrew survivors, Air Force rescue aircrews, Air Force PJs, and the Task Force Knighthawk operations staff. All training objectives were attained, paving the way for more complex and more challenging future exercises. Key to the success of the training were willingness, coordination, and risk management.

By far the biggest contributor to the success of the exercise was the willingness of its participants. All concerned, from survivor trainees to the Air Force PJs and Pavehawk crews, to the Army Apache and Blackhawk crews, volunteered to participate. While the Army element thirsted for such training, it was not until the 59 ERQS Geckos arrived that an Air Force element was fully willing to participate and lend their experience and assets to the exercise. This willingness swept away any inhibitions or reservations, and numerous – and valuable – techniques and procedures were discussed at length and exchanged between Army and Air Force crews. The most important willingness of all was that of the commander. His direction to undertake such training gave impetus to the exercise. Through his emphasis, the idea became reality.

Once conceptualized, voluminous coordination took place between Task Force Knighthawk and the Geckos and Grizzlies to ensure success. Dates and times; weather; lunar cycles; training and operations cycles; standard operating procedures; modes and methods of flight; communications frequencies and call signs; actions by the survivors, PJs and aircrews; and

Air Force PJs secure and authenticate an Army UH-60 Blackhawk crew prior to extraction.

Army Aircrew survivors are guided to the rescue HH-60. The Air Force PJs were thoroughly professional.

contingencies and emergencies were all identified, addressed, briefed, and rehearsed to ensure smooth execution. Far from an ad hoc, hip pocket training opportunity, the SAREX was a thoroughly planned and well-coordinated deliberate event. All players had direct, face-to-face contact with each other during planning, briefing, and rehearsal. This interaction, just short of integration, was vital to clearly understanding the operating procedures of the other Services.

Safety was a final key to the success of the exercise. All the lessons learned would have been for naught had we suffered a casualty. Risk mitigation, while not overly severe, was thorough. The task force safety officer drafted a risk assessment matrix addressing everything from local area security and medical emergencies, to participant inexperience and weather. Recognizing that the exercise was to take place in potentially hostile territory, procedures were systematically emplaced to reduce both tactical and accidental risks in the exercise.

With in-depth planning and coordination and effective risk management to mitigate risks in a combat zone, Task Force Knighthawk and the 59th ERQS Geckos undertook a relatively simple search and rescue exercise and reaped valuable experience and training. The exercise reinforced ATO SPINS and personnel recovery procedures with Army aircrews, exercised the Air Force rescue crews and paramedics, and established and exercised a baseline of tactics, techniques, and procedures on the integration of AH-64 Apaches in the RESCORT role. Although these first iterations were focused at the operator/crew-level, they have proven the concept of a search and rescue exercise in a combat zone. Future iterations should increase in complexity, to involve additional medical challenges for the survivor trainees and paramedics; night iterations; and hopefully, higher, operational-level involvement of additional Air Force (fixed wing) assets, and planning and coordination with the joint search and rescue center.

Given the threat to Army aviation in today's operations, the importance of combat search and rescue and personnel recovery cannot be overemphasized, and must remain topics of continued discussion and training. Today, Task Force Knighthawk is taking small steps that are reaping huge benefits by ensuring its crews are better prepared for the worst. It is paving the way for more robust joint combat search and rescue training so that, should an aircraft go down, both Army and Air Force crews will be better versed in personnel recovery.

Personnel were also recovered by hoist. Aircrews must be familiar with all types of joint CSAR equipment and capabilities.

Personnel Recovery: The View from a Forward Base

Col Darrel D. Whitcomb
USAFR, Retired
JPRA/J7

From August through December of 2004, I had an opportunity to serve at one of our forward operating bases (FOB). For the last few years, I have been employed as a contract researcher, writer, and lecturer attached to the JPRA/J7. But I am an aviator by trade and, when an opportunity arose for me to do some tactical flying, I was able to arrange a short "sabbatical" to return to "operational" duty as a contract pilot.

But I also realized that the assignment would afford me a rare chance to see what personnel recovery (PR) looks like from the perspective of a FOB. It was an opportunity too good to let pass.

Before traveling to the theater though, I had to proceed to Fort Bliss, TX, to process through one of the US Army's Continental United States (CONUS) Replacement Centers (CRC). There, all designated personnel, whether military or civilian, had to go through a four-day process to prepare for deployment to the operational area. We received all necessary shots and physical examinations. Administrative processing was extensive: we filled out DD Form 93s, and received common access cards (CAC) which had been modified to also serve as Geneva Convention Cards for civilians. We were encouraged to log on to the CIVTRACKS and report our departure from the United States. The CRC personnel also explained to us that when we arrived at our duty base, personnel there in the passenger terminal would then report both our arrival and our subsequent departure when we came home.

