

Thunder in the Desert

Joe Copalman visited Exercise Angel Thunder 2015, recently held in Arizona, where saving lives was the name of the game.

When American aircrews depart on combat sorties, they do so knowing highly skilled combat search and rescue (CSAR) specialists stand ready to retrieve them. Wherever they are. While each branch of the US military has capabilities for recovering isolated personnel, the US Air Force has invested heavily in the mission, with several rescue groups solely dedicated to personnel recovery (PR).

At the heart of air force combat rescue is the 'rescue triad,' consisting of Lockheed HC-130P/J 'Combat King' aircraft, Sikorsky HH-60G 'Pave Hawk' helicopters, and the 'Guardian Angels,' which comprise pararescuemen (PJs), combat rescue officers (CROs), and those who special in survival, evasion, resistance, and escape (SERE). Until recently, no single exercise tested the rescue triad across the broad spectrum of rescue-specific skill sets. While individual units routinely participate in large-force

exercises such as Red Flag, it was not until the creation of Angel Thunder in 2006 that the rescue community had a comprehensive exercise built specifically around realistic, scenario-based rescue mission training.

From the Ground Up

Angel Thunder is the brainchild of Brett Hartnett, a retired HH-60G pilot, who developed the exercise for the 563rd Rescue Group at Davis-Monthan (D-M) Air Force Base in Tucson, Arizona. Hartnett, who came to D-M with extensive exercise planning experience, told *AFM*: "When I got here, I saw that everything you needed for the perfect personnel recovery exercise was available."

"There was an active-duty rescue group here, a reserve rescue group, and you had the Apaches out at Marana [Arizona]. Then there was the JPRC (Joint Personnel Recovery Center), the A-10s for RESCORT (rescue escort), and the Playas Training

and Research Center. The whole area is just surrounded by military flying areas and restricted areas. It was just like 'Everything is here', so it was just a matter of connecting it all."

And 'connecting it all' is largely what Angel Thunder is about. American personnel recovery policy is guided by National Security Presidential Directive 12, Annex 1, which stipulates that a whole-of-government approach be employed to recover and repatriate Americans 'isolated' on foreign soil. While unmistakably an air force exercise, Angel Thunder has grown considerably from its local, air force-only origins and now involves all branches of the armed forces, agencies such as the Drug Enforcement Administration (DEA), and even foreign militaries. Angel Thunder is where the rescue community meet to validate tactics, build partnerships or reinforce existing relationships, all in the name of personnel recovery.



Angel Thunder 2015 ran from May 30 to June 13 at D-M and involved approximately 2,700 participants from the US military, 11 foreign militaries, and numerous law enforcement organisations. This year, exercise planners worked to replicate threats and mission sets commonly encountered by PR units operating in Africa,

though generic rescue skills relevant to many environments were also heavily.

Venues and Scenarios

Angel Thunder 2015 comprised several scenarios. The first was a civilian mass casualty event at Camp Navajo, an Army National Guard facility in Northern Arizona. Rescue forces located



Marines with 1st Force Reconnaissance secure the perimeter of a simulated vehicle explosion as an MV-22B Osprey from VMM-268 'Red Dragons' lands to extract four mock victims at the Playas Training and Research Center.

US Air Force/Tech Sgt Courtney Richardson

Inset: During Angel Thunder, SERE specialists gave briefings, taught desert survival courses, and performed observer/controller duties, ensuring all role players and VIPs taken out to training sites stayed safe and were accounted for before returning. All photos, author unless stated



Above: Angel Thunder founder and exercise manager Brett Hartnett at Winslow, Arizona. Hartnett and a team of eight contractors are responsible for building the scenarios and organising the exercise every year. Above right: An air traffic controller from Yuma-based Marine Air Control Squadron-1 watches as an HC-130J he cleared for take-off departs Winslow Regional Airport. Along with sailors from the navy's Tactical Air Control Squadron 22, marines from MACS (Marine Air Control Squadron) -1 provided traffic control services at several of the airfields and FARP sites used during Angel Thunder.

and triaged more than 100 ROTC (Reserve Officers Training Corps) cadets playing the role of injured flood victims. The 'injured' were transported to a casualty collection point set up at Winslow Regional Airport by a team from the Wyoming Air National Guard's 187th Aeromedical Evacuation Squadron. A total of 113 patients were processed at Winslow and flown back to Tucson and Phoenix aboard HC-130s.

The Playas Training and Research Center in south western New Mexico was the venue for several day and night contested irregular warfare scenarios in which ground forces conducted recovery operations and reacted to attacks by insurgents. Surface-to-air threat emitters at Playas provided air assets threats to

detect, react to, and suppress.

The third venue was Marine Corps Base Camp Pendleton in southern California.

