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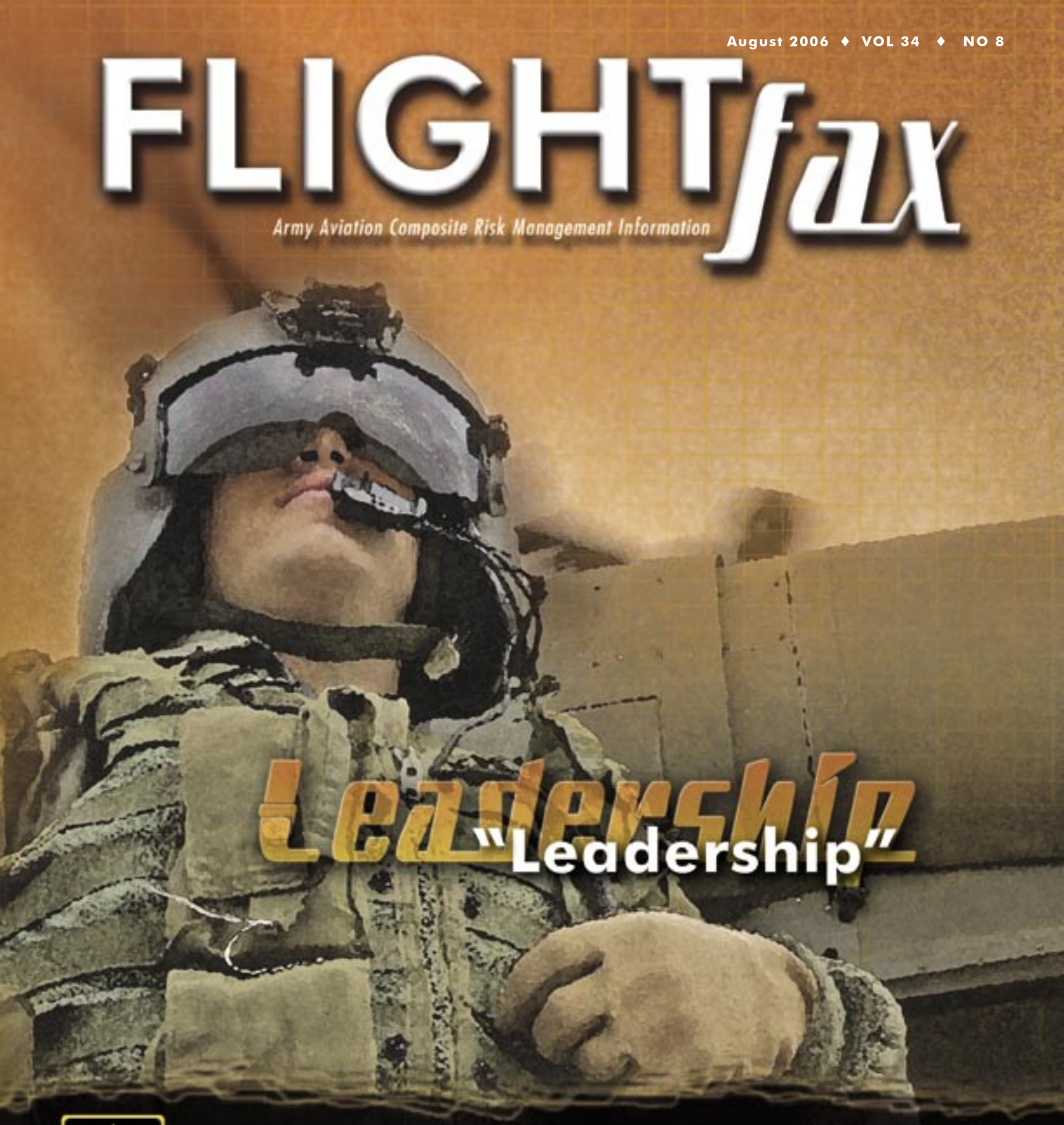
Army Aviation Composite Risk Management Information



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Army Aviation Composite Risk Management Information

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JOSEPH A. SMITH
Brigadier General, U.S. Army
Commanding

DASAF'S CO

From the Director of Army Safety

TRANSF AND

The U.S. Army Combat Readiness Center (USACRC) is playing a key role in the Army's transformation. When I came here 3 years ago, the then-Army Safety Center looked only at accidental losses. Increased operations in the Global War on Terrorism, however, have required leaders to look at the big picture and ask, "How do we keep combat power on the battlefield?"

To answer that question, we followed the strategy of former President Dwight D. Eisenhower, who said, "If a problem cannot be solved, enlarge it." We did that by looking beyond accidental losses to include those resulting from combat and other causes such as suicide, homicide, and medical issues. We then analyzed Armywide information collected on losses and determined the common factors or trends. The USACRC then developed a number of tools to find a solution to the Army's mounting losses.

As we began a process of "connecting the dots," it became apparent we needed to transform our approach to safety. Instead of using the old compliance-based approach of simply telling Soldiers to be safe, we recognized we needed to tell them "why" and "how" to prevent accidents. The "why" reflected their value as individuals and as members of the Army team. As for the "how," we're teaching Soldiers how to manage risks through the use of Composite Risk Management (CRM). Soldiers live on the narrow edge dividing safety from tragedy, whether they're in a HMMWV in combat or in a privately owned vehicle (POV) on the highway. Wherever Soldiers are, we want them to reduce risk and own the edge by using CRM.

This transformed approach to safety has helped the Army make huge progress in reducing losses.

ORMATION THE WAY AHEAD

For example, POV crashes accounted for about 75 percent of our accidental fatalities 3 years ago. Today, those losses have dropped significantly due in large part to Soldiers and their leaders using CRM.

Our mission is to help people manage risk through a variety of tools available to every Soldier. One successful program is the Army Safety Management Information System-2 (ASMIS-2), an online tool that pairs Soldiers with their supervisors to mitigate risks associated with long POV trips. ASMIS-2 helps them recognize hazards posed by weather and road conditions, and vehicle type to reduce the likelihood of an accident on the highway. Of the 1.2 million assessments completed, the Army has lost only four Soldiers—two passengers and two drivers.

However, risk constantly changes. Just as Soldiers shift their fire to meet new threats on the battlefield, we're shifting our focus to meet new and emerging hazards. But, we can't act alone. First-line supervisors must be directly engaged in this strategy. They are a fundamental component of any loss-reduction strategy.

LEADER ACCOUNTABILITY AND INVOLVEMENT

The involvement of first-line supervisors is critical to reducing Army losses. Every leader is responsible for creating an environment where their personnel can be successful. As increasing numbers of junior leaders come onboard, they must learn to effectively promote safety and also believe they can make a difference. We owe this to our young Soldiers because history shows they're at greatest risk. They must recognize the increased risk they face and use CRM.

The "Cody Model" is a good starting point. This model shows how a lack of experience can hinder safety efforts. Experience can only be gained by spending time on the job. In the meantime, we must bridge this experience gap by sharing knowledge and information, and using Army safety tools and concepts.

BIG SHIPS TURN SLOWLY

We're a million-man force with about 300,000 Soldiers deployed to more than 120 countries. According to GEN Peter J. Schoomaker, Chief of Staff, Army,

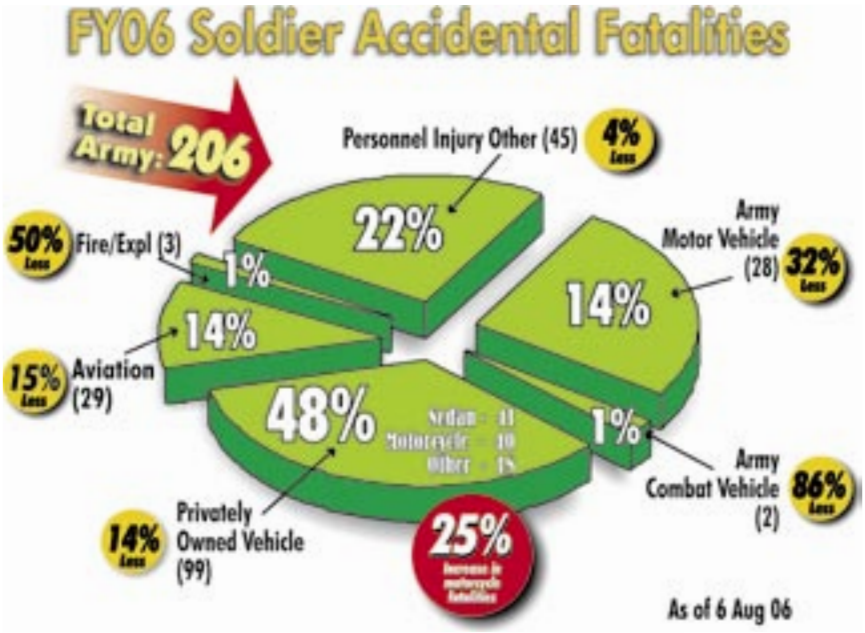
it takes about 18 months to see noticeable change in an organization as large as ours. If you look at accident rates 18 months ago and where we now are in the process, he's absolutely on track. I predict Army accident rates will continue to drop during the next 6 months as more leaders and Soldiers actively engage in risk management.

TEMPO AND EXPOSURE

Since the attacks of 11 September 2001, our Army's operations tempo (OPTEMPO) and risk exposure have increased greatly. Between those two, exposure is the main concern. It's one thing to fly an Apache from point A to point B during training with no one shooting at you—that's OPTEMPO. It's another thing when you're flying an Apache in theater at night with zero illumination and the enemy is firing at you—that's exposure. It's hard to accurately measure exposure because it's subjective. Every new environment presents different hazards, OPTEMPO, and exposure to Soldiers. Therefore, Soldiers must remain aware of their surroundings to manage the ever-changing risks.