Red Cross personnel gave us a general briefing on the services that they could provide while we were in the operational theater. One speaker encouraged us to take advantage of phone and internet connections to maintain good contact with our families. Going further, she said, "If you are involved in a major incident, call or email your families because they will hear about it through the news outlets and will worry about you until they hear something." Curiously, this statement was not balanced with any discussion about operational security (OPSEC) considerations.

A lieutenant from the CRC briefly discussed hostage survival situations. His comments were very general: military personnel were expected to follow the code of conduct, and civilians were expected to "survive with honor." He did not expand on that. But he did say that if involved in a rescue or recovery operation, civilians were to do nothing aggressive, stay low, and as personnel approached, state clearly, "I am an American," then respond to all questions clearly and honestly.

The next day we received all of our equipment issue and began the journey to our assignment.

Another contract pilot and I traveled by commercial air to the theater. We were met by Air Force personnel and taken to a support air base to await transportation to our assigned operational location. The delivery flights were running full and the wait stretched to three days. Taking advantage of the time, we pilots visited the theater joint search and rescue center (JSRC) located within the combined air operations center (CAOC). There we got a general brief on theater-wide PR operations. Additionally, the noncommissioned officer in charge (NCOIC) for SERE (survival, evasion, resistance, escape) had one of his young airmen give us an initial high-risk-of-capture (HRC) briefing for the theater. The briefing was very comprehensive and extensive, and covered a multitude of items germane to our flying as operational crewmembers in this theater of operations. Lastly, we were told that our status in the theater in terms of the Geneva Convention was clear. We were considered "lawful combatants" and were expected to comport ourselves in a proper SERE posture if we were captured or taken hostage.

The next day we were manifested on a C-130, and made the bumpy flight to our operational base. There, personnel from our operational unit met us and we in-processed. The JSRC maintains a detachment of SERE specialists at the base, and we spent another three hours with them receiving an even more intense HRC briefing focused on operating out of that specific base. It was framed around the five key tasks of personnel recovery; report, locate, support, recovery, and return. SSgt "H" is the NCOIC of this detachment, and he made sure that we "crew dogs" understood our role in each of these tasks. He also covered specific issues such as isolated personnel report (ISOPREP) and evasion plan of action (EPA) preparation. We brought our unit issued survival vests and equipment and he methodically went

over every item in it, to include the survival radio, to make sure that we were proficient with every piece.

SSgt H showed us how to use the theater Secret Internet Protocol Routing Network (SIPRNET) website to get necessary PR data off of the daily air tasking order (ATO), such as combat search and rescue (CSAR) code-words, SARDOT information, and SARNEG data. [Note: SARDOT and SARNEG are search and rescue coordination data terms.] All in all, it was an interesting, thorough, and useful briefing.

Two days later, we started flying operational missions, and I was very heartened to see how each crew brief included a review of the CSAR words and codes of the day, and a discussion of what specific procedures our crews would use if they went down in enemy territory. Additionally, each crewmember routinely reviewed his ISOPREP data and, for each mission, our unit duty officer forwarded our crew-list to the JSRC designated by our air tasking order (ATO) assigned mission number.

For the next several weeks, my focus was on becoming proficient in my operational mission and learning our unit area of responsibility. But I spent more time with SSgt H and gradually became aware of the PR activity that was taking place at our base. Besides my unit, we had a temporary duty (TDY) fighter unit and a TDY helicopter unit on the ramp. This meant that we had many potential isolated persons, potential rescue forces, and commanders– the three classic "customer" groups toward which the JPRA focused all of its efforts. I decided to talk to personnel from each group.

The logical place to start was with SSgt H and his two assistants.

When time was available, I went back to spend some more time with them. All were TDY for up to 120 days from their units back in the States. SSgt H had served as a SERE specialist for eight and one-half years. His two assistants had served in that capacity for six and five years respectively. All three thoroughly knew their trade.

The three airmen were extremely busy. Their main focus was the HRC briefing, and they averaged giving at least one briefing each day. The presentation especially emphasized the cultural aspects of duty in the theater and the very sensitive subject of post-capture

conduct. Audiences ranged from one person to groups of 20. Most were from units or detachments assigned to the local Wing. The airmen found that the overall PR background knowledge of the attendants was highly variable. As a result they became very adept at modifying their presentations to meet the needs of the groups involved. In general, they found that the Air Force aircrews were very knowledgeable of the overall process of PR and CSAR and, in general, needed to focus on the specifics unique to the theater. Additionally, the specialists were always available to speak to units or individuals about any PR related matters from equipment familiarization to repatriation and reintegration issues.

