FlightFax

REPORT of ARMY AIRCRAFT ACCIDENTS
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Commanders face hard choices in selecting the types and amounts of ATC services and equipment maintenance that can be provided with dwindling resources. Ensuring the emphasis remains on safety requires the effective application of risk-management techniques.

ATC—keeping the emphasis on safety

The downsizing of the Army continues, and the effect it is having on air traffic control (ATC) services and ATC equipment maintenance is becoming more apparent. With the elimination of aviation units and assets, the Army leadership at affected installations and airfields must seriously review ATC operations and maintenance requirements to ensure that adequate services are provided to remaining units and that those required services can be provided with shrinking resources.

The common thread that runs through the entire resource issue is aviation safety. For years, the aviation community has often taken ATC services for granted and considered those services a "right." Just like everyone else in today's Army, the ATC community is suffering from dollar and personnel shortages and cutbacks and streamlining of services has become inevitable. While resource issues are often beyond their immediate control, commanders are still responsible for ensuring that ATC services and equipment maintenance remain at sufficient levels to ensure safe operations.

We must remember that pilots are betting their lives that information they receive from the NAVAID is accurate.

ARMS evaluations for ATC assets

The U.S. Army Air Traffic Control Activity (USAATCA) serves as a member of the Aviation branch aviation resource management survey (ARMS) team. The USAATCA ARMS team also augments MACOM ARMS teams and assesses ATC services and ATC equipment maintenance worldwide. The USAATCA ARMS team normally consists of a team chief (usually a chief warrant officer, W-5), a seasoned fixed wing pilot, two senior MOS 93D (Senior Flight Inspection Technician) noncommissioned officers (NCOs), and one senior MOS 93C (Air Traffic Control Senior Sergeant) NCO.

The ARMS evaluations for ATC assets are now running on about a 2-year cycle. As evidenced by the following observations from recent ARMS evaluations, it is obvious that ATC chiefs and airfield commanders need to closely monitor ATC services and equipment maintenance to ensure cutbacks do not adversely affect safety.

■ *ATC services*. Downsizing and limited resources have resulted in a reduction in operating hours, use of less-experienced personnel, and minimum staffing levels at a large number of airfields and installations.

• *Reduced hours of operation*. Elimination or reduction in ATC services may leave airfields without some of the additional or desired safety buffers that are normally provided for flight operations. Provision of ATC services is no longer economically feasible at every installation or airfield. This makes it necessary for commanders to find different and possibly less-effective means of ensuring safe operations. For example, part-time towers and flight-following facilities are becoming more common.

• *Less-experienced personnel*. The experience level of the personnel providing ATC services and maintenance is also changing. Personnel are having to assume more responsibility earlier in their careers than they normally would. We are now assigning less-experienced personnel to positions that would normally be filled by seasoned noncommissioned officers. When this becomes necessary, we must be careful not to put soldiers in situations that require more experience than they have. Supervision and leadership are more essential now than ever before and are critical to ensure that the highest quality of services we can afford continues to be provided.

• *Minimum staffing requirements*. Staffing levels for shift requirements have been reduced to the bare minimum, and in some cases, waivers have been granted to operate at below-minimum shift requirements. Before a waiver is approved, all requirements and operational considerations are reviewed extensively by the waiver authority. If the waiver is granted, operations under the requested parameters are deemed safe—but at the lowest level of safety.

■ *Equipment maintenance*. ATC equipment maintenance is suffering as the ever-shrinking budget continues to impact operations. Airfields and navigational aids (NAVAIDS) are expensive to operate and maintain. Replacement parts and maintenance of high-dollar items are relatively easy victims of budget reductions. Additionally, effects of these reductions on ATC equipment may not be readily noticeable, thus leading to a false sense of security.

• *Lack of equipment maintenance technicians*. One major installation with two instrument flight rules (IFR) airfields that are 45 minutes apart and normally require at least four ATC equipment maintenance technicians has had only two for the past year. These technicians work on multiple NAVAIDS that utilize high voltage. For safety reasons as stated in TB 385-4, these NAVAIDS cannot be worked on by one person. To those who are knowledgeable of ATC maintenance procedures, it is obvious that doing so would compromise safe operations.

The most dangerous aspect of operating under these conditions is that after a while people begin to accept the elevated level of risk. They presume that there simply isn't enough time or people available to allow the procedure to

be performed at an optimum level of safety. In other words, accepting more risk becomes routine. To avoid this kind of thinking, we must stress and continually reinforce the idea that self-discipline to resist shortcuts and perform by-the-book procedures is absolutely vital to safe operations.

• *Contractor maintenance.* At some airfields, the Army has begun using contractors as a more cost-effective method of maintaining ATC equipment. This may be one solution, but the installation must effectively monitor contractors to ensure Army standards are maintained.

Another major installation with an IFR airfield that utilized contractor maintenance did not renew the maintenance contract. The installation went approximately 90 days without basic ATC equipment maintenance performed by qualified maintenance technicians—hardly an acceptable practice.

• *NAVAID maintenance.* At some airfields, NAVAIDS are often out of service for as much as 24 hours and in some cases for extended periods of 6 to 9 months due to a lack of parts or qualified personnel to repair and maintain them.

Commanders must take an active interest in the status of their airfields and NAVAIDS. If the chain of command decides that it cannot afford NAVAID maintenance, then the NAVAID should be taken out of service rather than allowing it to remain in service and not be maintained in accordance with DA and Federal Aviation Administration regulations. It would be better not to have the NAVAID on the air than to have it providing erroneous information. If someone assumes something based on false data (or no data at all), the situation can quickly become critical. We must remember that pilots are betting their lives that information they receive from the NAVAID is accurate. A decision to delay or forego maintenance on NAVAIDS should certainly be considered high risk.

