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FAA Safety BRIEFING

A JUST CULTURE *for Safety*

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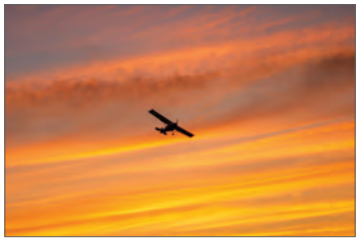
ABOUT THIS ISSUE…



The January/February 2024 issue of *FAA Safety Briefing* focuses on the FAA's Compliance Program and how its foundational concepts have helped advance a "just culture" within the general aviation community.

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FAA Safety BRIEFING

The FAA Safety Policy Voice of Non-commercial General Aviation

DEPARTMENTS

LARRY FIELDS, FLIGHT STANDARDS SERVICE EXECUTIVE DIRECTOR

A JUST CULTURE FOR SAFETY

Back in 2015, the FAA launched a unique program that would represent a major cultural change in how the agency goes about ensuring regulatory compliance. Dubbed the Compliance Philosophy (and later renamed Compliance Program), it helped the FAA achieve effective, quick, and efficient corrections to aviation safety issues resulting from deviations from standards (faa.gov/about/initiatives/cp). Nine years later, the program has been a great success, helping to build a just culture within the aviation community and enabling airmen to take an active role in addressing safety concerns. Yet, many airmen are still unfamiliar with the Compliance Program and the many benefits it brings to all National Airspace System (NAS) users.

This issue of *FAA Safety Briefing* acquaints you with this program, reinforces its importance, and demonstrates its effectiveness in the industry. For example, what might have once required the use of an enforcement action for a pilot deviation may now involve training, education, or counseling — a compliance action — to resolve. The FAA recognizes that some deviations are caused by a simple mistake or could stem from a lack of training, a lack of knowledge, diminished skills, or procedures that are not working as they should. A compliance action is a more effective way of correcting the issue and preventing reoccurrence. In fact, since October 2015, the agency has taken more than 44,000 compliance actions to identify the root cause of a safety issue and correct it at the most effective and efficient level.

That doesn't mean the FAA still doesn't rely on enforcement actions (like certificate action) when warranted. However, it does show a trend toward a solution that relies more on cooperation and collaboration than punitive measures.

Another key benefit has been the uptick in activity with voluntary reporting programs that are available. These include the Aviation Safety Action Program (faa.gov/about/initiatives/asap) and the Aviation Safety Reporting System or "NASA report" (asrs.arc.nasa.gov), among others. In the past, airmen may not have always been as forthcoming with critical safety information, so this represents a huge step towards getting the big picture with aviation safety. We'll cover more about these critical programs in this issue and the mutual benefits they provide to both the regulators and the regulated.

And since they share the same airspace with traditional aviators, the Compliance Program also applies to our ever-expanding cadre of recreational and part 107 drone flyers. We cover some of the nuances of drone flying in this issue and the impact the Compliance Program is having on that industry.

It's worth noting that while the Compliance Program has its origins in the Flight Standards Service, the program's strategic safety oversight approach has been adopted by several other FAA services and offices, including the Aircraft Certification Service, the Office of Aerospace Medicine, the Air Traffic Safety Oversight Service, the Office of Airports, the Office of Commercial Space Transportation, the Office of Hazardous Materials Safety, and the Office of National Security Programs and Incident Response. These services and offices have continued to work together, in conjunction with the Office of the Chief Counsel, to meet the challenges of today's constantly evolving NAS, as evidenced by the most recent update to FAA Order 8000.373C (bit.ly/FAA-CP-Order).

Finally, I'd like to thank the FAA's Safety and Compliance team who contributed greatly to this issue and whose steadfast commitment and support of the Compliance Program has helped it become a game-changer toward advancing NAS safety and being a global leader for excellence.

While the Compliance Program has required a new mindset for the FAA and the aviation community, its principles remain focused on the idea that compliance is the foremost factor in safety. With this program, the FAA can be more adept at achieving a rapid return to compliance, mitigating risk, and ensuring positive and permanent changes that benefit the entire aviation industry.

Safe flying!

AVIATION NEWS ROUNDUP

FAASTeam Offers New Human Factors Training Courses

Human error is both universal and inevitable. Everyone will make a mistake sooner or later and many accidents are directly linked to human error, but what can you do to minimize the risk? The study of human factors applies knowledge of the human body and mind to better understand human capabilities and limitations. With this knowledge we can design training, hardware, and software that leverages our strengths and compensates for our weaknesses.

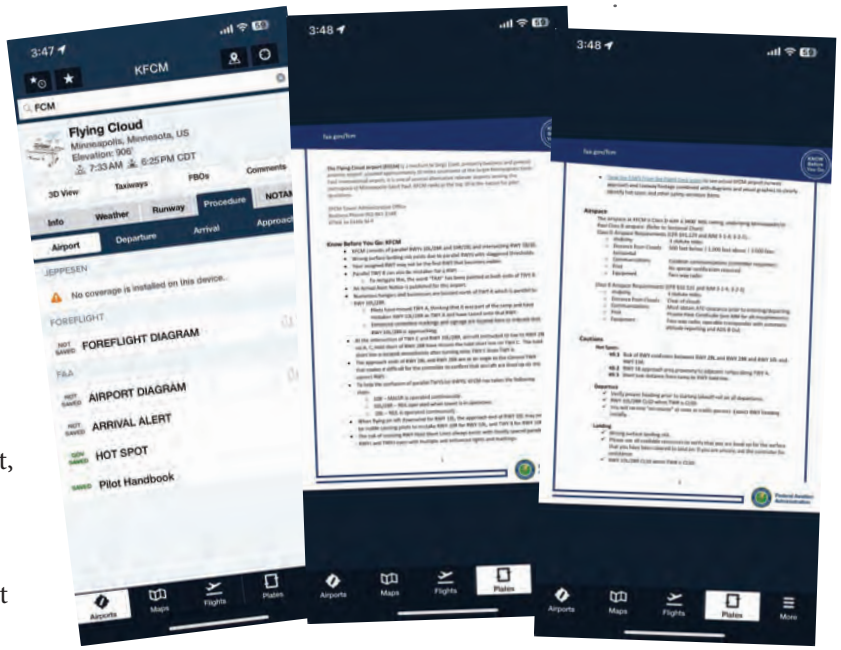
Based on the Australian Civil Aviation Safety Authority's Safety Behaviors - Human Factors for Pilots, nine new Human Factors courses are available on FAASafety.gov. The course modules focus on safety culture, human performance, communication, teamwork, situational awareness, decision making, threat and error management, human information processing, and design and automation. The courses are eligible for credit in the WINGS Pilot Proficiency Program.

Many are familiar with the "accident chain" — a series of circumstances, events, and decisions that lead to an accident. Login today and complete your training to learn how to "break a link in the chain" and prevent an accident.

From the Flight Deck Publishes Additional "Pilot Handbook" Content

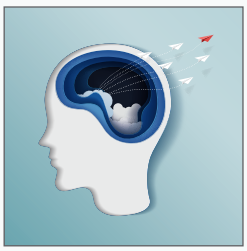
New safety information products for pilots are now available online. The FAA's *From the Flight Deck* video series has published "Pilot Handbooks" for 40 airports across the U.S., with new locations added regularly. The handbooks were developed specifically for pilots to both highlight and supplement airport diagrams, hot spots, and other potential surface safety issues. Each pilot handbook contains information local controllers want pilots to know, airport communications, airspace details, general best practices, lost communications tips, and other preflight planning resources.

Check out faa.gov/flight_deck to use the interactive map and find the Pilot Handbooks currently available. This content is also accessible through the ForeFlight app which allows you to save the handbooks for the airports you plan to use and provides links to the FAA's *From the Flight Deck* videos to see actual airport footage and other safety-sensitive information.



#FLYSAFE GA SAFETY ENHANCEMENT TOPICS

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

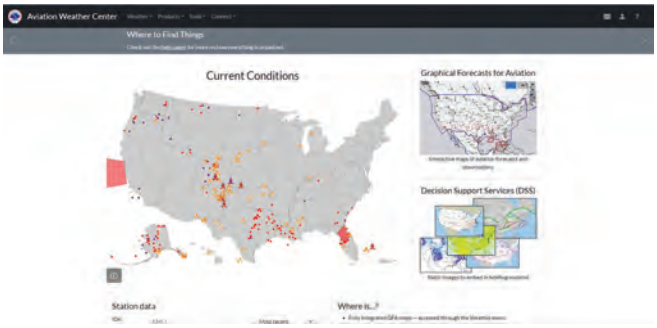


JANUARY

Introduction to Human Factors – why human factors and safety culture are important considerations for pilots.

FEBRUARY

Advanced Preflight – how to incorporate a more detailed approach to your preflight inspection.



New NOAA Weather Site

The National Oceanic and Atmospheric Administration (NOAA) launched an overhauled online weather resource. For decades, aviationweather.gov has been helping pilots supplement their weather information, providing access to TAFs and METARs and providing graphical forecasts.

The new site presents a cleaner appearance than the legacy site and features more interactive maps, static images to embed in briefing material, and a dark mode. Users can select the most recent weather or view the previous 48 hours, customize their map displays to show raw or decoded data, and save searches using the "remember" feature.

The updated site merges the legacy Helicopter Emergency Medical Services (HEMS) tool into the same framework as the Graphical Forecasts for Aviation while keeping its focus on low-altitude flight. All previous displays and tools are still available on the updated site and it's easily viewable on your phone or tablet.

Updated List of Cold Temperature Airports

The FAA released an updated list of cold temperature airports, effective Aug. 11, 2023 to Sept. 5, 2024, at which pilots must apply altitude corrections on certain segments of instrument approaches when the outside air temperature drops below a published limitation.

Cold temperature airport procedures are detailed in Chapter 7, Section 3 of the Aeronautical Information Manual (bit.ly/3u0YjKz) and their airports are published at bit.ly/47HR5cY (PDF). Airports in 31 states are included, along with the associated temperature restriction, and which part of the affected approach, initial, intermediate, final, or missed approach segment requires an altitude correction. ATC is not responsible for making any altitude corrections and/or advising pilots that an altitude correction is required at a cold temperature airport; pilots must make the altitude correction on their own and report the correction to ATC if it occurs on the intermediate or missed approach segment.

