UNITED STATES CENTRAL COMMAND
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9 September 2011

MEMORANDUM FOR Commander, United States Central Command, 7115 South Boundary Boulevard, MacDill Air Force Base, Florida 33621

SUBJECT: Executive Summary (Crash of CH-47D Aircraft in Wardak Province, Afghanistan on 6 August 2011)

1. *Investigation.* On 7 August 2011, Commander, U.S. Central Command, General James N. Mattis, appointed me to investigate the circumstances surrounding the crash of a CH-47D helicopter in Wardak Province, Afghanistan on 6 August 2011, which resulted in the deaths of all 38 persons on board. My team deployed to Afghanistan and inspected the aircraft wreckage, reviewed volumes of documents associated with the crash, reviewed several hours of aircraft full motion video, and conducted over sixty interviews, including those who witnessed the shoot-down and its aftermath. *After conducting my investigation, I have determined that this mission, and the tactics and resources employed in its execution, were consistent with previous U.S. special operations missions and the strike forces selected to execute the mission were appropriate. I also determined that the CH-47D was shot down with a rocket-propelled grenade (RPG) fired by a Taliban fighter as the helicopter neared its landing zone.* I briefed the Commander, United States Central Command, on the results of my investigation on 7 September 2011, and submitted my final report to him for his consideration and approval on 9 September 2011. For the families, friends, and fellow warriors of the fallen, American and Afghan, the loss of these selfless and courageous men was a tragedy for which this report can provide little comfort. I offer my deepest condolences, personally and on behalf of my investigative team, to all of those who mourn the loss of these brave men.

2. *Background.* U.S. military intelligence gathering efforts indicated the likely presence of Qari Tahir, an Afghan who had assumed the role of senior Taliban leader for the Tangi Valley in Wardak Province, Afghanistan. This individual had probable ties to senior Taliban leaders in Pakistan, including the Taliban's shadow governor of Wardak. Based on this information, U.S. and Afghan forces began planning a mission to capture or kill him during the night of 5-6 August 2011.

3. *Mission Planning.*

a. At a forward operating base in nearby Logar Province, the special operations task force commander responsible for the operation in Tangi Valley on 5-6 August ordered one of his assault forces, built around a U.S. Army Ranger platoon, including an (b)(1)1.4a, (b)(1)1.4c, (b)(3) and a Cultural Support Team member, to conduct the mission to capture or kill the Qari Tahir.[1] As part of the planning for that mission, another of the special operations task force

[1] A Cultural Support Team member is a female cultural advisor who aids coalition forces in local engagements with Afghan civilians, to include questioning Afghan women and children.

commander's assault forces, built around a troop of Navy SEALs, was identified as an Immediate Reaction Force (IRF) to support the operation, if necessary. The Ranger-led assault force was supported by two CH-47D Chinook helicopters and two AH-64 Apache attack helicopters, along with an AC-130 gunship, and a relatively robust team of intelligence, surveillance and reconnaissance (ISR) aircraft. The two CH-47Ds would airlift the assault force to a landing zone in the vicinity of the compound believed to contain Qari Tahir, the Tangi Valley Taliban leader. The assault force would then move in to surround the compound, clear and secure it, conduct tactical questioning of detainees, and collect items of intelligence value.

b. Each CH-47D crewmember assigned to fly this mission was fully trained and qualified to perform the aircrew duties to which he was assigned. Due to near-zero illumination conditions, the compressed planning timeline under which special operations forces routinely operated, and the experience level of one non-pilot crew chief, the CH-47D Air Mission Commander and his aviation task force commander determined the mission to be high risk. Because of the high-risk assessment, the mission had to be approved by the higher headquarters commander for the special operations task force and by the supporting aviation brigade commander.

4. *Mission Execution.*

a. After aircrew members and assault force members conducted their pre-mission briefings, the Ranger-led assault force departed from their forward operating base onboard the two CH-47D helicopters to conduct their mission in the Tangi Valley. At 2258[2] on 5 August, both CH-47Ds touched down simultaneously at the helicopter landing zone, off-loaded the assault force, and returned to the forward operating base to refuel and await the end of the mission extraction or possible casualty evacuation. When the assault force arrived at the target compound, overhead manned and unmanned aircraft observed several personnel departing the target area. At 2330, the AH-64 Apache attack helicopters detected and positively identified suspected Taliban fighters armed with AK-47 rifles and RPG launchers walking in a single file approximately 400 meters northwest of the target compound. After receiving clearance to fire, one AH-64 conducted two engagements with its 30mm gun, ultimately resulting in six enemy killed. The two remaining armed enemy personnel disappeared into a stand of trees and were never located. At the same time, a second separate group of suspected Taliban fighters were continuously monitored by the team of ISR aircraft overhead. By 0245 on 6 August, the Ranger-led assault force had cleared and secured all buildings in the target area, detained several personnel, and were conducting tactical questioning.

