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FlightFax

REPORT of ARMY AIRCRAFT ACCIDENTS
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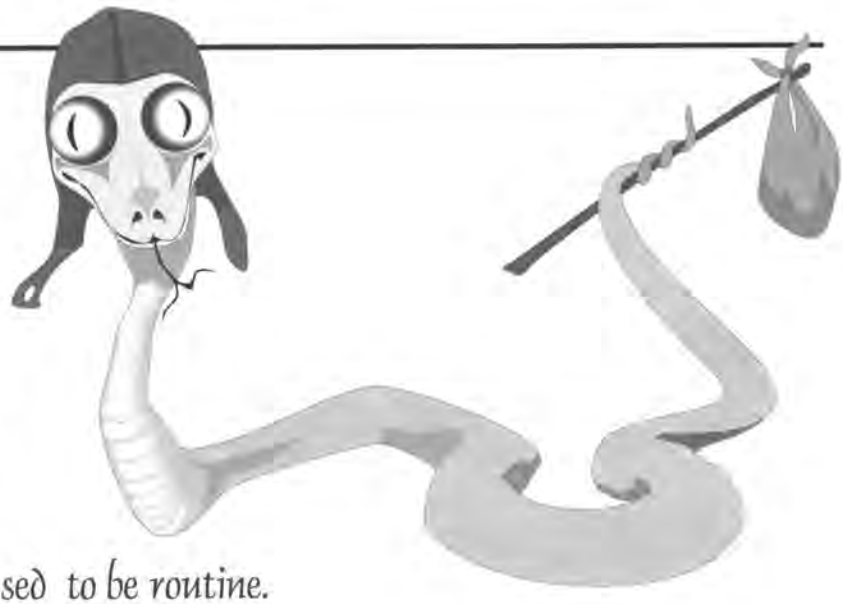
We often publish stories by aviators in FlightFax that begin "It was a routine mission," but the end is anything but routine. Far too often in fact, the story ends with a fatal injury or a destroyed aircraft. Maybe it's time for a change of pace. In this issue, a UH-1 pilot relates the story of a "routine" mission that turned into quite an adventure, an adventure not many of us would want to share. We are glad to say, however, that it ended okay.

From this crew's unique experience comes a powerful reminder that if you're just sitting there enjoying the ride on a "routine mission," you might want to rethink the way you do business. Something totally unexpected could happen, and if you aren't prepared, you could get hurt. The lesson is: Never get too comfortable; if you do, something could be waiting out there to bite you.

There's a WHAT in the cockpit?

An unwelcome, unauthorized passenger and an illuminated caution light turn what should have been a routine mission into a fright flight.



"It was a routine flight," or it was supposed to be routine.

We took off at about 0900 in a Huey on a flight from one Army airfield to another. I was in the left seat; my copilot in the right seat was on the controls. About 10 minutes into the flight, I thought I saw something move around my feet. Seconds later, a **large** black snake raised its head between my legs. Obviously not very happy about having its territory invaded by a couple of black-booted humans, the agitated snake jerked and flailed from side to side. Or was it me who was jerking and flailing about? If it wasn't, it sure wasn't because I didn't feel like it.

I quickly, and probably not nearly as calmly as I would like to think, told the copilot that I had a large black snake around the pedals and crawling up my legs. If there is standard aircrew coordination terminology to describe such an event, I certainly couldn't think what it was. But somehow I guess I was able to communicate this unusual turn of events to my copilot. Making a cryptic comment, he glanced over to the left side of the cockpit just to make sure I hadn't lost control of my senses.

Applying risk management

Spotting the large reptile, he instantly assessed the hazard and requested that I implement control measures to keep the snake on my side of the aircraft. Remembering that there is no ejection capability (for me or the snake) in a Huey, I was desperately trying to think of a suitable control measure when the snake noticed the opening in the center pedestal. Apparently deciding that it might like this other guy better, the creature slithered over to the anti-torque pedals and feet of the copilot in the right seat.

We all know that the cardinal rule is to **fly the aircraft**, but I do not hesitate to say that my copilot quickly lost interest in flying the aircraft. However, thanks to ingrained aircrew coordination techniques, we were able to transfer the controls successfully. Now it was my turn to take care of the flying as he wrestled with our unwelcome passenger.

Without hesitation, I applied everything I knew about risk management and how to do a hasty risk assessment. I instantly came to the conclusion that the safest place for this aircraft was on the ground. And I intended to get it there as quickly and safely as I could. Fortunately, I was able to land in a confined training area. After landing, I wasted no time in retarding the throttle to flight idle and probably set a record for exiting an aircraft. In other words, we **gave** that aircraft to the snake while we considered our options.

Getting rid of the hazard

Obviously, that aircraft wasn't going anywhere with the same number of creatures on board as when it landed. That meant somebody had to remove the snake. I picked up a 3-foot stick and attempted to gently lift the reptile away from the right anti-torque pedals. Annoyed and immediately suspicious of my intentions, the snake began striking at me. A lot braver now that I knew I could quickly move out of the snake's way, I managed to catch it behind its head with my left hand as I tried to disentangle it from the right set of pedals with my other hand. Whatever my good intentions, the snake was having none of it. It wrapped itself firmly around both anti-torque pedals and could not be pulled loose.

Unwilling to give up on removing the snake from the cockpit and not about to get back in the aircraft with it still aboard, I continued to try to unwrap the snake from the pedals. I'm not sure if I finally did something right or if the snake just gave up and decided it really didn't want any part of such hostile hosts, but after several failed attempts, I was eventually able to remove it without injury to the snake—or myself.

Now that I felt I was in charge and not the snake, curiosity got the best of me. Before turning it loose, I held the snake up to measure its length by my own height. To my surprise, it was as tall as I am with plenty left over. We did a quick best-guess estimate of its length—at least 6½ feet—and released the unauthorized passenger unharmed.

