



SSgt. Daniel Holmes, a pararescueman, goes through swiftwater rescue training near Davis-Monthan AFB, Ariz., during Angel Thunder, the world's largest combat search and rescue training exercise.

COMBAT SEARCH AND RESCUE TEAMS HAVE
SEEN THE VALUE OF TRAINING AS THEY FIGHT.

By Amy McCullough

Angel

THUNDER

By the time TSgt. Brandon Daugherty and his four-man team arrived on the scene in Afghanistan's tumultuous Helmand River District, it was clear no one was alive in the vehicle they were approaching.

It was nearly dark, except for the flames that burst from the overturned Mine-Resistant Ambush Protected vehicle. Inside, three Georgian troops were dead. The MRAP had rolled over an improvised explosive device.

Daugherty, then an Active Duty pararescue jumper assigned to the 48th Rescue Squadron at Davis-Monthan AFB, Ariz., and his team managed to put out the flames and right-side the vehicle. Billowing smoke, however, made breathing difficult and forced them to quickly pop in and out of the vehicle's hatch.

As the PJs struggled to recover the bodies, an AH-64 Apache crew flying overhead reported that a man, who was carrying a large cylinder on his shoulder, had run into a house roughly 300 meters away. Everyone on the ground took up a defensive fighting position, but the man showed little signs of movement and an attack never came. After about 20 minutes, the team got the all clear and went back to work.

That's when the situation turned from bad to worse.

A second IED detonated, blowing Daugherty and his combat rescue officer "a pretty good little distance" away, he said. The blast was so strong it blew the CRO's helmet off his head and sent his satellite phone flying.

Other than "seeing stars," Daugherty and his team escaped without injury, but a US marine who was embedded with the Georgians was in bad shape.

"His face was completely blown off. It was the worst trauma I've ever seen in my life. His chin was completely gone. Everything was mush. He was twitching and trembling and you could tell he wasn't getting any air," said Daugherty.

The PJs conducted a cricothyrotomy (cric)—making an incision in his cricothyroid membrane to open his airway. Over the next few minutes, they pumped the marine full of medicine, breathed for him, and did every medical procedure in their power to save his life before passing him off to a British medical team for evacuation.

Their efforts paid off in a big way—the marine is still alive today and has successfully completed several facial reconstruction surgeries, said Daugherty.

That January 2012 deployment only lasted 60 days, but it was by far the "craziest" and most action-packed deployment Daugherty ever experienced. That's saying a lot considering he deployed seven times—five to Afghanistan, once to Iraq, and once to the Horn of Africa—over a seven-year period.

The pararescue career field is one of the most stressed in the Air Force, but you'd be hard pressed to find anyone in the rescue community who expects

the operational tempo to ease up any time soon.

In fact, as of mid-April less than half of deployed pararescue members were in Afghanistan. “We are not worried about being out of work,” said Col. Jason L. Hanover, commander of the 563rd Rescue Group based at Davis-Monthan. “We are in demand and at this time we are still not able to fulfill all the requests for forces that are out there, so when Afghanistan closes we are just going to

shift our forces elsewhere as we already have,” said Hanover.

Afghanistan may be the US’ only war zone at the moment, but the threat to the country and to Americans abroad is probably not going to diminish.

“As long as the Air Force is sending expensive planes and pilots, who take a lot of money to train, out into harm’s way, I can understand [personnel recovery] being a core mission of the Air Force. You have elements of the Air

Force that put themselves in harm’s way with less backup than say the Marines or the Army,” said Charles Ray, former ambassador to Zimbabwe and a white cell participant, or exercise controller, in Angel Thunder, the world’s largest, personnel recovery exercise.