These are just a few examples of the problems that face the ATC community as we deal with current changes and reductions in assets. The potential to focus our attention on dwindling resources and away from our day-to-day operational business remains high. But we cannot allow that to happen. Don't let frustration over changes and reduced resources cloud your judgment and distract your concentration from the immediate task at hand. We must be vigilant and work even harder to ensure risks are identified and properly assessed and that commanders know and understand the consequences of accepting certain levels of risks.

Commanders have a special responsibility—especially during these changing times—to monitor people on the move, people working different assignments, people doing a new job, and people trying to do the same good job with fewer resources. Effective use of risk-management principles is key to making smart risk decisions that will help us get the most out of limited resources and continue to provide the quality of service that our aircrewmembers deserve. Without question, commanders face difficult choices. But applying the principles of risk management intelligently will in most instances lead to smart risk decisions.

Commanders are ultimately responsible and accountable for ensuring safe operations, but it isn't all on their shoulders. It is critical that each of us takes the extra minute to do our jobs as safely as possible the first time. Regardless of whether we are the air traffic controller, the equipment maintenance technician, or the aviator flying the aircraft, safety has to be a full-time, conscientious effort on everyone's part for it to work effectively. Only quality soldiers and civilians can make it all work.

While the ATC community has enjoyed and continues to enjoy an admirable safety record and an unblemished reputation of excellent service to the aviation community, extreme care must be given to all areas of ATC services and equipment maintenance to ensure that our plan for continued success will be based on excellent leadership, effective risk management, and thoughtful allocation of assets rather than a hope for good fortune.

POCs: CW5 Gregory Waltz, MSG Kenneth Roman, CW3 Dana O'Meara, MSG Eddie Spivey, and SSG Steven Haag USAATCA ARMS team members, DSN 558-9067 (334-255-9067)

The most dangerous aspect of operating under these conditions is that accepting more risk becomes routine.

Selecting an alternate airfield

AR 95-1: Aviation Flight Regulations requires Army aviators to check certain items in the DOD FLIP before filing an IFR flight plan. One of the requirements for determining whether an airfield can be used as an alternate is to check and make sure that there is controlled airspace to the surface (the old control zone).

Currently, there is no reference in the DOD FLIP to determine whether a part-time Class C or Class D surface area reverts to Class E or G airspace. The NOAA Airport/Facility Directory contains this information for civil airfields. But how do Army units in the field obtain this information?

Presently, this problem is being worked in two ways. When issued, the updated AR 95-1 will require that an alternate airport have a weather reporting capability, have an approved altimeter setting available, and the NAVAID be monitored.

The control zone requirement will be eliminated in the new AR 95-1. Additionally, the joint services FLIP Coordinating Committee (FCC) has recommended that the Defense Mapping Agency include the class of airspace and any changes to airspace in the remarks section for each airfield in the DOD FLIP En Route Supplement. (At its 27 February - 2 March 1995 meeting, the FLIP FCC agreed to the placement of airspace classification in the en route supplement when the airspace is *part-time* and reverts to *other than the next lower level*.) Although not needed for selecting an alternate airfield, knowing the airspace classification is essential for safe operations.

—Adapted from Army Aviation Flight Information Bulletin, February/March 1995 Issue

Read the label!

I stopped by the clothing sales store the other day to pick up a few items I needed. After browsing through the store and speaking with a few acquaintances, I gathered my selections and moved to the checkout line. As the customer in front of me placed her purchases on the counter, I was casually glancing at the items I was holding to make a general assessment of their cost when I noticed the label on the package of socks I had selected. I was shocked to find that they were made of 60 percent polyester and 40 percent cotton.

As an aviator and a safety officer, I understand the dangers of wearing nylon and nonfire-resistant or -retardant clothing that propagates injury in an aircraft mishap involving fire. I read the February 1995 *FlightFax* article entitled, "You're on fire! Get out, get out, GET OUT!!!" and have spoken to the pilot-in-command of that Apache on numerous occasions, so I'm very sensitive to the need to wear proper clothing when performing flight duties.

Concerned, I got out of the checkout line and began shopping anew. The first thing I noticed was that right next to the package of socks I had selected was an identical package, but the socks were made of cotton, an all natural fiber. I was amazed that I had so easily selected the wrong package—all because I hadn't "read the label." Had I bothered looking at the label, I clearly would not have made the initial selection.

I became curious at this point and began looking at other articles in the store to see if aviation personnel could purchase necessary items of clothing and not violate AR 95-1, paragraph 3-11(5). I looked at all the garments in the store and found that aviators, crewmembers, and noncrewmembers can, in fact, purchase the appropriate clothing when replacing old or worn items. The key is to ensure that each item purchased is made of cotton, wool, or Nomex. But you can only determine this by reading the label. From undershirts to socks to long johns, there were always more items available that were made out of polypropylene, nylon, Dacron, or acrylic than there were of items made of cotton or wool, but the cotton or wool items were there if you looked for them.

Common sense also tells us that knowingly wearing nonprescribed clothing cheats no one but ourselves. Our contemporaries who have survived postcrash fires attest to the merits of wearing clothing prescribed in AR 95-1. (If you haven't already, I recommend that you read the article previously mentioned.) I think of the ill-fated Apache crew and the account of their accident often. I am convinced, and I know that the Apache crew would agree, that wearing the correct clothing is imperative even if it means that we must now take the time to **read the label**.

