



AVIATION SAFETY REPORTING SYSTEM



ASRS Program Briefing

Data Through: December 2025

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ASRS PROGRAM OVERVIEW

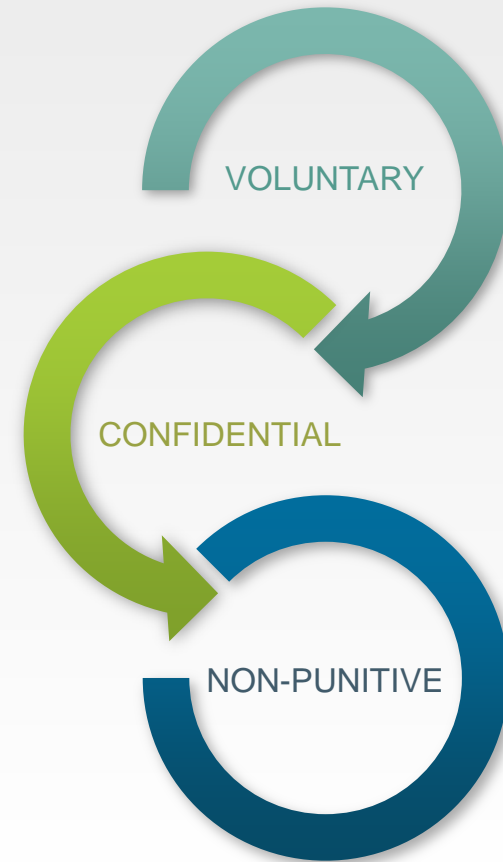


Concept & Mission

The Aviation Safety Reporting System (ASRS) receives, processes and analyzes voluntarily submitted incident reports from pilots, air traffic controllers, dispatchers, cabin crew, maintenance technicians, UAS crew and others.

Reports submitted to ASRS may describe both unsafe occurrences and hazardous situations. Information is gathered from these reports and disseminated to stakeholders. ASRS's particular concern is the quality of human performance in the National Airspace System.

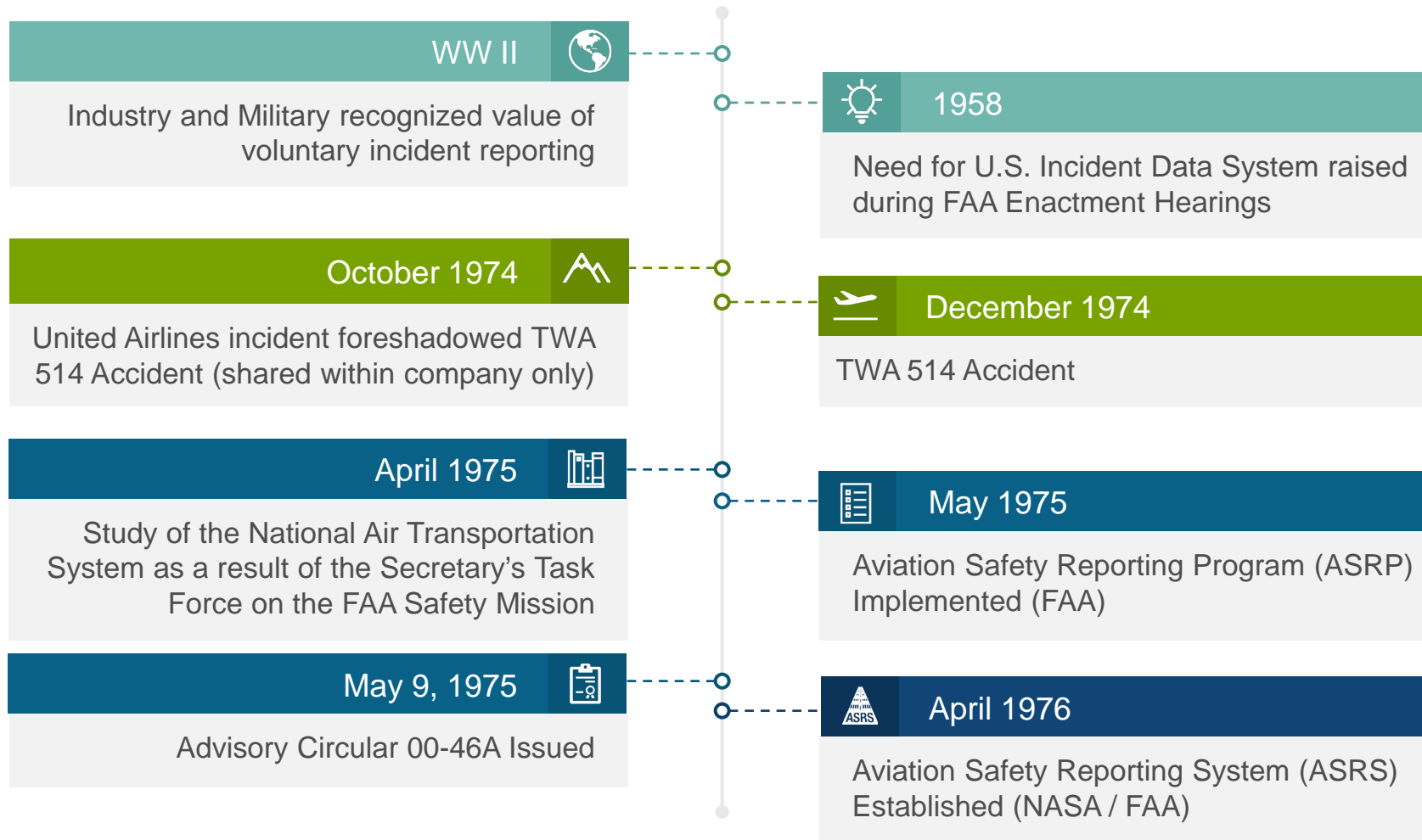
Reporting Incentives



Purpose

- **Identify deficiencies and discrepancies in the National Airspace System**
 - Objective: Improve the current aviation system
- **Provide data for planning and improvements to the future National Airspace System**
 - Objective: Enhance the basis for human factors research and recommendations for future aviation procedures, operations, facilities, and equipment

ASRS Background



ASRS Staff

The ASRS Staff is composed of highly experienced pilots, air traffic controllers and mechanics, as well as a management team that possess aviation and human factors experience.