$201M in Bipartisan Infrastructure Law Lights the Way to Improve Runway Safety

More than $201 million in President Biden's Bipartisan Infrastructure Law funding will go to airfield lighting systems at 82 airports. The projects will purchase and install new lighting for runways and taxiways to keep operations safe during reduced and low visibility and night conditions. The recent projects announced include:

- **Boeing Field/King County International in Seattle, Wash.:** $2.6 million to install elevated runway guard lights for Runway 14R/32L to enhance safety.
- **Dickinson/Theodore Roosevelt Regional Airport in North Dakota:** $2 million to install replacement Runway 7/25 end approach path identifier lights, making the airport more accessible by improving approaches to the runway ends and reconstructing Taxiway D lighting.

The full list of projects can be found at faa.gov/bil/airport-infrastructure.

GA Pilot Winter Prep Workshop

The FAA provided a free workshop on how to prepare for winter weather and operate safely in changing weather conditions. The event covered tips for preflight, enroute, and post-flight actions as well as other helpful information for pilots in the cooler months. Panelists included GA industry reps, pilots, air traffic controllers, meteorologists, and other safety experts.

If you missed the live event, visit bit.ly/3G8g8dh to catch up on the discussion.

FAA to Appoint Rulemaking Committee to Examine Pilot Mental Health

The FAA will establish a Pilot Mental Health Aviation Rulemaking Committee (ARC) to provide recommendations on breaking down the barriers that prevent pilots from reporting mental health issues to the agency.

The ARC will include medical experts and aviation and labor representatives and will build on previous work the FAA has done to prioritize pilot mental health, including:

- Increasing mental health training for medical examiners
- Supporting industry-wide research and clinical studies on pilot mental health
- Hiring additional mental health professionals to expand in-house expertise and to decrease wait times for return-to-fly decisions
- Completed clinical research and amended policy to decrease the frequency of cognitive testing in pilots using antidepressant medications
- Increasing outreach to pilot groups to educate them on available resources

In addition, the FAA will work with the ARC to address open recommendations from the July 2023 DOT Office of Inspector General report on Pilot Mental Health Challenges. Visit bit.ly/46dzo3O to view the report and access additional resources for pilot mental health.

DR. SUSAN NORTHRUP, FAA FEDERAL AIR SURGEON

DISCLOSING DRUG AND ALCOHOL OFFENSES

Most of you know that there are specific limits regarding alcohol consumption when you plan to fly. You must abstain from alcohol for at least 8 hours prior (12 hours in the military) and your blood alcohol level must be less than 0.04% (grams/deciliter) per Title 14, Code of Federal Regulations (CFR), section 91.17. The use of alcohol and other drugs (legal or illicit) proximate to flight is simply not safe. Studies have shown that there is an increased mishap rate among pilots who have had a DUI or DWI (driving under the influence or driving while intoxicated). In addition, a significant number of pilots involved in fatal accidents have had alcohol or other impairing drugs found in their system at autopsy.

The FAA is very concerned about this safety risk, and, as such, FAA regulations put an emphasis on the importance of flying unimpaired. You should also know that pilots are required to report alcohol or drug-related incidents to the FAA. Pilots who maintain an FAA medical certificate and operate under part 121 or 135 face additional requirements including random drug and alcohol testing.

Pilots are subject to the reporting requirements of 14 CFR section 61.15. You must provide a written report to the FAA Civil Aviation Security Division within 60 days of any action regarding your driver's license. This includes suspensions, convictions, etc. Please note that this is required even if charges are subsequently dismissed. Also note that multiple reports might be required for the same offense, for instance, if a suspension is followed by a later conviction. This regulatory requirement reflects how the law was written.

Pilots who maintain FAA medical certification have additional reporting requirements under items 18 and 20 of the medical certificate application (FAA Form 8500-8). This is separate from the reporting due under section 61.15 and neither disclosure satisfies the reporting requirement for the other. Also, applicants for a medical certificate or those choosing the BasicMed pathway grant consent for a review of the National Driver's Registry (NDR) as part of the application process.

There are also considerations for those who fly ultralights (part 103) and drones (part 107). The use of alcohol or other drugs is limited in section 103.9 and sections 107.23, 107.27, and 107.57, respectively in addition to section 91.17. While there is no specific reporting requirement under part 103 or 107, a pilot who holds a certificate issued under part 61 must still meet the reporting requirements of paragraph 15 even if they no longer exercise that certificate.

Clearly, the take-home message is don't drink and fly, or drive for that matter. Some that do are repeat offenders before they are caught by law enforcement. If you are going out and plan to drink, also plan to have a designated driver, take a cab, or spend the night at a hotel or with a friend. Some of you already follow this guidance. Hopefully, more of you will. However, some will test the system and get caught. You risk being involved in an accident or losing your pilot certificates with a mandatory grounding period before retesting is permitted.

Let's assume that the FAA's legal team has determined enforcement action is unnecessary after reporting. There are still considerations for pilots who hold an FAA medical certificate. Both substance abuse and dependence are specifically disqualifying conditions listed in 14 CFR part 67. While a single event (DUI/DWI) can be relatively straightforward if an underlying dependence is absent, many times it will still require clearance from the FAA. For multiple events and/or cases where dependence is demonstrated, the pilot should anticipate that they will not be flying until the FAA is satisfied that the individual is in good recovery. Even then, years of monitoring is the rule.

Don't drink and drive or fly. But if you do, prompt and full reporting is the best path forward.

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.

LEARN MORE

FAA's Airmen and Drug/Alcohol-Related Motor Vehicle Actions webpage
faa.gov/go/duidwi

Understanding THE COMPLIANCE PROGRAM ...

One Bite at a Time!

By LeRoy "Lee" Stromenger

The Jan/Feb 2016 issue of the *FAA Safety Briefing* included an article about the FAA's new Compliance Philosophy and how it would play a significant role in the FAA's strategic initiatives designed to "lay the foundation for the aerospace system of the future." Now, nearly 10 years after its initiation and more than 5 years after a name change to the Compliance Program, the FAA continues to advance this program to improve the general aviation (GA) safety record. What has made this program so successful is the transparent exchange of safety information. The FAA has been able to mitigate safety hazards, operational risks, and systemic issues, and also advance the General Aviation Joint Safety Committee (GAJSC) and the FAA's General Aviation Safety Outreach Initiative thanks to this exchange.

The FAA has done much to promote and communicate the principles of the Compliance Program, however, there are still some in the GA community who are unfamiliar or unaware of the program and who may feel intimidated to speak to the FAA about a safety issue. So, we have more work to do, and as Desmond Tutu once wisely said, "There is only one way to eat an elephant: a bite at a time." This article will break down several important elements of the Compliance Program, such as what a just culture is, the different types of compliance actions, and the decision process we use for implementing those actions, into bite-sized chunks.

Just Culture

One definition of a just culture is, "An atmosphere in which regulated persons appreciate the value of self-disclosing both regulatory and nonregulatory safety issues. It allows for consideration of unintentional errors and creates a non-punitive environment, where errors are reported without fear of reprisal." This is a well-thought-out definition, but what does it mean and how does it apply to GA?

In the not-so-distant past, the FAA had limited tools to enforce aviation regulations. This enforcement was typically completed through civil penalties, and certificate suspensions or revocations. With the Compliance Program, the FAA has new tools (e.g., compliance actions) to not only enforce aviation regulations but, to also fix safety issues. With these new tools comes new responsibilities for the safety inspector.

Safety inspectors are charged with considering all circumstances related to the facts of a specific event. They must make a good-faith effort to understand the position of the airman or organization while ensuring they also communicate the agency's position on the issue being

investigated. Errors must be identified, reported, and analyzed in a non-blaming manner.

Safety inspectors must understand the difference between accountability, which accepts responsibility and looks forward, and blame, which focuses on punishment for what has already occurred. The key to a just safety culture is the ability to determine where the line should be drawn between unsafe acts that can be effectively addressed by using compliance tools (accountability) and unacceptable behavior that requires the use of enforcement action (blame).

As mentioned earlier, there needs to be a cultural evolution, by both parties, to be fully successful. A just culture relies on the GA community to be an active participant. Participation includes some self-reflection and taking responsibility for your actions or inactions. By having the GA community voluntarily self-disclosing both regulatory and nonregulatory safety issues, the FAA is better equipped to identify and correct hazards and unsafe conditions in the National Airspace System (NAS).

Generally, it is the FAA's policy to forgo enforcement actions when you detect a violation, disclose the violations to the FAA, and take prompt corrective action to ensure that the same or similar violation does not reoccur. The policy is designed to encourage compliance with FAA regulations, foster safe operating practices, and promote the development and maturation of effective safety management principles.

Compliance Defined

A compliance action is an action taken by Flight Standards Service personnel, not the certificate holder, for both regulatory and nonregulatory issues. For regulatory (noncompliance) issues, a compliance action is taken to correct an airman/organization/noncertificated person's noncompliance or alleged noncompliance when the person is willing and able to comply with regulatory standards, and when the noncompliance does not meet the criteria for enforcement.

For nonregulatory (nonconformance) issues, a compliance action is taken to communicate nonconformances, safety hazards, risks, concerns, or recommendations. We'll provide some examples of compliance actions a bit later.

A corrective action, which is different from a compliance action, is the action taken by airmen, organizations, or noncertificated persons responsible for a problem or issue to eliminate or mitigate the cause or reduce the effects of a detected nonconformity, noncompliance, or other undesirable situation. The distinction here is that a compliance action is the action taken by the FAA and a corrective action is the action taken by the airmen, organization, or noncertificated person.

You may have noticed the terms "noncompliance" and "nonconformance." These terms are unique and have different meanings, however, they have been used synonymously over time and have contributed to some

misunderstandings. Noncompliance is defined as not complying with a statute, regulation, or an order issued pursuant to a statute or regulation. The FAA uses the term noncompliance when a deviation to a regulatory standard has occurred. For these regulatory issues, the FAA uses compliance actions or enforcement actions to ensure safety in the NAS. Nonconformance is defined as not complying with an organization's requirements, policies, and procedures to include risk controls developed by the organization. These are considered by the FAA as nonregulatory deviations.

You may ask, "Why is the FAA concerned with nonregulatory issues?" Developing regulations for every possible situation is ineffective, if not impossible. Thus, all risk cannot be controlled through regulation. However, by using a proactive approach that looks beyond the regulations, we can address more of the hazards in the system. Such compliance actions are used to communicate risk and to encourage adoption of best practices.

Types of Compliance Action

Now let's take a look at the several different types of compliance actions that are used. These include, but are not limited to, counseling, education, on-the-spot correction, additional training, and remedial training.

Counseling, which can be written or oral, is given to airmen, organization personnel, or non-certificated NAS participants, such as passengers. The common practice of counseling may be used at any appropriate time to clarify a person's understanding and convey regulatory information, best practices, or safety concerns/issues, including the recommendation of additional training or education where no noncompliance occurred. With the advancement of internet-based video teleconferencing applications, the FAA may now be able to offer counseling through these venues, depending on their availability.

