January/February 2026

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GETTING TO KNOW THE GAJSC

GENERAL AVIATION JOINT SAFETY COMMITTEE

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ABOUT THIS ISSUE…

The January/February 2026 issue of *FAA Safety Briefing* focuses on the General Aviation Joint Safety Committee (GAJSC), highlighting their comprehensive and data-driven approach toward improving aviation safety

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FAA Safety Briefing

The FAA Safety Policy Voice of Non-commercial General Aviation

DEPARTMENTS

HUGH THOMAS, ACTING FLIGHT STANDARDS SERVICE EXECUTIVE DIRECTOR

A COLLABORATIVE APPROACH TO GA SAFETY

I'd like to begin this column with some terrific safety news: we ended fiscal year 2025 with the general aviation fatal accident rate at 0.61 per 100,000 flight hours. That's well below the year's annual 0.92 accident rate reduction goal and the accident rates for our two best previous years: 0.71 in 2023 and 0.68 in 2024! While the 2024 and 2025 numbers are still preliminary, we're on track to have yet another banner year in general aviation safety. That's an incredible accomplishment and a direct reflection of your commitment to safety and professionalism.

I think it's also safe to say that the excellent work of the General Aviation Joint Safety Committee (GAJSC) has been a key factor in achieving this milestone. GAJSC partners include experts from both government (e.g., FAA, NTSB, NASA) and industry (e.g., AOPA, EAA, GAMA) to ensure a broad perspective on safety issues affecting all facets of general aviation. It seems fitting that the GAJSC is the focus of this issue, allowing us an opportunity to familiarize you with the team's comprehensive approach to improving aviation safety.

GAJSC GENERAL AVIATION JOINT SAFETY COMMITTEE

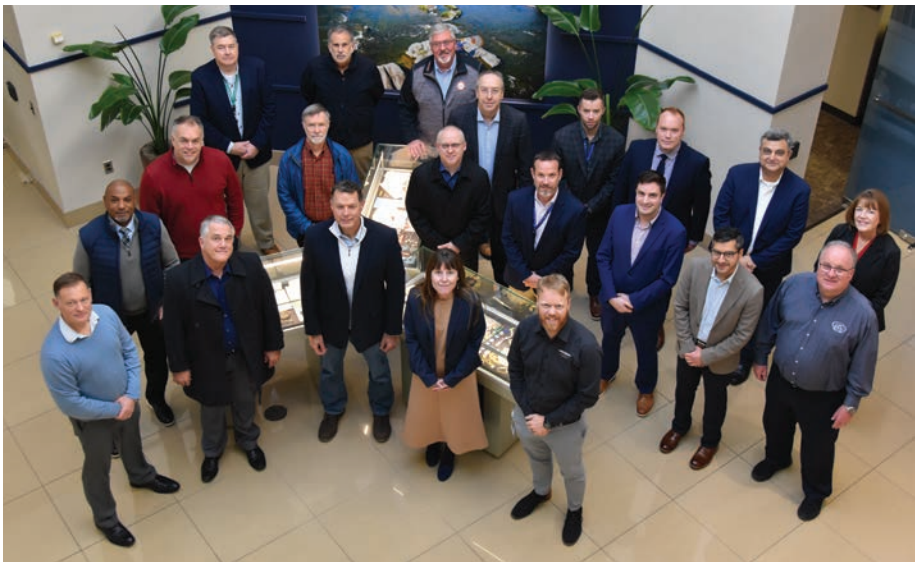
Core to its process is the use of working groups that focus on the top accident causal factors for general aviation. The GAJSC relies heavily on data when determining focus areas for its working groups, regularly referring to this Pareto chart (bit.ly/GAParetoChart) to inform its direction. To date, the GAJSC has convened five working groups that have covered the following areas: loss of control in two parts (approach and landing, and departure and enroute), system component failure (both powerplant and non-powerplant related), and controlled flight into terrain (CFIT). You can read more details about each of these working groups in this issue, including their associated safety enhancements.

These safety enhancements are at the forefront of improving safety and have been the driving force behind many initiatives you may now recognize, or that have impacted how you fly. This includes streamlining the installation of angle of attack indicators, advocating for the more widespread implementation of real-time weather cameras, and creating the National General Aviation Flight Information Database (NGAFID), a tool pilots can use to analyze their flight data. The GAJSC has developed 46 safety enhancements to date, with several more that will be introduced this fall.

We also offer a roadmap to the GAJSC's recently refreshed website at gajsc.org in our Checklist department. The site has everything you need to learn more about the GAJSC, including reports, safety articles, videos, and more. You can also sign up for a quarterly newsletter, the *FlySafe Flyer*, at gajsc.org/newsletter to have the latest in GAJSC news sent straight to your inbox.

As aviation technology and operations evolve, the GAJSC continues to adapt its focus to address emerging safety challenges. In fact, this winter, the GAJSC's Safety Analysis Team is currently reviewing options for its next working group — more to come on that in the future. In the meantime, we hope this issue provides some insight into the GAJSC and its ongoing commitment to general aviation safety.

Safe flying!



Members of the GAJSC during a recent meeting at AOPA headquarters in Frederick, Md.

AVIATION NEWS ROUNDUP

How Wildlife Strike Mitigation Helps Ensure Safe Skies

Visual depictions of wildlife strikes from the National Wildlife Strike Database support trend analysis that informs FAA mitigation guidance, which helps keep the flying public safe and wildlife out of harm's way. In FAA usage, 'wildlife' refers to all wild animals, not just birds, that may come into contact with aircraft.

The modern approach to addressing wildlife strikes began in the 1990s when the FAA and U.S. Department of Agriculture partnered to systematically analyze and publish all strike data and co-author the first manual for wildlife hazard management at airports. The comprehensive strike report and manual established the agencies as leaders in wildlife hazard management and were used at airports throughout North America, Europe, Africa, and South America.

Domestically, the FAA and USDA established a National Wildlife Strike Database (wildlife.faa.gov) in 1994 to centralize data collection. Since then, it has received more than 300,000 strike submissions, including 22,372 in 2024.

A snapshot of the top 10 wildlife strike areas in the country in 2024.

Strike reporting is voluntary and relies on the airport operators, pilots, air traffic controllers, airline mechanics, biologists, and other airport grounds personnel to provide incident details. USDA scientists analyze and filter the data to identify trends, which helps the FAA and airports identify hazardous species and effective mitigation strategies.

The FAA has issued approximately $400 million in Airport Improvement Program grants for mitigation projects, including upgraded airfield perimeter fencing, wildlife hazard assessments and plans, pyrotechnic launchers, infrared cameras, and even canine patrol programs.

Find out more about mitigation strategies and the FAA's international influence regarding this challenge at bit.ly/NoFowlPlay. You can also read the strike report at bit.ly/AirportWildlife.

Prime Integrator to Oversee Construction of Brand New Air Traffic Control System Announced

The Department of Transportation and Federal Aviation Administration announced that Peraton will be the Prime Integrator to oversee the rollout of a brand-new air traffic control system to enhance the safety and efficiency of our skies.

Peraton's capabilities are aligned with President Trump's goal to fundamentally overhaul air traffic control. The company's expertise in integrating complex tech platforms and successful collaboration with federal government agencies have positioned them well to execute on this ambitious timeline.

Work will begin immediately on initial priorities, which include transitioning the system's remaining copper infrastructure to modern fiber and establishing a new digital command center. Advancing other modernization initiatives, including buying new radar systems and the development of next-generation facilities, will also continue.

For more information, visit bit.ly/BNATCS_Facts

FAA Kicks Off 'Flight Path to America's 250th' Campaign

In the video at faa.gov/America250, FAA Administrator Bryan Bedford extols our country's aviation heritage and invites aviation enthusiasts of all ages to join us on the Flight Path to America's 250th. Joining him is Christopher Browne, director of the Smithsonian's National Air and Space Museum, as they kick off an inspiring journey through past, present, and future in American aviation.

The FAA's Flight Path to America's 250th campaign is part of the

#FLYSAFE GA SAFETY ENHANCEMENT TOPICS

Please visit bit.ly/FlySafeMedium for more information on these and other topics.

JANUARY

Risk Management

FEBRUARY

Multi-Engine Transition

administration's effort to recognize the 250th anniversary of American independence on July 4, 2026, and celebrate our nation's history.

Flight Path to America's 250th will spotlight aviation's greatest milestones — and its exciting future. From modernizing air traffic control and improving pilot training to safely integrating drones, air taxis, and even supersonic passenger jets, the FAA has led the way in aviation safety and innovation.

Along the Flight Path, aviation historians will help highlight the arc of aviation progress. The campaign will also take to the skies with visits to historic sites and museums across the country. We'll also spotlight the FAA's ongoing role in driving safety and enabling the innovations that are shaping the future of flight and the people behind it all — the dedicated FAA professionals who keep our skies safe every day.

The American aviation system has greatly evolved since the first National Aviation Day on Aug. 19, 1939, and now encompasses global passenger aviation and a community that is redefining the possibilities of future flight. Given aviation's enormous impact, there are many ways to celebrate. For more information and to find out how to get involved, visit bit.ly/AmericaFP250.

FAA's Law Enforcement Assistance Program Protects Pilots from Laser Threats

A single laser beam pointed skyward can incapacitate a pilot and endanger everyone onboard. In the Dallas-Fort Worth area, repeated blue laser strikes sparked a multi-agency investigation led in part by FAA's Law Enforcement Assistance Program (LEAP). Their expertise helped track down and convict the offender, underscoring the critical role LEAP plays in aviation safety.

FAA Law Enforcement Assistance Program helped Texas Department of Public Safety helicopter pilots locate an individual responsible for serial aircraft lasing in 2023.

Each year, thousands of pilots report laser incidents, and LEAP agents respond by providing training, outreach, and real-time support to law enforcement. Their work goes beyond lasers — advising on drones, supporting investigations, coordinating ramp inspections, and safeguarding major events. By connecting aviation safety expertise with law enforcement action, LEAP ensures threats are quickly addressed and our airspace remains safe for everyone.

To further address this issue, LEAP agents conducted targeted outreach in August, training and collaborating with local, state, and federal law enforcement to combat laser strikes in areas with the highest incident rates.

In 2025, pilots reported more than 5,900 laser strikes and more than 12,800 strikes in 2024. People who shine lasers at aircraft face FAA fines of up to $32,646 per violation and potential criminal charges.

For more information on LEAP's efforts and to watch a video, visit bit.ly/4gnePbS.

Discontinuation of Selected Charting Products

On Aug. 7, 2025, the FAA discontinued the following products:

- VFR Class B Enhancement Graphics
- U.S. VFR Wall Planning
- U.S. IFR/VFR Low Altitude Planning Charts.

The FAA will continue to publish the Aeronautical Chart Users Guide, however, revisions will be made on an as-needed basis instead of the 56-day charting schedule.

The final publication date for these products was June 12, 2025. As they expire or become outdated, the current versions of the products will be removed from the FAA website.

SMS Reminder for EASA Part 145 Repair Stations

All U.S.-registered Part 145 repair stations with a European Union Aviation Safety Agency (EASA) part 145 certification were required to implement a safety management system (SMS) by Dec. 31, 2025. These repair stations can comply by adopting and implementing the FAA's SMS Voluntary Program (SMSVP) as outlined in FAA Order 8900.1, Volume 17, Chapter 3, Section 1 (bit.ly/8900v17ch3).

Get started by checking out FAA's SMS webpage (bit.ly/faasms) for guidance documents and other helpful information.

MOSAIC Advisory Circular Updates

The FAA's final rule, Modernization of Special Airworthiness Certification (MOSAIC), responds to evolving aviation and airmen needs, providing for future growth and innovation without compromising the safety of light-sport category aircraft. MOSAIC increases the availability of safe, modern, and affordable aircraft for recreational aviation, flight training, and certain aerial work.