I guess protecting your health by reading the label doesn't apply only to purchases made at the grocery store anymore. We in the aviation community must also be prudent shoppers and purchase only those items prescribed for us, such as all-leather boots and cotton or wool undergarments. Make sure you're buying authorized items; it could be well worth the small amount of time you'll have to invest in reading the label.

POC: CW5 Joel J. Volsine, Aviation Life Support Equipment Retrieval Program Manager, U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL, DSN 558-6895 (334-255-6895)

Amber visors

Theirs-is-better misperception

"Why can't I wear an amber visor on my flight helmet? It's much better than the smoke-colored visor the Army issues! A friend of mine in the Navy gave it to me, and if the Navy issues it, it has to be good."

I received this question and challenge from an aviator who attended an ALSE presentation I gave last fall. I answered the question at the time, but since then the subject has come up again on numerous occasions. Therefore, I feel an explanation is in order to dispel the apparently *misguided perception* that because the Air Force, Navy, or another service has tested and issued a certain item, it must be better than anything the Army has.

All too often we look at our sister services and think that they have an edge on the Army and its ability to field new equipment. We automatically assume that another service's equipment is the answer to our "problems." Each service tests aviation life support equipment to determine its ability to complement the accomplishment of their particular mission. The Navy may find that the amber visor is superior for their pilots to wear while performing overwater operations given their cockpit lighting system.

Army mission-compatible visors

The Army, however, has different concerns, including accomplishing missions over land in environments that range from snow to desert operations and in cockpits configured for night vision device (NVD) compatibility. Army visors must not distort the colors we use while performing tactical and nontactical missions.

The Army's smoke-colored and clear visors have been tested in all those environments and meet test specifications. Both visors are made of a shatter-resistant polycarbonate material that provides 100 percent and approximately 96 percent ultraviolet (UV) protection respectively, and both visors have been tested for compatibility with NVD cockpit lighting and color distortion. Laboratory tests have determined that the clear and smoke color of the visor will not interfere with the identification of light emitted from cockpit instrumentation nor will the particular shade distort the color emitted from field markers such as smoke grenades. The amber visor used by the Navy has not been tested for this type of compatibility.

Do not succumb to personal preferences

In many cases, personal preference gets in the way of sound judgment and we elect to wear equipment because we perceive that it's better. Visual acuity tests on amber versus smoke-colored visors do not indicate that the amber visor improves the individual's ability to see items brought into the field of view any better than does the smoke-colored visor.

It comes down to personal preference versus viability. Until the Army tests the amber visor for compatibility, it's foolish to wear it and possibly endanger yourself and your crew. What if you were unable to see a particular segment light due to distortion from the amber-colored visor and were too late interpreting the emergency and applying corrective action to prevent an otherwise avoidable accident? What if you led a flight through a gun target line in an attempt to land to the wrong smoke and endangered the entire flight? Is it worth it? Whatever your personal preferences may be, be safe and stay with the Army-issue visors.

Questions about ALSE

The U.S. Army Aeromedical Research Laboratory (USAARL) is one member of the widely diversified testing community. We communicate with program managers and other DOD and non-DOD laboratories daily. Should you have any questions on the applicability of any piece of ALSE and cannot find resolution through normal command channels, feel free to call us. We'll either give you an answer or provide you with an appropriate point of contact who can address your concerns.

POCs: CW5 Joel J. Voisine or Mr. Joseph R. Licina, Aviation Life Support Equipment Retrieval Program Managers, USAARL, Fort Rucker, AL, DSN 558-6895/6893, (334-255-6895/6893)

Aviation battle dress uniform

According to a message issued by DA on 4 April 1995, the two-piece aviation battle dress uniform (ABDU) is authorized for wear by all flight crew personnel on flight status. The ABDU will be worn on duty when flying, on standby awaiting flight, when performing any related missions, or as directed by the commander. The ABDU is not authorized for travel or wear off military installations except in transit between the individual's quarters and duty station. See paragraph 2-6c of AR 670-1: Wear and Appearance of Army Uniforms and Insignia for exceptions to this policy.

Basic uniform

The organizational flight uniform is for use by flight crews as prescribed in Common Table of Allowances (CTA) 50-900: Clothing and Individual Equipment. These uniforms are designed to be loose fitting. Alterations to make the uniforms form fitting are not authorized.

■ ***ABDU blouse***. The ABDU blouse will be worn outside the trousers for all duties including flight. The ABDU blouse will not extend below the top of the cargo pocket on the trousers and will not be any higher than the bottom of the side pockets on the trousers.

When sleeves are rolled up, the camouflage pattern will remain exposed (BDU style). When rolled up, the sleeves will be above the elbow but no more than 3 inches above the elbow.

■ ***ABDU trousers***. The ABDU trousers will be worn with the standard black cotton web belt. During the execution of flight crew duties, the trousers will not be bloused into the boots. When bloused (while in a garrison environment), trouser legs will not be wrapped around the leg so tight as to present a pegged appearance.

Note: The ABDU will not be pressed or starched.

■ ***BDU cap***. The BDU cap is the basic headgear for the ABDU. The BDU cap will be worn straight on the head so that the cap band creates a straight line around the head parallel to the ground. The cap will be worn so that no hair will be visible on the forehead. At the discretion of the individual, the earflaps may be worn down during cold weather except when in formation. When in formation, the commander may prescribe wear policy. The cap will not be blocked or rolled. Personnel authorized to wear organizational berets or other organizational headgear may wear such headgear in lieu of the BDU cap.

Commissioned and warrant officers will wear nonsubdued insignia of grade on the BDU cap and organizational berets in a garrison environment. Subdued insignia of grade will be worn on all headgear in a field environment. Enlisted personnel wear subdued insignia of grade on the BDU cap and unit crests on organizational berets.