On with the mission and another turn of events

After a quick debrief (I suppose you could call it a moment to gather our wits and reorganize), we climbed back into the UH-1 and continued our journey to the nearby airfield. After refueling, we settled in and started our return flight.

thinking that surely this would be the routine portion of the flight. Not to be.

The direct route between the two Army airfields is over a small town (population about 50) that just happens to be only 5 miles from my farm. I was attempting to describe the "highly populated area" below us to my copilot when the emergency master caution panel light illuminated, indicating an engine chip light. By-the-book procedures required an immediate landing. Since the town is actually too small to accommodate a UH-1 landing, I selected a field at the "edge" of town.

What a sight for the townspeople. Most of them thought their long-awaited helicopter ride had finally arrived and immediately began convening at our impromptu landing site. While I knew everyone on the scene, the copilot must have thought that he had been time-warped back to the set of the once-popular "Green Acres" television sitcom. As we were waiting for the maintenance chief to arrive in another UH-1, we gave the population a ground tour of the Huey (we didn't say a lot about our recent passenger).

The maintenance officer determined that the chip light was caused by lint on the filter and declared the aircraft airworthy. At last, we were again on our way back to home station. This time we made an uneventful flight and landed without further incident.

Learning from this "routine" mission

Although we know the term "routine" mission is a misnomer, we use it often and frequently caveat its use with a reminder that there are no truly routine missions. Even if you're a relatively new member of the Army aviation team, you've probably already been drilled to remember that even the most routine training mission can be full of surprises. So prepare for the unexpected and hope there are no nasty surprises just waiting for the unwary aviator.

In addition to reminding us that there are no routine missions, this little adventure also reminded us of several other safety issues that need to be continually reinforced.

- Crew coordination is essential to safely handle an emergency situation, especially if you have a 6-foot black snake who is determined to make himself a part of the crew. There is no substitute for solid crew coordination and situational awareness when subjected to a situation that is not covered by published procedures. Communication in the cockpit is crucial. It allows each pilot to understand what the other pilot sees in and out of the aircraft. With good crew coordination, a potentially dangerous situation can be sorted out with relief, not regret.
- Respect the hazard involved even if the hazard is a natural enemy. All hazards require assessment and control.
- Risk management principles can be applied quickly when necessary.
- A regulation cannot control human responses in difficult situations. The regulation didn't say to land immediately if you have a black snake wrapped around the pedals. Sometimes common sense just has to kick in.
- Flying is too unforgiving an occupation to take anything for granted. It may be trite, but it's true: Anything can happen at any time but always when you least expect it. Be ready for anything, stay calm, and know your emergency procedures (if there are any) cold.
- An unfamiliar situation that you are not mentally prepared for may lead to undue concentration on the problem. Don't let surprise or frustration cloud your judgment and distract you from the immediate task at hand—like flying the aircraft.
- Above all, remember that there is no such thing as a routine mission. Every mission has some risk associated with it and has the potential to become complicated and hazardous when you least expect it.

POC: MAJ Don Brand, 1105th Aviation Classification Repair Depot, Springfield, MO

While we certainly don't expect incidents like the hitchhiking black snake to become commonplace, this crew's experience proves that we share the environment with any number of other creatures that don't necessarily respect our space. For example, insects build nests in pitot tubes and birds attempt to set up housekeeping in engine compartments or under drive shaft covers. And there is always the chance of bird strikes in the air and collision with animals on the ground.

During the season of the year when wild creatures are active, be aware during preflight checks of the potential for FOD caused by wildlife. This is especially true if helicopters sit on the ground for long periods of time. And while you're checking the aircraft, you might want to take a look around for any unauthorized passengers.

. . . if you have questions about the appropriate uses of accident data and other safety-related information

Question: I recently got access to the Army Safety Management Information system (ASMIS). Why can't I call up data from the ASMIS if I know the names and social security numbers (SSNs) of the crewmembers? If I could, it would seem to make retrieval of the data I need a lot easier.

Answer: You're right. It would be easier if you could use name or SSN for retrieving information on a particular accident. But you can't for two reasons. First, a password protection system on the ASMIS prevents your access by that means. As I will explain later, the Safety Center can make this retrieval for certain purposes. Second, allowing you access would violate the Privacy Act, which might lead to loss of the safety privilege. As I am sure you are aware, it is the safety privilege that protects confidential witness testimony and other privileged safety information from disclosure.

The Privacy Act is a federal statute that controls how the Government collects and maintains information on individuals. Because the Safety Center files aviator mishap information in its system of records (data base) in such a way that it can be retrieved by the person's name or SSN, the Safety Center is required to tell the public what kind of individual information is in the data base. We do this in a Privacy Act Systems Notice that is published in the *Federal Register*. It tells what the information is used for and where to write to ask for individual aviator mishap data. This gives the individual aviator a right to ask for a copy of the information and, if he or she disagrees with the information, a right to ask to have the information corrected.

Information on individual aviator mishaps in the ASMIS is limited to certain parts of Abbreviated Aviation Accident Reports (AAARs) and does *not* include any privileged information. If individual ASMIS users were able to call up privileged information by using a name or SSN, then we would also have to give individual aviators a right to that same privileged information. Once privileged information is released to an individual aviator, there is nothing to prevent its use for any purpose, including private civil suit for monetary damages. This would probably end our ability to promise confidentiality or keep findings and recommendations privileged.

If there is a need for an individual aviator's mishap record, the Safety Center has the authority under the Privacy Act Systems Notice to make an ASMIS retrieval of the AAAR data on that aviator. However, the retrieval is limited to one of the following purposes:

- Determining aviator or soldier mishap experience for increased duty responsibility or training programs.
- Evaluating suitability of National Guard applicants for appointment.
- Determining eligibility for safety awards.

Use of AAAR data for any purposes other than those discussed or allowing access by an unauthorized person would violate the Privacy Act and would give individuals concerned a right to sue.