b. Throughout the execution of the mission, the overhead ISR aircraft continued to track the movement of another group of suspected Taliban fighters. This group formed around two personnel who were observed moving northwest from the immediate vicinity of the target area, before the Ranger-led assault force had arrived. These two suspected Taliban fighters were joined by other suspected enemy personnel as they continued to move away from the Ranger-led assault force. By approximately 0215, this group which had grown to approximately 9-10 suspected Taliban fighters had split into two sub-groups; three of them in a stand of trees, while the other six or seven remained inside a nearby building located approximately 2 kilometers from

[2] All times in this summary are local Afghanistan time.

the original target compound. Back at the forward operating base, the special operations task force commander and Immediate Reaction Force commander continuously monitored the situation. As the number of suspected Taliban fighters grew, the special operations task force commander and Immediate Reaction Force commander discussed the tactical situation and, believing that the Tangi Valley Taliban leader, Qari Tahir, might be among the group of 9-10 suspected Taliban fighters, initially decided to employ a 17-man Immediate Reaction Force (IRF), Navy SEALs.

5. *IRF Employment*

a. At 0100 the aviation planner received a warning order to insert the Immediate Reaction Force's (IRF) by helicopter and began coordinated mission planning with the IRF's operations officer. The planners needed to find a helicopter landing zone close enough to the group of 9-10 suspected Taliban fighters to prevent their escape and suitable for a CH-47D landing assault forces. The aviation and IRF planners ultimately selected a landing zone that was studied and approved for a previous mission, but never used. At 0150, the Aviation Brigade Commander approved the landing zone. At 0200, the special operations task force commander and the IRF commander considered the number of enemy personnel, the need to increase the immediate reaction force's capabilities with an (b)(1)1.4a, (b)(1)1.4c, (b)(3) and additional assault support elements, and the probability of a daylight movement out of the area after a successful assault to be picked up by helicopters the following night (6-7 August). Based upon those considerations, the special operations task force increased the IRF's size from 17 to 32 personnel, including 17 Navy SEAL team members, five Naval Special Operations support personnel, three U.S. Air Force Special Tactics Airmen, (b)(1)1.4a, (b)(1)1.4c, (b)(3) and a military working dog. With the addition of an interpreter, the IRF arrived at the aircraft with 33 passengers. According to the aviation task force commander immediately responsible for the helicopter support, an informed tactical decision was made to load all personnel on one aircraft because the IRF commander wanted to mass troops quickly, and to mitigate the increased risk to a second helicopter approaching the landing zone.

b. At 0222, both CH-47D helicopters departed the forwarding operating base with (b)(3), (b)(6) (b)(3), (b)(6) flying the lead Chinook helicopter. The helicopters took a different route to enter the Tangi Valley from the route they had flown earlier that night to insert the Ranger assault force. Instead of entering the valley from the south, the CH-47D carrying the IRF would enter from the northwest. The helicopters flew "blacked out" (without any visible lighting or external beacons to mark their locations). When both aircraft were six minutes from the landing zone, the trail aircraft, empty except for its aircrew, began circling at a pre-determined holding point to await the lead helicopter's return. The lead CH-47D continued to the objective area making standard radio calls to update its flight progress to fire support and surveillance aircraft flying overhead. After making its "one minute" out radio call, the helicopter carrying the IRF descended to approximately 100 – 150 feet above ground level and slowed to approximately 50 knots (58 mph) as it neared the landing zone from the northwest. A previously undetected group of suspected Taliban fighters fired two or three RPGs in rapid succession from the tower of a two-story mud-brick building approximately 220 meters south of the CH-47D. The first RPG missed the helicopter, but the second RPG struck one of the blades on the aft rotor assembly and exploded, compromising the structural integrity and causing a rapid chain reaction

resulting in the loss of over 10 feet of the rotor blade. Within a matter of seconds, while the aircraft spun violently, the aft, then forward rotor blade systems separated from the aircraft, and the main fuselage dropped vertically into a dry creek bed. The airframe was immediately engulfed in a large fireball, causing multiple secondary explosions of fuel and munitions until the aircraft burned out several hours later. The destruction of the CH-47D rotor system from the rocket propelled grenade until the helicopter crash into the creek bed, likely lasted less than 5 seconds. Fire support and surveillance assets immediately shifted focus to the crash site, and one of AH-64 Apache helicopters fired 30 mm rounds just west of the suspected RPG point of origin to suppress any potential enemy activity in the vicinity of the crash site.

