



# Personnel Recovery, in Need of Rescue

By Marc V. Schanz, Senior Editor

**F**or the small community of Air Force rescue crews and pararescue jumpers, intense life-and-death missions are all too common in Afghanistan. Crews routinely brave harsh conditions and heavy enemy fire to save the lives of

US and NATO troops and Afghan forces and civilians.

But the rescue teams aren't likely to receive a new helicopter to replace the straining fleet of early 1980s-era HH-60 Pave Hawks anytime soon. Even combat replacements for worn-out and







USAF photo by SSgt. Christopher Boitz

## USAF's rescue personnel are in desperate need of new helicopters.

*Left: USAF Brig. Gen. Jack Briggs (center) and pararescuemen from the 455th Air Expeditionary Wing train at Bagram Airfield, Afghanistan. Above: An HH-60 passes over a valley near Bagram. Below: A Pave Hawk on a mission over Afghanistan.*

destroyed aircraft in the existing fleet are years away.

USAF's previous recapitalization plan called for it to purchase 141 next generation CSAR-X aircraft, with the first arrivals planned for 2012. Now, officials in the requirements process say, the fleet recap plan has been reduced and is at least four years from getting aircraft out on the ramp. The date slipped as the CSAR-X acquisition program came undone and was then scrapped in the Fiscal 2010 budget proposal.

### Less Than 100 To Go Around

Sorties such as the one faced by the Pave Hawk crew Pedro 16 last year (see sidebar) illustrate how demanding combat search and rescue can be and why new aircraft are needed.

The Air Force currently fields 99 Sikorsky HH-60G Pave Hawk rescue helicopters, which have performed the CSAR mission since 1982. Nine years of combat have taken a toll on the fleet and revealed performance limitations in areas such as speed, range, capacity, and reliability—particularly now in the high-altitude mountains and plateaus of Afghanistan.

According to officials in Air Combat Command's personnel recovery requirements shop, the availability rate for the HH-60 fleet was under 60 percent as of early October. With less than 100 airframes to go around, air-



USAF photo



**Above: Dust swirls as two Pave Hawks practice tactical maneuvers near JB Balad, Iraq. Right: Maj. Russell Cook taxis a Pave Hawk at Kandahar Airfield, Afghanistan.**

craft and crews from several squadrons (active duty, Guard, and Reserve) are put together to make up expeditionary rescue units downrange.

The lack of able HH-60s is raising concerns in Southwest Asia and back at JB Langley, Va., home to Air Combat Command.

At the minimum, USAF wants to get its fleet back to a nominal inventory of 112 aircraft soon. Seven Pave Hawks have been lost in combat in Iraq and Afghanistan since 2001, and overall, 13 HH-60s have been destroyed since the 1980s. “At some point, we will recapitalize the entire fleet to improve our maintenance availability and ability to deploy the aircraft,” said an ACC planner.

### Seeing the Cracks

The Air Force’s CSAR community faces a two-front battle: keeping the remaining fleet healthy downrange, while shuffling around aircraft at the permanent bases just enough to keep crews adequately trained.

These units are being tasked almost nonstop with medevac missions, evacuating high-risk patients and extracting wounded ground troops from deadly ambush sites.

By early September, HH-60 crews had performed more than 1,200 saves and flown more than 6,300 sorties in Southwest Asia this year, according to ACC officials. As of that month, 20



USAF photo by TSgt. Chad Chisolm



Pave Hawks also had suffered battle damage this year, either from enemy fire or landing in thick dust, known as brownout conditions.

“It’s not just the fighter force that [is] stressed,” ACC Commander Gen. William M. Fraser III said in September. He specifically mentioned the operations tempo of the Pave Hawk fleet, which is flying more than three times its projected use rate, and noted it was “burning them up.”

