



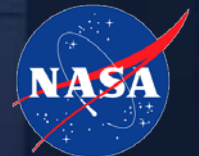
NASA Aviation Safety Reporting System (ASRS)

ICASS 2019

Becky Hooley
Director, NASA ASRS
NASA Ames Research Center
Moffett Field, California, USA
Becky.L.Hooley@NASA.gov

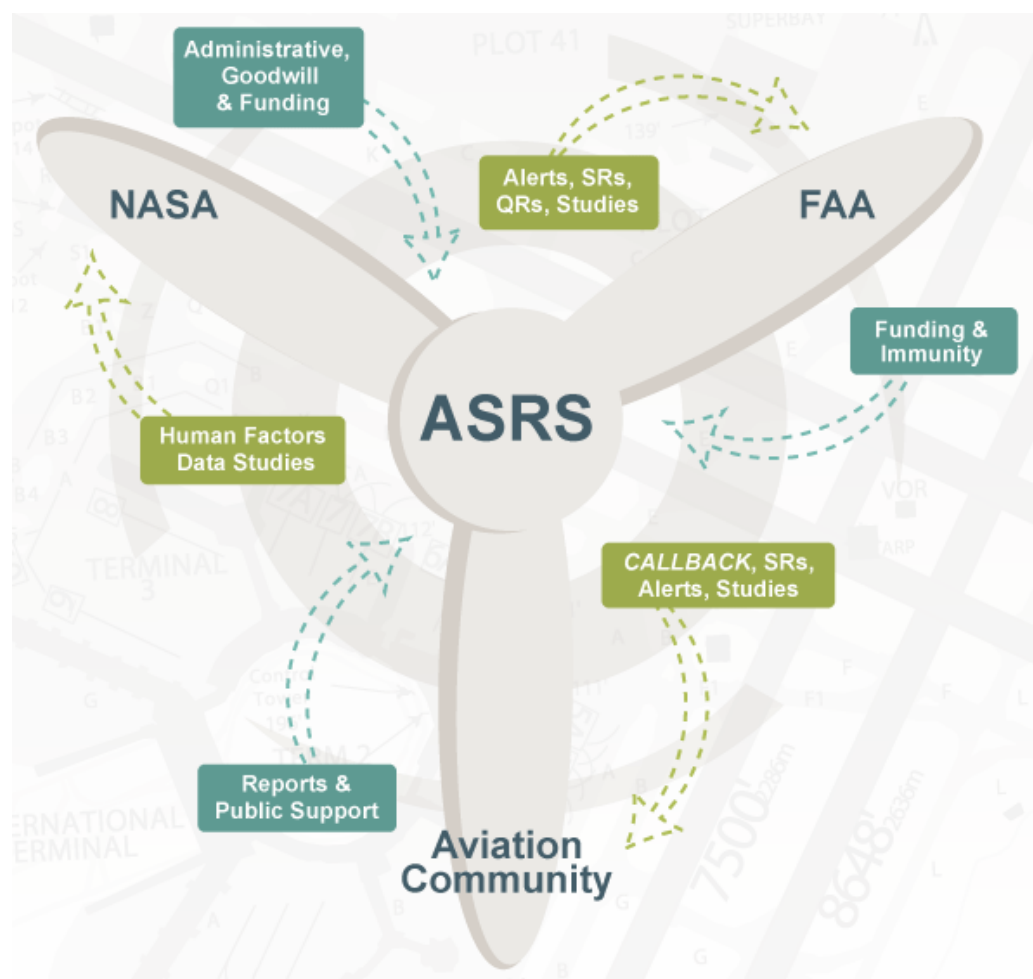
November 18 - 22, 2019

**AVIATION SAFETY
REPORTING SYSTEM**



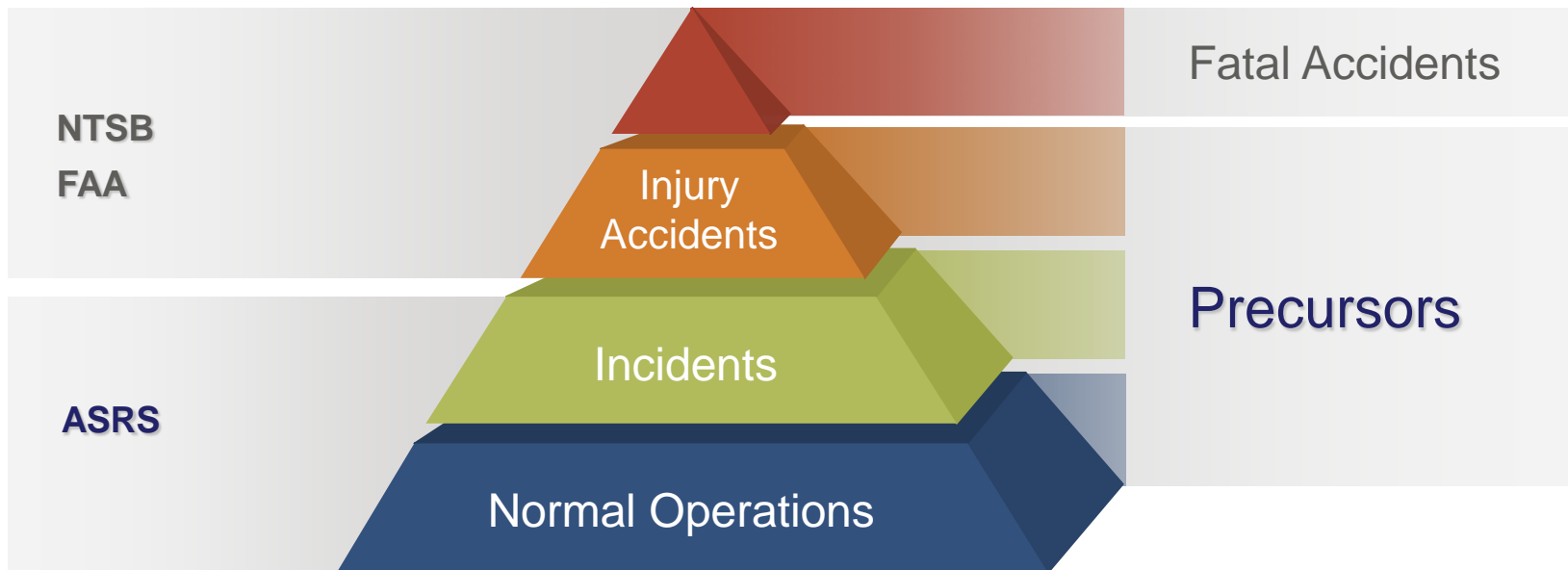
ASRS Government /Industry Partnership

- FAA provides funding to NASA for ASRS operations and report processing
- NASA manages ASRS operations and provides research and analysis capabilities
- The Aviation Community provides support through advocacy for reporting, feedback, and communications



Safety Reporting in the USA

- ASRS is complementary to other systems of reporting and focuses on precursors to the most severe events