The specialists were making a valiant effort to spread their knowledge beyond just Air Force personnel. The air base is co-located with a U.S. Army logistics support facility that is home to huge Army aviation, armor, infantry, and support units. SSgt H spent a great deal of his time contacting various units to offer the services of his detachment to these units. Additionally, SSgt H discovered that a large trucking firm was also located at the base and he began to give briefings to the contract American truck drivers working for them. I found this very intriguing and resolved to talk to the folks at the trucking firm if at all possible.

At any time, one of the specialists was TDY to other bases to deliver the same service to units spread across the country.

I asked the three airmen what their challenges and successes were. They offered several points:

1. They were notified when the Air Force units were receiving new personnel and could plan their presentations accordingly. However, the Army was much more difficult to deal with. SSgt H spent many hours trying to contact the Army units to offer the detachment's services. In general, the aviation units were most interested and receptive, but the ground combat units were less so, although the trend of late has been upward. As SSgt H said, "They [Army units] don't come to us so we have to proactively advertise and seek them out."

2. They were pleased with the progress that they were making in dealing with the civilian contractor drivers. Their briefings were very well received and most appreciated.

3. They were most appreciative of the great support that they received from the local Air Force units.

Their bottom line was voiced by SSgt H who concluded our interview by saying: "The aviators, especially the Air Force guys, arrive well prepared. The real challenge is with the ground personnel and civilians who have to work outside the wire. They are also at risk and need our services."

A few days later, I met with the commander of the TDY fighter unit, Lt Col "W." Intrigued by SSgt H's remarks earlier, I decided to ask him about the preparation of his pilots for PR. His answers were forthright. All of his assigned pilots have received "level C" SERE training at Fairchild AFB, WA. At their home station, PR is emphasized mostly in ground training, crew mission-ready training, and operational mission verification. During the verification process, the pilots are called upon to explain what they would do if shot down, as required by that theater operational plan. All PR training is directed by the larger parent fighter wing training plan.

In support of the wing training plan for its pilots the wing life support office has a SERE specialist on board who yearly conducts a full day of refresher academics, followed by a field exercise which allows each pilot to act as a survivor and go through the actions necessary as a downed crewman. Every two years this is supplemented by a more thorough training event where, in addition to the above, each pilot is required to go through all the items in his survival kit and then do an actual recovery with a helicopter and support aircraft.

The pilots have also been trained to fly missions either as members or in support of rescue task forces. This has also included training for some as task force leaders, or "Sandy" pilots, the historical term for this task. But this training is being reduced due to a change in operational tasking. They are now trained to fly as forward air controller – airborne (FAC-A). To make room for this training, they had to shift focus away from CSAR to free up the training time to upgrade into the FAC-A role.

Lt Col W pointed out that there is a lot in common between the two, but explained the logic of the change in training. "CSAR training requires that I bring in lots of outside assets which I do not control. To do [CSAR] training to proficiency, and do the FAC-A training as well, … it was just a death spiral in terms of training. For our unit assigned aircraft, the logical mission is the FAC-A. So we made that our priority."

He did point out, though, that there remained a residual CSAR support capability among the more experienced pilots. And, if necessary, the squadron could spin up a small cadre of "Sandy" qualified pilots fairly quickly.

But the unit has not been assigned CSAR duties on this tour. Their mission is to deliver precision bombs. When they take off the pilots advise the controlling agencies that they are qualified FAC-A and can assume that role if necessary. And that, of course, could be very useful in a CSAR situation.

Lt Col W also explained that before coming over on this tour, his pilots received refresher academics on the latest versions of the survival radio that they would be issued for their missions. Upon arrival, the SERE specialists gave them a very specific and focused review on the use of the radios in THIS theater of operations as outlined in the special instructions (SPINS) in the ATO.

CSAR procedures are extensively discussed in every mission briefing. Personnel from the intelligence section highlight all the PR letters and codes of the day as specified by the SPINS in the ATO. EPAs are reviewed, and all pilots are encouraged to confirm their ISOPREP data.

Considering the possibility that one of the unit aircraft may be shot down or suffer an engine failure, the pilots also review CSAR procedures from the perspective of the supporting or covering fighter; that is, the actions necessary to initiate the recovery process. They carry a CSAR checklist as part of their in-flight guide. It lists the actions to be taken to cover a CSAR until the "Sandy" lead shows up and takes on-scene command.