■ ***Black leather combat boot and insulated boot***. The black leather combat boot and the black leather insulated boot (when authorized according to CTA 50-900) are the authorized footwear for wear with the flight uniform. Jungle boots and high-tech boots are not authorized for wear with the ABDU.

■ ***Black leather shell gloves***. Black leather shell gloves may be worn with the ABDU when not performing crew duties. Without cold-weather outer garments, sleeves must be rolled down and over the tops of the gloves.

■ ***Flight jackets***. Flight jackets will only be worn with the organizational flight uniform. The Defense Personnel Support Center (DPSC) is currently fielding the ABDU without the companion ABDU flight jacket. The ABDU flight jacket will be fielded as a component of the aviation cold-weather clothing system in January 1996.

The U.S. Army Safety Center and user community recognize the continued requirement for fire-resistant alternative clothing items for wear in lieu of the ABDU jacket. Until fielding of the ABDU flight jacket in FY 96, the ABDU jacket alternatives in order of increasing risk are as follows:

- Combinations of the items listed below.
- Current sage green Nomex flight jacket.
- Sweater, wool, worn under ABDU.
- Undershirt, cotton, worn under ABDU.

■ ***Black all-weather coat***. When organizational rain gear has not been issued, the black all-weather coat may be worn as a raincoat with the ABDU in a garrison environment but not during flight operations. Coats will be worn buttoned and zipped.

■ ***Solid-colored baseball caps***. Local commanders may authorize the wearing of solid-colored baseball caps (when authorized per CTA 50-900) by aircraft and ground crewmembers as a safety and identification measure while on the flight line or in the base operations area. Standard headgear will be worn outside these areas. The caps will be provided at no expense to the individual.

Commanders may authorize other uniforms for wear during administrative flights after performing a proper risk assessment.

Insignia and accouterments

The following insignia and accouterments are authorized for wear on the ABDU:

■ Badges (subdued).
- Combat and special skill badges.
- Special skill tabs.
- Subdued identification badges.

■ Branch insignia.

■ Combat leader's identification.

■ Grade insignia.

■ Headgear insignia.

■ Subdued shoulder sleeve insignia, current organization.

■ Subdued shoulder sleeve insignia, former wartime service.

■ Name and U.S. Army distinguishing tapes.

Foreign badges, distinctive unit insignia, and regiment distinctive insignia will not be worn on the ABDU.

All insignia and accouterments worn on the ABDU must be embroidered only.

Accessories

The following accessories are normally worn with the ABDU:

■ Belt, web with open-faced black buckle.

■ Boots, combat leather, black.

■ Headgear.
- Cap, BDU.
- Berets, organizational.

■ Scarf, olive green 208.

■ Socks, olive green/black cushion sole.

■ Undergarments.

■ Undershirt, brown.

■ Organizational clothing and equipment as determined by the commander per CTA 50-900.

■ Gloves, flyers, LIN J67052, CTA 50-900.

■ Wool sweater.

■ Aviation cold-weather clothing system jacket is currently the authorized jacket for the ABDU when performing flight crew duties.

The above information extracted from the recent DA message on the ABDU will appear in the next update of AR 670-1.

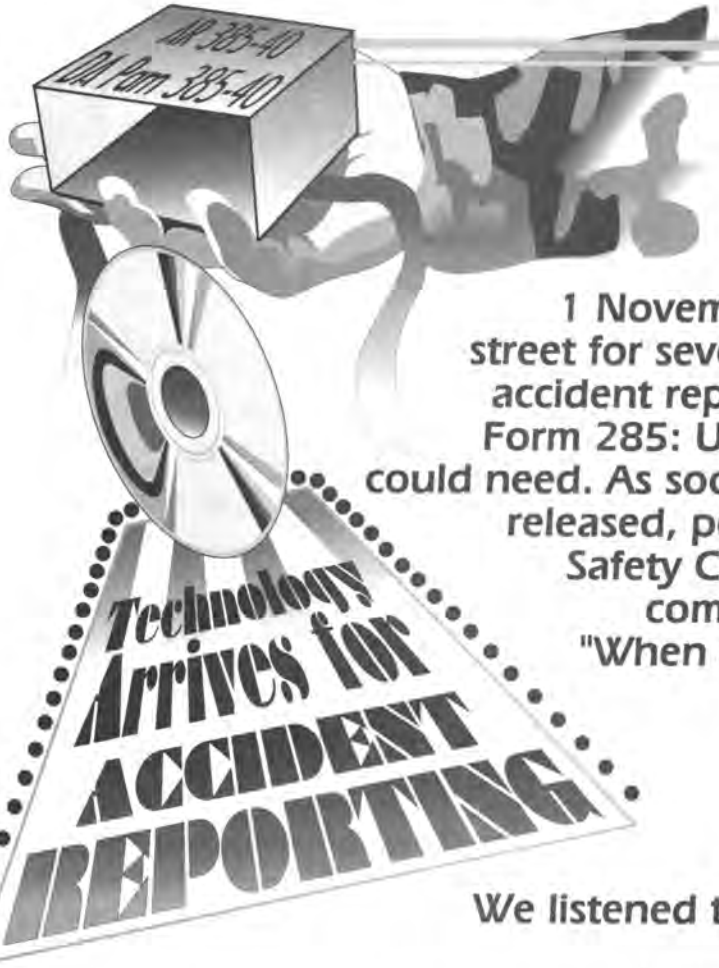
Suggested improvements and questions about fielding should be directed to the U. S. Army Aviation Center's Logistics and Soldier Systems Division, Fort Rucker, AL, DSN 558-9130/9507, FAX 558-2916/1008.

