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FlightFax
REPORT of ARMY AIRCRAFT ACCIDENTS
September 1995 ♦ Vol 23 ♦ No 12

New Chief of Staff of the Army General Dennis J. Reimer's thoughts on risk management

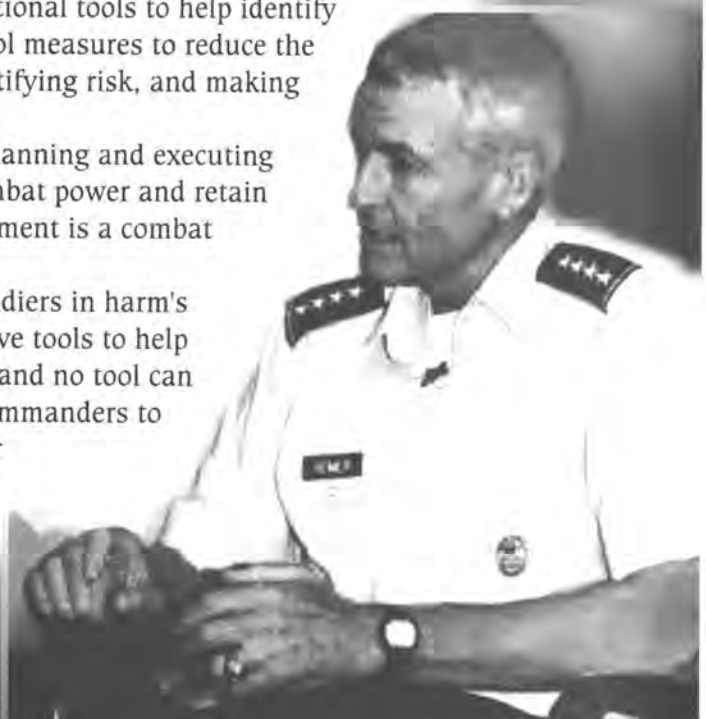
"As an institution, we demand responsible action, which includes protecting our soldiers as they accomplish their mission. Training accidents bring this responsibility into sharp focus. I want to share with you my thoughts on this important subject.

"Every day as we respond to the Nation's needs, we expose our soldiers to hazards in uncertain and complex environments. We do this with the full knowledge that there are inherent risks associated with any military operation. The nature of our profession will not allow for either complacency or a cavalier acceptance of risk.

"The purpose of risk management is to identify operational risks and take reasonable measures to reduce or eliminate hazards. Risk management allows us to operate successfully in high-risk environments. Leaders at every level have the responsibility to identify hazards, to take measures to reduce or eliminate hazards, and then to accept risk only to the point that the benefits outweigh the potential losses. The Army's doctrinal manuals articulate the risk-management process, our principal risk-reduction tool. Risk management is not an add-on feature to the decision-making process but rather a fully integrated element of planning and executing operations. The United States Army Training and Doctrine Command and the United States Army Safety Center are working together to provide commanders with additional tools to help identify and assess risk with greater precision, while suggesting control measures to reduce the level of risk. However, articulating risk—collecting data, quantifying risk, and making a decision—is a command responsibility.

"Our goal is to make risk management a routine part of planning and executing operational missions. Risk management helps us preserve combat power and retain the flexibility for bold and decisive action. Proper risk management is a combat multiplier that we can ill afford to squander.

"Ultimately, leaders will make decisions that place our soldiers in harm's way. That is inherent in the responsibility of command. We have tools to help you, and I expect you to use them—but they are tools at best, and no tool can substitute for the exercise of responsible judgment. I expect commanders to create an environment in which the lives and well-being of our soldiers are an integral part of the accomplishment of the mission. Our soldiers deserve no less.



"Soldiers are our credentials!"

Risk Management *key to safe winter operations*

You don't have to be assigned to a unit in Alaska to feel the harshness that winter will soon bring upon us. While the hazards associated with winter operations certainly aren't new and may not be as severe in some areas as others, many of you haven't flown in snow and icy conditions or had to perform maintenance in sub-zero temperatures for many months. Regardless of where you're stationed, the colder temperatures can make even the simplest tasks more difficult. Continuing to operate as if the warm breezes of summer were still blowing can be a setup for disaster.

Don't put yourself in a mishap-waiting-to-happen category. Before winter's freezing winds, snow, and ice arrive, review the hazards associated with cold-weather operations and proceed with caution until you again become proficient in operating in the harshest environment of the year. And most of all, don't take any unnecessary risks such as giving in to the temptation to shortcut a preflight or maintenance procedure or any other procedure just so you can hurry up and get in out of the cold.

Remember that the risk-management process and rules aren't seasonal. While we can't eliminate the environmental hazards associated with winter, we can prepare ourselves and develop control measures to reduce the risks so that operations even in the bitter cold will be as safe as possible.

