

# ASRS: The System Works

*The Aviation Safety Reporting System is there to make safety improvements.*

By Harry Kraemer

YOU'RE IN A HOLDING PATTERN, waiting for an approach clearance. You think you hear ATC clear you for the approach, so you start descending (the frequency is very busy with other IFR flights). It takes awhile for ATC to notice, but just as you're about to cross the final approach fix, the controller asks why you departed the hold and started the approach without a clearance. You tell the controller you heard him clear you for the approach. The controller responds that the approach clearance was for another aircraft!

You're given a phone number and asked to call after you land. The first thing that might go through your mind is to file a report with the NASA Avia-

tion Safety Reporting System (ASRS). Filing a report with NASA after an occurrence such as this can prevent a certificate suspension if the FAA decides to pursue the matter.

## Long-time Program

While most pilots are probably familiar with the benefits offered by filing an ASRS report in this situation, many pilots might not be familiar with the full intent of the Aviation Safety Reporting System. The origin of the "NASA form" dates back to 1975, when the FAA instituted a voluntary aviation safety reporting program, designed to encourage the identification and reporting of deficiencies and discrepancies in the national airspace system (NAS). (See "Humble Beginnings," page 15.)

NASA is utilized as an objective third party to receive the reports. In order for this program to be effective, it relies on us (users of the NAS) for an unrestricted flow of information (the NASA form). Because NASA receives, processes and analyzes the data, anonymity (the report goes through a de-identification process normally within 72 hours after NASA's receives it) of the reporter and all parties involved in a reported occurrence or incident is assured. The program's objective is to increase the flow of information necessary for the effective evaluation of the safety and efficiency of the system. Since the ASRS program began, more than 350,000 reports have been submitted without a single reporter's identity being revealed.

## Immunity Provided

FAR 91.25 (Aviation Safety Reporting Program: Prohibition against use of reports for enforcement purposes) prohibits the FAA from using any report submitted to NASA under the Aviation Safety Reporting Program (or information derived therefrom) in any enforce-

ment action, except information concerning accidents or criminal offenses that are excluded from the program. (See "Immunity From Sanction," below left.)

## Safety Improvements

A recent encounter I had with NASA demonstrates how ASRS works to provide safety improvements. A little history is in order. In "GPS, Pilots & ATC" (July 1998, *IFRR*), Russ Lawton reviewed an experience he and I had encountered while attempting to fly a GPS into Pennridge Airport (N70), Pennsylvania, 30 miles north of Philadelphia. Wally Roberts followed up with an article entitled, "GPS Approaches: Design and ATC."

All Russ and I wanted that day was to practice a few GPS approaches. We never thought our experience that day would turn into a six-month campaign, which would end up changing the Pennridge GPS Runway 26 approach procedure.

The problem began when ATC could neither vector us to the final approach course nor clear us for the approach via one of two initial approach fixes. Instead, the controller wanted to clear us direct to the final approach fix. When we declined the clearance, the controller was unable to provide the approach to us.

After reflecting on what had happened, we decided to bring the improper handling of the approach to the attention of the FAA. Due to a coordination problem between New York and Philadelphia approach controls, the approach as published couldn't be flown in accordance with the AIM and the Air Traffic Control Handbook. Both official FAA publications state that an instrument approach must begin at an initial approach fix or an intermediate approach fix if there isn't an initial approach fix available.

Our concern was that someone might

## Immunity From Sanction

After an incident occurs, the FAA can conduct its own investigation and find you in violation of the FARs. Under these circumstances, no civil penalty or certificate suspension will be imposed if:

- The violation was inadvertent and not deliberate;
- The violation did not involve a criminal offense, or accident, or action under 49 U.S.C. Section 44709 which discloses a lack of qualification or competency, which is wholly excluded from this policy;
- You have not been found in any prior FAA enforcement action to have committed a violation of 49 U.S.C. Subtitle VII, or any regulation promulgated there for a period of 5 years prior to the date of occurrence; and
- You can prove that, within 10 days after the violation, you completed and delivered or mailed a written report of the incident or occurrence to NASA under ASRS.

have an accident trying to comply with the controller's clearance (which made for an unsafe approach). The FAA sent Air Traffic Bulletin 98-5 to all air traffic facilities regarding our experience and another similar incident (reported by *IFRR* contributor Brian Jacobson).