“Talking to the folks when I was [in theater], I was starting to see cracks, and we haven’t seen cracks before, in some of the bulkheads. And so we’ve got some work to do there,” said Fraser. As a result of this tempo, the deployment-to-dwell ratio for rescue airmen is among the highest in the Air Force.

“The utilization rate in theater is at least double what we fly in the States—at least double—sometimes more than that,” said Col. Clair Gilk, the division chief for personnel recovery requirements at ACC headquarters. “Not only are you flying them harder, you’re flying them in more difficult conditions because of the terrain and the dust and all the other stuff you normally don’t find here in the States. That’s having an impact.”

Maintaining the skills of technicians, pilots, and other crew members also is a concern as the fleet gets put through

the wringer. Lt. Col. Todd Worms, deputy division chief for ACC’s flight operations division, said although the CSAR field has high job satisfaction, he watches retention figures closely in both the maintenance and aircrew fields for the HH-60 fleet. “At the optempo we are at, it’s one of the things we have to keep an eye on.”

For morale and retention, to enhance skills, and for professional development purposes, he also wants to assure the right people are getting their bonuses and applying for weapons school upgrades, despite the narrow window of opportunity for many crews.

“If we have to work the system, we will [get] guys ... where they need to go for [professional military education] and all of that,” Gilk said. Units will more often than not have people volunteer to deploy so an airman can attend a noncommissioned officer academy, for example.

### Avoiding a Bottleneck

“The bottom line is, that goes on everywhere” across the Pave Hawk community, Gilk said. “Other guys will stand in and suck it up.”

The heavy rotation is affecting the components and maintenance of the aircraft as well, said Worms. “Engines go at a higher rate, so there are times we burn through engines faster.” There

aren’t too many parts issues downrange, as the Army has a large logistics train for its fleet of Black Hawks. These have similar components, so Pave Hawk maintainers can get parts replaced fairly quickly.

The difficulty comes along when the aircraft are due in depot, Worms noted. “Every aircraft we have, every 600 hours, we take it apart and check for cracks, corrosion,” he said. The high utilization rate is bringing helicopters back into the depot more often, so maintainers are making sure a bottleneck doesn’t occur. “Math tells you the more you fly them, the more often you have to do [phase inspections].”

Maintenance and logistics airmen have gone down to the Pave Hawk depot at Corpus Christi, Tex. (an Army facility), and done work to speed the process up, notably by opening phase lines at other locations to get the aircraft back on the flight line for use in training and to prep for deployment. “Instead of waiting on the line, we get them fixed faster,” Worms said.

Due to the high altitudes in Afghanistan, crews are constantly trading weight for performance, tinkering with fuel loads, equipment loads, and other factors when going out on sorties. “When you’re talking about high and

**A Pave Hawk, armed with two 7.62 mm miniguns, on the ramp at Bagram.**



Photo by Clive Bennett

hot conditions, ... it's always a trade-off," noted Gilk, a Pave Hawk operator with more than 20 years' experience.

To get the rescue airmen new and more capable equipment, in November 2006 the Air Force awarded Boeing the CSAR-X contract. The winning design was the HH-47, a Chinook derivative.

Losing competitors immediately protested the decision to the Government Accountability Office. The GAO eventually upheld the protests, and the Air Force reopened the competition.

For a time, service leadership continued to push hard for the program, with then-Chief of Staff Gen. T. Michael Moseley calling the combat search and rescue mission a "moral and ethical imperative."

CSAR is one of the service's core missions and responsibilities, so the Air Force needs the best equipment possible to carry out the mission to retrieve airmen and service members stranded in dangerous combat environments, he argued. "Combat search and rescue is a big deal for people like me," Moseley said in April 2007.

As the competition advanced, officials in the Office of the Secretary of Defense began to criticize the very requirement for a dedicated rescue fleet. John J. Young Jr., then Pentagon acquisition head, questioned the need for a CSAR-X fleet "for the occasional rescue mission" in late 2008. He said there were other assets that could be pressed into service for rescues.