Brett Hartnett founded Angel Thunder in 2006 when he was an HH-60 pilot assigned to Davis-Monthan. Hartnett, who is retired from the military and now serves as the exercise’s civilian director, had

RESCUE TEAMS AT PLAYAS

Playas, N.M., April 16, 2013 —

It was almost noon, but it was surprisingly chilly for the desert. As an MC-12 hummed overhead, the windy day’s cold air was full of dust. Nearby was a remote and desolate mud hut village where the homes looked decrepit. The only life in the surrounding area was small thorny bushes scattered every few feet.

Small burrows near the bare bushes alluded to more treacherous life just below the ground. No hustle and bustle of life, simply an air of abandonment.

Welcome to Playas, N.M.

Built to mimic a village in Afghanistan, Playas, located near the southwestern corner of New Mexico by the Arizona border, is an “urban” training ground for the US military and coalition forces to prepare them for deployment. One planner even “went to Afghanistan for four months to actually learn how they build their mud huts,” said TSgt. Brandon Daugherty, a Reserve pararescue jumper with the 306th Rescue Squadron at Davis-Monthan AFB, Ariz., serving as the logistics manager of the exercise.

The training is all part of Air Combat Command’s Angel Thunder joint personnel recovery exercise. In its seven years of existence, Angel Thunder has grown exponentially as international allies catch wind of the exercise. This year 11 countries participated and another 10 observed.

In the desert, at the top of a hill, US and international troops were getting ready to play the role of enemy rebels.

Some of the exercise’s mission planners were up on the hilltop watching the day’s scenario as well. One planner squawked back and forth to players on a walkie-talkie, preparing the situation on the ground. Mission planning usually took place at the rescue operations center in the makeshift but realistic tent city, Desert Lightning City, situated at Davis-Monthan, some 230 miles away, but the exercise needed planners on-site, too.

Within an hour, the scenario burst into life when a Mine-Resistant Ambush Protected armored vehicle set off an IED, trapping personnel inside as the blast bulldozed the MRAP onto its side. A few minutes later, A-10 Warthogs swept in low over the hill to provide protection for the rescuers who were on their way.

Another few minutes passed before two HH-60 Pave Hawk rescue helicopters appeared. One of the Pave Hawks landed, rotors whirring, tossing up sand and swirling it into the air. Pararescue jumpers filed out and headed toward the MRAP.

As they began working to get the victims out, enemy ground forces started shooting in their direction.

The A-10s were still in the area and came back to provide close air support, strafing the enemy forces and momentarily quelling the attack.

Soon after, a suicide bomber drove his truck toward the MRAP and detonated his vehicle. The attacker’s truck bed had been full of explosives, and the resulting blast injured a PJ.

As chaotic as the scenario seems, that is its whole purpose. “When we go out to Playas, ... [we want] to make it as realistic as possible,” said Brett Hartnett, director of Angel Thunder. Scenarios such as this one are “dedicated to maintaining irregular warfare competency. This is where the majority of the coalition is. ... They’re all in IW,” he said.

The following day, personnel recovery forces went back out to Playas and took part in an urban operations mass casualty scenario in the village. Simultaneous bombs went off, an eerie recall of the bombing that took place at the Boston Marathon the same week.

One Angel Thunder bomb went off in a marketplace, another by the roadside, one by a host-nation location, and the last bomb near a UN convoy. Joint coalition forces were tasked to assess the situation and effectively evacuate the casualties.

Kyle Sauls, ground boss for Angel Thunder and a former PJ, said that despite the different services and different scenarios, all the “missions sets are very similar”: free-falling, diving, patrolling, special operations, etc. The mission may be different, but the “tactics are all the same,” he said.

Not only does this training hone irregular warfare skills, it also prepares PJs for their “worst nightmare,” said exercise director Hartnett. Angel Thunder mission planners sketch out scenarios so that when the PJs are deployed within the next few months, they will be ready for just about anything. —June Lee





Above: Pararescuemen prepare to leap into the rapids as part of their training at Angel Thunder. Below: A simulated IED explodes near a bus carrying “passengers” at Playas Training Center, N.M., requiring a response from military rescue forces during another portion of the massive training exercise.