Another unit's views on operations in blowing snow

One of our goals in FlightFax is to encourage aviation units to share with other units ways they have solved problems. In the April 1995 issue, LTC Marshall T. Hillard, commander of the 4th Battalion, 101st Aviation Regiment, presented his unit's approach to helicopter operations in dust and blowing snow conditions. In addition to describing a new technique (including a sample SOP) that his unit had researched and experimented with for operations in blowing dust, LTC Hillard encouraged others to use a similar aggressive approach to solving some old problems such as brownout and whiteout. The following is one unit's response.

LTC Hillard's article got the desired response in D Company, 4-123d Aviation Battalion at Fort Wainwright: it generated a lot of discussion. Since we operate in Alaska and spend a majority of our time flying in blowing-snow conditions, the references LTC Hillard made to blowing-snow operations were of particular interest to us.

The 101st presented some great research and data regarding operations in dust conditions, but the article seemed to assume that blowing dust and snow were essentially the same. Operations in snow conditions appeared to be almost an afterthought. All of the research and training was done in the desert; there is no mention of conducting research on operating in snow conditions or experiments with various techniques in snow environments. We thought that other units might like to hear our ideas on operating in a snow-covered environment since that is where we operate most of the time.

A different approach to snow operations

In the interior of Alaska, we are exposed to extremely dry snow conditions. Contrary to FM 1-202: Environmental Flight and the theory proposed by the 101st, we have found a different approach to multiship operations in UH-60s that has proven safer and more effective in our particular environment. After conducting similar research into blowing-snow operations, our unit found that straight trail is the best formation for UH-60 multiship takeoffs and landings. In fact, we use this formation exclusively when executing missions.

Before you scoff at this idea, please consider that many of our aviators have experience in dust conditions and have come to recognize that operating an aircraft in dust and snow can be very different. However, allow us to caution that the technique that has proved effective for us may not be appropriate for all airframes or under all conditions. But through experimentation and experience, we have found that it works best for our unit's Black Hawks in Alaska.

In a trail formation, the induced flow down through the rotor system of the previous aircraft actually blows the snow cloud out to the sides of the aircraft, in essence creating a tunnel for the next aircraft to fly through. In reality, the theory is similar to that proposed by the 101st in dust, except that the snow cloud is actually blown clear of follow-on aircraft as opposed to echelon or staggered formations where the other aircraft are engulfed in whiteout by the induced flow of the preceding chalk. Surprisingly enough, the trail formation can be as loose as two rotor disks under most conditions and still be totally effective in allowing the following aircraft to maintain visual contact with the previous chalk.

Find new solutions

It seemed worthwhile for us to warn against lumping snow and dust into the same category when limited testing in the snow environment had been conducted. Like LTC Hillard, we also feel it is important to encourage other units to take the same aggressive approach to problem solving that we undertook for blowing-snow operations and the 101st undertook for blowing-dust operations.

Apply risk management concepts and don't be afraid to try something different from the techniques addressed in the FM, particularly when it is an older manual and is geared towards an outdated airframe. However, we must stress the importance of completing your risk assessment first and then experimenting with techniques in a controlled environment. At the same time, it is important to stress that as conditions vary and airframes differ, other techniques may have to be experimented with to determine the best formation for a given situation and set of conditions.

By generating discussion and taking the initiative to solve both old and new problems alike, we will all benefit from increased combat effectiveness and superior aviation safety.

POC: CW2 Regan G. Plath, DSN 317-353-7008 (907-353-7008), D Company, 4-123d Aviation Battalion, Fort Wainwright, Alaska

The facts are . . .

FlightFax needs your help. Aviators, maintainers, air traffic controllers, refuelers, firefighters—we need your input to help us meet readership demands. Our No. 1 reader request is for more "There I Was" stories and lessons learned. But it sure is hard to print information that we don't have.

No one can give a better first-person account of an event than the individual involved.Tell us about your close calls, near misses, and the safety lessons you learned from the experience. If you want your story to be anonymous, we'll do it that way.

Don't have any "war stories" to tell? Then tell us about the good things that are happening as a result of your safety programs. What are you doing in your unit to lower accident rates? What are you doing to spread safety awareness? Has your unit or soldiers within your unit won any safety awards? Accident rates across Army aviation are down, so obviously something good is going on out there. Tell us about it.

In future issues of *FlightFax*, we plan to address recurring safety issues such as FOD prevention, ALSE, risk management, severe weather, and so forth. If you would like to see a specific safety issue addressed or readdressed, let us know. If you are a subject matter expert on or have information related to these topics or know someone who is a subject matter expert, we would like to hear from you. And remember, you aren't limited to these topics.