Since the publication of MOSAIC, the FAA has updated several advisory circulars (ACs) to align with the final rule. Please review the following ACs:

- Certification of Repairmen (Light-Sport) AC 65-32B (bit.ly/Repair_LightSport)
- Pilot Certification and Operations for Sport Pilots, Flight Instructors with a Sport Pilot Rating, and Simplified Flight Controls AC 61-146 (bit.ly/MOSAIC_Cert_Ops)
- Certification: Pilots and Flight and Ground Instructors AC 61-65K (bit.ly/MOSAIC_PilotsInstructors)

You can also review the MOSAIC Fact Sheet to gain a better understanding of the changes at faa.gov/newsroom/fact_sheets.

DR. SUSAN NORTHRUP, FAA FEDERAL AIR SURGEON

EXPEDITING YOUR MEDICAL

The AME Guide is the aviation medical examiner's (AME) go-to source for determining the disposition of medical conditions commonly encountered during FAA medical certificate examinations as well as many conditions that are rarely seen. It is a living document that we update regularly, sometimes monthly. On Aug. 27, 2025, we published an expanded list of updates.

Even if you are not an AME (the intended audience of the AME Guide), if you have a medical condition that needs to be reported to the FAA, looking at the disposition tables is worthwhile and should help expedite the process. This includes new conditions, changes in previously reported conditions and/or treatment, and conditions for which periodic testing is necessary, such as many cardiac conditions. We strongly recommend that you review any pertinent medical conditions prior to beginning the examination. Ideally, this is in consultation with your AME, although you can do this on your own. Even if you have medical expertise, you might not be aware of the aeromedical concerns from a particular condition or treatment.

Once you finalize your application, it stays in the system for 60 days before being automatically deleted unless an AME imports it. This 60-day period should give you enough time to obtain any necessary documentation or testing as outlined in the AME Guide. We have also recently modified the online application to steer you to the correct sections that indicate what information is needed. Keep in mind that once the AME opens the examination using the numeric key you receive when you complete the application, there is only a 14-day window before it must be transmitted to the FAA, regardless of whether you have obtained all necessary information or not. If all the necessary information is provided to the FAA at the time of the application and is favorable, the medical can be issued quickly. However, if we need to reach out to you for additional information, an average of 100 days is added to the total processing time.

Many of the recent updates to the guide were eye-related and addressed refractive surgery (such as LASIK), cataract extraction and lens replacement, and ocular infections. For color vision, we expanded the number of frequently asked questions, revised the flow chart, and adjusted the published passing threshold for the Rabin Cone Contrast Test to match what we began accepting in practice months ago. We have received many questions on the new protocols and have provided clearer guidance.

We also reduced the requirements for many conditions, including cardiac disease follow-up, added treatment options for diabetes, high cholesterol, weight loss, migraine headaches, depression, psoriasis, and arthritis. We revised the guidance for several conditions for which a CACI (Conditions AMEs Can Issue) is authorized to better enable the AME to issue a medical if criteria are met. For other conditions, we have provided additional guidance to the AME to better enable submission of a complete package the first time. I noted earlier that the processing time for the FAA to review a case increases significantly if we need to request information. Bear in mind that there are many disqualifying conditions for which the AME can still directly issue a medical certificate if the proper documentation is provided at the time of the examination or shortly thereafter. Also, the AME can only hold the medical for 14 days before they must transmit it. It pays to do your homework and be prepared just as you would for a practical check ride.

Prepare for your medical at faa.gov/ame_guide.

Dr. Susan Northrup received a bachelor's degree in chemistry, a medical degree from The Ohio State University, and a master's degree in public health from the University of Texas. She is double board-certified by the American Board of Preventive Medicine in Aerospace Medicine and Occupational Medicine. She is a retired U.S. Air Force colonel and a former regional medical director for Delta Air Lines. She is also an active private pilot and aircraft owner.

GOOD GOVERNMENT IN ACTION

A Closer Look at the GAJSC GENERAL AVIATION JOINT SAFETY COMMITTEE

By Robert Hudson Westover

Good government is a term regularly bandied about. It means many things to many people. But at its core, and what it should mean to all of us, is that our government should operate effectively and efficiently. One such example, and a gold standard of this principle of successful government-in-action, is the General Aviation Joint Safety Committee (gajsc.org).

The GAJSC was created in 1997 in cooperation with the FAA, Congress, and the White House's Safer Skies initiative. Several years later, the DOT directed the FAA to work with the general aviation (GA) community and industry to revamp and refocus the GAJSC, aligning it with the data-driven principles of the FAA's Commercial Aviation Safety Team (cast-safety.org).

> **As a public-private partnership, the GAJSC works to improve general aviation safety with the goal of reducing the GA fatal accident rate.**

The committee brings together government agencies including NASA and the National Transportation Safety Board (NTSB) — as observers — along with aviation industry experts from the GA community and several associations, including the General Aviation Manufacturers Association (GAMA), Experimental Aircraft Association (EAA), and the Aircraft Owners and Pilots Association (AOPA).

Together with these and other aviation-focused organizations, the GAJSC promotes best practices and improved safety tools and technologies for the GA component of the two trillion-dollar aviation industry.

GAJSC leadership roles are shared between the FAA and the aviation industry. The FAA co-chair with two industry co-chair positions held by AOPA and EAA.

Another vital component of the GAJSC is the Safety Analysis Team (SAT). This sub-team of the GAJSC performs in-depth analysis of specific accident categories as well as many important safety issues facing the GA industry. The SAT uses project-specific working groups to conduct this analysis and reports back to the GAJSC with mitigations for prioritization and inclusion into a GA safety plan.

As a public-private partnership, the GAJSC works to improve general aviation safety with the goal of reducing

The GAJSC in action during a recent quarterly meeting.

The GAJSC team during a recent quarterly meeting in Washington, D.C.

the GA fatal accident rate. Keeping our skies safe isn't only the right thing to do, it's also hugely important for economic confidence, as GA contributes $187 billion to GDP and supports an estimated 1.3 million jobs.

Numbers tell the story, and since 1997, the number of fatal accidents per year has fallen from nearly 400 to slightly below 200 as of 2024, when the latest figures were available. And the good news continues as 2025 is on course to have the lowest fatal accident rate since 1989. As of this writing, the GA fatal accident rate per 100K flight hours for fiscal year 2025 was at 0.61, well below the year's accident rate reduction goal of 0.92.

Beneficial Safety Enhancements

Additionally, the GAJSC analyzes GA safety data to develop intervention strategies, called safety enhancements (SEs), to prevent or mitigate problems associated with GA accidents and identified risks. These SEs may include procedures, training, best practices, and equipment installations that, when implemented, may reduce the likelihood of accidents in the future. To see a full list of GAJSC SE topics, go to gajsc.org/se.

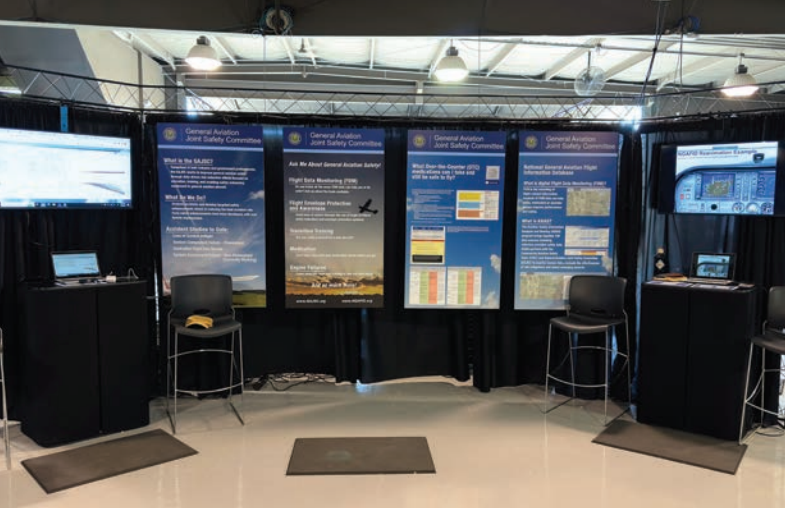
GAJSC Industry Co-chairs Mike Ginter (AOPA) and Sean Elliott (EAA) (far left and right) with GAJSC SAT Co-chairs Jens Hennig (GAMA) and Corey Stephens (FAA) (center left and right).

"With the GAJSC, the FAA's Office of Accident Investigation and Prevention (AVP) created a working committee where we bring government and industry together to look at data from different perspectives and agree on an action plan," said Warren Randolph, a former AVP deputy director who co-chaired GAJSC. He currently serves as the chief data officer at NTSB. "And, importantly, this cooperation is done in an environment where safety information is shared and reviewed in confidence and where multiple perspectives are brought to the table as no single organization has the answer — it's a team sport. In other words, the GAJSC creates trust-building in the spirit of improved aviation safety."

> **The GAJSC brings together government agencies along with aviation industry experts from the GA community and several associations.**

EAA Vice President of Advocacy and Safety and current GAJSC co-chair Sean Elliot notes there are multiple GAJSC successes to boast about. One that he recalls is the push for the deployment of weather cameras (SE-12) in Hawaii and the lower 48 states, based off the success seen in Alaska and Canada. "This technology provides real-time weather information in remote airports and mountain passages. Pilots having access to this information to inform their flight planning is critical and has no doubt saved lives."

Further, continuing his emphasis on GAJSC's practical side of general aviation safety, Randolph feels very strongly that Non-Required Safety Enhancing Equipment (NORSEE) (SE-27), basically a streamlined process to get safety technologies on board smaller aircraft without the need of the somewhat



The GAJSC team is often on hand at events like EAA AirVenture to answer questions and promote its ongoing work.

bureaucratic and costly certification process, has fast-tracked many crucial lifesaving tools for pilots. Randolph emphasized that common-sense safety issues are not overlooked. "NORSEE is about efficacy, not recklessness."

Corey Stephens, an FAA operations research analyst who co-leads the GAJSC Safety Analysis Team added, "NORSEE is an excellent example of government, in coordination with industry, removing barriers to getting safety-enhancing equipment on the aircraft without requiring it by regulation. The FAA ensures that the benefits of installing the equipment outweigh any potential risks."

Safety Enhancements are Helping Pilots Fly Again

Among the many beneficial tools available to pilots and aviation instructors is getting pilots who have not flown for long periods of time back into the sky safely. From time to time, many pilots have had to take a break from flying. One of the first steps back is to work with an instructor to sharpen those flying skills back to a functional state. That's why SE-08 covers the topic of *Flight Training After a Period of Inactivity*.

Another critical topic in this arena is SE-21, *Risk-based Flight Review.* SE-21 is complemented by an FAA resource, Conducting an Effective Flight Review, developed by a GAJSC collaborative team. This subject fits hand in glove with SE-08, in that the flight review should be tailored to the pilot, and this is especially critical when the pilot has been away from flying for a while. In such cases, a simple flight review may not be sufficient to address the risks involved. Flight instructors should work with their students so they understand why. Setting clear expectations early in the process can help avoid problems later.

