



Flightfax

Online Report of Army Aircraft Mishaps

Last month we highlighted the criticality of performance planning and the use of performance data during mission execution. This month's edition highlights the importance of adherence to standards and discipline in the application of regulations and standing operating procedures that permeate our formations. We will focus specifically on standards and discipline in maintenance and mission planning.

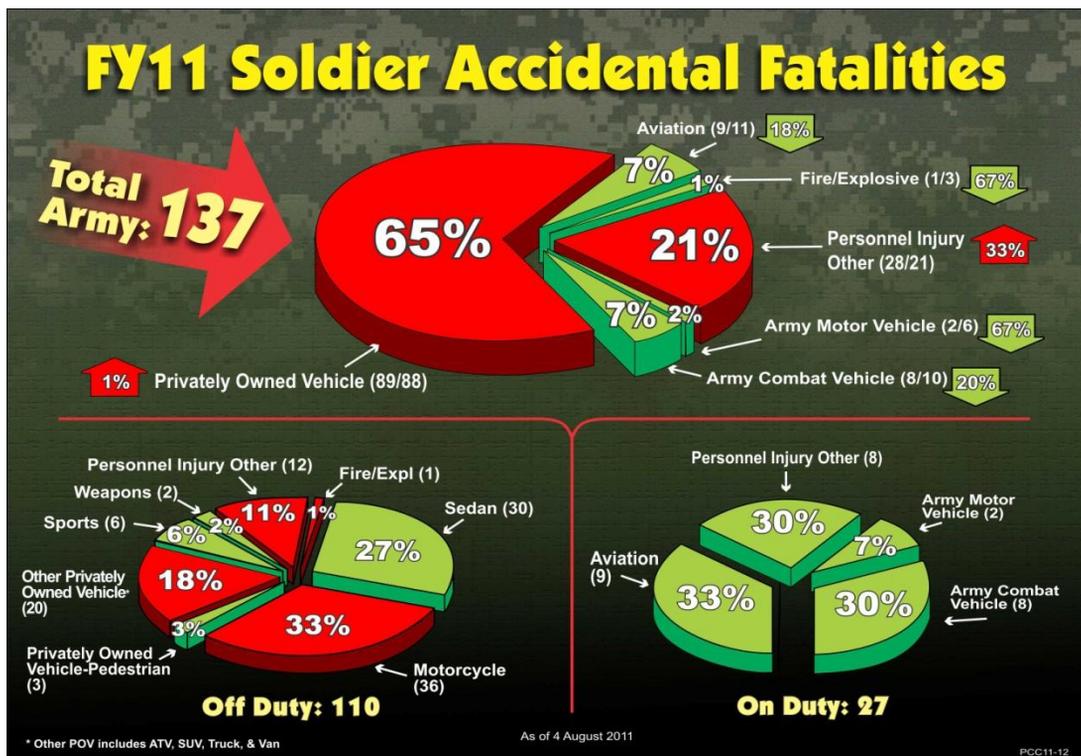
First, though, let me introduce myself. I transitioned from 2-1 GSAB in 1st CAB and joined the Air Task Force (ATF) team as the Director at the beginning of this month. In command, I found the emails outlining accident trends and, more specifically, the highlights and suggestions from LTC David Fleckenstein to be engaging, and each month applied the knowledge gained from reading the ATF's Flightfax to better protect my formation. I will continue this excellent tradition!

The ATF's first priority is to collaborate with operational commanders to provide *timely* and *relevant* information to assist you in protecting your formations. We do this by identifying causes of Army Aviation accident trends, identifying programs that enable aviation units to reduce losses, and engage Army, DoD and other government agencies to develop initiatives that prevent further aviation accidents and preserve aviation combat power.