We also get lots of requests for posters. Recently we promised to provide black and white posters in FlightFax as space permitted. We're living up to our promise. Included in this issue is a double-sided poster you can remove and post on your bulletin board. Better yet, if you have access to a copier that can be adjusted to accommodate this size paper, you can copy one side and have the benefits of two new posters available at the same time. A reminder: This is another area where you can help. If you have poster ideas, please let us hear from you.

The facts are clear: To keep *FlightFax* customer focused, we need your expertise and input. Let's form a partnership, and together we can develop informative, up-to-date articles (posters too) on both old and new aviation safety issues.

Send your written material or even a cassette tape (if you absolutely hate to write) to Commander, U.S. Army Safety Center, ATTN: CSSC-PMA *(FlightFax)*, Building 4905, 5th Avenue, Fort Rucker, AL 36362-5363. If you prefer, you may FAX the information to the attention of Ms. Jane Wise at 558-3743/9478 (334-255-3743/9478) or send it by e-mail to wisej@rucker-safety.army.mil. Send your poster ideas to ATTN: CSSC-IM (Ms. Rebecca Nolin), FAX 558-2101 (334-255-2101) or call 558-2073 (334-255-2073).

Be sure to include a telephone number, a FAX number, mailing address, or an e-mail address where we can contact you. ❑

INVESTIGATORS' FORUM

Lessons Learned

The "Investigators' Forum" is written by accident investigators to provide an accident synopsis and major lessons learned from recent centralized accident investigations.

OH-58D(I). While flying straight and level at 500 feet AGL as the trail aircraft in a formation flight, the engine surged, causing a significant yaw, a drop in engine noise, and loss of power. The PC autorotated to an open field. After an almost perfect touchdown, the aircraft slid 10 feet into a ditch. The pilots were uninjured, but the aircraft sustained significant damage.

• ***What happened.*** The electronic supervisor control (ESC) malfunctioned and caused the engine surges. When the crew switched to the analog/backup mode, the ESC continued to fail, giving unexpected results to the crew. Instead of momentary increases in engine performance, all parameters decreased and did not recover. The PC felt the engine was unreliable and elected to close the throttle and autorotate.

This is a case where the quip, "I ran out of time, altitude, and ideas all at the same time" is true. The crew had only 30 seconds from the onset of the malfunction until they impacted the ground.

• ***Lessons learned.*** A lesson to be learned or relearned here is the importance of making a decision and following through with the procedure. The PC correctly analyzed and reacted to the primary emergency: an engine surge. When the correct procedure failed to produce the expected and publicized results, he determined that the engine was unreliable and instead of troubleshooting, committed to an autorotation and concentrated on that procedure. Had the ditch not been located where it was, this crew would have received a Broken Wing award instead of a broken aircraft.

A second observation made during this investigation and supported by previous investigations indicates that problems with poor record keeping are widespread. Reviews of maintenance logbooks and historical records indicate that the number of errors is increasing. These are errors that should be caught by pilots, crew chiefs, platoon sergeants, and quality control personnel. Either a lack of training, understanding, or attention to detail is allowing this poor record keeping to occur. Fortunately, failure to keep accurate records has not resulted in a serious accident yet. But if we don't tighten up on proper record keeping, eventually a critical inspection will be missed or an aircraft will be flown with an existing deficiency that could result in disaster!

CH-47D. During slingload operations, the crew heard a loud pop, followed by the onset of a lateral vibration in the flight controls. The pilot announced he had a flight control malfunction. The crew elected to continue to the landing area, set down the load, and shut down the aircraft. During shutdown, the aft red rotor blade depatterned, striking the tunnel cover, and in turn was struck by the forward green rotor blade.

• ***What happened.*** The aft red shock absorber (lag damper) lug failed at the pitch housing assembly due to corrosion fatigue. The failure resulted in the lateral vibration felt by the crew. With the fractured lag damper, there was no restriction on forward blade motion. As the rotor slowed during shutdown, the blade continued to sweep forward and down, striking the tunnel cover.

• ***Lessons learned.*** Effective crew coordination resulted in the crew electing not to release the load. The aircraft responded to control inputs, and the crew was able to land it safely.

A lag damper fracture is not a safety-of-flight condition. With a fractured lag damper, it is safe to continue flight if vibration is not excessive and maneuvers are minimized. On a CH-47D with a fractured lag damper, the aft rotor blade tip may approach or contact the fuselage tunnel cover as rotor RPM approaches zero. And with a fractured lag damper, a blade-to-blade collision can occur in the rotor overlap region as rotor RPM approaches zero.

AH-1F. While repositioning from one airfield to another during an administrative flight, the crew attempted to circumnavigate a cloud layer at an altitude of more than 9,000 feet MSL. At the 9,400-foot level, the aircraft entered a right descending turn and continued until it struck the side of a mountain, rolled downslope, and came to rest inverted.

