Aviation Safety
Goal Leaders:

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Goal Overview

Goal statement

Increase aviation safety for the flying public. By September 30, 2023, the Federal Aviation Administration’s (FAA) range of programs will contribute to the commercial air carrier fatality rate remaining below the target of 4.9 fatalities per 100 million persons on board and contribute to the number of general aviation fatal accidents remaining at no more than 0.94 fatal accidents per 100,000 flight hours.
Problem to Be Solved

FAA strives to reach the next level of safety and efficiency and to demonstrate global leadership in how we safely integrate new users and technologies into our aviation system. It works diligently to reduce aviation fatal accidents and incidents across all aviation domains, with an emphasis on commercial and general aviation to ensure that the U.S. aviation system remains the safest in the world. This work is based upon a data-driven approach to identify systemic safety risks and hazards that are addressed by FAA policies, programs, and procedures. FAA's long-term goals include:

- Reduce commercial aviation fatalities by 50 percent, from a baseline of 8.9 fatalities per 100 million persons on board in FY 2007 to a target of 4.4 fatalities per 100 million persons on board by FY 2025.

- Reduce general aviation fatal accidents, from a baseline of 0.98 Fatal Accidents per 100,000 Flight Hours in FY 2019 to a target of 0.89 Fatal Accidents per 100,000 Flight Hours by FY 2028.

What Success Looks Like

- Success in achieving this APG includes addressing most known system hazards and continuing to work with aviation industry stakeholders to establish and implement safety management systems to reduce commercial aviation risk. Success also includes working with the general aviation community and industry to continually improve general aviation safety by identifying precursors to accidents, developing a greater understanding of human factors, and effectively implementing agreed-upon safety risk mitigations.
Goal Target(s)
Please update the Current Value column each quarter

<table>
<thead>
<tr>
<th>Achievement statement</th>
<th>Key indicator(s)</th>
<th>Quantify progress</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>By…</td>
<td>We will…</td>
<td>Name of indicator</td>
<td>FY22 Target value</td>
</tr>
<tr>
<td>09/30/23</td>
<td>September 30th, 2023, the Federal Aviation Administration’s (FAA) range of programs will contribute to the commercial air carrier fatality rate remaining below the target of 4.9 fatalities per 100 million persons on board and contribute to reducing general aviation fatal accidents to no more than 0.94 fatal accidents per 100,000 flight hours.</td>
<td>U.S.-Owned Commercial Carrier Aviation Fatalities per 100 Million Persons on Board</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total U.S.-Owned Commercial Carrier Aviation Fatalities</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U.S. GA Fatal Accidents per 100,000 Flight Hours</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total U.S.-Owned GA Fatal Accidents</td>
<td>249</td>
</tr>
</tbody>
</table>

*Starting value as of October 1, 2021
**Actual as of March 2, 2022
Goal Strategies

**FAA strategies for commercial and general aviation include:**

- Promoting the open exchange of safety information to continuously improve aviation safety and enable users to perform integrated queries across multiple databases through a variety of outreach methods.
- Partnering with the aviation community to use a proactive, data-driven approach to identify systemic risks, develop mitigation strategies, and monitor the effectiveness of implemented actions. FAA will continue collaborating with the aviation community to encourage voluntary investment in safety enhancements that reduce fatality risk to ensure that safety risk is systematically considered a factor in decision-making.

**Goal: Reduce U.S.-Owned Commercial Carrier Aviation Fatalities**

<table>
<thead>
<tr>
<th>Reduce U.S.-Owned Commercial Carrier Aviation Fatalities per 100 Million Persons on Board</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.-Owned Commercial Carrier Fatalities per 100 Million Persons on Board</td>
<td>Targets</td>
<td>6.4</td>
<td>6.2</td>
<td>5.9</td>
<td>5.7</td>
<td>5.4</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>Actuals</td>
<td>0.3</td>
<td>0.1</td>
<td>0.5</td>
<td>0.9</td>
<td>0.0</td>
<td>0.0*</td>
</tr>
</tbody>
</table>

*as of March 2, 2022

**FAA strategies to maintain commercial aviation safety include:**

- Working with stakeholders to establish and implement safety management systems to address and reduce risk within their operations and the National Airspace System (NAS);
o Collaborating with the aviation community to encourage voluntary investment in safety enhancements that reduce fatality risk;

o Developing and promoting risk-based decision-making and safety management principles that target individual pilots and technicians in both commercial and general aviation; and

o Ensuring that safety risk is systematically included in decision-making at the FAA.