POC: SGM Johnnie E. Walters, Office of the Deputy Chief of Staff for Personnel, DSN 225-6361 (703-695-6361)

Aircrew training manual revisions

TC 1-214: Aircrew Training Manual, AH-64 and TC 1-216: Aircrew Training Manual, CH-47 are the next training circulars scheduled for revision. All AH-64 aviators and CH-47 crewmembers are asked to review their current manuals and submit proposed changes, comments, questions, or suggestions to Commander, U.S. Army Aviation Center, ATTN: ATZQ-ATB-NS (ATM Section), Fort Rucker, AL 36362-5218. To be included in the next coordinating draft of each manual, suggested changes should be submitted by 9 August 1995 for AH-64 users and by 15 November 1995 for CH-47 users.

POC: CW4 William S. Johnson, Chief, ATM Section, DSN 558-3801/2864 (334-255-3801/2864), E-mail ATZQATBATM@Rucker-EMH4.ARMY.MIL, FAX DSN 558-2463



The new AR 385-40: Accident Reporting and Records and DA Pam 385-40: Army Accident Investigation and Reporting, both dated 1 November 1994, have now been on the street for several months and contain all of the accident reporting forms (except the basic DA Form 285: U.S. Army Accident Report) anyone could need. As soon as these two publications were released, people began calling the U.S. Army Safety Center (USASC) with questions and comments. One recurring question is, "When are you going to put the accident reporting forms into a computer software format?"

We listened to your questions and comments.

In January 1995, we requested that the U.S. Army Printing and Publications Command (USAPPC) computerize all of the safety forms contained in AR 385-10: The Army Safety Program, AR 385-40, and DA Pam 385-40.

In June 1995, the following Army accident reporting forms will be available on CD-ROM:

- DA Form 285-AB-R: Abbreviated Ground Accident Report.
- DA Form 285-O-R: Statement of Reviewing Officials.
- DA Form 2397-AB-R: Abbreviated Aviation Accident Report. (The USASC has asked USAPPC to add this form to the initial list of forms that will be included on the June 1995 CD-ROM. Hopefully, the request has been made in sufficient time to allow contractor completion of required work to accomplish this.)
- DA Form 2397-R: Technical Report of U.S. Army Aircraft Accident, Part I—Statement of Reviewing Officials.
- DA Form 2397-3-R: Technical Report of U.S. Army Aircraft Accident, Part IV—Narrative.
- DA Form 2397-4-R: Technical Report of U.S. Army Aircraft Accident, Part V—Summary of Witness Interview.
- DA Form 2397-13-R: Technical Report of U.S. Army Aircraft Accident, Index A.
- DA Form 2397-14-R: Technical Report of U.S. Army Aircraft Accident, Index B.

According to USAPPC, you should ask your publications/forms officer to order the CD-ROM through the normal publication channels. When requesting this item, refer to DA Form 12-04, Block 0661 (this form may have to be ordered on the DA Form 1299-R by your forms officer). "CDROM" is the unit of issue. You also have to state the quantity requested. The Army safety forms are not the only forms on the CD-ROM. However, because all of the forms on the CD-ROM are official forms, there is no need to worry about copyright protection.

Hardware requirements

Use of the CD-ROM requires a personal computer (386 or higher); MS-WINDOWS 3.1; 4MB of RAM; HP II- or HP III-compatible laser printer; and the right software. A CD-ROM reader is also necessary.

Software requirements

These electronic forms can be used in GEM, PerForm, or FormFlow software as long as the users have the appropriate "filler" software. FormFlow filler software is currently available from the U.S. Navy standard desktop computer "companion" contract. The single-user price for the FormFlow filler software under CLIN 0845AB is $75.00. Site licenses for up to 1,000 users are also available. For "companion" contract information, call GTSI at 1-800-968-7384.

Currently, the Army Safety Center is working to allow electronic transmission of the completed abbreviated forms (DA Form 285-AB-R and DA Form 2397-AB-R) from the unit to the Army Safety Center.

POC: Mr. Lee McCown, USASC, DSN 558-3913 (334-255-3913), FAX DSN 558-9478 (334-255-9478)

Broken Wing awards

The Broken Wing award is given in recognition of aircrewmembers who demonstrate a high degree of professional skill while actually recovering an aircraft from an in-flight failure or malfunction necessitating an emergency landing. Requirements for the award are spelled out in AR 672-74: Army Accident Prevention Awards Program.

■ **CW3 Eric D. Fremming, Company D, 1st Battalion, 14th Aviation Regiment, Aviation Training Brigade, Fort Rucker.** During an AH-64 instructor pilot night systems training flight, the student was performing method of instruction. At about 110 feet above the highest obstacle, the student retarded the No. 2 power lever to idle to demonstrate a simulated single-engine failure and CW3 Fremming heard a loud noise from the No. 1 engine. Engine instruments indicated an engine failure had occurred on the No. 1 engine, and the No. 2 engine power lever was still at idle. The power turbine section of both engines and the rotor system were below 94 percent, and all gauges were in the red, accompanied by a low-RPM audio and an engine-out audio. Realizing that the aircraft's generators would shut down if the rotor RPM went below 89 percent and all electrical systems would fail including the night vision system, CW3 Fremming took the controls, pushed the power lever to fly, applied forward cyclic, and reduced the collective to regain rotor RPM. CW3 Fremming recovered the aircraft into forward flight after a 100-foot altitude loss. The aircraft cleared treetops by about 10 feet. The crew completed an emergency call and a successful roll-on landing. Inspection revealed failure of the No. 1 engine gas generator rotor.