TOOLS FOR CHANGE

ASMIS-2 isn't the only program helping Soldiers and leaders manage risk. The Army Readiness Assessment Program is a Web-based initiative designed to help battalion commanders measure their organization's overall readiness. Additionally, the Loss Reporting Automated System allows



Army losses to be reported quickly and easily. From that information, we do predictive analysis on fatalities, injuries, and near misses for quick turnaround to the field.

Another key initiative is the Motorcycle Mentorship Program (MMP). The MMP follows the warrior ethos of having experienced riders train and pass on their knowledge to less experienced riders. This is critical, considering the increase in motorcycle fatalities. Looking at the pie chart on this page, you can see every area is green except motorcycles. Motorcycle fatalities doubled from FY04 to FY05, and we've had a 22-percent increase this fiscal year.

Soldiers who have served in combat and survived the dangers of battle often see themselves as young and invincible. Once they return from combat, they feel safe and often fall prey to personal injuries. The increase in these type accidents is a warning that leaders must alert their Soldiers to the dangers they face away from combat. Friends and family can also engage Soldiers as soon as they return from deployment to help prevent them from taking needless risks.

THE WAY AHEAD

Our Army's transformation is an evolving process that offers exciting results and we, like the rest of the Army, are also transforming. When I started this job, I thought safety involved a certain amount of luck. As I leave, I realize there's a lot more than fate involved in successfully carrying out our missions. Leader engagement, command climate, and individual commitment will contribute to developing a culture that embraces safety on and off the battlefield.

Each of you is critical to the fight. Whether you're an officer, enlisted, civilian, or contractor, your professionalism and dedication are second to none. Your commitment is without question, and your outstanding performance is what makes an inherently dangerous profession safer. I challenge you to know your enemies—both in combat and at home—and become an expert at managing risk. Your efforts are making a huge impact on our Army's ability to support our Nation in peacetime and at war. Thank you for what you do every day.

BG JOE SMITH

BG Smith served as the Director of Army Safety and Commander, U.S. Army Combat Readiness Center, from August 2003 to his retirement in August 2006 after 31 years of military service.

Reducing Preventable Accidents

THE SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

JUN 22 2006

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
COMMANDERS OF THE COMBATANT COMMANDS
SERVICE CHIEFS

SUBJECT: Reducing Preventable Accidents

I have set some very specific mishap reduction goals for the Department to achieve. My congratulations to those who are progressing toward their respective goals, but others are not. We must rededicate ourselves to those goals – and achieve them.

Too often we excuse mishaps by citing the difficult circumstances in which we operate. We have trained our men and women to operate safely in very trying conditions. There is no excuse for losing lives given proper planning, attention to detail, and the active involvement of the chain of command.

Accountability is essential to effective leadership. I expect all the Department's leaders, from the Commander to the first line supervisors, to be accountable for mishaps under their watch. We simply will not accept status quo.

If we need to change our training, improve our material acquisition, or alter our business practices to save the precious lives of our men and women, we will do it. We will fund as a first priority those technologies and devices that will save lives and equipment. We will retrofit existing systems, and consider these devices as a "must fund" priority for all new systems. We can no longer consider safety as "nice-to-have."

I want to hear what you are doing to improve your safety performance and I want to see the results of your actions.

Take Charge,

CSM EDGAR W. DAHL
HQ, 42ND MILITARY POLICE BRIGADE
FORT LEWIS, WA

Editor's note: This speech, given by CSM Edgar Dahl, was delivered at a recent Fort Lewis, WA, Warrior Leaders' Course.

In May 1941, my grandfather parachuted from an aircraft onto the island of Crete as a German paratrooper NCO in the Air Landing Assault Regiment. He fought against the British there and in Italy; against the Russians on the Russian front; and against the Americans at Anzio and Nettuno. He was captured at the end of the war, having served as an NCO at war for 6 years as part of the Axis Forces of Germany. He was wounded several times during that time. He was a great NCO and helluva Soldier.

Be proud to be an NCO! Not everyone can hack the job!

A little over 20 years later, my father wore the stripes of a sergeant first class in Vietnam as part of the 9th Infantry Division in Dong Tam and again a year later in Nha Trang as part of a Signal Brigade. He retired on Watkins Field here at Fort Lewis in 1982 after having served 25 years for his country. He was a great NCO, as well.

Today, I try to live up to their legacy as great NCOs and Soldiers. So find yourself an NCO mentor to assist you in becoming that great NCO and Soldier you have inside of you!

The job of NCO in any Army, but especially the United States Army, is without peer. There is no better job anywhere, in or out of the military. I would rather be called "sergeant," dressed in Interceptor body armor and Kevlar while dodging bullets in a sewer water-filled alley in Baghdad, than be called "chief executive officer" while dodging the "Z" monster dressed in a tie in a hot conference room any day. Be proud to be an NCO! Not everyone can hack the job!

The Army is the premier ground force in the world, period. The NCO Corps of this great Army embodies everything that is great about our Army, our Nation, and our glorious history as America's most decorated, most capable, most deadly, and oldest military service. There isn't a damn thing that our Army and NCOs cannot accomplish. We need the commander's intent, the mission, and some resources and time. That's it! Then get out of the way and let us go and do the job. Be there when the mission calls!

Even though we comprise less than 1 percent of the U.S. population, we exist to fight the Nation's wars and win. As an Army, we are in the position most able to make that happen. Wars aren't won from the air, from the sea, or within 30 days. It takes Soldiers' boots on the ground to make that happen. As NCOs, we underpin everything that is done to complete that mission. Be the key player in everything your unit does and don't be cast aside as a non-player!

Sergeants, while it's important that you graduated from the Warrior Leaders' Course, it's even more important that you now assume the role of NCO leader in your unit. It's

Sergeants!

vital to execute your pre-combat checks to standard, your pre-combat inspections every time, and your troop-leading procedures as if someone's life depends on it—because it will. It means later nights, earlier mornings, more butt-chewings, and more responsibility. After all, America's sons and daughters are yours for safekeeping! We are the Army's strategic leadership in Soldiers' lives.

Your stripes will become merely cloth, your NCOES ribbon a worthless colorful bar, and your diploma an insignificant piece of paper when you turn away from mistakes, ignore standards, take shortcuts, compromise your values and ethics, or neglect Soldiers' needs. In other words, don't be a "Sarge" and a hindrance to the rest of us who take our duty and position seriously.

There is no secret formula for successful NCO leaders. It's not found in books or manuals. It can't be gleaned from catchy phrases or buzz words. It's not discernable in GTAs (graphic training aids) or slogans or clearly evident after pinning on sergeant stripes. It can't be ingested, bottled, rubbed on, or hand receipted to you. NCO leadership is learned and forged on an anvil of experience, sacrifice, and dedication to duty and Soldiers.

Hints of it are masked in the smoke of the Howitzer sounding reveille or retreat; the stomp of feet running on a cold winter's morning as breath mists overhead; and in the bark of a first sergeant's voice as he calls the unit to attention on a rain soaked field. It's there in the streets of Iraq and Afghanistan as a sergeant yells "Follow me!" while rushing to kill the enemy; it's in the dim light of a crowded platoon office as an NCO counsels a Soldier; and in the dirt of a million miles of Earth, ground smooth from combat boots.

It's in the smell of CLP (cleaning, lubricant, and petroleum) in the arms room while cleaning weapons and in the salty tears of veterans mourning the loss of a fellow Soldier. It's on your left and your right, in front of and behind you—it's in the soul of the Army and in the blood and sweat and glory that freed nations, unshackled peoples, and filled graves.

It's on the lawns of Lexington, the grass of Gettysburg, the mud of the Argonne, the sand of Normandy, the snow of Korea, the rice paddies of the Mekong, the heat of Southwest Asia, and a thousand other places American Soldiers have served.

It's in the tired eyes of an NCO pushed down under a helmet and in the hands of a Soldier giving a toy to a kid. It beats in the heart of anyone who has lovingly been called sergeant, and in the pride of a spouse or child who proudly proclaims about their Soldier, "Hell, he works for a living; he's a sergeant!"

You have been handed a legacy, and each of you will find leadership in your own way. You will be challenged and worked hard. Wisdom comes with experience, and leadership is tested and forged over time. The Warrior Leaders' Course provides the solid foundation to build on.

Millions have come before you and worn the stripes of the American Army Noncommissioned Officer. You are the new generation of Sergeant and you ought to walk a little straighter, talk a little louder, and act a little more arrogant.

You are NCOs in the best, toughest, and most deadly Army in the world. When you get back to your unit, make sure everyone knows you've returned—you're a sergeant and warrior! Take charge!

America's Army! America's Corps! NCOs lead the way! Let's graduate! Hooah! ♦

—Comments about this article may be directed to edgar.w.dahl@us.army.mil.

360-Degree Leadership an

MAJ STEVEN VANRIPER
U.S. ARMY COMBAT READINESS CENTER

During a recent Centralized Accident Investigation command outbrief, the senior commander present kept using the term "360-Degree Leadership." He stated a leader must never allow his field of view to become constricted, either deliberately or inadvertently. As I thought about this, I drew parallels between 360-Degree Leadership and Composite Risk Management (CRM).

WHAT IS CRM?

CRM blends tactical, threat-based risks with accidental, hazard-based risks to create a more thorough evaluation of danger, thus enabling highly effective risk mitigation. CRM asks, "What's going to kill me and my buddies?" In other words, CRM asks, "Based off everything we know, what hazards will we face and how can we mitigate the risk?"

By mitigating the known hazards to acceptable levels, the approach allows Soldiers to act confidently. CRM does not guarantee no harm will come, but it lessens the probability significantly. Such knowledge bolsters confidence and increases unit effectiveness. CRM could be an integral part of 360-Degree Leadership.