An initiative that began beta testing this month is the Army Safety Awareness Program (ASAP). The ASAP program is designed to enhance aviation safety through the prevention of accidents and incidents. It is an anonymous, self-reporting system modeled after systems currently in place at many airlines under auspices of the Federal Aviation Administration (FAA). These systems encourage the voluntary reporting of operations and maintenance safety issues and events. It is designed to provide a non-punitive environment for the open reporting of safety concerns and information that might be critical to identifying precursors to accidents. These safety concerns may be either observed or experienced by the submitter. The goal is to prevent mishaps by addressing those unintentional errors, hazardous situations and events, or high-risk activities not identified and/or correctable by other methods or through traditional safety reporting sources. The reported information is used to reduce mishaps through operational, maintenance, training and procedural enhancements. Due to its capability of providing early identification of needed safety improvements, ASAP offers significant potential for avoiding mishaps. Thanks are extended to 1-223rd Avn and its A 1-223rd and B 1-223rd companies participating in the project which will run through August. A follow-on operational test is slated for next fiscal year with a larger contingency in the Army Aviation community.

In Flightfax this month, you can see that we are diligently working the timely aspect of information flow. We'd like to strengthen collaboration to provide relevance to the "How can Flightfax help me?" One of the daily challenges I confronted over the last couple of years was strategically looking forward, and enhancing effective ways of doing business to keep our formation safe. To assist in meeting this challenge, we request your input and feedback on how to make this publication better for you, and how the ATF can better assist your unit. We would like to hear your success stories of how you have met operational challenges, changed the way you train, and provided mission support that reduced risk and facilitated safe aviation operations. Share your stories by providing a short article in Flightfax. The process you applied to successfully meet operational challenges may be the very practice, if shared, that could keep your Aviation comrades safe and alive in the coming months. This month's Blast from the Past says it best with what constitutes a terrific brigade – "Once upon a time it all came together....and it can happen again and again. In this brigade, the state of training was high, as was the state of discipline, morale, maintenance and readiness. What made this brigade unique? Leaders. It had Leaders who had genuine concern for their mission and Soldiers - and for the safety of those Soldiers."

Until next month, fly safe! LTC Christopher Prather, Director, Air Task Force, email: christopher.prather@us.army.mil



C1 to August Flightfax pages 3 & 4. Due to an editing error, the pictures and crew experience accompanying the original review were inaccurate. The corrected version is below. Please replace with the corrected pages.

Mishap Review: AH-64D Maintenance Error



Synopsis

The AH-64D was conducting an escort mission. Eleven minutes into the mission, the aircraft experienced violent vibrations with a left yaw and nose down rotation, accompanied by a rapid descent. The crew was able to establish a level attitude and controlled descent to the ground with a roll-on landing. Significant damaged occurred during the hard landing but no crew injuries.

History of flight

The accident crew conducted their morning brief at 0900 hours, followed by situation and weather updates, aircraft prep and crew briefs. At 1233 hours, the attack team of two AH-64Ds departed the FOB on their assigned escort mission. At 1244 hours, the accident aircraft, flying approximately 85 KTAS at 11,300 feet MSL / 3000 feet AGL suddenly experienced severe vibrations, followed by a left yaw and nose tuck. The crew was able to make a controlled forced landing to an unimproved area, resulting in significant damage to the aircraft but no injuries.

It was determined the severe vibrations caused the failure of the lower rod end bearing of a PC link. The bearing failed by becoming unstaked, allowing the rod end to slide against the rotating swash plate. This action resulted in the lower bearing becoming fixed in one position. With the upper bearing not having enough bearing movement to accept the torsion load, the PC link failed by snapping due to torsion twisting.

Crewmember experience

The pilot-in-command (PC), occupying the backseat, had more than 900 hours total flight time with over 500 combat hours and 16 hours in theater. The co-pilot had 960 hours of flight time with 580 hours combat time and 38 hours in theater.

