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

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>WW II</td>
<td>Industry and Military recognized value of voluntary incident reporting</td>
</tr>
<tr>
<td>1958</td>
<td>Need for U.S. Incident Data System raised during FAA Enactment Hearings</td>
</tr>
<tr>
<td>Oct. 1974</td>
<td>United Airlines incident foreshadowed TWA 514 Accident</td>
</tr>
<tr>
<td>Dec. 1974</td>
<td>TWA 514 Accident</td>
</tr>
<tr>
<td>Apr. 1975</td>
<td>Study of the National Air Transportation System as a Result of the Secretary’s Task Force on the FAA Safety Mission</td>
</tr>
<tr>
<td>May 1975</td>
<td>Aviation Safety Reporting Program (ASRP) Implemented (FAA)</td>
</tr>
<tr>
<td>May 9, 1975</td>
<td>Advisory Circular 00-46A Issued</td>
</tr>
<tr>
<td>Apr. 1976</td>
<td>Aviation Safety Reporting System (ASRS) Established (NASA/FAA)</td>
</tr>
</tbody>
</table>
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 600 cumulative years of aviation expertise covering the full spectrum of aviation activity: air carrier, corporate, military, and general aviation; Air Traffic Control in Towers, TRACONs, Centers, and Military Facilities. Analyst cumulative flight time exceeds 175,000 hours in over 90 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 00-46E
- FAA policy concerning Air Traffic Controllers regarding ASRS reporting, FAA Order JO 7200.20
Paragraph 9. c. FAA Advisory Circular No. 00-46E

C. Enforcement Restrictions. 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

Administration, Goodwill & Funding

NASA

Alerts, SRs, QRs, Studies

ASRS

Human Factors Data Studies

Aviation Community

FAA

Funding & Immunity

CALLBACK, SRs, Alerts, Studies

Reports & Public Support
Report Processing
ASRS receives reports from pilots, air traffic controllers, cabin crew, dispatchers, maintenance technicians, ground personnel 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 now averages over 2,248 reports per week and more than 8,990 reports per month.
Report Intake Metrics

Monthly Report Intake
(January 1981 – December 2019)

- Total Program Report Intake = 1,733,618
- Total Report Intake for 2019 = 107,879
- Averaging 8,990 reports per month, 435 per working day
Incident Reporter Distribution

January 2010 – December 2019

2010: 58,683
2011: 61,018
2012: 71,540
2013: 80,840
2014: 90,100
2015: 92,228
2016: 91,970
2017: 94,302
2018: 99,010
2019: 107,879

Legend:
- Other
- Dispatch
- Maintenance
- Ground
- Air Taxi FLC
- Cabin Crew
- Gen Av FLC
- Air Carrier FLC
- Controller
ASRS has securely processed over 1.7 million reports in its 43 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 Receipt
- Date/Time Stamp
- Screening
- Alert Messages
- De-Identify
- Callback
- Analyst Coding
- Match Multiples
- Quality Check
- Database Entry
- Destruction of Originals
- Products & Services
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.

Two ASRS Analysts “screen” each report within three 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.

CALLBACK NEWSLETTER
Monthly newsletter with a lessons learned format, available via website and email.

FOCUSED STUDIES
Studies/Research conducted on safety topics of interest in cooperation with aviation organizations.
## ASRS Products & Services Metrics

**April 1976 – December 2019**

<table>
<thead>
<tr>
<th>Significant Items</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident Reports Received</td>
<td>1,733,618</td>
</tr>
<tr>
<td>Safety Alert Messages</td>
<td>6,635</td>
</tr>
<tr>
<td>Quick Responses</td>
<td>144</td>
</tr>
<tr>
<td>Search Requests</td>
<td>7,578</td>
</tr>
<tr>
<td><strong>CALLBACK</strong> Issues</td>
<td>479</td>
</tr>
<tr>
<td><strong>ASRS Directline</strong> Issues</td>
<td>10</td>
</tr>
<tr>
<td>Research Studies</td>
<td>64</td>
</tr>
</tbody>
</table>
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 has no direct authority to directly correct safety issues. It acts through and with the cooperation of others.
## Alerting Subjects

### January 2010 – December 2019

<table>
<thead>
<tr>
<th>Subject</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft Systems</td>
<td>470</td>
</tr>
<tr>
<td>Airports Facility Status and Maintenance</td>
<td>323</td>
</tr>
<tr>
<td>ATC Procedures</td>
<td>202</td>
</tr>
<tr>
<td>Other</td>
<td>181</td>
</tr>
<tr>
<td>Airport Lighting and Approach Aids</td>
<td>94</td>
</tr>
<tr>
<td>ATC Equipment</td>
<td>93</td>
</tr>
<tr>
<td>Hazards to Flight</td>
<td>78</td>
</tr>
<tr>
<td>Navigation</td>
<td>62</td>
</tr>
<tr>
<td>ATC Operations</td>
<td>47</td>
</tr>
<tr>
<td>Aircraft Avionics</td>
<td>38</td>
</tr>
<tr>
<td>Aircraft Power Plants</td>
<td>22</td>
</tr>
<tr>
<td>Security</td>
<td>1</td>
</tr>
</tbody>
</table>
Alerting Responses