All of this training paid off last summer when on an earlier deployment, one of their aircraft suffered an engine failure and the pilot had to eject 50 miles southwest of Baghdad. Reacting to his training and preparation, the wingman, Capt "S" alerted controlling authorities that his flight lead was down, assumed the duties of the on-scene commander, and provided cover for the downed airman until a rescue task force arrived and safely picked him up.

From this discussion with Lt Col W, I could see that the pilots of the fighter unit were well prepared to either be isolated persons or support a CSAR as necessary. It was also very evident that this commander took the mission very seriously and provided strong leadership to his unit.

Parked not too far from the fighters were three Air Force helicopters. They were assigned to the TDY helicopter unit commanded by Lt Col "G." They arrived at the forward base in late October with a mixed group from several stateside bases. The helicopters were on alert status and prepared to take off on very short notice.

I was also able to catch Lt Col G for a short interview. I asked him about the personnel mixture of the unit. He explained that the aircrews and support personnel were from the one unit, and the pararescue jumpers (PJ) who flew in the cabin were from another. All of the PJs were under the administrative control of a combat rescue officer (CRO). The CRO is a relatively new addition to the rescue community. These officers take training very similar to the PJs, but they are considered command and control (C2) assets while the PJs perform the rescue missions. Well versed in the architecture of PR, CROs are steadily ascending in the rescue community and assuming ever-higher positions of authority and responsibility.

Lt Col G explained that his rescue helicopters and crews were considered a theater asset. Using the many forward air refueling points (FARP) scattered throughout the theater, his helicopters could recover personnel anywhere. Prior to deploying, his crews went through an eight-week mission work up at their home stations and arrived in the theater fully mission capable.

But since arriving, they had gotten few tasked missions. To maintain crew currency, Lt Col G had been

scheduling operational and training missions to keep the crews sharp. He directed his crews to fly to FARP to determine their readiness to handle his helicopters. They would also visit medical evacuation hospitals so that his PJs could meet the emergency medical personnel and determine what capabilities were available at each location.

He scheduled training with one of the Army medical evacuation companies at the base so that his crews could provide escort support. He also coordinated with other units in the local area to provide rescue support when they were conducting operational missions.

Just a few days prior to our discussion, one of his crews launched to recover Army personnel injured in a high mobility multipurpose wheeled vehicle (HMMWV) vehicle accident. The soldiers were trapped underneath the vehicle and supporting personnel did not have the necessary extraction gear. The unit helicopters carried inflatable bags and special cutting gear, and the crews were trained to use all of it. They were able to lift the vehicle off of the troops and get them to a medical facility.

The unit has not been tasked to do any medical evacuations, but have been involved in the planning for specific operations.

Lt Col G has been very proactive in advertising his unit's abilities, skills, and availability. I asked him for an assessment of his unit and capability to perform its tasked mission. His confidence radiated as he said, "From the squadron level, we have our [stuff] together…. We understand the [theater]…We have areas that are red, yellow, and green. In a green area, we can do it ourselves. Yellow areas, we need some help. In the red areas, we are back into a CSAR task force."

Interview concluded, I left the squadron with the impression that Lt Col G had his unit well prepared to perform their mission.

Based upon the comments of SSgt H about the training he was providing to the civilian contract truck drivers, I decided to visit the large trucking company on the west side of the air base.

Their Chief of Safety and Training, Mr. M agreed to an interview. A busy man with an office full of activity, he appreciated the opportunity to escape it for a few minutes and talk with me. I asked him about the training that SSgt H had mentioned his troops were providing to the company.

Mr. M talked me through his training program for his truck drivers. Just nine months prior, no such program existed. But in April, he was notified that an American truck driver had been taken hostage in Iraq. The driver, Thomas Hamill, escaped a month later and his experience made the trucking company realize that it needed to provide some HRC-type training to its drivers. Mr. M took on the tasking to develop a course that would prepare the drivers for the risks they could be facing.

The course he developed is multifaceted. It covers the basics of road safety in the theater. Two courses with approximately 25 drivers are held each week. As part of this course, SSgt H and his men come in for half a day and give an unclassified but very thorough version of their theater HRC briefing.

They cover:

1. Emergency first aid.
2. Cultural mannerisms.
3. Religious and cultural beliefs and differences.
4. The value of strength of character.
5. Need for respectful behavior.
6. Recommended conduct if taken hostage.

They also use pictures to present situations for discussion and to present guidelines for spotting potentially dangerous situations.

The drivers are encouraged to prepare a "bail-out bag" which includes tools, food, a first aid kit, and a hand-held radio for intra-convoy communications. Each convoy leader also has a satellite communications (SATCOM) radio and can maintain communications with military convoy guards if they are assigned as escorts.

