

Center for Army Lessons Learned (CALL)
News from the Front



185th Theater Aviation Brigade (TAB)
Search and Rescue Exercise (SAREX):
Leveraging All Assets to Benefit Training

Major Edward O. Ziembinski
CALL LNO to ARCENT
November 2015

Introduction

The full spectrum of Army Aviation operations is always evolving. Part of this evolution is the need for Army Aviation to operate over large bodies of open water in the littoral areas. The Army has experience in over the water operations in both the ARMY Pacific and ARMY Central areas of operations. In the Army Central (ARCENT) Area of Operations, Army aircraft operate off the coastline of Kuwait.

Background

The 185th Theater Aviation Brigade (TAB) is currently deployed to Camp BUEHRING, Kuwait in support of Operation SPARTAN SHIELD. Of specific concern to the 185th TAB are the subjects of Personnel Recovery (PR) and PR in a maritime environment. Though the 185th TAB has conducted numerous land PR exercises in the past, and trains their aircrews extensively for ditching into a body of water, the brigade had not previously conducted a PR exercise in an open-water environment.

Given the operational environment (OE) of the 185th TAB, they saw a need to develop and refine the techniques for PR in a maritime scenario. The TAB needed a means to practice these techniques as they developed them. They also needed an opportunity to learn and train on the survival equipment used in open water survival.

The HARD-7(S) life raft is Theater Provided Equipment (TPE), and was provided to the 185th TAB upon arrival in theater. Though provided the HARD-7(S) life raft equipment, the 185th TAB did not receive any manuals, checklists, training aids, training videos, SOPs, or AARs in reference to the HARD-7(S), and no one in the 185th TAB had any experience deploying the HARD-7(S) life raft.

These two factors were the catalyst for the 185th TAB in developing a phased Search and Rescue Exercise (SAREX) to train their aircrews for PR operations over water. The TAB had available the US Army Vessel (USAV) *Corinth*. The USAV *Corinth* had supported several training exercises for other U.S. forces in the past, most notably with SEAL Team 10 in early 2015. The USAV *Corinth*, like all other U.S. Army vessels, relies primarily on manuals and doctrine from the U.S. Navy, Coast Guard, and Codes of Federal Regulation (CFRs) to perform operations at sea.

Phase I: Academic Training

The first phase of 185th TAB's SAREX involved identifying problems associated with fielding the HARD-7(S) life raft and conducting academic training in a controlled environment.

The 160th Special Operations Aviation Regiment (SOAR) pioneered designed the concept for the HARD-7. The HARD-7S is a unique life raft system, designed to give total protection while in

[1]

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

the water. Inside the kit, there is a raft and an overwater survival kit. The raft was designed to be used on a MH-60 Blackhawk and MH-47 Chinook. And the HARD-7S is applicable to fixed-wing applications as well.

The HARD-7S canister features a unique clamshell opening. The hard shell case separates into two sides. One-half of the box stores the raft, and the other half of the box contains the survival kit. The functional areas of the survival kit include signaling, food, water, and first aid.



PHASE I: Academic training in an indoor, controlled environment



Survival kit contents of the HARD-7(S)

Phase II: Pool training / Develop TTP

The second phase of 185th TAB's SAREX involved training in a pool, to replicate a water environment while still maintaining controlled conditions, and developing tactics, techniques,

[2]

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

and procedures (TTPs) for the use of the HARD-7(S) life raft. The 185th TAB reuses the HARD-7(S) life rafts repeatedly for training. The 185th TAB has several “training” HARD-7(S) life rafts, which have been deployed and are now used as training aids, which can be inflated and deflated as needed for training. The reason why the brigade reuses the life rafts is because it costs \$10,000 dollars every time a HARD-7(S) life raft is deployed from its original protective casing.

Aircrews were trained on the deployment and use of the HARD-7(S) life raft. There are many aspects to the HARD-7(S) life raft and aircrews must be familiar with them all. For example, the life raft has a large, metal CO2 canister on the port side of the raft. This canister can be a danger to aircrews, especially if the raft inflates upside down and the aircrew is forced to flip the raft. Being aware of the location of the canister will help to prevent accidental head injuries.

Another portion of the Phase II training covered alternate / emergency inflation methods for the life raft. In the event the center beam does not inflate, the downed personnel locate the center-beam fill valve and pump, which is tethered to the inside of the raft, and use the pump to inflate the center structure unit of the raft.