Photo by Charles Ray

extensive exercise planning experience through various NATO assignments. He said he realized Air Force exercises, such as Red Flag, offered superb training for pilots, but weren't really designed to accommodate personnel recovery.

“We set up an exercise that was just for us and because it was just for us it was much more useful and was much more relevant,” said Hartnett, who also served as the combat rescue helicopter commander at Camp Bastion, Afghanistan, during one of Daugherty's deployments.

Daugherty said the scenarios at Angel Thunder are so realistic he actually had “flashbacks” to training he received in October 2011 as he flew over that fiery crash last year.

Getting Huge

The scenario, he said, had taken place in a barren mountain village in Playas, N.M., along the Arizona border. An MRAP had flipped over and caught fire after driving over an IED. Wounded troops, including one with a severe simulated facial injury, were spread all around the crash site. His team was forced to conduct a simulated cric—a fairly unusual procedure—on one of the wounded troops.

Daugherty didn't know it at the time, but the training was an eerie foreshad-



Above: An HH-60G hovers over a canyon during Angel Thunder. Right: A pararescueman gives the signal to hoist a simulated casualty during the exercise. This year's Angel Thunder saw 11 foreign countries participate and another 10 observe.

owing of what he would experience just a few months later in Afghanistan.

“In the real world it was 10 times worse. However, I cannot confidently say that if we hadn’t done a dry run at Angel Thunder, with the kind of stress we had to deal with, that [the marine] would even be alive today,” said Daugherty.

In fact, that’s one of the reasons why he decided to leave Active Duty and work full-time for Angel Thunder. He now serves as the Angel Thunder logistics manager, although he is still a PJ with the Air Force Reserve’s 306th Rescue Squadron at Davis-Monthan.

“When Brett told me about [the position available] at Angel Thunder, I said I would love for somebody else to have a story just like mine,” he said.

Angel Thunder has grown immensely since its inception. Only 22 aircraft and 175 personnel participated in the first exercise, compared to the nearly 2,000 participants and some 87 aircraft in Angel Thunder 2013. This year’s exercise included players from all four



US services, a host of agencies, and foreign partners and observers.

The training area also has grown significantly with scenarios taking place anywhere from the Texas panhandle to a few miles off the coast of California, said Hartnett.

The geographic expansion can be directly tied to the drawdown in Afghanistan and the planned pivot to the Asia-Pacific, where rescue crews will not only face the “tyranny of distance” but may also have to operate in contested and degraded environments for the first time in well over a decade, officials said.

“We deliberately said ... let’s do a long-range [scenario],” said Hanover. He added, “That changes the calculus when it’s long-range and you are dealing with helicopters.”

Beeps and Squeaks

Angel Thunder actually comprises eight program elements. For the first time, Week 1 was set aside for academic training and what Hartnett called “forced networking.” The idea is to give participants time to learn what the others are capable of before engaging in the scenarios in Week 2 and future coalition missions downrange.

Although partner nations participate in various aspects of Angel Thunder, many focus on the irregular warfare scenarios, said Hartnett.

Even though the war in Iraq has ended and the expectation is that major operations in Afghanistan are coming to a close, Hartnett said it’s important to maintain irregular warfare skills.

AirSea Battle in Angel Thunder

Davis-Monthan AFB, Ariz.—This year’s Angel Thunder combat search and rescue exercise contained an AirSea Battle scenario, Operation Tenacity. During the scenario, which was conducted four times with slight variations each time, aircraft from Davis-Monthan were tasked to support ongoing missions off the California coast—some including special operations forces and other Navy crews, said Col. Jason L. Hanover, commander of the 563rd Rescue Group at Davis-Monthan.

The area off San Clemente Island, near San Diego, included “a robust, integrated air defense” and “small boat swarms,” he said.

In one of the four ASB scenarios, a ship was disabled after being attacked by a fast inland attack craft and rescue crews were called in to get a compromised SEAL team off the boat.