Mr. M has been very impressed with the training and enthusiasm of the airmen.

"The specialists obviously believe in what they are doing," he said, and added that many of his drivers themselves provide positive feedback on the course in general, and the HRC portion in particular. And he

pointed out that since the training has started, convoy security has improved. He also mentioned that the SERE specialists showed them how to fill out ISOPREP cards for each driver. These are now kept on file along with a picture.

But Mr. M did highlight some continuing concerns. To his knowledge, the military personnel who could provide convoy security did not get any SERE training. And only American drivers went through the course. Many of the drivers were third country nationals provided by subcontractors and they were not getting the safety or SERE training. Lately, their convoys seemed to be more heavily targeted by enemy units.

Mr. M had to excuse himself at that point to go to a meeting. I thanked him and headed back to my unit, resolved to follow up on his comment that the military troops who could be guarding the convoys did not get any SERE training.

The next day, I again visited with SSgt H. I asked him about this and he said that, to the best of his knowledge, it was true; these troops could be provided by Army or Air Force units at the base.

I tried to find the units that supplied these troops. Constrained for time now because my tour was about to end, I was only able to find and visit the Air Force unit that could be assigned convoy escort duty.

Two days later, I was able to talk with the commander of that unit, Col "P." He pointed out that his airmen were trained for the convoy support mission. I asked Col P specifically about SERE or HRC training for his airmen. He responded:

"We maintain proficiency training focused on use of weapons, combat life saving skills, and adjusting convoy tactics in response to enemy developments. But specifically SERE or HRC? No.

Folks assigned to this unit do not get any special SERE or HRC training prior to coming over. They do go through very tailored training, either the basic convoy course at Camp Bullis near Lackland AFB, Texas, or the Army's power projection platform training at various Army bases."

He continued by pointing out that when his troops go out on convoys, they do carry some SERE type gear. And each convoy support package is suitably equipped with the communications and defensive gear necessary to support the convoys as necessary.

Colonel P finished by saying that, so far, his unit had not had any troops lost or isolated in hostile territory or who had become hostages. He realized though that the danger of either happening was very real and said, "A kidnapping threat or a hostage situation is a very likely scenario that we have to think through and protect against. The more training, correctly focused – well, we want to be a part of that."

I told him that I would talk to our SERE team immediately.

I left his office and once again went back to talk to SSgt H. He was now about to rotate home and was in the process of briefing his replacement, SSgt "J." I told both of Colonel P's desire for focused SERE/HRC training for his convoy troops and SSG J immediately contacted the Colonel's office to begin the coordination process.

A few days later, my tour had ended and I headed home.

In reviewing this series of personal experiences and interviews, they seem to present a clear view of PR at the operational end of the force. I had an opportunity to experience the training and review required to be an operational crewmember. I had an opportunity to see how a helicopter rescue unit maintained its edge in a combat environment and witness how two commanders prepared their units and people for PR. But, it was also clear that there are certainly others besides aircrew members who are at risk and need at least some of the extensive preparation expended on our flyers to prepare them to be isolated persons. In fact, in this era of asymmetrical warfare, non-traditional personnel (combat support troops, contractors) could be at a higher risk of isolation than traditional personnel such as aircrews.

And I saw the absolute value of having these young and highly motivated SERE troops at a forward base in an operational theater.

These observations, based on this small number of experiences and interviews suggest the following:

- Civilian personnel going through the Army CONUS Replacement Center should get some focused

training on how to handle a hostage situation. They should also leave there with a clear understanding of their legal status under the Geneva Convention when they arrive in their theater of operations.

- Air Force crewmembers are well trained to handle becoming an isolated person. Other non-traditional Air Force personnel, contractors, and civilians can also be at risk and should get some comparable amount of SERE or HRC training. Perhaps the SERE training could be accomplished prior to deployment.

- The SERE specialists located at a forward base are invaluable as "salesmen" for PR. Given their unique training, they make available to all "customers" on the base both knowledge and training so much more useful than just giving the HRC briefs. More are needed at more of the bases.

All in all, the view of PR from this forward location was very encouraging, but indicates that there will always be new challenges that must be addressed and solved.