• ***What happened.*** In addition to their failure to accomplish appropriate preflight planning, the pilot and PC directed their attention outside the aircraft, failed to monitor their instruments (the airspeed indicator), and allowed their airspeed to bleed off to the point that it went below ETL. At this point, they were approximately 50 feet AGL and were not able to regain forward airspeed. When the crew demanded additional power by applying full left pedal to stop the right turn, it was not available. The application of left pedal aggravated the descent, and the N2 and rotor RPM continued to decay until the aircraft could no longer maintain flight.

Safety
has a
GO-TO-WAR
MISSION
Ensure the only threat
is from the enemy.
Risk management—
the key to
protection.

THIS CO
ISN'T OVER

RISI
ISI

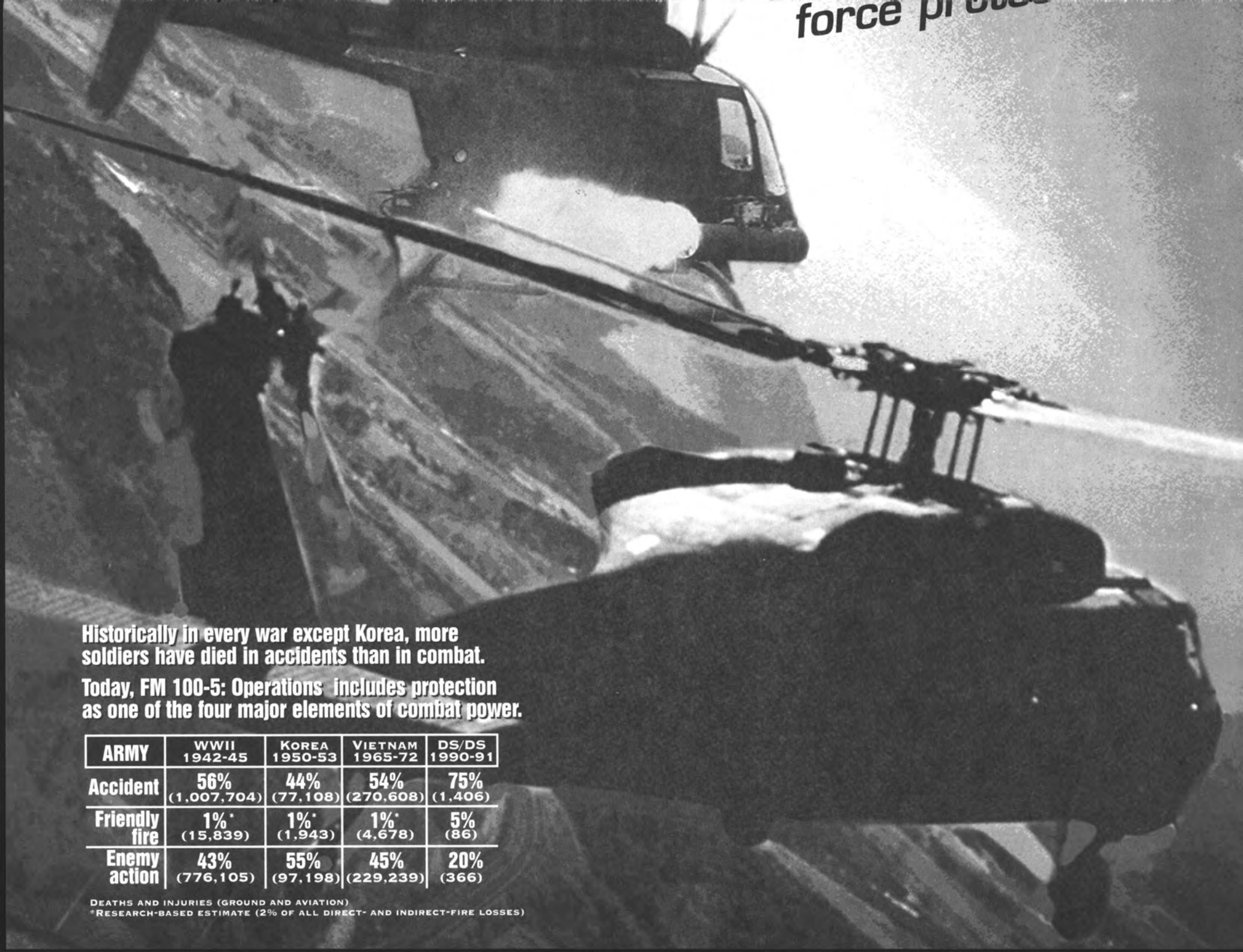
Ready or not,
here comes winter.
Control the risks
of cold operations
by being prepared.

WINTERIZE YOURSELF

OLD WAR

K MANAGEMENT
N'T SEASONAL

F AND YOUR AIRCRAFT



Historically in every war except Korea, more soldiers have died in accidents than in combat.