Hartnett said: "The facilities out there were just excellent. "On the capstone event, it was basically a USAID [US Agency for International Development] facility under duress, and we had to go and pull about a hundred folks out of that location. They had protesters out there, they had RPG attacks on the facility, they had IEDs going off, small arms engagements with insurgents."

For maritime scenarios, air force PJs, force recon marines, and a US Coast Guard Maritime Safety and Security team conducted helicopter visit, board, search and seizure (HVBSS) missions on a US Navy drone launch ship.

Going High

All helicopter units participating in Angel Thunder had high-density altitude operations as a desired learning objective (DLO).

Capt Jake Hobson, an HH-60G pilot with the 55th RQS explained the importance of this training: "There are a couple of challenges that a helicopter faces when it's at high-density altitude. The first, with thinner air, renders our engines less powerful, less effective, so we don't have as much power available to us.

"Additionally, our rotor blades don't get as much 'bite' the thinner the air is. That causes us to be less manoeuvrable, to carry less weight, and generally suffer from a degraded performance on a pretty much all fronts."

Lt Cdr David Owens, a navy

MH-60S Knighthawk pilot with HSC-8 'Eightballers' elaborated, "It required us to spend a little bit more time looking at engine calculations and environmental considerations. We definitely weren't able to carry as much weight or as much fuel as we normally would in a maritime environment, so that was a unique experience."

When it Rains...

Rain and wind, remnants of Hurricane Blanca, impacted operations at Camp Navajo, Playas, and the California coast.

Hartnett told AFM: "We had no idea we were going to have to deal with a hurricane in June in Arizona. But it enhanced the training because it threw in a stress factor the crews had to deal with and a

Pararescuemen from the 304th RQS provide security as an MH-60S from HSC-8 departs. HSC-8 worked primarily with the 304th RQS and Israeli PJs from Unit 669, the Israeli Air Force's dedicated personnel recovery squadron.



Boots on the Ground – Air Force Pararescuemen

Explaining the role of the PJs, MSgt Ian Jamieson, a PJ team leader with the 304th RQS, Portland, Oregon, told AFM: "We're the boots on the ground. It takes everybody in the actual chain to execute the PR mission – we have intel [personnel] who provide the information, SERE [personnel] who gives us the data on the individual or location that we're going into, and aircraft that take us in, whether it's a C-130 or H-60 or another airframe. We are the guys who, from start to finish, from mission planning to boots on the ground pull the 'patient' or sensitive item out and bring it back to the finish line, that's our focus." Discussing PJ participation in Angel Thunder, MSgt Jamieson said: "The first week was inter-agency functions, where we provided training to different organisations and sister services, DEA, FBI on rope rescue and extrication." This was followed by a week of scenarios that saw PJs travelling to incident sites via helicopter or HC-

130, securing the area, and locating, treating, and extricating role players simulating wounded personnel.

The Personnel Recovery Task Force were based at Fort Huachuca, in southern Arizona, where the 304th partnered with PJs from the 38th RQS and Israeli PJs from Unit 669, the Israeli Air Force's personnel recovery squadron, for several missions at Playas.

Typically, the 304th and the Israelis inserted from helicopters and the 38th jumped from an HC-130. The PJs operating from D-M focused more on missions along the California coast, working with force recon marines and US Army Green Berets at Camp Pendleton and at sea aboard the US Navy Aerial Target Launch Ship 9701. MSgt Jamieson added: "The scenarios were very adequate. However, what always interrupts is the timelines, the bingo fuels [fuel issues] and that stuff, so you get some issues you can't overcome." ■

set of problems they had to solve to still pull the mission off."

Capt Brady Montuori, an HC-130J pilot with the 79th RQS, expanded: "It forces you to think critically and re-flow assets quickly because we still have a mission to execute, we still have people to recover."

HH-60G – Combat Rescue Stalwarts

According to Pave Hawk pilot Maj Jay Humphrey, "Our primary mission is to penetrate denied airspace and degraded-weather environments with a complement of tankers and PJs, get aircrew out of 'Indian country,' and get them repatriated."

With the current focus on training towards threats within integrated air defence systems (IADS), Angel Thunder provided opportunities to train in contested environments.

Capt Hobson from the 55th RQS said: "We were looking to take on some current-generation SAM systems and to operate in an IADS environment."