Transitioning to New Aircraft

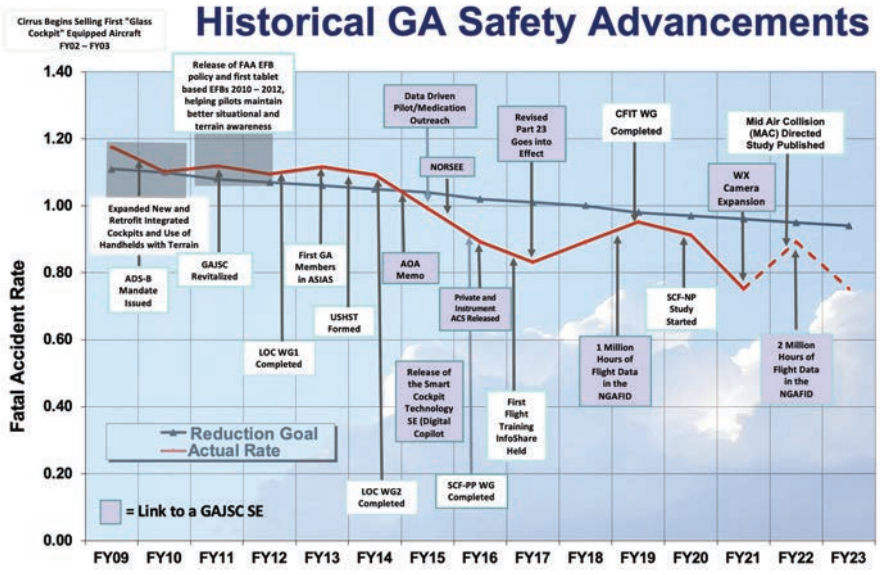
The reality is that change can introduce risk, for instance when a pilot flies an unfamiliar aircraft or begins using unfamiliar equipment. That is why the GAJSC has SE-05, *Transition Training*. This SE offers web-based tools to help pilots prepare for training and instructors design a proper training plan to ensure pilots are ready for their new aircraft. The GAJSC's input is also encapsulated in Advisory Circular 90-109A, *Transition to Unfamiliar Aircraft,* which provides best practices for pilots and instructors.

Additionally, SE-07, *Utilization of Type Clubs*, is a crucial resource for pilots transitioning to a new aircraft. Type clubs are great hubs for aircraft-specific information. From maintenance recommendations to flying tips, there's no need to reinvent the wheel when organizations like type clubs have already done the work. Any instructor who flies extensively in a specific aircraft type would be wise to get involved with a type club.

A Mission Without End

GA encompasses more than 275,000 diverse aircraft, including propeller-driven airplanes, amateur-built aircraft, helicopters, balloons, and highly sophisticated jets. GAJSC's work with private industry has and will continue to improve GA safety. More information about the purpose, objectives, and composition of the committee, and a full list of SEs, is available on the GAJSC website.

"The committee structure is in GAJSC's name. It's a joint committee that brings together aviation professionals from varied backgrounds," said Randolph. "I think the American people greatly appreciate hearing about the collaborative nature of this committee, which is a true gold standard in good governance and how it makes flying safer."



Robert Hudson Westover is a safety promotion specialist with the FAA Office of Accident Investigation and Prevention.

Loss of Control — Approach and Landing

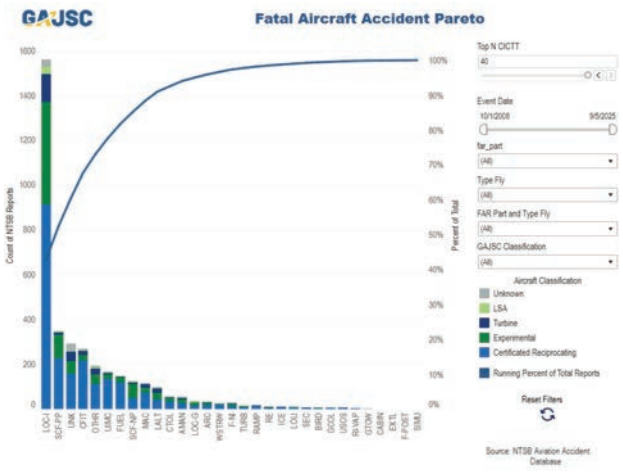
A True 'Pilot Project' for Aviation Safety

By Tom Hoffmann

Editor's note: The following five features are part of a series of articles that profile the GAJSC's comprehensive working group process for analyzing accident data and developing effective safety intervention strategies.

One of the very first orders of business after the 2011 reboot of the General Aviation Joint Safety Committee (GAJSC) was the formation of a working group to analyze accidents in what was (and still is) the highest risk area for general aviation — inflight loss of control (LOC-I). This inaugural working group was fashioned in line with the GAJSC's revised structure to provide proactive and cooperative safety analysis to reduce the fatal accident rate in general aviation. Its ultimate goal was to establish a set of safety mitigation strategies, or safety enhancements (SEs), that when implemented, would help reduce risk in this accident category.

The initial focus on LOC-I was driven by an overview the GAJSC conducted of fatal accidents that occurred between 2001 and 2010. From this review, the GAJSC developed a GA fatal accident Pareto chart to more easily identify areas of risk and guide its work. The data indicated that 40.2% of the accidents were caused by LOC-I, which made it a clear priority. Given the large dataset for this accident category, the GAJSC further refined its LOC-I focus to the approach and landing phase of flight, with a follow-on working group to study the remaining enroute and departure accidents.



The GAJSC's fatal accident Pareto chart helps identify areas of risk and guide its work.

Participants and Leadership

This first working group began by assembling a team of about 25 government and industry subject matter experts (SMEs) to analyze accident data and perform a root cause analysis of why LOC-I was so deadly. Membership spanned several offices within the FAA as well as many key aviation industry stakeholders, including AOPA,

EAA, GAMA, Hawker Beechcraft (now Textron), and more (see Appendix 2 of the LOC-I working group final report for the full membership list). Members of the GAJSC's Safety Analysis Team (SAT) were also on hand to assist with data analysis, technical support, and overall process guidance.

Two co-chairs were chosen to lead the team: Kevin Clover from the FAA's General Aviation and Commercial Division and David Oord from EAA. The LOC-I working group was divided into three sub-teams based on the accident selection subsets of experimental amateur-built, certificated piston-engine airplanes, and turbine-engine-powered airplanes. During its tenure, the team leveraged the expertise within its ranks and from external SMEs to provide technical briefings that would help educate and inform decision-making on potential safety mitigations.

This inaugural working group was fashioned in line with the GAJSC's revised structure to provide proactive and cooperative safety analysis to reduce the fatal accident rate in general aviation.

Timeframe

The GAJSC approved the charter and formation of the LOC-I working group on April 26, 2011. The team kicked off its first of seven multi-day meetings in September 2011 at the Aircraft Electronics Association's headquarters in Kansas City, Missouri. It wrapped up work in September 2012, advancing 23 SEs for approval.

Methodology and Outcomes

As the pilot project for the GAJSC's new approach to improving GA safety, the working group sought to adopt a structured, six-step strategic process that would make its work data-driven and ensure greater analytical credibility.

The first step involved reviewing and analyzing a set of 279 LOC approach and landing accidents (from 2001 to 2010) provided by the GAJSC's Safety Analysis Team (SAT) and the National Transportation Safety Board (NTSB). Next, the working group reviewed previous work done in this area to determine its applicability. This included the Flight Safety Foundation's Approach and Landing Accident Reduction (ALAR) toolkit. As noted earlier, the team also received briefings from SMEs on various topics, such as angle of attack indicators and upset recovery training.

With step three began the process of developing and prioritizing safety intervention strategies that would reduce the potential risk for approach and landing LOC-I accidents. This in-depth process first involved evaluating the event sequencing for each of the accidents studied. If the event was considered contributory to the accident, a problem statement was developed along with potential interventions that could mitigate the risk.

"This was a difficult part of the process at times due to the lack of investigative accident data," said working group co-chair Kevin Clover. While it may be easy to draw conclusions with limited details, Clover stated that the team was determined to ask the right questions on root causes and seek solutions that would truly help prevent a recurrence.

The team then used a rating system for each proposed intervention to determine an overall effectiveness score. This took into account the degree to which the problem contributed to the accident and how the intervention could have resolved it, the team's confidence in the performance of the intervention, and applicability.

The interventions were further bucketed into common themes or concentration areas (e.g., training, policy, technology, etc.) and assigned a feasibility score. Feasibility scoring considered factors such as technology constraints, cost, and whether regulation or guidance changes would be necessary. Using both the effectiveness and feasibility scores, the team was able to tabulate, sort, and prioritize project areas and their associated interventions.

In step four, each of the three sub-teams organized interventions in their respective areas and developed SEs

and specific plans of action to mitigate or prevent accident-causing problems. A total of 28 SEs were presented to the GAJSC, with 23 receiving final approval. See Figure 1 for a list of the 23 approved SEs.

The working group then set out with step five to develop a detailed implementation plan for each approved intervention. Each plan needed to contain:

- prioritized implementation strategies;
- parties responsible for action;
- major implementation milestones;
- metrics to monitor progress in meeting these milestones; and
- metrics for tracking the success of the interventions.

As part of this process, a statement of work was developed for each SE, providing a brief and clear description of the project's objective, approach, and outcome(s). You can find more details on each SE implementation plan in Appendix 8 of the LOC-I working group report.

SE Success Stories

With an action plan in place, the group's hard work towards driving down the LOC-I accident rate soon began to bear fruit. One leading example was SE-1 and SE-2 efforts to advance an awareness campaign on the benefits of angle of attack indicators (AoA). Working with the Part 23 Aviation Rulemaking Committee, which was formed to recommend changes to airworthiness standards for small airplanes, the GAJSC was able to emphasize the importance of non-required AoA to the pilot community. This advocacy lent support to a revised FAA policy in 2014 that streamlined certification and installation of non-required AoA indicators to make them more accessible and affordable.

Results from an early study indicated that GA aircraft equipped with AoA experienced greater pitch reductions during the turn-to-final portion of the approach — a crucial indicator of a stable approach. Subsequent research using much larger and longer-term data has continued to demonstrate this same pitch-reduction relationship.

> **Data indicated that 40.2% of the accidents were caused by LOC-I, which made it a clear priority.**

Other success stories from this initial working group include improved awareness of how sedating medications can adversely affect flight safety (SE-15) and advocating for the expanded use of real-time weather cameras to reduce the risk of weather-related accidents (SE-12). On the latter, the FAA's Weather Camera Program now owns and maintains over 260 camera systems in Alaska, Hawaii, and the contiguous U.S., along with hosting camera images from over 530 non-FAA-owned weather camera sites at weathercams.faa.gov. Weather camera deployment had already occurred prior to the work of the GAJSC, but the GAJSC's LOC-I recommendations helped bring this safety-enhancing technology to Hawaii and the CONUS. Data generated by the Alaska weather program has concluded that the implementation of the weather camera service across Alaska resulted in an 85% reduction in weather-related accidents and a 69% reduction in weather-related flight interruptions from 2007 to 2014.

Final Steps

These and the other SEs developed by the LOC-I working group continue to pay dividends more than a decade later.

The team's initial work also provided a critical blueprint for future working groups to follow and learn from. This was captured in the sixth and final step of the working group, which was to provide feedback to the GAJSC on what did and did not work throughout the process.

Lessons learned from the accident analysis, accident selection, and establishment of the work group included the need for a formalized membership process, approval of the methodology for narrowing down the volume of accidents, and ensuring the appropriate size of a work group. A joint meeting was held between the LOC-I working group and the SAT in January 2012 to summarize the lessons learned in preparation for future work.

"The first working group was going to be a test case as we were planning to use the same process we developed with the Commercial Aviation Safety Team (CAST) for the Part 121 air carrier community," said FAA operations research analyst and GAJSC SAT co-chair Corey Stephens. "The team had to tailor their mitigations to the broad spectrum of general aviation, but they did a tremendous job. As a result of the team's knowledge, experience, and enthusiasm, we were able to develop a set of solid risk mitigations to begin battling the largest killer in general aviation, inflight loss of control."

Tom Hoffmann is the editor of *FAA Safety Briefing*. He is a commercial pilot and holds an A&P certificate.

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Figure 1. A list of the 23 approved safety enhancements from the Loss of Control Working Group — Approach and Landing.