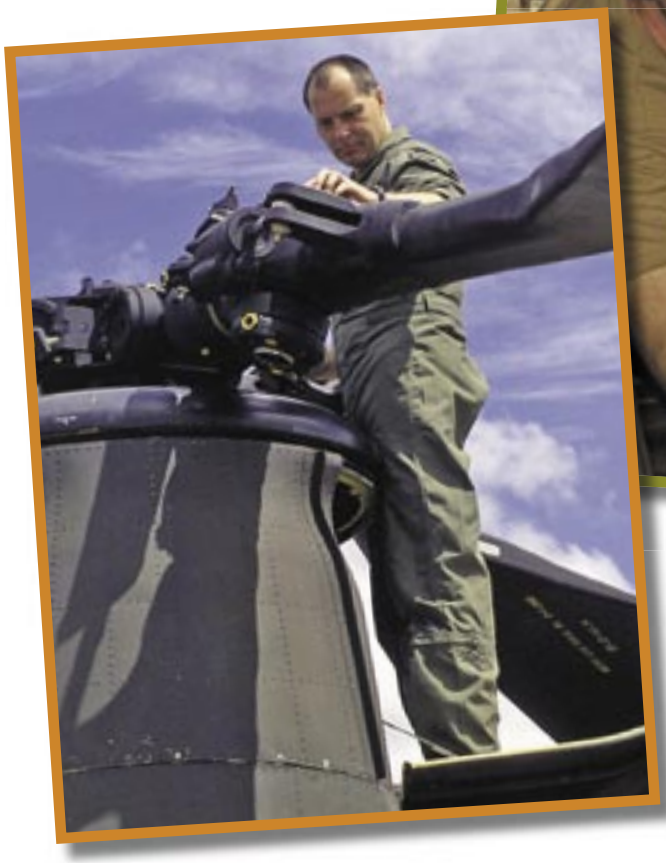
CRM AND 360-DEGREE LEADERSHIP

If you are still having trouble understanding CRM, try thinking of it in terms of 360-Degree Leadership. A 360-degree field of view means you have no blind spots; you are aware of everything occurring around you, regardless of what it is. Applied to risk management, this means all risks are considered tactical and accidental. Some Soldiers suffer from tunnel vision, focusing on one source of risk and discounting others. Soldiers doing this would be conducting 15-degree leadership. A Soldier might overlook dangerous hazards because of his limited field of view. It may not be possible to jump from a 15- to a 360-degree field of view in 1 day, but incremental widening of the field of view will, without doubt, enhance risk management.

HOW DO YOU KNOW IF YOU'RE DOING IT RIGHT?

A simple way to gauge your success is by the length of your risk assessment worksheets (RAWs); they should have fewer items on them. The RAWs will be shorter because your identification of hazards will be more precise and the controls better targeted. Here's the catch—you'll have more RAWs. Your total number of RAWs will increase because you'll

d Composite Risk Management



see the traditional single RAW for the entire field training exercise is inadequate; you may need a different one for each day, convoy, or range.

Another way to determine if your CRM is effective is your attitude and the attitudes of the Soldiers around you. Does your unit have confidence? Do your Soldiers know everything has been done to ensure mission success? CRM reinforces the best training for Soldiers to successfully complete their mission—be it training AIT Soldiers, safely reintegrating after a combat deployment, or conducting combat patrols.

CONCLUSIONS - Apply the 5 steps of CRM with a 360-degree field of view.

Remember, in our Army, the official term is Composite Risk Management. But if labeling it 360-Degree Leadership enhances your understanding of the process, so be it. It will be difficult to delineate between tactical and accidental hazards as you begin to apply the process. However, the more you and your Soldiers internalize recognition of hazards and develop effective control measures, the less difficult it will become. Keep the process real, communicate to your Soldiers, and remember the end-state—loss prevention and enhanced combat readiness. Lead your Soldiers to the edge, then help them Own the Edge through CRM! ♦

—Comments regarding this article may be directed to steven.vanriper@us.army.mil.

Investigators' Forum

SAFE AT HOME DOESN'T MEAN DROP YOUR GUARD

ACCIDENT INVESTIGATION DIVISION
U.S. ARMY COMBAT READINESS CENTER

It was just another visual flight rules (VFR) cross-country flight. The combat-seasoned crew was to conduct a training flight to practice operating the new Chinook in the National Airspace System. The pilot crew mix looked great on paper; they had flown together many times before. The pilot in command (PC) had over 2,800 hours, and the pilot (PI) had over 860 hours. Both were maintenance test pilots (MTPs), and the PC was the battalion maintenance test flight evaluator (ME).

The mission was considered low risk. Weather was normal for summertime in the South. The PC was briefed by the company commander, and the PI did the planning the day before. They filed for 1,000 feet en route and were briefed for a lower altitude if needed. Everything appeared to be in order. The 175-1 for the flight showed weather was appropriate for VFR conditions, although the in- and out-block was checked. They departed on time, but the PC didn't perform a thorough crew brief and the PI didn't brief the route to the crew.

As they departed, the voice and data recorder recorded the crew commenting on the weather being less than briefed. However, the weather improved to better than briefed a short while later. Approximately 45 minutes into the flight, the weather deteriorated again. The cockpit communications became more focused on the weather and changing altitudes to avoid weather obscurations. The PC didn't appear concerned, although the PI seemed less convinced. The PI dropped subtle hints about committing to instrument flight rules (IFR), but the crew never committed. The aircraft had a fully coupled system and a moving map display. The pilots relied on the moving map for situational awareness, not crew coordination. They were still on course and moving along at approximately 140 knots indicated airspeed (KIAS). Nothing was mentioned about the approaching checkpoint which was planned 500 meters south of a pair of 1,000-foot above ground level (AGL) TV towers. The good crew coordination heard earlier in the flight had started to breakdown noticeably with the deteriorating weather conditions.

Approximately 3 minutes to impact, the PI stated, "This sucks!" and that they should descend. The PC reassured the crew by replying, "Yeah, we'll be through it in a little bit." At this time, the aircraft was probably inadvertent instrument meteorological conditions (IIMC) (in and out and not meeting cloud clearance) in accordance with Army Regulation 95-1, *Flight Regulations,* Table 5-1, *Army VFR Weather Minimums.* The PC made the comment that they were still at 900 feet AGL to apparently ease some crewmembers' concerns of being in and out of the clouds.

Approximately 20 seconds to impact, a slight turn to the left was indicated by approach radar. The PI wanted to climb to the last attitude that they were clear of scud and casually mentioned, "I guess, in this case, we ought to climb to 1,500 feet, huh?" The last words over the intercommunications system were made by the PC, who said, "Yeah, probably wouldn't hurt." Unfortunately, they never got to find out.

About 56 minutes into the flight, the accident aircraft—flying approximately 269 degrees, 140 KIAS, and 150 knots ground speed—struck one of the 1,000-foot towers and its 1-inch support

Written by accident investigators to provide major lessons learned from recent centralized accident investigations.

PING

cables at about 917 feet AGL in a near-level attitude. After the aircraft struck the tower and support cables, it disintegrated. The aircraft broke into three major sections, which landed dangerously close to two farm houses. Four crewmembers suffered fatal injuries, and the PI survived with minimal injuries.

Why did this accident happen? How did four Soldiers and a multimillion dollar aircraft end up scattered across a farm on a "low-risk" VFR mission? These guys were the best in the business. The aircraft was state-of-the-art. They had all been through combat missions in Afghanistan. The answer? They relaxed their guard on an *assumed* low-risk mission. They forgot the basics of "see and avoid," crew coordination, and committing to IFR when the weather started to degrade. They also failed to identify the areas of highest risk on this low-risk mission.

The false sense of security provided by this state-of-the-art glass cockpit, stable mission platform, and the perceived low-risk cross-country flight in CONUS lulled them into complacency like the sound of tires on the highway. These were good, solid aviators who were combat-proven, experienced experts in their profession. They just forgot to do the basics. Now we are left with a hole in our ranks where this crew should be, one less airframe to meet mission requirements, and a loss of experience we can never replace. So what does "low risk" mean to you? What are you doing to keep it that way? ♦

—Comments regarding this article may be directed to the Combat Readiness Center (CRC) Help Desk at DSN 558-1390 (334-255-1390), or by e-mail at helpdesk@crc.army.mil. The Accident Investigations Division may be reached through CRC Operations at DSN 558-3410 (334-255-3410), or by e-mail at operationssupport@crc.army.mil.

▲ **About 56 minutes into the flight, this state-of-the-art aircraft struck a 1,000-foot tower and its 1-inch support cables at about 917 feet AGL. Four crewmembers suffered fatal injuries and the PI survived with minimal injuries.**

Commanders: Is This Mission

LTC RICHARD KOUCHERAVY
CHIEF, AIR TASK FORCE
U.S. ARMY COMBAT READINESS CENTER

Recently, an AH-64D Longbow Apache, one of a flight of two aircraft conducting day, readiness level (RL) progression training, struck the ground in the training area at a stateside U.S. Army installation. The aircraft was destroyed, and the pilot flying in the copilot/gunner station was killed when the aircraft failed to clear a ridge and struck a 25-foot oak tree at approximately 80 knots true airspeed. The mission had been assessed as low risk. Was this really a low-risk mission?

Certainly the mission was not overly complex. The accident unit did not depart from the unit's standing operating procedures (SOP) in use of the risk assessment worksheet. But there were some complicating factors that may have made this accident higher risk than was perceived by the crew and the final mission approval authority.