Today, FM 100-5: Operations includes protection as one of the four major elements of combat power.

ARMY	WWII 1942-45	KOREA 1950-53	VIETNAM 1965-72	DS/DS 1990-91
Accident	56% (1,007,704)	44% (77,108)	54% (270,608)	75% (1,406)
Friendly fire	1%* (15,839)	1%* (1,943)	1%* (4,678)	5% (86)
Enemy action	43% (776,105)	55% (97,198)	45% (229,239)	20% (366)

DEATHS AND INJURIES (GROUND AND AVIATION)
*RESEARCH-BASED ESTIMATE (2% OF ALL DIRECT- AND INDIRECT-FIRE LOSSES)

• *Lessons learned.* This accident is an example of the value of thorough preflight and en route planning. Had the aircrew accomplished the appropriate preflight planning, they would have known that they did not have sufficient power to operate below ETL in an OGE situation. In addition, this accident demonstrates the importance of establishing and maintaining an effective cross-check of aircraft instruments and not allowing yourself to fixate.❑

Standardized enlisted safety meetings

Aircrew safety meetings provide an opportunity to present information, discuss and solve problems, and increase communication between the commander and flight crews. Meetings also provide issues to be addressed by the safety council and allow crewmembers to learn from each other's experience. Similar benefits can also result from aviation maintenance safety meetings.

Developing a program

Our Apache squadron saw a need to improve our aviation maintenance safety meetings and expand the system to include all enlisted personnel. We wanted meetings that would meet regulatory requirements, support the commander's METL (mission essential task list), improve soldier proficiency, increase readiness, and broaden safety awareness.

To accomplish this goal, we first determined what regulatory requirements we had to meet. We found that this varies, depending on your MACOM and unit guidance. Several regulations, including AR 385-95: Army Aviation Accident Prevention, paragraph 1-6, address requirements for safety meetings, briefings, and training. FORSCOM units will find more specific guidance in FORSCOM Regulation 385-1: Forces Command Safety Program, paragraph 12 3c, which requires monthly meetings for aircrewmembers and aviation maintenance personnel. The regulation also requires a synopsis of the meeting and establishment of a makeup system for people who didn't attend the monthly meeting.

Other sources require safety training in such topics as hearing conservation, respiratory protection, driver safety, and fire prevention. Most of these subjects fall into the realm of ground safety, and some are covered in briefings given at unit formations, safety days, or during classes set up for the specific topic. There are advantages to presenting information this way, but there are also disadvantages. Often such formats do not allow for discussion by those attending or provide a means for makeup by personnel who are absent.

We then looked at several programs and found that one or more of the following problems exist:

- Meetings not being held.
- Meetings not being documented (no synopsis).
- Attendance rosters not being completed.
- Makeup training not being conducted.
- Safety meetings for aviation maintenance personnel sometimes included ground safety topics (such as use of seat belts) but nothing related to aviation safety.
- No meetings scheduled for personnel in nonaviation MOSs.

We decided to conduct standardized enlisted safety meetings that allowed for discussion and feedback. Because of several factors, including workload, maintenance flow, and the number of people involved, we couldn't just get everyone together in the squadron classroom or in a room at the club for lunch.

It became obvious that we needed more flexibility and a different approach to that used for our crewmember meetings. The solution was to move the meetings down to the troop level. This would allow us to conduct meetings with a manageable group of people, but we also needed to ensure that all of our soldiers were briefed on the same material. To do that, we came up with a briefing packet that could be used by the troop safety NCOs or other designated NCOs to conduct the meetings.

Briefing packet

In the month before the meeting, the squadron aviation safety officer and aviation safety NCO (ASO/ASNCO) prepare a five-part packet for review and approval by the squadron commander. They then distribute the approved packet to the troop ASNCOs and the Headquarters and Headquarters Troop ground safety NCO (GSNCO). The packet consists of a cover sheet and four enclosures.

- *Cover sheet.* This includes instructions and assigns suspense dates.
- *Enclosures.*
  - □ General safety briefing material for all personnel, for example:
    - Hearing conservation.
    - Eye protection.
    - Field safety.
  - □ Material to be briefed to aviation maintenance personnel, for example:
    - Foreign object damage.
    - Flightline procedures.
    - Hangar hoist training.
  - □ Material of a specific nature that is briefed to all personnel, for example:
    - Recent mishap experience.
    - Accident trends.
    - Commander's concerns.

- Discussion topics. These are topics for which briefing material is not necessarily provided but are brought up for discussion at the monthly meetings. This is a brigade-specific requirement and is key to making the meetings work. Topics include—
  - Hot- and cold-weather injuries.
  - Fire prevention.
  - Vehicle safety.
  - Flightline/hangar safety (aviation maintenance personnel only).
  - Other topics as appropriate (motor pool, field, and so forth).