ASRS Principles

VOLUNTARY PARTICIPATION

Aviation personnel voluntarily submit reports concerning events related to safety for the purpose of system alerting, understanding and learning

CONFIDENTIALITY PROTECTION

Protection of identity is provided by NASA through de-identification of persons, companies, and any other identifying information

INDEPENDENT

Necessary for trust building and unbiased dissemination of safety information

NON-PUNITIVE

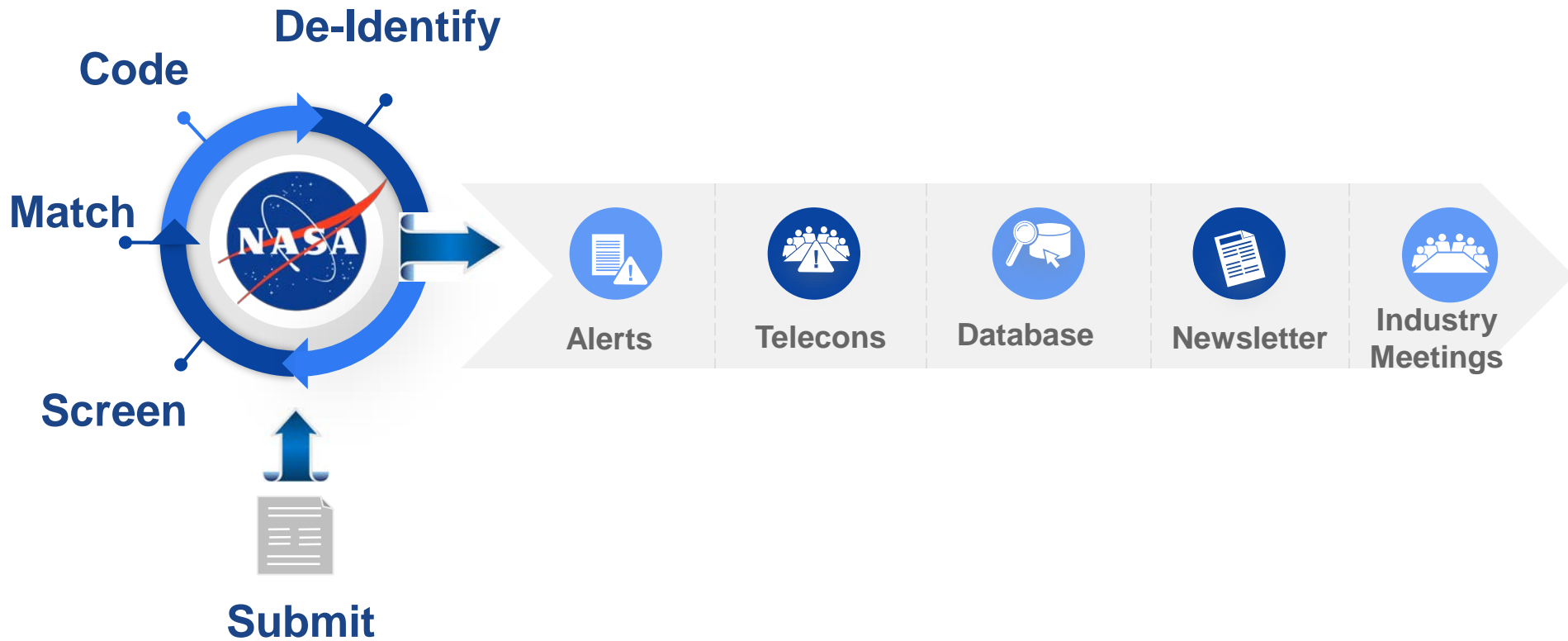
FAA will not use, nor will NASA provide, any report submitted for inclusion under ASRS guidelines or information derived therein for use in any disciplinary or other adverse action (14 CFR 91.25 & AC 00-46E)