“The threat will be relatively similar [in each scenario], but who you are picking up, how much signaling they have, how competent they are at being an isolated person, will all change,” Hanover told *Air Force Magazine* in mid-April, just before the scenarios took place.

The support aircraft also were to change, so some ASB scenarios included A-10 Warthogs, while others included Apaches or Navy helicopters launching off a nearby aircraft carrier.

“All of that changes the scenario just a little bit, just enough to make them difficult and worthy of these guys comparing notes at the end,” added Hanover. “They all learn from each other.”

—Amy McCullough

“Americans are really good at forgetting what they did in the last war,” he said. “We’re probably the world’s experts right now at irregular warfare. We don’t want to lose that mission set.”

However, the changing defense strategy also calls for a new kind of training. This year, Angel Thunder included an anti-access, area-denial scenario, dubbed Operation Resilient, conducted at the Melrose Range at Cannon AFB, N.M.

Most of the scenario was classified, but Hartnett said it included “threat emitters” and “space aggressors.”

“They do all their little beeps and squeaks and stuff and all the stuff you normally have, all magically goes away,” he said.

This year, planners also incorporated modeling and simulation into the exercise to “create false tracks” on crews’ data links, simulating as many as 120 aircraft on an air tasking order even though there may only be 20 aircraft actually in the air.

Thus, if a rescue mission commander sees an enemy threat and wants to bring in an F-16 to suppress the threat, he could do so even though there were no F-16s actually participating in Angel Thunder.

Personnel assigned to the Combined Air and Space Operations Center North at Nellis AFB, Nev., “actually change the track of the F-16s that are notionally flying toward the target and when the aircraft gets within the weapons-engagement range, it will show the threat disappearing, the aircraft turning off and going back to its orbit,” Hanover added.

“It really makes the participants think more and that’s part of the focus of this second week of scenarios,” he said. “If we did our job right, every one of them will land exhausted. They will want to go into the corner and suck their thumb.”

Another significant change anticipated in the post-Afghanistan era is the switch from an almost exclusive Title 10 role—where combatant commanders establish the rules of engagement—



SSgt. Bryce Winder and SSgt. Gary Roland inspect their surroundings on what is known as “NATO Hill,” a makeshift landing pad in the middle of the Sonoran Desert, about 150 miles west of Tucson, Ariz., during Angel Thunder.

Staff photo by Amy McCullough



to one in which military personnel recovery teams conduct operations governed by Title 22—chief of mission authority. In a Title 22 situation a US ambassador has final mission approval, officials said.

