



CV-22 Osprey responds to search, rescue request for lost medical aircraft

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10/18/2007 - **KIRTLAND AIR FORCE BASE, New Mexico** -- When three people aboard a medical aircraft crashed on the San Juan Mountains in southern Colorado while responding to a medical call, a CV-22 Osprey deployed from Kirtland Air Force Base located the Eagle Medical Corporation aircraft hours after the Arizona-based Beechcraft King Air plane was reported missing on Oct. 5.

Airport officials lost contact with the plane at 11:22 p.m. on Thursday night as the plane headed toward San Luis Regional Medical Center in Alamosa.

According to Capt. Scott Gwin, 58th Special Operations Wing, and the aircraft commander on the CV-22 Osprey, civil authorities had contacted the military for help by 9 a.m. on Friday morning.

By 9:15 a.m., the Air Force Rescue Center had contacted Kirtland AFB. It was a team effort to get the CV-22 Osprey, two HH-60G helicopters, and a MC-130P which would be necessary for aerial refueling ready. Air Mission Control was also aboard the MC-130P. Captain Gwin credits the maintenance crew for preparing the aircraft for the speedy search and rescue effort.

"We knew our piece of this was to get up there as quickly as we could and find the crash site," Captain Gwin said about the Osprey. "Then our goal was to trans-load the passengers. We could have trans-loaded from anywhere and gone straight to the trauma center."

Captain Gwin said that is the advantage of the Osprey. They can take off and land just about anywhere saving minutes and hopefully - lives.

It was known by the Airmen that the weather and altitude would be major obstacles in the rescue effort. Last known radar of the aircraft on Thursday night, Captain Gwin explained, placed the air-ambulance aircraft "near the top of a huge mountain." The altitude of the crash was expected to be higher than 11,000 feet. Helicopters of any kind have challenges in higher altitudes.

The Osprey took off between 11:35 and 11:40 a.m. and used the aircraft's speed to get to the site, search and find the crashed plane as quickly as possible.

Captain Gwin searched the west side and then the east side of the mountain as high as they could go before clouds made it impossible to see. By then, the MC-130P was orbiting above the site and above the cloud cover so that they were able to find the crash site with their sensors.

The coordinates were passed on to the Osprey, so they could make visual contact to see if there was evidence of survivors.

"From under the clouds, we were finally able to look for signs of survivors, which we didn't see," Captain Gwin said.

It was at this point that Captain Gwin gave the coordinates to the HH-60Gs so they could land at the crash site and search the area for survivors.

Capt. James Grigson, also of the 58th SOW unit, was co-piloting one of the HH-60Gs that day. He said that they took out some of the fuel tanks from his helicopter to make the aircraft lighter. This would allow the helicopter greater flexibility in landing in a higher altitude. It was a brilliant move of strategy, but it would also mean they would need to refuel in the air at some point during the operation.



This CV-22 Osprey flies over the New Mexico/Colorado wilderness in August. The CV-22 participated in its first search and rescue Oct. 5 when a small aircraft crashed. U.S. Air Force photo by Staff Sgt. Markus Maier

"We were on the ragged edge of performance," Captain Grigson said, "with minimal fuel. We had 30 minutes of play."

Captain Grigson said they flew to "The Ranch" where civilians were monitoring the rescue operation at a lower elevation and picked up a local paramedic, who could help them decide which medical facility was appropriate after seeing the injuries of any survivors. Quickly, they then flew on to the crash site.

The helicopter landed on the mountain at nearly 12,000 feet. The second HH-60G was too heavy to land. The civilian paramedic and a para-rescueman searched for survivors. They found no survivors.

Civilian rescue workers were called in to retrieve the three bodies of the nurse, paramedic and pilot of the fallen aircraft.

"If there had been survivors," Captain Grigson said, "we could have used the CV-22 to trans-load any survivors and get them to a medical facility quickly."

Captain Grigson explained that the Osprey could carry all the survivors and bring them to get medical help without landing at airports. The only thing the Osprey couldn't do was land on top of that mountain.

Though the Osprey was primarily built to be an amphibious assault transport of troops, equipment and supplies from assault ships and land bases, it has proved it could be versatile on search and rescue missions. The Osprey incorporates features of the helicopter and a fixed-wing plane. After three decades of tilt-rotor technology - which began with the Bell Helicopter's XV-15 prototype in the 1970s - Bell came out with the Osprey with Boeing Helicopters in Pennsylvania.

The Osprey is a tilt-rotor aircraft with a 38-foot rotor system and engine/transmission nacelle mounted on each wing tip. It can operate as a helicopter when taking off and landing vertically. Once airborne, the nacelles rotate forward 90 degrees for horizontal flight, converting the CV-22 to a high-speed, fuel-efficient turboprop airplane. The wing rotates for compact storage aboard ship. The Osprey can fly at 316 mph in airplane mode and 115 mph in helicopter mode. The aircraft's ceiling is 26,000 feet. It can hold 60,000 pounds of cargo.

Though the HH-60G has been the front-line utility helicopter for combat, search and rescue units up to this point, it is slower and smaller. It can only travel at 184 mph and hold a maximum of 22,000 pounds of cargo.

Unfortunately, the tilt-rotor CV-22 Osprey is one of the most controversial aircraft in aviation history for a number of reasons - its financial cost and the two fatal crashes in the year 2000 which captured national news not so long ago.

The aircraft is used by the Air Force, Marines and the Navy. Planned purchases include 360 Ospreys for the Marine Corps, 48 Ospreys for the Navy and 50 Ospreys for the Air Force.

Kirtland AFB has four of the CV-22 Ospreys, growing to six aircraft by fiscal year 2010.