CALLBACK

From NASA's Aviation Safety Reporting System

ASRS Is Going HI-TECH

The ASRS staff is very excited to announce that over the next few months we will be introducing several new automated ASRS products and processes. The first change you will see, and are invited to be a part of, is the opportunity to receive CALLBACK on your computer.

CALLBACK Goes "Glass"

ASRS' award-winning publication CALLBACK is presently mailed via "snail mail" to more than 90,000 subscribers and is read by more than 150,000 aviation professionals and enthusiasts. The associated printing and postage costs are close to a quarter of a million dollars per year. In an era of tight budgets and limited resources, ASRS is doing its part by providing an automated CALLBACK e-mail subscription service.

We will be encouraging readers to sign up for the e-mail service (still FREE) in lieu of the printed copy. We will continue to offer a print version for those who want to continue receiving paper copies.

Look for an announcement in the November CALLBACK that will provide information on how you can sign up to receive a fully automated, extended range, fly-by-wire, interactive, digital display, e-mail version of CALLBACK!

Electronic CALLBACK distribution is just one aspect of the ASRS "upgrade" program. Some other enhancements include:

Electronic Report Submission

Electronic Report Submission (ERS) is close to roll out. In addition to the obvious benefits for reporters, ERS will streamline report handling for greater efficiency and reduce ASRS processing costs.

The principal concern has been security, the ability for the ERS system to detect and defeat spyware, keystroke monitoring, and other confidentiality and security concerns. In the 670,000+ reports received to date, ASRS has never breached reporter confidentiality. NASA is applying sophisticated new technology to ensure that this record remains intact.

ASRS has been receiving airline ASAP (Aviation Safety Action Program) reports for several years. In 2004 over 16,000 of the 38,000 total reports received at ASRS were from pilot, maintenance, cabin crew, and dispatcher ASAP programs. ASAP reports will represent an even a larger percentage of the approximately 42,000 reports we expect to receive this year. Of the 24 ASAP programs with 15 airlines currently submitting reports to ASRS, eight ASAP programs for six airlines are sending reports through secure, electronic data transmission, and several more are working on coordination with ASRS. ASRS remains the only entity that can integrate all ASAP and non-ASAP data for a comprehensive perspective and which can publish incident-based safety information and alerts covering the full spectrum of the air transportation system (including airlines, controllers, corporate, government, general aviation, and military).

Electronic Report Processing

Another major effort (that goes hand-in-hand with Electronic Report Submission) is that of streamlining report processing. Further enhancement of computer-based report analysis will minimize paper-based form handling, permit rapid data entry, allow a major increase in efficiency and timeliness, and significantly reduce report production costs. Of course, the ASRS corps of Expert Analysts will continue to thoroughly evaluate each and every report received. ASRS is refining a set of sophisticated data mining tools, including Perilog (which permits relevance ranking though textual search), to facilitate database query and record extraction tasks.

Online Database Access

Public access to the ASRS database will be available through a browser-based, cross-platform "Web Query" tool developed by ASRS and currently used in-house. Web Query will retrieve records by searching on many fields, including location, aircraft and operation type, and anomaly. Researchers, pilots, controllers, dispatchers, cabin crew, ASAP managers, government agencies, and others will be able to access specific data from the world's leading repository of aviation safety information.

All of these enhancements are intended to support ASRS' primary mission - a joint sharing of safety information for the benefit of the entire aviation community. The timeline for completing these system enhancements is dependent upon program funding through Fiscal Year 2006 and beyond.

ASRS Alerts Issued in August 2005	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	3
Airport facility or procedure	2
ATC procedure or equipment	1
Chart, Publication, or Nav Database	2
Company policy or maintenance procedure	1
Total	**9**

August 2005 Report Intake	
Air Carrier / Air Taxi Pilots	2416
General Aviation Pilots	921
Controllers	64
Cabin/Mechanics/Military/Other	182
TOTAL	**3583**

Thorough training by competent personnel is the basis for safety and proficiency in all aspects of aviation.

As an ongoing process, training helps controllers, dispatchers, flight attendants, maintenance technicians, and pilots maintain a high skill level and also ensures that they are familiar with the latest developments in equipment and procedures.