Elements of the brigade were deployed to the National Training Center and the company's commander was on leave, relegating command of the battalion's rear detachment to another unit commander in the battalion. Additionally, the battalion had recently established a green platoon of instructor pilots and training resources to progress an "influx of newly assigned aviators." Was it possible turbulence from turnover, temporary teaming within the battalion and brigade, and the recent formation of a new green platoon element were possible sources of risk?

Further review of the accident sequence revealed the accident aircrew suffered numerous delays to the initial planned departure time and changes to the initial planned training sequence after the mission concept was first approved and the risk assessment worksheet was completed and approved. For example, it is not apparent the accident aircrew was aware during their mission planning that their aircraft was due preventive maintenance procedures before it could be flown. After two initial delays, possibly due to the aforementioned preventative maintenance requirements, the mishap crew completed their subsequent preflight planning. The accident PC was then notified of a weather warning for lightning in the anticipated training area. A review of that weather warning and the mission plan revealed that the weather warning did not apply to the specific planned route of flight. However, it is possible that the aircrew suffered an additional delay as a result analyzing the weather warning. It is also possible that the sequence of training was altered due to the numerous delays. Were these delays possible sources of elevated risk? Did the unit take appropriate precautions to re-visit the mission briefing and the risk assessment as a result of delays to departure and possible changes to the sequence of training? In this case, it is entirely possible that the unit failed to do so.

The sequence of events for the mishap described in the paragraphs above are not atypical of many of the Class A aviation accidents investigated by the Army in the past 4 years, a time period roughly equivalent to the duration of the Global War on Terrorism. Rarely does the Army experience accidents during high-risk aviation operations. Since February 2005, the Army has lost more than 30 Soldiers and destroyed almost

Really a Low-Risk Mission?

a company's worth of aircraft in aviation mishaps, yet the highest assessed risk level for any of these unfortunate accident missions was medium risk. And typically, the factors cited as causal in accident investigation reports for these missions are usually factors that were not identified as hazards during the risk management process. As a result, nobody took steps to mitigate the risk posed by these hazards, at great cost to our Army.

Further complicating this "assumption of low risk" is the widespread practice of requiring higher levels of supervision to review elevated mission risk levels. Stated differently, the higher the risk, the higher up the chain of command the aircrew must go to obtain approval for the mission. That's simply common sense. However, this means scrutiny by supervisors when considering higher-risk missions will be increasingly more demanding in order to mitigate risk. If the risks identified for the mission outweigh the benefits, then a decision must be made—accept the risk and conduct the mission as planned, alter the mission to reduce risk, or recognize there may be no acceptable manner to accomplish the particular mission and cancel it. In some units, these risk reduction requirements may be perceived as a disincentive to identify all relevant hazards when doing so results in a higher level of assessed risk. Combined with the fact that PCs and mission brief authorities for low-risk missions are less experienced—sometimes *substantially* less experienced than their more senior counterparts—we can then easily imagine how we may tend to fail in our honest attempt to identify most pertinent hazards before flight.

Another factor to consider when looking at low-risk missions is command involvement. Normally, low-risk missions are not central to the unit's main effort at the time of the accident. Commanders, unit standardization instructor pilots, the unit NCO chain of concern, and more experienced non-rated crewmembers are normally engaged in other *more important* operations or tasks. As a result, "low-risk" mishap aircrews are normally not well supervised or afforded the benefit of experience held by their more seasoned seniors. Single-ship service missions, air movement operations not in contact with the enemy, and single-ship or two-ship RL progression missions are examples of the typical missions being conducted by Class A accident aircrews.

Lastly, the Army has recently experienced a number of mishaps during which aircrews intentionally violated known standards. Whether those violations of standards are related to aircraft maneuvering limitations, altitude restrictions, or other flight prohibitions, mishaps related to the violation of standards usually occur when the unit chain of command is not closely supervising the aircrew, either during pre-mission planning or during the actual conduct of the flight. Army Aviation is a proud and professional group, but we must admit such violations of our professional ethics *do* occur from time to time. And when they do occur, it is normally outside the scope of supervision and the involvement of the chain of command.

There are steps that can be taken to mitigate the worst of the "assumption of low-risk" problem in Army Aviation mishaps. Those steps are central to the art and science of

Since February 2005, the Army has lost more than 30 Soldiers and destroyed almost a company's worth of aircraft in aviation mishaps, yet the highest assessed risk level for any of these unfortunate accident missions was medium risk.

leadership. Commanders at all levels must remain as involved as possible in *all* flight operations, not just those missions that are perceived as high risk or complex.

How do we do this? First, commanders can take steps to strengthen unit SOPs. Does the unit SOP for mission planning and preflight risk management include a requirement to void the risk assessment worksheet if the flight is delayed? If so, how long is the assessment valid? Does the PC or the mission briefer identify hazards to flight, or is the assessment simply constructed in the checklist format? How does the SOP address the possibility that the aircrew may not have conducted a complete assessment in order to keep the risk assessment level lower than it really should be? Where and who is the devil's advocate in risk management? These are but a few of many questions most units could ask to simplify, clarify, and strengthen SOPs.

Another step to consider concerns the training, development, and supervision of subordinate commanders and mission brief authorities. What is the unit's plan to train commanders and mission brief authorities on the process of identifying hazards and mitigating risk? Do senior commanders and mission brief authorities conduct no-notice reviews of more junior commanders and mission brief authorities in order to identify how well the risk management process in the unit is conducted? How about mentorship and professional development sessions? Does the unit conduct regular reviews of accident reports from the U.S. Army Combat Readiness Center's Risk Management Information System (RMIS) database during professional development sessions? Is risk management part of performance counseling and is it annotated on the rating support forms for subordinate commanders and mission brief authorities?

Lastly, how well does the unit provide supervision of *all* operations so supporting efforts are appropriately supervised? Does the commander delegate supervision of some supporting efforts to the XO/deputy commander, subordinate commanders, the unit CSM, or the operations officer? Or, rather, does the entire unit senior leadership remain engaged in the main effort, with scant supervision provided to those "other," more mundane efforts, trusting in the most senior of those participating in supporting efforts to go it alone?

Army Aviation is inherently risky. As a result, the demands on aviation unit leaders to train for, supervise, and oversee those operations are tremendous. Providing adequate supervision to all operations may seem overwhelming at times. However, given the fact that so many serious aviation mishaps occur during low- or medium-risk operations, commanders must increase their awareness. Commanders getting out to observe their unit's aviation processes, frequent review and pertinent tweaking of unit SOPs, training and mentoring subordinate commanders and final mission brief authorities, and delegating supervision of lower-risk missions or supporting efforts are all reasonable steps commanders can take to allow our aviation force to "Own the Edge." ♦

—The author may be contacted at DSN 558-3003 (334-255-3003) or by e-mail at richard.koucheravy@us.army.mil.

Commanders at all levels must remain as involved as possible in *all* flight operations, not just those missions that are perceived as high risk or complex.

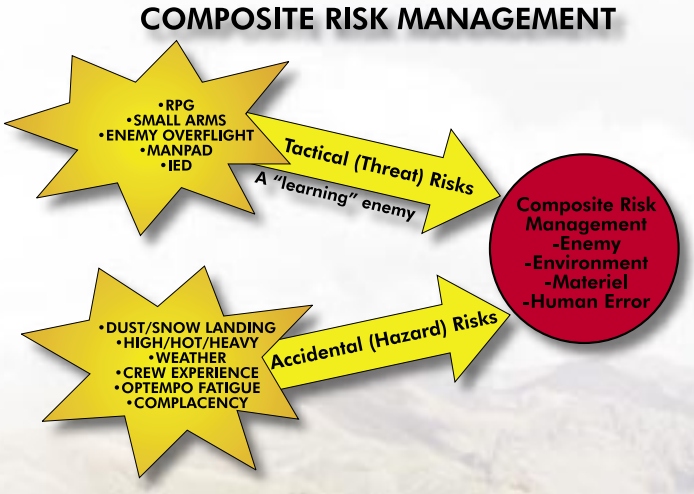
COMPOSITE RISK MANAGEMENT in the Afghanistan AOR

COL MARK J. MCKEARN
EXECUTIVE OFFICER, DCG USAREUR & 7TH ARMY

During an arduous 12-month tour in Afghanistan, Task Force Griffin used a Composite Risk Management (CRM) model to mitigate the enemy, the harsh environment, and complacency.

The task force was around V Corps' 12th Aviation Brigade from Giebelstadt Army Airfield, Germany, and included other active and reserve component elements. Two multi-functional battalion task forces comprised of attack, utility, heavy lift, and MEDEVAC aircraft, along with their respective unit- and intermediate-level maintenance, were subordinate to the brigade. During their year in Afghanistan, brigade aviators flew more than 56,000 combat hours; conducted more than 200 "named" deliberate operations; flew more than 600 MEDEVAC missions; transported 12,000 tons of equipment; moved more than 100,000 personnel; and pumped 7 million gallons of JP-8 fuel.

The following is a summary of the mission, environment, and CRM procedures used by Task Force Griffin.



DEFINING THE ENVIRONMENT

Every extreme condition found on Earth, including wind, sand, heat, rain, and snow—sometimes in the same flight—make air and ground aviation operations in Afghanistan a challenge for the most seasoned Soldiers. Altitudes start at 5,000 feet in Bagram and 3,500 feet in Kandahar (the two major aviation hubs) and normally go to greater heights from there. While Afghanistan is equal in size to Iraq, the task force's battlespace grew even more when it deployed to Pakistan to support relief operations following the 8 October 2005 earthquake there.

COMPOSITE RISK MANAGEMENT

No mission, regardless of complexity or number of aircraft involved, is properly planned or executed without thorough Composite Risk Management and application of appropriate risk mitigation measures. There are three distinct, interrelated threats to personnel and equipment in the Afghanistan area of operation (AOR)—enemy, environment, and complacency. All warrant considerable assessment and mitigation and were addressed daily in the conduct of air and ground aviation operations. All were factors in the damage or loss of personnel and equipment.