Upon pulling the deployment handle, if the raft fails to inflate properly or fully inflate, locate the fill pump attached to the inside of the raft. Locate the side fill nozzles and rotate one turn. To prevent damage to the fill nozzle, do not exceed one turn or use excessive force when attaching the pump. Attach the pump and manually inflate while keeping the pump out of the water. Be sure to close the valves after inflating each section.

The final portion of Phase II academic training involved repair damages to the HARD-7(S) life raft. In the event that the aircrew locates any leaks and/or holes, the aircrew will locate and identify the repair kit, which is located in the survival kit and packaged in a silver foil container. The aircrew will follow the written instructions on the repair kit in order to fill the hole.



Training to inflate the HARD-7(S) life raft by hand

Phase III: Deploying Raft from Aircraft

Currently, there is no Technical Manual (TM), Field Manual (FM), etc. depicting how to deploy a raft from a U.S. Army helicopter. For this reason, the 185th TAB conducted the multi-phase SAREX. Additionally, the 185th TAB leveraged subject matter expertise from the U.S. Navy, Joint Personnel Recovery Center (JPRC), and other organizations to develop training products for U.S. Army Aviators regarding the deployment of the HARD-7(S) life raft.

In a real-world incident, a helicopter crew will not employ their own HARD-7(S) life raft. When a helicopter conducts a forced landing into the water, the pilot will auto-rotate and will pull power right before touching down onto the surface of the water. The aircrew will open all the doors and prior to entering the water the pilot in command will say, "Everyone stay in the aircraft until the aircraft starts to roll." U.S. Army helicopters, like virtually every helicopter, are top-heavy. Once the aircraft has rolled over upside-down in the water, then the crew will attempt to exit the aircraft. It is much safer staying inside that aircraft through the rollover. Attempting to exit immediately will likely result in the aircrew being hit by a rotor or debris. For these reasons, it is extremely unlikely that an aircrew will be able to deploy their own HARD-7(S) life raft. Therefore, the HARD-7(S) life raft is best employed through buddy-aid. The wingman of the downed aircraft deploys its HARD-7(S) life raft for the downed aircrew.



PHASE III: Deploy the HARD-7(S) from a UH-60 Blackhawk in a real-world environment

[4]

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

Winds and current should be considered before deploying the raft from the aircraft. The rotor wash will affect the raft's location to the downed aircrew. It is recommended that the raft be deployed from the aircraft at a 10 foot, 10 knot hover or a 15 foot, stationary hover.

Prior to deploying the raft, it is recommended that personnel in the water tether themselves to one another to maintain positive control.



"Downed" aircrew, tethered together, swim towards the HARD-7(S) life raft case

Once the raft is in the water and "downed" aircrew approach the raft, they must orient the raft case wheel-side down to ensure the raft opens right-side up. Personnel in the water then locate the static line and attached it to an air crewman's survival vest to avoid loss of the raft. The aircrew grasps the deployment handle and firmly pulls to activate the CO2 canister. The aircrew must maintain their grasp on the deployment handle to ensure positive control of the raft. The raft should deploy upright with the survival kit and case still attached for retrieval. The downed personnel should then begin boarding the raft.

Once all have boarded, the aircrew retrieves the survival kit that is attached to the raft by lanyard, conducts an inventory, and separates appropriately as needed. Finally, the aircrew retrieves and stows all available dunnage.

Phase IV: Search and Rescue Exercise (SAREX) with U.S. forces Only (Joint)

On 27 October 2015, the 185th TAB, supported by the United States USAV *Corinth*, conducted a Joint SAREX in the North Arabian Gulf (NAG).

Purpose – Conduct PR training in an open-water environment, and to conduct PR training using the HARD-7(S) life raft with survival kit.

Key Tasks –

- 1) Movement to NAG training area
- 2) Launch “downed” aircrew in HARD-7(S) life raft
- 3) “Downed” aircrew successfully transmits distress call
- 4) USAV *Corinth* remains on-station (simulating wingman UH-60)
- 5) “Downed” aircrew recovered by PR assets
- 6) Movement back to Kuwait Naval Base (KNB)

End-state – “Downed” aircrew recovered safely and expeditiously, and all personnel & vessels returned to KNB.

SAREX Execution (US Only)

The USAV *Corinth* departed KNB at 0600 on the morning of 27 October 2015. The USAV *Corinth* steamed 35 Nautical Miles (NM) into the Northern Arabian Gulf (NAG) to reach the exercise area.

