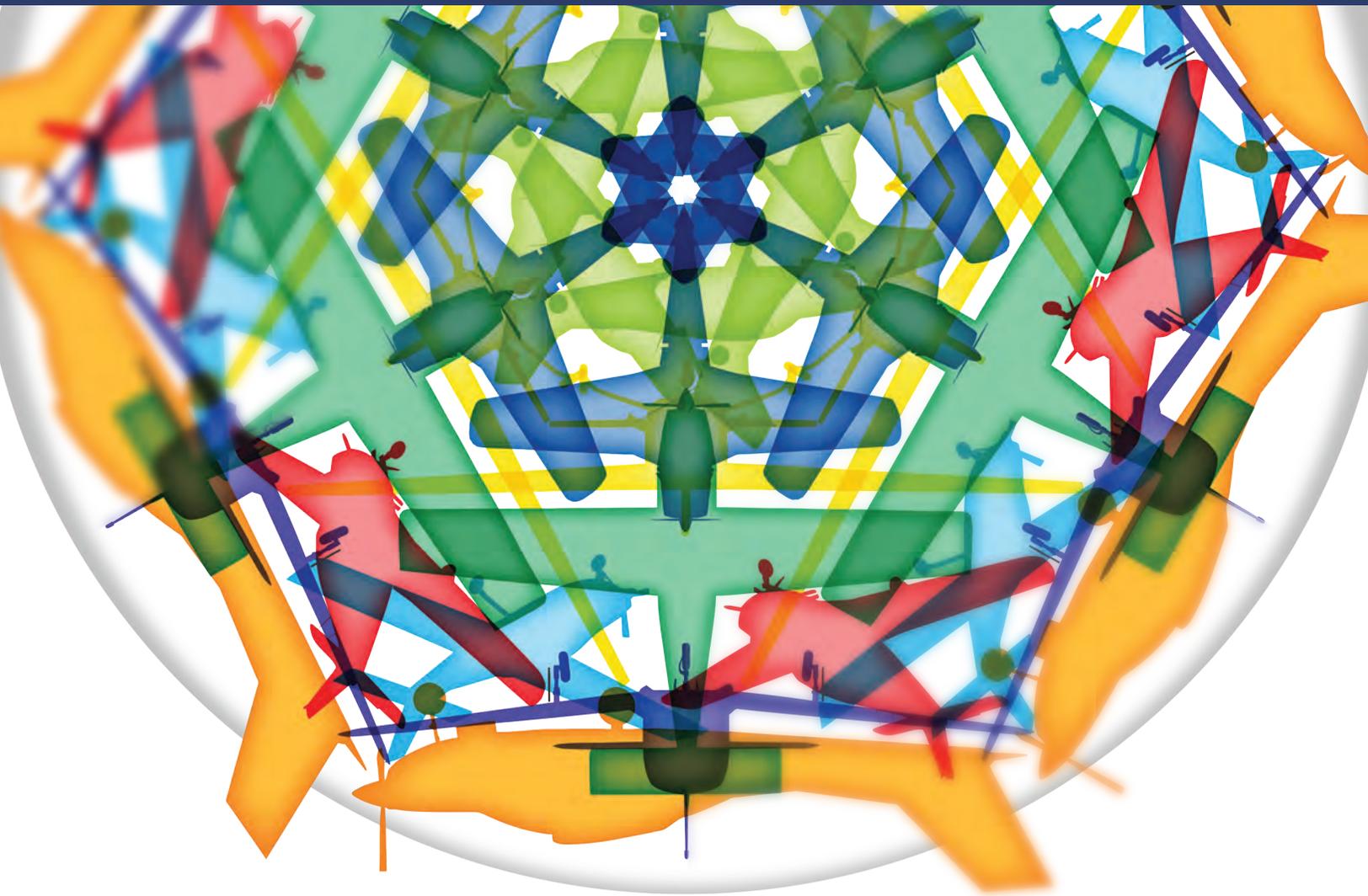


FAA Safety

BRIEFING

September/October 2018

Your source for general aviation news and information



Our Kaleidoscope Community

Life in the FFAST Lane **p 8**

Reflections of Our
Aviation Community **p 12**

The Space Between
Strategy and Tactics **p 15**



Federal Aviation
Administration

faa.gov/news/safety_briefing
@FAASafetyBrief

The September/October 2018 issue of *FAA Safety Briefing* explores the important role of community in general aviation and acquaints you with a wide range of organizations that can be part of your aviation world now or at some point down the road. Like making patterns in a kaleidoscope, you can shape and continually re-shape your own unique aviation community in ways that support your evolving aviation experience and interests.



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Where Does the FAA Fit In? *Safety Assurance, Safety Promotion*

We focus this autumn issue of *FAA Safety Briefing* on the many component organizations in what we generally call the “aviation community.” The FAA is most definitely a member of this community and, as regular readers know, a large number of FAA employees are passionate pilots, mechanics, or in some cases, both.

You will meet a number of other aviation community members in this issue, and learn how you can create (and continually re-create) your own “kaleidoscope community” in accordance with your evolving aviation interests, experience, and goals. But let me start by recapping some of the FAA’s functions and contributions. I’ll focus on what the FAA Aviation Safety Organization and, specifically, the Flight Standards Service, do in terms of three interlocking functions: setting standards, issuing certification on the basis of those standards, and ensuring continued operational safety. Our work in these three areas supports safe operations in the very complex National Airspace System to help keep everyone in our community safe.

Standards

The FAA creates and, as necessary, amends rules and regulations that provide the safety standards for people, organizations, and equipment operating in the National Airspace System (NAS). You might be most familiar with the standards (rules) for airman certification, as outlined in Title 14 Code of Federal Regulations (14 CFR) part 61 and, with the advent of the small UAS (sUAS) regulations, part 107 standards for the new remote pilot certificate. The Airman Certification Standards (ACS) and the Practical Test Standards (PTS) are “regulatory support” documents that explain implementation of these standards.

Certification

On the basis of established standards, the FAA issues and renews certificates that authorize people, organizations, and equipment to operate in the NAS. Your pilot certificate(s) and ratings are issued to certify that you meet the standards set out in regulations like 14 CFR part 61. Operators like part 141 pilot schools have FAA certificates, as do air carriers. The process for obtaining certification requires operators — now including those using drones for commercial

purposes — to demonstrate to the FAA how they will comply with all applicable regulations.

Continued Operational Safety

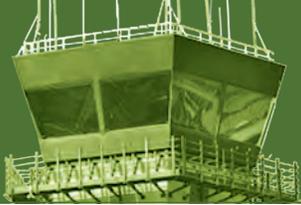
Continued Operational Safety (COS) is the largest of the three core functions. The goal is clear: the FAA’s COS activities ensure that existing certificate holders continue to meet the safety requirements, standards, and regulations that formed the basis for their original certificate or certificate renewal. The FAA accomplishes this responsibility through safety surveillance and oversight programs, audits, evaluations, air traffic safety oversight, education and training, research, and accident/incident investigation. The Compliance Philosophy, the enabling guidance for the agency’s Risk-based Decision-making approach, and Safety Management Systems (SMS) are all aimed at the COS function.

Continued Operational Safety also includes the important safety promotion function, which is the responsibility of the FAA’s Safety Promotion Program Office (SPPO). The SPPO’s most important responsibility is its mission to help reduce the aviation accident rate by using training, outreach, and education and through partnerships that encourage a positive safety culture in the aviation community.

To close on a personal note, it has been my pleasure and honor to lead the Flight Standards Service — my professional home for the past three decades — over the last few years. Change is never easy, but over the summer my aviation career took a new twist when I accepted an invitation to serve as the Deputy Associate Administrator for Aviation Safety. Rick Domingo, who most recently headed the new Safety Standards functional office, will be taking over as the new Executive Director of the Flight Standards Service. Beginning with the next issue, Rick is also assuming the flight controls for this space in *FAA Safety Briefing*.

While I will no longer be part of the day-to-day leadership of Flight Standards, I see this transition not as a good-bye, but rather as an opportunity for new perspective and new directions. You’ll still see me around, not just in my official capacity but also as a lifelong, enthusiastic, and active member of this community.

Thanks for the opportunity to serve with you. I’ll see you ‘round the drome!



False Alerts on 406 ELTs



In 2017, emergency locator transmitters (ELTs) generated 8,786 false alerts in the United States. The majority of 406 MHz ELT false alerts occur during testing and maintenance.

Aircraft operators and pilots should familiarize themselves with the information contained in Information for Operators (InFO) notice 18007 at bit.ly/2NwHNan. In addition, to help prevent false alerts, aircraft operators and pilots should consider the following:

- Ensure that ELT self-tests and annual tests are conducted according to the manufacturer's instructions.
- Visit BeaconRegistration.NOAA.gov to register your ELT. Keep contact information up to date after registration.
- If the ELT is accidentally activated, cancel the false alert by calling the U.S. Air Force Rescue Coordination Center at 1-800-851-3051 or the nearest FAA Air Traffic facility and provide the beacon's hex ID.

Avoid Drone Registration Schemes

The FAA is warning drone owners — especially hobbyists — about people offering to “help” register their drones with the agency. The FAA Drone Zone at FAADroneZone.faa.gov is all you need — and it costs only \$5.

There are a number of entities that offer to help drone owners and operators file an application for a registration number. Some attempt to mimic the look of the FAA's website with similar graphic design and even the FAA logo, or suggest they are somehow “approved” by the agency. They aren't — and you could be wasting your money.

The FAA neither regulates these entities nor will speculate on their legitimacy. However, we have recently received reports of vendors charging exorbitant fees up to \$150 for this service. The actual FAA registration fee is \$5. For that charge, hobbyists receive one identification number for all the drones they own. All others pay the registration fee for each drone they intend to operate.

We strongly advise you to avoid registering your unmanned aircraft anywhere but at the FAA Drone Zone. It is the only way to make sure your drone is legally registered and that you have gotten your money's worth.

