

# CALLBACK

From NASA's Aviation Safety Reporting System



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## The ASRS Celebrates

# Anniversary 1976 - 2016

### Safety Depends on Lessons Learned

On April 16, 2016, the NASA Aviation Safety Reporting System (ASRS) celebrated its 40th year of continuous operation in service to aviation safety.

The longevity and success of the ASRS program are remarkable examples of how aviation system users can contribute their “lessons learned” to a safety program that collects and analyzes this information to resolve issues associated with our modern aviation system.

### The Origin of ASRS

On December 1, 1974, TWA Flight 514 was inbound through cloudy and turbulent skies to Dulles Airport in Virginia. The flight crew misunderstood an ATC clearance and descended to 1,800 feet before reaching the approach segment to which that minimum altitude applied. The aircraft collided with a mountaintop, killing all aboard.

A disturbing finding emerged from the ensuing NTSB accident investigation. Six weeks prior to the TWA accident, a United Airlines flight crew had experienced an identical clearance misunderstanding and narrowly missed hitting the same Virginia mountaintop. The United crew discovered their close call after landing and reported the incident to their company. A cautionary notice was issued to all United pilots.

Tragically, there existed no method of sharing the United pilots' knowledge with TWA and other airlines. Following the TWA accident, it was determined that safety information must be shared with the entire aviation community. Thus was born the idea of a national aviation incident reporting program that would be non-punitive, voluntary, and confidential.

*On a snowy morning in 'Seventy Four  
A plane crashed near D.C.  
The weather was bad, but there was more,  
According to the NTSB.*

*Human factors played a role in the tragedy,  
That could've been prevented,  
So the FAA worked hard on a remedy,  
And the ASRS was “invented.”*

### The FAA and NASA Collaborate

The first step in establishing a national aviation incident reporting program was to design a system in which the aviation community could place a high degree of trust.

The FAA Administrator recognized that the regulatory and enforcement roles of the FAA would discourage the aviation community from using a new safety program that depended on voluntary sharing of safety events. The FAA therefore assumed a sponsorship role for the new program, but turned to a neutral and highly respected third party – NASA – to collect, process, and analyze the voluntarily submitted reports.

Under a Memorandum of Agreement between the two agencies in August 1975, the blueprint for operating the newly designated Aviation Safety Reporting System was set in place: the FAA would fund the program and provide for its immunity provisions, while NASA would set program policy and administer operations. The ASRS program began day-to-day operation in April 1976.

*Safety reporting wasn't something new;  
It just needed amplification,  
With a more inclusive, systemic view,  
And NASA's collaboration.*

*It would have to be confidential and voluntary,  
The researchers concluded,  
And lest flight crews, techs and others be wary,  
Limited immunity was included.*

## The ASRS Concept is Proven

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The ASRS program has continually demonstrated the value of “safety lessons learned.” If a system’s users are encouraged to report the safety problems they encounter to a program they can trust, safety goals will be reached much sooner than if we never hear the stories of those lessons learned.

*With a growing cache of valuable lessons learned,  
Program success was assured,  
And since reports covered many safety concerns,  
It was time to get out the word.*

## ASRS Safety Products Benefit the Aviation Community

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The ASRS concept embodies a circle of information feedback that begins with pilots, controllers, maintenance technicians, flight attendants, dispatchers and others who voluntarily report their safety experiences to the program. During its 40-year history, the ASRS has processed over 1.3 million reports and returned valuable information to the aviation community through a wealth of safety products.

- ➔ More than 6,200 **Safety Alert Messages** have been provided to government and aviation industry decision makers.

*Alert Messages highlight critical matters,  
And include information,  
On parts, procedures and emerging patterns,  
That need amelioration.*

*Examples include RNAV STAR confusion,  
And similar fix names,  
The growing issue of UAV intrusions,  
And flammable battery claims.*

*Also glare from a solar power array,  
And automation dependency,  
Problems with fusion radar display,  
And approach chart complexity.*

*Teleconferences address Alert observations,  
In substantial detail,  
Exploring everything from dangerous operations,  
To aircraft parts that fail.*

- ➔ There have been 7,100 database **Search Requests** to support aviation community efforts, research studies, publications, safety promotion activities, accident investigations, and more.

*Search Requests are custom compilations,  
Of ASRS reports,  
For targeted research, investigations,  
And training support.*

- ➔ 435 issues of ASRS’s award-winning monthly safety bulletin, **CALLBACK**, have been produced. **CALLBACK** is now electronically delivered to more than 30,000

individuals and viewed by more than 35,000 readers on the ASRS website every month.

*Back in ‘Seventy Eight **CALLBACK** was proposed,  
In a monthly format,  
To share valuable lessons learned by some of those,  
Who’ve “been there; done that.”*

***CALLBACK**’s status became monumental,  
According to the editor,  
By staying relevant and non-judgmental,  
With no real competitor.*

- ➔ More than 60 topical **Research Studies** have been published, including completion of more than 124 Quick Response efforts examining all aspects of human and system performance.

*Special Studies take a closer look at an issue,  
Such as wake turbulence,  
To identify the factors involved and to review,  
The related incidents.*

- ➔ **The Database Online (DBOL)** was developed in response to popular demand for access to the ASRS Database to retrieve incident reports for use in research, safety promotion, and task force efforts.

*Use of the **Database Online** or **DBOL**,  
Available since Two Thousand Six,  
Confirms that it’s working very well,  
For researchers and academics.*

- ➔ Public access to program information, publications, immunity policies, database report sets, reporting forms, and more can be found on the ASRS web site at: <http://asrs.arc.nasa.gov>.

## ASRS Future Developments

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As the ASRS moves into its fifth decade of service, it will continue to prevail as the premier industry-wide safety reporting program. ASRS has collected, analyzed, and responded to voluntarily submitted reports from all corners of the National Aviation System. The program has undoubtedly strengthened the foundation of human factors safety research, as well as identified deficiencies and discrepancies in training, equipment, and procedures that may otherwise have led to aviation accidents.

Ever increasing report volumes from individuals who work in ever changing operating environments will require more of the ASRS in the future. To remain relevant to these demands, ASRS seeks ways to integrate its information in a complementary manner with Safety Management Systems (SMS) and other aviation data sources, and also to produce an increasing number of safety information products.

*The key to what ASRS does,  
And will always do,  
Is that it only works because,  
Of reports from you.*