ASRS Analysts' experience is comprised of over 550 cumulative years of aviation expertise covering the full spectrum of aviation activity: air carrier, corporate, military, UAS (Unmanned Aircraft Systems) and general aviation; Air Traffic Control in Towers, TRACONs, Centers, and Military Facilities. Analyst cumulative flight time exceeds 180,000 hours in over 160 different aircraft.

In addition, the ASRS Staff has human factors and psychology research experience in areas such as training, fatigue, crew resource management, user interface design, usability evaluations, and research methodology.



Documents Governing ASRS Immunity & Confidentiality

- Federal Register Notice, 1975 & 1976
- Federal Aviation Regulations Part 91.25
(14 CFR 91.25)
- FAA Advisory Circular 00-46F
- FAA policy concerning Air Traffic Controllers regarding ASRS reporting, FAA Order JO 7200.20A



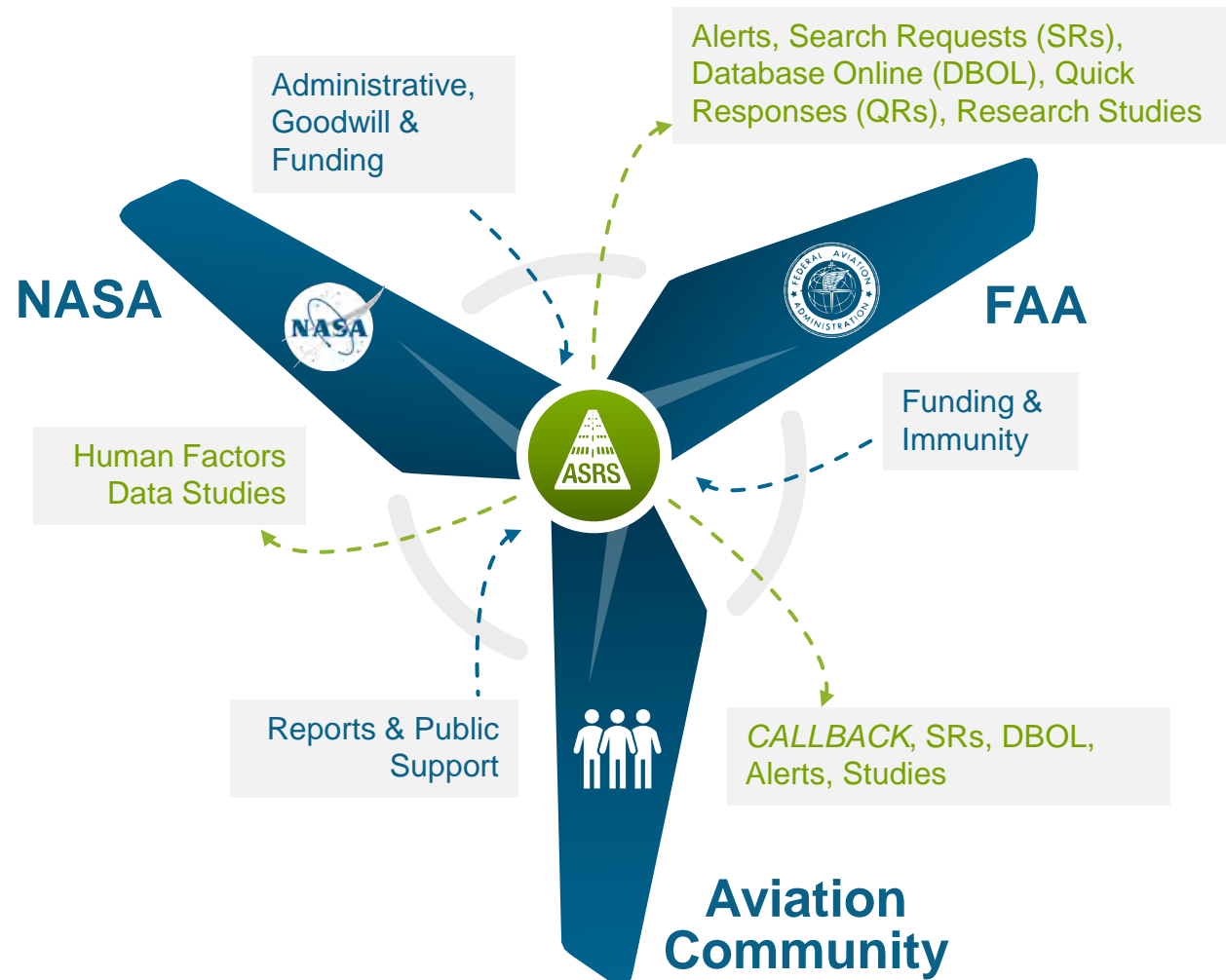
The Immunity Concept

Paragraph 9. c. FAA Advisory Circular No. 00-46F

c. **Waiver of Imposition of Sanction.** The FAA considers the filing of a report with NASA concerning an incident or occurrence involving a violation of 49 U.S.C. subtitle VII or the 14 CFR to be indicative of a constructive attitude. Such an attitude will tend to prevent future violations. Accordingly, although a finding of violation may be made, neither a civil penalty nor certificate suspension will be imposed if:

1. The violation was inadvertent and not deliberate;
2. The violation did not involve a criminal offense, accident, or action under 49 U.S.C. § 44709, which discloses a lack of qualification or competency, which is wholly excluded from this policy;
3. The person has 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
4. The person proves that, within 10 days after the violation, or date when the person became aware or should have been aware of the violation, he or she completed and delivered or mailed a written report of the incident or occurrence to NASA.

ASRS Stakeholders



Aviation Community – How to Report

- **Electronic Report Submission (ERS):**

Reporting online is a quick, easy and secure way to submit your safety report. NASA encourages members of the aviation community to take advantage of this reporting option. Visit the ASRS website at <https://asrs.arc.nasa.gov> (or scan the QR code) to fill out and securely submit your ASRS report.