Report Processing and Information Sharing



ASRS – Report Processing



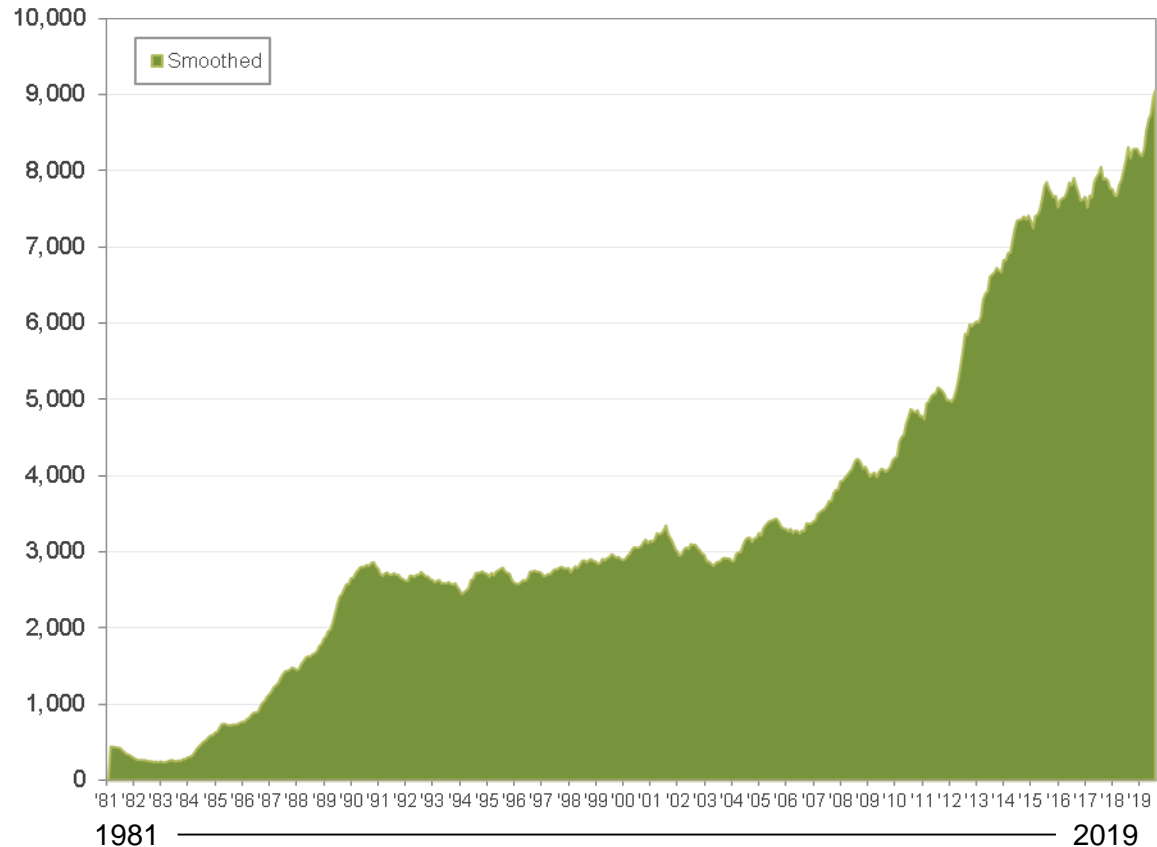
ASRS Metrics and Top Safety Issues



ASRS Report Volume Profile