Education is a type of compliance action that provides or makes referrals for safety, training, or other aviation educational resources, such as those found at FAASafety.gov or other publicly available sources, to share best practices or recommend additional study in areas of identified risk. Education is recommended when knowledge, skill, or system/process improvements would be beneficial. It can be used in conjunction with a regulatory compliance action or enforcement action or can be recommended when no noncompliance has occurred.

An on-the-spot correction is a quick fix of a simple mistake or other apparent noncompliance, or a quick fix of a condition that could have resulted in noncompliance had an operation occurred, and which does not require additional follow-up. The fix must be observed and verified by the FAA. On-the-spot corrections are appropriate when adding missing information or a signature to an incomplete form; retrieving a certificate from home or receiving temporary authority from the Airmen Certification Branch before exercising certificate privileges; stowing luggage or equipment blocking an emergency exit; correcting an incorrect instrument setting; or installing missing fasteners.

Additional training is any training for individuals remediated through their organization's approved training program, through another required training program for

their job function or work environment (such as carrier or repair station employees receiving Security Identification Display Area (SIDA) or ramp driver training from the airport), or the FAA Safety Team (FAASTeam) remedial training program.

Remedial training is a form of compliance action that uses education and training to allow airmen, who have committed an inadvertent apparent noncompliance, to enhance their knowledge and skills. Safety inspectors recommend remedial training for certificated airmen when training is the appropriate action to take for noncompliance with statutory or regulatory standards. The use of remedial training requires coordination between the referring safety inspector and the FAASTeam.

Regardless of the type of compliance action that is selected, it is important to note that the airman, organization, or noncertificated person must be willing and able to comply. We must also verify that the noncompliance does not involve criminal or reckless behavior, intentional acts, or a significant safety risk, which would exclude it from a compliance action being used.

Compliance Action Decision Process (CADP)

When the FAA becomes aware of a noncompliance, its first action is to ensure the noncompliance is not permitted to continue. There are no FAA programs or initiatives that permit continued operation in noncompliance. Once the noncompliance has stopped, the FAA will initially use a compliance action to address all alleged, suspected, or identified instances of noncompliance. Compliance actions will be used to correct all noncompliance and nonconformity unless the FAA determines it is not appropriate.

While a compliance action is the initial means to address the noncompliance, there may be instances where it is not appropriate. A safety inspector is not required to first use a compliance action if the noncompliance is excluded. In the earliest stages of the Compliance Philosophy, a flowchart was developed to provide a process for safety inspectors to determine the best course of action. This Compliance Action Decision Process (CADP) that safety inspectors use today, has been improved over time and is a detailed root cause analysis process that helps determine what happened, how to effectively address the noncompliance or nonconformance, how to resolve the issue through corrective actions, and then validate the effectiveness of those corrective actions.

This decision-making structure requires an open and transparent exchange of safety information to correct the noncompliance and to ensure that the risk of reoccurrence is acceptably mitigated. The exchange of information occurs during interviews, in written statements, and when reviewing and providing supporting documentation.

The CADP begins when the FAA becomes aware of a potential problem and details how the safety inspector completes the notification requirement. The next step is where the safety inspector investigates, analyzes, and assesses the problem. They identify who was involved, what happened, what regulatory or statutory requirement, if any, was not complied with, and when and where the problem occurred. With this data identified and verified, the safety inspector will conduct a root cause analysis of the problem to understand why it happened.

When the analysis is complete, the safety inspector can determine whether or not noncompliance occurred and if a compliance action is appropriate. If eligible, the inspector would apply a compliance action and then follow up to assure its effectiveness and that the problem has been fixed. This high-level overview shows the process the safety inspector is required to use when they become aware of a potential problem. However, you may be wondering what this looks like in practice.

Example of the CADP process

One of the FAA surveillance activities that many in the GA community are familiar with is an aircraft ramp inspection. In this example, the safety inspector is at a local airport and is assigned to conduct a ramp inspection of a certificated flight school's multi-engine aircraft that carries a U.S. standard category airworthiness certificate.

During the inspection, the safety inspector discovered that the aircraft's landing light appeared to be discolored and might be inoperable. This is when the FAA became aware of a potential problem. The safety inspector made note of this discrepancy and continued the inspection. Upon completion, the safety inspector notified the certificate holder of the apparently inoperable landing light.

The certificate holder sent out one of its flight instructors who attempted to turn on the landing light and determined it was inoperable. The flight instructor stated that the light had worked earlier in the day and did not understand why it was not working now.

The safety inspector begins an investigation by first discussing the issue with the flight instructor, then reviewing the aircraft's maintenance records and the aircraft's flight logs. Through the investigation process, it was discovered that the landing light was reported as inoperable by a student pilot preparing for a night flight two days earlier. The student pilot informed maintenance and did not operate the aircraft. Despite this, the landing light discrepancy was not documented, nor were any actions taken to troubleshoot or repair the landing light before the aircraft was later operated to provide flight instruction, under night, VFR conditions.

The safety inspector continued to investigate the issue and identified who was involved, what regulation was not complied with, and when and where it happened. They

An FAA aviation safety inspector examines an airplane.

then interviewed the certificate holder's managers to help determine the root cause of the problem.

The results of the investigation revealed that the flight school was aware of the landing light issue, however, they indicated that the landing light was operating intermittently and that they did not inspect the landing light bulb or electrical wiring to determine the extent of the issue. Based on the results of the investigation and the root cause analysis, the safety inspector determined that there was regulatory noncompliance.

This is the point in the process when the safety inspector must determine if compliance action is appropriate and if so, what form will be used. In this scenario, the safety inspector determined that compliance action would be appropriate as the certificate holder demonstrated a willingness and ability to comply with regulatory standards and that the deviation did not involve criminal or reckless behavior, an intentional act, or that otherwise introduced a significant safety risk.

In consultation with the certificate holder, the safety inspector determined the appropriate compliance actions would be an on-the-spot correction for the landing light and counseling to clarify the certificate holder's understanding of regulatory information. The counseling included an emphasis on the airworthiness requirements of their aircraft.

Since this on-the-spot correction was observed by the safety inspector, there was no follow-up requirement for the landing light, and the safety inspector was assured the landing light problem had been fixed. The safety inspector was also confident that the counseling provided to the certificated flight school would assure future compliance.

One Bite at a Time

As former FAA Administrator Michael Huerta stated:

> *To find and fix safety problems, there has to be an open and transparent exchange of information and data between the FAA and industry. We don't want operators who might inadvertently make a mistake to hide it because they have a fear of being punished. If there is a failing, whether human or mechanical, we need to know about it, to learn from it, and make the changes necessary to prevent it from happening again. Again, it's about finding the problem, fixing the problem, and making sure it stays fixed.*
>
> *That open and transparent exchange of information requires mutual cooperation and trust, which can be challenging to achieve in the traditional, enforcement-focused regulatory model.*

The Compliance Program has allowed the agency to move away from the enforcement-focused regulatory model to a model that uses a non-enforcement approach to correct problems that arise from flawed systems and procedures, simple mistakes, lack of understanding, or diminished skills. We can achieve the next level of safety in the GA community, a bite at a time.

LeRoy "Lee" Stromenger is an aviation safety inspector and is part of the FAA Flight Standards Safety and Compliance Team in the Safety Analysis & Promotion Division.

LEARN MORE

FAA Compliance Program webpage
faa.gov/about/initiatives/cp

Compliance Program brochure
bit.ly/3NXGqTd

Compliance Program presentation
bit.ly/3Di02MH

Measuring

Dive into Compliance Program Data

By Cristy Minnis

The Compliance Program is an integral part of how the FAA's Flight Standards Service conducts its regulatory oversight. But did you know that Flight Standards is not the only program office in the FAA that incorporates the Compliance Program into its oversight activities? There are actually seven other offices in the FAA that implement the Compliance Program. Those offices are:

- Aircraft Certification Service
- Office of Airports
- Office of Commercial Space Transportation
- Office of Hazardous Materials Safety
- Air Traffic Safety Oversight Service
- Office of National Security Programs and Incident Response
- Office of Aerospace Medicine

The Office of the Chief Counsel also plays a role in the Compliance Program. Together, these offices use the Compliance Program to ensure the safety of everyone operating in the National Airspace System (NAS) and beyond.

Collaborative Compliance

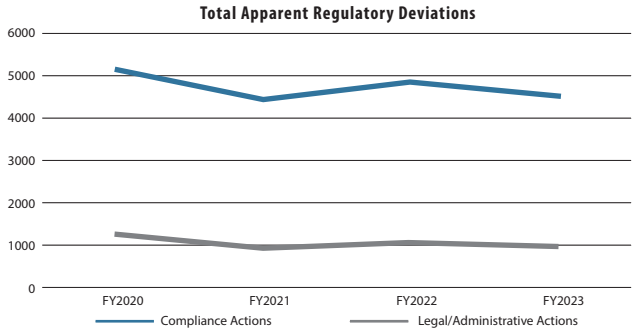
The Compliance Program has changed the way the entire FAA approaches regulatory oversight. Because honest mistakes do occur, especially when operating in complex environments, the Compliance Program strives to promote trust and transparency between the FAA and those we oversee. Our goal is to identify safety issues and correct them as efficiently and effectively as possible. By working collaboratively, we can resolve those safety issues while enhancing the safety performance of individuals and entities operating in the NAS and identify potential areas of risk that may impact others. By analyzing trends in data collected from identified safety issues, we are better able to determine if safety concerns are becoming systemic. When this happens, we can then inform interested parties both within and outside of the FAA.

> **Our goal is to identify safety issues and correct them as efficiently and effectively as possible.**

Since 2015, the FAA has set a course with the Compliance Program to help ensure the highest levels of safety. So how do we measure if the Compliance Program has been successful? Over the last eight years, Flight Standards has taken more than 44,000 compliance actions to address regulatory noncompliances. These compliance actions represent opportunities where the certificate holder and the FAA achieve compliance by working together to mitigate safety concerns. But these are not the only actions

that Flight Standards takes. If, through the investigation process, it is determined that a certificate holder is unwilling, unable, or has committed a violation that requires legal enforcement action by law, Flight Standards pursues the appropriate course of action.

Flight Standards initiated more than 9,000 legal and administrative actions since the program started. We are finding that the top regulation cited in an enforcement action for individuals is 14 CFR section 91.13(a), *Careless or reckless operation*. — "No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another."



Since fiscal year 2020, Flight Standards took compliance actions over 80% of the time when addressing regulatory noncompliance.