New Editions of AMT Handbooks

A new edition of the Aviation Maintenance Technician (AMT) Handbook – General (FAA-H-8083-30A) is currently available for download in PDF format from faa.gov. New editions of the two companion handbooks — the AMT Handbook – Airframe (FAA-H-8083-31A), and the AMT Handbook – Powerplant (FAA-H-8083-32A) are scheduled for release in September 2018.

The AMT Handbooks are a series of three handbooks that provide basic information on principles, fundamentals, and technical procedures in the subject matter areas common to both the airframe and powerplant ratings. These handbooks are designed to aid students enrolled in a formal course of instruction preparing for FAA certification as a maintenance technician, as well as for current technicians who wish to improve their knowledge.

Please visit 1.usa.gov/1AqbiAP for the latest version of all FAA aircraft handbooks.

More IFR Clearances Direct by Phone

The FAA will publish additional phone numbers for pilots to obtain IFR clearances directly from either the overlying Air Route Traffic Control Center (ARTCC) Flight Data Units or an approach control facility. This streamlined process eliminates the need

for Flight Service to relay clearances, increases efficiency, and reduces the risk of potential errors.

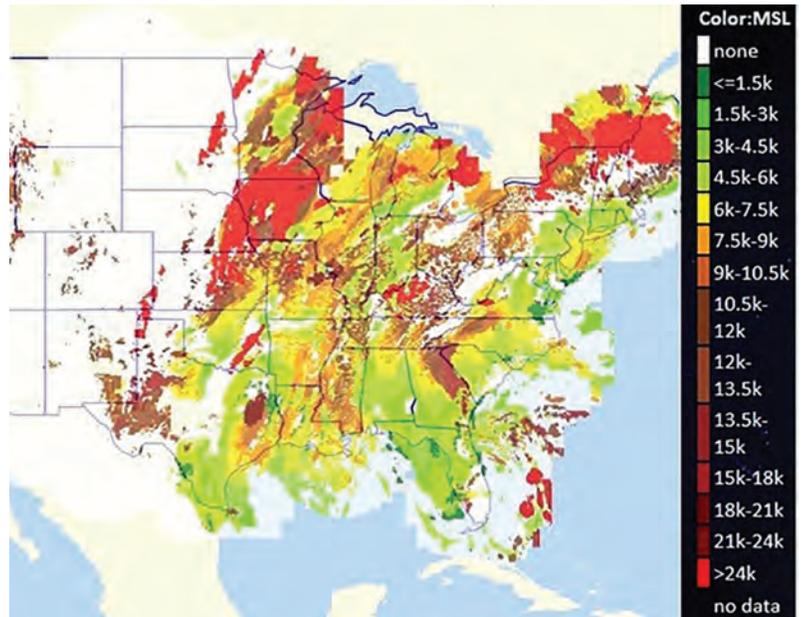
As part of the first rollout, 30 approach controls covering 667 public use airports, now provide pilots with direct contact to the controlling facility to obtain clearances and cancel IFR flight plans. Another 26 approach control facilities, covering an additional 226 public use airports, have signed up for the program and will have their clearance delivery phone numbers published in the September 2018 edition of the U.S. Chart Supplement.

Once published, Flight Service will provide pilots with either the name of the facility to contact or the correct phone number to obtain a clearance. In addition, Flight Service will continue to provide priority handling for helicopter air ambulance operations.

To find out if phone numbers for direct clearance delivery are available at an airport near you, check out the remarks section in the entry for each airport in the U.S. Chart Supplement. Pilots may continue to request clearances via radio from air traffic control or Leidos Flight Service. This plan does not affect pilots requesting clearances from locations in Alaska. For more information, visit go.usa.gov/x5wsR.

New to FIS-B: Lightning, Turbulence, Icing, and More!

Pilots will soon have access to new weather data in their cockpits over the 978 MHz Universal Access Transceiver link.



FIS-B will provide cloud top estimates in 1,500-foot intervals up to 15,000 feet, and 3,000-foot intervals to 24,000 feet.

The FAA recently began broadcasting six new weather products: lightning strikes, turbulence, icing forecasts, cloud tops, graphical Airmen’s Meteorological Information (AIRMET) and Center Weather Advisories. The new weather information will complement the original 13 “baseline” weather products — including Next Generation Weather Radar (NEXRAD) mosaics, winds aloft and terminal forecasts — in the Flight Information Services-Broadcast (FIS-B) feed.

To satisfy a request from pilots for more granular cloud top information at lower altitudes while remaining within the bandwidth budget, the FAA is providing data in 1,500-foot intervals from 1,500 feet

Safety Enhancement Topics

September: Stabilized Approach and Go Around
Maintaining a stabilized approach and landing is a great way to avoid a loss of control situation.



October: Pilots and Medications Learn more about the possible side effects of medications (prescribed or over-the-counter) and whether they may be hazardous to flight operations.



Please visit www.faa.gov/news/safety_briefing for more information on these and other topics.



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mean sea level to 15,000 feet, and in 3,000-foot intervals to 24,000 feet.

The locations of lightning strikes are updated and transmitted every five minutes. The relatively high update rate for air-to-ground strikes — an indicator of thunderstorm activity — may be a valuable addition to NEXRAD mosaics of convective weather, which the FAA warns can be 15-20 minutes older than the most recent uplink.

Icing data includes real-time probability for areas where atmospheric conditions may be conducive to icing and supercooled large droplets, and a forecast for potentially affected areas over the next 12 hours. The information is updated hourly and transmitted every 15 minutes.

Pilots will have access to the new FIS-B products when their individual avionics are updated. The capability and availability will vary based on individual ADS-B avionics, so please refer to your avionics manufacturer for details. For more information on ADS-B services and benefits, go to www.faa.gov/nextgen/equipadsb/capabilities.



New Runway Safety Pilot Simulator

The FAA's Runway Safety Group created a new online simulator tool that can help pilots brush up on their taxi techniques. This online simulator is an interactive, self-guided resource designed to assist with teaching pilots surface safety best practices. It gives pilots the opportunity to practice navigating on airport surfaces while communicating with ATC. Three increasingly difficult scenarios test a pilot's ability to follow ATC instructions and correctly acknowledge signs and markings at decision points while taxiing. Whether you are a student pilot or a seasoned aviator, try it today at RunwaySafetySimulator.com to see if you're cleared for departure.

Building the Right Team

Medical certification is a process, not a sheet of paper. While pilots are understandably concerned with the end result, they sometimes neglect building a partnership that will serve them better in the long run.

You should think of obtaining your medical certificate as a process that involves three team members: You, your Aviation Medical Examiner (AME), and your Regional Flight Surgeon (RFS). Of those three, the only one you can really choose is your AME. Therefore, your AME becomes one of the biggest variables in how smoothly your medical certification goes.

AMEs are like any large group of professionals, all with different strengths and weaknesses. In my AME days, it wasn't unusual for me to spend significant time preparing an airman's application and supporting documents to ensure smooth passage with the FAA. Not all AMEs expend that much energy on FAA exams, because most cases don't require it. My practice was exclusively Aerospace Medicine and primarily special issuances, but many AMEs also practice another specialty. This means that any time spent on aerospace medicine is time away from their primary focus. This arrangement works when you are in generally good health. But should you encounter a challenge in your certification, this AME may not be as up to date in the latest FAA policy, or willing to spend the time required to work your specific case, all of which could result in your medical certificate being deferred or denied unnecessarily.

We see a number of cases where the AME could have issued the medical certificate, but unnecessarily deferred it to the FAA. We also see cases where the AME could have been very helpful with obtaining the correct medical documentation but was not.

This means delays for you and more work for the FAA. It's a lose-lose situation. There are two ways to prevent this situation.

Who You Gonna Call?

If you are in generally good health, start building a relationship with an AME who is familiar with current FAA policy, willing to spend the time necessary, and can provide you with the best possible certification experience. One organization that can help locate these AMEs is the Civil Aviation Medical Association (CAMA). CAMA is a professional organization for FAA AMEs across the world. They can recommend member AMEs in your area. AMEs who are CAMA members are more likely to be up to speed on the latest FAA policies and aerospace medicine advances. You can find them at <http://civilavmed.org>.

Start building a relationship with an AME who is current with FAA policy and can provide you with the best possible certification experience.

Getting Dialed In

Do you have a specific medical issue that either is, or could be, a future hindrance to your medical certification? If so, your RFS could also be very helpful. RFSs know which AMEs in your region are most current in the special issuance process for a given condition. Even if you don't currently have a problem, it can be good to work with someone who may be able to help you avoid problems with certification. Call the Regional Flight Surgeon's office; they should be able to help.

This advice also applies if your medical certificate is deferred. The RFS can access your case file and, in some cases, they can review and issue without having to forward it to Oklahoma City. This saves time for you and can allow the FAA to be more efficient in working your case and coming to a certification decision.

I hope that these tips can help you have a better experience during your next exam.



Dr. Michael Berry received an M.D. from the University of Texas Southwestern Medical School, and an M.S. in Preventive Medicine from Ohio State University. He is certified by the American Board of Preventive Medicine in Aerospace Medicine. He served as an FAA Senior Aviation Medical Examiner and Vice-President of Preventive and Aerospace Medicine Consultants for 25 years before joining the FAA. He also served as both a U.S. Air Force and NASA flight surgeon.



Obstructive Sleep Apnea

Obstructive Sleep Apnea (OSA) has become very visible in the public eye over the last few years. It has been specifically mentioned in the National Transportation Safety Board's (NTSB) Most Wanted List.

OSA is present in 2-4 percent of the adult population in the United States. It occurs when the upper airway repeatedly becomes blocked during sleep.

This can reduce or even completely stop airflow to the lungs. If your brain realizes that you are not getting enough air, it will cause you to wake up and breathe. This could happen hundreds of times during the night resulting in poor sleep

If your brain realizes that you are not getting enough air, it will cause you to wake up and breathe. This could happen hundreds of times during the night resulting in poor sleep and daytime fatigue.

and daytime fatigue. Most people do not even realize they wake up. Risk factors for developing OSA include obesity, male gender, large neck circumference, large tonsils, and certain facial features such as a small lower jaw. OSA disrupts normal sleep causing fatigue and a variety of other problems that can result in pilot impairment.