Commentary

It was determined that errors in maintenance procedures had allowed a suspected unserviceable part to be installed on the aircraft. The PC link in question had been removed from service more than a year prior to the accident with a DA Form 2410 indicating a failure code 710 (bearing or bushing failure). At the servicing AVIM, the PC link was taken to the repair shop. While in the repair shop, the part received a TI stamped yellow tag (serviceable), but the DA Form 2410 was not updated to indicate repair to the part. The part was put back into the Tech Supply system. Subsequently, the PC link was installed on the accident aircraft and failed 144 hours after installation. QC personnel failed to properly verify the serviceability of the PC link prior to installation. It is critical that all maintenance records be maintained accurately in order to ensure all required maintenance and inspections are being completed on time and to the proper standards. A breakdown in maintenance procedures allowed a suspected unserviceable part to be installed on an aircraft.

FY 11 Manned Aircraft Class A – C Mishap Table										
	Month	FY 10					FY 11			
		Class A Mishaps	Class B Mishaps	Class C Mishaps	Army Fatalities		Class A Mishaps	Class B Mishaps	Class C Mishaps	Army Fatalities
1 st Qtr	October	4	1	3	1		1		3	
	November	1		5	2		0	2	12	
	December		1	4			2	1	4	4
2 nd Qtr	January		2	3					7	
	February	2	2	9	5			2	2	
	March	2		4			2	1	5	
3 rd Qtr	April	2	1	5	1		2	1	8	
	May	1	2	2	1		2	2	2	1
	June	6		5	1		4	1	2	2
4 th Qtr	July	1	2	4			2	2	3	2
	August	2	2	5					5	
	September	2	1	5	5					
	Total for Year	23	14	54	16	Year to Date	14	12	53	9

As of 4 Aug 11

Mishap Review: OH-58D Diving Fire



Synopsis

While engaging enemy combatants during a quick reaction force mission, the accident aircraft impacted the ground at high airspeed. The impact fatally injured the two pilots and destroyed the OH-58D.

History of flight

The accident crew conducted preflight for their QRF mission between 0430 and 0530 hours, followed by the battalion pre-mission brief in the TOC and team brief at the company CP. Weather was VMC with light winds at 06 knots, temperature of 28 degrees C, and PA of 3,883. The crew was familiar with each other and had flown together on numerous occasions.

The team executed an aerial security mission starting at 0730 which lasted approximately four hours. At 1253, the team launched a QFR mission to a site where suspected enemy combatants were emplacing an IED. Upon arrival at the site six minutes later, the team lead engaged the identified enemy with rockets. Following lead's break, the accident aircraft, in trail position, initiated an engagement with .50 cal using diving fire from 800 feet AGL and 83 KIAS. During the engagement sequence, the aircraft pitched down 25 to 30 degrees and increased indicated airspeed to 114 KIAS, firing three bursts by the end of the run. During the break, the airspeed continued to build to 120 KIAS. Two to three seconds later, the aircraft impacted the ground at high airspeed and a nose-high attitude. The aircraft tumbled and rolled, coming to rest 118 meters from the initial impact point. Both crewmembers were fatally injured.

Crewmember experience

The PC had more than 2500 hours total flight time with over 1600 combat hours in three deployments. The co-pilot had over 1300 hours flight time with 800 hours combat in two deployments. Each pilot had 400+ hours in theater during the current deployment.

Commentary

While engaging enemy combatants, the crew became fixated on the targets and failed to maintain a proper scan during the diving fire engagement. With factors such as the steep angle, out-of-trim condition, slight tail wind, high DA and high gross weight of the aircraft, the PC maneuvered the aircraft at a high airspeed/rate of descent below a recoverable altitude. Due to the excitement and haste to engage the enemy, a breakdown in crew coordination contributed to this event in that the PC did not effectively communicate his decisions to the PI or seek supporting information. The PI did not cross monitor the PC's actions, resulting in the aircraft being maneuvered below a recoverable altitude. The crew coordination remains pertinent for all crews, regardless of the experience of the crewmembers. Discipline, in execution of crew coordination for a mission, begins with mission planning and continues throughout the mission.