Different Situations

So, what are the types of compliance actions that Flight Standards use to regain compliance? When the Compliance Program was implemented, new types of actions were created for the inspector workforce. Some of these actions consisted of counseling and on-the-spot corrections, whereas others centered around additional training or remedial training efforts. There is no set amount of time for how long it takes to complete a compliance action. Every situation is different, and the action will remain open until compliance is regained. However, based on a cumulative analysis, it takes an average of 30 days for a compliance action to be completed.

> **There is no set amount of time for how long it takes to complete a compliance action.**

We analyze a number of areas of the program, including the number and duration of actions, to determine its success. But these are only surface-level measurements. The success of the program is really based on deeper considerations. One meaningful area that we factor into the success of the program is how often we are seeing certificate holders with repeat noncompliance. With our mission being to find and fix noncompliance in the most effective way and prevent recurrence, we have a vested interest in preventing repeat deviations. In our most recent review of the certificate holders who had a regulatory

noncompliance in the last two years, less than 1% had a repeat noncompliance of the same type. We consider this a huge success.

> **Our mission is to provide the safest, most efficient aerospace system in the world, and we will endeavor to ensure the success of that mission with the Compliance Program**

We also look at other indirect indicators of success in applying the principles of the program. Given that one of the tenets of the Compliance Program is to foster an environment of trust, transparency, and collaboration between the FAA and the certificate holders, the program supports the use of voluntary safety reporting programs. When the Compliance Program was implemented, we wanted to ensure that voluntary reporting was not negatively impacted. Since the program's inception, the voluntary safety reporting programs have seen an increase in submissions to their systems. We also monitor other factors that could be indirect indicators of success including accidents and incidents, as well as pilot deviations. We will continue to analyze the causal factors that contribute to these types of events to determine if there are ways to bring awareness to them, and, as a main objective of the Compliance Program, seek to mitigate similar events in the future.

The Future

As operations in the NAS continue to increase, and innovations are made in the aviation sector, the Compliance Program will continue to evolve along with our oversight activities. Our mission is to provide the safest, most efficient aerospace system in the world, and we will endeavor to ensure the success of that mission with the Compliance Program.

Cristy Minnis is the management and program analyst of the FAA's Safety and Compliance Team.

DRONE SAFETY AND THE FAA'S COMPLIANCE PROGRAM

Creating a Just Safety Culture for all Pilots

By Rafael Gaddi

Jeff got a drone for Christmas, but it's been too cold to use it yet. Then along comes one of those rare warm winter days that remind him spring will come again. He takes his new drone out of its box, makes sure its batteries are charged, and heads outside. After an hour of flying, Jeff loses control of his drone, and it crashes into his neighbor's car damaging the windshield and setting off the car alarm. A law enforcement officer happened to be nearby and responded to the alarm. Although Jeff worked things out with his neighbor, the officer notified the FAA of the incident. A short time later, Jeff received a Letter of Investigation (LOI) from the FAA. The word "investigation" jumps off the page causing Jeff to worry that he might be facing fines or worse. His worry is premature though because the FAA's Compliance Program applies to drone pilots too!

Our new recreational flyer might wonder how in the world the FAA ended up involved in regulating what he perceives to be a harmless hobby. While some drones might be small and seem like a toy, they are aircraft, and anyone who flies a drone is a pilot.

Drones can also be used for more than just recreational flying. Many are now capable of achieving high speeds, carrying various payloads, and conducting surveillance or inspections. They have been used to transport medicine to hard-to-reach places and assess natural disasters, such as tornados, tsunamis, and hurricanes, where roads were inaccessible to first responders. Many large companies are noticing the value and viability of drones as well and are looking for ways to utilize them for economical, eco-friendly, and faster operations — such as delivering packages. When it comes to drones, the possibilities and applications are endless. But whether flown for fun, or anything else, drones can present unique challenges to safety. Let's look at some areas where drone operations could inadvertently pose a risk and how the Compliance Program aims to address those incidents.

> **While some drones might be small and seem like a toy, they are aircraft, and anyone who flies a drone is a pilot.**

As recreational flyers and commercial operators alike discover new ways that drones can increase fun and profit, the risk to the National Airspace System (NAS) could also increase. In 2015, before the FAA finalized the first

rule for drones known as part 107, two drone incidents caught national attention. The first one happened when a drone crashed on the grounds of the White House, and the second happened when another crash-landed near the White House's south lawn later that same year. In addition to increasing the risk to the NAS, drone incidents like these create daunting challenges to the security agencies charged with protecting our national security.

Despite the collaborative efforts by the FAA and industry to communicate the dangers related to unauthorized drone flying near aircraft and airports, the agency regularly receives concerning reports of close calls and sightings from pilots, public citizens, and law enforcement agencies each month. Many of these close encounters are captured on video and posted to social media.

Drones are also being increasingly spotted at sporting events like Major League Baseball and National League Football games. Stadiums with seating capacities of 30,000 or more spectators are covered under special security instructions. However, unauthorized drone activities over sporting events continues to be a growing problem, causing safety concerns, delays, and disruptions.

On Nov. 26, 2017, a drone pilot flew a drone over two NFL games and dropped leaflets on spectators below. Tens of thousands of spectators were present for both events. The pilot pled guilty to the criminal act and was sentenced in May 2022 (oig.dot.gov/library-item/38988). If there had been an issue with the drone, there was a chance it could have ended up in the stands among the spectators and caused harm or injury.

If You See Something, Say Something!

The FAA works closely with public safety agencies across the country, providing education and assistance for officers. Because reporting is an important part of our safety culture and how we all keep the NAS safe, the FAA encourages everyone to report unsafe aircraft operations.

There are numerous agencies that handle reports of unauthorized drone use near airports and sporting events. You may report unauthorized drone operations to the sporting venue's security personnel or to local law enforcement. You can also make reports to the FAA through your local FSDO at bit.ly/418jjv9.

There is also a special type of reporting: voluntary reporting. The FAA has worked together with the aviation community to create an environment where drone pilots can appreciate the value of, and feel comfortable, self-disclosing safety issues. NASA's Aviation Safety Reporting System (ASRS) is the place to go to submit this type of report (asrs.arc.nasa.gov). ASRS reports are de-identified and then shared to help everyone learn from incidents. If Jeff had known about ASRS, he could have used it to submit a report about his drone incident to try and help other new drone pilots avoid the mistakes he made. The FAA considers this type of self-reporting evidence of a constructive attitude, which is an important part of the Compliance Program.

> **Compliance actions can be taken to correct unintentional mistakes arising from simple mistakes, lack of understanding, or diminished skills.**

The honest and open exchange of safety information is integral to the Compliance Program. As such, the FAA continues to encourage the public to report unauthorized drone operations to help prevent risky and unsafe activities in the NAS.

Explaining FAA's Compliance Program

In 2015, the FAA made a shift in its enforcement policy with its Compliance Program (initially called Compliance Philosophy). This shift allowed the FAA to take compliance actions such as counseling, training and education instead of legal enforcement actions (e.g., fines or certificate suspensions). The objective of this program is to identify the safety problems that

caused the incident and correct them as quickly, efficiently, and effectively as possible. This program stresses a collaborative problem-solving approach along with fostering an open and transparent exchange of information to enhance the safety of the NAS. For more information, go to faa.gov/about/initiatives/cp.

The Compliance Program focuses on using non-punitive methods, or "compliance actions," where appropriate. Compliance actions can be taken to correct unintentional mistakes arising from simple mistakes, lack of understanding, or diminished skills. Examples of such actions include on-the-spot-correction, counseling, and additional training with the purpose of restoring compliance and identifying and correcting the underlying causes that led to the incident. It is intended to be used as an open and transparent safety information exchange between you and FAA personnel.

Now let's finish our story and see how the Compliance Program works for Jeff. Jeff meets the inspector to discuss the incident with his drone. He tells the inspector that he just got his drone, and this was his very first time flying. He is only interested in flying for fun and was not aware of the rules and regulations that apply when flying a drone. He apologizes and asks for more information about how he can fly in compliance with the FAA's rules. Seeing that Jeff is willing to learn more about flying drones safely, the inspector determines that counseling would be the most effective method to help Jeff in his future flying. The inspector starts by telling Jeff to take the TRUST— an aeronautical knowledge and safety test developed by the FAA for recreational drone flyers. He also talks to Jeff about how to register his drone, check the airspace for any restrictions before taking off, and about what a community-based organization (CBO) is. He lets Jeff know that following an FAA-recognized CBO's safety guidelines is important for safety and is required by regulation for recreational flyers.

Not every investigation ends with a compliance action though. In contrast, an unwillingness or inability to comply may result in legal enforcement action. Likewise, evidence that supports an intentional deviation, careless or reckless behavior, or other significant unsafe act, would rule out compliance actions. These behaviors represent the greatest safety risk to the NAS.

The Compliance Program is integral to safely integrating drones. It allows us to work together and share lessons learned to improve safety. When something happens, let's learn and grow from it. With the help of the Compliance Program, the skies above can remain safe and accessible for all aviators, new and experienced.

Rafael Gaddi is an aviation safety inspector and is part of the FAA Flight Standards Safety and Compliance Team in the Safety Analysis & Promotion Division.

One-Stop-Shop For Drone Safety—FAA.gov/UAS

Drone operators who focus on safety right from the start are a big part of advancing drone integration. But how do you make sure you start off on the right foot? The FAA has been working with industry partners and the aviation community to advance drone operations and integrate them into the NAS. A one-stop-shop webpage, **faa.gov/uas**, was developed for all drone pilots, whether new or experienced, recreational or commercial. Whether you intend to fly drones for fun or anything else, the rules, resources, and tools to help you get started flying safely are available on this website, including instructions for registering your drone.

Produced by FAA Communications | 2023-AJM-012

Sharing *is* Caring

How Voluntary Reporting Programs Benefit Everyone

By Jeffrey Smith

It's a beautiful winter day with clear skies, unrestricted visibility, and no turbulence. You're returning to your home base after getting lunch at a nearby airport. Your significant other is next to you, enjoying the benefits of your newly acquired pilot certificate. Full of fresh barbeque, relishing the awesome weather, and sharing this flight with your loved one, you think — what could go wrong? You're a few miles from your destination, which lies underneath Class B airspace. You look at your GPS (with data link to your transponder/ADS-B) and see a "Transponder Failed" message. Questions flood your mind. How long has the transponder (and perhaps ADS-B) been inoperative? Are you in regulatory violation? Will you get a call from the FAA? And why has this perfect flight been marred by a failure in technology?