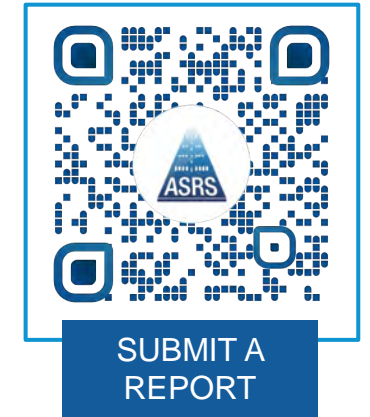
- **Download and Print:**

A report form may be downloaded from the ASRS website, filled out on your computer and printed (or printed and filled out by hand). Place the form in an envelope, affix proper postage, and mail to:

NASA Aviation Safety Reporting System
P.O. Box 189
Moffett Field, CA 94035-0189

- **Official Paper Copies:**

Paper copies of the ASRS report form may be found in locations such as crew rooms. Official legal-size copies of the ASRS form are postage free and pre-addressed. Just fold, tape and mail it.





REPORT PROCESSING



Report Intake Overview

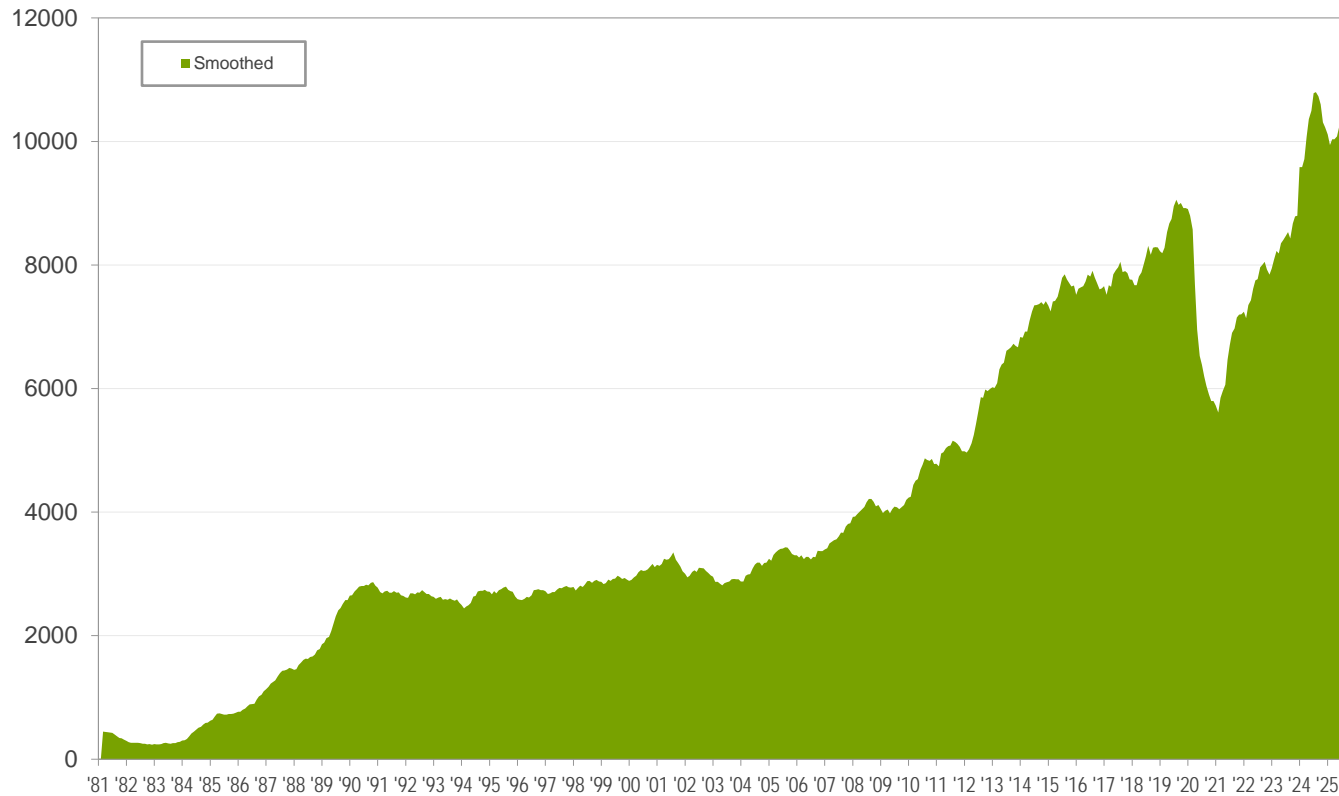
ASRS receives reports from pilots, air traffic controllers, cabin crew, dispatchers, maintenance technicians, ground personnel, UAS crews, and others involved in aviation operations.

ASRS's report intake has been robust from the first days of the program, in which it averaged approximately 400 reports per month. In recent years, report intake has grown at an enormous rate. Intake in 2025 averaged about **2,329** reports per week or **10,094** reports per month.