Most of the contested ops were flown at Playas, where the White Cell controlled threat emitters replicating SA-8 SAMs, ZSU-23/4 AAA, and SA-7 MANPADS (Man Portable Air Defence System). However, these legacy systems were appropriate for the AFRICOM-type threats and mission profiles the exercise planners were replicating Angel Thunder put the Pave Hawks

through several scenarios requiring the insertion and extraction of PJs via landings, hoists, and fast-roping, covering density altitudes from 7,000ft (2,134m) above sea level down to sea level. Pave Hawks also performed close air support in response to call-for-fire requests from CROs. Some of the Camp Pendleton scenarios involved HH-60Gs launching from and recovering to D-M, which meant refuelling at FARPs (Forward Arming and Refueling Points) or in the air from HC-130s. Reflecting the international character of the exercise, the D-M based 55th RQS was partnered with 2nd Squadron, Helicopter Wing 64 (Hubschraubergeschwader or HSG 64) of the German Air Force, which brought three Sikorsky CH-53GS helicopters to Angel Thunder (see panel).

HC-130 – The Long Haulers

The C-130 Hercules has been an integral part of the air force rescue triad since the mid-1960s.

HC-130J pilot Capt Montuori described the missions of the Combat King: "We provide helicopter air refuelling, air drop and resupply of our PJs and their equipment, providing patients with medical support, and we use our very robust comm suites to provide and maintain situational awareness on the battlefield." The latter mission can involve ▶



The Montana Army National Guard provided five CH-47Ds for the exercise, primarily for back-end support, moving role players and exercise staff from one training location to another.

Below: Lt Col John Graver (left), a CRO and the commander of the 304th RQS, establishes LZ security while PJs load litter-bound casualties on to a navy MH-60S.



assessing landing zones or providing overwatch for teams on the ground. The HC-130J has the ability to receive fuel from a KC-135 via a receptacle atop the fuselage, providing the rescue triad with truly global reach.

As an HC-130J pilot, Capt Montuori appreciated the variety of missions in which Combat King crews were able to participate.

"What was great about it was just every type of rescue we were seeing. We saw everything from large mass-casualty events where we had more than 100 folks on the ground to contested CSAR stuff, working with combat platforms like the A-10."

All rescue missions are responses to immediate issues, without the luxury of a 72-hour planning process. Capt Montuori explained how Angel Thunder reflects this: "My biggest DLO was really the mission planning for scenarios that had this many players from this many backgrounds. When you're planning for this sort of thing, the tempo is a lot faster with so many assets in play."

Fish out of Water – Navy H-60 Support

The US Navy sent five MH-60S Knighthawks and 90 personnel from NAS North Island's HSC-8 'Eightballers'.

Lt Cdr Owens explained the

Eightballers' DLOs: "We're looking at gaining experience on how to operate in a joint-type environment. The last time the squadron did any type of joint training was back in 2011, so pretty much any residual knowledge from that is gone."

In addition to joint experience, HSC-8 was also looking for training opportunities further inland and at high density altitude. Lt Cdr Owens said: "Any time you change the environment, it just adds a little different complexity to the situation and requires crews to exercise mission sets or skill sets that they haven't used in a long time."

The squadron worked primarily from Fort Huachuca with PJs from the 304th RQS and Israel's Unit 669. Lt Col Graver from the 304th spoke highly of HSC-8 saying: "The navy helicopter pilots did an outstanding job. They're very understanding of the mission. Their mentality was spot on and exactly what we needed to help us out."

The Eightballers participated in most major scenarios, including events at Camp Navajo, Playas, and helicopter visit, board, search, and seizure (HVBSS) missions off the California coast. These scenarios gave HSC-8 the opportunity to share knowledge and experience

CROs – Rescue Force Leadership

Combat Rescue Officers (CROs) are responsible for training and equipping Guardian Angel units as well as leading rescue operations. One scenario at Playas, involving the recovery of nine US personnel wounded in an insurgent attack, offered a valuable insight into the CRO's role. Lt Col John Graver is a CRO and the commander of the 304th. As rescue mission commander at Playas, he was responsible for the overall mission. A CRO's primary focus in tactical operations is command, control, and co-ordination – bringing order to chaos. As the first member of the rescue force to set foot in the objective area, Lt Col Graver carried a pack of heavy equipment needed

for vehicle extrication. By hauling this gear, Graver freed his team to move quickly while suppressing any threats in the incident area. He stressed the delegation of tasks enabled him to stay one step ahead, which meant his team could focus on the immediate tasks at hand, such as repelling an insurgent attack. Throughout the scenario, Lt Col Graver provided updates to the orbiting aircraft, and kept his team apprised of the situation and the time remaining, as the helicopters had only enough fuel to support one hour on the objective. Once all nine wounded were secure Graver called the aircraft in to transport the PJs and the wounded back to Fort Huachuca. He was the last member of the team to board the waiting H-60s. ■

with the air force HH-60G crews that also participated.

'It's a TRAP!' – Marine Ospreys

Two Bell-Boeing MV-22B Ospreys from VMM-268 'Red Dragons' participated in Angel Thunder, in preparation for joining the Special Purpose Marine Air-Ground Task Force – Crisis Response (SPMAGTF-CR) in Kuwait.