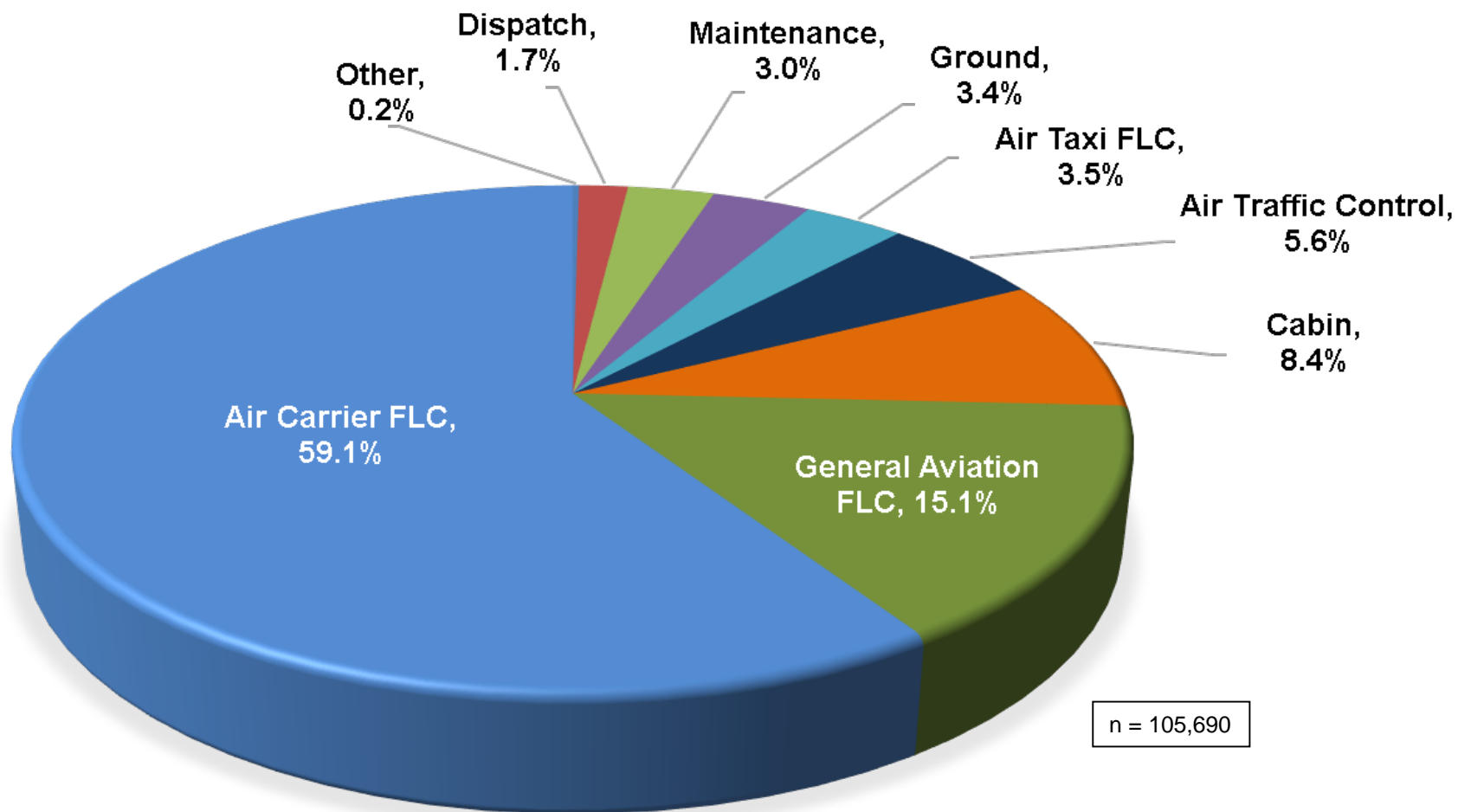
- Over 43 years of confidential safety reporting
- Current intake estimate for 2019 is over 108,000
 - 431 per working day
 - 8,887 reports per month