After restructuring, the competition appeared set for a spring or summer 2009 award.

## The Dangers of Rescue in Afghanistan

July 29, 2009, began as just another sweltering day in southern Afghanistan to sit and wait for calls for help. Before long, though, an Air Force HH-60 crew—Pedro 16—assigned to Kandahar Airfield's 129th Expeditionary Rescue Squadron received an urgent call-out to accompany another Pave Hawk on a medical evacuation mission to grab three soldiers wounded by an improvised explosive device in a convoy attack.

Accompanying the other helicopter—Pedro 15—the rescuers arrived to find members of the convoy under fire from multiple enemy positions.

Soon, Pedro 16 was directing emergency close air support for two other Army OH-58 Kiowa helicopters, while Pedro 15 landed, inserting pararescue jumpers to evacuate the wounded. Pedro 16 began multiple gun runs against enemy positions with its GAU-2 side-mounted miniguns, while directing other CAS.

On its second landing to evacuate wounded, Pedro 15 took heavy fire and sustained critical damage. The crew was able to get off the ground, but had to land about a mile south of the firefight. Under extreme duress, the crew exited and took fire as Pedro 16 moved in to provide cover while itself evading small-arms fire and rocket propelled grenades. When both of the helicopter's miniguns eventually failed or jammed, crew members MSgt. Dustin Thomas and SSgt. Tim Philpott picked up their M4 rifles and engaged enemies on a nearby ridge.

With one chopper disabled and enemy militants swarming nearby, the crew of Pedro 16 worked an evacuation plan with the assisting Army OH-58s: extracting the crew of the downed helo on the skids of the Kiowas. Still under fire, Pedro 16 landed and took on remaining personnel, before barely escaping because of the intense attack.

"We had five PJs, three wounded, and the flight engineer," recalled Thomas. "It was jam-packed with all the gear and all those people in the back."

Far from a niche capability, today Air Force combat rescue units are under great stress, as they have deployed constantly to support operations in Iraq and Afghanistan.

Pedro 16's experience was not unique. CSAR teams are routinely in harm's way. In June, an HH-60 crashed near Forward Operating Base Jackson in Afghanistan's Helmand province, killing five rescue airmen.

Then came "Black Monday"—April 6, 2009.

Secretary of Defense Robert M. Gates killed off the CSAR-X program as part of the 2010 budget overhaul and criticized the helicopter as another "single

service solution." He ordered a scrub of CSAR requirements to determine whether the mission needed specialized aircraft or if it could be filled with an ad hoc joint capability.

The most recent statements from service leadership indicate USAF will first seek an affordable solution to the Pave Hawk shortfall. It will pursue an off-the-shelf platform that can be upgraded with the specialized gear necessary to perform difficult combat rescues.

Gilk notes there are two programs for USAF's rescue helicopters: the Operational Loss Replacement program and the fleet recap effort.

The operational loss effort will buy replacement Sikorsky's to get the Pave Hawks back up to 112, said Gilk, with the understanding that these purchases will be the last airframes in the fleet to be replaced in the coming recapitalization program.

"We currently have what's called an increment zero aircraft," said Gilk, referring to USAF's purchase of four new Sikorsky H-60M helicopters, which will be upgraded to Pave Hawks. The



**MSgt. Dustin Thomas scans the terrain for imminent threats during a mission over Afghanistan. Thomas was a member of Pedro 16, the 2009 MacKay Trophy winners.**



**An HH-60G helicopter from the 129th Expeditionary Rescue Squadron lands Aug. 16, 2009, in Afghanistan to pick up a wounded soldier. The dusty and sandy terrain is further stressing the fleet.**

remaining aircraft will be purchased over the course of the Future Years Defense Program.

Once delivered, USAF plans to add to the airframe survivability equipment and an improved gun mount for defensive capability. Modifications will include a more integrated cockpit, for better situational awareness, a refueling probe, an auxiliary fuel tank, a hoist, and infrared sensor equipment. The modification process has not yet been agreed upon, but Gilk said he anticipates these modified aircraft arriving in the fleet in two to three years, “hopefully.”