Though CSAR is not a core marine aviation mission, units detached to MAGTFs routinely train for tactical recovery of aircraft and personnel (TRAP),

the marines' approach to PR. Whereas most Angel Thunder participants were based in Arizona, VMM-268 flew from Creech Air Force Base in Nevada. Capt Sean Rafferty, a pilot with -268, said: "That was beneficial for our squadron's training based on long-range aspects of TRAP mission sets."

Regarding the MV-22's advantages in TRAP missions, Capt Rafferty added "The capabilities that we have, as far as speed and range go, really change the face of what we bring to the fight as an assault

After inserting a team of PJs, this Pave Hawk departs the LZ to set up an overhead pattern to provide overwatch and close air support for the team on the ground. While PJs and CROs are trained in call-for-fire procedures to request close combat attacks, 304th RQS commander Lt Col John Graver told AFM it is preferable to have a JTAC along to manage CAS. This leaves the PJs up to provide patient care or security and the CRO to stay one step ahead in the mission.



Patients loaded, this German CH-53SG lifts off from a forest clearing at Camp Navajo to transport wounded role players to a casualty collection point for triage and transport aboard air force HC-130Js.

support platform." The Dragons also served in a support role, refuelling air force and navy H-60s via the MV-22's air-delivered ground refuelling capability.

The Dragons worked extensively with A-10 pilots from the 354th FS on attached RESCORT. Though marine MV-22s typically rely on AV-8B Harriers for escort, air force A-10s have been engaged in the same anti-IS operations as the Ospreys.

Capt Rafferty explained the partnership with the A-10s: "We can be used if we go for a Special Purpose MAGTF and are requested to respond within CENTCOM (Central Command), so this gave us the experience we needed just in case we do work with them in other joint missions in-theatre."

"It was interesting to see their tactics, techniques, and procedures and how they attach to us in the MV-22 Osprey. Our airspeeds and how we operate within the objective area are very similar."

Air Force Rescue Vehicles – Pave Hawks and Combat Kings

The Guardian Angels do not have wings, and must rely on helicopters or fixed-wing aircraft to transport them to and from incident sites. MSgt Jamieson explained: "In the broad spectrum, the -130s and the -60s are there to support us so we can support the survivor on the ground." ■

BLACKOUT! – German Heavy Metal

The German Air Force sent three CH-53s to D-M for Angel Thunder 2015, accompanied by a team of PJs, JTACs, and some SERE personnel. Laupheim-based HSG-64 has a squadron specifically tasked with personnel recovery and special operations support that stood up in 2013, with the aircrews and PJs eager to learn from the USAF rescue triad to improve their doctrine and capabilities.

Back-End Aviation Support

Given the geographic scope and the number of support personnel needed to run the exercise, Angel Thunder required aircraft dedicated to back-end logistics. This year, three services provided support – the Wyoming ANG with a C-130H, the Montana Army National Guard with five CH-47D Chinooks, and the Army Reserve with four C-12s and two UC-35s. Hartnett praised all three units, declaring: "They were flying everybody around, just moving folks. We could not have done this without them. All three were just incredibly flexible, and all of them did back-end and front-end missions."

The Future

Discussions are currently under way to transfer Angel Thunder from the 563rd Rescue Group at D-M to the 414th Combat Training Squadron at Nellis AFB, Nevada. Though a few options being discussed include physically moving the exercise

to Nellis, many expect it is more likely the exercise will remain at D-M with a detachment of the 414th running it.

Maj Jay Humphrey, Personnel Recovery Division Chief with the 414th, explained Angel Thunder will still be guided by NSPD 12, Annex 1, and it will retain the joint/international/interagency character that has defined it for nearly a decade.

Bottom Line

All personnel interviewed by AFM echoed the sentiments of HH-60 pilot Capt Hobson when asked about the value of Angel Thunder to their unit or platform or community.

He said: "The greatest value was being able to work with all the

assets at one time. It was nice to be able to sit down and work that all out in a no-threat environment and develop relationships with those individuals and those pilots. So now, if we were to deploy along with the German CH-53s, I know that I can count on them because I've seen them kick butt in real life and they are professional and proficient.

"And I know that about the C-130s we were flying with; I know it about the navy guys that we were flying with from HSC-8; the Marine Corps ground controllers that were doing some of the FARP stuff and the air traffic control at some of the airfields we were at. You just build this huge confidence in all these players that you really don't know before this. afm



Above: Pararescuemen from the Portland-based 304th RQS perform a vehicle extrication of a patient simulator trapped under a mangled car. With IED attacks on vehicles being a primary tactic of insurgents around the world, vehicle extrication is an important skill set for PJs to master.