Frequently Asked Questions

Why does the FAA care about OSA?

OSA is a known safety risk. It was cited by the NTSB as a contributing factor in the February 13, 2008 Mesa Airlines incident in which both the captain and the first officer fell asleep during the flight. They flew 26 miles past their destination and did not respond to air traffic control for more than 18 minutes. OSA has also been cited as a cause in rail mishaps in 2016 and 2017, in which one person was killed and 200 injured. Since 2001, the NTSB has identified OSA as a factor in at least nine accidents in four transportation modes.

Why should I care about OSA?

Untreated OSA increases the risk of hypertension, heart disease, stroke, diabetes, and premature death. It is associated with chronic fatigue, excessive daytime sleepiness, problems with memory and concentration, and mood changes.

What should I do if I suspect I have OSA?

First you should discuss your symptoms with your primary care physician or your Aviation Medi-

cal Examiner (AME). He or she may then refer you for sleep studies to confirm the diagnosis, and start you on treatment if necessary. AMEs currently perform an OSA risk screening for all airmen at the time of their exam.

Can I get a medical certificate with OSA?

Yes. Once you are adequately treated and your symptoms have gone away, you can receive a special issuance. If your AME finds you are at significant risk for OSA, he or she can still issue you a medical certificate while you undergo diagnostic testing and initiate treatment. Renewal of your special issuance will require that you remain without symptoms, and that you give your AME a current assessment from your treating physician, along with a compliance printout from your continuous positive airway pressure (CPAP) machine, if you use one (more on that later).

Treatment

There are numerous methods to treat OSA. One of the best ways is to lose weight and maintain a healthy lifestyle including increasing physical activity and developing healthy sleeping habits. The first-choice treatment is a CPAP machine. The CPAP machine provides pressurized air through a mask to aid in breathing during sleep. In some individuals, oral appliances or simply a change in sleeping position may be sufficient. Depending on the severity of your OSA and your response to other treatment forms, surgery may be necessary. A newer treatment is a hypoglossal nerve stimulator. There are several possible procedures so be sure to discuss your options with your doctor.

Penny Giovanetti, D.O., received a bachelor's degree from Stanford, a master's in Environmental Health and Preventive Medicine from the University of Iowa and doctorate from Des Moines University. She completed a 27-year career as an Air Force flight surgeon. She is board certified in aerospace medicine, occupational medicine and physical medicine/rehabilitation. She is also a Fellow of the Aerospace Medical Association and a private pilot.

Learn More

FAA Pilot safety brochure on OSA

www.faa.gov/pilots/safety/pilotsafetybrochures/media/Sleep_Apnea.pdf

SUSAN PARSON

Our Kaleidoscope Community

On Shifting the “Shapes” to Suit Changing Needs

Creativity is like looking at the world through a kaleidoscope. You look at a set of elements, the same ones everyone else sees, but then reassemble those floating bits and pieces into an enticing new possibility.

– Rosabeth Moss Kanter

The deceptively simple-looking kaleidoscope is a magical thing. I have always loved how the tiniest twist by its beholder creates a new and utterly unique pattern of light, color, and shape.

That’s why the kaleidoscope is a popular metaphor — one we are adopting to organize this issue’s focus on the various organizations in our vast aviation community.

In aviation, just as in other aspects of life, each of us creates an utterly unique pattern of friends, acquaintances, experiences, and aspirations. Those patterns shift constantly, sometimes in subtle ways, and sometimes more significantly. Sometimes we make deliberate changes; at other times they arise from some unforeseen twist in fate or circumstance. The result we see is sometimes what we expected but — again like the new pattern in a kaleidoscope — it can also present what Harvard leadership professor Rosabeth Moss Kanter calls an “enticing new possibility.”

As with the components on a kaleidoscope’s rotating surface, the myriad agencies and organizations that compose the “aviation community” can be arranged in endless patterns during the course of your flying life. In this issue of *FAA Safety Briefing* magazine, our goal is to help you get acquainted with a wide range of organizations that can be part of your aviation world right now, or perhaps in some later phase of flying. We’ll look at the role the FAA plays in safety assurance and safety promotion. There will be a closer look at some of the best-known advocacy associations like the Aircraft Owners and Pilots Association (AOPA) and the Experimental Aircraft Association (EAA). We’ll talk about the Civil Air Patrol, type clubs, and special sector organizations for recreational (back-country)

flying, sailplanes/gliders, helicopters, and light sport. We also look at organizations that are springing up to support remote pilots and other new entrants in our richly diverse aviation community.

One of the most glorious aspects of the aviation community is that it offers something for just about every possible area of interest. Both for greater safety and greater fun, we want to encourage you to connect to those whose interests coincide with yours. Make them part of your own unique aviation community picture, and enjoy the perspective your personal pattern provides. ✈️

Susan Parson (susan.parson@faa.gov, or @avi8rix for Twitter fans) is editor of FAA Safety Briefing. She is an active general aviation pilot and flight instructor.

Learn More

Academy of Model Aeronautics

www.modelaircraft.org

Aircraft Owners and Pilots Association

www.aopa.org

Association for Unmanned Vehicle Systems International

www.auvsi.org

Civil Air Patrol

www.gocivilairpatrol.com

Experimental Aircraft Association

www.eaa.org

FAA Safety Team

www.faasafety.gov

General Aviation Joint Steering Committee

www.gajsc.org

Helicopter Association International

www.rotor.org

National Transportation Safety Board

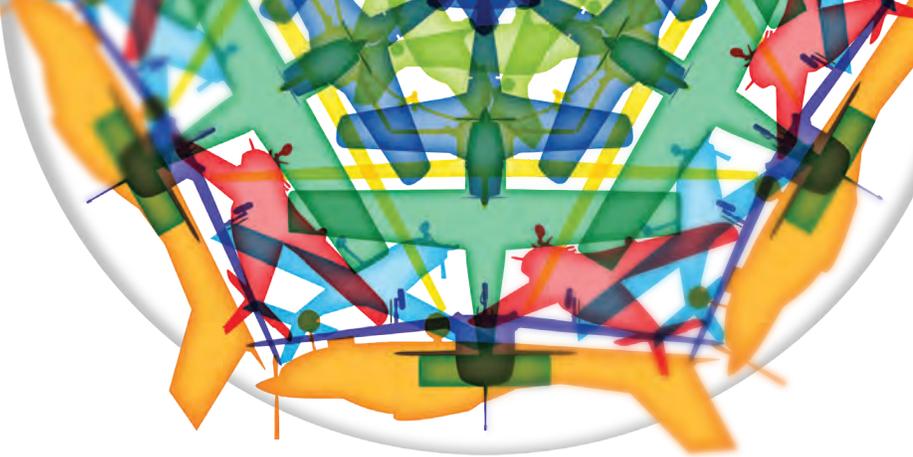
www.nts.gov

Unmanned Aircraft Safety Team

www.unmannedaircraftsafetyteam.org

U.S. Helicopter Safety Team

www.usbst.org



TOM HOFFMANN

Life in the FAAST LANE

A Community Effort Towards Safer Skies



Top: National FAASTeam Manager Valerie Palazzolo (5th from right) along with several members of the FAASTeam family assisting at AirVenture 2018 (l-r) George Mahurin, Jason Forshey, Gina Moretto, Scott Landorf, Jay Flowers, Gary Knaggs, Val, Ed Shields, Larry Cheek, Steve Hoogerhyde, and Jurg Grossenbacher
Bottom: FAASTeam Program Manager Heather Metzler interacts with Designated Pilot Examiners during a FAASTeam Rep training session in Little Rock, Ark.

Puppet shows, sing-alongs, and storytelling ... what more could a six-year old kid want on a hot day during summer break! Yes, it might seem a tad strange, but I have fond memories of my local public library when I was growing up in Queens. It was a hub of activity in my community: everything from arts and crafts with toddlers, to movie nights for teens, to the more contemplative book club discussions and poetry readings for grown-ups. During my childhood and into my adult years, the always-helpful staff, the seemingly limitless shelves of books on topics I never knew existed, and even the uniquely comforting “smell” of books always makes me feel at home in a library, no matter what city or state I happen to be in.

Libraries have worked hard to keep up with the times, especially as technology has revolutionized the playing field for literary arts. Today’s library patrons — thanks to advances in information sharing and networking — now have access to troves of e-books, movies, and digital archives, as well access to free or low-cost training. Despite its evolving ethos, libraries have continued, if not expanded their role in the community, providing civic and cultural engagement activities, like adult literacy programs and live music events, to hosting state-of-the-art research and collaboration facilities. And don’t worry. If *Moby Dick* or *The Great Gatsby* are calling your name, you’ll still be able to check out a hard copy of that classic novel you never got around to.

Making FAAST Work of Aviation Hazards

Not unlike the public library system, the FAA Safety Team (FAASTeam) plays a similar support role, but with a specific focus on serving the general aviation community as its clientele. With its vast network of FAA employees and private sector volunteers, the FAASTeam has maintained a critical role as purveyor-in-chief of GA safety information. Its mission statement sums it up well: *Improve the nation’s aviation accident rate by conveying safety principles and practices through training, outreach, and education while establishing partnerships and encouraging the continual growth of a positive safety culture within the aviation community.*

As any good library book on running a business will tell you, an organization’s success depends greatly on good leadership. At the FAASTeam’s helm is a group of professional and highly experienced individuals who are committed to the success of the program. Part of that commitment is geared toward supporting the National Performance Plan (NPP),

the national work program that drives tasking for the staff, as well as for the FAAS Team's overall product development strategy. The NPP is developed based on directives from the FAA, the General Aviation Joint Steering Committee, and other data-driven sources.