FY 11 UAS Class A – C Mishap Table									
	FY 10 UAS Mishaps					FY 11 UAS Mishaps			
	Class A Mishaps	Class B Mishaps	Class C Mishaps	Total		Class A Mishaps	Class B Mishaps	Class C Mishaps	Total
MQ-1	2		1	3	W/GE	1		1	2
MQ-5	3			3	Hunter	3		1	4
RQ-7		14	21	35	Shadow		6	23	29
RQ-11					Raven			1	1
RQ-16A			1		T- Hawk			2	2
MQ-18A	1								
SUAV								1	1
Aerostat		2	2	4		6	6		12
Total Year	6	16	25	46	Year to Date	10	12	29	51

As of 4 Aug 11

<https://safety.army.mil/atf/>

Selected Aircraft Mishap Briefs

Information based on Preliminary reports of aircraft mishaps reported in July 2011.

Utility helicopters

MH-60K



- During post-flight inspection, the crew found damage to the bottom of all four main rotor blades caused by contact with the ALQ. The crew reported no maneuvers that might have caused the damage – hard landing, maneuvers, etc. (Class C)

UH-60A



- Crew experienced high dust conditions during landing for MEDEVAC pick-up and aircraft sustained damage on touch-down. (Class B)

- Crew experienced 'abnormal' vibration during short final approach. Emergency shutdown was executed and initial inspection revealed the #3 section of the drive shaft was missing as a result of main rotor blade contact. (Class B)

Attack helicopters

AH-64D



- During approach the tail rotor separated from the aircraft, resulting in a hard landing and damage to the aircraft. No injuries reported. (Class A)

- Aircraft struck a PGSS aerostat tether. The aerostat separated

from the tether and was unable to be recovered. Damage to the aircraft's blade tip was discovered on post flight. (Class B)

- During MTF, the aircraft experienced an overspeed (132%) to the #2 engine. (Class C)

Observation helicopters

OH-58D



- Aircraft experienced an NR droop and subsequent overspeed during RL progression simulated engine failure autorotation. (Class C)

- Aircraft was lead in a flight of two when it struck wires and crashed into remote rising terrain. Both crewmembers fatally injured. (Class A)

- Aircraft experienced engine and rotor overspeed conditions during manual FADEC operations. Engine replacement required. (Class C)

- Aircraft exceeded its mast torque limitation during a low power condition demonstration. Drive train replacement required. (Class C)

Cargo helicopters

CH-47F



- CE inadvertently fell through operator's hole during sling load ops, resulting in injuries to shoulder and ribs. (Class C)

- Just prior to sling release, the crew heard 'pop', followed by extreme aircraft yawing. Aircraft was landed. Damage occurred to three antennas and a large crack to the ramp. (Class C)

Fixed Wing Aircraft

C26E



- Aircraft struck a mobile fire extinguisher when taxiing for take-off. Emergency engine shutdown was accomplished and passengers were evacuated. Damage reported to the right prop, window, door and fuselage. (Class C)

Unmanned Aircraft Systems

RQ-7B



- The UA experienced an engine failure approximately one hour into the flight. Operators deployed the recovery chute and UA landed with damage. (Class C)

RQ-7B cont



- UA experienced an uncommanded descent during climb-out. FTS was deployed and UA landed with damage. (Class C)

- Crew experienced a console HUMS oil pressure system warning during flight and initiated RTB. On return leg, the system had indications of a high rotor temp, followed by Ignition FAIL and Engine FAIL indications. Chute was deployed and UA landed with damage. (Class C)

- UA experienced rising operating temperatures and loss of altitude during flight. It crashed during an attempt to return to base and was recovered with damage. (Class C)

- UA descended during flight, following a generator failure and earlier HUMS alert for oil pressure. Crew deployed the landing chute and the UA was recovered with damage. (Class C)

- UA experienced a drop in engine RPM during climb-out. Controllers deployed chute and

UA landed with damage. (Class C)

- UA experienced a hard landing, bounced over the retaining net and struck barriers. (Class B)

Aerostat



- UA deflated prematurely while being lowered and the aerostat fell to ground contact sustaining damage to include payload. (Class B)

Selected mishaps presented in order occurrence.