Report Intake Metrics

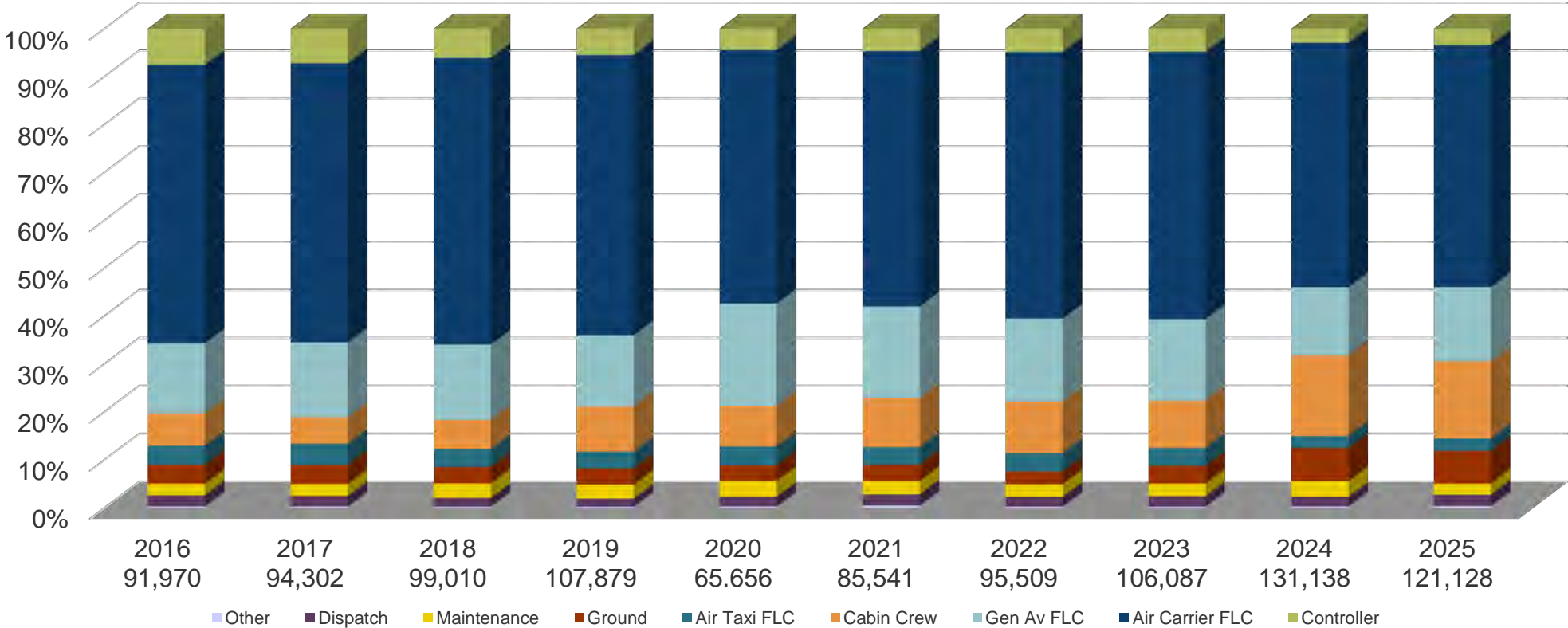
Yearly Report Intake
(January 1981 – December 2025)



- Total Program Report Intake = **2,321,050**
- Total Report Intake for 2025 = **121,128**
- Averaging **10,094** reports per month, **485** per working day

Incident Reporter Distribution

January 2016 – December 2025



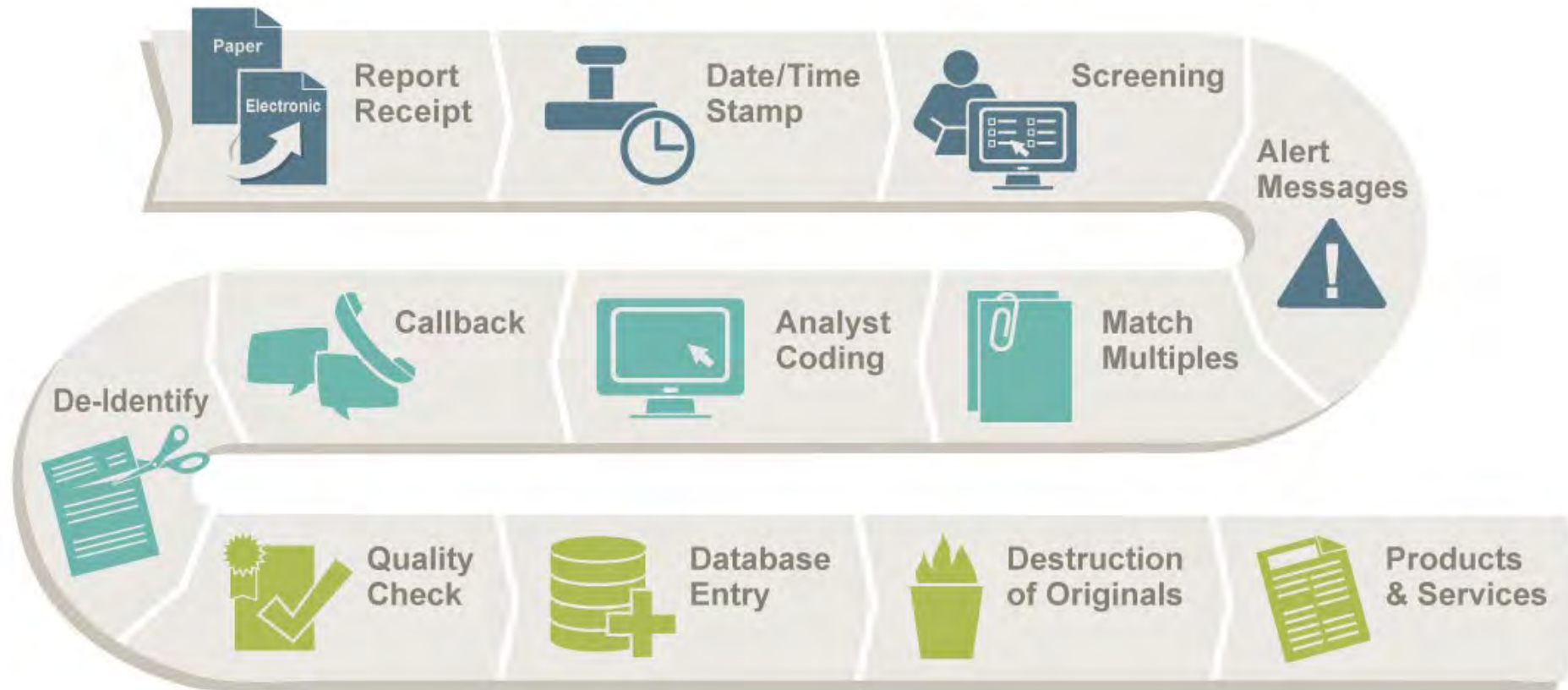
Report Processing Overview

ASRS has securely processed over **2.3 million** reports in its **50-year history**. The process contains critical elements that ensure each report is handled in a manner that maintains reporter confidentiality while maximizing the ability to accurately assess the safety value of each report. ASRS report processing begins with the receipt of reports through electronic submission or from the post office and ends with the final coded report entering the ASRS Database.