This hypothetical scenario can help us understand the interface between voluntary reporting programs and the FAA's Compliance Program. We'll also see how these initiatives can benefit you in this kind of situation. Let's start by reviewing some background information.

Foundations of Safety

The Compliance Program has been around for about nine years now, but the foundations of the program have been around for much longer. This includes the various voluntary reporting programs, which have long recognized the value of a transparent exchange of safety-related information. The Compliance Program takes the concepts of voluntary reporting programs and makes the general benefits available to all participants in the National Airspace System (NAS).

Trying to ignore or cover up safety issues is antithetical to the concept of sharing and does nothing to advance aviation safety. And in many cases, it can result in a negative outcome. Examples of this include not reporting damage to a rental aircraft, which would pass that risk along to the next renter, or a close encounter between a crewed aircraft and a drone near an airport. In the case of the close encounter, you may be reluctant to report the event for fear of scrutiny by the FAA over your altitude or presence in that area. However, failure by you and others to report such

events allows drones and other operators in that area to have future flights in dangerous proximity to each other. The risky situation may continue until a mid-air collision occurs.

Volunteering Data

This is where the voluntary programs come in. While the details vary per program, in general, they allow for reporting an event without fear that the information will be used against you. A report that meets applicable criteria also provides certain protections from a legal enforcement sanction. In return, the FAA receives safety information that people would otherwise be reluctant to share. This information helps identify safety issues, informs where resources need to be focused, and indicates if specific outreach to the aviation community is needed.

Perhaps the most familiar voluntary reporting mechanism for general aviation (GA) is the Aviation Safety Reporting System (ASRS). Dating back to 1975, it is also the longest running of the programs. ASRS is often colloquially referred to as "NASA reports" due to NASA receiving and processing the data before any information is sent to the FAA. A report can be filed by anyone to express a safety issue, even if it involves a regulatory violation. NASA will review the information and provide proof of receipt. The personally identifying information will not be shared outside of NASA, including with the FAA, unless the report involves criminal activity or an accident. Further, if the event became known to the FAA by some other means and the FAA takes legal enforcement action, then the FAA will not impose any civil penalty or certification suspension if certain criteria are met.

Sharing is Good

In all that we do as participants in the NAS, safety should be at the forefront. The use of voluntary reporting programs, such as ASRS, is no exception. We should be reporting information primarily for the benefit of safety, and we should approach any reporting with that mindset. While there are protections afforded by the voluntary programs, we should not view them as "get-out-of-jail-free" cards. Rather, they are another tool in an overall safety toolbox that creates a net benefit for everyone.

The FAA believes that using these tools has a positive impact on safety. The timeline of voluntary reporting programs, legislation, and other initiatives (see figure 1) shows the number of fatal accidents and fatalities, and we see a general decline for both over the past several decades. While there are many factors that contribute to the accident rate, and correlation does not equal causation, it certainly does appear that the voluntary programs and related initiatives are contributing positively to aviation safety.

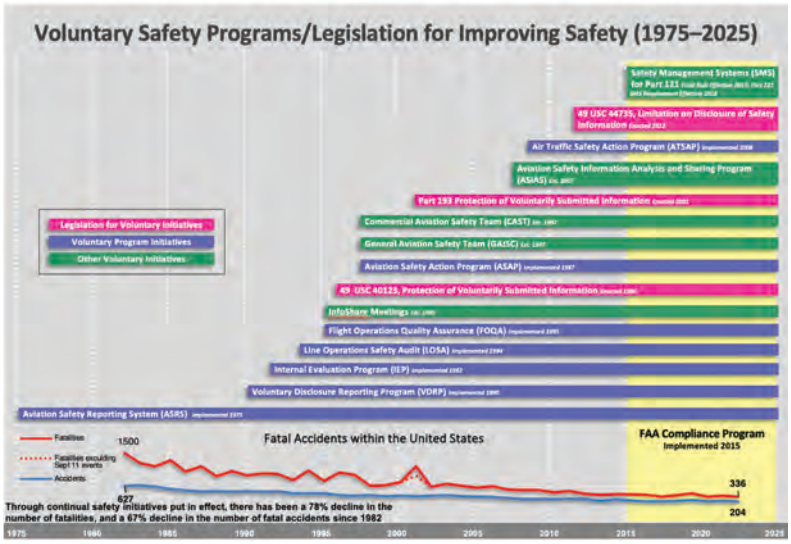


Figure 1: The FAA believes that voluntary reporting programs, legislation, and other initiatives are having a positive impact on aviation safety.

The information you provide in an ASRS report may be used to identify safety trends that can be a catalyst for action, such as FAA Safety Team (FAASTeam) messaging. The information is also used by industry/government cooperative partnerships such as the General Aviation Joint Safety Committee (GAJSC). This group looks at a variety of information to develop safety enhancements. These safety enhancements compel action on the part of the FAA and aviation advocacy groups to address identified safety concerns. FAASTeam educational outreach and GAJSC safety enhancements are examples of how information from voluntary reporting can be used to make data-informed decisions to best focus resources and make improvements to the NAS.

Beyond GA

While this article focuses on the reporting and initiatives most familiar to the GA community, there are other voluntary reporting programs. The Aviation Safety Action Program (ASAP) is used by pilots, mechanics, flight attendants, ground personnel, and others working for commercial operators. The Voluntary Disclosure Reporting Program (VDRP) is used by management at many air carriers and repair stations. Both ASAP and VDRP, along with other voluntary programs, have the same basic tenets — identify safety issues and take action to prevent future problems. And, as a parallel to the GAJSC, the Commercial Aviation Safety Team (CAST) works to address risk in the commercial aviation sector.

The numbers of voluntarily submitted reports into ASRS, ASAP, and VDRP have been on the rise over the past several years including the era of the Compliance Program (except at the height of the COVID-19 pandemic). The FAA believes this shows that the aviation industry and community continue to see the value in sharing

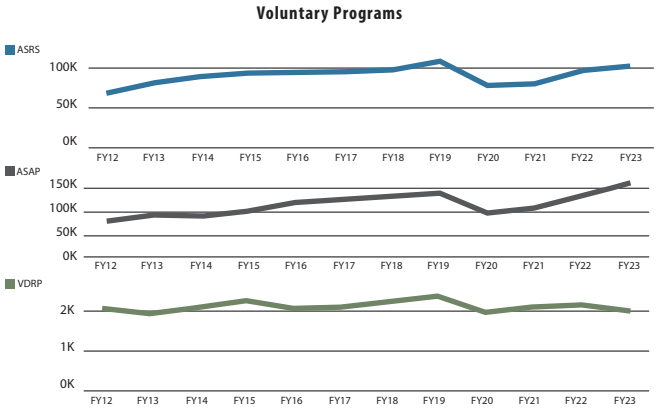


Figure 2: The voluntary reporting numbers for the ASRS, ASAP, and VDRP have been on the rise over the past several years.

information through voluntary reporting programs.

To Report or Not to Report

Now that we've taken an in-depth look at the voluntary reporting programs, let's return to the example of the transponder failure from the beginning of this article.

Despite the initial shock, fortunately, you are an avid reader of the *FAA Safety Briefing* and aware of the FAA's Compliance Program and the just safety culture approach the agency takes towards safety deviations. Your panic subsides and you consider your options. You are already well inside the overlying shelf of the Class B and near your destination, which is the closest airport relative to your current position. You decide it makes sense to continue home. You also figure that it may be best to try and have your ADS-B Out functioning prior to entering the traffic pattern. You recycle the GPS-integrated unit by turning it off and then back on. The technology comes back to life, and you get that familiar indication of the transponder output. You land without further incident.

Out of curiosity, you check an online flight tracking website to see your flight path. You note that it shows your takeoff from the airport where you had lunch, but the trail drops off after 20 miles. You conclude that's where the transponder and ADS-B likely failed. You also do some mental calculations to determine that you went about 10 minutes before noticing the failure and that the failure occurred outside the 30 nautical mile Class B ring. This could indicate a deviation from 14 CFR part 91, sections 91.217 and 91.225.

You want to make certain that such an event does not happen again. You think the transponder failure was a glitch, and while you intend to be vigilant for future failures, your biggest worry is that you were unaware of the failure message. You plan to add the GPS message area to your normal flight instrument and engine indicator scan. You also plan to check the GPS for functionality, and for any traffic between you and the airport, prior to entering that 30 nautical mile ring. So, you have a good plan moving forward to improve procedures and prevent reoccurrence, which are expectations under the Compliance Program.

Wanting to contribute to the safety system, you determine that filing an ASRS report would be beneficial. You go to the website listed in the Learn More section below and find the link for an electronic report submission. You complete the report and ultimately receive the confirmation from NASA. As this was not an accident or criminal activity, you know that NASA will not share your name or the specific details of this event with the FAA. You also know that if there are several similar events reported through ASRS, additional systemic actions may be recommended. You also retain the reporter identification strip returned to you by NASA in case it is needed for future reference.

There is a possibility that the local FAA Flight Standards District Office (FSDO) may reach out to you about the flight. The FSDO may have received information from the Class B air traffic control facility, and an aviation safety inspector could contact you as part of a routine investigation. This would be handled under the Compliance Program and the FAA's just safety culture foundations. Based on the details of the event and the lack of negative historical records, it is likely the event would be addressed with a compliance action (perhaps counseling). If, however, the details of the event caused the FAA to take legal enforcement action, any sanction imposed by the FAA (e.g., a 30-day certificate suspension) would be waived assuming the required parameters are met. The finding of a violation would be on your record; however, you would not have to serve the suspension.

You Made a Difference

As you can see, there are benefits on multiple levels to contributing to the voluntary reporting programs. You are encouraged to become familiar with the programs that apply to you. In this way, you can protect yourself, potentially benefit others, and in all cases be an active participant in improving aviation safety.

Jeffrey Smith is the acting manager of the FAA's Field Support Program Office. He holds an ATP certificate, is a flight and ground instructor, and is an A&P mechanic.

LEARN MORE

AC 00-46F, *Aviation Safety Reporting Program*
bit.ly/AC00-46F

Aviation Safety Reporting System (ASRS)
asrs.arc.nasa.gov

Aviation Voluntary Reporting Programs
bit.ly/3MNEmgC

New Year, New (Safer) Operations

A Closer Look at Personal SMS

By Nicole Hartman

For many people, the beginning of a new year is the perfect time for a fresh start — an opportunity to make resolutions, improve habits, and aim to be better than we were before. If you're anything like me, these goals are easy to make, but harder to keep. If I fail to eat healthier and read more, I typically only disappoint myself, so the stakes are pretty low. But the consequences are much higher if a pilot falls short of their safety target. So, how can pilots resolve to be safer this new year? Developing and implementing a personal safety management system (SMS) is a great start.