Question: I am a safety officer/manager. I've been contacted by a military liaison officer of an allied nation who wants access to safety information on a piece of military equipment purchased by the allied nation. May I provide this information? It's for safety purposes.

Answer: No. You should inform the liaison officer to make the request through his or her embassy's military attache. If the liaison officer is from a NATO country, the request will also be processed in accordance with a standard NATO agreement (STANAG).

The regulation for handling this type of request is AR 380-10: Disclosure of Information and Visits and Accreditation of Foreign Nationals, which treats safety report information as "controlled unclassified information" (CUI). The reason for controlling information in this category is to further various national interests. Privileged safety report information is CUI because statutory laws such as the Privacy and Freedom of Information Acts and case law exempt it from release to the public.

The purpose of the safety privilege is to protect vital manpower and equipment to further national defense. To control the release of this information, AR 380-10 requires Army personnel who receive such requests to return the request with an explanation that the information can only be released on an official government-to-government basis.

The military attache (assigned to the embassy of the allied nation) is normally the appropriate person to make such an official request. When such a request is submitted, it is processed through the Deputy Chief of Staff for Intelligence Technology Transfer, who refers it for evaluation and response by the U.S. Army Safety Center's Command Judge Advocate. Sometimes NATO requests come through separate channels. If it looks like that kind of request, contact the Command Judge Advocate directly. Even when the request is from a NATO country, the privileged information is taken out before the report is released.

If you have further questions concerning the appropriate release or use of safety information, ***ask the judge***.

POC: MAJ Frank Young, U.S. Army Safety Center Judge Advocate, Building 4905 5th Avenue, Fort Rucker, AL 36362-5363, DSN 558-2131 (334-255-2131)

Making the right decision

How soon is "land as soon as practicable"? The way you answer this question could kill you.

It was a beautiful summer day. We had completed our mission and were in cross-country flight over scenic mountains back to our home base. Everyone was looking forward to the trip home. I was on the controls of the UH-60 when I noticed a master caution light come on and the pilot announced "master caution." There was a slight yawing motion as the No. 1 tail rotor servo was isolated and the backup pump and No. 2 tail rotor servo were activated. I began a turn away from the mountains, looking for a suitable landing area.

During my recon, the pilot said, "There's an airport about 8 miles north of here. We can land there. Everything seems to be working fine, and the procedure says to land as soon as practicable." I considered this for a moment, then elected to land to the field I had reconned. After landing, we opened the control access to look at the No. 1 hydraulic pump. It was very hot.

This incident prompted a discussion about the meaning of "land as soon as practicable." Either continuing to the airfield or landing to an open field could be interpreted as landing as soon as practicable. However, if we had elected to continue flight to the airfield, the pump may have caught fire with catastrophic results.

I asked the pilot why he would consider continued flight. His reasons seemed logical: it would be easier for maintenance to get to the site, the precautionary landing location would be hard to find, nightfall was coming and they would not have any light to work on the aircraft, and a few others. The factor that was overlooked was that this was an **emergency**!

As crewmembers, our first responsibility is to land the aircraft safely. Maintenance will find a way to recover the aircraft. Making it to a more convenient site is not worth risking lives.

Although continued flight may not have violated the operating procedures, it just didn't pass the common sense test. We must always try to "stack the deck" in our favor. Oftentimes, the most conservative decision will cause inconvenience, discomfort, ridicule, and sometimes even a trip to the old man's office. However, none of these factors should be involved in the decision-making process when lives and the safety of the aircraft are at stake.

I think of this incident often. It taught me a valuable lesson. Perhaps it may help others in making more responsible decisions. How do **you** factor implied pressure into the decision-making process? Does compliance with a procedure alone guarantee your safety? Take a look at the way you do business. The way you answer these questions could kill you.

—CW3 Daniel L. Kotowski, HSC 1/151 Aviation Battalion, Eastover, South Carolina, DSN 583-8298 (803-776-8298)

INVESTIGATORS' FORUM

Lessons Learned

From recent accident investigations

The "Investigators' Forum" is a new feature in FlightFax. Written by U.S. Army Safety Center investigators, it will provide an accident synopsis and major lessons learned from recent centralized accident investigations.

OH-58. During night qualification training, the crew had just finished a slope landing in a confined area. As the student pilot transitioned the aircraft to an inverted Y for takeoff, the aircraft began to drift. The right skid contacted the ground, and the aircraft rolled right and came to rest on its right side. The IP was fatally injured.

• ***What happened.*** The IP did not alert the student pilot of his intentions to alter the circumstances of the flight by turning off the searchlight. Sudden, unannounced changes caused the student pilot to lose control of the aircraft.

• ***Lessons learned.*** IPs should always keep students informed. Never assume your students will understand what you are doing. ***Practice good aircrew coordination; it's a safe practice.***

AH-64. While conducting a night, low-level deep attack, the lead aircraft in a flight of five struck 200-foot power lines. The aircraft descended, struck the side of a building, and was destroyed. The crew was uninjured.

• ***What happened.*** The front-seat pilot had been provided accurate overlays before conducting a night tactical training mission. He marked wires that crossed his flight path for the first half of the flight and successfully navigated that leg of flight without difficulty. However, he neglected to mark the wires for the return leg, believing that he could recall where all the wires were because he knew that all the roads had wires. He may have known where the wires were, but as he approached the 200-foot wires, he diverted his attention inside the cockpit to perform navigation and communication duties and neglected to tell the pilot on the controls that they were approaching wires.