Safety Enhancement	Title
SE-1	Angle of Attack (AoA) Systems — New & Current Production
SE-2	Angle of Attack (AoA) — Existing GA Fleet
SE-3	Aeronautical Decision Making
SE-4	Over Reliance on Automation
SE-5	Transition Training
SE-6	Transition Training — Letter of Deviation Authority for Experimental/Amateur-Built Aircraft
SE-7	Utilization of Type Clubs
SE-8	Flight Training After Period of Flight Inactivity
SE-9	Part 135 Safety Culture
SE-10	Stabilized Approach and Landing
SE-12	Remote Airfield Weather Cameras
SE-13	Weather Technologies
SE-14	Engine Monitoring Technology
SE-15	Flight After Use of Medications with Sedating Effect
SE-16	Flight with Impairing or Incapacitating Medical Conditions — Improve Medical Records
SE-17	Flight with Impairing or Incapacitating Medical Conditions — Barriers to Communication
SE-21	Risk-Based Flight Review
SE-22	Flight Data Monitoring
SE-23	EAB/Flight Test
SE-24	Single-Pilot CRM
SE-25	Reduce Regulatory Roadblocks — Streamline Novel Technology
SE-26	Reduce Regulatory Roadblocks — Part 23 Aviation Rulemaking Committee
SE-27	Reduce Regulatory Roadblocks — Review of 14 CFR Section 21.8 and 21.9

Loss of Control — Departure and Enroute

An Expanded Look at Loss of Control Accidents

By Tom Hoffmann

With the success of the General Aviation Joint Safety Committee's (GAJSC) inaugural working group to analyze inflight loss of control (LOC-I) accidents, the GAJSC continued its focus in the LOC category of accidents with a second team soon after. Expanding on the initial work on approach and landing accidents, this "LOC-I 2.0" working group was tasked with reviewing accidents during the departure and enroute phases of flight. Similar to its predecessor, the new LOC-I group's goal was to establish a set of safety mitigation strategies, or safety enhancements (SEs), that, when implemented, would help reduce risk in this accident category.

As mentioned in the LOC-I working group for approach and landing feature, the GAJSC's initial focus on LOC-I was driven by a review of fatal accidents that occurred between 2001 and 2010. Loss of control was by far the leading causal factor at 40.2%. Given the large dataset for this accident category, the GAJSC decided to split its LOC-I focus into two separate areas.

Participants and Leadership

This second LOC-I working group began by assembling a team of about 25 government and industry subject matter experts (SMEs), many of whom also served on the first LOC-I working group. Membership spanned several offices within the FAA as well as many key aviation industry and community stakeholders, including AOPA, EAA, GAMA, Garmin, the Society of Aviation Flight Educators, and more (see Appendix 5 of the Loss of Control Working Group — Departure and Enroute final report for the full membership list). Members of the GAJSC's Safety Analysis Team (SAT) were also on hand to assist with data analysis, technical support, and overall process guidance.

> **Expanding on the initial work on approach and landing accidents, this "LOC-I 2.0" working group was tasked with reviewing accidents during the departure and enroute phases of flight.**

The co-chairs from the initial LOC-I working group remained in place to lead the team: Kevin Clover from the FAA's General Aviation and Commercial Division and David Oord, who was now with AOPA. Unlike the initial LOC-I working group, which was divided into three teams based on aircraft certification subsets, this team was split into two sub-groups without regard to specific subject matter expertise. This was a takeaway from the previous

team, which determined that accident causal factors were not specific to aircraft certification.

The National Transportation Safety Board (NTSB) also assisted the team by providing information about the event sequence and docket information involved with each of the accidents studied.

Timeframe

The GAJSC approved the charter and formation of the second LOC-I working group on Sep. 1, 2012. The team kicked off its first of seven multi-day meetings in September 2012 at the Aircraft Electronics Association's headquarters in Kansas City, Missouri. It wrapped up work in the fall of 2013, advancing six new SEs and four new outputs of existing SEs for approval.

> **Included among the newly developed SEs was a focus on pilot response to unexpected events, safety culture, and the FAA's transition to the new Airman Certification Standards.**

Methodology and Outcomes

Based on the success of the pilot project to study LOC-I accidents, the working group sought to retain the same six-step strategic process with a few important adjustments based on lessons learned.

The first step involved reviewing and analyzing a set of 120 LOC-I departure and enroute accidents (from 2001 to 2010) provided by the GAJSC's SAT. This list was pared down to the first 90 well-documented cases, which were then split between the two sub-groups. Next, the working group reviewed previous work done regarding LOC-I to determine its applicability. The team also received briefings from SMEs on various topics, such as angle of attack indicators and envelope protection systems.

With step three began the process of developing and prioritizing safety intervention strategies that would reduce the potential for departure and enroute LOC-I accidents. This in-depth process first involved evaluating the event sequencing for each of the accidents studied. If the event was considered contributory to the accident, a problem statement was developed along with potential interventions that could mitigate the risk. Those interventions were then prioritized and scored based on their effectiveness and feasibility.

The working group did notice that many of the interventions that rose to the top were the same as those from the first LOC working group. No further action was taken on these interventions, but their discovery strengthened the prior analysis and action taken.

In step four, the team organized and presented their interventions to the GAJSC. Six of the SEs received final approval, along with four additional outputs for existing SEs. See Figure 1 for a full list.

With step five, the working group took a slightly different direction based on previous feedback. Instead of developing detailed implementation plans for each approved intervention category, which sometimes contained multiple SEs and were difficult to create and track, they focused squarely on SE development. To improve tracking and communication effectiveness, the team revised the SE template to include the following elements:

1. Summary
2. Statement of Work
3. Outputs
4. Actions
5. Additional Resources
6. Relationship to Current Aviation Community Initiatives
7. Implementation Order

Appendix 12 of the working group's final report provides more details on each SE's implementation plan.

SE Success Stories

Included among the newly developed SEs was a focus on pilot response to unexpected events, safety culture, and the FAA's transition to the new Airman Certification Standards. SE-30 also led to the development of the FAA's new over-the-counter (OTC) medication reference guide, *What OTC Medications Can I Take and Still Be Safe to Fly?* at bit.ly/OTCMedstoFly. The need for increased focus and clarity on safe medication use came straight from the GAJSC's fatal accident analysis.

In addition to the new SEs, the second LOC-I working group also developed four more outputs for existing SEs on transition training, aerospace medicine education, and exploring new technologies that would advance safety.

Final Steps

These new intervention strategies, coupled with those developed by the initial LOC-I working group, have served the GA community well by ushering in new educational tools, advocating for policy changes, and raising awareness of several key safety issues. The team's work also helped further refine the process for the GAJSC with a few notable lessons learned. These were captured in the sixth and final step of the working group. Among the suggestions: don't segment by aircraft type or phase of flight during the analysis phase, emphasize the creation of SEs over the more difficult tracking of detailed implementation plans, and recruit new members to get fresh ideas and perspectives. The "LOC-I 2.0" working group held a meeting with the GAJSC SAT in December 2013 to summarize the lessons learned.

"The first LOC working group was a proof-of-concept project that helped inform future work," said Jens Hennig, GAMA vice president of operations, safety, and security and GAJSC SAT co-chair. "LOC 2.0 helped boost and reinforce that the conclusions and focus areas identified in the first work activity were correct, but also helped tailor and refine several of the initial safety enhancements produced."

With these process improvements in place, the GAJSC was well-positioned to continue with future working groups and reduce risk in other general aviation accident categories.

Figure 1. A list of six approved safety enhancements from the Loss of Control Working Group II — Departure and Enroute, along with four new outputs for previous SEs.

Safety Enhancement	Title
SE-28	Pilot Response to Unexpected Events
SE-30	Medications List for Pilots
SE-31	Test Pilot Utilization and Experimental/Amateur-Built Proficiency
SE-32	Airman Certification Standards
SE-33	Safety Culture
SE-34	Outreach
SE-5	Transition Training — New Output 4
SE-15	Flight After Use of Medications with Sedating Effects, New Output 5
SE-25	New Safety Technologies — New Output 2
SE-25	New Safety Technologies — New Output 3

Tom Hoffmann is the editor of *FAA Safety Briefing*. He is a commercial pilot and holds an A&P certificate.

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WORKING GROUP III

System Component Failure — Powerplant

Enhancing Maintenance Safety through Data-driven Collaboration

By Rebekah Waters

After their work on inflight loss of control (LOC-I), the GAJSC turned its attention to powerplant-related system component failures. An FAA study found that this category was the third-highest category of fatal accidents from 2001 to 2010. As with the first two working groups, data-driven strategies drove the decision to form the third working group, which was tasked with addressing this critical issue impacting GA safety.

The working group focused on fatal accidents involving operations under 14 CFR parts 91 (GA ops), 125 (large aircraft), 135 (on-demand ops), and 137 (aerial application ops) and operations categorized as "public use" or "unknown." The GAJSC charged the working group with conducting a detailed review of powerplant-related fatal accidents and recommending actionable safety interventions.

Participants and Leadership

The group was co-chaired by representatives from the FAA and GAMA, with technical support and process guidance from the FAA's Office of Accident Investigation and Prevention. Membership included government and industry powerplant subject matter experts (SMEs) who provided technical expertise to the project. (See Appendix B in the report for a full list of members.)

Timeframe

The system component failure - powerplant work group began its work in early 2014, and its charter was approved at the April 24, 2014, GAJSC meeting. The members set to work systematically reviewing accident data and shaping interventions that could directly reduce future accident risk. They met eight times between January 2014 and January 2015.

> **The accomplishments of the GAJSC's third working group underscore the power of data-driven collaboration in advancing general aviation safety.**

Methodology and Outcome

The process began with accident selection. Out of 282 related accidents that occurred from 2001 to 2010, the Safety Analysis Team (SAT) identified 70 representative accidents for detailed review. These were supported by National Transportation Safety Board (NTSB) dockets that provided additional technical, medical, and pilot information.

The team supplemented its review with technical briefings on subjects including predictive maintenance, the FAA's Monitor Safety/Analyze Data (MSAD) program, Service Difficulty Reporting (SDR) system, human factors, and emerging technologies such as smart co-pilot systems. This expertise helped them develop and prioritize safety intervention strategies that aimed to reduce the potential future occurrences of powerplant failure accidents.

These prospective interventions, or safety enhancements (SEs), were presented to the GAJSC for review and approval. Each SE included specific implementation strategies, responsible parties, milestones, and metrics for both progress and outcome measurement. Approved SEs were advanced to the GAJSC for adoption, while others were reserved for future consideration.

MITRE's design for a digital copilot functions as a cognitive assistant that simulates the support of a human co-pilot for single-pilot general aviation flights.

The efforts resulted in the adoption of 10 SEs in October 2015, each targeting a specific risk factor identified in the dataset. Other SEs were reserved for future implementation. One of the reserved SEs, SE-42, was subsequently adopted in January 2018.

SE Highlights

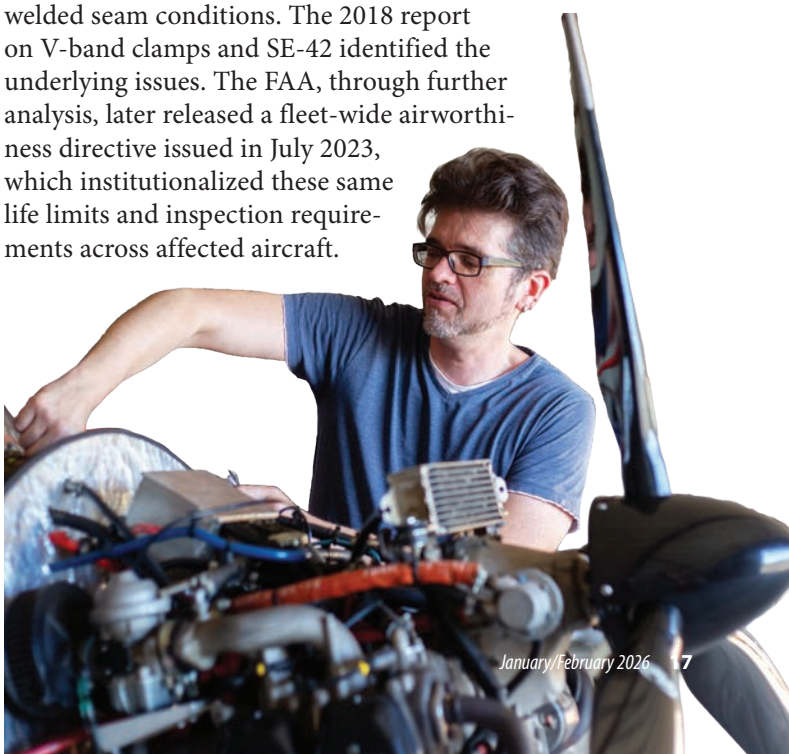
Among the adopted SEs, a couple stand out. One success story is SE-39, *Smart Cockpit Technology*, which led to the development of MITRE's digital copilot. MITRE's design functions as a cognitive assistant that simulates the support of a human co-pilot for single-pilot general aviation flights. Operating on a mobile device, the system uses algorithms to anticipate and deliver the right information — like runway data, frequencies, checklists, weather changes, or proximity alerts — via voice or timely notifications, reducing pilot workload and minimizing cockpit distractions. It could integrate seamlessly with existing tools like electronic flight bags, without requiring hardware installation or FAA approval. While MITRE's design is still a prototype, smart cockpit technologies are being rolled out, with two listed on the GAJSC's website under SE-39.