About the Author:

Col (ret) Darrel Whitcomb, USAFR, graduated from the Air Force Academy in 1969 with a BS in European Studies. After graduation from pilot training, he flew three tours in Southeast Asia as a cargo pilot and forward air controller. Following duty as a T-38 instructor pilot, he transferred to the Air Force Reserve in 1977. There, he flew the A-37 and A-10 at New Orleans and Kansas City. Subsequently, he served on the Air Staff and Joint Staff, followed by duty in the office of the Chief of the Air Force Reserve, the Air Command and Staff College, and Air Force Doctrine Center, where he retired in 1999. He is a graduate of the Army Command and General Staff College and the National War College, and has published articles in many professional journals. He has also written two books, ***The Rescue of Bat 21***, which was published in 1998, and ***Combat Search and Rescue in Desert Storm***, which will be published later this year. Additionally, he recently completed a tour as a contract pilot overseas. He is now back on contract to the Joint Personnel Recovery Agency where he researches and lectures on CSAR and personnel recovery.

World War II Repatriation: The Experiences of Flight Commander Leonard Birchall.

Mona. L. Scott
Librarian JPRA

In the study of lessons learned in the personnel recovery (PR) environment, the benefits of studying the experiences of repatriated prisoners of war (POW) has been well documented, and even codified in DOD Instructions 2310.4 and 1300.21 and Joint Pub 3-50.3. The Joint Personnel Recovery Agency (JPRA) Library and Archives has hundreds of debriefings and personal narratives of former POWs that are studied to determine the most successful methodologies for Code of Conduct training. An outstanding example of "doing everything right" is found in the World War II captivity experiences of Air Commodore (ret) Leonard Birchall of the Royal Canadian Air Force. When asked, the Air Commodore unhesitatingly indicated that it was the severe training practices of the Royal Military Academy that instilled the comradery. He pointed to this training as the basis of his success as a leader in the various Japanese POW camps in which he was interned. His methodologies resulted in greater survival rates of the POWs under his command than all other POWs in Japanese camps.

Air Commodore Leonard J. Birchall, CM, OBE, DFC, OO, CD, "The Saviour of Ceylon"

As he was not an ordinary prisoner, he was not an ordinary pilot. Sir Winston Churchill himself had named him, "The Savior of Ceylon." On his second day in the Pacific theater and what was to be his last patrol aboard his Catalina PBY flying boat, Flight Commander Birchall sighted the Japanese fleet on its way to Ceylon. The Japanese intended to wipe out the British Pacific fleet headquartered there, just as they endeavored to do to the American fleet at Pearl Harbor four-months before. Rather than flee for safety, he made repeated runs down the line of ships, radioing back to Ceylon exactly what vessels made up the fleet. This warning of the danger saved the British fleet. In the process his plane was shot down and he and his surviving crew were prisoners for the remainder of the war.

An Unhurried Repatriation

Leonard Birchall was the senior officer in all but one of the camps in which he was interned during his four and a half years as a prisoner of the Japanese. Towards the end of the war, when Japanese cities were burning from conventional bombings, he was moved with hundreds of multinational POWs to Suwa, a remote, unfinished camp on the side of a mountain. The camp was surrounded by terraced rice patties and vegetable gardens. The prisoners were required to walk down that mountain to work in a mine on the side of an adjoining mountain.

Suwa was truly a death camp. Their only water was from a stream filled with human excrement that ran through the camp. Their daily-allotted ration of rice, millet, and soybeans was reduced by one-third when they were told that there were no soybeans. Their already emaciated bodies could take no more deprivation and in the first few months that they were there three of his men died of starvation. The camp doctor said that they could not last the next winter, the winter of 1945-46. To survive, he formed stealing teams that left the camp at night to forage the area for food that they could steal and add to their stew pot.

Catalina PBY flying boat

Living close by was a second generation Japanese-American from Hawaii, Eddie, who had been studying in Japan and had become trapped there at the outbreak of the war. For a short time Eddie had been the camp interpreter, but was fired when he was found to be too sympathetic towards the POWs. But he was still friendly with the POWs and suggested where their stealing teams could find the food and medicines that were needed.

Eddie appeared at the fence one day to warn his friends. He had heard of a terrible bomb that had destroyed Hiroshima, killing hundreds of thousands and leveling the city. The Emperor was wishing to accept peace through surrender, but the military was vowing to fight to the last man and was in revolt. This was a very dangerous time for the prisoners, for they knew what was in store for them.

Earlier they had been required to dig pits six-feet long and six-feet wide. There were machine guns at each end and large cans of gasoline beside the ditches. When the first Americans touched their soil, or on 25 August 1945, whichever came first, they were to be burned to death in these pits. Gasoline was to be sprinkled on them, and any prisoners that tried to get away were to be shot. Tokyo had ordered that no prisoner should survive the war. The surrender had come in time to save them, just ten days before this planned massacre.