"The FAAS Team's success relies on a highly coordinated and collaborative approach from all different segments of the GA community," says National FAAS Team Manager Valerie Palazzolo. The team also depends heavily on data mining and analysis, as well as the use of safety management systems and risk management tools to achieve its goal. "It's not an easy task to coordinate effective messaging on such a grand scale, but the safety dividends we realize are worth every bit of effort."

Those dividends have been arriving in the form of lower GA fatal accident rates, which in recent years have steadily declined. The number of GA fatal accidents has crept down from 278 in fiscal year 2011, to 209 in 2017, with 2018 appearing to continue that positive trend. While several factors are at play in producing that outcome (technology, sound procedures, etc.,) aviation education and outreach is no doubt an important element to that equation and the FAAS Team is banking on that to shrink the accident rate even further.

Good News Travels FAAS

When airmen hear the term FAAS Team, their initial thoughts may be of the safety seminar notices they see at their local airport or receive via email. These safety seminars are indeed an integral part of how the FAAS Team is able to spread the word on sound and safe GA practices. But their impact on the GA community includes so much more than that. If you're unfamiliar, it's worth a closer look at the full spectrum of activities and resources the FAAS Team provides, as well as some of the faces behind those operations.

As a bit of history, the FAAS Team was officially created through an FAA Order on July 15, 2004, but its roots can be traced back much earlier to the FAA's Accident Prevention Program formed in the 1970s. Accident Prevention Specialists from the program were tasked with researching local accidents and conducting targeted outreach based on that research. They were also tasked with developing a corps of Aviation Safety Counselors, private sector volunteers who helped construct the foundation of an aviation safety community.

Fast forward to today and that concept has largely stayed intact. One change worth noting is the

program's (and FAA's) evolution from a reactive (blame, shame, and retrain) culture, to a more proactive "just" culture, which aims to focus more on the "what" and "why" rather than the "who" when it comes to accidents.

FAAS and Curious

The FAAS Team has also worked hard to adapt to the rapidly changing aviation environment, including advances in technology, automation, and flight training. Despite these changes, the community aspect of the FAAS Team has remained a constant and core attribute of its success. The more than 100 FSDO-hosted FAAS Team Program Managers across the nation, supported by the 2,500-plus volunteer FAAS Team Representatives, comprise the very fabric of its grassroots approach to safety advocacy.

These dedicated individuals are the face of the FAAS Team, the men and women you see on a daily basis presenting both local and nationwide safety seminars and webinars, assisting airmen with questions about policies and procedures, or providing coaching and mentoring on safe practices. To give you a better sense of just how vast this community involvement is, consider this: In the last year, the FAAS Team conducted more than 4,200 approved safety seminars and more than 260 webinars that reached about 180,000 members of the aviation community.

That also doesn't take into account the immense outreach power of FAASafety.gov, the FAAS Team's online hub for airman education and premier safety resource. The site provides important GA-related updates and notices, lists airman activities and seminars in your local area, and hosts hundreds of online aviation safety courses. "We typically see 1,500 successful logins per day on the site, and now have over 880,000 accounts in the system," said Guy Minor, National FAAS Team Airworthiness Lead. "Online course completions also topped one million in the past year." In addition, the site hosts an email system that can rapidly issue ad hoc nationwide updates as well as deliver localized seminar notices. Subscrip-

The FAAS Team's success relies on a highly coordinated and collaborative approach from all different segments of the GA community. The team also depends heavily on data mining and analysis, as well as the use of safety management systems and risk management tools to achieve its goal.



FAASTeam Representatives R.L. "Bob" Connor (Lead Rep) and Linda Connor.

tion settings for these messages can be adjusted by updating your online profile.

Another important facet of FAASafety.gov is that it is home to the WINGS Pilot Proficiency and the AMT Awards programs, both designed to inspire professionalism, proficiency, and continuing education for pilots and mechanics respectively. "Participating in the WINGS or AMT Awards program is the right thing to do for safety," says Kevin Clover, National FAASTeam Operations Lead. "It makes pilots and mechanics more proficient, confident, and safe."

If you haven't already signed up for either of these programs, get started today! See the FAASafety.gov home page links for more information on these programs.

FAAST Foodie

Given today's appetite for social media content, the FAASTeam also recognizes the importance of leveraging this medium in its overall communication strategy. As such, the FAASTeam regularly provides GA safety content for FAA's Facebook, Twitter, Instagram, LinkedIn, and YouTube accounts, and manages its own Twitter account, @FAASafetyBrief. This has proved to be a great way to communicate up-to-the-minute news for the GA community,

whether it is sharing information about an upcoming TFR or an important policy change, or just posting a video on best practices for stabilized approaches. You may also notice that the staff regularly uses hashtags relevant to GA (#FlySafe, #FAASTeam, etc.,) to highlight and to be part of a more global conversation on select issues.

Social media use also enhances our ability to be a more active member of the GA community and provides yet another channel for us to gather and process feedback from airmen like you. In fact, as this is being written, plans for a new FAASTeam Facebook group are being finalized. Details will be forthcoming this fall, but this should prove to be an excellent way for airmen to access information, collaborate and share ideas, and be more "plugged in" to their local GA community and fellow FAASTeam members.

Are You a FAAST Reader?

Of course, what conversation of FAASTeam outreach would be complete without mentioning yours truly, the *FAA Safety Briefing* magazine staff? In addition to producing the bi-monthly GA safety publication you're currently reading, the *FAA Safety Briefing* staff also supports various projects and communication campaigns, authors regular FAAST Blast email messages, and is the driving force behind much of the FAA's GA-focused social media content mentioned earlier. The magazine team also introduced a new *FAA Safety Briefing Live!* presentation that launched last March. The one-hour live broadcast reviews and discusses content from each new issue together with special guests from the FAA and the GA community. These WINGS-credit-eligible events are archived for anyone to watch. Here's the link to our July/August issue broadcast: www.faasafetybriefing.com/July-August.html.

Pardon the cliché here, *but wait, there's more!*

The FAASTeam is also actively involved with flight instructors, a true cornerstone of the pilot community. In addition to hosting quarterly flight instructor forums across the country where instructors are able to discuss flight training challenges and best practices, the FAASTeam is leading a new Flight Instructor Performance Assessment initiative that aims to yield better instructional performance and safer pilots. The FAASTeam is also essential to the FAA's remedial training program, reviewing and developing curricula and remedial training agreements, and monitoring trainee progress.

As an integral member of the GA community, the FAASTeam maintains relationships with many

The screenshot shows the FAA Safety Team website interface. At the top left is the Federal Aviation Administration logo. Navigation links include Home, About the FAASafety Team, and a search bar. A secondary menu lists Activities, Courses, Seminars & Webinars, Maintenance Hangar, Pilots, Resources, and Page Help. The main header reads "FAA Safety Team | Safer Skies Through Education" with the FAASafety.gov logo. Below this are four main content areas: "Featured Courses" with links to Part 107, ACS, and DC Special Flight Rules; "Hot Topics" featuring a "WINGS Flight Instructor Guide"; "Upcoming Seminars" with a search form; and a "LOGIN TO YOUR ACCOUNT" section with email and password fields. A footer banner reads "FAASafety.gov – The FAASafety Team's online hub for airmen education."

FAASafety.gov – The FAASafety Team's online hub for airmen education.

federal and state aviation entities (e.g., NTSB, DHS), and partners with several private sector organizations who have a stake in aviation safety (e.g., AOPA, EAA). The FAASafety Team also works with several different offices within the FAA to conduct targeted outreach. In recent years, they have worked very closely with the Office of Runway Safety, NextGen, the UAS Integration Office, and the rotorcraft community. The FAASafety Team even provides a training course for first responders on the unique challenges of handling aircraft accidents.

"We support the GA community in more ways than people might realize," says National FAASafety Team Outreach Products Manager John Steuernagle, who, in addition to developing content for many of the nationwide FAASafety Team seminars, courses, and videos, also oversees the team's brochures, posters, and handout materials. Steuernagle was also instrumental in developing a flight risk assessment tool (FRAT) that helps pilots identify hazards before flight. The FAASafety Team FRAT is available in a spreadsheet form on the FAASafety.gov library, or as an app in Apple's App Store. The FAASafety Team FRAT is currently the only FRAT available for Apple Watch.

The FAASafety Team Family

For nearly 50 years, the FAASafety Team, including its previous formats, has been building a multi-

faceted safety community that is highly regarded worldwide. Its safety promotion accomplishments are extremely impressive as is its ability to bring together airmen, educators, and safety service providers all for the purpose of promoting an aviation safety culture. The only thing missing perhaps is you!

If you're not already part of the FAASafety Team family, consider it. Whether you're a service provider, a volunteer FAASafety Team Rep, a WINGS member, or just a consumer of content, your participation can and does make a difference. Contact your local FAASafety Team program manager (FPM) or Rep today for more information.

Oh, and you might want to consider dusting off that library card too. As Dr. Seuss famously stated: *The more that you read, the more things you will know. The more that you learn, the more places you'll go.* ✈️

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

More than 100 FSDO-hosted FAASafety Team Program Managers across the nation, supported by the 2,500-plus volunteer FAASafety Team Representatives, comprise the very fabric of its grassroots approach to safety advocacy.



Reflections of Our Aviation Community

A Look at General Aviation Advocates

JENNIFER CARON

Just about every time that my brother and I visited our grandparent's house, we would get a couple of those toy kaleidoscopes to play with. We'd fight tooth and nail over who would get the one with the best design on the canister, then run outside to point it towards the sun for the brightest light. Like pirates searching for treasure-laden ships, we'd stare deeply into the eyepiece, turning the cylinder in awe, as tiny pieces of colored glass transformed themselves into beautiful, symmetrical patterns before our eyes.

Convinced that some enchantment was afoot to explain these magical shapes inside the chamber, we'd break open our kaleidoscopes and discover, to our surprise, a simple collection of different shapes of glass, bits of beads, and a web of mirrors.