At 0950 the exercise radio call was made for the downed aircraft, and at 1000 the “downed” aircrew was launched into the water in their HARD-7(S) life raft. The “downed” aircrew carried Man Overboard Identification (MOBI) system transmitters, Combat Survivor Evader Locator (CSEL) radios, and VHF radios. As part of the exercise, there was no pre-planned resource to be employed by NAVCENT/JPRC.

Once the “downed” flight crew had signaled for help, the USAV *Corinth* remained on station to maintain contact with the crew and to prevent any civilian maritime traffic from interfering with the exercise. It took approximately 45 minutes from the time that the “downed” aircrew sent their signal to the JPRC before the dispatch message was sent to a U.S. Coast Guard vessel. Of note, the responses times included in this narrative are only applicable to this specific training exercise. PR recovery times vary greatly and are the result of a myriad of factors

including weather, location, assets available, etc. The recovery times from this exercise should not be used for planning purposes.



USAV *Corinth* moving away from the life raft



USCGC *Wrangell* (WPB-1332) locates “downed” aircrew

The U.S. Coast Guard Cutter (USCGC) *Wrangell* (WPB-1332) arrived at approximately 1125 local. The USCGC *Wrangell* is an Island-class Patrol Boat. The USCGC *Wrangell* attempted to establish communication with the “downed” aircrew, but was unable. The assumption is that the USCGC *Wrangell* did not know what frequency the “downed” aircrew was transmitting on (the aircrew’s transmissions were heard aboard the USAV *Corinth*), and the “downed” aircrew did not have a maritime survival craft transceiver. If the “downed” aircrew had a maritime survival craft transceiver, they would have had assured communications with the USCGC *Wrangell* because all maritime vessels are required to monitor channel 16. Additionally, a maritime survival craft transceiver would have allowed the “downed” aircrew to communicate with the numerous civilian vessels in the area, if the need had arisen. The U.S. Coast Guard Cutter, after radio communications failed, decided to establish face-to-face communications and launched its cutter small boat at approximately 1145 local to retrieve the aircrew.



Rescue boat from the USCGC *Wrangell* (WPB-1332)



Recovering the "downed" aircrew from the HARD-7(S)

In all, it took approximately 1hr and 25 minutes from the time the initial "emergency" signal was sent until the personnel recovery assets arrived on scene. Once the "downed" aircrew was recovered, the USAV *Corinth* retrieved the HARD-7(S) life raft and returned to KNB. After arrival, CW5 Dukes returned to the USAV *Corinth* from the USCGC *Wrangell* to conduct AARs with the members of the 185th TAB and the crew of the USAV *Corinth*.

Phase V: Bilateral SAREX (U.S. Army & Kuwait)

On 4 November 2015, the 185th TAB, supported by the USAV *Corinth*, conducted a Bilateral SAREX in the NAG with the Air Forces of Kuwait.

Purpose – Conduct a bilateral PR training exercise in an open-water environment, conduct PR training using the HARD-7(S) life raft with survival kit, and conduct multinational interoperability PR training.

Key Tasks –

- 1) Movement to NAG training area
- 2) Launch "downed" aircrew in HARD-7(S) life raft
- 3) "Downed" aircrew successfully transmits distress call
- 4) USAV *Corinth* remains on-station (simulating wingman UH-60)
- 5) "Downed" aircrew located by Kuwaiti Air assets
- 6) Kuwaiti Air assets direct the USAV *Corinth* to the "downed" aircrew
- 7) "Downed" aircrew recovered by USAV *Corinth*
- 8) Movement back to KNB

End-state – “Downed” aircrew recovered safely and expeditiously, and all personnel, aircraft, & vessels returned to KNB.

Concept of the SAREX (US & Kuwait)

The concept of the operation for the 4 November 2015 SAREX relied on swift communication between the JPRC and the Kuwait Area Operations Center (AOC). The plan was for the “downed” aircrew to transmit an “emergency” signal to the JPRC. Next, the JPRC would call by telephone to the Kuwait AOC. The name of the Kuwait AOC is Mulhalub Control. From Mulhalub Control, the message would be relayed to the Kuwaiti Joint Operations Center (JOC). The Kuwait JOC would approve the message and then transmit it back to the Kuwait AOC. Next, the Kuwait AOC would send the message to base operations. Following receipt of the message, base operations would transmit the message to the Kuwaiti 32nd Squadron to be executed.