Monthly Intake January 1981 – August 2019

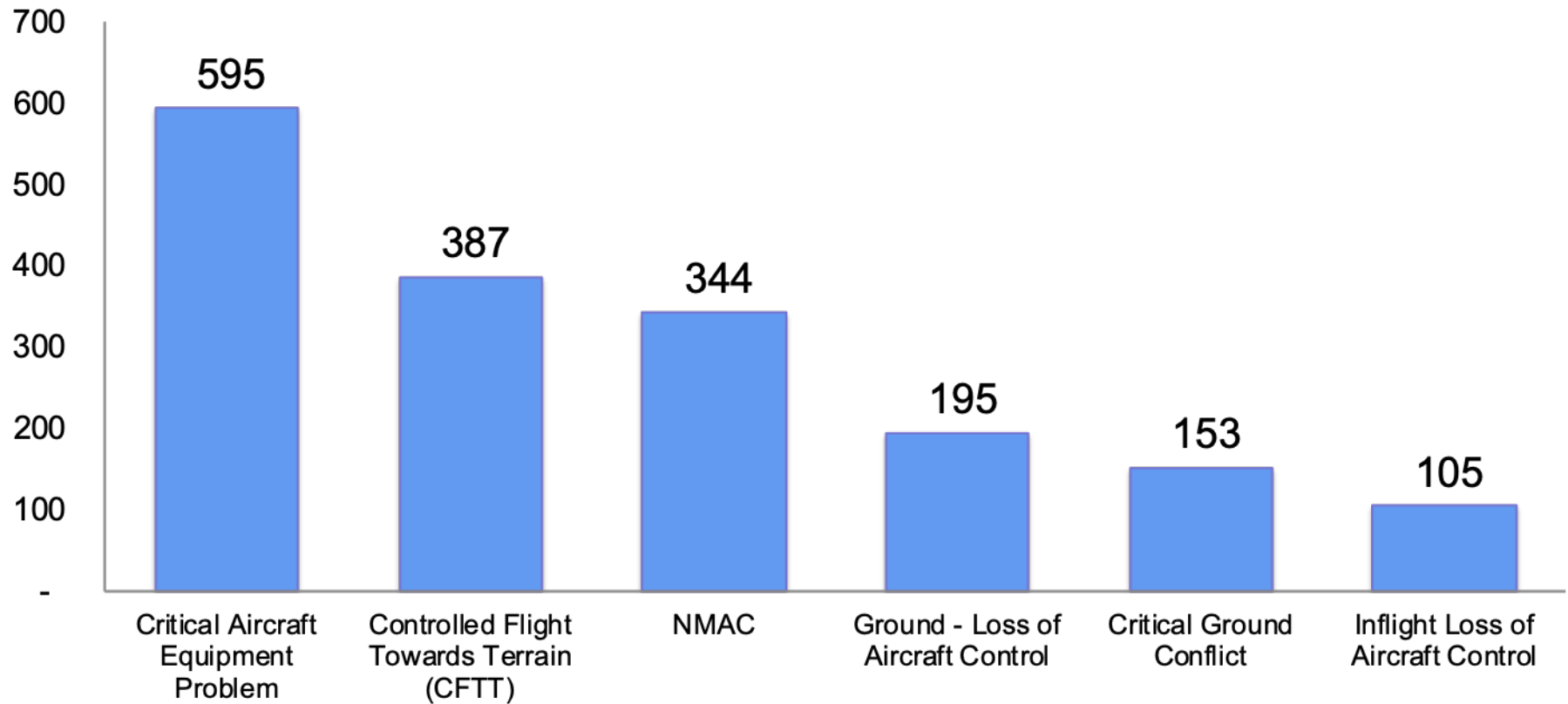


Incident Reporter Distribution

September 2018 – August 2019



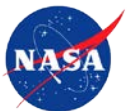
ASRS 'Bold List' Items



High-Priority Safety Topics
Number of Records in ASRS Database
Sept 2018 – Aug 2019



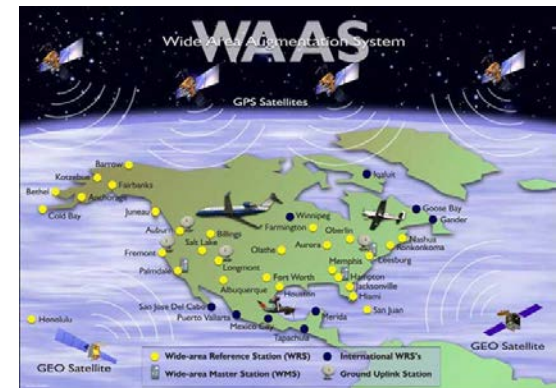
*Categories are not mutually exclusive.