Aviation Trends

Overconfidence/Complacency

- 83% of accidents involved overconfidence
- 13% of accidents involved complacency

Assumption of Low Risk Missions

- 61% of accidents occur during the day
- 30% of accidents happen during training

Aircrew Coordination Failures

- 28% of accidents involved crew coordination failures

Inadequate Mission Planning

- Failure to adequately plan for obstacles
- Power management awareness

Manned Aircraft Accidents



Preliminary Loss Reports (PLR)

ARMY PRELIMINARY LOSS REPORT 11113

OH-58D CRASH CLAIMS TWO SOLDIERS' LIVES

Two Tennessee Army National Guard Soldiers were fatally injured in an OH-58D Kiowa Warrior crash that occurred on 9 July 2011 at approximately 1730 local near Knoxville, Tennessee. The pilots (41-year-old CW4 and 26-year-old 1LT) were on a training flight when the helicopter crashed. The helicopter reportedly hit power lines at some point during the aviation accident, which caused brief power outages in the area. A Centralized Accident Investigation (CAI) team from the US Army Combat Readiness/Safety Center is investigating. [Local News](#)

These are the 8th and 9th Class A Aviation fatalities in FY11 compared to 11 for the same time frame in FY10. This PLR does not identify specific root causes of this incident as the investigation is ongoing. Further details will be available at a later date on RMIS (RMIS Login Required).

Preliminary Loss Reports (PLR) are *For Official Use Only* and are to provide leaders with awareness of Army loss as we experience it and to point out potential trends that affect our combat readiness.

Our Army depends on you to use these PLRs to help Soldiers understand the impact of decisions made on and off duty.

The [U.S. ARMY COMBAT READINESS/SAFETY CENTER](#) is interested in your comments; please [click here](#) to provide feedback on the Preliminary Loss Reports (PLR). [FAQs](#) Additional resources can be found in [Knowledge](#), the official safety magazine of the U.S. Army.

ARMY PRELIMINARY LOSS REPORT 11115

GENERAL AVIATION CRASH CLAIMS ONE SOLDIER'S LIFE

A Fort Wainwright, Alaska, Soldier was killed in a general aviation aircraft crash that occurred on 17 July 2011, at approximately 2000 local near Delta Junction. The 28-year-old CW2 was off duty flying a [Piper PA-12 aircraft](#) that crashed on takeoff. According to statements made to police by witnesses, the non-military, single-engine aircraft began to exhibit audible engine problems shortly after takeoff before it crashed. Authorities stated the aircraft fell from an altitude of about 200 feet and crashed nose-first into the trees and ground. The Soldier was evacuated to a local medical center then died as he was being flown to Anchorage for further treatment. The CW2 was a licensed private pilot. [Local News](#)

This is the 3rd Civilian aircraft accident with Army fatalities in FY11 compared to 0 for the same time frame in FY10. This PLR does not identify specific root causes of this incident as the investigation is ongoing. Further details will be available at a later date on [RMIS](#) (RMIS Login Required).

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AEPS now extinct!

Safety notification messages are generated when users have identified a problem or concern and have asked for clarification. These messages offer solutions to problems that may affect an entire fleet or a select model of equipment. The repository which was the main source for locating these messages is no longer available. Due to recent budgetary changes the Army Electronic Product Support (AEPS) website was decommissioned on 29 July 2011.

A number of other WEB sites have assumed this role:

TACOM LCMC released Safety and Maintenance messages are available on the Safety First Web Site located on the TACOM Unique Logistics Support Applications (TULSA) portal at: <https://tulsa.tacom.army.mil/safety/serviced.cfm>

Access requires CAC Card authentication. You must first request access to the Safety First Web Site through the TULSA site at: <https://tulsa.tacom.army.mil>

For assistance, email the TULSA Helpdesk at: TACOM-LCMC-ILSC-TULSA@conus.army.mil