■ **CPT Curt S. Cooper, 1st Battalion, 212th Aviation Regiment, Aviation Training Brigade, Fort Rucker.** CPT Cooper was conducting combat skills (tactics) training with two IERW students on board the UH-1H. As the crew arrived at the landing zone, CPT Cooper directed the student on the controls to execute a left downwind at 70 knots and about 100 feet AGL and to prepare for a 290-degree landing while conducting a high area reconnaissance of the confined area. On downwind, CPT Cooper evaluated the winds to be about 270 degrees at 10 to 15 knots. At 70 knots and 100 feet AGL, the student initiated his terrain flight approach to the right side of the landing zone. As the student began to slow the aircraft to 40 to 50 knots, CPT Cooper noticed that he had poor heading control. The student maintained a 310-degree heading on the approach (a right yaw accompanied with a left sideslip). Noticing the approach was out of standard, CPT Cooper began to verbally correct the student by explaining left pedal input was needed to correct for heading control. The heading of the aircraft remained 20 degrees off the landing direction. At 15 to 30 knots and 7 to 10 feet AGL, the aircraft began to turn left. CPT Cooper relaxed, noticing that the student was applying a correction. He then noticed that his student appeared unsettled. Suddenly, the aircraft began to yaw violently to the right at a rate of about 90 degrees per second. As the turn progressed, the student immediately announced that the pedals of the aircraft were stuck. At 7 to 10 feet AGL and with 5 to 10 knots of forward airspeed, CPT Cooper took the flight controls as the aircraft entered an uncontrolled right spin. Immediately after coming on the controls, CPT Cooper determined that the pedals were indeed stuck and the aircraft heading control could not be maintained. At that point, the aircraft had already turned 90 degrees to the right from the original heading and the spin became more violent (more than 90 degrees per second). As the aircraft continued forward and in a right spin, CPT Cooper reduced the throttle to the engine idle stop in an attempt to retard the violent spin. The aircraft was approaching 15 to 20 feet from bordering trees that surrounded the landing zone. CPT Cooper applied aft cyclic in order to dissipate the forward movement and prevent the aircraft from experiencing dynamic rollover when ground contact was made. The throttle reduction slowed the spin, and the aircraft began to settle from 7 to 10 feet AGL. CPT Cooper applied collective at about 3 feet AGL, which arrested the spin of the aircraft, and applied additional aft cyclic to stop the forward motion. CPT Cooper landed the aircraft on a final heading of 310 degrees about 10 feet from the trees with no damage to the aircraft. Maintenance inspection verified a tail rotor malfunction. ❑

Correction to AAAA winners

On 31 January 1995, DA released a message, which was reprinted in *FlightFax*, announcing the 1994 Army Aviation Association of America (AAAA) national award recipients. Unfortunately, the message contained an error in announcing the outstanding aviation unit of the year for the U.S. Army Reserves. DA subsequently rescinded the original message and issued a corrected announcement of the AAAA award winners. *FlightFax* failed to make the correction.

The correct winner of the "Outstanding Aviation Unit of the Year (USAR)" award is the 8th Battalion, 229th Aviation Regiment (Attack) located at Fort Knox, KY, subordinate to the 121st Army Reserve Command, Birmingham, AL. The commander of this unit is LTC James B. Blunk, Jr., and the senior noncommissioned officer is CSM Robert C. Leffel.

Congratulations to the 8th Battalion, 229th Aviation Regiment (Attack), 121st Army Reserve Command for their significant achievements in Army aviation. We apologize for the previous incorrect announcement and failure to recognize this outstanding unit.

—Ms. Jane D. Wise, Writer, FlightFax, DSN 558-3770 (334-255-3770)

U.S. Army FLIP-specific DODAACs

In the near future, the U.S. Army Aeronautical Services Agency (USAASA), Logistical Support Agency, and Defense Mapping Agency (DMA) will implement the use of FLIP-specific DOD Activity Address Codes (DODAACs). These DODAACs will be "**non-requisitioning**" and will be used for the distribution of DMA FLIP products only. Units will continue making product and account address changes through either USAASA or USAASD-E.

DMA will change from using present DMA account numbers to FLIP-specific DODAAC account numbers in phases. Army customers receiving FLIPs should check their packaging and mailing labels for newly assigned FLIP-specific DODAACs and to ensure that mailing addresses are correct. Unit addresses that include post office box numbers should be changed to a building number, street address, or other geographical location to facilitate delivery of FLIP products by parcel post or UPS. As new FLIP-specific DODAACs are assigned, they will be on the cyclical mailing labels.

Units may contact USAASA or USAASD-E for clarification or assistance. This transformation should **not** interrupt the flow of FLIP products to Army units.

—Adapted from Army Aviation Flight Information Bulletin, February/March 1995 issue

Aviators needed

The U.S. Army Aeromedical Research Laboratory (USAARL) at Fort Rucker, AL, needs aviator volunteers immediately to participate in a research study. Volunteers must be active duty, Department of the Army civilian, or contractor rotary wing aviators on current flight status assigned to Fort Rucker and have a minimum of 2 months left on station. The purpose of the study is to compare speech intelligibility performance of three communications headsets in normal and waivered rotary wing aviators in noise.

The SPH-4B helmet will be tested in its standard-issue configuration. A second system will incorporate into the SPH-4B the communications earplug developed at USAARL. This system combines hearing protection with enhanced speech intelligibility and fits comfortably into the ear canal. The third system will include an active noise reduction system mounted into the SPH-4B.