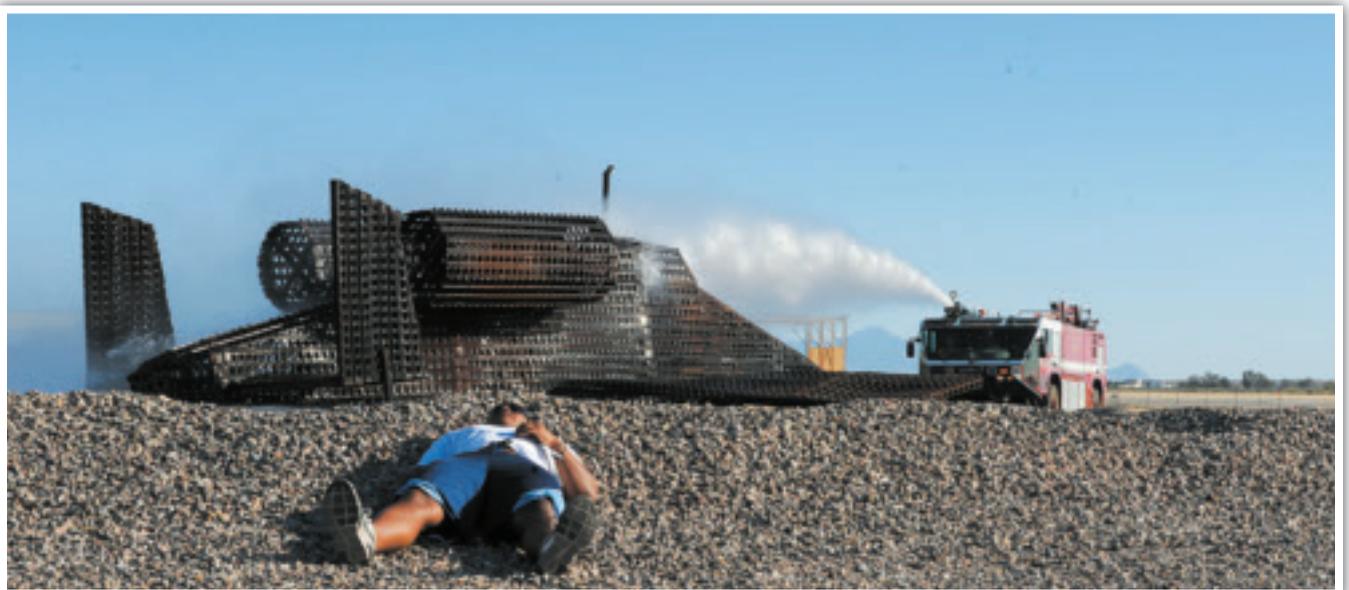
“It’s the new normal,” said Ray, who served 20 years in the US Army and 30 years in the Foreign Service. However, he acknowledged the change “can be a bit of a problem for DOD forces because they are not accustomed to it.”

It’s not so much the physical skills that pararescuemen will need or the implementation of the mission that will change, but rather “the realization that they have constraints that may not be present in a combat environment,” said Ray.

For example, while operating in a friendly or host country, it may be acceptable for personnel and aircraft to be armed for self-protection, however, it would be frowned upon for those arms to be visible because of the political ramifications such images can create.

In one Title 22 humanitarian relief scenario in Angel Thunder 2011, Ray restricted crews from flying Black Hawks or other heavy downdraft rotary wing aircraft below a specific altitude because the mission was being carried out in a village where the houses were made up entirely of thatched roofs.

Left: Col. Laura Brodhag and SSgt. Covito Redman place a tag on a “victim” of a simulated aircraft crash during Angel Thunder. The tags identify their injuries so medical personnel can triage the incoming wounded. Below: SrA. Sammie Ervan plays the victim of an aircraft crash while firefighters douse the flames on the “airplane.”





the person responsible for personnel recovery in an embassy is the regional security officer. That person would serve as the liaison between the senior defense official and the ambassador; however, it is the ambassador who makes the final call.

“What that means is that sometimes communications might be a little slower than you would normally expect and allowances have to be made for that,” said Ray.

Left: SrA. Casey Kubick (l) and TSgt. Christopher Roof set up a forward area refueling point in White Sands. Below: USAF pararescuemen practice a high-angle rescue in a mass casualty exercise at the Grand Canyon during Angel Thunder. Bottom: A team prepares for a swiftwater rescue training mission.

“It would not do bilateral relations any good if in rescuing two Americans you took the roofs off 20 buildings,” said Ray. “It required [participants] to be able to process that information. It also required a civilian, in this case me, sitting there and watching their planning and injecting a little modification in how they would do that.”

One of the biggest lessons to emerge from both the 2011 and 2013 Angel Thunder embassy scenarios is that rules of engagement and force conditions must be approved by the chief of mission—based on the host country’s limitations, said Ray.

It’s also important for DOD forces to understand how an embassy is structured, he added. For example,





A Chinook helicopter flown by a Singaporean crew delivers rescue forces from Colombia, Chile, and Brazil during an Angel Thunder scenario at Playas.

The relationship between DOD, the State Department, and other agencies continues to improve, but Ray acknowledged that budgetary constraints may impact that momentum.