Eddie urged Birchall and the others to take to the hills while they had the chance, but he knew that in their condition they would not get far. And even if the stronger of them managed to get away, they would have no weapons to defend themselves against the military now roaming the countryside, or any angry civilians who had lost loved ones at the hands of the allies. He asked them to give him a chance to negotiate with the camp commander. If he was unsuccessful, then they were free to do whatever they thought best, although he urged them to stay together as a group until everyone was healthy enough to make the trip to the coast and safety with the Americans.

The flight commander entered the commandant's quarters and found him asleep, having drunk himself to sleep with saki, with his sword, that sacred symbol which should never be surrendered, at his side. Birchall picked up the commandant's sword, removed it from its sheath then awakened him. He told his captor that the war was over, and the commandant said that he knew. Birchall then told him to order his men to pile up their weapons and return to their barracks, which they did. The POWs were now in control of the camp.

They went into immediate action. The stealing teams were sent out with weapons to confiscate what food they could find. They returned with a horse, a cow, and a pig that were slaughtered and put in the stew pot along with vegetables and everything they could find to eat. Mess went twenty-four hours a day and the prisoners ate as much as their shrunken stomachs could hold. They painted "POW" in bright yellow paint on the roof of their barracks, made flags out of bed sheets and old crayons, and raised flagpoles on which to fly them. Many hotheads still wanted to run, but Birchall convinced them that they all had a better chance to survive together as a unit, with everyone healthier and stronger, and they all remained to a man. Not one man in his camp was lost following the surrender. Many others were not as fortunate. As soon as they heard of the surrender, prisoners in other camps dispersed and became victims of Japanese people's wrath, their own weakness and poor health, and even poisoned food.

Two days after the prisoners took over the camp an American torpedo bomber came over low and saw their signs and flags. He returned and dropped a message asking the prisoners to make signs about what medicines and food they needed, and how many of them were in the camp. Within hours a stream of torpedo bombers came in low and dropped food and medicines to the prisoners eagerly waiting below.

They remained in the camp for three weeks. During that time the commandant and his guards remained there also. They were a buffer against any crazed military or civilian that wanted revenge. When a dangerous situation appeared to be brewing, the weapons would be temporarily given back to them to indicate that the Japanese were still in charge, but the weapons were returned to the prisoners when the danger was over.

After the third week the doctor pronounced the entire camp fit for travel. They confiscated all means of travel

that they could find, from bicycle-carts and ox-carts to trucks and automobiles, and moved the entire camp and their former guards down to the train station together, intent on taking the night train to Tokyo. The guards turned the other passengers out, seizing enough passenger cars to accommodate all of the prisoners. As the train departed, the other passengers were left standing on the platform as the prisoners set off for their true liberation.

Arriving in Tokyo, Japanese civilians informed them that the Americans were in Yokohama. The electric train to Yokohama was in another station, so again they commandeered all manner of vehicle that they could find to move the men to this train station across town where they commandeered passenger cars once more.

Arriving in Yokohama, they trooped outside the station and sat down by the building, flying their makeshift flags from bamboo poles. It was not long before an American jeep with a whip antenna came by and stopped to inquire as to who they were. Within a short time his radioed message had the area swarming with ambulances, buses, and trucks to carry them to the docks where the allies had set up camp in warehouses. As they piled out of the vehicles, Birchall's top noncommissioned officer (NCO) said that they had to do it right. They all lined up and, proceeded by their homemade flags, paraded into the camp.

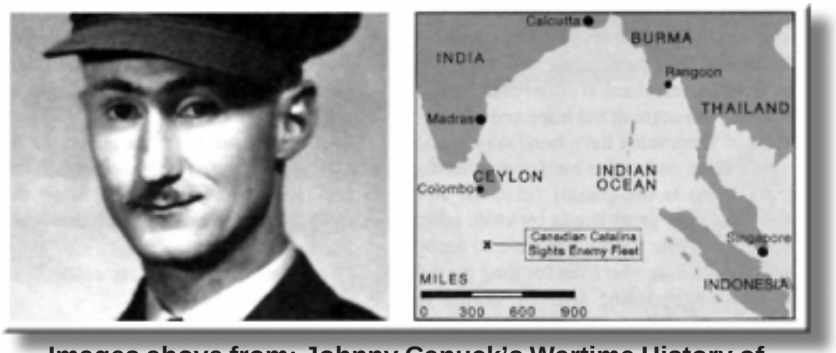
From that moment on, Birchall had no one but himself with which to be concerned, and for the first time in over four years the health and safety of his men was now being looked after by others. His memory becomes not as distinct, because at last he allowed himself to let go and think only of himself.