▲This image taken in Afghanistan in August 2005 shows one of the many risks to helicopters there—dusty landings.

MITIGATING THE ENEMY

Enemy forces in Afghanistan are formidable in size and skill. They are continually learning and adapting, requiring a running intelligence assessment to stay ahead of changing tactics, techniques, and procedures (TTPs). As part of Task Force Griffin's running intelligence preparation of the battlefield (IPB), we focused on all traditional aspects of IPB and, specifically, on the following:

- Surface-to-air fire (SAFIRE) analysis
  - * Weapons systems
  - * Mission profile

* Flight profile
* Trends (all rotary- and fixed-wing aircraft in the AOR)
- Friendly flight trends
- Human intelligence trends
- Operation Iraqi Freedom trends
- Route and area threat assessments
- Standard crew/team mitigation measures
- Adherence to the Air Assault Planning Process

Task Force Griffin hosted a weekly working group that brought together U.S., coalition, and other intelligence agencies for a theater-wide assessment of SAFIRE incidents and trends. The forum proved effective for intelligence sharing, predictive analysis, and providing critical information to higher headquarters.

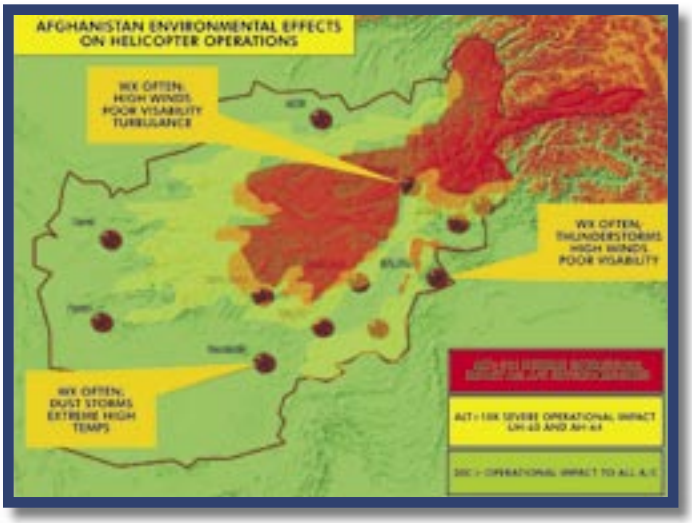
After-action report information from air mission commanders was used to create an automated, centrally managed database categorizing SAFIRE data for dissemination and further analysis. The database proved integral to data collection efforts.

MITIGATING THE ENVIRONMENT

Every day is a "high-altitude day" in the Afghanistan AOR. An average altitude for troop or equipment insertion is 6,000 to 8,000 feet mean sea level. The altitude, coupled with wind, brownout, rain, snow, low ambient light, and terraced terrain, makes the environment the greatest risk.

▲ Every extreme condition found on earth, including wind, sand, heat, rain and snow—sometimes in the same flight—is a factor when flying in Afghanistan's high-altitude conditions.

Mitigation began in earnest during the brigade's deployment preparation phase. Every company- and troop-sized unit had at least one instructor pilot attend the High Altitude Aviation Training School (HAATS) offered by the Colorado Army National Guard. Every rated and non-rated crewmember conducted the HAATS academic training prior to deployment and was certified in dust and high-altitude landings as a part of the relief-in-place.



Key components of the environmental mitigation process included:
- Comprehensive study of Combat Readiness Center trends for the AOR
- Review of previous mishaps in the AOR
- Sustaining instrument proficiency through annual proficiency and readiness tests (APARTs) and training flights
- Environmental certification of all crewmembers before conducting missions in the AOR
- Periodic performance planning and tabular data training
- Using tabular data when conditions change
- Weather training
- Disciplined maintenance practices

At the end of the day, the discipline to conduct thorough pre-mission performance planning and reassessments during the mission (when conditions or requirements change) are the keys to staying ahead of environmental threats.

MITIGATING COMPLACENCY

Complacency is defined as "self-satisfaction accompanied by unawareness of actual dangers or deficiencies." In combat, it translates to a breakdown in discipline and erosion of standards. Acts of complacency are rarely malicious, but rather more the result of the "Groundhog Day effect" of extended deployment. Regardless, they can prove deadly. There is no such thing as relaxing standards during a perceived "routine mission" or the flight home from the mission.

The best way a unit can battle complacency is by sustaining the systems that got them to the fight. Modification may be warranted, but it should not change the way a unit normally conducts aviation Safety, Standardization, and Survivability (S3). Systems provide TTPs or checklists that help to periodically assess and refocus activities and functions where standards have drifted or been violated. There are numerous systems for fighting complacency:

- S3 meetings
- Enlisted safety councils
- Pilot-in-command boards
- No-notice evaluations
- Air mission commander training
- Safety stand-down days
- Air and ground gunnery programs
- Leader and staff rotations
- A modified quarterly training brief
- Aircrew exchange programs (between battalion task forces)
- An R&R plan that sequences key leaders
- Leaders interacting and talking with Soldiers

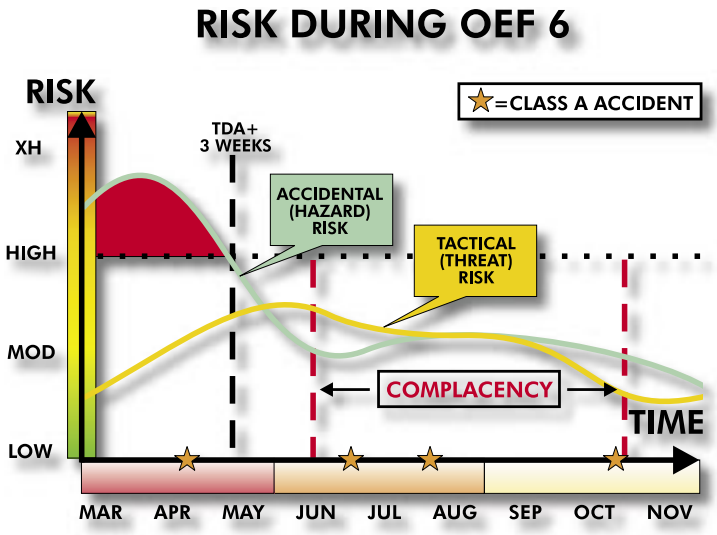
This is the time-proven TTP for checking standards and assessing the degree of complacency in a unit.

▲ **For pilots in Afghanistan, every day is a high altitude day.**

WHEN IS RISK THE HIGHEST?

Most schools of thought assert aviation risk during extended deployments is highest during the first 30 days and the last 30 to 60 days. Units are at the moderate-to-high risk level during relief-in-place and the first 30 days, when Soldiers, aircrews, leaders, and standard operating procedures are all transitioning at once. Critical to this transition is a strong Aircrew Procedures Guide that is current, studied, and understood by incoming and outgoing chains of command. Elevating crew selection and risk approval to the moderate- or high-risk approval authority during relief-in-place and the first 30 days that follow helps leaders at all levels better understand the strengths and weaknesses of individual aviators, crew mix, and the strengths or shortcomings of their organizations.

The second most dangerous period is between the 3rd and 10th months. Individuals and units instinctively "ratchet up" their intensity as they near the end of deployment. This middle period complacency, coupled with overconfidence with the terrain and threat, can make individuals and units more vulnerable to accidental and tactical risks. The enemy, environmental, and complacency risk mitigation measures discussed here are collectively the best mitigation measures.



CONCLUSION

Composite Risk Management is as much art as science. Commanders and leaders at all levels must know the unit, the environment, the enemy, the mission, and the Soldiers to make informed risk decisions. The science helps frame the thought process for assessing risk; the art allows leaders the flexibility to apply the intangibles that make U.S. Army Aviation the most lethal fighting force the world has seen. ♦

Author's note: Many topics in this article are discussed in general terms due to the sensitive nature of the information/TTPs. For classified AARs and briefings, contact the 12th Aviation Brigade operations officer, MAJ Bryan Hoff, at DSN 314-467-2884.

Editor's note: At the time this article was written, COL Mark J. McKearn was serving as commander of V Corps' 12th Aviation Brigade, which led Task Force Griffin in Afghanistan in support of Operation Enduring Freedom from early 2005 to early 2006. The 12th was inactivated in May 2006. All photos are courtesy of 12th Aviation Brigade.

—The author may be contacted via e-mail at mark.mckearn@us.army.mil.

The Aviation Mission

Back Wh

CW4 DEAN MOTT, CW4 RICK DILLENBECK, CW4 JAMES HINMAN, CW4 JAMES P. HUDSON, CW4 JAMES MCGRAW, CW4 SAMUEL WORLEY, AND CW3 MICHAEL LUBESKI
WOSC 05-04/05

When the Vice Chief of Staff of the Army (VCSA), GEN Dick Cody, formally issued new guidance that immediately changed brief and risk approval procedures for all of Army Aviation, questions instantly flew from one end of the flight line to the other—"How, when, why?" This was sudden and presented some challenges to field units, but it was definitely necessary. If we place all of the questions aside and look at the big picture, we will find that aviation mission approval, briefing, and risk acceptance procedures outlined in the VCSA's message improve the mission briefing and risk mitigation process. When optimally applied, they also offer commanders increased capabilities, better planning, and improved mission management.

Army Aviation has come a long way from the days before we had mission brief sheets, risk assessments, or mission approvals. Our recent performance clearly shows how we've accomplished some amazing feats. With all of that experience and success, why would we need to change our mission briefing procedures? By now, wouldn't we have that part figured out? The sad answer is absolutely not.