Watch-list topics

- There are currently 3 topics on the Watch List

Watch-list Topic and Report Counts		
Topic	12 mo Total (10/2018 – 9/2019)	Cumulative Totals
UAS	144*	652
GPS outages	84*	252
New Topic added March 2019		
Cabin Fumes	339 (from 03/19 to 09/19) ~ 48 per month	





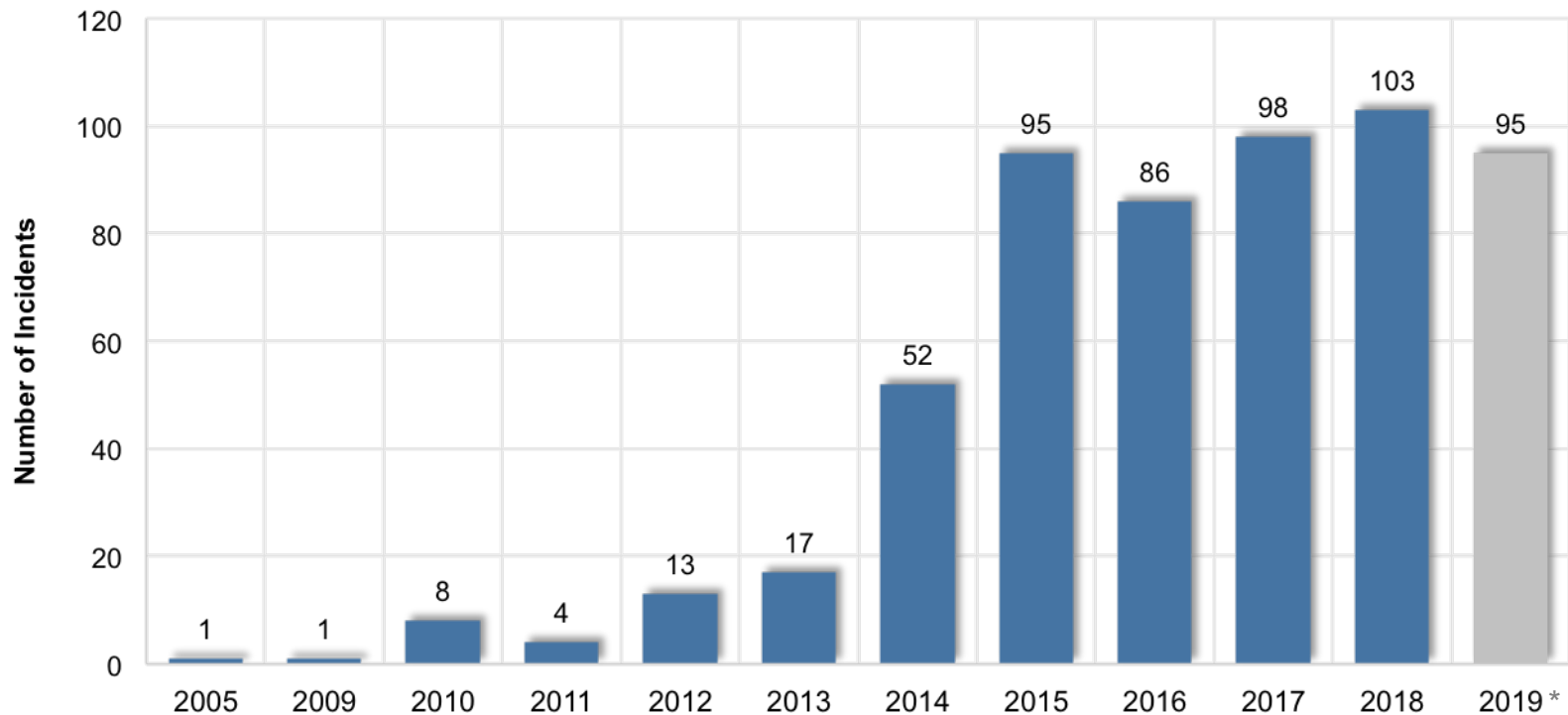
UAS / UAV

Safety Issues



UAV Related Incidents – Incident Date (Year)

Incident Date (Year)