As we got older and somewhat wiser, we learned that a kaleidoscope is an intricate assembly of diverse parts, reflected by a prism of well-placed mirrors. These mirrors are the secret ingredient that harness the individual beauty of all the bits and pieces to create the harmonious and symmetrical patterns that we see inside the chamber.

Our general aviation (GA) community is similar to the inner workings of a kaleidoscope. It consists of different parts — different types of pilots and mechanics, on many different types of aircraft, representing different issues, needs, and concerns. Just like the kaleidoscope's prism of mirrors, GA advocacy groups reflect and support each part of our aviation village to create the harmonious patterns that shape our aviation world.

Reflection

The FAA works closely with many GA advocacy groups that support the GA community. Two well-

known organizations — the Aircraft Owners and Pilots Association (AOPA), and the Experimental Aircraft Association (EAA) — bring like-minded aviators together for information and resources, and the promotion of general aviation. They provide our aviation community with resources such as access to new flight training information, accreditation and scholarship programs, continuing education, collaboration with industry and government organizations, and the valuable opportunity to network and learn from peers. As advocacy focal points, they serve as the leading voice for GA to promote policy, mediate, and leverage their memberships to join in support of GA causes and initiatives.

Let's take a closer look at these two GA advocacy groups, and all they have to offer our community.

Symbiosis

AOPA's stated mission is *to protect your freedom to fly through education, resources, advocacy, keeping GA accessible to all, and supporting activities to ensure the long-term health of general aviation*. Created in 1939 as the world's largest community of pilots and aviation enthusiasts, AOPA promotes an environment that gives people of all ages the opportunity to enjoy aviation and all it has to offer.

In a nutshell, AOPA is a one-stop shop for all things GA, working to support the many facets of this industry. From private pilot to drone enthusiast to balloonist, AOPA members enjoy access to in-depth, online flight training tools, continuing education, safety resources, monthly magazines, newsletters, as well as flight planners and weather tools. You can also get advice from pilots and flight instructors (or share your knowledge with others),

receive air safety alerts, and seek guidance on certification issues.

AOPA and the FAA work closely together to educate and provide outreach to the GA community, share information, and circulate best practices and lessons learned. A good example of this relationship is the GA Joint Steering Committee (GAJSC), of which the FAA and AOPA are members. This joint government/industry committee uses a data-driven approach to analyze GA accident causal factors and develop mitigation strategies. Committee members all work together through educational programs such as the #Fly Safe campaign to promote best practices and safe flying techniques.

Another important area of coordination between the FAA and AOPA is with the development of the recent Airman Certification Standards (ACS), which replaces the Practical Test Standards, and provides a single-source set of standards for both the knowledge exam and the practical test. “The Airman Certification System Working Group is the best example of the FAA partnering with AOPA,” says Dave Oord, AOPA senior director of regulatory affairs and the working group’s chair. “We work together to improve the relevancy of training and testing and to align all the components of the airman certification system so that a pilot clearly understands what’s expected of them.”

Other notable FAA/AOPA partnership programs include their combined efforts to revamp AOPA’s 2009 Runway Safety course, which proved to be AOPA’s most highly-used educational tool (more than 60,000 completions).

Along with several other industry members, AOPA supports the FAA’s Know Before You Fly safety campaign designed to give Unmanned Aircraft Systems (UAS) operators information and guidance about safe and responsible flight.

As an FAA Safety Team (FAASafetyTeam) industry member, AOPA provides courses, seminars, and webinars as part of the FAA’s WINGS Pilot Proficiency Program, which includes targeted flight training designed to help pilots develop the knowledge and skills needed to achieve flight proficiency and mitigate risks. AOPA’s Air Safety Institute (ASI) develops many of these courses that provide credit for the WINGS program.

ASI is a component of the AOPA Foundation and works to improve GA safety through educational programs for pilots and flight instructors. “Whether you’re an AOPA member or not, all of ASI’s safety materials are free,” says Jill Tallman,

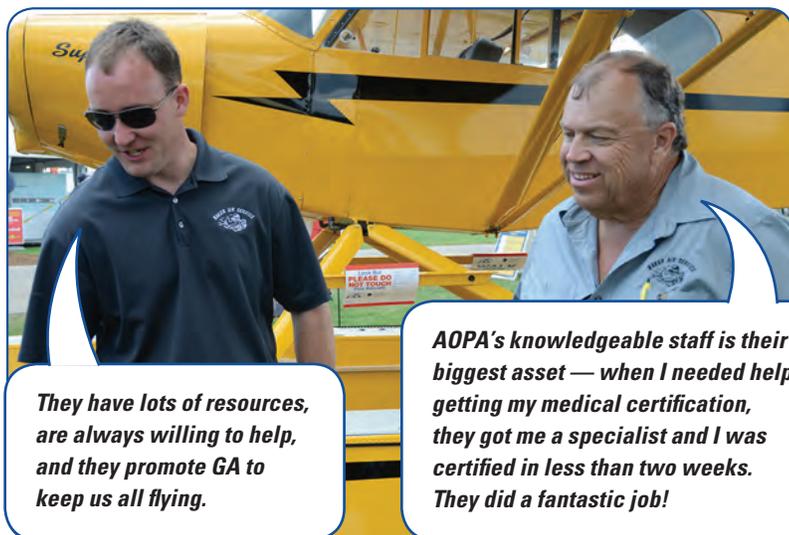
instrument-rated private pilot and technical editor of AOPA’s Pilot Magazine and Flight Training Magazine. This includes their podcasts, videos, and in-person seminars on topics ranging from aerodynamics and aeromedical to thunderstorm avoidance and transition training. ASI also offers comprehensive, FAA-approved CFI renewal programs. Safety Spotlights include courses, accident case studies, real pilot stories, quizzes, videos, and publications relevant to each topic.

Synergy

Another key member of the GA community is the Experimental Aircraft Association, or EAA.

Founded in 1953 as “a local club for those who built and restored their own aircraft,” EAA’s mission is to *make aviation easier, more accessible, more rewarding, and more fun ... by embracing “The Spirit of Aviation” in all that we do.*

EAA is an international aviation organization that not only caters to amateur-built, restorers, and light plane aficionados, but also fosters every aspect of aviation in our diverse community of pilots and enthusiasts. EAA’s online resources keep you informed with extensive libraries of DIY and “how to” homebuilder videos, workshops, webinars, technical manuals, along with discounts on flight planning and weather tools. There are extensive pilot resources, including EAA’s network of Designated Airworthiness Representatives (DARs) to help with airworthiness certification. In addition, there are learn to fly videos, transition training, and forums to learn from experienced aviators.



They have lots of resources, are always willing to help, and they promote GA to keep us all flying.

AOPA’s knowledgeable staff is their biggest asset — when I needed help getting my medical certification, they got me a specialist and I was certified in less than two weeks. They did a fantastic job!

Darin and Roger Meggers — AOPA lifetime members and father-son team operators of Baker Air Service in Baker, Montana.

GA advocacy groups help create the patterns that shape our aviation world.

The backbone of EAA is its network of local chapters that provide opportunities for pilots, instructors, and enthusiasts from a wide range of aviation interests and backgrounds to share knowledge, learn and discuss different ways to approach flight scenarios, promote safety, and improve decision-making skills. EAA also sponsors local fly-ins, and groups such as the EAA/IMC and EAA/VMC Clubs, which promote proficiency and safety in instrument flying.

EAA's aviation safety programs guide members in building and flying their aircraft through FAA-accredited programs such as the EAA Technical Counselors — experienced builders, restorers, and mechanics available to assist, and EAA Flight Advisors — flight instructors and experienced aviators who help members determine if their piloting skills are matched to the aircraft they are looking to build or fly.

In addition to its safety programs, EAA hosts presentations with the FAASTeam to address the primary accident causal factors that continue to plague the GA community. Activities, courses, seminars, and webinars are available through FAASafety.gov, and many of these qualify for WINGS credit.

Partnered with the FAA in safety, EAA currently co-chairs the GAJSC, and is highly focused on reducing loss of control accidents with its Founder's Inno-

vation Prize annual program. EAA also promotes the #Fly Safe and the Know Before You Fly campaigns, the latter as a joint effort with the Academy of Model Aeronautics (AMA). "EAA has a steep history of working in partnership with the agency, with the common goal of ensuring safety and enabling innovation for the betterment of general aviation," explains Sean Elliott, EAA Vice President of Advocacy and Safety. "EAA provides subject matter expertise and collaboration in a way that truly benefits the FAA and provides a valued resource for reaching the safety goals which we all strive to achieve."

Of particular note is EAA's Type Club Coalition (TCC), an organization of owners and builder groups with extensive information on specific aircraft makes and models. Along with training programs and best operating procedures, TCC gives members the chance to learn from those who have already worked on similar projects. (See this issue's Angle of Attack department for more on the TCC).

EAA offers still more opportunities to learn through its aviation education and outreach programs. Of note are the Sport Air Workshops, which are traveling hands-on help for builders, the EAA Air Academy for youth, and the Young Eagle flights, designed to introduce both adults and kids to the joys of aviation.

EAA is perhaps best known for AirVenture, its annual summer gathering of aviation enthusiasts in Oshkosh, Wisconsin. Dubbed the "World's Greatest Aviation Celebration," this week-long event attracts more than a half a million visitors with over 10,000 aircraft. AirVenture attendees can participate in hands-on workshops, informative events, educational programs, and just the plain good fun of being with fellow aviation enthusiasts and indulging in the delights of gawking at miles of airplane eye-candy.

Shaping Your Community

Regardless of your certificate or skill level, you can benefit from the contributions that organizations like AOPA and EAA make to our multi-faceted GA "kaleidoscope" community. ✈️

Jennifer Caron is an assistant editor for FAA Safety Briefing. She is a certified technical writer-editor, and is currently pursuing a Sport Pilot Certificate.

Learn More

Take a closer look at two of our aviation advocacy groups:
AOPA — aopa.org and EAA — eaa.org.