From January to December 2004, the Army experienced 26 Class A accidents, resulting in 23 fatalities, due to a variety of reasons and factors. So how does the VCSA message improve our previous system? First, the message mandates that all mission briefers be qualified and current pilots in command (PCs) in the mission to be flown, trained as briefers, and designated in writing. Second, it formally separates the risk assessment approval (RAA) from the mission briefing authority (MBA). Previously, they were often the same individual. In effect, GEN Cody is ensuring the experience is properly inserted into the planning process and that risk approval falls where it needs to be—on the commander.

Some units may be having difficulty with this, worsening the process by limiting authorized briefers to instructor pilots and PC safety officers. One recommendation that is proving successful—not only in conducting good mission briefings but also in promoting leadership skills in our junior officers and warrant officers, as well as expanding mission capability—is breaking the process down into three phases at three separate levels: the mission approval authority (MAA), MBA, and RAA.

In phase one, the MAA accepts and schedules the mission, be it internally generated or tasked from S3/G-3. It's important to understand that "mission risk" has absolutely nothing to do with this level.

Phase two is the planning and briefing level—the critical phase where we pass or fail. This is the mission-planning phase where we identify the problems and associated risks and seek alternatives to mitigate those risks. It is imperative the MBA be involved in this planning process as oversight. As a team, the aircrew and the MBA plan the mission, identify the hazards, mitigate the hazards

to the lowest risk level possible, and present the mission and risk assessment to the RAA, affectionately known as the commander.

In the third phase, the RAA reviews the planning and briefing process and the associated risk level as presented by the MBA or PC and either approves the mission or returns the mission brief for further mitigation—his or her choice. This system works very well; however, how do we determine the level of risk a unit PC may brief? Units can decide this for themselves if it's not already determined by installation regulations or standing operating procedures (SOP). This can be numerically quantified by flight hours, time in the unit, or by whether the aviator possesses a star or wreath atop his or her wings. It's totally up to the commander and the unit SOP.

So let's go back to phase two. The designated air mission commander (AMC) is 1LT Rogers, with CW2 Jones as flight lead of a three-ship NVG mission to take a "package" north of Tikrit. The "package" is made up of several human beings dressed in odd clothing carrying items that normally go "BANG!" when struck with a hammer or contacted with electricity. Initially, the designated MBA was CW3 Crook; however, after figuring all the planning variables necessary, the mission inevitably is high risk. CW3 Crook does not possess the necessary flight hours per the unit SOP to brief a high-risk mission. The mission is therefore passed on to CW4 White, the unit standardization pilot who possesses the necessary flight hours and is approved in writing to brief such missions. This example illustrates the use of ensuring experience is involved with the mitigation process to ensure mission success. In combat or garrison, this method works extremely well, provided the MBA is included on the mission tasking and scheduling from the onset.

One question frequently asked is the issue of weather. You have to think ahead. Don't wait until the day of the mission to fill out the risk assessment, worrying about the weather forecast. Understand that regardless of the airspace you are in at the time, the weather minimum values reflected on most risk assessment sheets, once circled and signed by the MBA and RAA, completely redefine the terms visual flight rules/visual meteorological conditions as far as your mission is concerned. The point is, if you think the weather may be inclement on the day of execution, plan for it, set controls and contingency plans, and brief it. Set the risk level appropriately ahead of time and get the correct level of leadership involved in the plan. Using this technique, crews can plan and brief missions well in advance of the date of execution and not worry about chasing down the boss in some meeting.

The older system was an impediment to progress. How many of us are guilty of being slow thinkers, possibly delaying our missions because we could not contact a member of the chain of command so they could hack off on a brief and risk assessment? I don't know for certain, but I would bet this was not the intent of either the mission briefing system or risk mitigation model. ♦

—The authors wrote this article as a staff project while attending Warrant Officer Senior Course 05-04/05.

My Thoughts on Discipline

LARRY KULSRUD
U.S. ARMY COMBAT READINESS CENTER

In my 24-year Army Aviation career, I've tried to identify certain characteristics of good and bad organizations in which I've served. Personally, I don't believe I've been assigned to any bad organizations, but some have performed better than others. I thought about experience level, leadership, location, training, and a long list of other attributes, all important, but none of which held the answer. The one characteristic the best organizations had was discipline. I'm not referring to Uniform Code of Military Justice-type discipline, but to the self-discipline exerted by individuals who do what's right even when it's not the most enjoyable way to do something.

Professional aviators have an obligation to go about their daily activities in a disciplined manner. A disciplined manner does not mean mindless adherence to established policies and procedures when it doesn't make sense. It does mean following established policies and procedures unless there is a sound tactical or technical reason not to do so. Flying below a hard deck or exceeding the authorized flight envelope of a particular aircraft for no other reason than "I was bored" or "I wasn't having any fun" is simply a breakdown in self-discipline.

On the other hand, flying below the hard deck and placing the aircraft in a 90-degree bank to avoid ground fire or another aircraft based upon a sound tactical decision is appropriate behavior. Individuals and organizations that have a sound requirement to conduct operations that routinely require deviations from established policy and procedures should take the deliberate steps necessary to waive or modify those restrictions.

In many instances, restrictions in Army regulations, policies, and unit standing operating procedures evolve from acts of indiscipline. Hard decks are established because aircraft strike wires when the tactical or training environment does not require nap-of-the-earth flight. Training areas are pocked with noise complaint restricted areas when aviators violate local fly friendly policies. Most of our governing rules and regulations are established as a direct result of an act of undisciplined behavior.

In his book "Good to Great," author Jim Collins says, "Sustained great results depend upon building a culture full of self-disciplined people who take disciplined action fanatically consistent." He also says, "Indeed, bureaucratic cultures arise to compensate for incompetence and lack of discipline." Army Aviators are among the most competent aviators in the world. The questions you have to ask yourself are: Do you feel flying in the Army has become a giant bureaucratic process? Am I and my organization acting in a disciplined, professional manner?

Discipline is not something you turn on and off at will; it is a choice you make, a lifestyle. You've heard the saying "train as you fight." Disciplined pilots adhere to common procedures and practices. This enhances teamwork by establishing a common baseline of expected behavior. Discipline allows squadron pilots to fly with various flight members on different occasions and still achieve the same high mission success rate. Your mission and, in many cases, your very life depends upon your disciplined action and the disciplined actions of your peers.

U.S. Air Force COL Michael C. Horgan, who commanded the 355th Tactical Fighter Wing during the Vietnam War, stated in his end of tour report that pilots achieved maximum effectiveness by maintaining discipline and flight integrity over the target area. Disciplined aviators in a disciplined organization are more effective in deliberate operations, but more importantly, can start from a known standard of execution when the unexpected occurs. ♦

—The author may be contacted via e-mail at larry.kulsrud@us.army.mil.

Heroes of the Battlefield

PAULA ALLMAN
MANAGING EDITOR

On the morning of 11 April 2005, Task Force Sabre's tactical command post (TAC) at forward operating base Salerno, Afghanistan, was alerted to a troops-in-contact (TIC) situation. Two AH-64s departed directly for the ambush site within 20 minutes of notification. Within 45 minutes of the initial TIC report, two UH-60s were en route to the ambush site.

After an initial insertion, the team called for an exfiltration (EXFIL) and requested to be put into a second landing zone (LZ). While en route to the second LZ, an AH-64 alerted the UH-60 crew of possible anti-coalition militia (ACM) hiding near the LZ. The UH-60 crew identified ACM with an AK-47, a rocket-propelled grenade (RPG) launcher, and several RPG rounds. The AH-64 successfully engaged the ACM, and the UH-60 inserted the ground element into a nearby LZ.

The terrain at the second LZ was not suitable for standard insertion tactics, so the UH-60 crew conducted a one-wheeled landing. Within minutes of inserting the ground element, that team began receiving fire. The AH-64s engaged multiple targets until one aircraft reported maintenance problems (the result of ground fire) and both AH-64s ran low on fuel. The AH-64s were forced to break station for fuel, leaving the UH-60s as the only rotary-wing assets on station. Two A-10s were on station throughout the engagement, but were unable to engage due to the close proximity of friendly and enemy forces.

Almost immediately after the AH-64s departed, the firefight increased in intensity. The ground element, 1st Special Forces Group, came under effective and intense enemy fire and requested the UH-60s to engage the enemy with door guns. The pilots maneuvered the aircraft in a figure 8 pattern, allowing the crew chiefs, SGT Ryan Pummill and SGT John Irick, to engage targets one side at a time, allowing the other side to reload the M60.

Despite the efforts of the UH-60 crewmembers, one ground Soldier was wounded and called for an immediate casualty evacuation (CASEVAC). A medic for the ground force rushed to the wounded Soldier, but he also was immediately wounded. As the two injured Soldiers tended to each other's wounds, a UH-60 commanded by CW3 Chris C. Palumbo came in to attempt a CASEVAC and received fire to the aircraft. The UH-60 crew observed and engaged five to six ACMs moving toward the wounded American Soldiers. The crew positioned the aircraft directly between the wounded Americans and the advancing ACM forces and engaged the enemy with door guns while shielding the wounded Soldiers from enemy fire. When the left-side door gunner ran out of ammunition, CW3 Palumbo maneuvered the aircraft so the right-side gunner could continue the engagement. CW3 Palumbo repeated this maneuver four separate times, allowing the door gunners to reload and fire some 1,200 rounds of 7.62 mm. During this effort to save their wounded comrades, SGT Pummill was wounded by spraying shrapnel, and the aircraft received over 30 hits by enemy fire. This brave Army Aviation crew was directly responsible for the successful outcome of this engagement and the safe rescue of two wounded American Soldiers. ♦

▲ This courageous crew was directly responsible for the successful rescue of two wounded American Soldiers while engaging enemy forces. From left to right: CW3 Chris C. Palumbo, SGT Ryan Pummill, CW2 Steven Burr, and SGT John Irick of A Company, 3rd Battalion, 158th Aviation Regiment.