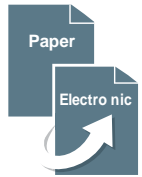
Reports sent to the ASRS are widely regarded as one of the world's largest sources of information on aviation safety and human factors.



Report Processing Flow



Report Processing Flow



ASRS paper reports are picked-up daily from the Moffett Field Post Office or are received electronically via website Electronic Report Submission (ERS) or ASAP data transmissions.



Every report is date and time stamped based on the date of receipt.



ASRS Expert Analysts screen each report within five working days to provide initial categorization and to determine the triage of processing.



ASRS Analysts may identify hazardous situations from reports and issue an Alert Message. De-identified information is provided to organizations in positions of authority for further evaluation and potential corrective actions.

Report Processing Flow



ASRS retains high-level categorization of 100% of reports received. Based on initial categorization, multiple reports on the same event are brought together to form one database “record”.



ASRS Analysts identify reports that require further analysis and entry into the public ASRS database. During the detailed Report Analysis process, reports are codified using the ASRS taxonomy.



An ASRS Analyst may choose to call a reporter on the telephone to clarify any information the reporter provided. This information is added to the analysis and final record.



To ensure confidentiality all identifying data is removed. After analysis, the Identification (ID) Strip, the top portion of the report, is returned to the reporter. This ID Strip acts as the reporter’s proof of submittal. All physical and electronic ID Strip data with the reporter’s name, address, date and time stamp is removed.

Report Processing Flow



All reports that receive further analysis go through a Final Check to assure coding accuracy. Quality Assurance checks are also performed for coding quality.



Final coded reports enter the ASRS Database. These de-identified records are then available in the ASRS Database Online, which is available through the ASRS website.



Original reports, both physical and electronic data, are destroyed to completely ensure confidentiality.



ASRS uses the information it receives to promote aviation safety through a number of products and services, such as Alert Messages, Search Requests, a monthly newsletter, focused studies and more.

ASRS Products & Services



ALERT MESSAGES

Safety information issued to organizations in positions of authority for evaluation and possible corrective actions.



QUICK RESPONSES

Rapid data analysis by ASRS staff on safety issues with immediate operational importance generally limited to government agencies.



ASRS DATABASE

The public ASRS Database Online and data available in Database Report Sets or Search Requests full filled by ASRS staff.



NEWSLETTERS

CALLBACK monthly newsletter with a lessons learned format, available via website and email. UAS safety publication via email.



FOCUSED STUDIES

Studies/Research conducted on safety topics of interest in cooperation with aviation organizations.

ASRS Products & Services Metrics



(April 1976 – December 2025)



ALERT MESSAGES

Alert Message Overview

When ASRS receives a report describing a hazardous situation, for example, a defective navigation aid, an aircraft system anomaly, a confusing procedure, or any other circumstance which might compromise safe flight – an alerting message is issued using de-identified information provided in the reports.

Alerting messages have a single purpose: to relay safety information to organizations in positions of authority so that they can evaluate the information and take possible corrective actions.

Alert messages are classified as **Alert Bulletins** or **For Your Information Notices** and may be included in monthly **ASRS Safety Teleconferences**.



ASRS Alerting Pyramid

Alert Bulletins		Time critical safety information issued to organizations in positions of authority for evaluation and possible corrective actions.
For Your Information Notices		Less urgent safety information issued to the aviation community for awareness.
Safety Teleconferences		Topics determined appropriate for in-depth discussion are included in a monthly teleconference with the FAA and others.

*ASRS has no direct authority to directly correct safety issues.
It acts through and with the cooperation of others.*

Alerting Subjects

January 2016 – December 2025

Subject	Total
Airports Facility Status and Maintenance	500
Other	290
Aircraft Systems	280
Navigation	173
ATC Procedures	163
Hazards to Flight	122
ATC Equipment	114
ATC Operations	101
Airport Lighting and Approach Aids	83
Aircraft Avionics	30
Aircraft Power Plants	21
Security	1

Examples of Safety Alerting Success

Safety Issue	Action Item	Result
<p>1 MHR Airport Taxiway Weight Limit Confusion</p> <p>Air carrier pilot reported confusing and contradictory information on MHR taxiway weight limits.</p>	<p>Airport Management reviewed pavement condition report on file, including the supporting data, with the Operations and Engineer team.</p>	<p>MHR removed the Taxiway Delta weight restrictions through the Airport Data and Information Portal.</p>
<p>2 Airport Operations Vehicle Hazard at BNA</p> <p>BNA Controller reported having to re-clear an aircraft to land after getting vehicles off the runway and recommended that ground vehicles be equipped with transponders and ADS-B technology.</p>	<p>The investigation determined that equipping airport ground vehicles with transponders and ADS-B technology is not currently an FAA requirement.</p>	<p>Although not required, BNA has allocated funds to purchase Vehicle Movement Area Transponders (VMATs) for use in their ground vehicle fleet.</p>
<p>3 CLT Taxiway Markings</p> <p>Air carrier flight crew reported the lack of clear taxiway lines and spot numbers led to a taxiway incursion at CLT.</p>	<p>The investigation revealed that during slab replacement on the Terminal Ramp between Taxiways G and R at CLT, ramp taxi lane markings were significantly shifted to maintain operational capacity. This resulted in the temporary removal of some spot numbers.</p>	<p>The airport is coordinating with stakeholders to use air carrier ramp control systems to alert pilots about construction-related changes. Additionally, CLT plans to emphasize the importance of spot numbers with airport maintenance personnel during future projects.</p>



QUICK RESPONSES (QRs)

Quick Response Overview

Quick Responses are rapid turnaround data analyses that are typically accomplished within two to ten business days of the request. They are a high value service directed towards safety issues with immediate operational importance. Quick Responses are generally limited to government agencies such as FAA, DOT, NTSB, NASA, and U.S. Congress.