The meeting

The troop safety NCO or other designated NCO briefs the material to the soldiers, asks for discussion on the standard topics, and then opens the meeting for further discussion.

The troop safety NCO records what was discussed and this, along with the briefing material provided by the squadron ASO/ASNCO, becomes the synopsis of the meeting. The troop safety NCO also compiles an attendance roster of those who were present **and** notes those who were absent.

Makeups

Makeups should be completed not later than the last day of the month following the meeting. This allows time for people who were on leave, TDY, or absent for other reasons to read the synopsis and sign the makeup roster.

The troop safety NCO marks the names of soldiers on the roster who were unavailable to attend or unable to make up the class by this time. The troop safety NCO notes the reason they were unable to attend and the expected date of compliance with the makeup requirement. All assigned personnel must be accounted for as either "attended," "makeup," or "unavailable."

Copies of the discussion synopsis and attendance rosters are then sent to the squadron ASO. The squadron ASO reports compliance to the commander within 4 working days.

Further makeups

The troop safety NCO keeps the original copy of the briefing material, the discussion notes, and the attendance roster. He or she uses these to complete makeups of personnel who were unavailable previously. Each month when the troop safety NCO forwards copies of discussion notes and attendance rosters to the squadron ASO/ASNCO, an update to previous makeup rosters is included.

Keeping the meeting size manageable

In larger maintenance companies, the process can be further broken down to allow platoon or section sergeants to hold the meetings. This allows more flexibility in scheduling and keeps the meeting size manageable.

Advantages of the program

- Standardized program for the squadron.
- Integrates ground and aviation safety.
- Includes all enlisted personnel.
- Allows for discussion.
- Allows for tailoring by the troop safety NCOs.
- Has a makeup system.
- Builds a file of briefing and training material.
- Addresses current mishap trends.
- Keeps the commander informed.

Disadvantages of the program

- Requires considerable initial work in preparing briefing material.
- Requires continuous review and update of material. Outdated or inaccurate briefings will harm the program.
- Takes time to educate participants on how the program works and overcome any initial resistance to a new system.
- Failure of troop safety NCOs to encourage discussion will decrease the meeting effectiveness.

Lessons learned

- Keep the briefings accurate and concise.
- Keep the discussion focused.
- Place the meetings on the troop training schedules.
- Include ground safety topics such as desert, mountain, night, and continuous operations. This approach allows soldiers to become familiar with the associated hazards, and if you're deployed next week, you'll have a head start on training. When possible, conduct these briefings before a field exercise, NTC rotation, or other similar event.
- Involve commanders and subordinate leaders. ASOs/ASNCOs should monitor the presentations but should not be expected to do all the presentations.
- Forward unresolved meeting issues to the enlisted safety council.
- Review the discussion notes for trends.
- Keep the command sergeant major, first sergeants, troop commanders, and troop ASOs involved and informed. The first sergeant may want to lead the discussion portion of the meeting.
- Ask for feedback. Your briefing material may not be as brilliant as you think it is.
- Get the packet to the people responsible for the meetings early so they can become familiar with the material. They may want to invite a guest speaker for a particular topic or show a tape that covers the same subject.
- When possible, put a briefing in the context of something the unit is doing or is going to do.
- Focus on—
  - Performing to standard.
  - Maintaining situational awareness.
- Use pre-printed attendance rosters. The troop safety NCOs can have soldiers initial next to their names, and it's easy to glance at the roster and see who is present—or absent.
- Rely on available material from Army sources: technical manuals, field manuals, installation safety bulletins, *FlightFax*, *Countermeasure*, and so forth. Don't necessarily copy or read the material verbatim from the source. Pick out the key points, and customize the briefing material and the presentation to your audience and your unit's mission.
- Publish a 12-month forecast of monthly topics approved by the commander. This gives you an overall look at the program and assists in planning. Adjust the list as necessary.
- Set a goal for a time limit on the meeting. *Meet the goal.*

You and your commander must decide which type of program is best for your unit. Look at your enlisted safety meetings to see if they're productive and are being done to standard. If you're having any of the same problems we had, a standardized program may improve your meetings. This program improved our enlisted safety meetings and supports our mission. A similar program might do the same for your unit.

POC: CW4 William E. Wallace, Flight Safety Officer, Headquarters III Corps and Fort Hood, DSN 737-7701 (817-287-7701), FAX 737-3337

ShortFAX
Keeping you up to date

Address verification

Because of new postal regulations, we are updating our distribution lists for *FlightFax*. The post office now requires building numbers, street addresses, and 9-digit zip codes. APO addresses should include unit, box, and CMR number as appropriate.