When I built my Van's RV-7A, I had so many questions, and EAA answered them all, every step of the way throughout my entire build process. EAA's safety resources also help to make me a safer pilot, and it's a nice bonus that when I'm at AirVenture, I get to talk to the actual person who built the avionics on my aircraft.

As my husband's flying companion, I really like the fact that EAA promotes safety and that they're helping us research equipment for the new ADS-B requirements.

Husband and wife lifetime EAA members, Larry and Teresa Wilhite from Senoia, Georgia.



Strategy

The Space Between and



Tactics

How Middle Tier Organizations Can Provide Useful Color

JAMES WILLIAMS

Let's be honest. We really overuse the words strategic and tactical. We do this to a point where almost any action or plan is labeled either strategic or tactical. But the military community from which we adopted these concepts moved to a less binary view a long time ago. As systems get more complex, they tend to require at least one intermediary. In the military world, this is called the operational level. It fits neatly in between the strategic and tactical levels. In general terms, a battle is tactical, a campaign is operational, and a war is strategic. To use one example: the Battle of Gettysburg (tactical) was part of the Gettysburg Campaign (operational) which is part of the U.S. Civil War (strategic). Each of those levels is effectively interlocked but has different objectives, resource requirements, leadership needs, and visibilities.

This framework maps quite nicely onto the pantheon of groups that make up the GA community. This space can be a great place to find an organization that might just be a good fit for your personal twist on the aviation community kaleidoscope.

A Matter of Scale or Scope

Strategic and tactical level groups tend to be easier to sort out. Groups like the Aircraft Owners and Pilots Association (AOPA) and the Experimental Aircraft Association (EAA) fit neatly into the strategic level. They have large and varied memberships and tend to focus mainly on large-scale issues. Organizations like type clubs are obvious examples of the tactical level. While they can have a relatively large membership, their scope is fairly narrow and involves usually one type of aircraft.

There is always some flexibility in the classification of groups depending on what characteristics you are evaluating. But what about those organiza-

tions that are neither fish nor fowl? That's where the operational level becomes useful. In this article, we'll look at some defining concepts and categories that might help aviators find a group that could be helpful. The goal isn't to find the one right group for you, but to find every group that could be helpful.

Operational Mode

Defining these organizations can be difficult because they don't tend to fit as neatly into one concept. But here's one way — mode — by which I mean a commonality of aircraft by some factor broader than type. They may be manufacturer-specific or even specialize in a series of similar types. While obviously not as specific, these clubs offer a broader membership, and in some cases, more resources, but still have substantial commonality in many cases. A good example might be tips for maintaining single engine Cessna retractable gear. A broader base of experience might help in avoiding any mechanical issues.

These modal organizations also focus on the specific areas that can apply across models and manufacturers but share a common theme. These could include aircraft categories or classes like rotorcraft or seaplanes. For example, a Cessna on floats might share copious technical data with its land-based sibling, but the seaplane's pilot would share more operational experience with another seaplane than the other Cessna.

Operational Mission

These organizations focus on a purpose. This might be back-country flying, or flight instruction, or some other worthy cause. They put the focus on how you are using your skills, aviation or otherwise. They also focus on improvement in those areas that can make you a better aviator or AMT.

Cessna Pilots Association



The Cessna Pilots Association is a group that obviously focuses on Cessna aircraft, especially piston single and twin-engine variants. It offers a host

of technical resources from a magazine to educational courses, to a staff of technical experts. The technical resources can be helpful for both pilots and mechanics. The broader base of a larger organization means greater resources than an individual type club.

cessna.org

Helicopter Association International



Helicopter Association International (HAI) is a group that supports the helicopter community across the world. HAI dates back to the late

1940s, less than a decade after the first successful helicopter flights. HAI works with operators and pilots to improve safety and support the rotorcraft industry in general. HAI also advocates for the community on Capitol Hill and works with the FAA on many technical working groups. HAI has some strategic elements but has a narrower scope than larger organizations.

rotor.org

Seaplane Pilots Association



Seaplane Pilots Association (SPA) primarily focuses on promoting safe seaplane operations. But they also work to protect seaplane access to

waterways and work at the local, state, and national level for the interests of seaplane pilots and operators. This group also provides educational outreach to the public and policymakers.

seaplanepilotsassociation.org

Recreational Aviation Foundation

The Recreational Aviation Foundation (RAF) is dedicated to preserving existing airstrips and creating new public use airstrips throughout the United States with an emphasis on backcountry access. The RAF works with government agencies to ensure access to these lands for aviation use. They also have an emphasis on pilot education including a code of conduct to ensure proper stewardship of these public lands.

theraf.org

Alaska Airmen Association

The Alaska Airmen Association represents the interests of general aviation (GA) in Alaska. It is composed of airmen, mechanics, airline employees, and aviation enthusiasts from Alaska and around the world. The association advocates for the aviation community of Alaska with government agencies. This group is especially concerned with issues regarding airspace, closure of airstrips, and weather, among other areas. It also holds safety meetings, seminars, fly-ins, banquets, and special events.

alaskaairmen.org

National Association of Flight Instructors



The National Association of Flight Instructors (NAFI) is, as the name suggests, a group that aims to raise and maintain the professional stan-

dards of flight instructors. NAFI focuses on providing information and tools to flight instructors that can help them be better instructors and develop professionally. They also work with the FAA on policy and regulations that affect instructors and instruction, like the recent transition to the Airman Certification Standards (ACS).

nafinet.org

Society of Aviation and Flight Educators



The Society of Aviation and Flight Educators (SAFE) is similar to NAFI in its emphasis on instruction. SAFE focuses heavily on

providing resources to instructors to improve the profession. SAFE also works with the FAA to provide feedback and advice on policy and regulations.

safepilots.org

Women in Aviation International

Photo by Connor Madison/EAA



Women in Aviation International (WAI) is a group dedicated to encouraging and advancing women across aviation around the world. WAI conducts out-

reach programs and provides resources to girls and young women interested in aviation. They hold an annual conference in addition to meet-ups at aviation events and recently launched their Girls in Aviation Day program for girls ages 8 to 17 (This year's date is October 13, 2018).

wai.org

National Intercollegiate Flying Association



The National Intercollegiate Flying Association (NIFA) is the governing body for college aviation related competition. It holds regional and national competi-

tions between aviation universities and colleges — think of it as the NCAA of collegiate flying. The events comprise flying and ground competitions in skills like precision landings, air navigation, flight planning, pre-flight inspection, flight computer use, Crew Resource Management (CRM), simulator flying, and more. NIFA gives students in two- and four-year schools the chance to meet and compete against aviators locally and, if your team qualifies, nationally.

nifa.aero

Balloon Federation of America



The Balloon Federation of America (BFA) is an association dedicated to the advancement of the sport and science of lighter than air flight in both hot air and

gas balloons. BFA is open to anyone with an interest in lighter than air flight. They offer seminars, education, a calendar of events and much more.

bfa.net

Soaring Society of America



The Soaring Society of America (SSA) is charged with fostering and promoting all phases of soaring, nationally and internationally.

Soaring is flying

without the aid of an engine. Soaring places emphasis on aircraft control and energy management. SSA is an organization that works with the public and government to advocate for this group of airmen.

ssa.org

Light Aircraft Manufacturer Association



The Light Aircraft Manufacturer Association (LAMA) represents manufacturers who are engaged in the Light Sport Aircraft (LSA) industry to

the public, government agencies, and other entities. They also participate in voluntary consensus standards, quality assurance audits, and other technical services.

lama.bz

Creating Your Own Kaleidoscope Community

These are only a few examples of organizations that might be a fit for you; it is by no means an exhaustive list. Nor does every organization apply to every person. If you have one that doesn't appear here, let us know on Twitter @FAASafetyBrief. In the quest for the most vibrant kaleidoscope view, it's not about any single piece inside. Rather, it's the entire collection of parts and how it fits together. These operational organizations might be just the thing that can make your aviation life the most vibrant it can be. ✈️

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



PAUL CIANCIOLO

YOUR MISSION *Should You Choose to Accept It*

Explore *Civil Air Patrol's* Flight Safety Culture

What would you do if you heard something like this over the radio: “November 778 Charlie Papa, this is U.S. Coast Guard helicopter off your left wing. You have entered flight restricted airspace and need to exit immediately! If you hear this transmission, rock your wings.” Yikes! Now, suppose you are the one flying Cessna N778CP.

If this *does* happen to you, don't panic — fly the aircraft first; then communicate. (Download our in-flight intercept procedures at 1.usa.gov/1EJ3n4i if you need a refresher on what to do.)

To a Civil Air Patrol aircrew, the instructions you just heard are actually part of the typical chatter from a training mission assigned by the Air Force. Flying as “tracks of interest” allows military and law enforcement pilots to practice safe intercepts of general aviation (GA) aircraft. As an Auxiliary Airman myself, I can attest to the unique experiences that flying with CAP provides. Nothing beats the view flying low and slow over the nation's capital in the middle of the night while watching for the flashes of red and green lights of D.C.'s visual warning system or an incoming fighter jet or helicopter preparing to intercept us.

Flying as a volunteer with CAP is not for everyone, but it is one twist in our kaleidoscope community that can give pilots a new experience to improve skills and become a better pilot. Before we dive into CAP's flight safety culture, let's take a brief look at what makes the organization tick.

Wind Beneath the Wings

CAP was established in 1941 to mobilize the nation's civilian aviation resources for national defense service. The wartime efforts recently earned the 200,000 World War II members of CAP the Congressional Gold Medal, which is the country's highest expression of appreciation for distinguished achievements and contributions.

After the war, CAP became a federally chartered nonprofit with a new mission. As outlined from Title 36, United States Code (36 USC), chapter 403, the current purposes of the corporation are:

- To encourage citizens to support aviation and be an example through volunteerism;
- To provide aviation training to its members;
- To promote the development of civil aviation in local communities;
- To rally its volunteers to respond to local and national emergencies; and
- To assist the Air Force with its non-combat programs and missions.