A rigorous safety analysis, published in May 2020, used cognitive performance analysis, human reliability methods, and probabilistic risk assessment to model accident rates with and without the digital copilot. Results indicated the system could significantly reduce both total and fatal accident rates in general aviation. In recognition of its innovation and potential impact, MITRE received one of the most prestigious accolades in science and engineering — it was named a 2017 R&D 100 Award Winner and also earned an Editor's Choice distinction at the awards ceremony held in Orlando, Florida, on Nov. 17, 2017.

SE-42, *Mitigating V-band Clamp Failures*, is another standout success story. The team conducted an in-depth study of the turbocharger–tailpipe interface on turbocharged, reciprocating-engine aircraft. They also reviewed an FAA report, "Exhaust System Turbocharger to Tailpipe V-band Coupling/Clamp Working Group Final Report," that identified a clear root cause: spot-welded, multi-segment V-band couplings are prone to fatigue cracking and eventual separation — leading to potentially catastrophic exhaust fires and engine failures. Based on these findings, the group issued tailored recommendations:

- Life limits for coupling types at 500 hours for spot-welded and 2,000 hours for riveted or one-piece designs.
- Annual or periodic inspections and appropriate training in inspect/install practices for maintenance staff.
- For new designs, mandating the inclusion of these life limits in the airworthiness limitations section of maintenance manuals.

The FAA published these guidelines via a Special Airworthiness Information Bulletin, SAIB CE-18-21, in July 2018, making the best practices guide publicly available and encouraging adoption while also highlighting the unsafe condition that had been identified. By establishing defined service life limits and mandatory inspection intervals, SE-42 created a structured maintenance framework to preemptively remove at-risk V-band couplings before they fail. The dissemination of best practices enhanced mechanics' and operators' awareness of proper coupling inspection and installation techniques, especially of spot-welded seam conditions. The 2018 report on V-band clamps and SE-42 identified the underlying issues. The FAA, through further analysis, later released a fleet-wide airworthiness directive issued in July 2023, which institutionalized these same life limits and inspection requirements across affected aircraft.



Recognizing that not all powerplant failures are fatal, SE-41, *Crashworthiness and Survivability*, focused on increasing pilot and passenger survival through measures like improved restraints, crashworthy fittings, and survival training. The group analyzed accident data to identify common injury mechanisms and areas for improvement in aircraft design and occupant protection. Many of the fatalities reviewed could have been prevented with better survivability tools. Many manufacturers have adopted the guidelines set forth in SE-41, leading to safer aircraft designs. The general aviation community continues to benefit from the ongoing efforts to monitor and improve safety.

Many of the fatalities reviewed could have been prevented with better survivability tools.

The accomplishments of the GAJSC's third working group underscore the power of data-driven collaboration in advancing general aviation safety. By meticulously analyzing accident causes and developing targeted safety enhancements like SE-39, SE-41, and SE-42, the group has not only identified critical risk factors but also delivered practical, implementable solutions that have demonstrably reduced accidents and improved survivability. These successes reflect the ongoing commitment of the GAJSC to making general aviation safer for pilots and passengers alike. As technology evolves and new challenges emerge, the foundation laid by this working group ensures that safety remains at the forefront, guiding future innovations and regulatory actions.

Figure 1. A list of the 11 approved safety enhancements from the System Component Failure - Powerplant Working Group.

Safety Enhancement	Title
SE-35	Mitigating the Risk of Improper Torquing
SE-36	V_{mc} Scenario Training
SE-37	Multi-engine Emergency Management Technology
SE-39	Smart Cockpit Technology
SE-41	Accident Survivability
SE-42	Mitigating V-band Clamp Failures
SE-44	Modernized Maintenance Safety Reporting System
SE-45	Maintenance Placard
SE-47	A&P Education and Training
SE-48	Ignition Systems
SE-49	SCF-PP Outreach

Rebekah Waters is an *FAA Safety Briefing* associate editor. She is a technical writer-editor in the FAA's Flight Standards Service.

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Controlled Flight Into Terrain

The Route to Refining Recognition in the Air

By Nicole Hartman

According to FAA Advisory Circular (AC) 61-134, *General Aviation CFIT Awareness*, controlled flight into terrain (CFIT) occurs when an airworthy aircraft under the control of a qualified pilot is flown into terrain (water or obstacles) due to the pilot's inadequate awareness of the impending collision. Note the qualifiers — airworthy aircraft, qualified pilot, pilot's lack of awareness. A mechanical failure in flight, a pilot's loss of control, or intentional CFIT would not be categorized as CFIT.

The General Aviation Joint Safety Committee (GAJSC) previously established a safety analysis team to review CFIT accidents in 2000. The results of this analysis focused on equipping GA airplanes with, and the use of, terrain awareness systems and GPS, as well as emphasizing pilot training. Although the overall trend for CFIT events was encouraging, and accidents were in a steady decline, CFIT continued to be a high-risk area. So, in 2018, the GAJSC chartered the CFIT working group to develop data-driven recommendations, or safety enhancements (SEs), to mitigate the risk of fatal CFIT accidents. Confronted with a 35-day federal government shutdown the team faced unique challenges, but it remained focused and dedicated to the important work.

Participants and Leadership

Comprised of about 40 government and industry subject matter experts, the team was co-chaired by Kate Fraser from the General Aviation Manufacturers Association (GAMA) and Frank Stadmeyer from the FAA's Office of Accident Investigation and Prevention Service. All participating organizations in the GAJSC had an opportunity to nominate technical experts based on expertise identified in the working group charter. Participants included representatives from AOPA, Honeywell, EAA, GAMA, Textron, Continental Motors, and Lycoming Engines (see Appendix 2 of the final report for the full membership list).

The GAJSC chartered the CFIT working group to develop data-driven recommendations, or safety enhancements SEs, to mitigate the risk of fatal CFIT accidents.

Timeframe

The team held its first meeting in October 2017 at NetJets' headquarters in Columbus, Ohio. The subsequent nine meetings were held across the country over two and a half years, ending in May of 2019. The working group's final report was then published in June 2021.

Methodology and Outcomes

The team conducted its detailed accident analyses through two subgroups based on the accident selection subsets of experimental amateur-built, certificated piston engine aircraft, and turbine engine-powered aircraft.

The set of 67 accident reports was split for analysis with spreadsheets that included the accident event sequences necessary to help understand the contributing factors in each accident. Similar to previous working group procedures the subgroups then evaluated the events to determine if they represented a "problem" involving hardware/software failure or human execution errors, decisions, or procedural non-compliance.

If the members considered an event contributory to the accident, they decided on a problem statement, along with potential interventions that could have precipitated the problem.

The team originally drafted 12 SEs, but after discussions with the GAJSC and the Safety Analysis Team (SAT), seven SEs were submitted for final consideration.

Next steps included prioritizing and scoring each intervention's effectiveness and feasibility. The high-priority project areas were reassigned to the subgroups, and the first task was to organize the interventions in their respective buckets into SEs (an SE is a plan containing one or more intervention strategies to prevent or mitigate a problem associated with an accident's cause). See the CFIT Working Group Final report for more details on this step of the process.

The team originally drafted 12 SEs, but after discussions with the GAJSC and the Safety Analysis Team (SAT), seven SEs were submitted for final consideration.

SE Success Stories

The SEs addressed CFIT mitigation strategies from different perspectives, including training and education, policy, and technology. There is also a large human factors component that addresses external pressure to continue a flight. These more insidious factors can have a huge impact on your decisions (or indecisions) during flight. Some of these influences include:

- *Plan Continuation Bias (Get-There-Itis)* — A significant factor where pilots continue with a plan despite red flags, often due to pressure to complete a flight, leading to negative decisions.
- *Unintended Instrument Meteorological Conditions (UIMC) into IMC* — Continued VFR flight into IMC was identified as the deadliest CFIT precursor, with a high fatality rate.
- *Wire Strikes* — These accidents often occur below 200 feet above ground level, highlighting the importance of flying at higher altitudes.
- *Automation Overreliance* — While technology has reduced CFIT, overreliance on automation can reduce pilot proficiency and situational awareness.

The approved SEs include:

SE 12 R1, *Expanded Weather Camera Network*

The working group added an output to this safety enhancement that investigates and deploys cost-effective technologies that can provide real-time weather information (including actual conditions as viewed through a remote camera) at airports, similar to what is being done in other parts of the United States, such as Alaska, and Canada.

The CFIT Working Group during a meeting in Boston.

SE 51, *Augmented Visual Technology for GA*

Encourage GA pilots and operators to equip and utilize enhanced vision system and /or synthetic vision system technology to enhance situational awareness of the surrounding terrain.

SE 52, *WINGS Program Overhaul*

The FAA to overhaul and develop a plan for continual improvement of its WINGS Pilot Proficiency Program to make it more user-friendly and dynamic. Aspects of the current WINGS program's automation are not user-friendly, especially for tablet and smartphone users. To encourage greater use of the program and reach more pilots, the CFIT working group recommends refreshing the program's automation so that it is more user-friendly and will work easily on all user devices. In addition, the working group recommends reviewing/updating the program's training content to ensure it is all up-to-date and includes CFIT-specific information from the working group's efforts.

SE 53, *Pressure to Complete a Mission*

To identify opportunities for improving awareness of the need to mitigate mission completion pressure on piloting, including sources and types of pressures, and the impact on decision-making. External pressures, while difficult to anticipate, can influence a pilot's aeronautical decision-making, causing distraction and potential deviation from standard operating procedures. The SE recommends conducting a review of existing measures intended to address pressure to complete a flight, and identifying new opportunities for improved education and outreach to the flying community on the importance of managing pressure.

Figure 1. A list of the seven approved CFIT Working Group SEs.

Safety Enhancement	Title
SE-12-R1	Expanded Weather Camera Network
SE-51	Augmented Visual Technology for GA
SE 52	WINGS Program Overhaul
SE 53	Pressure to Complete a Mission
SE-54	TAWS for GA
SE-56	UIMC Escape Response
SE-58	Approach Guidance in Night/Mountainous VFR
SE-45	Maintenance Placard
SE-47	A&P Education and Training
SE-48	Ignition Systems
SE-49	SCF-PP Outreach

SE 54, *Terrain Awareness and Warning Systems (TAWS) for GA, Addressing Time-Limited Inhibit, and Future Auto Ground Collision Avoidance*

Improve TAWS capabilities and algorithms to better protect pilots operating in areas with challenging terrain and develop additional safety protections to prevent the permanent inhibition of nuisance TAWS alerts during a terrain-critical flight.

SE 56, *UIMC Escape Response*

The FAA and industry to form a UIMC escape response task force, which will look at past LOC analysis as well as voluntary reports involving UIMC. The group will make recommendations on revisiting how we teach and train the UIMC escape response maneuver to include an initial climb before any heading change, should the data support such a change.

SE 58, *Approach Guidance in Night/Mountainous VFR*

To further prevent CFIT accidents, the FAA along with pilot organizations, flight instructor refresher course (FIRC) providers, and training providers should conduct an education campaign and/or develop learning modules educating the instrument-current pilot community about the safety benefits of backing up a nighttime VFR approach with lateral and vertical navigation guidance, particularly in mountainous terrain.