The study is broken down into one 2-hour and one 3-hour test session. All tests will be conducted in the laboratory. There will be two groups of 20 subjects each. One group will be composed of aviators who meet Class II audiometric flight standards (IAW AR 40-501); the other group will comprise aviators who *exceed* Class II standards; that is, aviators on hearing waiver or who are being considered for waiver. The data will help researchers determine which of the communications systems being tested is best suited to the operational environment and will improve in-flight communications.

For further information, contact MAJ John Ribera, USAARL, DSN 558-6823 (314-255-6823). ❑

Don't leave home without $$$$$

Soldiers coming TDY to the Army Safety Center at Fort Rucker, AL, to attend the Aviation Accident Prevention Course and the Small Unit Leader's Force Protection Course should bring adequate money with them or have a government credit card with a personal identification number (PIN). The Fort Rucker Finance and Accounting Office will no longer handle TDY advances.

In addition, enlisted personnel should request advances at the non-space-available rate because of a shortage of bachelor enlisted quarters.

POC: SFC Audrey Sterling, Training Division, DSN 558-2490 (334-255-2490)

Accident briefs

Information based on preliminary reports of aircraft accidents

Aviation flight accidents

Utility

UH-1 Class E

H series - While in cruise flight, N2 accessory drive carrier assembly failed, resulting in loss of governor operation and reduction in engine RPM to about 5000. Pilot entered autorotational descent, landed aircraft with power, and completed shutdown without further incident.

H series - About 30 seconds into MOC runup, aircraft made "thump" sound. Crew chief motioned for pilot to kill engine, and crew completed emergency engine shutdown. Postflight inspection revealed that transmission external oil filter had come apart, draining oil out of transmission. Oil filters on other aircraft were checked and also found to be loose. Category I QDR submitted.

H series - On precision approach, hydraulic control segment and master caution lights illuminated. Pilot on controls determined actual loss of hydraulics as cyclic began to move into right forward quadrant. Crew completed emergency procedures and normal shutdown. Inspection revealed hairline crack in aluminum elbow.

UH-60 Class D

A series - While flying at 250 feet AGL and 50 knots during day recon of NVG single-ship NOE route, aircraft struck set of unmarked wires. Crew completed landing without further incident. Aircraft sustained minimal damage.

L series - Pilot lowered M119 howitzer to ground. Crew chief was giving directions and told pilot "going forward." Pilot understood to "go forward." M119 began to roll, and crew chief released load. M119 came to rest in inverted position with damage to M187 sight mount.

UH-60 Class E

A series - During commander's flight evaluation, aircraft was at 80 knots and 400 feet AGL on downwind when No. 2 engine failed during ECU-lockout operations. Crew continued to airfield and completed shallow roll-on landing without any damage to aircraft. Maintenance evaluation of engine failure is ongoing.

Attack

AH-1 Class C

F series - While at 15-foot hover during power cylinder check, aircraft made uncommanded right yaw. Aircraft climbed, and pilot attempted to return aircraft to 15-foot hover. Watching for uncommanded pedal inputs, MP reacted with left pedal, causing aircraft to settle more rapidly. MP performed hovering autorotation, and aircraft landed hard due to low rotor RPM. Aircraft sustained damage to landing gear and support.

F series - While flying low level during daylight along twisting river route, PC in back seat failed to detect three ½-inch power transmission lines strung across river. Aircraft broke two strands of wire, causing significant damage. PC completed landing without further damage.

AH-64 Class D

A series - Aircraft was lead in flight of two conducting terrain flight along ridgeline for purpose of evaluating trail aircraft's back-seat pilot. Two kilometers after takeoff, lead aircraft struck topmost wire of 110-foot set of high-tension power lines. Wire contacted aircraft above main rotor system on lower portion of air data sensor and subsequently broke due to aircraft's forward progress. Crew immediately performed uneventful approach, landing, and shutdown. Inspection revealed damage to air data sensor and main rotor deice power distribution system.

Cargo

CH-47 Class A

D series - At 140 knots and 1,100 feet AGL during routine maintenance test flight, one of the aft rotor blades contacted the upper cabin area, initiating an in-flight breakup. Five fatalities.

Observation

OH-6 Class C

J series - Flight of two OH-6Js departed airport. After departure, flight lead unsuccessfully attempted to contact trail. Flight lead backtracked and located trail aircraft on hillside. During climb to clear mountain, aircraft had lost rotor RPM and crashed. One injury.

OH-58 Class A

A series - During night qualification training, crew had just finished slope landing in confined area. Student pilot brought aircraft to hover, and it began to drift. Right skid contacted ground, and aircraft rolled right and came to rest on its right side. One fatality.

C series - At about 100 feet AGL, aircraft was participating in multiship mission when it was observed to initiate sudden climb and subsequent descent. Aircraft impacted ground and was consumed by postcrash fire. Two fatalities.

Fixed wing

C-12 Class C

C series - During IFR mission, bird struck left wing of aircraft. Postflight inspection revealed 16-inch by 18-inch hole in aircraft wing.

C-12 Class D

C series - At about 10 feet AGL, pilot reduced remaining power. Aircraft fell through last 10 feet and landed hard in level attitude. Postflight inspection revealed left main gear-down lock plate was bent. Maintenance replaced left main gear actuator and drag brace.

N series - During preflight inspection, crew discovered damage to right lower dipole (mission) antenna. Damage most likely occurred on descent or landing during previous night-mission flight. Suspect damage was caused by bird strike during descent or FOD during landing.

OV-1 Class E

D series - During cruise flight, crew detected smoke and fumes in cockpit. Crew shut down environmental control system, opened air vents, and donned oxygen masks. With heater off, smoke and fumes stopped due to cold temperature at altitude. Crew terminated mission and returned aircraft to base without further incident. Nose cowling insulation panels No. 2, 3, 6, and 24 started smoldering. This was caused by heater blowing against old insulation.