Please review and update your current mailing label and return the corrected label to us. If your address is correct, please return the existing label and so state. Return your label to Commander, U.S. Army Safety Center, ATTN CSSC-IM, Building 4905, 5th Avenue, Fort Rucker, AL 36362-5363, or FAX requested information to DSN 558-2266 (334-255-2266).

Request for current addresses and status of ATMs

The U.S. Army Aviation Center, Aviation Training Brigade, Aircrew Training Manual (ATM) Section is compiling a data base of addresses for use in future distribution of draft ATMs. We will also use the data base to identify subject matter experts to help resolve questions as they occur.

To conserve resources, we will only send manuscripts to units for which we have current addresses. We are asking that units provide us their current address (including building numbers, street addresses, and 9-digit zip codes). APO addresses should include unit, box, and CMR number as appropriate. We also need to know your type of aircraft, points of contact, telephone and FAX numbers, and e-mail address. Send this information to Commander, U.S. Army Aviation Center, ATTN: ATZQ-ATB-NS (ATM Section), Building 2802, Division Road, Fort Rucker, AL 36362-5218, DSN 558-3801/2864 (334-255-3801/2864), FAX DSN 558-2463 (334-255-2463), or e-mail to ATZQATBATM@rucker-emh4.army.mil.

Status of ATMs

- TC 1-210: Aircrew Training Program, Commander's Guide to Individual and Crew Standardization should be fielded around 1 October 1995. Units should ensure their 12-series is current so they will get initial distribution of this manual as well as other updated ATMS as they are published.
- TC 1-212: Aircrew Training Manual, Utility Helicopter, UH-60 is undergoing final editing.
- TC 1-213: Aircrew Training Manual, Attack Helicopter, AH-1 is being prepared for final editing.
- CH-47 crewmembers should review their current ATM and submit proposed changes to the ATM Section by 15 November 1995.

If you have questions or comments about the Aircrew Training Program, contact CW4 William "Scott" Johnson, CW4 Robb Miller, or Ms. Connie Ecker at DSN 558-3801 (334-255-3801).

Accident briefs
Information based on preliminary reports of aircraft accidents

Aviation flight accidents

Utility

UH-1 Class A

H series - About 2 minutes into flight after picking up passenger, aircraft descended, struck tree with tail rotor, and impacted in ravine. Four injuries.

UH-1 Class C

H series - In cruise flight at 100 knots and 5,300 feet MSL, aircraft yawed left, N2 decayed, RPM light illuminated, and audio activated. IP lowered collective and verified that throttle was full open. Engine was at 80 percent N1. IP increased collective, causing rotor RPM to decay. IP then lowered collective and instructed pilot to engage emergency governor operations. Engine RPM decayed. Crew autorotated to nearby road. When IP decelerated, main rotor blades struck trees along road, damaging blades.

UH-60 Class C

L series - During preflight, crew discovered all four blades had sustained damage. Suspect contact with ALQ-144.

L series - PC was maneuvering aircraft for landing to tactical PZ. While increasing collective to reduce aircraft's rate of descent, PC realized that collective travel was limited. PC was able to apply only 72 percent torque. Realizing hard landing was imminent, PC decelerated as much as possible and attempted to level aircraft. When aircraft came to rest, crew performed normal shutdown. During shutdown, PC discovered secure communications coding device (ANCD) resting on base of pilot's collective.

Cargo

CH-47 Class C

D series - During maintenance test flight, left pilot door separated from aircraft and struck high-frequency radio antenna and side of aircraft.

D series - During slingload operation, crew noted vibration. Crew repositioned load on ground. Upon shutdown, aft blade displaced and struck fuselage. (See CH-47 writeup in "Investigators' Forum.")

Observation

OH-58 Class B

D series - While in flight of seven, pilot of accident aircraft entered autorotation after experiencing engine surges and unexpected aircraft responses while performing emergency procedure. After completion of near-perfect autorotation and landing, aircraft slid into a ditch and sustained extensive damage. No injuries. (See OH-58 writeup in "Investigators' Forum.")

OH-58 Class C

A series - Aircraft was on training mission when IP initiated simulated engine failure. Pilot entered autorotation. IP told pilot to adjust airspeed, and correction caused rotor RPM to increase. IP took controls and RPM rose to 113 percent for 2 seconds.

Aviation ground accident

Severe weather resulted in damage to three EH-60s, three UH-1Hs, four OH-58As, and one AH-1 aircraft. Aircraft sustained damage to main and tail rotor blades. All aircraft had been moored (standard procedure for all aircraft upon parking). Weather was as forecasted, but unforecast winds were experienced. Damage resulted when debris from nearby building struck aircraft. Initial damage cost is in excess of $2 million.

Messages

Aviation safety action maintenance messages.