Once the aircraft from the 32nd Squadron arrives on the scene, the Kuwaiti pilot would talk directly to the Kuwait AOC, i.e. Mulhalub control. Mulhalub control would then call by telephone back to the JPRC. Finally, the JPRC would then call back to NAVCENT or ARCENT, depending on the recovery vessel that they are going to use, for communications with the final recovery vehicle. In summary, a “downed” aircrew calls for assistance, the Kuwaiti Air Forces locate the “downed” aircrew, and JPRC dispatches the recovery asset.

On 3 November 2015, the day prior to the exercise, the National Oceanic and Atmospheric Administration (NOAA) issued a Space Weather Event Message:

***“Space Weather Message Code: WARK06
Serial Number: 307
Issue Time: 2015 Nov 03 0811 UTC
WARNING: Geomagnetic K-Index of 6 expected
Valid From: 2015 Nov 03 0815 UTC
Valid To: 2015 Nov 03 1700 UTC
Warning Condition: Onset
NOAA Scale: G2 – Moderate”***

NOAA issued an extension to the warning later that same day:

***“Space Weather Message Code: WARK06
Serial Number: 308
Issue Time: 2015 Nov 03 1657 UTC
EXTENDED WARNING: Geomagnetic K-Index of 6 expected
Extension to Serial Number: 307***

[9]

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

Valid From: 2015 Nov 03 0815 UTC
Now Valid Until: 2015 Nov 03 2100 UTC
Warning Condition: Persistence"

These messages from NOAA would have a significant impact as the exercise proceeded.

The USAV *Corinth* departed KNB at 0700 on the morning of 4 November 2015. The USAV *Corinth* steamed 20 NM into the NAG to reach the exercise area. One of the "downed" aircrew experienced difficulties obtaining and retaining a signal lock on his GPS.

Prior to launching, the "downed" aircrew executed the exercise "emergency" call over their CSEL radio at approximately 1000. The aircrew never received a response over their CSEL radio, but did receive confirmation of message receipt at JPRC through VHF radio communication from the USAV *Corinth's* bridge at approximately 1020.

The "downed" aircrew launched in their HARD-7(S) life raft at approximately 1025. The "downed" aircrew carried MOBI system transmitters, CSEL radios, and VHF radios. Once the "downed" flight crew had signaled for help and launched in their HARD-7(S) life raft, the USAV *Corinth* remained on station to maintain contact with the crew and to prevent any civilian maritime traffic from interfering with the exercise. As part of the exercise, the pre-planned PR resource to be employed was Kuwait rotary-wing aircraft.

The Kuwaiti rotary-wing aircraft arrived on location at approximately 1115, communicated the "downed" aircrew's location to the USAV *Corinth*, and the USAV *Corinth* recovered the "downed" aircrew at approximately 1135. The "downed" aircrew never did receive a response from JPRC over the CSEL radio, but maintained communications with the USAV *Corinth* throughout the exercise over VHF radio.

In all, it took approximately 1hr and 15 minutes from the time the initial "emergency" signal was transmitted until the personnel recovery assets arrived on scene. Once the USAV *Corinth* recovered the "downed" flight crew, the USAV *Corinth* and all personnel returned to KNB.

Joint and Bilateral SAREX Concept

Based upon the success of the 185th TAB's SAREX, the brigade decided to execute an additional SAREX before redeploying. The SAREX sequel would combined elements of the previous exercises to execute a joint & bilateral SAREX. The 185th TAB's replacement, the 40th Combat Aviation Brigade (CAB), would also attend the exercise to gain familiarity with the 185th TAB's operating procedures and lessons learned.

The U.S. Army Vessel (USAV) MG Charles P. Ross (LSV-5) is a General Frank S. Besson-class

[10]

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

Logistics Support Vessels (LSV), which is designed for amphibious operations and the global movement of cargo. The Besson-class LSVs are the largest powered watercraft in the United States Army. The USAV *MG Charles P. Gross* is capable of transporting roll-on/roll-off cargo, as well as load-on/load-off cargo to established harbors or beachheads.

Joint/Bilateral SAREX

On 7 December 2015, the 185th TAB, supported by the USAV *MG Charles P. Gross*, a Besson class Logistics Support Vessels (LSV) designed for amphibious operations, conducted a Joint and Bilateral SAREX in the NAG with the U.S. Air Force and the Navy of Kuwait (KNF).