Air Traffic Bulletin 98-5 (the full text of which was printed in "They Still Don't Get It" [January *IFRR*]) reminded controllers about the proper procedures for issuing a GPS or RNAV clearance.

## Second Incident

In November, 1998, I had an experience similar to the one that occurred in July on the very same approach. This time, however, the weather was IMC. I wasn't allowed to go to either of the initial approach fixes, nor could I get vectors to join the final approach course. After a brief discussion with the

controller, he allowed me to go to an intermediate fix (which still wasn't correct).

After landing, I called Philadelphia Approach and discussed my experience with several controllers at the facility. They weren't familiar with the Air Traffic Bulletin 98-5.

I also called the Philadelphia Flight Standards District Office (FSDO). The inspectors at the FSDO told me the approach couldn't be flown the way it was published (which I already knew). The approach had to be canceled or changed. But how?

## Report to ASRS

After returning from my trip, I told Russ about what had happened. It was obvious that Air Traffic Bulletin 98-5 had little or no effect. Russ and I spoke to several others about my experience that day and I was advised to file an ASRS report (to identify a deficiency and/or discrepancy in the system). I mailed the report on November 30, 1998.

(NASA recommends that you mail the report via "return receipt" from the post office, so you have proof of mailing. This is more important if a possible violation is involved, in which case you must have documented that the report was filed within 10 days after the incident).

I received a call from NASA on December 9, 1998, and a NOTAM was on the Pennridge GPS approach was published seven days later (just 16 days after I had mailed the report), changing the approach.

This is our National Airspace System. If you find something unsafe or a hazard that needs to be corrected, file a report with ASRS. It only takes a short time to complete and it can improve safety for everyone.

The NOTAM issued on December 16, 1998 read:

!FDC 8/8823 N70 FI/T  
PENNRIDGE, PERKASIE, PA.  
GPS RWY 26, ORIG...  
DELETE TERMINAL ROUTE:  
METRO WP TO ABBYS WP.

DELETE TERMINAL ROUTE:  
ARD VORTAC TO ABBYS WP.  
CHART ABBYS WP AS IAF.

The system works!

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## Humble Beginnings

The ASRS program, as with many safety improvements, resulted from a tragic accident: the crash of TWA Flight 514 on December 1, 1974. The accident occurred on a dark and stormy night that had forced the flight crew to divert from their original destination (Reagan National Airport - DCA) to Washington Dulles (IAD). ATC cleared Flight 514 for the VOR/DME RWY 12 approach at IAD. Confusion reigned in the cockpit when the crew discussed what the controller meant by "cleared for the approach." They assumed it was okay to descend to the initial approach altitude of 1,800 feet. The crew descended and hit a mountain, 25 miles northwest of IAD.

As part of the investigation, NTSB held a public hearing. A number of pilots testifying at the hearing said they had been in circumstances similar to Flight 514's crew and would have descended, just as the accident flight crew did.

After the public hearing had concluded, it was decided that there should be a method by which pilots and controllers could report problems they encountered or make suggestions to improve safety without fear of recrimination. Thus, the ASRS program was created in 1975.

In the almost 25 years that the ASRS program has been working, we all have benefited from the follow-up that comes when someone reports a problem. Many "fixes" to the system (few of which we read about) have resulted.—R.L.

## Behind the Scenes at ASRS

NASA ASRS has the largest database of incidents in the world. A team of about 38 people (aviation safety analysts) are assigned to evaluate the reports. This staff is composed entirely of experienced pilots and air traffic controllers. They receive about 32,000 reports annually.

Each report is reviewed by at least two analysts, who view their job as "early warning" in nature. NASA issues alerts to manufacturers, the FAA, airlines, airports and the National Transportation Safety Board (NTSB). They work closely with the FAA and NTSB on accident investigations (the database is used to look for trends). The information in their database is available upon request.

Sixty-eight percent of the reports come from professional pilots flying under part 121 or part 135. General aviation pilots contribute 12-13 percent of the reports. Slightly more than one quarter of the reports are about unsafe findings or situations (as in my report).—H.K.