Quick Response Applications

AN ANALYSIS OF:



Notice to Air Missions (NOTAM)
Related Incidents



Unmanned Aircraft Systems (UAS)
Related Incidents



Flight Service Station Related
Incidents



General Aviation ADS-B Related
Incidents



Part 121 Similar Call Sign Related
Incidents



ASRS DATABASE



Search Requests

Information in the ASRS Database is available publicly. The ASRS will provide **Search Requests** to members of the aviation community. ASRS will search its database, download relevant reports, and send to requestor.

Since the inception of ASRS, over **7,650** Search Requests (SRs) have been directly provided by ASRS Research Staff to various aviation organizations and agencies, as well as individuals through December 2025.



Search Requestors by Organization

January 2016 – December 2025

Organization	Total
FAA	45
Air Carriers	31
NTSB	28
NASA	25
Other Government Agencies	6
Safety Organizations	6

Organization	Total
Aviation Industry Groups	4
Media	4
Foreign Entities	3
Educational Institutions	2
Individuals	2
Student	1

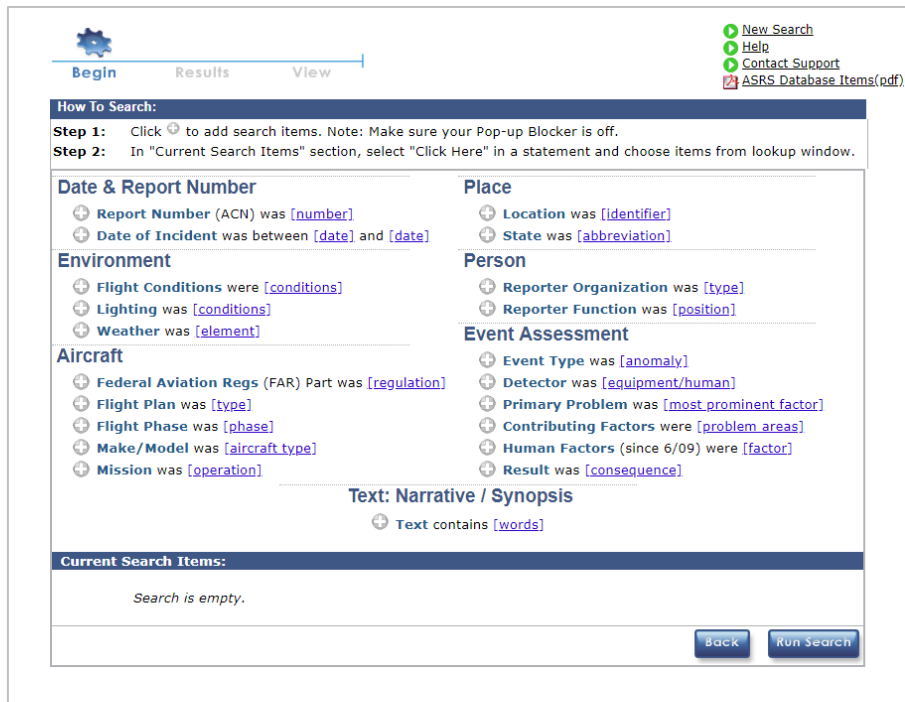
Recent Search Request Samples

- **Unmanned Aircraft Systems (UAS) Related Incidents (SR7356)**
 - Completed for the FAA
- **ANJLL STAR Related Incidents (SR 7354)**
 - Completed for the FAA
- **Learjet 55 Aircraft Equipment Related Incidents (SR 7350)**
 - Completed for the NTSB

ASRS Database Online

Direct access to search de-identified reports in the ASRS database is available through **ASRS Database Online (DBOL)** at:

<https://asrs.arc.nasa.gov/search/database.html>



The screenshot shows the ASRS Database Online search interface. At the top, there are navigation links: "Begin", "Results", and "View". On the right, there are links for "New Search", "Help", "Contact Support", and "ASRS Database Items(pdf)". Below this is a "How To Search:" section with two steps: "Step 1: Click + to add search items. Note: Make sure your Pop-up Blocker is off." and "Step 2: In 'Current Search Items' section, select 'Click Here' in a statement and choose items from lookup window." The main search area is divided into several categories, each with a plus sign to expand the options: "Date & Report Number" (Report Number (ACN) was [number], Date of Incident was between [date] and [date]), "Environment" (Flight Conditions were [conditions], Lighting was [conditions], Weather was [element]), "Aircraft" (Federal Aviation Regs (FAR) Part was [regulation], Flight Plan was [type], Flight Phase was [phase], Make/Model was [aircraft type], Mission was [operation]), "Place" (Location was [identifier], State was [abbreviation]), "Person" (Reporter Organization was [type], Reporter Function was [position]), and "Event Assessment" (Event Type was [anomaly], Detector was [equipment/human], Primary Problem was [most prominent factor], Contributing Factors were [problem areas], Human Factors (since 6/09) were [factor], Result was [consequence]). Below these categories is a "Text: Narrative / Synopsis" section with a plus sign to expand the options, showing "Text contains [words]". At the bottom, there is a "Current Search Items:" section with the text "Search is empty." and two buttons: "Back" and "Run Search".



2,930+

Queries completed
each month



416,361

Queries completed since
DBOL launch in July 2006

ASRS Database Report Sets

For your convenience, selected relevant reports on several safety topics are available on the website called **ASRS Database Report Sets**. Each report set consists of 50 ASRS Database records, all pre-screened to assure their relevance to the pre-selected topic and are available at <https://asrs.arc.nasa.gov/search/reportsets.html>.

From the ASRS website, ASRS Database Report Sets are downloaded on average over **11,590** times a month. Report Sets were first posted in January 2000.