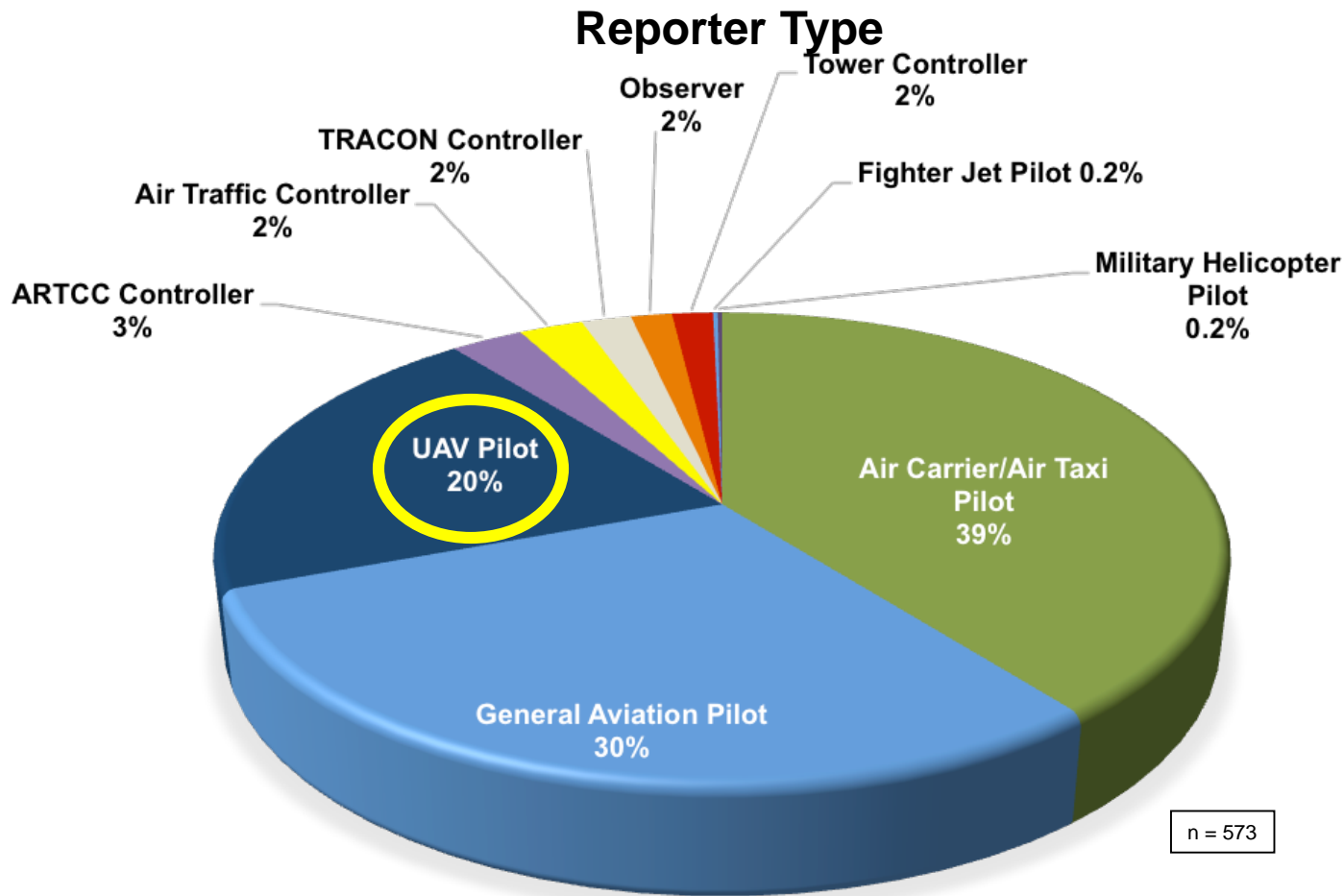
n = 573

*2019 data complete through September 3, 2019.

Data references ASRS reports that have received full-form analysis and include the reporter's narrative.