CAP is also the U.S. Air Force Auxiliary, which is detailed in 10 USC chapter 909. As Total Force partners with the Air Force, CAP members are considered Airmen serving alongside their regular, reserve, guard, and civilian Air Force counterparts when performing assigned missions.





By the Numbers

There are plenty of opportunities for pilots to use their skills for the greater good. The majority of CAP's 560 single-engine airplane fleet are Cessna 172s and 182s. More than 250 of those are equipped with technically advanced glass cockpits, which enhance aircrew efficiency and safety. For those who prefer to fly without an engine, CAP also operates 47 gliders and two hot air balloons used mainly for orientation flights and training.

During 2017, CAP pilots provided 30,589 orientation rides to introduce CAP cadets, as well as Air Force Junior Reserve Officers' Training Corps (ROTC) and ROTC cadets, to flight. Instructor pilots also flew another 5,264 hours in powered aircraft, often at CAP national flight academies held across the country, teaching the organization's cadets how to fly. Glider instructors flew another 3,160 sorties in 2017 teaching cadets how to soar.

Aerial photography is one of CAP's core missions with most of its aircraft equipped with digital cameras capable of storing the geographic coordinates of the images. Last year, CAP was involved in 789 search and rescue missions, saved 110 lives, and flew 100,352 hours conducting search and rescue, disaster relief, air defense, counterdrug, and numerous other critical missions for our country. To put a value on the selfless service of CAP members last year — \$177 million economic impact in volunteer services nationwide.

Here is an example of one small piece of CAP's work — conducting "shadow escort" flights for the Air National Guard's 174th Attack Wing in central New York. As part of the Air Force's *Reaper* training program for pilots and sensor operators, CAP aircrews accompany the MQ-9 *Reapers* to and from military restricted airspace for training exercises to comply with the FAA's see and avoid rule. This support, which started in 2016, has helped save taxpayers more than \$1 million and has increased MQ-9 training by 25 percent.

Managing Risk

CAP's safety record is well below the national average for GA accidents — at a low average of two accidents per 100,000 flight hours. Keeping the world's largest fleet of single-engine piston aircraft ready to respond requires a deliberately shaped safety culture. One of the key components of this is the required process of risk management that involves the pilot and a designated flight release officer (FRO).

"Before a flight, the pilot must complete an operational risk management (ORM) worksheet and have a telephone conversation with an FRO that covers the risk level — low, moderate, or high — from the ORM worksheet numerical score," explains Heather Metzler, a volunteer CAP pilot and FAA Safety Team Program Manager at the Little Rock Flight Standards District Office (FSDO). "The FRO then tracks the flight. And when the flight is complete, the pilot contacts the FRO to report safely landing at destination."

The ORM worksheet is a flight risk assessment tool (FRAT), which is a safety enhancement topic of interest outlined by the General Aviation Joint Steering Committee (GAJSC). CAP's worksheet assigns points based on risks in five areas:

- **Human** — experience, training, currency, health, and crew rest.
- **Machine** — maintenance, performance, and radio communications.
- **Mission** — operations tempo and search complexity.
- **Environment** — weather, terrain, VFR/IFR, and airfield familiarity.
- **Additional Factors** — forced landing simulations or engine cuts during checkride, overwater distance, and overwater temperature.

"The ORM worksheet allows for a repeatable and comprehensive review of hazards and risks prior to each flight," notes Jeffrey Smith, a volunteer CAP pilot and part of the FAA's Flight Standards Service Compliance Philosophy Focus Team.

You may think that this is a lot of paperwork, but it is a process designed to let you truly assess your risk, take whatever steps are necessary to either fly, correct the unsafe conditions within your control, or cancel the flight. It is just part of the CAP culture.

"It actually feels weird to me now when I fly personally outside of CAP and I don't have all of these processes," Metzler illuminates. "I now use my own process when I fly separate from CAP for local flights not ideal for a VFR or IFR flight plan. I am thankful to CAP to have such a great system that I can adapt for my personal flying."

"I also appreciate the focus on operational risk management and risk management training," said Lou Volchansky, a volunteer CAP instructor pilot and





the FAA's Systems and Equipment Standards Branch manager. "All members, not just aircrew, are given opportunities to develop proficiency in applying the ORM process so that risk management becomes a part of your decision-making process, whether deliberate, time-critical, or strategic."

Structuring Safety

There is always room for improvement. With a new organizational emphasis on professionalism in the pursuit of excellence, improving pilot skills and talents is a core expectation of CAP. CAP Chief of Safety George Vogt explains, "Safety is an outcome, and our emphasis is in giving our pilots an organization and structure, along with the risk management tools and training they need to ensure that they are as safe as possible. We aren't

Keeping the world's largest fleet of single-engine piston aircraft ready to respond requires a deliberately shaped safety culture.

looking at who is to blame when something goes wrong, but rather we want to take a team approach to see how we can improve."

CAP is now taking a proactive approach to risk management by identifying risks and addressing them before they result in mishaps or trends through the creation of a new ground-up safety program based on the FAA's Safety Management System (SMS). Go to bit.ly/faa-sms to learn more about SMS.

"CAP is not required to have an SMS in the same way the FAA requires certificated air carriers or facilities to have an approved SMS," Vogt explains. "However, we are adopting it as an industry standard approach to safety and will be adapting it to all of our missions and programs."

The four SMS pillars of CAP's new program, which are planned for implementation at the end of this year, are similar to the four FAA components. The pillars of CAP's SMS are:

- Roles and Responsibilities
- Safety Risk Management
- Safety Assurance
- Safety Promotion and Recognition

"We are placing great emphasis on risk management," notes Vogt. "We have even added risk management skills as a part of the character element of our cadet program to ensure our youngest members have a strong foundation in risk management skills to carry forward in their lives."

Community Partners

Not only is CAP working to improve its own flight safety culture, but the organization is now seeking to share that expertise as a proud partner of the GAJSC. CAP has a seat on the GAJSC's Safety Analysis Team working with important and highly influential organizations in the GA community.

"CAP can benefit immeasurably from our interaction with these organizations, learning more about their proven methods for scrutinizing mishaps to glean common factors and how to put initiatives in place to address those factors," said Vogt. "And those are the very methods we are instituting in CAP. My ultimate goal is for CAP to be considered — along with the other esteemed members of the GAJSC — as one of the recognized national leaders in general aviation safety."

CAP brings with it the experience of one of the largest fleets of GA aircraft in the world and extensive experience in part 91 operations in GA aircraft, which is why they are working with the FAA to be a participant in the Aviation Safety Information Analysis and Sharing (ASIAS) program. This gives the ASIAS team another important source of GA flight data. It also provides CAP an opportunity to see how its flight data might compare to GA norms and how and where to focus on areas for improvement.

"This effort is the ultimate in proactive, data-driven risk identification, and we're looking forward to being a part of it," he expounds.

Mission Accomplished

Volunteering with Civil Air Patrol is an opportunity for pilots to be a part of the Air Force team and fly for the greater good. It will hone flying skills and provide pilots with the opportunity for proficiency training, mission training, technical expertise, and peer support.

"I love flying with the CAP because it allows me to support my community in many ways, but it also makes me a safer pilot!" said Smith. "I am able to fly with other pilots that I can learn from, which increases my knowledge and improves my skills."

If you want to create a new and unique pattern to your flight experiences, then visit GoCivilAirPatrol.com to learn more about the CAP community. 

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

A Sharper Focus on Safety *Using the Aviators Model Code of Conduct*

Be safe! Be good! Be careful! Have fun! We cheerfully chirp such well-meaning phrases to one another multiple times a day, reducing them to clichés and robbing them of any practical meaning. It's nice to “be” or to “have,” but the key is to *do* by taking whatever actions are required to achieve the desired state. However, as with many human endeavors, the challenge lies in knowing *what* should be done.

Fortunately, the aviation community — and your personal aviation “kaleidoscope community” — can all benefit from the Aviators Model Code of Conduct (AMCC). The AMCC is actually an entire family of documents intended to help pilots and aviation maintenance technicians (AMTs) master the ever-expanding body of knowledge and technique required to be safe, good, and careful while also having fun in aviation activities. The AMCC documents:

- Promote flight and ground safety, professionalism, and pilot contributions to the aviation community and society at large,
- Encourage the development and adoption of good judgment, ethical behavior, and personal responsibility, and
- Support improved communications between pilots, regulators, and others in the aviation industry.

As described by its creators, the AMCC is based on ethics, because:

Ethics complements all the regulations, instructional material, and experience we gain in aviation. It helps us to think more effectively about how to fly. ... Ethical behavior, constructive attitudes, and a positive culture add to safety for individual pilots and foster a healthy aviation community.

AMCC Construction

Each document in the AMCC family — which now includes a Code for remote (drone) pilots — defines goals to help airmen improve performance and achieve potential. The Codes seek to provide practical guidance for implementing the range of operational, practical, ethical, policy, and legal considerations. They include techniques and procedures that will help GA pilots become better aviators; actions to enhance flight safety; pilots' ethical responsibilities; training, airmanship, and pilot con-

duct; and effective decision-making. Of special interest in this community-focused issue of *FAA Safety Briefing*, the AMCC documents also address pilots' roles within the larger GA community and society at large; the need for self-regulation by the GA community; and ways to promote GA and make flying a more rewarding experience for everyone.

The basic Aviators Model Code of Conduct presents its vision of aviation excellence in seven specific areas: (1) General Responsibilities of Aviators; (2) Passengers and People on the Surface; (3) Training and Proficiency; (4) Security; (5) Environmental Issues; (6) Use of Technology; and (7) Advancement and Promotion of Aviation.

For each of the seven areas, the AMCC offers recommended practices resulting from:

- Analysis of widespread GA practices and applicable laws and regulations
- Evaluations of diverse aviation codes of conduct and ethics
- Considerations of ethical issues affecting GA and other flight activities
- Examinations of airport rules and regulations
- Reviews of foreign and international laws and practices
- Considerations of various risk-mitigation principles

The AMCC family has been developed via extensive deliberations by aviation experts, aviation groups, and the broader aviation community. While each AMCC is designed for easy “as is” use, the AMCC creators invite use of this approach as a foundation for individual airmen, associations, schools, clubs, and other aviation entities to create documents tailored to specific needs. So check it out (secureav.com), and bring the appropriate AMCC document(s) into your personal aviation community.