ASRS Database Report Sets

2025 Top Ten Report Sets

Report Set Topic	Total Downloads
Penetration of Prohibited Airspace	14,412
Near Midair Collision Incidents	11,910
Air Carrier (FAR 121) Flight Crew Fatigue Reports	7,462
Commuter and GA Icing Incidents	6,661
Parachutist / Aircraft Conflicts	6,191
Cabin Smoke, Fire, Fumes or Odor Incidents	5,866
CRM Issues	5,750
Unmanned Aircraft Systems (UAS) Events	5,310
Runway Incursions	4,985
Maintenance Reports	4,910



NEWSLETTERS



CALLBACK Overview

CALLBACK, the award winning ASRS monthly safety newsletter, has been published since 1979 in a popular “lessons learned” format. **CALLBACK** presents ASRS report excerpts that are significant, educational, and timely. Occasionally features ASRS program developments and research. Over **551** issues have been published and distributed throughout the U.S. and to the international aviation community. All issues since December 1994 are available for download at the ASRS website at:

<https://asrs.arc.nasa.gov/publications/callback.html>



CALLBACK Distribution and Subscription

In addition to being published online, **CALLBACK** is distributed by email. Subscription is free and available via the ASRS website.



33,765

Total number of email subscribers for 2025



1,799,748

CALLBACK views for 2025 (HTML and PDF)



CALLBACK Topics


2025 CALLBACK Topics Covered

- Aborted Takeoffs
- Air Traffic Controller Reports
- Altitude Deviations
- General Aviation Reports
- Hazardous Ramp Operations
- Interactive Situational Resolutions
- Maintenance Reports
- Non-Towered Airport Hazards
- Runway Incursions
- When VMC Turns IMC
- Winter Flight Operations



When VMC Turns IMC

Issue 540, January



A Snapshot of ALTITUDE DEVIATIONS

Issue 545, June



The *Aborted Takeoff* Decision

Issue 547, August

UAS Safety In Sight (SIS) Distribution and Subscription

In addition to *CALLBACK*, a UAS specific publication with ASRS UAS report excerpts is also distributed by email. Subscription to ***UAS Safety In Sight*** is free and available via the ASRS website.



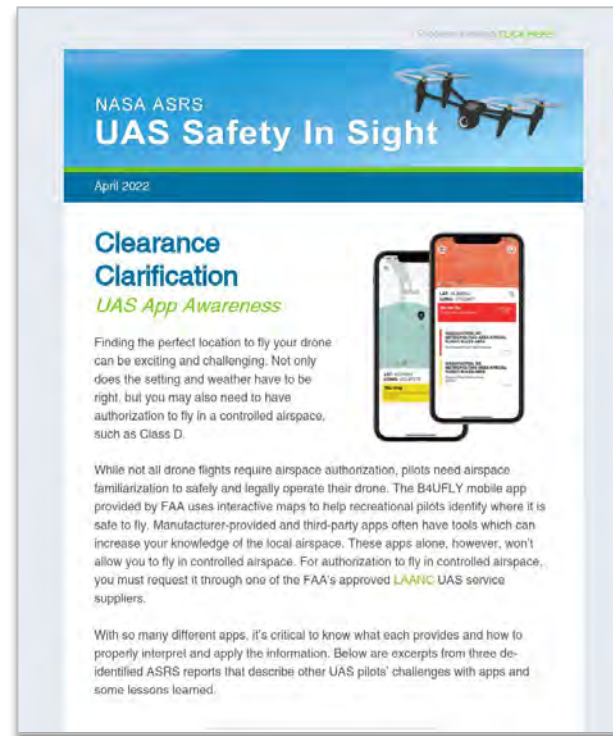
1,920+

Total number of email subscribers for 2025



16 Issues

Published to date





FOCUSED STUDIES / RESEARCH



Focused Studies and Topic Areas

General Aviation (FAA AVP*)	HazMat (FAA AXH-1*)	Inadvertent Slide Deployments (NASA NESCC)
 <p>Driving Down GA Accident Rate</p>	 <p>NASA ASRS HAZMAT Safety Reporting</p>	 <p>NASA ASRS ISD Reporting</p>
UAS (FAA AVP*)		Wake Vortex (FAA AJP*)
 <p>NASA ASRS UAS Safety Reporting</p>		 <p>WAKE VORTEX ENCOUNTER STUDY</p> <p>NASA</p>

Focused Study – General Aviation

General Aviation Study

In cooperation with the FAA, ASRS is currently analyzing General Aviation incidents reported to ASRS. ASRS began this study in 2019 and includes reports received from corporate and business operators, recreational pilots, and flight instruction activities.

ASRS provides monthly summaries to the FAA of the event anomalies as coded by ASRS analysts and provided by reporters, such as equipment issues, airborne and ground events, and deviations.

Currently, the ASRS Database Online (DBOL) contains over 38,800* General Aviation pilot records which are available for public retrieval, research and analysis.



*To view GA records in ASRS DBOL, conduct a search for -- Function: All FLC options except for UAS, and Organization: Contracted Service, Corporate, Fractional, FBO, Government, Military, and Personal



Focused Study – HAZMAT

HAZMAT Study

In cooperation with the FAA, ASRS conducted a special study of Hazardous Materials (HAZMAT) incidents reported to ASRS. Begun in 2018 and completed in June 2025, the study focused on all aspects of the transport and handling of HAZMAT in the aviation industry. ASRS provided monthly and bi-annual reports to the FAA, summarizing report data such as reporter function, type of FAR operation, anomalies reported, and event results. An additional analysis of reports was done annually to examine additional factors, such as the type and location of HAZMAT involved, contributing factors, and event outcome.

Over 2,300 HAZMAT-related reports from this project are available in the ASRS Online Database.



Focused Study – Inadvertent Slide Deployments

Inadvertent Slide Deployment (ISD)

In cooperation with ASRS, the NASA Engineering and Safety Center (NESC) is conducting an analysis of ASRS reports involving inadvertent escape slide deployments. This project began in July 2025.

The incidents being analyzed involve a partial or full inadvertent deployment of an escape slide, or a deployment that was avoided or otherwise stopped from occurring.



Focused Study – UAS

UAS Safety Reporting

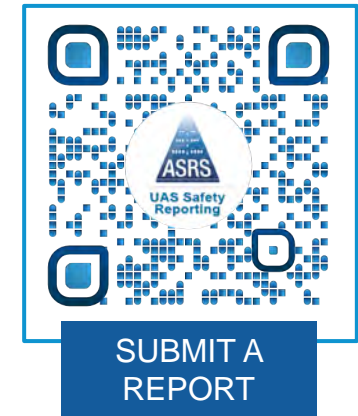
In April 2021, ASRS deployed a fifth report form for operators of Unmanned Aircraft Systems (UAS) and has received and analyzed over 2,000 UAS-related reports.