It's a common myth that SMS is only for large, complex operators who have abundant resources to support and maintain a complicated safety system. The fact is that an SMS by its nature is scalable and can be applied to any size operation, from a major airline to a single pilot. Read on to find out how an SMS works and how adopting a personal system can help improve your flight safety.

Elements of SMS

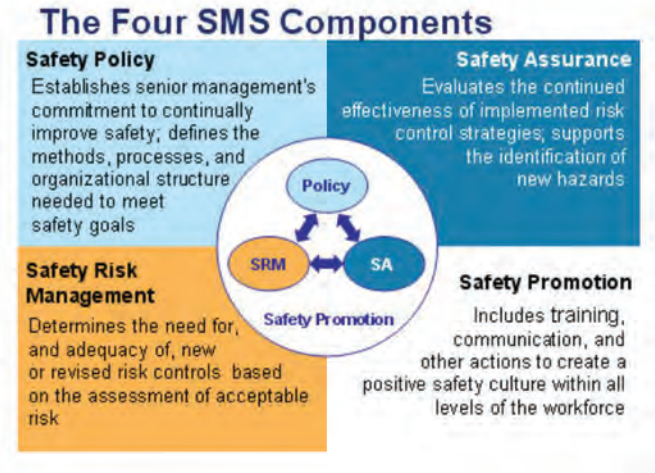
An SMS (FAA Order 8000.369) is a formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls — but it can take many shapes and sizes, depending on your situation. If your "organization" happens to only include you or the handful of members in your flying club, it should be relatively straightforward to implement and may not be quite so "formal." For many, the term "SMS" sounds like an enormous undertaking to develop and requires some type of approval from the FAA to use, but the truth is that you're probably already doing many of the tasks involved in an SMS. Do you make safety your highest priority? Check! Do you stick to your personal minimums? Check! Other components like a sound safety assurance process to account for changes to your circumstances and contributing to the community might not have a dedicated place in your process yet, but incorporating them will prove to be worthwhile.

A key benefit of formalizing your system is that you're more likely to stick with it (unlike my New Year's resolutions) and can improve your operations based on what you learn. The system is there to make it easier for you to reach your goal of being the safest pilot possible.

So, what makes up this system? The core of any SMS is to provide a systematic approach to achieving acceptable levels of safety risk. SMS is comprised of four components or "pillars," each of which is a function that you can use daily to keep your operations as safe as possible. The four components include:

- **Safety Policy** — commitment to safety. This can be as simple as a mission statement and clearly defined personal minimums.
- **Safety Risk Management** — identify hazards and controls. This means adhering to your pre-established safety policy when conditions exceed your limitations.
- **Safety Assurance** — continuous improvement. This means having a process to decide when, how, and to what extent personal minimums should change.
- **Safety Promotion** — engage, excite, involve, empower! This means getting involved in the community (e.g., reporting safety concerns, mentoring).

Learn more about SMS at faa.gov/about/initiatives/sms.



John Croft and his wife Sharon in a Vans RV-7A.

A Sample SMS

So, what does a personal SMS look like? John Croft, an Operational Safety Analyst in the FAA's Office of Accident Investigation and Prevention, is no stranger to safety culture. However, it wasn't until he had a very close call — with his wife and a fellow pilot on board — that he decided to develop a personal SMS. Croft, who's had his wings since 1978, recalled the event that prompted his need for a process change.

> **The fact is that an SMS by its nature is scalable and can be applied to any size operation, from a major airline to a single pilot.**

"The airport I was departing from had a long and a short runway," recalled Croft. "On that particular afternoon, the long runway had a crosswind component that was well above the maximum demonstrated crosswind for the Piper *Archer* I was flying. The shorter runway however had a direct headwind. In my flat-lander mind, we'd lift off and climb like a rocket into that wind, eliminating the reason the airport didn't recommend using that runway for takeoff — mountains ahead. I had get-home-itis and pushed the throttle to the firewall. Next thing I know, we're heading directly for a mountain and not doing much climbing (downdraft), and a turnback wasn't possible because of hills to the left and right. This was the first time my wife recalled hearing me utter the 'Oh S(ugar)!' expletive in all her years flying with me, so she knew it was serious. Thankfully, an escape route appeared to my right — a road through a notch in the terrain. I followed it, gently managing my airspeed to avoid a stall. Eventually we were able to climb and fly out of the area."

After the adrenaline wore off and the embarrassment set in (he wasn't familiar with flying in mountainous terrain and didn't automatically connect high winds to downdrafts), Croft had a realization. "When something bad happens, you don't think it will ever happen again because now you know better — but we're human, and we forget," says Croft. This incident made it clear to him — particularly because he put his wife and friend in danger — that he needed to take action or give up flying; he needed a system to report issues, contemplate them, make changes, and continuously evaluate the safety of his "operation." In other words, he needed an SMS.

So, Croft established his own SMS, which he colloquially refers to as the "poor pilot's SMS." His safety policy is motivated by his quest for the "perfect flight" and is documented in rules and standard operating procedures. Croft developed a web-based questionnaire on Google Forms to document hazards as the core of his safety risk management (SRM) program. The online form leads him (or anyone else who uses it) through a standard list of questions, which Google then populates in a spreadsheet. He regularly reviews the spreadsheet to conduct his safety assurance component. As part of safety promotion, Croft shares his SMS with three clubs that he flies with, and the spreadsheets are reviewed as a group at monthly meetings. The group discusses the hazardous situations and what can be done to avoid them in the future. The resulting solutions and mitigations are documented in an "SRM Distillery" so these key takeaways are not forgotten.

Croft has been using his SMS for two years and the results have been encouraging. By documenting and reviewing incidents, he's able to look at why something occurred, come up with ways to prevent it from happening again, and continuously review and assess how things are going. This review can be done solo but is even more valuable if you can get a broader analysis from a group. Croft admits that it can be humiliating to confess to others — especially your pilot peers — when you made an honest mistake, but that it's important to set an example. "It's a tough hurdle to overcome, but we need to celebrate when people report an issue," says Croft, who admittedly gets excited when he sees others using his system to file reports. Croft views these spreadsheets as seeds of data that will grow a garden of mitigations and ultimately get him — and everyone he flies with — ever closer to that "perfect flight."

> **"When something bad happens, you don't think it will ever happen again because now you know better — but we're human, and we forget."**

DIY SMS

While SMS can be effective regardless of the size of your operation, figuring out where to start might still feel like a challenge. First, document your policy or mission statement, and write it down so you have a daily reminder of your commitment to safety. Then, start keeping a list of things that weren't perfect. Analyze what went wrong and what can be done to fix it. Save that list and iterate on the fix continually. Periodically audit yourself to ensure the controls you created in your SRM are still applicable. Ask a fellow pilot to evaluate your program. Document and track your data so you can look for mistakes that happen over and over again. Finally, get involved in the community. Participate in voluntary safety reporting and share your mistakes and safety concerns. Offer your skills and experience to the next generation of aviators by mentoring. Embrace safety culture by making yourself an example.

Cheers to a Safer Year

While the beginning of a new year represents the possibility for a fresh start, every single day is an opportunity to improve, especially in the world of aviation. And implementing an SMS, even in the smallest operation, is a chance to stop an accident or incident from happening. This year, resolve to be as safe as you can.

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

LEARN MORE

"Safety Is No Accident: How A Personal SMS Can Help Keep You Safe," F*AA Safety Briefing*, Jan/Feb 2023
bit.ly/49AGKBj

"Your Safety Reserve: Developing Personal Minimums," *FAA Safety Briefing*, Mar/Apr 2015
bit.ly/FAASB-MarApr15

JAMES WILLIAMS

GO TO THE SOURCE

What is the Compliance Program and why should you care? Whenever you want to learn more about a topic, the first thing you should do is head for the primary sources on the topic. A primary source is generally defined as an artifact, document, or any other original material that was created at the time by a party with direct knowledge of the situation. In essence, these are the most direct sources of knowledge on a topic. Secondary sources, like books or articles written from those primary sources, add another layer to that web.

> IF YOU'RE LOOKING TO UNDERSTAND THE COMPLIANCE PROGRAM, FAA ORDER 8000.373C IS THE BEST STARTING POINT FOR A HIGH-LEVEL OVERVIEW.

So what does this mean when we're talking about FAA policy? For something like the Compliance Program, it means going to the FAA source documents. FAA Orders are policy documents that are generally intended to instruct FAA employees on the agency's programs and priorities. While the audience for these orders is generally internal to the FAA, many of them are publicly accessible. In this case, FAA Order 8000.373C is the controlling document. If you're looking to understand the Compliance Program, this order is the best starting point for a high-level overview.

Visiting the Hub

The easiest way to access FAA orders is on the FAA's Orders and Notices webpage at bit.ly/Orders_Notices. But in this instance, there's another option. The Compliance Program has a separate landing page that includes links to many different resources, including the order, at faa.gov/about/initiatives/cp. This page hosts a trove of primary sources including brochures, orders, speeches, and webinars directly from the FAA. This is your straight-from-the-source hub for the Compliance Program.

This page includes basic information on many aspects of the program that can be read in just a few minutes. For those interested in a deeper dive, try the resources section. It offers everything from a brochure to package up all that info in an easily shareable and digestible format, to presentations and speeches that give you more details about the program and its initial implementation.

Another area worth checking out is the Compliance Program Articles, Webinars, and Other Materials link. While you could consider our material somewhere between a primary source (all articles are reviewed by FAA subject matter experts for accuracy) and a secondary source, there are several external articles as well. These articles reporting on the program give you a good feel for how a wide variety of audiences learned about this change. There's a good value here in that you can get an independent view and analysis of the policy from people with no direct stake in the process.

While you're there, and if you're more of a visual learner, you can check out a series of recorded webinars and videos that were produced around the time of the program's launch by external stakeholders like the Aircraft Owners and Pilots Association (AOPA). This allows you to absorb the information and refine your search. Then you can dive into the other documents or even ask a question via the Compliance Program Stakeholder Feedback link at the bottom of the landing page.

It's important to ask those questions or provide feedback. You are the stakeholder. A cultural transformation like the Just Culture one that the Compliance Program is based on requires everyone to participate in order to reach its goal of a safer aviation world.

James Williams is *FAA Safety Briefing*'s associate editor and photo editor. He is also a pilot and ground instructor.