Final Steps

The CFIT working group's efforts ultimately promote a culture shift to improving a pilot's critical thinking skills. The research conducted by the team highlighted that human bias, particularly plan continuation bias, may be a significant factor in CFIT accidents. It's vital for pilots to know how these human biases could negatively influence their decision-making, as well as learn how to more effectively manage things that we can control and plan for those that are beyond our control. The SEs were an important step towards not only better understanding but also helping to advance a data-driven game plan that tackles CFIT prevention in new and more meaningful ways.

Nicole Hartman is an *FAA Safety Briefing* editor and technical writer-editor in the FAA's Flight Standards Service.

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"From the Ground Up," *FAA Safety Briefing*, Nov/Dec 2020
bit.ly/FAASBNovDec2020 (PDF)

System Component Failure — Non-Powerplant

Non-Powerplant Problem Prevention

By Nicole Hartman

The newest addition to the GAJSC's working group gang is the System Component Failure — Non-Powerplant (SCF-NP) Working Group. This latest member was assembled to examine failures or malfunctions of an aircraft system or component other than the powerplant. This involves malfunctions in aircraft systems and components, including pressurization controls, hydraulics, flight control surfaces, and aircraft structure. The failures that were analyzed in this study all resulted in a fatal accident.

Participants, Leadership, and Timeframe

The working group was co-chaired by the Experimental Aircraft Association's (EAA) Government Relations Director, Tom Charpentier, and Corey Stephens from the FAA Office of Accident Investigation and Prevention. Some of the other members include EAA, AOPA, Textron, the Society of Aviation and Flight Educators (SAFE), National Association of Flight Instructors (NAFI), and Sonex Aircraft. The team met between 2021 and 2025 and spent that time looking at the entire dataset of SCF-NP accidents that occurred in a ten-year span. The group followed the tried-and-true GAJSC process of scoring the contributing factors to accidents for relevance and prevalence, and proposing the most effective, data-driven, non-regulatory mitigations possible. The GAJSC is currently reviewing and voting on the list of safety enhancements (SEs), with a final report soon to follow.

Methodology and Outcomes

The dataset that the team analyzed was diverse, containing accidents that involved component failure for any reason, from maintenance and construction errors to structural failure caused by aerobatic overstress and flying into convective activity. The SEs recommended by the group are similarly diverse, addressing a variety of factors that contributed to serious component failure in general aviation aircraft. These SEs can include utilizing best practices, training, new technologies, and outreach.

The working group encountered a significant number of accidents in which the airframe failed before impact with the ground. Except for rare cases where a personal

The SCF-NP Working Group during a meeting at AOPA Headquarters in Frederick, Md.

parachute was worn, the team identified the use of a whole-airframe parachute system as the only means of preventing fatal injury following such failure.

Additionally, the team found cases where parachutes were installed but were either unable to be deployed or deployed unsuccessfully because of installation or operator error.

> **The working group encountered a significant number of accidents in which the airframe failed before impact with the ground.**

Although a detailed analysis of successful aircraft parachute deployments was beyond the working group's work scope, there are documented examples of successful whole-airframe parachute deployments in the case of structural failure across a variety of aircraft. As a result, the team will likely recommend that the FAA and industry educate aircraft owners on the benefits, installation, and appropriate use of whole airframe parachute systems, where available, as an SE.

Another potential outcome is the recommendation for the FAA and industry to expand awareness of hypoxia symptoms, proper preflight checks of oxygen and pressurization systems, and immediate action items in an emergency. The team identified hypoxia and/or depressurization as definite causative factors in two of the 52 studied events. The time of useful consciousness (TUC) is limited above flight level (FL) 180 and decreases rapidly as one ascends; at FL 250 it is only a few minutes. In the case of rapid decompression, the TUC is reduced even further. A successful outcome in an emergency is dependent upon both careful preflight preparation and an immediate, correct response in an emergency.

The team stressed that some immediate action items must be memorized and accomplished before referring to a checklist, as prompt corrective action following early recognition of one's personal hypoxia symptoms is critical.

The working group is also considering the feasibility of using flows/situational checklist procedures to augment the use of challenge/response checklists and community education on the safe construction, maintenance, and operation of experimental aircraft as SEs to combat non-powerplant system component failure.

SE Success Stories (Coming Soon!)

While there are no approved SEs to share yet, the coming recommendations will no doubt improve aviation safety.

"We had a very dedicated group of subject matter experts on this working group," said the working group co-chair and EAA Government Relations Director Tom Charpentier. "These types of accidents are thankfully rare, and the broad definition of SCF-NP made for a dataset in which few accidents were alike. We are confident that our proposed enhancements will make this small dataset even smaller in the future."

Nicole Hartman is an *FAA Safety Briefing* editor and technical writer-editor in the FAA's Flight Standards Service.

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MAKING FLYING SAFER WITH ANGLE OF ATTACK INDICATORS

Installing This Device Could Save Your Life

By Neil H. Mansharamani

The Impossible Turn

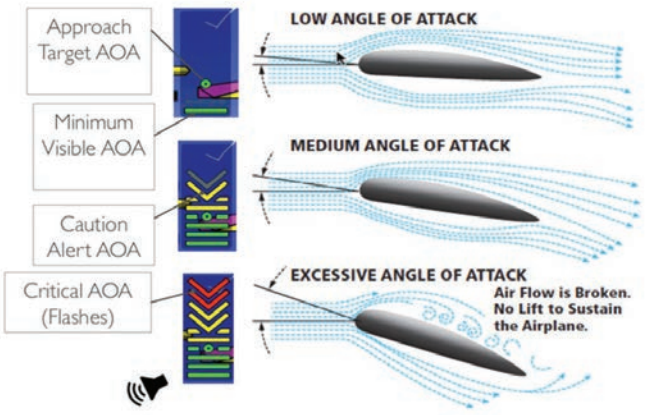
You planned a fun day of flying. You've gone through your safety checklist. You take off with sunshine and blue skies as far as the eye can see. But upon climb out, you face the unexpected — engine failure. The adrenaline starts to rush. Now what? Before the fear factor sets in, you need to make a decision.

Many pilots think they can make it back to the runway. So, they go for the "impossible turn" — a steep-bank turn more than 180 degrees heading back for the runway. But steep turns in such circumstances can lead to a stall, which could cause the pilot to lose control of the aircraft.

Such was the case of a fatal accident involving a Beechcraft B36TC *Bonanza* in Pembroke Pines, Florida, in 2021. The National Transportation Safety Board issued a final report (download at bit.ly/ERA21FA154) determining that one of the causal factors was the pilot exceeding the airplane's critical angle of attack while turning back to the airport following the loss of engine power.

Enter Angle of Attack (AoA) Indicators

In a critical situation like this, an AoA indicator is the pilot's best friend, helping them avoid an aerodynamic stall. These indicators feature a series of lights and aural alerts that change as the aircraft gets closer to an aerodynamic stall. The aural alerts free up the pilot's vision so they can focus on what's outside the window. While most newer planes come with these indicators preinstalled or available as an option, many older planes require a retrofit.



An illustration that demonstrates the connection between the AOA display and the condition of the wing.

"When you use an AoA indicator, you don't have to calculate best glide or guess how close you are to a stall," says Karen Kalishek, designated pilot examiner, master instructor, and chair of the National Association of Flight Instructors. "It provides an ongoing indication of the aircraft's available lift and helps to avoid inadvertent stalls."

These indicators also enable you to conduct a safe, stable descent and avoid excessive airspeed that might cause you to overshoot the runway.

The FAA and GAJSC Recommend AoA Indicators

Loss of control in-flight is the top cause of fatal accidents in general aviation. The FAA issued a special airworthiness

information bulletin (bit.ly/SAIB_AOA) recommending aircraft operators install and calibrate AoA indicators and receive training to use them.

The FAA is also collaborating with the GA community as part of the General Aviation Joint Safety Committee (GAJSC). To date, the committee has developed 49 safety enhancements to address high-risk areas for a fatal accident, such as maintaining control during unusual attitudes, spatial disorientation, and engine failure. To see a full list of their safety enhancements, go to gajsc.org/se.

> AOA INDICATORS ENABLE YOU TO CONDUCT A SAFE, STABLE DESCENT AND AVOID EXCESSIVE AIRSPEED THAT MIGHT CAUSE YOU TO OVERSHOOT THE RUNWAY.

The GAJSC's in-flight loss of control study concluded that greater awareness of AoA effects, coupled with greater use of available AoA indicators, can reduce the likelihood of inadvertent loss of control. The committee issued two safety enhancements calling for the installation, training, and use of AoA indicators as a supplement to existing stall warning systems in aircraft previously built, currently in production, and in future designs. To bring greater awareness to the benefits of AoA indicators, the *Pilot's Handbook of Aeronautical Knowledge* will include more information in its next revision (bit.ly/AeronauticalKnowledge).

In the Simulator

The FAA, GA industry professionals, and the Experimental Aircraft Association (EAA) teamed up on a study to see if AoA indicators would help recreational pilots in scenarios such as making steep bank turns. At the 2024 EAA AirVenture airshow, they held a clinic where they trained 90 pilots to use these indicators installed on advanced aviation training devices.

This study found that with AoA indicators, pilots knew precisely how close their aircraft were to stalling. As they became more familiar with the indicator's visual cues and aural tones, pilots reported being more confident in avoiding a stall. This led to more stabilized approaches and improved landings. EAA Safety Committee member

Examples of AoA indicator displays.

An AoA indicator can help you conduct a safe, stable descent and avoid excessive airspeed that might cause you to overshoot the runway.

Wally Anderson helped lead the clinic, concluding that "AoA indicators have the biggest potential to prevent loss of control accidents."

But it hits differently when you hear it from a GA recreational pilot. A participant from last year's training session at EAA AirVenture said she decided to install one of these indicators on her aircraft after returning home, and while flying this past year, she lost an engine on takeoff at 200 feet. She said the AoA indicator and the training she received saved her life.

Easy to Install. Simple to Learn. Might Save Your Life.

Retrofitting an aircraft with an AoA indicator can be easy and relatively inexpensive, and the training to use it is simple. There are several brands available on the market, varying in style and appearance. These can be stand-alone devices, or increasingly, are included in an aircraft's glass panel avionics.

The GAJSC is also reaching out to flight schools, stressing the need for training on these devices. "If flight instructors use them, it will help train the next generation of pilots to use them too," said Corey Stephens, operations research analyst in the FAA's Office of Accident Investigation and Prevention and co-chair of the GAJSC's Safety Analysis Team.

GAJSC's outreach to pilots and flight schools is part of its ongoing mission to encourage the GA community to adopt voluntary safety enhancements. Their efforts are making a big difference. Stephens reported that fiscal year 2024 had the lowest rate of GA fatal accidents since the FAA began tracking this metric. The FAA and the GAJSC are committed to bringing this rate down even further. We want to see flyers enjoying the skies and coming home safely.

Dr. Neil H. Mansharamani is a safety promotion team lead in the FAA Office of Accident Investigation and Prevention.

Spotlight on Safety **verticalavi.org/safety/spotlight-on-safety**

VAI SAFETY

PAUL CIANCIOLO

ONLINE PRESENCE FOR GA SAFETY

The internet is a foundational part of modern infrastructure. The phrase "if it's not online, it doesn't exist" reflects the current reality where online presence is crucial for visibility, access, and societal function. However, that digital footprint can get crowded — like tire marks on a runway over time, obscuring the centerline and other markings.

To enhance the safety of its own online landing zone, the General Aviation Joint Safety Committee (GAJSC) recently rebranded and gave gajsc.org a fresh coat of paint. With the vital mission to improve general aviation safety, this government-industry partnership aims to provide users with clear aiming points on its website.

So, before landing at gajsc.org, let's do a little preflight planning.

> TO ENHANCE THE SAFETY OF ITS OWN ONLINE LANDING ZONE, THE GAJSC RECENTLY REBRANDED AND GAVE GAJSC.ORG A FRESH COAT OF PAINT.