ASRS modified its taxonomy with 2,100+ UAS Make Models and 100+ UAS terms that are searchable on ASRS Database Online (DBOL).

ASRS has been publishing *UAS Safety in Sight* available on the ASRS website since 2021 and **16 issues** have been published to date.

More information on UAS safety reporting can be found at:

<https://asrs.arc.nasa.gov/uassafety.html>



Focused Study – Wake Vortex

Wake Vortex Encounter Study

In cooperation with the FAA, ASRS is currently examining Wake Vortex Encounter incidents reported to ASRS. ASRS began this study in 2007 and has analyzed over 800+ reports to date.

The Wake Vortex Encounter Study includes all airspace within the United States, enroute and terminal. In quarterly reports, the ASRS documents event dynamics and contributing factors underlying unique wake vortex encounter incidents.

A sampling of the factors that are analyzed include reporters' assessed magnitude of wake encounter, aircraft spacing, aircraft type, runway configuration, and consequences from the encounter.



ASRS Research Archives

- 64 Research Studies and Special Papers Published
 - **Operations:** Deviations, De-Icing/Anti-Icing, Rejected Takeoffs, Clearances, Weather Encounters, Landing Incidents, Runway Transgressions, TCAS II, Crossing Restrictions, etc.
 - **Human Factors:** Communication, Memory, Confusion, Time Pressure, Judgment, Training, Crew Performance, Flight Crew Monitoring, etc.
 - **Confidential Reporting:** ASRS Reporting Model, Case for Confidential Reporting, Development of ASRS, Cross Industry Applications, etc.
- Research agendas are developed in collaboration with government and industry safety organizations
- There are over 30 ASRS Research Papers available to download on the ASRS website





ASRS MODEL APPLIED



ASRS Model Applied

The ASRS model is utilized internationally in the aviation community. The International Confidential Aviation Safety Systems (ICASS) Group promotes confidential reporting systems as an effective method of enhancing flight safety in commercial air transport and general aviation operations.

International Civil Aviation Organization (ICAO) has revised Annex 13 – Accident Prevention and created Annex 19, Chapter 5, which addresses member states establishing a voluntary incident reporting system.



Current Members of the International Confidential Aviation Safety Systems (ICASS) Group

- **UNITED STATES:** Aviation Safety Reporting System (ASRS) [1976]
- **UNITED KINGDOM:** Confidential Human Incident Reporting Program (CHIRP) [1982]
- **CANADA:** Confidential Aviation Safety Reporting Program (CASRP) [1985], SECURITAS [1995]
- **BRAZIL:** Confidential Flight Safety Report (RCSV) [1997]
- **JAPAN:** Aviation Safety Information Network (ASI-NET) [1999], VOICES Reporting System [2014]
- **TAIWAN:** Taiwan Confidential Aviation Safety Reporting System (TACARE) [2000]
- **SOUTH KOREA:** Korea Aviation hindrance Reporting System (KAIRS) [2000]
- **CHINA:** Sino Confidential Aviation Safety System (SCASS) [2004]
- **SINGAPORE:** Tell Sarah (formerly SINCLAIR) [2004]
- **AUSTRALIA:** CAIR [1988], Report Confidentially (REPCON) [2007]
- **SPAIN:** Safety Occurrence Reporting System (SNS) [2007]
Safety Reporting System – SEPLA (SRS) [2007]
- **SOUTH AFRICA:** Confidential Aviation Hazard Reporting System (CAHRS) [2013]
- **EUROPE:** European Union Aviation Safety Agency Safety Reporting (EASA) [2015]
- **CENTRAL AMERICA:** COCESNA- ACSA [2025]



ASRS Model Applications

Due to the success of ASRS, the ASRS reporting model is also being applied to other disciplines such as railroad, medicine, security, firefighting, maritime, law enforcement, and others.



RAIL



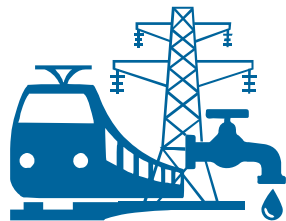
MEDICINE



SECURITY



FIREFIGHTING



PUBLIC UTILITIES



MARITIME



STRUCTURAL
ENGINEERING



ASRS SUMMARY



ASRS Summary

ASRS is a highly successful and trusted program that has served the needs of the aviation community for over 49 years. It is available to all participants in the National Airspace System who wish to report safety incidents and situations.

The ASRS identifies system deficiencies, and issues alerting messages to persons in a position to correct them. It educates through its newsletters, participation in government and industry meetings, and through its research studies. Its database is a public repository which serves the needs of the FAA, NASA, the aviation community, and those of other organizations world-wide which are engaged in research and the promotion of safe flight.



Advantages of the ASRS Model



System-Wide Perspective



Strong Immunity and Legal Provisions



System-Wide Alerting



Information Sharing on Aviation Safety



Data Processing through Expert Analysts



National and International Reputation



Comprehensive and Time-Tested Coding Taxonomy

Why Confidential Reporting Works

- When organizations want to learn more about the occurrence of events, the best approach is simply to ask those involved
- People are generally willing to share their knowledge if they are assured
 - Their identities will remain protected
 - There are no disciplinary or legal consequences
- A properly constructed *confidential, voluntary, non-punitive* reporting system can be used by any person to safely share information
- Confidential reporting systems have the means to answer the question *why* - why a system failed, why a human erred
- Incident / event data are complementary to the data gathered by other monitoring systems

THANK YOU!



Contact the NASA ASRS Director

Becky Hooey – Becky.L.Hooey@nasa.gov

Additional Information & Resources

- ✓ Confidentiality & Incentives to Report
<https://asrs.arc.nasa.gov/overview/confidentiality.html>
- ✓ Immunity Policies
<https://asrs.arc.nasa.gov/overview/immunity.html>
- ✓ Requesting ASRS Data
<https://asrs.arc.nasa.gov/search/requesting.html>