The Safety First Web Site has the capability to email Safety and Maintenance messages directly to your inbox. To subscribe to the mailing list, click on E-Mail Subscriptions on the Navigation bar. For other safety messages, please visit the following sites:

For Aviation and Missile Systems, AMCOM Safety and Maintenance Messages requires CAC or AKO Login ID/password at: <https://asmprd.redstone.army.mil>

JM&L Safety of Use Messages (SOUMs for Ammunition) requires a CAC to log into the site at: <https://mhp.redstone.army.mil/>

Munitions History Program (MHP) will be used to disseminate Ammunition Information Notices (AIN) and Notice of Ammunition Reclassification (NAR) and other safety messages used primarily by Quality Assurance Specialists (Ammunition Surveillance).

CECOM Safety of Use Messages (SOUM) Click on the Safety messages icon located in the System Safety Engineering area on the front page at: <https://cecomsafety.apg.army.mil/>

The safety notification system is an effective means for the program manager to provide immediate and worldwide information to the field about potential safety and health hazards. It is critical that everyone read and understands how the safety message system works when applied to the daily mission and avoid unnecessary injuries or accidents.

Blast From The Past

articles from the archives of past Flightfax issues

A terrific brigade reprinted from Flightfax dated 18 November 1987

There once was a brigade that could do its job. This brigade performed in such an outstanding manner, not just every day but during multiple rotations to the National Training Center and FTXs and CPXs too numerous to mention, that everybody wanted to know why. It was obvious from this brigade's performance under some really trying circumstances that something about it was different. But what?

When people looked closer at this brigade and how it was run, they inevitably came to the guy at the top – the commander. There was something different about him. “At the right place at the right time” describes this commander best. Not one knew where he would turn up next. He seemed to be everywhere – because he was. The soldiers in the shops knew him because he would stop and talk to them. When the brigade was in the field, he was there – fighting the dust, slogging through the mud, enduring the heat or cold. He might even turn up in the middle of the night where his soldiers were on patrol.

This commander paid attention to everything that affected his soldiers. When he ate breakfast with them, he waited in line just like everyone else – so he didn't have to ask how long his soldiers had to wait to be served. He might turn up at sick call for the same reason. No detail about his soldiers' daily lives was too small to escape this commander's interest.

He was tough, and corrections were made when needed, but no subordinate commander had to fear the humiliation of a public tongue-lashing. His counseling was one-on-one, and it took place privately, footlocker style. Deviations from standards were immediately corrected, but in a mature, professional manner. The command climate throughout this brigade was as extraordinarily good as its capacity to respond instantly to contingency missions – whether they were in Honduras or anywhere else in the world.

In this brigade, the state of training was high, as was the state of discipline. The state of morale was high, as was the state of readiness. The state of family involvement was high, as was the cohesion of the brigade. The level of maintenance was high, as was the level of concern for the soldiers. This just might have been the best brigade in the Army. It was a brigade that did everything well, with a commander who cared about what the brigade could do and the people who did it.

Continued on back page

Blast From The Past

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In this brigade, the accident rate involving primary mission equipment was zero for more than 2 years. Safety permeated the unit, and it was taken one day at a time. Concern for tomorrow's performance was always still a day away, but when that day came for this brigade, it was ready to meet the challenge.

Isn't it interesting that safety can be a better indicator of readiness than any other standard that can be used? That is not to say that safety is most important; the mission is most important. It does say, however, that safety appears to be the most important measure of a unit's ability to accomplish the mission. This is no idle statement. It is backed up by units as they rotate through the NTC, by first-hand observation of operations officers in tough environments everywhere, by statistics maintained at the Army Safety Center, and by good common soldier horse sense. Once upon a time, it all came together in one brigade. And it can happen again and again. It has happened again and again. It has happened, and it will happen because we have commanders who have genuine concern for their mission and soldiers – and for the safety of those soldiers.

That's one reason why, overall, 1987 was the safest year in the history of the Army.

- COL A.E. Hervey, Jr., Commander, U.S. Army Safety Center (Nov 1987)



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Center at com (334) 255-3530;
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