REBEKAH WATERS

SRM FOR EVERYONE

I tend to leap before I look. I've been this way all my life. I often find myself scrambling to catch my drink before it spills or swerve my grocery cart aside as I turn the corner of an aisle at full speed almost colliding with an unsuspecting shopper. Luckily, I have developed lightning-quick reaction times. Quick reactions certainly come in handy during drone operations, but when it comes to navigating the National Airspace System (NAS), it is always better to be proactive about safety, rather than reactive. Safety risk management (SRM), one of the four components of a safety management system (SMS), helps you anticipate and mitigate risk before there's a need for quick reactions.

Who Needs SRM?

It is the FAA's job to identify hazards, assess risk, and evaluate the effectiveness of proposed risk mitigations before making any decision regarding the operation of drones in the NAS. The agency uses an SRM process that analyzes the severity and likelihood of hazards associated with these types of decisions. Large organizations that use drones as a part of their daily business often use an SRM process as part of their SMS to build and support a sound safety culture. But does the individual drone operator or small business that occasionally operates drones need to use SRM? The short answer is yes.

SRM is a great tool to start with and ensure your operations are as safe as possible. SRM can help you identify the risks and hazards you might encounter for every operation you conduct. Rather than trying to problem-solve on the fly, an SRM helps you proactively consider what could go wrong and prepare a solution ahead of time. Having a plan in place not only keeps you and the NAS safer, it also might make your operation more efficient and less stressful.

Developing Your Own SRM

While the FAA's SRM policy for drones, Order 8040.6A, is 30 pages long, your assessments will most likely be a lot shorter. When developing SRM for your operations, think about how you operate your drone. A good SRM documents the common hazards. These are typically technical issues with a drone, human error, deterioration of external systems, and adverse operating conditions. The SRM should identify the mitigations to lower the risk to an acceptable level. For example, having and adhering to weather limitations is a mitigation to the adverse operating conditions hazard. Performing a preflight check is a mitigation for the technical issues with the drone hazard. In other words, always have a backup plan and backup systems.

What's the most likely issue(s) you may encounter on this flight? Is it human factors, weather, signal, drone performance, or the sudden appearance of low-flying aircraft from an unexpected direction? Are there heliports nearby where helicopter traffic is to be expected? An ultralight base? If a link fails, do you have a lost link procedure and/or geofence? If the lost link always happens in the same location, make a plan to avoid that location in the future. When there are technical issues or human errors with your operation, stop, investigate, and correct them. Make sure you have a plan for system failures, like a backup display or power source. A good SRM assessment helps you to remember not to test the limits: weather, battery life, crew rest, or your drone's range. Good operators know how to fly, but great operators know when they shouldn't.

> WHILE THE FAA'S UAS SRM POLICY, ORDER 8040.6A, IS 30 PAGES LONG, YOURS WILL MOST LIKELY BE A LOT SHORTER.

All drone operators can benefit from SRM, and developing your own is a good way to build safety culture into your daily operations. As an emerging technology, drones have a pretty good safety record. SRM is one way to make sure that doesn't change! The more we work to proactively assess and mitigate risk, the safer we can keep 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

AC 120-92B, *SMS for Aviation Service Providers*
bit.ly/UASSMS

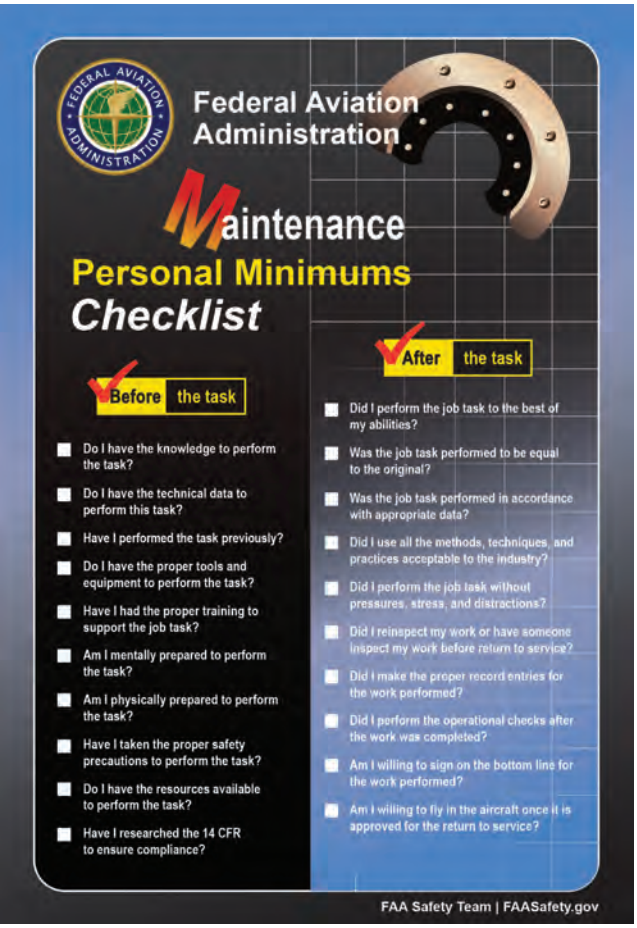
FAA Order 8040.6A,
UAS Safety Risk Management Policy
bit.ly/UASSRM

REBEKAH WATERS

CHECK YOURSELF

As I'm writing this, it's Wednesday morning, the day after Halloween. I had trouble unwinding after last night's festivities and didn't get to bed on time, so I'm sipping a mug of strong coffee. On autopilot, I open my emails and start skimming the subject lines like I do every morning. This has been my morning routine for years now. Routines can be great, but it's important to make sure that they don't lead to complacency. Brian Tracy, motivational speaker and author, says, "complacency is the enemy of success." When it comes to aircraft maintenance, complacency is the enemy of safety! The Maintenance Personal Minimums Checklist is one tool that can help ward off complacency, make safety the primary objective, and maybe even make your job a little easier.

Developed in the late 1990s by FAASTeam member Richard Mileham, the Maintenance Personal Minimums Checklist is an important risk management tool. Its name, inspired by the Personal Minimums Worksheet for pilots, is a bit of a misnomer since it is more like a condensed version of a code of conduct for mechanics. The list, which is available in pocket size or slightly larger, includes items to consider before and after performing a task. The FAA recommends keeping one handy, where you can see it, like near a toolbox or workbench, and use it for each task you perform.



Before the Task

One of the top causes of complacency is doing repetitive tasks on a continual basis without incident. As a writer, the stakes are lower, and most of my tasks are varied and new. But for mechanics, complacency is a real hazard. This checklist will help mitigate the risks that complacency creates. It reminds you to consider crucial questions like, "Am I physically prepared to perform the task?" before you get started. Taking a minute to review and answer each question in this section of the checklist honestly before you begin any task can help you avoid a sense of overconfidence — another part of complacency — that could lead to careless mistakes.

After the Task

Once you've completed the task, refer to the list again. Check each of these equally crucial questions to make sure the aircraft is safe for flight. Questions like, "Did I perform the job task without pressures, stress, and distractions?" will help you double-check your own work. You might think that you will always know to check in with yourself on questions like, "Am I willing to fly in the aircraft once it is approved for the return to service?" but the checklist ensures a safety baseline every single time you perform a task. Even if you've completed this task hundreds of times — especially if you've completed this task hundreds of times — it's critical to take a moment and check your work. The checklist will help you mitigate the risks that crop up when complacency sets in.

A PDF copy of the FAA's Maintenance Personal Minimums Checklist is available at bit.ly/MaintenanceHangar or you can reach out to your local FAASTeam Program Manager for hardcopies. If you're still not sold on the idea that you need to use this checklist, just remember, the work you do impacts lives, not just machinery.

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

LEARN MORE

Checklist Compliance: Your "To-Do" List for Aviation Maintenance, *FAA Safety Briefing*, Jan/Feb 2016, Page 27
bit.ly/FAASB2016

To find your FAASTeam Program Manager go to the FAASTeam Online Directory:
bit.ly/FAASTeamDirectory

PREFLIGHT PLANNING GETS SAFETY BOOST WITH FAA WEATHER CAMS

Safety-conscious pilots know that checking weather reports is part of any good preflight preparation. But even weather reports (e.g., METAR, TAF) cannot always capture the severity of weather at a particular location. That's why FAA weather cameras can play such a critical safety role in preflight planning by providing near real-time visual weather information for go, no-go decision-making.

The FAA Weather Camera Program (WCAM) provides pilots with near real-time visual weather data at airports, mountain passes, and other strategic locations along air routes and areas with elevated accident rates. The WCAM images, paired with available textual weather information, provide a powerful tool to aid in flight decision-making. The program began in Alaska in 1999 after the FAA determined that pilots operating under visual flight rules would benefit from actual views of current weather conditions.

Today, the FAA provides over 600 camera sites to the aviation public throughout the United States with 230 FAA sites in Alaska. Another estimated 360 cameras operate in North America as third-party systems, such as those installed by NAVCanada and the states of Colorado and Montana.

FAA weather camera images are updated every 10 minutes, and there are multiple camera views available at each location.

"Our mission is to improve aviation safety and efficiency within the NAS [National Airspace System] and reduce weather-related accidents and flight interruptions," says FAA Weather Camera Program manager Cohl Pope. "We do that by getting a near real-time picture of the weather into the pilot's hands prior to flying."

The program's safety impact has been outstanding. Weather-related aircraft accidents dropped 85% in Alaska between 2007 and 2014 as 140 new FAA weather camera sites were added throughout the state, according to a MITRE study. The study also reported that the number of disrupted hours — when a pilot flies out and then turns around because of weather — dropped from 13,588 hours in 2008 to 5,129 hours in 2014, a 62% reduction.

With that success, Pope states the FAA plans to add 160 new camera sites throughout the continental United States and Alaska through fiscal year 2030. "Hawaii has been a particular focus area because of tour helicopter accidents," he says. "In response to a National Transportation Safety Board recommendation, 19 camera locations have been implemented in Hawaii, with a total of 26 planned for the state by the end of the next fiscal year," Pope adds.

The United States Helicopter Safety Team (USHST), a government-industry safety group, announced its support for the FAA weather camera effort and advocated for its expansion during a summit in September 2023 at the Helicopter Association International headquarters in Alexandria, Va.

Pilot and USHST Co-Chair Chris Baur said he uses the cameras when he flies helicopters.

"In comparing current images with clear day images that contain known distances, it is reasonable to determine visibilities, [approximate] distances, and cloud heights," says Baur. "The FAA, industry, and the National Weather Service should work collaboratively to create training to use weather cameras effectively, supporting both go and no-go decision-making by pilots and dispatchers."

Baur also states that "the FAA must develop a comprehensive plan to create an impactful, realistic network of cameras in the contiguous 48 states, beyond the planned 160 new cameras."