6. *Recovery Operations*. Following the shoot-down, the Ranger-led assault force began a rapid foot movement to the crash site. At 0412, the assault force was the first element to arrive at the crash site, established a security perimeter around it, and began searching for survivors. The assault force initially discovered twelve friendly remains, but could not immediately continue recovery efforts due to secondary explosions from within the wreckage. Within minutes, the 20-man Pathfinder element (downed aircraft rescue and recovery unit) from (b)(1)1.4a, (b)(1)1.4c (b)(1)1.4a, (b)(1)1.4c joined the assault force to assist in site security and recovery of remains from the wreckage. By 1038, eight hours after the crash, the Ranger Platoon Leader had accounted for all 38 friendly remains, as well as the military working dog. While the Ranger platoon and Pathfinder element were recovering the remains, a U.S. ground convoy was driving towards the crash site to assist in recovery efforts, clearing several improvised explosive devices along the route. At approximately 1625, all of the remains were loaded aboard the ground convoy and driven away from the crash site to the security of (b)(1)1.4a, (b)(1)1.4c Complicating recovery efforts on the afternoon of 6 August 2011, a flash flood swept through the creek bed to a depth of 4-5 feet, washing parts of the wreckage up to 200 meters downstream. On the night of 6 August, a second Ranger platoon, a four-man Combat Search and Rescue Team, and an Explosive Ordnance Disposal specialist relieved the first Ranger-led assault force, which had been in the valley since their helicopter insertion the previous night. As many as 140 personnel were present to assist in recovery efforts. On 9 August 2011, U.S. forces completed removal of the aircraft wreckage.

7. *Cause of the Death*. As of the date of this report, the final autopsies for each of the casualties have entered their final review. As a result of my discussions with the Medical Examiner at Dover Air Force Base, I assess that the injuries sustained by all 38 personnel would have immediately incapacitated them and were most likely rapidly fatal.

8. *Findings*. The findings of this investigation fall into three main areas.

a. *Cause of the crash*. The CH-47D helicopter was shot down with an RPG fired by a suspected Taliban fighter as the helicopter neared its landing zone. The decision to load the IRF onto one CH-47D in order to mitigate risk by minimizing aircraft exposure to ground fire and to mass the assault force was tactically sound. The shoot down was not the result of a baited ambush, but rather the result of the enemy being at a heightened state of alert due to 3 ½ hours of ongoing coalition air operations concentrated over the northwestern portion of the Tangi Valley.

b. *Aircrew qualifications and aircraft capabilities.* (b)(3), (b)(6) (b)(3), (b)(6) were the pilots on board the downed CH-47D aircraft, with (b)(3), (b)(6) serving as the Pilot-in-Command (PC) that night. Although recently appointed as a CH-47D PC, (b)(3), (b)(5) was a well-respected and experienced pilot with over 670 hours of total time and nearly 100 hours of combat time in the previous two months. (b)(3), (b)(6) was also paired with a highly experienced CH-47D Chinook pilot. Although not conclusive, the evidence suggests (b)(3), (b)(6) (b)(3), (b)(6) was flying the aircraft. (b)(3), (b)(6) was among the Army National Guard's most experienced aviators with over 4,600 hours of total flight time in various aircraft, including more than 2,100 hours in CH-47D Chinook helicopters. (b)(3), (b)(6) was also an experienced combat pilot assigned as the unit's Senior Instructor Pilot in 2006-07 in support of OIF, where he accumulated 719 hours of combat time. Each crewmember was fully qualified to perform the aircrew duties to which he was assigned. The crew pairing reflected a conscious command effort to mitigate risk by using the best possible crews available rather than adhering to unit or component alignment. This mitigation measure also provided greater long-term stability and allowed for the continuity of support relationships between the aviation task force and the special operations task force. The CH-47D lead aircraft was Fully Mission Capable (FMC) on the night of 5 – 6 August 2011. The helicopter was equipped with all of the theater-required Threat Countermeasures Systems/Aircraft Survivability Equipment (ASE). Aircraft performance was more than adequate to complete the assigned mission.

c. *Planning.* The investigation disclosed that the special operations task force commander did not reallocate the intelligence, surveillance and reconnaissance (ISR) aircraft to ensure surveillance coverage for ongoing (Ranger-led assault force) and the inbound Immediate Reaction Force (IRF) mission. While this finding was not a cause of the shoot-down or crash, it is a noteworthy aspect of the compressed planning process that should be addressed in future IRF missions. The evidence also disclosed that the employment of aircraft overhead prior to a helicopter insertion should be better synchronized to minimize possible early warning to the enemy of imminent ground operations.

9. *Post Investigation Requirements.* The investigation report has been provided to, and accepted by, Commander, US Central Command. Once approved, I will provide a detailed family brief.

10. The point of contact for this action is the undersigned.

JEFFREY N. COLT
Brigadier General, U.S. Army
Investigating Officer