One of his last responsibilities was to turn over to the allies the detailed records that he had been keeping of all the POWs under his command. Along with these records, he also delivered dozens and dozens of small white jugs. These jugs contained the ashes of those prisoners that had died and been cremated. Everything was in order, no names or ashes lost.

Once in the camp they were stripped of their clothing and it was burned. They were infested with parasites, both inside and out; bedbugs, lice, and worms. They scrubbed themselves in scalding hot showers with strong, smelly soaps, and every hair on their bodies was shaved off before they were deloused. An initial medical triage was performed and the POWs were separated into groups according to their apparent level of health and fitness. At this point, while still naked, the men were confronted with Caucasian women for the first time in years. These women were in the form of nurses assessing and treating them, and Red Cross personnel handing out chocolate bars and cigarettes, and taking messages to send home. Finally they were introduced to long tables of clothing and were allowed to take whatever they wanted. Before they even received medical care the people from the War Crimes Tribunal were debriefing them.

The next step in their repatriation was onto the two hospital ships sitting in the harbor. One of the ships was British, one American. Birchall, being Canadian, was assigned to the U.S.S. Marigold and felt fortunate to be on her. Like in their camp after the surrender, mess was open twenty-four hours a day. They could eat whatever they wanted and whenever they wanted. But their constitutions were not ready for this onslaught of food and regular trips were made to lines outside the heads where they would throw up, then go back and eat more. Although quite nauseated, their ravenous appetites forced them to down candy bars as they stood waiting for their turns in the head. Eventually their systems acclimated to such quantities of food and this behavior slowed down as they also began to pick up weight. However, cigarettes and candy bars were always kept close at hand.

The next stop was a prisoner of war repatriation camp in the Philippines. They took time to continue to mend, regaining weight and health, but there never was a thought about the nightmares that they began having. The stress on their bodies could be easily seen and documented, but their minds were ignored. Almost sixty



Images above from: Johnny Canuck's Wartime History of Canada The Outstanding Contributions of a Young Nation in World War One and World War Two

Image: RMC Club of Canada

years after his liberation Air Commodore Birchall was still suffering nightmares from the torture that was inflicted on him. Although he had a harder time than most because of his efforts to protect his troops, Birchall thought the doctors in his camps had an even harder time. Perhaps it was their helplessness and frustration at being unable to save the men in their care, but whatever the cause, a large proportion became alcoholics following their liberation.

Eventually a Canadian Air Force pilot was sent to inquire as to what happened to the flight commander. Finding him in a repatriation camp in the Philippines, this fellow Canadian became Birchall's companion during the rest of his repatriation. Eventually, they procured slots on a flight to the United States where they were assigned a staff car and made their way to San Francisco. His companion got a room in a hotel but Birchall was assigned to a hospital, from which he checked himself out and went on a drunk. Getting to Canada was the next problem. The U.S. airlines were on strike so the two managed to get a compartment on a train to Chicago, and from there the Canadians flew him home to Ottawa where his wife and child were waiting.

The next morning he was hustled into a uniform and out to the base where he was informed that he was on a three week leave. But he was also required to go on a Victory Bond tour—while on leave. He made it through two engagements but then said he could not continue. He was continually asked why he had just gotten home when the war had been over for months, and civilians complained to him about their hardships of getting only one pair of silk hose, or one pound of butter a month. This lack of understanding unnerved him and he found it difficult to cope, so he asked to go home.

Birchall was luckier than most. He came home to a faithful and loving wife. But other prisoners of the Japanese were less fortunate. Neither his wife nor most of the other wives had any knowledge of whether their husbands were alive or dead. Japan did not give out the names of their prisoners. Many of the wives sought to go on with their lives and remarried and had children by their second husbands. When the first husband returned, many wives preferred to stay with their new family rather than deal with the problems of this man who now seemed to be a stranger. His health problems and ravings were too difficult to understand. One of Birchall's men was such an unfortunate, and committed suicide with a shotgun shortly after returning home.

Although Birchall and his men all continued to have problems with their physical health, enduring the problems that result from malnutrition, beatings, and torture; and a large number of them have succumbed to cancer. But by far the most difficult part to deal with was the lack of treatment for their stress-related psychological problems. Their nightmares, anger, and fears continued to consume their minds and mar their lives.

Editor's Note: Information for this article comes from interviews conducted with Air Commodore (ret) Birchall between June 2000 and September 2003 by JPRA staff, and from the Air Commodore's presentation to the Joint Personnel Recovery Agency on 23 April 2003.

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Image from: Air University's, Gathering of Eagles, 2002 Gathering of Eagles.

Notes

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