• ***Lessons learned.*** This accident reconfirms the absolute necessity of posting all known wire hazards on tactical maps before conducting low-level/NOE flight (especially at night). Had the front-seat pilot posted his tactical map as required by several references, he would have been looking for the hazard and would have alerted the pilot on the controls and this costly accident could have been avoided. It is easy to train that all roads and railroads have wires, but with all the things that go on in the cockpit, you need that ready reference to catch your eye. ***Post those wire hazards!***

AH-1F. The unit completed a field exercise and was preparing to return to home station. The crew completed preflight requirements and prepared to reposition the aircraft from parking to the runway for formation lineup. During runup, the pilot stood fireguard while the PC started the engine. The pilot entered his station and strapped in while the PC continued the runup procedures. As the pilot continued to get set up, the PC brought the aircraft up 2 to 3 feet above the soft sod with a right rolling moment. The aircraft continued to roll until the main rotor struck the ground, resulting in Class B damage to the aircraft but no injuries to the crew.

• ***What happened.*** The crew's motivation to move into formation lineup took precedence over the requirement for smooth, coordinated flight control inputs and adequate crew/cockpit coordination. The aircraft skids had settled 1 to 2 inches into the soft sod while it was parked. The soft sod combined with the gentle right upslope was a setup for dynamic rollover.

• ***Lessons learned.*** The primary concern for the pilot on the controls is aircraft control tempered with caution. All other concerns must be secondary. Evaluation of the parking surface, slopes, wind direction, and aircraft center of gravity provides information the pilot needs to determine control inputs.

The importance of crew coordination is highlighted once again in this accident. Each crewmember's life is at stake when the aircraft leaves the ground. That means each has a stake in how the aircraft is handled. The PC is responsible for ensuring that the crew is prepared for takeoff and prepared to perform their respective tasks to ensure mission success. ❑

Electronic bulletin board service for technical publications

Information superhighway speeds technical publications updates to the field

Receipt of current changes, revisions, and new technical publications is critical to the safe maintenance and operation of Army aircraft. Every effort is made to ensure these technical publications reach the field as quickly as possible, but the combined impact of volume, distance, and available assets leads to occasional breakdowns in the publications system.

To help alleviate these breakdowns, the Aviation and Troop Command (ATCOM) Publications Division offers a bulletin board service (BBS) that contains a list of current changes, revisions, and new technical publications. The BBS can be reached via modem at DSN 693-9057/2522/2523/9448 (314-263-9057/2522/2523/9448). The voice mail number for problems or questions is DSN 693-3493, and the POC is Ms. Donna Rich.

The following is a list of the current aviation changes, revisions, and new technical publications posted to the BBS. As new changes, revisions, and technical publications are added to the BBS, we will provide an update in *FlightFax* as well.

Publication Number	New (N), Revision (R), or Change (C)	Subject
TB 1-1520-237-20-160	N	UH-60 Reduction of Torque Self-Retaining Pivot Bolts
TB 1-1520-237-20-162	N	UH-60, Inspection of Tail Rotor Gearbox
TB 1-1520-237-20-163	N	UH-60, Chg in Ret Life for Servo Beam Rail
TB 1-1520-238-20-60	N	AH-64, O/T M/R Strap Pack Teflon Removal
TB 1-1520-238-50-03	N	AH-64, O/T M/R Strap Pack Teflon Removal
TB 1-1520-248-20-28	N	Dir Cont Tubes, OH-58D
TB 1-1520-250-20-2	N	Pivot Bolts, MH-60K
TB 1-4920-328-50	R	Calibration Procedures
TM 10-4930-246-13&P	N	D-1 Nozzle
TM 55-1520-240-23-8	C13	CH-47D Helicopter
TM 55-1520-234-23-2	C25	AH-1S (Mod) Helicopter
TM 55-1520-236-MTF	C6	AH-1P/E/F Helicopter
MWO 1-1520-238-50-33	N	Main Rotor Lead-Lag Link
TB 1-1520-210-20-26	N	Fuel Boost Pump
TB 1-1520-248-20-31	N	Tail Boom Insp and Fwd IAS Restriction on All OH-58Ds
TM 55-1520-240-10	C5	CH-47D Helicopter

Publication Number	New (N), Revision (R), or Change (C)	Subject
TM 1-1520-237-23P-3	C1	UH-60A Helicopter, EH-60A, and UH-60L
TM 1-1520-237-23P-4	C1	UH-60A Helicopter, EH-60A, and UH-60L
TM 1-1520-237-23P-1	C1	UH-60A Helicopter, EH-60A, and UH-60L
TM 55-1520-240-23-6	C18	CH-47D Helicopter
TM 55-1520-248-23-3	C11	OH-58D Helicopter
TM 55-1520-248-23-6	C9	OH-58D Helicopter
TM 55-1520-248-23-5	C8	OH-58D Helicopter
TM 55-1520-248-23-9	C3	OH-58D Helicopter
TB 1-1520-237-20-161	N	UH-60
TM 1-1520-237-S	R	UH-60 Shipping Manual
TM 55-1520-345-23	C6	Painting and Marking Army Aircraft
TM 55-1520-238-23-4	C5	OH-58D Helicopter
TM 55-2840-251-23	C1	Turboprop Aircraft Engine, Model T74-CP-700
TM 55-1520-248-23-7	C7	OH-58D Helicopter
TB 43-0142	C2	Safety Inspection and Testing of Lifting Devices
TB 1-1520-237-20-153	N	Tail Rotor Pitch Beams

If your unit is not receiving these technical publications or changes in a timely manner, check your local or in-country distribution system first. If that fails to resolve the problem, you may call the U.S. Army Publications Distribution Center in St. Louis and they will attempt to track your order. The Center maintains records of orders for 90 days after shipment.

The Customer Service Department can be reached at DSN 693-7305, ext. 266 or 268 from 0600 to 1600 central time Monday through Friday. You may also send inquiries by FAX to DSN 693-7395, or write to U.S. Army Publications Distribution Center, 1655 Woodson Road, St. Louis, MO 63114-6181.

For all correspondence with the Center, include your account number, publication or change number, order date, and the number of copies or changes ordered.