Purpose – Conduct a Joint & Bilateral personnel recovery (PR) training exercise in an open-water environment, conduct PR training using the HARD-7(S) life raft with survival kit, ensure that communication and coordination architecture between Kuwait and the U.S. is functional IOT facilitate the recovery of survivors inside or outside of Kuwaiti territorial waters, and exercise phase one reintegration facility at Camp ARIFJAN

Key Tasks –

1. Movement to NAG training area onboard the USAV *MG Charles P. Gross*
2. Launch “downed” aircrew in HARD-7(S) life raft
3. “Downed” aircrew successfully transmits distress call
4. USAV *MG Charles P. Gross* remains on-station (as a safety vessel)
5. “Downed” aircrew located by Kuwaiti Air assets
6. Kuwaiti Air assets direct Kuwait Naval vessel to the “downed” aircrew
7. “Downed” aircrew recovered by Kuwait Naval vessel
8. Movement back to Kuwait Naval Base (KNB)
9. “Downed” aircrew are transported to Camp ARIFJAN for reintegration
10. ENDEX

End-state – “Downed” aircrew recovered safely and expeditiously, and all personnel, air craft, & vessels returned to KNB.

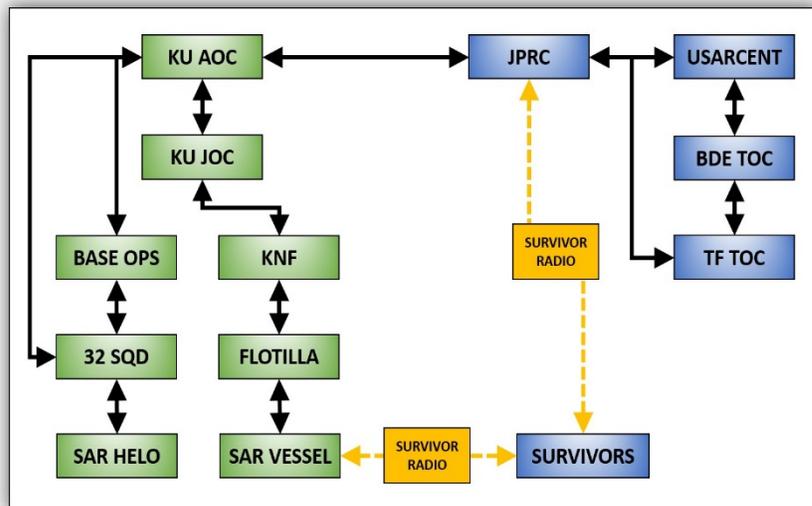
As part of the joint aspect of the SAREX, the USNAVCENT liaison officer (LNO) to the Combined Joint Task Force – Operation Inherent Resolve (CJTF- OIR) participated. The U.S. Navy has been focusing on conducting more exercises with the U.S. Army, and participating in more operations within the CJTF-OIR Area of Operations (AO). The U.S. Navy is also dedicated to the process of improving PR, and understanding the process of conducting PR with Kuwaiti forces is integral to the U.S. Navy’s PR cell at USNAVCENT.

Supporting the SAREX was an U.S. Air Force SSG SERE specialist from JPRC, attached to USARCENT to aid with their PRCC (Personnel Recovery Coordination Center). The purpose of his attendance was to provide supplementary training for the 185th TAB and the 40th CAB. The SSG SERE specialist provides briefings and training on spectrum of captivity, conduct after capture, escapes training, and theater briefs on Iraq, Syria, Egypt, Jordan, etc. for all high-risk personnel. He provided his subject matter expertise, to further prepare the Army aviators for PR operations within the CJTF-OIR AOR.

As the exercise was conducted in Kuwaiti territorial waters, Kuwait has the first right of refusal, under international law. If the SAREX had been a real world incident, the Kuwaiti forces are in charge of rescue within their country, and coalition forces must rely on them as the host nation. For this reason, along with many other, the building of relationships between Kuwaiti and U.S. forces is paramount for successful PR operations.

The concept of the operation for the 7 December 2015 SAREX relied on swift communication between the JPRC, the Kuwait Area Operations Center (AOC), the Kuwait Joint Operations Center (JOC), and the Kuwait Naval Forces (KNF). The plan was for the “downed” aircrew to transmit an “emergency” signal to the JPRC. Next, the JPRC would call by telephone to the Kuwait AOC, also known as Mohallab control. From Mohallab control, the message would be relayed to the Kuwaiti JOC. The Kuwait JOC would approve the message and then transmit it to the Kuwait AOC and the KNF. Once approval was received from the Kuwait JOC, Mohallab control would notify the JPRC that the Kuwait military was launching recovery asset.