■Aviation safety action maintenance mandatory message concerning inspection of main landing gear on all AH-64 aircraft (AH-64-95-ASAM-05, 261444Z Jul 95). Summary: Main landing strut mounts have cracked, and collapse of the landing gear strut has occurred. Inspection criteria previously used may not be stringent enough to detect critical flaws. The purpose of this message is to direct a one-time inspection of all aircraft not previously inspected for correct washer installation and require units to perform a recurring magnetic particle inspection on all main landing gear strut mounts during each phase maintenance inspection using revised inspection limits. Contact: Mr. Jim Wilkins, DSN 693-2258 (314-263-2258).

■Aviation safety action maintenance mandatory message concerning main rotor expandable blade bolt on all OH-58D helicopters (OH-58-95-ASAM-08, 181825Z July 95). Summary: Investigation of a Category I deficiency report indicates that there are a significant number of installed main rotor expanding blade bolts that have cracks in the cam handle. These cracks are the result of excessive force used during removal of stuck or jammed bolts. The use of an incorrect corrosion preventative compound (CPC) has been identified as a possible contributor to bolts sticking. The purpose of this message is to provide instructions for a one-time inspection and repair of defective bolts and dissemination of correct CPC usage. Maintainers should be made aware that cracking of handles is due to excessive force applied to the cam handle. The cam handle is not to be used as a lever to pry stuck blade bolts loose nor slammed back to attempt to loosen stuck blade bolts. Proper care, correct use, and application of the correct CPC should prevent further damage. Contact: Mr. Lyell Myers, DSN 693-2438 (314-263-2438).

Aviation maintenance information messages

■Aviation maintenance information message concerning EH/UH-60A and UH-60L aircraft (UH-60-95-001, 021816Z Aug 95). The purpose of this message is to alert aviation commanders that MWO 1-1520-237-50-73 (depot level) has been released as an urgent TB. The MWO requires that the engine trim balance hardware be modified by 31 July 1996. TB 1-1520-237-501-169 has been released and directs specific requirements for scheduling affected aircraft. Application of the MWO must be performed by 31 July 1996. Scheduling of the MWO can be accomplished before the TB is received by contacting your local OLR representative. Contact: Ms. Jennifer Collins, DSN 693-3801 (314-263-3801).

■Aviation maintenance information message concerning deactivation of AH-64 rotor (blades) de-ice capability (AH-64-95-002, 011544Z Aug 95). Changes to the AH-64 mission need (MN) statement and the operators manual now only require aircraft to operate in light icing conditions. As a result, it is no longer mandatory to maintain the rotor de-ice system. TB 1-1520-238-20-62, which is in the publishing process, allows deactivation of the rotor de-ice system at the commander's discretion. If such action is taken, the aircraft is fully mission capable (FMC). Until TB 1-1520-238-20-62 is issued, all AH-64 aircraft with either operable or inoperable rotor de-ice systems may be reported FMC. Contact: Mr. Ken Muzzo, DSN 693-5420 (314-263-5420).

■Aviation maintenance information message concerning inspection of the force gradient assembly in the cyclic controls of OH-58A/C aircraft (OH-58A/C-95-002, 201852Z Jul 95). A Category I deficiency report stated that the cyclic control would not function due to a deteriorated forward and aft force gradient assembly. The assembly is reported to have more than 3,000 flying hours in service. The purpose of this message is to inform units of an impending urgent TM change that will require removal and inspection of both the force gradient assemblies, P/N 206-001-076-1, NSN 1680-00-126-4350, at first and third phase inspections of all OH-58A/C aircraft. Contact: Mr. Stephen P. Dorey, DSN 693-5420 (314-263-5420).

For more information on selected accident briefs, call DSN 558-2119 (334-255-2119).

In this issue:

- New Chief of Staff of the Army, General Dennis J. Reimer's thoughts on risk management
- Risk management: key to safe winter operations
- Another unit's views on operations in blowing snow
- The facts are . . . we need your help
- Investigators' forum
- Standardized enlisted safety meetings
- Address verification
- Request for current addresses and status of ATMs
- Posters
  —This cold war isn't over
  —Safety has a go-to-war mission

Class A Accidents through August

		Class A Flight Accidents		Army Military Fatalities	
		94	95	94	95
1ST QTR	October	2	0	0	0
	November	3	0	0	0
	December	2	1	2	0
2D QTR	January	1	1	2	1
	February	2	0	0	0
	March	0	1	0	0
3D QTR	April	5	1	2	5
	May	0	2	0	2
	June	0	1	0	0
4TH QTR	July	4	1	5	0
	August	1	3	0	5
	September	1		0	
	TOTAL	21	11	11	13

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558-3770 (334-255-3770). Address questions about distribution to DSN 558-2062 (334-255-2062). To submit information for FlightFax, use FAX DSN 558-9478/3743, Ms. Jane Wise.

S. W. Hyatt

Scott W. Hyatt
Colonel, IN
Acting Commander
U.S. Army Safety Center

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