POC: CPT Peter Newell, Engineering Programs Branch, USASC, DSN 558-1235 (334-255-1235), FAX DSN 558-9528 (334-255-9528)

ASOL CORNER

Army aviation safety professional development seminar

The FY 96 Army Safety Conference (ASC) is scheduled for 6 through 9 November 1995 in Dallas, TX. The theme of this year's conference is **SafeForce21**. Workshops related to its implementation are scheduled to begin on Monday evening, 6 November. Included as part of the conference will be the second annual Army Aviation Safety Professional Development Seminar.

The Army Aviation Safety Professional Development Seminar will begin on Tuesday, 7 November at 0730 and end on Wednesday, 8 November at 1700. (See below for complete schedule of ASC events.) Last year's seminar was very successful in updating participants on aviation safety training, aircrew coordination, National Guard programs, risk management, new accident reporting procedures, and providing an exchange of information.

SUNDAY (5 Nov 95)

0600	Fitness Walk/Run
1300-1900	Army Forum Opens (Operations Center/Registration)

MONDAY (6 Nov 95)

0600	Fitness Walk/Run
0800-1900	Army Forum (Operations Center/Registration)
0800-1600	National Safety Congress (NSC)
0800-1200	Forces Command Safety Conference
0800-1200	Intelligence and Security Command Safety Conference
0730-1500	Army Medical Command Safety Conference
1030-1700	Federal Safety Conference (FSC)
1300-1700	SBIS Core Team (invitation only)
1300-1700	U.S. Army Corps of Engineers Safety Conference
1800-2000	Army SafePlaces Workshop

TUESDAY (7 Nov 95) Election Day—Plan Ahead—Vote Absentee

0600	Fitness Walk/Run
0730-1130	Army Medical Command Safety Conference
0730-1700	Army Aviation Safety Professional Development Seminar
0800-1900	Army Forum (Operations Center/Registration)
0800-1700	NSC Division Sessions/Workshops/Exhibition Hall FSC Workshops and Seminars
1300-1700	Army Safety & Occupational Health Advisory Council (invitation only)
1730	OSHA & the Army (OSHA Federal Agency Program Officers join Army conferees)
1830-2030	Conference Opening Social — No Host

WEDNESDAY (8 Nov 95)

0600	Fitness Walk/Run
0730-1700	Army Aviation Safety Professional Development Seminar
0800-1900	Army Forum (Operations Center/Registration)
0800-1700	NSC Division Sessions/Workshops/Exhibition Hall FSC Workshops and Seminars
0800-1700	Career Program Planning Board (invitation only)
1700	DINNER BREAK—No Host
1800-2030	SafeForce21 Workshop

THURSDAY (9 Nov 95)

0600	Fitness Walk/Run
0800-1200	Plenary Session..... Director of Army Safety ..... CW5 Mock, Moderator
0800	Welcome/Admin/Conference Overview
0810	SafeForce 21 Progress Report..... COL Hyatt
0850	Functional Area Assessment Benefits..... Mr. Gibson/Dr. Hicks
0930	Control of Privileged Information ..... MAJ Young
0950	Complete Conference Feedback Surveys
1000	BREAK— Conference Surveys Collected
1015	Safety System Three: A View of SafeForce21..... Mr. Dierberger
1100	Career Planning Board Report
1120	Conferee Questions/Comments
1200	FY 96 Army Safety Conference Concludes
1300-1700	Post Conference Seminar: Career Program 12 Career Managers' Responsibilities (open invitation)

FY96
Army Safety Conference (ASC)

5-9 November 1995

Dallas Grand Hotel, Dallas, TX

SafeForce21

The seminar also included open forum discussions that allowed participants to ask questions and identify problem areas that were either addressed by other participants or taken as projects for further research by the U.S. Army Safety Center, one of the MACOMs, or a subject matter expert.

In addition to the ASC events, the 50th Annual Federal Safety and Health Conference and the National Safety Congress will also be held in Dallas from 6 through 8 November 1995. Separate registration is required for these events, and fees are required for some.

Registration

We encourage aviation commanders and aviation safety officers to make plans to attend the ASC. Army participants may begin registering at 1300 on 5 November at the Dallas Grand Hotel. There is no fee for Army events.

Rooms may be reserved by calling the Dallas Grand Hotel at 1-800-421-0011. A government rate of $71 for single or $81 for double occupancy, taxes included, is available on a first-come first-served basis.

Points of contact

POCs for the Army Aviation Safety Professional Development Seminar portion of the ASC are—

- CW5 Steve Rauch, U.S. Army Safety Center, Building 4905 5th Avenue, Fort Rucker, AL 36362-5363, DSN 558-9868 (334-255-9868).
- CW5 Bob Williams, Aviation Branch Safety Office, U.S. Army Aviation Center, Building 6801B Andrews Avenue, Fort Rucker, AL 36362-5000, DSN 558-3000 (334-255-3000).

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, Bldg 4905 5th Avenue, Fort Rucker, AL 36362-5363, or FAX requested information to DSN 558-2266 (334-255-2266).

More on fire extinguishers

According to the Director of Army Fire Services, all forms of Halon fire suppressants will be reduced by 50 percent by October 1995 and completely eliminated by October 2000. It is now unlawful to intentionally vent Halon 1211 or 1301 into the atmosphere when checking or performing maintenance on installed equipment. As of now, the only place Halon will continue to be allowed to be used is in crew compartments of tracked vehicles.

Aviation hand-held fire extinguishers (Halon 1301) will be replaced by carbon dioxide extinguishers as each current hand-held Halon extinguisher is turned in for replacement. The permanent replacement chemical for most Halon 1211 and 1301 extinguishers within the Army is being studied and will be announced at a later date.