Next, the Kuwait AOC would transmit a launch order to base operations. Following receipt of the message, base operations would transmit the message to the Kuwaiti 32nd Squadron to be executed. Simultaneously, the KNF would transmit a launch order to the flotilla. Following receipt of the message, the flotilla would transmit the message to the Kuwait Navy SAR vessel to be executed.



The Kuwait AOC would send its SAR aircraft to locate the “downed” aircrew and provide command and control until the SAR vessel dispatched by KNF arrived on at the incident location. Once the aircraft from the 32nd Squadron arrives on the scene, the Kuwaiti pilot would talk directly to Mulhalub control. Mulhalub control would then call by telephone back to the JPRC to provide updates to U.S. forces. Once the KNF vessel arrived on-station, the Kuwait SAR aircraft would direct the KNF vessel directly to the “downed” aircrew. The KNF vessel would recover the “downed” aircrew, and both the SAR aircraft and vessel would return to KNB, where the “downed” aircrew would be transferred for transportation to the phase one reintegration facility at Camp ARIFJAN. In summary, a “downed” aircrew calls for assistance, JPRC contacts the Kuwait AOC, the Kuwait Air Force locate the “downed” aircrew, and the Kuwait Navy recovers the “downed” aircrew.

SAREX EXECUTION

The USAV *MG Charles P. Gross* departed KNB at 0800 on the morning of 7 December 2015. The USAV *MG Charles P. Gross* steamed 20 NM into the NAG to reach the exercise area. The “downed” aircrew carried MOBI system transmitters, CSEL radios, and VHF radios. Prior to launching, the “downed” aircrew executed the exercise “emergency” call over their CSEL radio and activated their Shout/Nano at approximately 1000. The aircrew received a response from JPRC over their CSEL radio at approximately 1002. Once the “downed” flight crew had signaled for help and launched in their HARD-7(S) life raft, the USAV *MG Charles P. Gross* remained on station to maintain contact with the crew and to prevent any civilian maritime traffic from interfering with the exercise.

The “downed” aircrew launched in their HARD-7S life raft at approximately 1005. The JPRC contacted the Kuwait AOC at approximately 1020. At approximately 1040, Army personnel on-board the USAV *MG Charles P. Gross*, were notified by the JPRC that coordination/clearance issues with the Kuwait AOC had halted the exercise and updates would be issued as they occurred. At this point in the operation, the Kuwait JOC should have been granting launch authority to the Kuwait AOC, who then should have issued launch authority to Base Operations, who then should have called the 32nd squadron to launch the aircraft.

At approximately 1230, the coordination/clearance issues had been resolved and the Kuwait AOC relayed the “downed” aircrew’s location to Base Operations for launch release. At approximately 1300, the Kuwait Air Force’s 32nd Squadron launched a Super Puma aircraft to conduct search and rescue operations. The 32nd Squadron aircraft arrived on station at approximately 1325. At approximately 1335, with the status of the KNF vessel unknown and the sea conditions worsening and with concern toward the “downed aircrew’s” exposure to the elements, the decision was made to have the USAV *MG Charles P. Gross* recover the “downed”

aircrew thus ending the SAREX.

As the survivors in the raft were being recovered by the USAV *Gross*, they radioed the Kuwaiti Air Force helicopter that the rescue was complete enabling the aircraft to depart the exercise area. Once the *Gross* recovered the “downed” flight crew, the vessel and all personnel returned to KNB.

At approximately 1340, the KNF Mk5 boat SAR vessel arrived on station. In all, it took approximately 3hr and 40 minutes from the time the initial “emergency” signal was transmitted until the personnel recovery assets arrived on scene.

Observations

Overall, the SAREX was successful as the Kuwait Air Force aircraft did locate the “downed” aircrew, and the Kuwait Naval vessel arrived at the “downed” aircrew’s exact location to recover them. Unfortunately, the encumbered communications architecture prevented the KNF vessel from conducting the physical recovery of the “downed” aircrew. The most obvious area for improvement is the communications architecture between Kuwaiti forces and U.S. forces. Additionally, the bilateral communications architecture requires refinement and repeated application through search and rescue exercises.