Other agency participation in critical exercises such as Angel Thunder is likely to dwindle under sequestration. Of the 10 US agencies expected to participate, only four were still able to attend after the across-the-board budget cuts were implemented in March, said Hartnett.

It Ain't 35 Hours

It also just “takes time for the mindset to change and [for people] to grapple with having to deal with the new realities,” added Ray.

Perhaps more troublesome, however, is the impact sequestration will have on personnel recovery operations and modernization efforts.

In the future, Hanover said personnel recovery will have “to be a very rapidly deployable, agile force” that can quickly move to an “unimproved location” and can either operate for extended periods of time or short durations for specific missions. In addition, rescue crews will need to be able “to get out of town quick, have folks organized, trained, and equipped so they are ready to deploy” at a moment’s notice.

However, he acknowledged, “we can’t get there from here.”

Because of budget constraints, in early May Air Combat Command was

in the process of standing down about one-third of all combat aircraft based in the United States, Europe, and the Pacific. Under the stand-down, units will be forced to enter a dormant status until they are tapped for a named operation or an overseas deployment. Flying hours also will be significantly reduced for Stateside units. “Ultimately, we are focusing on the guys that are deliberately deploying. We don’t have a plan for the folks that are not [scheduled to] deploy,” said Hanover. Instead, under the new tiered readiness model, ACC has opted to focus its resources on the crews planning to deploy, placing other crews temporarily on the “back burner,” he added. That means rescue crews will no longer be able to deploy within 35 hours of receiving a tasking order, said Hanover.

“If a deployment order drops, they will say spin your guys up. Then there will be a time frame, as of now undetermined as to how long it takes, to make sure our guys are spun up and mission ready,” said Hanover. “It ain’t 35 hours. We’re talking weeks”—or maybe even months, he acknowledged.

As the Air Force battles the “sequestration swirl,” decisions made today will have a lasting impact for the next two to five years, said Hanover.

“If we make smart decisions now, we can come out more gracefully and end this thing at the two- or three-year point,” he said. “If we make poor deci-

sions now, we are pushing that years and years beyond.”

But the rescue community already desperately needs modernized equipment to replace its aging, war-torn assets. The Air Force has been trying to replace its 1980s-era HH-60 Pave Hawks for years.

A solicitation for a new “Combat Rescue Helicopter,” issued last October, called for an affordable solution that leveraged in-production air vehicles and training systems integrated with existing technologies.

Air Force officials said early this year that their target date for awarding the CRH contract is September 2013 with a Fiscal 2018 notional date for initial operational capability of the new fleet.

“I think it’s important to arm the HC-130 to provide armed overwatch. I think that information superiority is absolutely Step 1—we need Internet on board the HC-130, beyond-line-of-sight and data link capability on the HH-60s, and the ability [for] all of our players ... to talk to anyone,” said Hanover.

He said his worst nightmare is having a Guardian Angel—PJ, combat rescue officer, or survival, evasion, resistance, and escape specialist—on the ground and unable to communicate with inbound aircraft potentially coming in for a strike. The enemy could force the Guardian Angel toward the strike zone, and those on the ground would be unable to call off the strike.

“That completely fluid ability to push voice data link across every platform to achieve information superiority is critical,” said Hanover.

He estimates that the rescue triad of the HH-60, HC-130, and Guardian Angels is “at maybe a 10-year disadvantage of other weapons systems,” due to a failure to develop during the interwar period between Desert Storm and Operations Enduring and Iraqi Freedom.

“Just as we hit our stride, we have sequestration, and the fear is that all of this inertia and the momentum we have comes to a screeching halt and sets us back again,” said Hanover. He added, “We finally have a voice because we are a service core function and we could be set back years. [Then] we will have to start the whole process over.”

As long as the rescue community is tasked with saving “anyone, anytime, anyplace,” it is going to need equipment “to penetrate defenses and be interoperable and survivable,” Hanover concluded. ■