Paragraph 7-11b of AR 420-90: Fire Protection dated 25 September 1992 requires using ABC multipurpose dry chemical or equivalent wheeled fire extinguishers for flight lines. There is no one extinguishing agent that is the best for all fires. But the basic reason dry chemicals are used is that they do not present an outside storage temperature exposure problem and the discharge stream characteristics are not adversely affected by normal outside conditions. Dry chemicals are also very effective agents on hydrocarbon fires, which often occur on flight lines.

The downside is the corrosive effects of ABC dry chemicals on aluminum-skinned aircraft. When a phosphate base (ammonium phosphate) agent used in ABC fire extinguishers is exposed to high temperature (300°F), it will soften and adhere to the surfaces of the material involved in the fire. The monammonium-phosphate chemical also found in ABC extinguishers melts and flows when it contacts heat, which is good for fighting aircraft fires; however, it is highly corrosive to aluminum. Once it flows into structural cracks and crevices on an aircraft, it cannot be washed out like BC multipurpose dry chemical agents can. If the residue is not cleaned off, it in conjunction with moisture can cause aluminum to corrode.

The alkaline base agents (sodium bicarbonates and potassium bicarbonate), the dry agents found in BC fire extinguishers, do not melt and stick to hot surfaces, which allows cleaning and is less corrosive to aluminum than the phosphate base agents in ABC extinguishers.

Based on this information and until revision of paragraph 7-11b of AR 420-90, flight line extinguishers will be Class BC type (sodium bicarbonate and potassium bicarbonate base) per National Fire Protection Code 10 (NFPA 10) for portable fire extinguishers. If you have replaced your Halon extinguishers with the multipurpose ABC type, continue using them until they become unserviceable, then replace them with BC dry chemical fire extinguishers.

POC: Mr. Richard H. Lovely, Engineering Programs Branch, USASC, DSN 558-9863 (334-255-9863)

ATCOM maintenance advisory message
Unisex couplings used on HTARS

An OH-58D was consumed by fire during hot refueling operations using an Aeroquip Corporation closed-circuit refueling (CCR) nozzle, NSN 4930-01-214-2909. Preliminary examination of the refueling components indicates that two separate and unique discrepancies existed to permit the CCR nozzle to separate from the hose at the unisex coupling. A safety-of-use message (SOUM-ATCOM-95-006) was issued to remove CCR and RDF nozzles with potentially incompatible couplings from service.

The purpose of this maintenance advisory message is to provide information regarding maintenance actions necessary to ensure that unisex couplings are functioning properly prior to their use for aircraft refueling operations.

Unisex couplings used on the heavy expanded mobility tactical truck (HEMTT) tanker aviation refueling system (HTARS) and any other application must be inspected for damage and proper operation. Units must—

- Visually inspect all unisex couplings for damage, paying particular attention to the locking tangs, mating surface, and seal.
- Ensure the coupling interlocking pin moves freely when the split ring is pulled and released on nonvalved couplings.
- Ensure the valve moves freely and that the coupling interlocking pin extends when the actuating handle is moved from the closed to the open position on valved couplings.

Note: Never use tools of any type to move the flow actuating handle on valved couplings. Excessive force will cause damage to the safety interlocking mechanism, rendering it inoperative.

TM 5-4930-237-10 and TM 10-4930-247-13&P will be revised to incorporate these specific before-use inspection requirements.

Remove any improperly functioning unisex couplings from service and dispose of them in accordance with normal supply procedures. A QDR is not required.

Points of contact

- Technical, Mr. Charles Bright, DSN 693-3888 (314-263-3888).
- Logistical, Mr. Jack Shortridge, DSN 693-2618 (314-263-2618).
- Safety, Mr. Jim Wilkins, DSN 693-2258 (314-263-2258).
- After hours, ATCOM command operations center, DSN 693-2066/2067 (314-263-2066/2067).

Aviation vibration analyzer upgrades

All U.S. Army units should inspect their aviation vibration analyzer (AVA), NSN 6625-01-282-3746, to confirm that they have the current 6.01 software/hardware version. All units, except CH-47 units, with versions other than 6.01 should immediately return their AVAs to the contractor, Scientific-Atlanta, for upgrade. CH-47 units will receive instructions at a later date.

Units can confirm the software version currently being used in their AVA by turning on the AVA and looking at the second line displayed on the control and display unit. Upgraded hardware has a small white sticker on the data plates that states "Version 6.01."

Returning AVAs

When returning AVAs, the equipment must be complete, no missing or nonstandard components. Do not return aircraft adapter kits. The contractor will perform a complete inventory and test the AVAs to determine operational status. If the AVA requires repair, it will be repaired before it is upgraded. For defective/missing components that are available through the supply system, the contractor will advise the owning unit that it is their responsibility to replace these items. The AVA components and replacement parts with NSNs can be found in Table 1-1 on page 1-5 of TM 1-6625-724-13&P.

Scientific-Atlanta is responsible for upgrading all AVAs. Units should call Scientific-Atlanta at 619-679-6013 to receive a request manufacturer's authorization (RMA) number for scheduling and tracking purposes.

Keeping Nicad batteries charged

A recurring maintenance problem has been low or no charge in the Nicad batteries. Units should charge the Nicad batteries periodically to maintain a full charge. Many AVAs have been returned with Nicad batteries needing replacement because the units were not charging them. See TM 1-6625-724-13&P, page 2-1, paragraph 2-2 for charging instructions. The Nicad batteries are available through the supply system and will no longer be replaced by the contractor.

POC: MSG Larry Quinton, Aviation and Troop Command, DSN 693-1347 (314-263-1347), FAX DSN 693-2296 (314-263-2296)

Flyer's gloves

The aviator flight gloves are a required and valuable component of the flight uniform. And aircrewmembers know they should DX old, worn-out, holey, oil-stained gloves. Lessons learned from accidents involving fire reinforce the fact that gloves must be serviceable to provide the protection they were designed to provide should a fire occur. But what do you do when replacements are not available through the flight clothing issue facility?