At the commencement of the SAREX, everything worked as designed. The activation of the PR architecture and communications between the “downed” aircrew and the JPRC went well. However, the SAREX became mired when the Kuwait AOC was notified that the exercise had commenced. The authorization order had not been received by the AOC, which delayed the launch of Kuwait recovery assets for two hours. Miscommunication at the Kuwait AOC prevented the immediate launch of KAF and KNF forces, though authorization had already been granted. Nevertheless, once the order was received, the KAF Super Puma aircraft and KNF Mk5 vessel recovery assets departed immediately and did arrive on station within the planned response time.

Additionally, communication did not occur between the KAF aircraft and the Kuwait AOC. Communication did not occur between the KAF aircraft and the KNF vessel. Communication between the KNF vessel and the “downed” aircrew did not occur. Finally, the exercise of the phase one reintegration facility at Camp ARIFJAN did not occur.

Observations and Lessons Learned (US & Kuwait SAREX)

- 1) **U.S. Army Vessels Are A Valuable Training Resource:** The number one lesson learned from the 185th TAB’s SAREX is the value of utilizing U.S. Army Vessels for

[14]

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

personnel recovery exercises in a maritime environment. The USAV *Corinth* is an organic Army asset, and by leveraging this available asset, the 185th TAB was capable of conducting a significant amount of maritime PR training. Utilizing Army vessels for maritime training also has the benefit of flexibility. There can be considerable difficulties when an Army unit attempts to conduct training with other services. Like the Army, the U.S. Navy and U.S. Coast Guard have specific doctrine and regulations the must be adhered to when conducting training. The bureaucratic differences between the services can extend the planning process and inhibit training. This problem does not exist when utilizing U.S. Army vessels.

- 2) **U.S. Army Vessels Are A Valuable Personnel Recovery Resource:** U.S. Army vessels are a valuable resource for conducting PR. The JPRC should incorporate U.S. Army vessels into their list of available PR resources. Though U.S. Army vessels are not specifically equipped to conduct PR, they are numerous and can be employed in a “first-responder” role (if in the vicinity). Determining the location of personnel on the open ocean is very difficult and getting “eyes-on” personnel in a life raft quickly is vital to successful PR.
- 3) **Personnel Recovery Course:** The personnel recovery course is an invaluable training opportunity for all Army personnel involved in recovery operations. Personnel recovery officers, planners, U.S. Army vessel commanders, etc. would benefit from attending this course.
- 4) **U.S. Helicopters Not Equipped For Independent Maritime PR:** U.S. Army helicopters are not equipped to conduct independent personnel recovery in a maritime environment. U.S. Army helicopters do not have the training, do not have the necessary equipment, do not have rescue swimmers, do not have the enablers, etc. However, this merely reinforces further, why U.S. Army aviators must understand the entire personnel recovery organization and roles in maritime environments, and understand how U.S. Army aircraft can correctly aid in personnel recovery operations.
- 5) **Survival Craft Transceiver:** A survival craft transceiver should be added to the survival kit in the HARD-7(S). A survival craft transceiver operates on channels 16 (Maritime emergency) and 6 only, and it has an extended battery life to ensure communications for extended periods of time. As CSEL radios are designed for land operations, and maritime frequencies are not standard to the radio, the inclusion of the survival craft transceiver inside the HARD-7(S) survival kit facilitates an excellent back-up communications platform. It also allows for bridge-to-bridge

communications with civilian vessels if needed, since all maritime traffic are required to monitor channel 16 by international maritime law.

- 6) **Space Weather:** The 185th TAB did not check the space weather forecast prior to the exercise. The space weather event (solar flare) of 3 November 2015 significantly degraded the UHF SATCOM environment, which included GPS and the 185th TAB's planned UHF SATCOM communication frequencies for the exercise. The identified best practice for the future is for the 185th TAB to contact the USARCENT Space Support Element (SSE) prior to operations and exercises in order to obtain the next 24-48 space forecast. In the event there is space weather that will affect certain SATCOM communications frequencies during an exercise, the 185th TAB can easily utilize other communications assets and frequency bandwidths that are not impacted by scintillation (solar flares). Army units at all levels have SSEs available to support them at division level and higher. Additionally, Army planners can sign up for space weather alert emails from NOAA.
- 7) **Test Communications:** There is a CPN phone line between the Kuwait AOC and the JPRC. This phone line should be tested at least monthly.
- 8) **Foster Relationships:** The personal relationship between members of the 185th TAB and the Kuwaiti forces made the SAREX a success.
- 9) **HARD-7(S) Raft Drop Location:** The identified best practice of deploying the HARD-7(S) raft to the downed aircrew from the wingman's aircraft at a 10 foot, 10 knot hover or a 15 foot, stationary hover, is vital to crew survival. The downed aircrew will be tired and stressed from evacuating their aircraft as it sank. Additionally, the downed aircrew may have injuries and may be fighting heavy ocean currents. The HARD-7(S) raft must be deployed as close as possible to the downed crew to minimize the likelihood of the raft case floating away from the downed aircrew.
- 10) **Sun Protection:** The HARD-7(S) life raft is emergency equipment and as such does not feature a canopy to provide protection from the sun. Downed aircrews could potentially spend several hours in the HARD-7(S) life raft before PR assets locate them. Sunscreen should be included in the HARD-7(S) survival kit to minimize the risk of sunburns.