UAV Related Incidents – Reporter Type

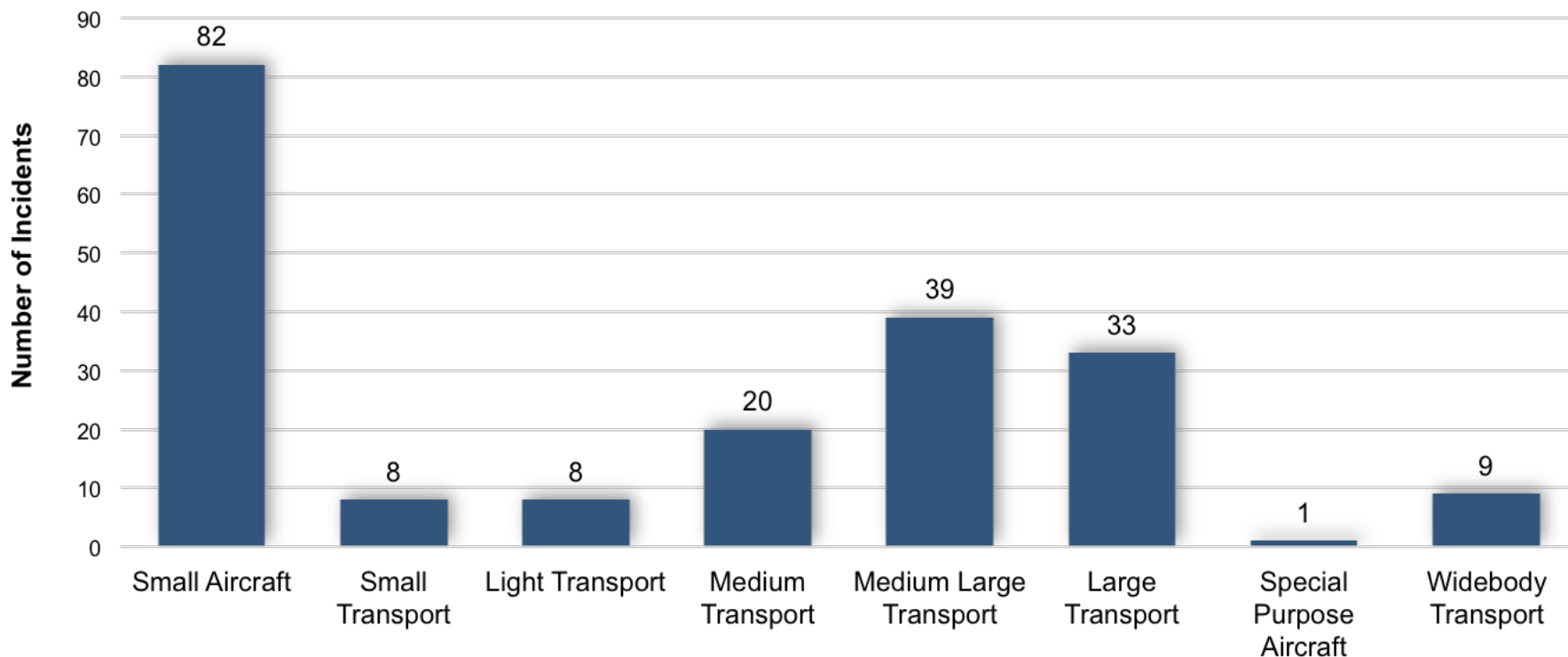


Data references ASRS reports that have received full-form analysis and include the reporter's narrative.



UAV Related Incidents – NMAC Events and Manned Aircraft Weight Classification

NMAC Events and Manned Aircraft Weight Classification



n = 200 of 231

NMAC: Conflict between two airborne aircraft with less than 500 feet vertical and horizontal separation.

Data references ASRS reports that have received full-form analysis and include the reporter's narrative.



Airspace Class at Time of Incident

Special Use Airspace (SUA) and Temporary Flight Restrictions (TFR): 16

Upper Limit Undefined

CLASS E

FL 600
18,000 MSL

CLASS A 47

CLASS E 138

201

CLASS B

Air traffic authorization required

43

CLASS C

Air traffic authorization required

54

CLASS D

Air traffic authorization required

CLASS E Surface Area

Air traffic authorization required

14,500 MSL

1,200 AGL

CLASS G
400 AGL

1,200 AGL

CLASS G
400 AGL

Needs Waiver above 400ft

1,200 AGL

CLASS G
400 AGL

AGL Above Ground Level
FL Flight Level
MSL Mean Sea Level

Class G: 50

Class E Surface Extension

Airspace Guidance for Small UAS Operators

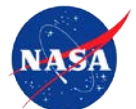


Federal Aviation Administration

n = 535 of 573



Categories are not mutually exclusive.
Data references ASRS reports that have received full-form analysis and include the reporter's narrative.





Aviation Safety Reporting System

Home

Contact Us

- Program Information
- Report to ASRS
- Search ASRS Database
- Publications/Studies
- International
- Online Resources

- ASRS Database Online
- ASRS Database Report Sets
- Requesting ASRS Data



Confidential. Volun

ASRS captures confidential reports, analyzes the resulting aviation safety data, and disseminates vital information to the aviation community.

CALLBACK

Receive FREE monthly newsletter by email! [\(Please Read\)](#)

[Subscribe to CALLBACK](#)

NOTAM Issues

July 2015, Issue 426

[HTML](#) | [PDF](#)

Select a Form To Submit a Report

- ▶ [General](#) - Pilots, Dispatchers, Others
- ▶ [Air Traffic Control](#) - Air Traffic Controllers
- ▶ [Maintenance](#) - Mechanics
- ▶ [Cabin](#) - Cabin Crew

How to Report Online

Review proper browser settings, security tips, and provisions.

- ▶ [FAQ for Electronic Report Submission](#)
- ▶ [Online Security Tips](#)
- ▶ [Immunity Policy](#)

View Program Briefing

Learn more about ASRS such as report processing and reporting metrics.



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

Contact Information

Becky Hooey, Director
NASA Aviation Safety Reporting System (ASRS)
Becky.L.Hooey@nasa.gov
(650) 604-2399