Following recent field reports of a shortage of flight gloves at issue facilities, the U.S. Army Aviation Center (USAAVNC) Directorate of Combat Developments (DCD) discovered that the shortage resulted from a glitch in the procurement program. Unfortunately, the problem will not be resolved until after October 1995.

As an interim solution, the Defense Personnel Support Center (DPSC) in coordination with USAAVNC DCD has authorized the use of the combat vehicle crewman's (CVC) summer-type glove, NSN 8415-01-074-9428, as a substitute for the flyer's summer-type glove, NSN 8415-01-029-0109. The CVC glove may be worn until the flyer's glove becomes available or until the CVC glove is unserviceable. (Refer to CDR USAAVNC message dated 241901Z April 1995, subject: Flyer's Glove Shortage.)

The characteristics of the CVC glove are similar to the flyer's glove. The CVC glove is .5 ounces heavier, is made of olive green Nomex and black leather, and is treated for water resistance. The flame protection provided by the CVC glove is equal to the protection provided by the flyer's glove.

Back orders for the flyer's glove will be filled immediately with CVC gloves. However, back orders for sizes 10 and 11 cannot be filled with either glove at this time.

Questions concerning the fielding of the CVC glove and its characteristics should be directed to Mr. B. Roberson, USAAVNC DCD, DSN 558-9507/9130 (334-255-9507).

POC: CW5 Daniel W. Medina, U.S. Army Safety Center, DSN 558-9857 (334-255-9857)

Accident briefs

Information based on preliminary reports of aircraft accidents

Aviation flight accidents

Utility

UH-1 Class C

H series - While conducting emergency governor training, IP inadvertently increased throttle and RPM exceeded 7200. Engine and main rotor assembly will be replaced.

UH-60 Class C

A series - During MTF, crew noted tail rotor vibration, landed, installed vibration kit, and continued flight. Following takeoff, tail rotor gearbox caution light illuminated. Tail rotor gearbox seized just before touchdown during precautionary landing. Gearbox and tail rotor assembly sustained excessive damage.

UH-60 Class D

L series - Following multiship air assault live fire demonstration, postflight inspection revealed four main rotor blades had sustained damage from striking top screws on ALQ-144.

L series - While crossing ridgeline, tail wheel and fork struck ground.

L series - While performing NVS nose-up slope operations, extended searchlight sustained damage.

Attack

AH-1 Class A

F series - While crossing ridgeline at 9,300 feet MSL, Chalk 1 in flight of four encountered cloud layer. Crew executed abrupt decelerating right turn. Chalk 2 crew attempted to follow, and aircraft impacted slope in level attitude and rolled. No injuries.

AH-64 Class C

A series - Postflight inspection following MTF for rotor smoothing revealed hole on bottom of main rotor blade. Bolt on drive plate had sheared; head of bolt was missing.

Observation

OH-58 Class B

D series - While on downwind leg of traffic pattern, IP initiated simulated engine failure. Engine failed to respond to power recovery, and aircraft impacted in field. Tail boom, main rotor assembly, and WSPS separated. No injuries.

OH-58 Class C

A series - While hovering over ridgeline during battalion battle drill, aircraft main rotor blades struck trees. When PC applied power, aircraft yawed and tail rotor also struck trees. Crew immediately landed in open area. Aircraft sustained damage to rotors and drive train.

OH-58 Class D

A series - IP was demonstrating low-level autorotation and initiated recovery procedures, but aircraft impacted lane hard in level attitude. Aircraft sustained broken crosstube and damage to tail boom and isolation mount.

D series - During takeoff from tactical FARP on live fire exercise with 700 pounds of fuel, 7 rockets, and 1 Hellfire missile, pilot on controls in right seat noted high torque (107 percent) caution audio and display on the multifunction display. Pilot reduced collective below 100 percent and continued gunnery live fire exercise, recording 1.5 hours of flight. At termination during engine monitor check, crew noted engine torque had registered high of 126 percent. Accessory gearbox was removed and sent for teardown analysis.

D series - While conducting simulated engine failure at altitude, pilot allowed deceleration to become abrupt and descent became vertical. Rotor drooped to about 92 percent. During initial collective application, aircraft continued to descend until skids contacted ground, spreading aft crosstubes.

FOD incident

AH-1 Class F

F series - Maintenance removed aircraft engine to complete 150-hour CPM and reinstalled N2 accessory gearbox over red plastic cap on oil feed line. At flight idle during postphase runup, chip light illuminated. Engine oil pressure began to decrease, engine oil bypass light illuminated, and engine oil temperature began to increase. During shutdown, large white puff of smoke was observed coming from engine exhaust pipe. Maintenance removed engine and sent it to AVIM for replacement of No. 2, 3, and 4 bearing seals. AVIM completed work and stored engine for future use. Engine oil system was drained. Engine was later installed in another aircraft. On initial runup, engine chip light illuminated. Maintenance drained engine oil system, flushed it, and did second runup. Engine chip light illuminated again. Maintenance took engine oil samples and results were normal. During ground run of engine, engine chip light again activated. Engine was sent to AVIM for evaluation. When N2 gearbox was removed, remnants of plastic cap were discovered. Engine shipped to depot for repair.

Messages

■ Safety-of-flight technical message concerning tail rotor head assembly installation inspection on all AH-64 aircraft (AH-64-95-01, 212344Z Jun 95). Summary: A recent AH-64A mishap investigation revealed the presence of an improperly installed (incorrectly indexed) tail rotor fork assembly. The interface between the tail rotor fork (curvic coupling) and the gearbox output shaft was so designed that it should only be installed one way. The studs are in a triangular pattern but not equally spaced (that is, 115 degrees, 120 degrees, and 125 degrees of separation). An anomaly that allows the curvic coupling and fork assembly to be incorrectly indexed during installation was discovered with this design. If incorrectly indexed, binding of the studs occurs, stress levels increase, and the fatigue life of the studs is greatly reduced. Improper installation of the fork could lead to failure of the tail rotor. The purpose of this message is to direct a one-time inspection of the—

- Three tail rotor gearbox output shaft stud nuts for torque. If any of the nuts have lost torque IAW paragraph 8A of this message, all three studs must be replaced at OLR sites prior to the next flight.
- Tail rotor fork assembly alignment to ensure it is properly indexed and has never been incorrectly indexed in past installations.
- Condition of the tail rotor gearbox output shaft studs. Contact: Mr. Brad Meyer, DSN 693-2085 (314-263-2085).