**January 2010 – December 2019**

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action taken as a result of the AB/FYI</td>
<td>19%</td>
</tr>
<tr>
<td>Action initiated before AB/FYI received</td>
<td>17%</td>
</tr>
<tr>
<td>Action initiated in response to AB/FYI but not completed</td>
<td>14%</td>
</tr>
<tr>
<td>Addressee agrees with AB/FYI but unable to resolve</td>
<td>5%</td>
</tr>
<tr>
<td>Issue raised by AB/FYI under investigation</td>
<td>3%</td>
</tr>
<tr>
<td>Addressee disputes factual accuracy of AB/FYI</td>
<td>15%</td>
</tr>
<tr>
<td>Information in AB/FYI insufficient for action</td>
<td>12%</td>
</tr>
<tr>
<td>Addressee in factual agreement but sees no problem</td>
<td>9%</td>
</tr>
<tr>
<td>Action not within addressee's jurisdiction</td>
<td>4%</td>
</tr>
<tr>
<td>For information only, no response expected</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Total 58%**
Examples of Safety Alerting Success

- **FRG Taxiway Signage (FYI 2019-39)**
  An FRG Airport representative responded and stated "...In reviewing the NASA/ASRS report, we believe a possible communication error occurred regarding the transmission between the tower and the pilot. We will speak with our Certification Inspector to see what other options or recommendation could be used at this location to increase situational awareness. The airport is in the early stages of a runway safety area project for runway 1-19.”

- **MSLP Arrival Charting (FYI 2019-46)**
  A Jeppesen Sanderson Inc., representative responded and stated "...we revised the (20-2B) ATUMA 2K, MORAM 2K, RELTA 2K Arrivals Chart and the (20-2C) ATUMA 2L, MORAM 2L, RELTA 2L Arrivals Chart for the changes, we missed updating that specific altitude at ASTOR. So, the two Jepp Charts will be revised in the next two weeks... A Chart Change Notice has already been issued.”

- **DFW Runway 17C Light Intensity Issue (FYI 2019-88)**
  The Dallas-Fort Worth Airport Operations office responded and stated "Please be advised DFW Operations is in receipt of ACN # 1685472 regarding in-pavement LED lighting on DFW runway 17C-35C. In coordination with DFW Air Traffic Control, the airport tested various in-pavement light settings. Pilots were made aware of the settings check and were asked to comment upon rollout. Consensus was reached on a preferred setting. Default in-pavement lighting settings have been changed to the lower, preferred step.”
Quick Responses
Quick Response Overview

Quick Responses are rapid turnaround data analysis 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 Unmanned Aerial Vehicle (UAV) Related Incidents
- An Analysis of NOTAM Related Incidents
- An Analysis of Flight Service Station Related Incidents
- An Analysis of General Aviation ADS-B Related Incidents
- An Analysis of Part 121 Similar Call Sign Related Incidents
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 **7,578** Search Requests (SRs) have been directly provided by ASRS Research Staff to various aviation organizations and agencies, as well as individuals through December 2019.
# Search Requestors by Organization

**January 2010 – December 2019**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAA</td>
<td>92</td>
</tr>
<tr>
<td>NASA</td>
<td>71</td>
</tr>
<tr>
<td>Air Carriers</td>
<td>70</td>
</tr>
<tr>
<td>NTSB</td>
<td>40</td>
</tr>
<tr>
<td>Media</td>
<td>34</td>
</tr>
<tr>
<td>Alphabet Groups</td>
<td>26</td>
</tr>
<tr>
<td>Miscellaneous Safety Organizations</td>
<td>14</td>
</tr>
<tr>
<td>Individuals</td>
<td>10</td>
</tr>
<tr>
<td>Foreign</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous Government</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
<tr>
<td>Research Organizations</td>
<td>6</td>
</tr>
<tr>
<td>Aircraft Manufacturers</td>
<td>5</td>
</tr>
<tr>
<td>Student</td>
<td>5</td>
</tr>
<tr>
<td>Military</td>
<td>3</td>
</tr>
<tr>
<td>Educational Institutes</td>
<td>3</td>
</tr>
<tr>
<td>DHS</td>
<td>2</td>
</tr>
</tbody>
</table>
Recent Search Request Samples

- **B737 MAX Aircraft Safety Reports (SR 7284)**
  - Completed for the NTSB

- **Inadvertent Activation of Go-Around Mode Related Incidents (SR 7290)**
  - Completed for the NTSB

- **Performance-Based Navigation Incidents (SR 7296)**
  - Completed for the FAA (ANG-C1), NextGen Human Factors Division Office
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](https://asrs.arc.nasa.gov/search/database.html).

- Over **1,600** queries are completed each month
- More than **266,471** DBOL queries completed since its launch in July 2006
For your convenience, selected relevant reports on several safety topics are available on the website called \textbf{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 \url{https://asrs.arc.nasa.gov/search/reportsets.html}.