**Goal: Reduce U.S.-Owned General Aviation Fatal Accidents**

<table>
<thead>
<tr>
<th></th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. General Aviation Fatal Accidents per 100,000 Flight Hours</td>
<td><strong>Targets</strong></td>
<td>1.01</td>
<td>1.00</td>
<td>0.98</td>
<td>0.97</td>
<td>0.96</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td><strong>Actuals</strong></td>
<td>0.83</td>
<td>0.89</td>
<td>0.95</td>
<td>0.91</td>
<td>0.72*</td>
<td>0.80**</td>
</tr>
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</table>

*FY 2021 data will be finalized in FY 2023 Q1. **Actual as of March 2, 2022.

**FAA strategies to maintain general aviation safety include:**

o FAA partners with industry to analyze and develop strategies using a non-regulatory, proactive, and data-driven approach to achieve higher levels of safety. Continuing and expanding these partnerships provides new opportunities to develop innovative methods to increase general aviation safety. This collaborative approach is supported through the following strategies:

  • Supporting the installation of new safety-enhancing technology in general aviation aircraft by streamlining the certification and installation process and encouraging aircraft owners to install such equipment;
• Addressing human factors related to technology integration. FAA needs to continue to focus on non-technical areas, such as risk management and pilot/technician professionalism that affect safety, regardless of the level of technology being employed;
• Continuing to implement new airman training and testing standards to improve these activities by establishing an integrated, holistic airman certification system that clearly aligns testing with certification standards, guidance, and reference materials; and
• Working in partnership with industry on a data-driven approach to understand the causes of fatal accidents and developing safety enhancements to mitigate risk.
  o The **General Aviation Joint Steering Committee (GAJSC)** developed 46 safety enhancements designed to address situations with a high-fatality risk, including maintaining control during unusual attitudes, spatial disorientation, and engine failure. These enhancements include technology improvements; improved education and training for both pilots and mechanics; documented best practices; increased awareness of issues related to medications; and outreach on a range of topics aimed at preventing Inflight Loss Of Control, Controlled Flight Into Terrain, and Engine Failures. The next GAJSC study is currently focusing on mechanical failures not related to engines.
  o Implementing the **US Helicopter Safety Team’s (USHST)** outreach program and SEs, which focuses on the top industry sectors with the highest percentage of fatal accidents. The USHST approved 16 Helicopter Safety Enhancements, all of which have been initiated as of June 1st, 2018. These cover fatal accidents during Unintended Flight in Instrument Meteorological Conditions, Loss of Control-Inflight, and Low Altitude Operations.
- Encouraging the general aviation community to educate pilots and other stakeholders on the benefits of sharing safety data in a protected, non-punitive manner.
- Leveraging the FAA Safety Team (FAASTeam) program products and product delivery outreach systems. National FAASTeam Outreach Initiatives include safety articles in the FAA Safety Briefing magazine, FAASafety.gov safety notice emails, aviation safety courses through the FAASafety.gov website, and live and recorded safety seminars/webinars. These outreach efforts promote the FAA’s WINGS proficiency program and GAJSC and USHST safety enhancements, provide courses on aviation safety topics, and promote runway safety.
- Focusing on print and social media collaboration with internal and external stakeholders.
- Additional strategies within the agency include:
  - Conducting runway safety outreach through the “From the Flight Deck Videos” series to highlight surface safety at specific airports to general aviation pilots. This helps reduce runway incursions on airports;
  - Reducing pilot deviations, including Runway Incursions, caused by a lack of English language proficiency; and
  - Covering topics such as Weather, Unmanned Aircraft Systems (UAS), Loss of Control (LOC), Controlled Flight into Terrain (CFIT), Illegal Air Charter, and Aeronautical Decision-Making (ADM) through FAASTeam outreach programs.
Key Indicators (Commercial Aviation)