Digital Diagram

The homepage provides a simple explanation of the GAJSC. If you see a pop-up window, have no fear — it's an option to subscribe to periodic email updates. These updates include new blog posts and the seasonal *FlySafe Flyer* newsletter. There's also a *Subscribe* button in the header. Don't forget to confirm your email subscription.

Also, up top is a button to *Report a Safety Issue*, where you can follow specific routes if any of the following apply to you:

- I think I experienced an aviation safety-related incident or situation.
- I think I experienced an equipment problem, like a malfunction or defect.
- I was in an aircraft accident or witnessed an aircraft accident.
- I am concerned about a possible illegal air charter operation.
- I witnessed an aviation safety incident.

Alpha through Golf

If you don't like getting lost while taxiing at an unfamiliar airport, you probably don't like getting lost navigating a website. That's why we reduced the menu to six options without any submenus.

The *Monthly Fly Safe Topics* promote GA safety topics each month that support or are directly related to the GAJSC's safety enhancements. To foster a stronger and more unified safety culture, industry partners are encouraged to use their own outreach channels to promote and distribute these materials to the GA community to help mitigate known safety risks.

Safety Enhancements are intervention strategies to prevent or mitigate problems associated with accident causes. These may include procedures, training, and equipment installations that, when implemented, may reduce the likelihood of accidents in the future. Each topic is expandable and contains at least one icon to denote the intended audience: pilots, mechanics, flight instructors, and industry. Under each, there may be additional links for further knowledge.

The newly designed GAJSC website.

The *Reports & Documents* menu offers a robust list of working group reports, recommendation letters, performance metrics, the GAJSC charter, and the brand guide, to name a few. On a side note, the 2012 Loss of Control on Approach and Landing final report is the most downloaded document.

News Briefs shows all blog content published. This includes the monthly Fly Safe topics and announcements, such as the 2022 Midair Collision Report summary and link.

The *Newsletter* tab vectors you direct to the *FlySafe Flyer*. The page has a subscription option and a digital newsletter archive going back to its creation in the spring of 2024.

Lastly, the *Partners* menu shows all the GAJSC chartered partners and observers, along with links to each organization.

Frequency Change

Like our safety culture of continuous improvement, there's room to ensure the digital centerline of general aviation safety remains clear, mobile-friendly, and has a practical user experience. If you have suggestions or comments about gajsc.org, send them to admin@gajsc.org.

Paul Cianciolo is an associate editor and the social media lead for *FAA Safety Briefing*. He is a U.S. Air Force veteran, and a rated aircrew member and volunteer public affairs officer with Civil Air Patrol.

REBEKAH WATERS

TEAMING UP FOR DRONE SAFETY

Drones are unleashing U.S. productivity, creating high-skilled jobs, and reshaping the future of aviation. Building a strong and secure domestic drone sector is vital to reducing reliance on foreign sources, strengthening critical supply chains, and ensuring that the benefits of this technology are delivered to the American people. This Administration emphasizes the existing need to address the rapid evolution of aerospace operations, the future of drone integration into the National Airspace System (NAS), and the expansion of safety management systems (SMS) across the aviation industry (bit.ly/WhDdEo). The Drone Safety Team (DST) is underway in putting these efforts into action, ensuring the safe and efficient integration of drones into our skies.

The team is an industry-led, FAA-supported partnership committed to identifying and addressing safety risks associated with drone operations. It was created to analyze drone-related safety data and identify emerging threats that drones may pose to aircraft, people, and property. The DST is tasked with promoting an industry-government partnership that is collaborative, data-driven, and uses a voluntary approach to the management of drone safety.

At DST meetings, representatives from industry and government work together towards one goal: enabling the safe integration of drones into the NAS. Like the other aviation safety teams within industry, they work to define consensus-based safety enhancements based on a data-driven process and collaboration among industry members.

During a DST meeting in 2019, the team discussed ways to improve drone-specific safety data collection. This prompted a two-fold solution. First, the team looked at creating a drone-specific reporting form for NASA's Aviation Safety Reporting System (ASRS). Second, the team asked the FAA to ensure drone pilots were included in the FAA's Voluntary Reporting Program, which offers pilots protection when self-reporting.

Representatives from industry, NASA, and the FAA worked together to create a form tailored to the unique aspects of drone operations that would ensure the collection of useful, meaningful safety data. Anyone involved in drone operations can use the UAS/Drone Report Form to report close calls, hazards, violations, and safety-related incidents. Learn more about ASRS at go.nasa.gov/4nIhHmc.

Simultaneously, the FAA was working on an update to Advisory Circular (AC) 00-46F, *Aviation Safety Reporting Program*, which enables the non-punitive nature of the ASRS, to include drone pilots. You can read this AC at bit.ly/AC00-46F.

Since then, the DST has established two workgroups: the Drone Safety Data workgroup (DSD WG) and the SMS workgroup (SMS WG). The DSD WG is focused on improving data quality and standardization to build a strong foundation for drone safety analysis. The SMS WG is focused on developing practical, scalable SMS guidance and tools for drone operations of all sizes that will help foster a strong safety culture in the drone industry.

Over the next few years, the DST will work towards implementing a full safety metrics framework, launching public-facing safety materials, and establishing risk detection and mitigation systems modeled after other aviation safety teams. Whatever the future of full drone integration brings, the DST will be there, building trust and confidence among industry and the public with its collaborative, data-driven approach enhancing the safety of the NAS.

Rebekah Waters is an *FAA Safety Briefing* associate editor. She is a technical writer-editor in the FAA's Flight Standards Service.

LEARN MORE

Drone Safety Team
bit.ly/DSThome

"Drone Reports for ASRS," *FAA Safety Briefing*, Jan/Feb 2023
bit.ly/ASRS4Drones

REBEKAH WATERS

FIGHTING FLIGHT CONTROL CABLE FAILURES

If you've seen the Aviation Maintenance Safety Moments video, "Flight Control Cable Failures," which came out in July of this year, you know about the significant risk to flight safety posed by chaffing, misrouting cables, the use of unapproved parts, or improper inspection procedures. But do you know what inspired the creation of this video? The story begins with two brothers who share a passion for safety: Jamie and Jackie Black.

Jackie Black is the division manager of the FAA's Aircraft Maintenance Division (AFS-300). Jamie is a volunteer FAASTeam Industry Member for the state of Arkansas who retired from the FAA after more than 23 years. When multiple maintenance providers were approaching Jamie about control cable issues — a problem that stems from improper maintenance — he knew just who to reach out to: his little brother, Jackie.

Throughout his career in aviation safety, Jamie made friends and built relationships both in the FAA and the aviation industry. A just safety culture was the cornerstone of these relationships. This kind of relationship building and safety culture is not something that happens overnight. It is the result of a career and lifetime of intent, and a passion for improving safety. This commitment explains why maintenance providers felt comfortable sharing their concerns about cable failures, documented with photos and videos, with Jamie. Due to the number of concerns shared with Jamie, he surmised that the issue is likely widespread.

Jackie connected Jamie with David Hays, a safety inspector in the GA aircraft maintenance section of AFS-300. They teamed up to produce a video that focused on flight control cable failures, how they directly affect a pilot's ability to control various flight surfaces, and explained potential causes, signs, and prevention strategies. With more than 20,000 views, this video is just one of the multiple tools AFS-300 is leveraging to get the word out about this important safety issue. Watch the full video at bit.ly/FAAcables.

Rebekah Waters is an *FAA Safety Briefing* associate editor. She is a technical writer-editor in the FAA's Flight Standards Service.

LEARN MORE

AC 43.13-1B, *Acceptable Methods, Techniques, and Practices — Aircraft Inspection and Repair*
bit.ly/AC43131B

Search FAA Special Airworthiness Information Bulletins (SAIBs)
bit.ly/FAASAIB

Search FAA Airworthiness Directives (ADs)
bit.ly/ADFAA

PART 145 REPAIR STATIONS SMS IMPLEMENTATION REQUIREMENTS

You may have heard the FAA and European Union Aviation Safety Agency (EASA) recently signed Bilateral Oversight Board (BOB) Decision No. 13, requiring all U.S.-based 14 CFR part 145 repair stations holding an EASA part 145 certificate to implement a safety management system (SMS). U.S. maintenance organizations interested in maintaining their EASA certifications had until Dec. 31, 2025, to satisfy these requirements. One option available to meet the new SMS requirement is the FAA's SMS Voluntary Program (SMSVP). (See FAA Order 8900.1, Volume 17, Chapter 3, Section 1 at bit.ly/8900v17ch3.)

Whether you're just getting started or fully underway with your efforts to develop and implement an SMS, you can go to the FAA's SMS webpage at bit.ly/faasms to get a jumpstart on guidance documents and access good-to-know information like "Corporate SMS" and "How To" suggestions. The good news is there's no need to reinvent the wheel. The FAA's basic interest is that you build your SMS in a way that makes sense to your organization while meeting the basic Part 5 requirements.

The FAA streamlined the SMSVP process, removing bureaucratic hurdles, and aligned it with what's required for part 121, 135, and 91.147 air tour operators. This means once your organization has developed and implemented its SMS, you notify the FAA via a formal Declaration of Compliance, indicating your SMS meets the part 5 requirements. From there, the FAA will simply assess the performance of your SMS during normal surveillance.

STAYING COHERENT AT THE COLLECTIVE

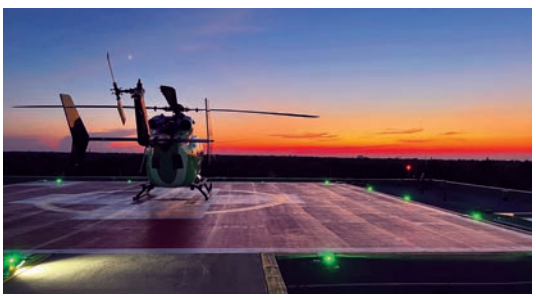
Fatigue is one of the most dangerous risks in aviation because it hides in plain sight. Although I have always respected the importance of fatigue management, it was not until I began working in the air ambulance industry that I fully recognized my responsibility to ensure I was rested for duty.

Transitioning into night shift flying forced me to reevaluate how I manage my rest. Sleep during the day is unnatural, and it took trial and error to create an environment that allowed me to be truly rested before a long night of flying. I became intentional — blocking out light, reducing distractions, and sometimes saying no to social activities to prioritize the rest that my role demands. It is not just about protecting myself; it is about protecting my crew and the passengers who rely on us to arrive safely. Being proactive about rest is just as important as completing a checklist or reviewing the weather. It is part of my job.

The volunteer-driven U.S. Helicopter Safety Team (USHST) is also being proactive about the risks of fatigue on the flight deck. Its mission is to develop, deliver, and advocate practical safety resources that strengthen safety culture and enhance performance across the rotorcraft community. With the vision of zero fatal civil helicopter accidents, the USHST has developed a series of helicopter safety enhancements (H-SEs). These enhancements target preventable accident causes, such as wire strikes, loss of control, and maintenance errors, by offering operators practical, data-driven strategies to mitigate risk. Each enhancement is designed to address known hazards and strengthen the safety culture across the industry.

Among these initiatives, one of the most pressing is H-SE 23-04, *Fatigue Risk Management*, which aims to improve fatigue awareness and risk mitigation of scheduling factors leading to fatigue. Fatigue has long been recognized as a silent threat to aviation safety, but it is often underreported and misunderstood. Since 1990, the NTSB has identified fatigue in only 33 helicopter accidents, yet research across industries suggests fatigue is a factor in roughly 20% of all safety incidents. That gap highlights how difficult fatigue is to identify after an accident and how frequently its role may be overlooked.