Observations and Best Practices (Joint/Bilateral SAREX)

- 1) **Bilateral Preparations:** The Kuwait AOC, the Kuwait JOC, and the Kuwait Navy

[16]

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

need to be included in the pre-mission planning for personnel recovery exercises.

- 2) **Communications:** Every organization has its own command and control structure, and every organization communicates according to its own set standards. Communication across multiple branches of service (joint) and with multinational partners is exceedingly difficult, and the solution does not lie in aspirations for a single standard for communications. Within the U.S., the Federal Emergency Management Agency (FEMA) has developed the Incident Command System (ICS) to aid with communications issues such as were encountered during the Joint/Bilateral SAREX. The ICS focuses on simplicity of communication in emergency situations. Besides refining and rehearsing for the next SAREX, the lessons of the ICS may also be applied to assist in multinational interoperability.
- 3) **Exercise Approval Letter:** Approval for a bilateral SAREX is exceedingly complex, relies on diplomatic channels, and takes a long period of time for approval. The 185th TAB had short notice the last SAREX and the Joint/Bilateral SAREX; approximately 33 days. The 185th TAB submitted the approval letter a week after the previous SAREX, which was as quickly as the brigade could get it formulated, signed by the brigade commander, translated into Arabic, submitted to ARCENT, ARCENT could submit it to the U.S. embassy, the embassy could put it on their letterhead, translate it, send it over to the Kuwait AOC, for it to go to the Kuwait JOC.
- 4) **Exercise of the Phase One Reintegration Facility:** USARCENT has a phase one reintegration the necessary approval channels facility at Camp ARIFJAN, but it has not been involved an exercise recently.
- 5) **Personnel Recovery Officers:** Personnel Recovery Officers (PRO) are invaluable in coordinating PR assets. Additionally, it is the responsibility of the unit PROs to learn and know all about the PR assets within their unit's AO. The JPRC does not know all of the specifics for PR at a specific base or facility. The JPRC coordinates across the entire COCOM. The individual unit PROs must become subject matter experts for all PR resources that their respective unit may employ.
- 6) **Reciprocal Support Relationships:** The 185th TAB has developed reciprocal support relationships with Kuwaiti forces, as well as with the Harbor Master and the U.S. Army vessels at:
 - Kuwait Naval Base, and with staff at USAFCENT, USARCENT, and USNAVCENT.

- Without doubt, this level of complex PR exercise never would have occurred without the relationships that the 185th TAB fostered and cultivated.

The way forward

During the AAR following the exercise, all participants agreed that in the future both the KAOC and the KJOC need to be included in the pre-mission planning briefings for personnel recovery exercises. The KNF flotilla and the KAF 32nd & 62nd Squadrons are extremely capable and proficient assets, as are the 185th TAB and the USAV *MG Charles P. Gross*. The major issue lies in the communication architecture at the major command level.

Summary

Overall, the SAREX was an excellent exercise for all units involved. The 185th TAB developed training and TTPs for the HARD-7(S) life raft, conducted joint PR training, and multinational PR training.

Overall, the 185th TAB's SAREX Sequel was an excellent training exercise for both the Kuwaiti Forces and the U.S. Forces. The 185th TAB further developed their PR procedures, as well as successfully integrating an additional level of complexity to the SAREX exercise. The bilateral exercises between the Kuwaiti and U.S. forces are vital to ensuring the successful recovery of Kuwaiti or U.S. forces in a real world incident. The 185th TAB has made major accomplishments in building the relationships with their Kuwaiti brothers, and the 40th CAB will undoubtedly build upon this.