Air Carrier Fatality Rates/Targets
Fatalities per 100 Million Persons on Board

FY22 Year-to-Date Fatalities - 0
Fatality Threshold - 35
FY22 Rate Assumes No Additional Fatalities

as of March 2, 2022

Baseline 8.9

FY Fatalities/100M
FY 97-06 Baseline
Target - Achieve 50% Reduction By 2025
The baseline rate of 0.99 reflects beginning of FY 2019 baseline rate. NTE target rates reflect end of FY rate goals.
<table>
<thead>
<tr>
<th>Key Milestone</th>
<th>Milestone Due Date</th>
<th>Milestone Status</th>
<th>Change from last quarter</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving as the GAJSC Government co-chair, the FAA supports quarterly GAJSC</td>
<td>One GAJSC meeting each</td>
<td>Q1 Meeting Delayed</td>
<td>Q2 Meeting Complete</td>
<td>The GAJSC is planning to continue the quarterly schedule.</td>
</tr>
<tr>
<td>meetings</td>
<td>Quarter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serving as the CAST Government co-chair, the FAA supports bi-monthly CAST</td>
<td>Bi-monthly meetings</td>
<td>COMPLETE: On-going</td>
<td>No change, still on-going</td>
<td>The CAST is planning to continue the bi-monthly schedule.</td>
</tr>
<tr>
<td>meetings</td>
<td></td>
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Using performance information, FAA seeks ways to learn from past performance and improve outcomes. Performance measures and targets support FAA’s mission to provide the Nation with an aerospace system that reflects the highest standards of safety and efficiency and serves as a model for the world.

As of March 2, 2022, the commercial aviation target is on track. To date, there have been no commercial aviation fatalities. The goal of no more than 5.2 fatalities per 100 million persons on board is on target.

As of March 2, 2022, the general aviation target is on track. To date, there have been 93 general aviation fatal accidents against a not to exceed prorated target of 110 fatal general aviation accidents for FY 2022. The goal of no more than 0.95 fatal accidents per 100,000 flight hours is on target.
Data accuracy & reliability

DOT’s Performance Data Completeness and Reliability Report, which is appended to the FY 2021 Annual Performance Report, provides detailed information on the performance indicators contained within this APG Action Plan.

The Performance Data Completeness and Reliability Report provides detailed information regarding the general accuracy, reliability, validity, completeness, and scope of the performance indicators listed below. The table below lists the page numbers of where each supporting performance indicator can be found in the report.

<table>
<thead>
<tr>
<th>FY 2021 Performance Indicator</th>
<th>Location</th>
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<tbody>
<tr>
<td>U.S.-Owned Commercial Carrier Aviation Fatalities per 100 Million Persons on Board</td>
<td>Pg. 57</td>
</tr>
<tr>
<td>U.S. GA Fatal Accidents per 100,000 Flight Hours</td>
<td>Pg. 58</td>
</tr>
</tbody>
</table>
Additional Information

**Contributing Programs**
FAA and the aviation industry partner to focus on a data-driven, proactive approach to help identify systemic risks, develop mitigation strategies, and monitor the effectiveness of implemented actions. The FAA formed partnerships with the GAJSC, the USHST, and the Commercial Aviation Safety Team.

**Stakeholder / Congressional Consultations**

The FAA Administrator meets regularly with aviation industry stakeholders, as do executives and managers in the Aviation Safety organization. There are numerous meetings with industry associations, unions representing aviation professionals, and individual certificate holders throughout the year.

FAA and Aviation Safety receive meaningful feedback and input from aviation rulemaking committees and the Aviation Rulemaking Advisory Committee about policy and rule changes. These committees are valuable tools for collaborating with industry to ensure complete implementation of and compliance with these changes over the long term.