A separate, full-scale recap process is now back under way, but is advancing slowly. On March 23, the Air Force issued an initial notice to industry for input on platforms for a “personnel recovery recapitalization” program. An amended announcement was issued Oct. 20. USAF seeks four trainer assets and four combat ready helicopters in the field no later than Sept. 30, 2015. A contract award is scheduled tentatively for Fiscal 2012.

Previous CSAR-X requirements called for 140 to as many as 170 larger and more capable helicopters. “We don’t currently possess the budget or the funding to get to where we need to go,” Gilk said bluntly of the decision to remain at 112 rescue aircraft for the time being.

Chief of Staff Gen. Norton A. Schwartz said USAF would prefer not having to extend the service life of the fleet of HH-60 Pave Hawks, but couldn’t promise a new aircraft would be in the budget soon. He said the Air Force would prioritize replacing the operational losses first. “We

are committed to [recapitalizing] these machines and we’ll do that as rapidly as our topline ... will allow,” he said.

Schwartz’s direction to replace the combat losses allows new airframes—which will be more reliable and less maintenance intensive—to get to the crews sooner, Gilk added.

The Air Force plans to inform Congress of its long-term recap plans in the Fiscal 2012 budget, being sent to Congress early next year.

### **An Institutional Hit**

Currently, ACC is looking at five-year increments for the long-term recapitalization effort. The Air Force hopes to purchase 36 rescue helicopters in the current Future Years Defense Program, which runs through 2015. “The numbers will be dependent on the amount of funding beyond the FYDP,” Gilk added. “We are confident we are going to get those 36 aircraft, but funding changes year to year.”

As for the difference between operational loss helicopters and what USAF seeks in the longer-term recapitalization effort, Gilk said the new fleet would be more capable with a better ability to hover and better integration of systems and data links with other aircraft.

He added there are a few issues to be worked out with the Office of the Secretary of Defense on acquisition strategy before USAF can announce a strategy and end point for the fleet. For obvious reasons, the Air Force, DOD leadership, and Congress are eager to avoid another CSAR-X episode, which wasted money, delayed the equipment, and led to large amounts of bad publicity.

Since CSAR-X was scrapped, the mission has clearly also taken an institutional hit. Dollars for equipment have dried up, and the Air Force has elevated other priorities in its requirements queue. In September, Maj. Gen. Robin Rand,

then head of USAF’s Congressional liaison office, listed the KC-X tanker, the F-35, intelligence, surveillance and reconnaissance assets, and satellite communications and space missile warning as the service’s top acquisition priorities. Notably absent was a new combat search and rescue helicopter—previously in the second spot on the list of top Air Force acquisition priorities.

Air Force officials involved in the CSAR requirements process say the mission and requirement remain a high priority. Rescue forces provide a “much sought after capability in theater,” said Gilk.

“We are not in any way changing the fact that we are pursuing that mission.”

The terminology also has changed. Gone from the Air Force’s core mission list is CSAR, replaced with the term “personnel recovery.”

Personnel recovery remains a core Air Force function, according to ACC, and USAF is the only service that specifically dedicates organized, trained, and equipped forces to carry it out. In recent years the capability has been in greater, not less, demand.

For the immediate future, USAF’s rescue community must get as much out of its current fleet as possible, which means keeping a close eye on certain health indicators. “When we do depot level maintenance, we are looking at where we are having cracks and what needs to be replaced,” Gilk said. “We are listening to our guys in the field, and they see it firsthand. ... We are trying to determine what our next point of failure or cracks that we need to deal with are.”

At both the forward operating bases and permanent stations, we should “take a look at what these guys are doing,” Gilk concluded. “You cannot survive in this mission if you’re not working as a team.” ■