A recent USHST white paper about fatigue risk management stresses that current practices fall short. Traditionally, helicopter operators have relied on self-assessment, expecting pilots and maintenance personnel to judge, for themselves, whether they are too tired to perform safely. The problem is that fatigue undermines judgment. Sleep-deprived individuals underestimate their deficits, take risks they would otherwise avoid, and may feel pressure to continue a flight even when they know they should stop. Several tragic accidents illustrate this reality: pilots falling asleep at the controls, fatigued search and rescue crews pressing ahead under pressure, and maintenance staff making preventable mistakes after extended shifts.



Sunset on a rooftop helipad in Cleveland, Ohio. (Photo by Leah Murphy)

To combat these risks, USHST calls for operators to implement fatigue risk management programs (FRMPs) as part of their safety management systems (SMS). A strong FRMP includes objective methods for identifying when fatigue poses a hazard and implementing mitigation strategies and tracking mechanisms to measure program effectiveness over time.

While operators must provide the tools, the pilot's responsibility is to make safe decisions. Every pilot has the obligation to decline a flight if they are not fit for duty.

When pilots, maintenance staff, and operators all take fatigue seriously, we can reduce accidents. The USHST's fatigue initiative reminds us that safety does not come from luck or pushing through. It comes from preparation, honesty, and the discipline to say "not today" when fatigue makes flight unsafe.

Leah Murphy is a dual-rated flight instructor and helicopter air ambulance pilot. She is also an FAA Safety Team Representative in Cleveland, Ohio.

Editor's Note: In October 2025, at the 40th Women in Aviation (womeninaerospace.org) awards ceremony, Leah Murphy was honored with the Initiative, Inspiration, and Impact Award for her outstanding aviation safety volunteerism and relentless advocacy, inspiring the next generation of women in aerospace.

LEARN MORE

H-SE 23-04, *Fatigue Risk Management*
ushst.pulsarinformatics.com

Don't Fly Fatigued Video
bit.ly/fatiguevideo

Check out our GA Safety Facebook page at **Facebook.com/groups/GASafety.**

If you're not a member, we encourage you to join the group of nearly 17,000 participants in the GA community who share safety principles and best practices, participate in positive and safe engagement with the FAA Safety Team (FAASTeam), and post relevant GA content that makes the National Airspace System safer.

Amphibious Observations

"Seaplanes and Safety" (bit.ly/SafeSeaplane) *was well written with great emphasis on the gear position differences and the focus on "crew" inclusion in the process. The Seaplane Pilots Association has been working hard to get the word out, and much has been written on the topic, but we still find many experienced pilots getting into trouble.*

One common theme is pattern work. When taking off and landing at an airport with amphibious floats, the tendency can be to leave the gear down, citing reasons like: you're going to just be putting it down again, saving cycles on the landing gear, or that it makes no difference aerodynamically, just to mention a few.

We are creatures of habit, and we need to practice good habits. Great landings begin long before touchdown — with a good pattern, stable approach, and checklist use. Forming good habits for water landings must be consistent. And, that habit mentioned for takeoff of a positive rate and gear up is of utmost importance.

Unfortunately, many pilots have been told to wait until there is not sufficient runway left to put the gear back down if needed. That's a terrible idea for two reasons: first, it breaks the good habit you're trying to form. Second, should you have to put it back on the runway, it could and very often does result in a runway overrun. In most of those cases, they would have been much better off with the gear up anyway.

But, it's still the most rewarding flying you'll ever do. Stay sharp and be safe.
— Brewster

Thanks for reading and sharing your insights, Brewster! We couldn't agree more that consistency is key.

Advice for an Amateur

A member recently posted on the General Aviation Safety Facebook group, looking for safety tips for a new pilot, and the group was eager to help. Check out the thread at (bit.ly/FBPilotTips) to get some tips or add your own.

The most important decision you will make is whether you should take off in the first place. Is the weather good enough? Will it stay good enough? Are the winds within your capabilities? USE the checklist for every phase of flight, every time, no matter your experience level.
— Jim

Visit your local ATC facility. Talk to the controllers. Focus on the right radio lexicon.
— Jeff

Takeoffs are optional. Landings are inevitable.
— Chris

Seek an experienced instructor.
— Keith

Always do a preflight and follow the checklist! Never assume!
— Donna

Regardless of everything else, fly the aircraft.
— Pat

For more stories and news, check out our blog "Cleared for Takeoff" at medium.com/FAA.

Let us hear from you! Send your comments, suggestions, and questions to SafetyBriefing@faa.gov. You can also reach us on X (formerly known as Twitter) @FAASafetyBrief.

We may edit letters for style and/or length. Due to our publishing schedule, responses may not appear for several issues. While we do not print anonymous letters, we will withhold names or send personal replies upon request. If you have a concern with an immediate FAA operational issue, contact your local Flight Standards District Office or air traffic facility.

DON'T GET TONGUE-TIED WITH AVIATION SAFETY

GAJSC — it's an acronym, or more specifically, an initialism, that doesn't exactly roll off the tongue. I've heard some attempts to pronounce it Jazz-ik, or Gazz-ik, which never stuck. But that's ok. I kind of prefer this matter-of-fact abbreviation to some of the overly clever attempts to "namify" or reverse engineer words to something more convenient. It simply stands for what it is — General Aviation Joint Safety Committee. Incidentally, the committee's name did change a few years back — the S was changed from Steering to Safety. The change more appropriately represents the group, but it is still just as hard to say.

While many pilots may not know what the GAJSC is, we've been on a mission to change that. This issue of *FAA Safety Briefing* magazine is just one step towards accomplishing that goal. As you'll read elsewhere in these pages, the GAJSC has been on the leading edge of advancing safety in the general aviation community for nearly thirty years. In fact, it just wrapped up a working group that took a closer look at accidents involving non-engine-related component failures (see the article "System Component Non-Powerplant" for more). The group put forth 12 new safety intervention strategies — or safety enhancements (SEs) — aimed at reducing fatal accidents in this category. These are in addition to the 46 existing SEs the committee developed that cover everything from aeronautical decision making to the WINGS Pilot Proficiency Program.

I realize the term safety enhancement might not ring a bell, but you're likely familiar with some of the many important outcomes SEs have helped cultivate and achieve. For example, the FAA's revised policy on streamlining the installation of angle of attack (AoA) indicators made it much more affordable to integrate this life-saving technology into your aircraft. The GAJSC's first two SEs helped make that possible.

Or perhaps you've noticed the FAA's new over-the-counter (OTC) medication reference guide: W*hat OTC Medications Can I Take and Still Be Safe to Fly?* at bit.ly/OTCMedstoFly. The need for increased focus and clarity on safe medication use came straight from the GAJSC's analysis of hundreds of fatal accidents. You can find many more examples of aviation safety success stories attributable to the GAJSC within these pages.

I've been fortunate to work with the GAJSC for several years now and have seen firsthand the unique value of this committee. I'll say it's a true cornucopia of general aviation knowledge and expertise. And there's a clear emphasis on the "J" of this joint safety committee. Government, industry, and academia groups are all part of the equation, with 26 partners and observer organizations listed on its website at gajsc.org/partners. Many other organizations are also brought in to assist with research or to share their expertise as needed.

A few years ago, I was asked to help establish and co-chair the GAJSC's Communications and Outreach Working Group that was tasked with fine-tuning its communications strategy. Together with my industry co-chair, Bob Rockmaker, president and CEO of the Flight School Association of North America, we've worked hard to promote the GAJSC's great work and raise awareness about this committee's collaborative role in the GA community.

> **WHILE MANY PILOTS MAY NOT KNOW WHAT THE GAJSC IS, WE'VE BEEN ON A MISSION TO CHANGE THAT.**

A few of our accomplishments include creating a revised branding scheme with a new logo and tagline, overhauling and updating the website at gajsc.org, and starting a newsletter — the *FlySafe Flyer* (subscribe at gajsc.org/newsletter) — to provide aviation stakeholders with GAJSC news and relevant safety information. We've also worked on enhancing and increasing awareness of our Fly Safe topics of the month, where we provide more details about certain SEs at gajsc.org/flysafe.

Names can be deceiving, so I'm hopeful our focus on increasing awareness of this somewhat tongue-twisting acronym — GAJSC — will make you pause and take notice of the work and incredible value this team provides to the GA community.

Tom Hoffmann is the editor of *FAA Safety Briefing*. He is a commercial pilot and holds an A&P certificate.

PAUL CIANCIOLO

CHRISTOPHER GOMES

Operational Safety Analyst, FAA Office of Accident Investigation and Prevention

Let a kid play with remote-controlled airplanes; of course he will become obsessed with aviation. Then, add the opportunity to take aerospace science courses in high school; that's a win for developing future aviators! *This is the way.*

It's the vector Christopher Gomes navigated before earning his private pilot certificate shortly after high school. He continued on the path to receive a bachelor's degree in aviation business administration from Embry-Riddle Aeronautical University. After graduation, Christopher was offered a job with the FAA's Air Traffic Safety Oversight Service. He took a brief detour from federal service to work for Booz Allen Hamilton before veering back to the FAA in 2018.

"In the Air Traffic Organization, I supported the integration of drones and commercial space operations, along with monitoring air traffic acquisition programs for cost, schedule, and performance," notes Christopher. "Then in 2024, I joined the Integrated Safety Teams Branch, bringing my experiences from different FAA lines of business to help facilitate and move aviation safety forward."

Under the FAA's Office of Accident Investigation and Prevention, this small branch integrates and harmonizes the work of joint government and industry safety teams like the U.S. Aviation Safety Team (USAST), General Aviation Joint Safety Committee (GAJSC), U.S. Helicopter Safety Team (USHST) and Commercial Aviation Safety Team (CAST) to support the implementation of safety enhancements in the national airspace system.

"These safety teams are fantastic examples of public-private partnerships where we can bring the agency and its industry stakeholders together to collectively identify emerging aviation safety issues and work towards voluntarily mitigating them," he explains.

Each team is driven by its own community goals and issues; however, aviation issues often are cross-domain — general aviation and commercial or fixed-wing and rotorcraft. The branch helps ensure alignment among the different teams, ensuring each is aware of problems affecting other communities and harmonized in their approach to mitigating issues.

"One of the most exciting and obvious accomplishments that we're proud of is that the GAJSC and general aviation community are continuing to meet and exceed their safety goals for the year, which can be attributed to the success of the safety teams," explains Christopher. "Other successes include delivering recommendations for improving outcomes during unintended flight into instrument meteorological conditions (IMC) and proposed safety enhancements addressing general aviation non-powerplant system component failures."

The branch is also conducting two studies on mid-air collision risk at certain small airports and identifying risks during circle-to-land instrument approaches. This work should lead to safety enhancements that further reduce the risk of accidents in the GA community. These enhancements cannot happen without data.

Christopher is also involved with a large-scale modernization of the Aviation Safety Information and Analysis Sharing (ASIAS) program to enhance data availability. ASIAS (asias.faa.gov) is a collaborative government-industry partnership that enables data sharing and analysis of safety data. Industry stakeholders can voluntarily contribute safety data that enables broader, systemic analysis to identify system-wide hazards before accidents or incidents occur. He also works with pilots, operators, manufacturers, training/academia, industry associations, etc., to conduct analyses within the program to help identify risks and issues in the system.

"Our safety teams have worked so well because they have committed to this data-driven approach for mitigating the contributing factors of general aviation's top killers," notes Christopher. "A big challenge is for us to stay data-driven to reduce the number of fatalities when there is a lot of public attention and pressure after a safety event occurs within the GA community. Public attention and pressure can detract from our safety team's goals by diverting resources to mitigate events that may not be a high priority as identified in our data."

Christopher's advice for his fellow GA pilots is to follow the data and take time to review the GAJSC monthly Fly Safe topics. These are based on data-driven safety enhancements that can reduce the number of fatal accidents.

Paul Cianciolo is an associate editor and the social media lead for *FAA Safety Briefing*. He is a U.S. Air Force veteran and an auxiliary airman with Civil Air Patrol.

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LOOK WHO'S READING *FAA Safety Briefing*

"When I'm not on an adventure in the clouds, I'm keeping current on GA safety!"

— Kay Hall
server turned pilot, social media influencer, author

@FlyWithKay