One way the FAA is working towards expanding the number of camera sites is with cost-reimbursable agreements with several state governments. Under these agreements, the weather camera program shares the design and technology for operating the cameras while the states install, own, and maintain the camera systems.

A recent example of expansion occurred last year in Maine where the FAA began hosting 18 camera sites with plans to add more. LifeFlight of Maine, which provides medevac service to the state, owns and maintains the camera sites. Josh Dickson, LifeFlight's director of aviation services, said his goal is to have a camera at every airport in the state and at a few of the "pinch points" over higher terrain.

"We need to be able to see if a runway has been plowed," says Dickson. "Is there a moose standing in the middle of the runway? Is there precipitation not showing up on the radar? Our cameras can tell us all of that."

In addition to expanding in more states throughout the U.S., the weather camera program is also researching technological improvements that will introduce 360-degree camera capabilities.

Pilots can access the FAA weather camera system at weathercams.faa.gov. If you have any thoughts on how to advance aviation safety with weather camera technology, or would like to suggest a camera site location, please email WCAMExp@faa.gov.

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 more than 16,000 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.

To Err is Human

Thanks for the article "Fly the Aircraft First" [bit.ly/47D90Bq]. It is interesting to me, a 12-years retired aviation safety inspector of 30 years, to watch YouTube videos of pilots in other countries without the specific guidance [to] deal with all kinds of non-critical items, including chatting with non-essential cockpit visitors in flight during critical phases of flight. I know many of us sometimes think our way is the best way, but in this case, I think it is. Paying attention to the details is critical because when those "uh oh …" moments pop up — and they can pop up very quickly or very slowly — everyone's brain must be fully engaged.

— James

Hi James. Thank you for reading and for sharing your thoughts! We agree that human factors play a vital role in aviation safety. Human factors inform hardware and software that leverage our strengths and weaknesses, but pilot training is our first defense to avoiding an incident or accident. That's why the FAA recently launched new training focused on safety culture, human performance, communication, teamwork, situational awareness, decision-making, threat and error management, human information processing, and design and automation. These courses, available on FAASafety.gov, aim to provide pilots with the information necessary to minimize risk when it comes to human error and help keep the national airspace system safe.

We think you'll find this training interesting and informative even if you no longer fly. Check out the ATIS section in this issue for additional information on taking the courses. Thank you for being an advocate for safety!

From the FAA's YouTube Page

Planes & Posts

The third video of the Safe Air Charter series, "Posting Your Aircraft on Social Media" [bit.ly/47nQE78] discusses protecting your pilot certificate and keeping social media activity safe and legal. The video highlights the importance for pilots to be aware that anything in the public view, including videos, photos, and social media posts, may be viewed by the FAA and used in enforcement actions. One viewer shared their appreciation for the information on the topic:

I want to extend my appreciation to the FAA for creating informative videos like this. They help pilots like me understand what we can and cannot do when it comes to social media posts. Learning from past experiences, I realize the significance of being careful with what we share. I believe more organizations, such as the FAA or AOPA, should produce similar videos to educate pilots on what to post and what to avoid. This knowledge would greatly benefit us. While I wish this initiative had started earlier in the 2010s when I began my aviation career, I'm still grateful for it now. I applaud your efforts and look forward to more videos on how to be smart with social media postings in aviation.

Focusing on Phraseology

A recent video in the FAA's *From the Flight Deck* series [bit.ly/3FYZgFX] discusses phraseology and what you might encounter when operating on the surface of an airport or preparing to land. The video covers ground terminology, including standby; go ahead; hold short; monitor; taxi up to and hold short; continue; and line up and wait. It also reviews airborne phrases like cleared to land; cleared low approach; cleared for the option; go around; and continue. Viewers posted positive phrases in response to the informative video:

THIS is the stuff the FAA should focus more on. Back to the ROOTS! Simple, to the point, helpful stuff for aviators. Awesome real-world footage and great example audios, this is brilliantly put together. Do MORE LIKE THIS!

This is one of the best and most important videos you have ever produced! When properly used it can avoid errors or worse. Thanks.

Clear, concise, and immediately useful. Very well intended and executed. Thank you for making content that will help us be safer without getting bogged down in legalese.

For more stories and news, check out our new 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 or on Facebook at facebook.com/FAA.

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 Office or air traffic facility.

A SAFE PLACE FOR SAFETY

One of the key benefits of the Compliance Program as part of a risk management strategy, and as noted in FAA Order 8000.373C, is its ability to "foster an open and transparent exchange of comprehensive safety data between the FAA and aerospace communities." We see this take place in several different formats, most notably via the Aviation Safety Reporting System (ASRS) or "NASA report," where airmen are encouraged to report safety issues that they observe or are involved with, in a non-punitive environment. With ASRS, the FAA gets to collect helpful deidentified data on the occurrence, while airmen glean the benefit of learning from others' mistakes. Consider subscribing to the ASRS *Callback* newsletter (asrs.arc.nasa.gov), which puts an interesting educational twist on submissions.

Another similar, but much less formal vehicle is the FAA's General Aviation Safety Facebook group at facebook.com/groups/GASafety. We regularly promote it in this magazine's Flight Forum department where we discuss reader feedback and comments. The group was started in 2018 and has grown to more than 16,000 active members.

As noted in the GA Safety Facebook group's description, its goal is to:

> *... reduce the nation's GA accident rate by building a community on Facebook where safety principles and practices can be shared through positive public engagement between the FAA Safety Team (FAASTeam) and GA community. This is a safe place to talk about aviation safety. ... All members are encouraged to join in on the discussions and post relevant GA content that makes the National Airspace System (NAS) safer.*

Those who wish to participate in this group must answer a few questions to assess their interest in GA and abide by the group's rules. I should point out that number one on that list of rules is a reference to the Compliance Program, which explains that the FAA will not use safety discussions posted to the group for any enforcement action. This is designed to support an open and transparent exchange of information with mutual cooperation and trust between the FAA and you.

We believe this policy contributes to us seeing regular examples of pilots sharing lessons learned within the posts. One that stands out occurred last May when a contributor to the Facebook group relayed a harrowing and sobering experience during a $100 hamburger flight with his kids. After a change in winds prompted a go-around at his destination, the pilot admitted that he had forgotten to retract the flaps and was perilously close to the ground before he realized his mistake. Contributing to this lack of climb performance was the high-density altitude environment where he was operating.

Thankfully, with flaps now retracted and airspeed increasing, the aircraft climbed to safety and the pilot and his family returned home without a scratch. In a moving video recapping the event, the pilot reflects on what he believes went wrong: *being complacent and being unfamiliar with go-arounds in an airplane he wasn't used to flying*. He admitted that practicing or at least briefing a go-around procedure before landing would have helped him zero in on the flaps. He advocated for others to learn from his error.

Scan here to join the GA Safety Facebook Group.

In usual fashion, the Facebook group rallied around this contributor with support and gratitude for sharing his mistake. Some even provided examples of similar mistakes they had made. You don't have to search for long on the group before seeing various other scenarios and mea culpas from pilots eager to have their fellow aviators learn from and avoid.

Incidentally, the group is also a good place to get the scoop on industry updates and events, GA news, FAA educational resources, and maybe even do some virtual hangar flying with a few like-minded aviators.

If you haven't already, consider having a look at this Facebook group along with some of the other voluntary reporting programs out there. Who knows? Your story may very well inspire someone else or even save their life.

PAUL CIANCIOLO

DAVID KARALUNAS & CRISTY MINNIS

FAA Safety and Compliance Team

Sometimes, things don't go as planned. Mistakes happen, but punishing someone for those mistakes doesn't always fix the problem. At the FAA, we have a shared responsibility with aviators to find and fix safety problems together. That's where our Safety and Compliance Team works to ensure our Compliance Program policy is effective and backed by data. Here's a quick dive into two integral team members — both with aviation in their blood since a young age and married to pilots.

David Karalunas is the team's policy lead. He grew up near the Lake Hood Seaplane Base in Anchorage, Alaska, and often listened to air traffic calls on his multiband radio. His first foray into flight was at the controls of a Piper PA-14 floatplane when he was nine.

"When I was 14, I got a 92% on the private pilot knowledge exam, took an evening instrument ground school class at the local community college when I was 16, and soloed when I was 17," explains David.

Though money was an immediate limiting factor, David eventually earned his wings in college. He attended the Spartan College of Aeronautics and Technology in Tulsa, Okla., and received his private pilot and airframe and powerplant (A&P) certificates. At the time, entry-level mechanic jobs were more lucrative than entry-level pilots, so David chose the maintenance path. He worked on twin piston and turboprop commuters before a decade of maintaining helicopters as he worked his way up to chief inspector for an Army contractor and director of maintenance for two 14 CFR part 135 helicopter operators. After a brief stint teaching at a part 147 school, David answered the call to public service and joined the FAA in 2001.

David Karalunas and his friend Randy.

"Since the team's inception and before the actual Compliance Program rollout, I've been the lead policy writer," he notes. "Because we have a shared responsibility to find and fix safety problems together, open, transparent communication and collaboration are key to preventing them from reoccurring, which is the basis for our policy."

David also notes that the biggest challenge in general aviation (GA) is managing our behavior as individuals. Without a formal support system, like with commercial aviation, the GA aviator is responsible for developing their own personal safety management practices.

He adds that one of the improvements in the last two years has been efforts to measure the effectiveness of the Compliance Program. We have enough data now to see that relapse is very low after the use of a compliance action.

Measuring the different aspects of the Compliance Program is the responsibility of Cristy Minnis, who serves as the management and program analyst on the team.

Cristy grew up in Moore, Okla., fascinated by the old F-14 and P-51 fighter aircraft that flew yearly at the local air show. Her husband is a pilot, and together, they own a Taylorcraft and are building a Piper *Cub* with plans to explore backcountry airstrips throughout the country.

Cristy joined the FAA right out of college and applied her bachelor's degree in experimental psychology to

Cristy Minnis

human factors research at the agency's Civil Aerospace Medical Institute (CAMI). The recommendation came from her professor when the FAA was looking for someone who could interpret physiological data, which put her on the perfect course to pair with her love of aviation.

"The experience that I gained in college and at CAMI ignited a career-long pursuit of digging into data to see what valuable information it holds and how it can be used to help others," explains Cristy. "We want to work with pilots and mechanics on understanding why the mistake happened and put practices in place to keep it from reoccurring. The Compliance Program has increased trust, communication, and collaboration between the FAA and the GA community."

With drones, vertical lift aircraft, and commercial space operators entering the scene, our airspace is becoming more complex. Both personal risk management and voluntary reporting of safety issues are now more critical than ever. David and Cristy are working together to advance those initiatives and ensure the future of NAS safety.

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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