Aviation ground accidents

OH-58 Class A

D series - During hot-refueling attempt of two OH-58D(I) aircraft from UH-60L using "Fathawk" concept, hose nozzle separated from CCR nozzle at one OH-58D fuel port. Pressurized fuel sprayed over OH-58D, ignited, and engulfed aircraft. OH-58D crews conducted emergency engine shutdown procedures and exited their aircraft. Crew started UH-60L and flew it clear of area. One OH-58 was destroyed, and two fuel handlers received minor injuries.

OH-58 Class C

A series - During engine start, TOT began rapid increase after crew pressed start switch. Pilot rotated throttle off and released starter. TOT stabilized at 700°C. Pilot again checked throttle off and pressed starter button to cool engine. TOT again made rapid

increase to 1,000°C. Pilot then used both hands and forced throttle closed.

FOD incident

OH-58

C series - During takeoff, aircraft shuddered three times in rapid succession and aircrew heard low rotor RPM warning. Crew completed landing without further incident. Maintenance discovered missing engine collar and damage to first-stage compressor blades.

Messages

■ Safety-of-flight technical message concerning one-time visual inspection and torque check of lower drive link to the swashplate retaining hardware on all Army CH-47D, MH-47D, and MH-47E aircraft (CH-47-95-02, 051912Z May 95). Summary: A CH-47D from Fort Hood crashed. Initial results indicate the lower drive link to the swashplate retaining bolt failed in fatigue. The investigation is continuing. However, initial teardown analysis indicates that the slip-fit bushing was omitted from the lower swashplate drive arm. It is possible that the errors and inconsistencies in the dash 23 manual may have contributed to the omission. The purpose of this message is to direct a one-time visual inspection of the lower drive link to swashplate retaining hardware for proper installation and perform a torque check of bolts, P/N 114RS352-2, prior to the next engine runup. This inspection is required for both forward and aft swashplates. Contact: Mr. Dave Scott, DSN 693-2045 (314-263-2045).

■ Aviation safety action maintenance mandatory message concerning all AH-1F and UH-1H/V aircraft with MWO 1-1520-236-50-30 and MWO 1-1520-242-50-2 oil debris detection system (ODDS) applied (AH-1-95-ASAM-01 and UH-1-95-ASAM-02, 111612Z Apr 95). Summary: A field unit reported that during daily inspection, the four mounting screws for the transmission ODDS debris monitor electrical connector were found loose or missing. Upon further investigation, it was noted that the mounting screws on the 42-degree gearbox ODDS chip detector were also loose. The 90-degree gearbox screws were tight; however, the potential exists for them to become loose also. This problem was noted on several aircraft. The engine oil debris detection system already utilizes lockwired screws and is not affected by this message. The purpose of this message is to replace existing hardware on the ODDS with MS35265-13 screws for the transmission electrical connector and MS35265-12 screws for the 42- and 90-degree gearbox electrical connectors, which will allow for lockwiring of the screws. Contact: Mr. Jim Wilkins, DSN 693-2258 (314-263-2258).

■ Aviation safety action maintenance mandatory message concerning one-time removal of engine oil return line clamp on all AH-1E and AH-1F aircraft modified by MWO 55-1520-236-50-12 (AH-1-95-ASAM-02, 011626Z May 95). Summary: AH-1E/F aircraft modified by MWO 55-1520-236-50-12 may have an improperly installed clamp on the engine oil return hose that can cause the quick disconnect to become disengaged. Failure of the quick disconnect will result in a loss of engine oil and subsequently a rise of the engine oil temperature into the red/warning range. The outcome of this is an emergency condition that requires a procedure to land as soon as possible. The purpose of this message is to remove the clamp on the oil return hose that was installed by MWO 55-1520-236-50-12, Modification for Improved Air Filtration System, and ensure that the quick disconnect is properly installed. The clamp can restrict movement of the hose and prevent the quick disconnect pins from locking. Contact: Mr. Jim Wilkins, DSN 693-2258 (314-263-2258).

■ Aviation safety action maintenance mandatory message concerning increase to engine oil change interval on OH-58A/C aircraft (OH-58-95-ASAM-06, 011509Z May 95). Summary: MWO 55-1520-228-50-44, Installation of External Scavenge Oil Filter Kit on OH-58A720 and OH-58C Helicopters, 15 July 1994, has been installed on most OH-58A/C aircraft. Testing of increased engine oil change intervals was accomplished on selected aircraft. Results of testing supported increased oil change intervals. Manual changes to support the scavenge oil filter will be published. Current instructions are in memorandum, AMSAT-R-EIO, subject: Airworthiness Release for OH-58A/C Helicopters with the Scavenge Oil Filter Installed, dated 15 June 1994, and in handout draft data. The purpose of this message is to provide information concerning the OH-58A/C scavenge oil filter installation and to increase the oil change interval from 100 hours to 200 hours. Contact: Mr. Lyell Myers, DSN 693-2438 (314-263-2438).

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

In this issue:

- ATC—keeping the emphasis on safety
- Selecting an alternate airfield
- Read the label!
- Amber visors
- Aviation battle dress uniform
- Aircrew training manual revisions
- Technology arrives for accident reporting
- Broken Wing awards
- Correction to AAAA winners
- U.S. Army FLIP-specific DODAACs
- Aviators needed
- Don't leave home without $$$$$

Class A Accidents through May

		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		0	
4TH QTR	July	4		5	
	August	1		0	
	September	1		0	
	TOTAL	21	6	11	8

U.S. ARMY SAFETY CENTER

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