But, by its very nature, the training environment can be susceptible to mishaps. As the following ASRS reports show, when distraction and fixation enter the picture, especially in flight training, an unintended lesson may result.

Engine Out and Gear Up

The following two incidents involve simulated engine-out approaches in which the student pilot was trying to extend the aircraft's glide. Since it is easy for the student to fixate on mastering a skill or resolving a problem, the instructor has to be able to multi-task — to monitor the student and the aircraft, and to maintain situational awareness.

■ *My instructor and I were practicing engine-out procedures and landings on Runway 18.... We noticed an aircraft turning from base to final.... We chose to extend the downwind leg. When we turned final, my instructor pulled the power. All of my attention was focused on my airspeed and making the runway. I did my GUMPS (Gas, Undercarriage, Mixture, Prop, Switches [or Seatbelt/ Shoulder Harness]) check, but did not confirm that the gear were down. We touched down just past the numbers and heard a loud screeching sound. At that point we realized what had happened....*

From the instructor's report on the same incident:

I should have made the decision to abort the 180-degree engine out [approach] and made a go-around. We both learned what happens if you are distracted from your basic habit pattern.

■ *I was administering a commercial pilot practical test. The applicant's first approach and landing were very good. He made a touch-and-go and failed to extend the landing gear for the second approach. I saw he was delaying extension to help extend his glide on a 180 degree power-off approach. We became accustomed to the gear horn and I let myself get distracted by an aircraft approaching the parallel runway. As we overshot our turn, we had to s-turn back onto a very short final. Suddenly, I realized the gear was up. I took the controls, and initiated a go-around. Before I could arrest the descent, the aircraft touched the runway, breaking the marker beacon antenna and abrading the very tips of the prop blades. Too close! I've amended my procedures to: 1) terminate marginal maneuvers earlier, 2) allow no operations below pattern altitude with the gear up....*

Exhaustive Training

This report shows that the instructor's perception of the student's ability can have a significant affect on the outcome of a flight. Too much faith in the student's ability led to a fuel exhaustion incident.

■ *It was a cross-country training flight and I did not check the fuel after the student was done with the preflight. We took off with less fuel than was needed to complete the flight. I watched the student navigate and then we did a touch and go at ZZZ. On climb out, the engine began to quit. I took over, tried to restart the engine, contacted ATC, and made an off-field landing.*

Contributing factors were that I did not check the fuel gauges and that the student was a private pilot with an instrument rating. I relied too much on the student's judgment.

IOE Incident

This check captain was apparently so **I**ntent **O**n **E**ducating a first officer that a controller handoff went **I**n **O**ne **E**ar... and out the other.

■ *I was giving IOE (Initial Operating Experience) instruction while at cruise altitude and proper radio vigilance and situational awareness suffered as a result of instruction. We apparently missed an ATC hand-off.... When we contacted Center on the frequency we had been monitoring they didn't know who we were and advised us to return to the previous frequency. We were out of range of that frequency. It took approximately five minutes to get on the right frequency. In the meantime, we crossed INTXN at FL240 instead of the published instructions to expect 10,000 feet. We were given descent vectors to rejoin the arrival....*

Meet the Staff

If you have ever wondered just who the folks are that process and analyze the thousands of reports sent to ASRS every month, we invite you to meet the staff in this and subsequent issues of *CALLBACK.*

Fred Olenak

Fred "The Wrench" Olenak joined the Aviation Safety Reporting System staff in 1997 as an Aviation Safety Analyst. His experience includes 37 years with a major air carrier where he served as an avionics and electrical mechanic, maintenance instructor, maintenance foreman, and ultimately as an aircraft maintenance controller. In this position, Fred directed both domestic and international operations for fifteen years. Having completed numerous manufacturers' training courses on aircraft systems and engines in addition to his extensive operational experience, Fred specializes in analysis of reports from maintenance personnel and other report submissions having a maintenance component.

Depending on the season, when Fred is out of the office the sign on his door reads, "Gone Fishing" or "Gone Skiing."