■ Aviation safety action maintenance mandatory message concerning inspection of engine bipod mount assembly on all UH-1H/V series aircraft (UH-1-94-ASAM-04, 121236Z Jul 95). Summary: The aft leg of an engine bipod mount has failed due to corrosion and operational vibration. The corrosion initiated in the area beneath the clamp that attaches the brace to the aft tube. The clamp may not have been tight and movement/vibration occurred, wearing off the protective coating (paint) on the tube. The area under the clamp is not normally inspected during routine maintenance. Due to the age of the UH-1 fleet, it is likely that other bipod assemblies may also exhibit this problem. The purpose of this message is to require a one-time inspection of the engine bipod mount for damage and corrosion. Contact: Mr. Jim Wilkins, DSN 693-2258 (314-263-2258).

■ Aviation safety action maintenance mandatory message concerning inspection of stabilizer bar pivot bolt on all UH-1H/V series

aircraft (UH-1-95-ASAM-05, 121257Z Jul 95). Summary: A stabilizer bar center frame pivot bolt has been found cracked on a UH-1 aircraft. Investigation of the crack revealed it to be a manufacturing defect or a quench crack. The crack was visible with the naked eye and extended over halfway across the face of the head, across the wrenching flat, down the back side of the head to the shank, and the length of the shank into the threads. There is a possibility that other bolts manufactured by this particular manufacturer may exhibit this defect. The purpose of this message is to require a one-time inspection of the stabilizer bar assembly center frame pivot bolt for cracks. Contact: Mr. Jim Wilkins, DSN 693-2258 (314-263-2258).

■ Aviation safety action maintenance mandatory message concerning one-time inspection for cracked main transmission beams, upper deck skin cracks, frame cracks, and implementation of a 100-hour recurring inspection for all H-60 Black Hawk helicopters (UH-60-95-ASAM-06, 201716Z Jun 95). Summary: Several H-60 helicopters have experienced cracks in the right and left side main transmission support beams. The cracks initiate fore and aft of the main transmission mount pad and progress down through the web and along the top skin outboard of the beam. Cracks have been found on the upper deck skin in the vicinity of the Gusset doublers and web stiffener that splices both station 343 frames to the left and right side transmission beams. Cracks have also been found on the aft beam (station 360 frame) upper cap and the Gusset doubler that splices the frame to the rear upper deck. These cracks initiate aft of the main transmission mount pad and run parallel to the beam in the cap area and the Gusset doubler. The purpose of this message is to require units to perform a one-time inspection for cracks and incorporate a recurring 100-hour special inspection. Contact: Mr. Lyell Myers, DSN 693-2438 (314-263-2438).

■ Aviation safety action maintenance mandatory and informational message concerning revised replacement criteria for troop/gunner seat attenuation wires and explicit shimming procedures for attenuator rollers on all H-60 series aircraft (UH-60-95-ASAM-07, 222650Z Jul 95). Summary: Deficiency reports have cited failed troop/gunner seat attenuation wires and unrotatable troop/gunner seat wire rollers due to excessively tightened retention bolts and galvanic corrosion. The purpose of this message is to revise the damage and replacement criteria for troop/gunner seat attenuation wires and revise attaching procedures for the ICS cable routing on Simula/Norton pilot/copilot crew seats. The purpose of the message is also to require units to add crescent bushings under all the upper attenuation wire radii and ensure that the attenuation wire roller assemblies have the required freedom of movement. Contact: Mr. Lyell Myers, DSN 693-2438 (314-263-2438).

■ Aviation safety action maintenance mandatory message for all AH-1 aircraft modified in accordance with MWO 55-1520-244-50-9: Inspection Criteria for Main Rotor Pitch Change Link Rod End Bearing, Including Manual Changes (AH-1-95-ASAM-04, 131750Z Jun 95). Summary: Recent reports from the field indicate a higher than normal rejection rate for rod end bearing, P/N 209-310-401-101. This problem is further aggravated by the lack of suitable inspection/replacement criteria. The purpose of this message is to establish a 25-hour recurring inspection for the improved pitch link elastomeric rod end bearing and provide advance notification of a publication change for the improved pitch link bearing. Contact: Mr. Lyell Myers, DSN 693-2438 (314-263-2438).

■ Aviation safety action maintenance mandatory message concerning faulty fire pull handle assembly switches on specific AH-64A aircraft (AH-64-95-ASAM-04, 071357Z Jul 95). Summary: A product alert issued by the manufacturer of the fire pull handle assembly indicates there is a discrepant lot of microswitches found in certain AH-64A fire pull handle assemblies. The discrepant microswitches, which must be replaced, are found in auxiliary power unit (APU) No. 1 and No. 2 engine fire pull handle assemblies of newer aircraft. The purpose of this message is to require inspection of fire pull handle assemblies and replacement of microswitches as necessary. Contact: Mr. Jim Wilkins, DSN 693-2258 (314-263-2258).

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

In this issue:

- There's a what in the cockpit?
- Making the right decision
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- Aviation vibration analyzer upgrades
- Flyer's gloves

Class A Accidents through July

		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	3	5	0
	August	1		0	
	September	1		0	
	TOTAL	21	10	11	8

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S. W. Hyatt

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Colonel, USA
Acting Commander
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