CLARIFICATION OF COMBAT MANEUVERING FLIGHT TRAINING REQUIREMENTS

The purpose of this STACOM is to clarify the requirements for conducting combat maneuvering flight (CMF) training in helicopter units. The Directorate of Evaluation and Standardization (DES) was directed to train the trainers for CMF tasks.

DES aircrew training manuals (ATMs) implementation memorandum dated 5 January 2006 directed trainers of CMF Task 2127, *Perform Combat Maneuvering Flight,* be initially trained by DES for AH-64 and CH-47 aircraft. Most new ATMs have added Task 2127.

The CMF maneuvers for the AH-64 attack helicopters exceed the operator's manual limitations and require an airworthiness release (AWR) before conducting training. Dramatic expansion of the flight envelope, coupled with new tactics, techniques, and procedures for running and diving fire, mandated all AH-64 units be trained prior to performing these combat maneuvers.

The requirement for DES-trained instructors was initially added to the CH-47 units even though none of the CMF maneuvers for the aircraft exceeded their current operator's manual (-10) limitations. DES training was done to validate CMF training requirements in cargo aircraft and to expedite CMF training for the combat units. The UH-60 CMF training tasks also did not exceed the helicopter limitations, and the units were intentionally not included in the initial ATM CMF implementation guidance issued by DES.

In the future, DES CMF trainer qualification will only be required for those aircraft that are authorized by an AWR to exceed operator's manual limits for CMF (currently only the AH-64). All helicopters not operating on an AWR for CMF do not require mandatory DES CMF trainer qualification. Effective immediately, CH-47 trainers are no longer required to be trained in CMF by DES. The CH-47 ATM CMF training requirement that requires DES to qualify CMF trainers is rescinded by this STACOM and will be removed from the ATM in change No. 1.

Units may still request DES train the CMF task; however, commanders have the ability to select and train Task 2127 just as they would for any 2000-series mission task. Standardization pilots and instructor pilots are authorized to "self-start" the task in accordance with the implementation letter. Units are encouraged to use the academic classes for CMF found on the DES portal, under their respective branch in conjunction with the flight training of the task.

For more information, contact CW4 Michael Reese at 334-255-1585, or e-mail michael.reese@rucker.army.mil ♦

Standardization communications (STACOMs) are prepared by the Directorate of Evaluation and Standardization (DES), U.S. Army Aviation Warfighting Center, Fort Rucker, AL 36362-5208, DSN 558-2603/2442. Information published in STACOMs may precede formal staffing and distribution of Department of the Army official policy. Information is provided to commanders to enhance aviation operations and training support.

SCOTT B. THOMPSON
COL, AV
DIRECTOR OF EVALUATION
AND STANDARDIZATION

Communication Messages 06-05 & 06-06

CH-47F AND CH-47 EMD QUALIFICATIONS CLARIFIED

The CH-47D has been undergoing a redesign for almost 10 years. This new series of the CH-47 has been designated as the F model. The CH-47F was first developed and tested in 2000 at Fort Campbell, KY, where many crewmembers received qualification. The CH-47F has since undergone significant changes, and another version of the CH-47F will go into production incorporating the Army's latest technology in glass cockpits known as the common avionics architecture suite (CAAS).

This new version of the CH-47F is greatly different from the previous model tested in 2000. As a result, those who have been qualified on the earlier version of the aircraft are not qualified in the current CH-47F with CAAS. To avoid confusion within the community, those who were qualified in the older version, now referred to as CH-47 EMD, will be required to change their individual aircrew training folder (IATF) and individual flight record folder to reflect the new designation of the older CH-47. Effective immediately, all aircrew members who are CH-47 EMD qualified will place the following entry in their IATF to eliminate confusion about the two CH-47F-model aircraft:

- Aircraft series change.
- Remarks: Previous qualification of CH-47F is redesignated as CH-47 EMD. Crewmember is not currently CH-47F qualified.

The crewmembers will ensure this change is reflected in the 759 on the next closeout. This entry will eliminate the confusion between old and new models of the CH-47F. Any questions concerning this STACOM may be addressed to CW4 James K. Scala, (334) 255-1564, or james.scala@rucker.army.mil. ♦

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SCOTT B. THOMPSON
COL, AV
DIRECTOR OF EVALUATION
AND STANDARDIZATION

Leaders as Combat Lifesavers

CPT JEFFREY BAIRD
101ST AIRBORNE DIVISION
FORT CAMPBELL, KY

Death and injury are realities of combat. More than 58,000 U.S. troops died during Vietnam, and 15 percent of those deaths were due to a lack of buddy or combat lifesaver aid. For Operations Enduring and Iraqi Freedom, it's estimated that 5 to 10 Soldiers are wounded in action for each Soldier killed in action.

All leaders should be qualified combat lifesavers. Enhanced combat effectiveness and readiness, increased survivability, and the demonstration of leadership initiative to possibly save a subordinate are just a few of the benefits.

Battlefield Far Forward Medical Care (FFMC) has been stressed by air and land battle doctrine but continues to be a challenge for maneuver and medical leaders. FFMC teams identify and treat casualties as close as possible to the forward edge of the battlefield or the point where an injury occurs. Immediate care is essential because Soldiers are dispersed over wide areas during modern combat operations and might not be close to any medical facility.

Unfortunately, there currently aren't enough medics to tend to every injured Soldier. First-aid kits in most vehicles and aircraft are good for minor injuries but are insufficient for major traumas caused by small-arms fire, rocket-propelled grenades, and improvised explosive devices. As a result, many of the actions traditionally performed by medical personnel are being assumed by combat lifesavers.

Combat lifesavers are non-medical Soldiers trained to provide lifesaving measures beyond the level of self or buddy aid. With proper training, a combat lifesaver can stabilize many types of casualties and slow the deterioration of a wounded Soldier's condition until higher-skilled medical personnel arrive. A patient has an excellent chance of survival if he can be stabilized and evacuated to permanent medical facilities. Ultimately, the more Soldiers we save, the more combat power we retain.

Current Army policy recommends there should be a combat lifesaver for every section, squad, or team. Some units have voluntarily increased this recommendation to a requirement, making it mandatory their Soldiers be combat lifesaver qualified before deploying to theater. Having the maximum number of trained combat lifesavers per unit will add to combat effectiveness and survivability.

Combat lifesaver training is conducted at the unit level using instructional material. Unit training managers and all other combat lifesavers must be recertified on an annual basis. Each training course or curriculum requires a combat lifesaver trainer as part of the cadre or staff. Materials such as books and intravenous needles can be requested through normal supply channels. The requirement that might be hardest to achieve, however, is finding the time and resources for all Soldiers to attend instruction, training, evaluation, and certification.

Commanders can demonstrate the importance of combat lifesaver training by ensuring they and their subordinate leaders also are trained and qualified. Soldiers in leadership positions should arrive at their unit and assume their responsibilities as certified combat lifesavers. As such, certification should become part of the graduation requirements for courses like the Basic Noncommissioned Officer Course, the Advanced Noncommissioned Officer Course, and the Officer Basic Course. Other training programs such as the Reserve Officer Training Corps and U.S. Military Academy also can make combat lifesaver certification part of their training curriculum.

All leaders should be qualified combat lifesavers. Enhanced combat effectiveness and readiness, increased survivability, and the demonstration of leadership initiative to possibly save a subordinate are just a few of the benefits. On every patrol and as part of every flight crew, there is or should be a leader and, in turn, a qualified combat lifesaver. That leader being combat lifesaver qualified could mean the difference between life and death for a wounded Soldier. ♦

—The author may be contacted by e-mail at jeffrey.baird@us.army.mil. CPT Baird wrote this article while attending the Captain's Career Course at Fort Rucker, AL.

Accident Briefs

Information based on preliminary reports of aircraft accidents

Class A

MH-47
G Model
• Class A: Four crewmembers were killed and one was injured when the aircraft struck a television reception tower during flight and impacted the ground.

UH-60
A Model
• Class A: Two Soldiers were fatally injured when they fell approximately 30 feet to the ground during a MEDEVAC hoist attempt. The hoist cable reportedly broke during the operation.

AH-64

A Model

• **Class E:** The environmental control unit (ENCU) began to dispense only heat and made a howling sound. The ENCU was shut off and flight resumed. An attempt was made to recreate the problem, and a small amount of smoke and a slight odor were detected. Maintenance replaced the ENCU turbine. *(Late Report)*

D Model

• **Class C:** Aircraft suffered shrapnel damage to one main rotor blade and the tail rotor system during rocket live fire.

• **Class E:** During flight, the position update light illuminated. Position confidence was 0.135 and growing on both EGIs. The crew attempted an in-flight realignment that failed. The crew aborted the mission and returned to base. *(Late Report)*

CH-47

D Model

• **Class C:** Aircraft lost its cockpit door during flight.

• **Class E:** The No. 2 automatic flight control system caution and associated Master Caution lights illuminated and then went out twice. Each time the lights went out, an engagement error was felt. The aircraft returned to the airfield and was shut down without further incident. The No. 2 vertical gyro was replaced, and the aircraft was released for flight. *(Late Report)*

MH-6

M Model

• **Class C:** Aircraft contacted the ground in a tail-low attitude during touchdown autorotation training. The aircraft suffered damage to the tail rotor, vertical fin, and three main rotor blades.

MH-60

L Model

• **Class C:** Upon postflight inspection, the crew found four damaged main rotor blade tip caps and required main rotor blade replacement.