From the ASRS website, ASRS Database Report Sets are downloaded on average over \textbf{2,921} times a month. Report Sets were first posted in January 2000.
# ASRS Database Report Sets

## 2019 Top Ten Report Sets

<table>
<thead>
<tr>
<th>Report Set Topic</th>
<th>Total Downloads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Electronic Devices</td>
<td>3,532</td>
</tr>
<tr>
<td>Unmanned Aerial Vehicle (UAV) Reports</td>
<td>2,794</td>
</tr>
<tr>
<td>Flight Attendant Reports</td>
<td>2,231</td>
</tr>
<tr>
<td>Cabin Smoke, Fire, Fumes, or Odor Incidents</td>
<td>2,203</td>
</tr>
<tr>
<td>Passenger Misconduct Reports</td>
<td>1,713</td>
</tr>
<tr>
<td>Altitude Deviations</td>
<td>1,321</td>
</tr>
<tr>
<td>Air Carrier (FAR 121) Flight Crew Fatigue Reports</td>
<td>1,297</td>
</tr>
<tr>
<td>Runway Incursions</td>
<td>1,271</td>
</tr>
<tr>
<td>CRM Issues</td>
<td>1,256</td>
</tr>
<tr>
<td>Penetration of Prohibited Airspace</td>
<td>1,238</td>
</tr>
</tbody>
</table>
CALLBACK
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 on ASRS program developments and research are also presented. Over 479 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
In addition to being published online, **CALLBACK** is distributed by email. Subscription is free and available via the ASRS website.

The total number of email subscribers for 2019 was over **31,200**.

**CALLBACK** views for 2019 (HTML and PDF) were over **261,900**.
CALLBACK Topics

2019 CALLBACK Topics Covered

- ADS-B
- Communication Challenges
- Controlled Flight Toward Terrain
- Critical Equipment Failures
- Hazardous Materials (HAZMAT)
- Human Interactions in Aviation
- Interactive Situational Resolutions
- Runway Incursions
- Unstabilized Approach
- Winter Weather Hazards

The Hard Line on Runway Incursions

Issue 469, February

Communication Challenges

Issue 471, April

Hazardous Materials (HAZMAT)

Issue 476, September
Sample Reader Comments from 2019

“ASRS Callback is my favorite aviation publication. The reports are always relevant - and the summaries and headlines are extremely well written, creative, and often entertaining. An excellent example is "If the Nozzle Fits" in the December 2019 Callback. This…should be required reading for ALL pilots because it describes the same situation which very recently resulted in a fatal accident…It's not always practical or convenient to supervise the fueling of the airplane - but the consequences of mis-fueling certainly warrant it. Thanks again for a great publication.”

“Issue 477 has an article titled Quietly Left Holding the Bag. The event took place in my sector. The Local Safety Council (LSC) agreed with the co-pilot's interpretation of the instructions. We will bring this to that area's attention to be sure this is not a more widespread issue.”

“I've been reading Callback for over 20 years and have submitted a few reports over that time. ASRS, Callback and your safety efforts over the years have probably saved lives but we rarely know that.”
Focused Studies/Research
Focused on Operations and Human Factors

- 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
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 will continue through 2020. At present 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 to be analyzed includes reporters’ assessed magnitude of wake encounter, aircraft spacing, aircraft type, runway configuration, and consequences from the encounter.
Focused Study – AIS Data Link

Meteorological and Aeronautical Information Services Data Link Services and Applications Study

In cooperation with the FAA, ASRS conducted a study focused on meteorological and aeronautical information services (AIS) via data link. ASRS gathered reports of incidents that occurred while pilots were utilizing weather or AIS information in the cockpit (textual and/or graphical) obtained via data link (including ACARS) or other sources on the ground or in the air.

Some factors analyzed included type of weather data received, cockpit display utilized, software or applications used to receive meteorological information, and end user graphical interface issues.
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.
ASRS Model Applied to International Aviation Community

- **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]
- **AUSTRALIA:** CAIR [1988], Report Confidentially (REPCON) [2007]
- **BRAZIL:** Confidential Flight Safety Report (RCSV) [1997]
- **JAPAN:** Aviation Safety Information Network (ASI-NET) [1999], VOICES Reporting System [2014]
- **FRANCE:** Confidential Events Reporting System (REC) [2000], REX [2011]
- **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:** Singapore Confidential Aviation Incident Reporting (SINCAIR) [2004]
- **SPAIN:** Safety Occurrence Reporting System (SNS) [2007]
  - Safety Reporting System – SEPLA (SRS) [2007]
- **SOUTH AFRICA:** Civil Aviation Hazard Reporting System (CAHRS) [2013]
International Confidential Aviation Safety Systems (ICASS)
Because of 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.
ASRS Summary
ASRS is a highly successful and trusted program that has served the needs of the aviation community for over 42 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 newsletter *CALLBACK*, participation in government and industry meetings, and through its research studies. Its database is a public repository which serves the needs of the FAA and NASA, 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
- System-Wide Alerting
- Data Processing through Expert Analysts
- Comprehensive and Time Tested Coding Taxonomy
- Strong Immunity and Legal Provisions
- Information Sharing on Aviation Safety
- National and International Reputation
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 is 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 L. 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