OH-58

C Model

• **Class C:** While performing an engine start, the turbine outlet temperature (TOT) rose to 1,000 °C for more than 5 seconds. The instructor pilot (IP) performed an emergency engine shutdown. *(Late Report)*

D(R) Model

• **Class B:** Aircraft experienced an overtorque and a low rotor RPM during a manual throttle maneuver. The main rotor blades also contacted the tailboom.

• **Class C:** Aircraft experienced an engine overspeed during flight. Maintenance criteria required the engine be replaced.

• **Class C:** Aircraft experienced an engine overspeed during a simulated engine-out (manual throttle) demonstration.

• **Class C:** Aircraft was found to have a spread skid crosstube after it lifted slightly off the ground when collective was accidentally pulled up and then pushed back down for landing.

TH-67

A Model

• **Class C:** While performing hovering autorotation training, the pilot trainee (PT) shoved down on the collective, causing it to come out of the IP's hand. As the IP grabbed the throttle and collective, the aircraft impacted the ground, bounced approximately 6 feet into air, and rolled left. The IP leveled the aircraft and attempted to open throttle. As the aircraft began to descend, the IP attempted to cushion with collective. The aircraft landed hard, sustaining damage. *(Late Report)*

• **Class C:** While attempting an engine start, the PT inadvertently retarded the throttle to the off position. The IP reviewed the correct start procedure with the PT, but during the second start attempt, the PT incorrectly performed the start again. The IP recognized a hot start situation and attempted to close the throttle. The PT held the throttle against the idle stop, preventing

FALL FROM UH-60A CLAIMS TWO SOLDIERS

PRELIMINARY LOSS REPORT 06149

Two Soldiers were killed during rescue operations while attempting to board a UH-60A MEDEVAC helicopter. The two Soldiers, a 22-year-old PFC and a 19-year-old PV2, had been wounded in action during combat operations conducted earlier that day. When MEDEVAC arrived the flight medic, a 27-year-old SGT, was lowered to the ground on the rescue hoist to retrieve the Soldiers. After successfully extracting the PV2, the SGT was again lowered on the hoist to extract the PFC. While performing the second lift, the rescue hoist cable reportedly failed causing the PFC and SGT to fall 30 feet to the ground, fatally injuring both Soldiers. This accident is presently under investigation.

Since details are limited at this time, consider these actions to prevent similar accidents in general:

- **Commanders must ensure hoist maintenance is conducted only by qualified personnel. Review hoist maintenance and training programs. Ensure all cable that is coded as unserviceable is removed from service.**

- **Leaders should review hoist operation SOPs to include preflight, pre-operational, and operational procedures. Ensure only qualified personnel operate the hoist system during live hoist operation.**

*** Preliminary Loss Reports (PLR) are provided to leaders for awareness, trends, and TTPs. Our Army depends on you to disseminate PLRs to the lowest levels of your formation in order to help high-risk troops understand the impact of decisions made on and off duty.**

the IP from closing the throttle in time to prevent a hot start. The TOT reached 1,001 °C for 15 seconds. The engine required replacement. *(Late Report)*

UH-1

H Model

- **Class E:** On final approach to the airfield, the aircraft's cargo release switch was moved to the armed position, releasing a 280-pound cement block. The jettisoned load created a small divot on the taxiway. *(Late Report)*

UH-60

A Model

- **Class B:** While conducting an instrument flight rules flight, the aircraft was struck by lightning, causing damage to two main rotor blades and possible electrical damage. The crew landed the aircraft in a field without further incident.

- **Class C:** While maneuvering to a parking spot, the aircraft's main rotor blades struck a static rotor blade on a parked aircraft. The aircraft continued forward into its parking spot and shut down. There were no injuries. *(Late Report)*

- **Class C**: A helmet was sucked into the rotor, damaging the blade tip, when one service member attempted to toss it to another.

- **Class C:** Aircraft was on a firefighting mission when the cargo release button was pressed, releasing the Bambi bucket. The bucket was engulfed in flames.

L Model

- **Class D:** While conducting autorotation training, the IP assumed the controls at approximately 55 feet AGL to terminate the maneuver with power. The IP started to pull in power and level the aircraft as it contacted the taxiway. The aircraft was landed and shut down without further incident. *(Late Report)*

- **Class E:** A bird struck the chin bubble and entered the cockpit. The aircraft was flown back to the airfield, swapped for a replacement aircraft, and the mission was continued without further incident. The damaged aircraft was repaired and returned to duty. *(Late Report)*

C-12

R Model

- **Class E:** Aircraft experienced an engine shutdown due to an engine overspeed while in cruise flight. The aircraft landed without further incident. *(Late Report)*

CAS-212

- **Class E:** During a maintenance test flight at 7,000 feet MSL, the hydraulic pump switch was turned on to lower flaps. The pump ran for 3 seconds and then failed. The aircraft was returned to the airfield, where flaps were lowered with manual pump pressure and the aircraft was landed using manual pump pressure for nose-wheel steering and braking. The electric pump was replaced, and the aircraft was released for flight. *(Late Report)*

UNMANNED AIRCRAFT SYSTEM

MQ-5B

• Class A: Unmanned Aircraft System (UAS) was on final approach to landing when the lighting system failed and the controller lost visual contact reference. The UAS proceeded off the runway and was a total loss.

RQ-5A

• Class A: UAS failed to respond to aerial vehicle operator (AVO) input during external pilot training and crashed in the traffic pattern. The aircraft was a total loss.

• Class C: UAS's empennage contacted the ground during touchdown.

RQ-11

• Class C: Aircraft experienced a wing separation during landing and crashed into a body of water.

• Class C: AVO lost link with the aircraft during high-wind conditions. Efforts to recover the aircraft were unsuccessful.

• Class C: AVO lost video link with aircraft during flight. Efforts to recover the aircraft were unsuccessful.

• Class C: AVO lost video link with the UAS. Efforts to recover the aircraft were unsuccessful.

• Class C: AVO lost link with the UAS. Efforts to locate the UAS were unsuccessful. (Late Report)

• Class C: AVO lost video link with the UAS at a known location. Efforts to locate the aircraft were unsuccessful.

• Class C: AVO lost the global positioning system (GPS) and video feeds and commanded the UAS to return to the launch point. The last known grid was patrolled and nothing was found. Subsequent flights in the same area and time of day experienced similar problems. *(Late Report)*

• Class C: AVO lost video link and control of the aircraft. Efforts to locate the UAS were unsuccessful.

RQ-7A

• Class B: AVO failed to query the system and deploy the parachute. The knob's enter key was stuck, producing uncommanded inputs. *(Late Report)*

• Class C: During approach, the AVO issued a wave-off due to excess tail winds, but the UAS did not respond. The UAS landed and exited the runway.

• Class C: Upon landing, the UAS went off the runway and struck a small sign with the left-front wing. The UAS had experienced a crosswind at the time of the accident. *(Late Report)*

RQ-7B

• Class B: Aircraft crashed after indication of an auto pilot failure and before the AVO was able to deploy the recovery chute.

• Class B: The aircraft did not reach flight RPM during the launch sequence and impacted the ground.

• Class B: AVO experienced an "Auto Pilot Servo Fail Alert" indication during flight. The aircraft subsequently crashed.

• Class B: Aircraft experienced ignition failure following an engine temperature spike. The recovery chute deployed, and the UAS was recovered.

• Class B: Aircraft experienced an engine temperature spike. The AVO was unsuccessful in initiating the landing system, and the aircraft crashed.

• Class C: Aircraft was straight and level at 70 knots when the magneto failed. The recovery chute was deployed and the UAS landed, causing damage to the wings. *(Late Report)*

• Class C: Aircraft experienced an engine failure while en route to the launch/recovery site. The recovery chute was deployed and payload stowed before landing.

• Class C: The aircraft experienced an inadvertent deployment of the recovery chute during launch. The chute straps became entangled in the aircraft's propeller, causing it to crash after traveling about 30 to 40 meters.

• Class C: The aircraft crashed during launch after the launch cable became caught.

• Class C: Upon landing, the UAS was trapped, not caught, by the primary and secondary arresting pendent. The aircraft suffered damage in the arresting net.

ARMY AIRCRAFT LOSSES FY02 TO PRESENT*

	HOSTILE/NON-HOSTILE	COST
AH-64A/D.....	8/44	$1.09B
U/MH-60L.....	6/22	$191.8M
C/MH-47.....	6/13	$718.9M
OH-58D.....	8/21	$181.2M
Total	28/100	

*As of 1 August 2006

Editor's note: Information published in this section is based on preliminary mishap reports submitted by units and is subject to change. For more information on selected accident briefs, contact the USACRC Help Desk at DSN 558-1390 (334-255-1390) or by e-mail at helpdesk@crc.army.mil.

I Chose to Look the Other Way

I could have saved a life that day,
But I chose to look the other way.
It wasn't that I didn't care,
I had the time, and I was there.
But I didn't want to seem a fool,
Or argue over a safety rule.
I knew he'd done the job before,
If I called it wrong, he might get sore.
The chances didn't seem that bad,
I've done the same, he knew I had.
So I shook my head and walked on by,
He knew the risks as well as I.
He took a chance, I closed an eye,
And with that act I let him die.
I could have saved a life that day,
But I chose to look the other way.
Now every time I see his wife,
I'll know I should have saved his life.
That guilt is something I must bear,
But it isn't something you need to share.
If you see a risk that others take,
That puts their health or life at stake,
The question asked, or the thing you say,
Could help them live another day.
If you see a risk and walk away,
Then hope you never have to say,
I could have saved a life that day,
But I chose to look the other way.

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U.S. ARMY COMBAT READINESS CENTER
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own the EDGE
Composite Risk Management