Susan Parson (susan.parson@faa.gov, or @aviatrix for Twitter fans) is editor of FAA Safety Briefing. She is an active general aviation pilot and flight instructor.

Learn More

Aviators Model Code of Conduct
www.secureav.com

Welcome, New Neighbors!

Editor's Note: In keeping with our kaleidoscope theme, we thought it fitting to welcome our remote pilot friends to the multi-faceted aviation neighborhood with the debut of our new "Drone Debrief" department. We hope you'll find this column helpful to better understand the growing role of drones in the aviation community.

Sharing the fun and excitement of aviation is one of the best parts of being an aviator. As the number of remote pilots increases, we all have an exciting opportunity to welcome these new participants in the aviation community.

It's an important group: some estimate that full integration of drones could create a national economic benefit of \$82 billion and 100,000 jobs within the decade. Since many remote pilots in this fast-growing segment are new to aviation, though, it is vital to provide access to training and other safety resources in order to ensure the safety of the National Airspace System, or NAS.

The FAA's UAS Integration Office focuses on outreach to UAS operators and fosters partnerships with external organizations to share information about safe operations. These partnerships are a platform for collaboration and a means to inform the public about the FAA's efforts on safety and integration.

The Unmanned Aircraft Systems Safety Team (UAST) is one such partnership. A collaboration between industry and the FAA, the UAST seeks to make non-regulatory safety enhancements for UAS operations. Its fifty members, which include leading industry members, aviation associations such as the Aircraft Owners and Pilots Association (AOPA) and the Aerospace Industries Association (AIA), meet regularly to discuss safety topics. Much like the General Aviation Joint Steering Committee (GAJSC), the UAST works toward developing safety enhancements, examining existing data sources on UAS operations, collecting data through surveys, developing communication strategies, and analyzing any UAS-related safety incidents. (For more information, see the UAST website at www.unmannedaircraftsafetyteam.org.)

Another partnership, the Drone Advisory Committee (DAC), is a broad-based, long-term federal advisory committee. The DAC advises the FAA on key UAS integration issues by helping to identify challenges and prioritize improvements. Membership includes CEO/COO-level executives from a

cross-section of stakeholders representing the wide variety of UAS interests.

Several UAS safety advocacy associations help to bridge the gap between the regulator and the regulated community. Each of the major associations that represent a "traditional" aviation sector now has a policy statement addressing the operation of UAS in the NAS, with a primary focus on safe operations. Several associations have weighed in on UAS/FAA activities by commenting on rulemakings, writing articles, meeting with other stakeholders, and participating in Aviation Rulemaking Committees. (Note: An Aviation Rulemaking Committee (ARC) brings industry experts together to provide recommendations to the FAA on developing rules and regulatory support material. ARCs are generally formed for a short duration to address a specific topic. Recent UAS ARCs include the Micro UAS ARC, the UAS Identification and Tracking ARC, and the UAS in Controlled Airspace ARC. An ARC typically produces a recommendation report which is made available for the public on the FAA's website here: www.faa.gov/regulations_policies/rulemaking/recently_published.)

Safety is the common theme for everyone. Long-standing UAS organizations such as the Academy of Model Aeronautics (AMA) and the Association of Unmanned Vehicle Systems International (AUVSI) are taking a prominent role, joining forces with manned aviation sector groups such as AOPA, the Professional Helicopter Pilots Association (PHPA), and the Air Line Pilots Association (ALPA).

New aviation safety associations (e.g., the Association of Commercial Unmanned Aircraft Systems (ACUAS)) that focus primarily on UAS pilots are forming as well. Also exciting is the fact that several non-aviation associations such as the Consumer Technology Association (CTA) and the National Association of Tower Erectors (NATE) are now working with the FAA and others in the community to learn and share information about the safe use of the NAS. We are all part of the aviation community and, like denizens of physical brick-and-mortar neighborhoods, we all benefit from making new friends and cooperating to keep our aerial neighborhood safe for everyone. Welcome, neighbors!

Stephanie Spear is a Management and Program Analyst in the UAS Integration Office.

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FAA Clamps Down on V-Band Failures

To educate the maintenance community about powerplant and component failures — the third ranking cause of fatal general aviation accidents — *FAA Safety Briefing* is addressing maintenance safety enhancements recommended by the General Aviation Joint Steering Committee (GAJSC). This issue’s topic will focus on V-band coupling/clamp failures.

V-band engine exhaust coupling/clamp failures have been identified as a causal factor in a significant number of incidents and fatal accidents

V-Band couplings and clamps are widely used on reciprocating turbocharged engines as a means of coupling and retaining the exhaust tailpipe to the turbocharger exhaust outlet.

in both fixed-wing aircraft and rotorcraft. Despite best efforts by the FAA, the National Transportation Safety Board, and industry

to raise awareness of this safety concern, V-band coupling/clamp failures, and the resulting accidents and incidents that occur, continue to be a repetitive problem in turbocharged, reciprocating engine-powered aircraft. Here’s why.

V-Band couplings and clamps are routinely exposed to extremely high exhaust temperatures and heat cycles, which can lead to cracks and failures in the V-band coupling/clamps. Consequently, hot exhaust gases can escape from the exhaust system, leading to smoke in the cockpit, in-flight fires, and fatal accidents.

A V-band coupling/clamp failure resulted in the tragic loss of all aboard a Beech A36TC in Tupelo, Mississippi in 2016. Shortly after takeoff, the pilot advised the control tower that there was smoke in the cockpit. A witness reported seeing something fall from the aircraft as it took off, with smoke and flames coming from the bottom just before it crashed. Accident investigators found that the exhaust tailpipe was separated at the exhaust flange of the turbocharger due to a fractured and separated, spot-welded V-band coupling, consistent with the existence of a preexisting crack.

Due to the continued occurrence of accidents and incidents resulting from V-band coupling/clamp failures, a V-band Working Group was created, comprised of aviation industry manufacturers, type/user groups, and government entities, to examine the turbocharger to tailpipe interface and develop safety recommendations.

“This diverse working group was able to take an objective look at the available safety data and develop a set of recommendations tailored to specific V-band types,” says Bob Busto, Manager of the FAA’s Central Manufacturing Inspection Office and Team Lead on the V-band Working Group. “Each team member brought specific strengths to the table and the result is a great example of the safety enhancements that can be achieved when industry, the NTSB, and the FAA work collaboratively to address GA safety issues.”

Recommended Actions*

*If there exists an airworthiness directive against the product which establishes a life-limit and/or repetitive inspection interval, that mandate takes precedence over the information herein, unless approved by an Alternative Method of Compliance (AMOC) to the specific Airworthiness Directive (AD). Also check the airworthiness limitations.

REQUIREMENT	SPOT-WELD V-BAND COUPLING	RIVETTED V-BAND COUPLING	SINGLE-PIECE CLAMP
Visual Inspection	Annually	Annually	Annually
Life-Limit	500 hours total time in-service with no life extensions	2000 hours total time in-service with no life extensions	2000 hours total time in-service with no life extensions

Refer to the BPG for photographs, diagrams, and definitions of the above types of couplings/clamps that may be found on your aircraft. Always refer to the design approval holder’s Type Certificate (TC), Supplemental Type Certificate (STC) or Parts Manufacturer Approval (PMA) Instructions for Continued Airworthiness (ICA) for specific installation and torque requirements for the V-band couplings/clamps.

The working group's recommendations are highlighted in Special Airworthiness Information Bulletin (SAIB) CE-18-07 and the Best Practices Guide for Maintaining Exhaust System Turbocharger to Tailpipe V-band Couplings/Clamps. The recommendations include the actions summarized in the preceding table, and discuss inspection requirements and replacement time, or life-limits, for V-band coupling/clamps which can be applied across product lines to multiple make/models and type of aircraft (including small rotorcraft).

Although the working group has officially concluded, their important recommendations are being evaluated by the FAA for further action.

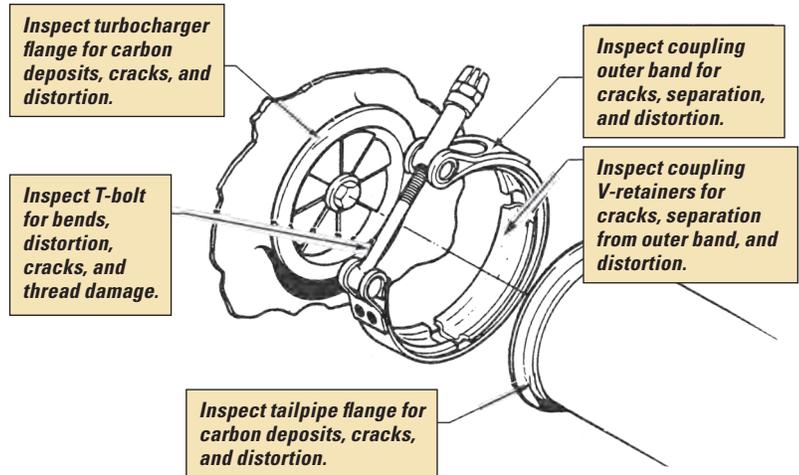
Check out the newly released *Best Practices Guide for Maintaining Exhaust System Turbocharger to Tailpipe V-band Couplings/Clamps (BPG)* at bit.ly/2KWynrO. It's a helpful guide to V-band coupling removal, installation, inspection, and continued care of turbocharged reciprocating engine powered aircraft products. This guide contains the lessons learned and best practices accumulated over years of in-service experience.

We highly recommend that you make this guide an important part of your V-band maintenance practices!

Jennifer Caron is an assistant editor for FAA Safety Briefing. She is a certified technical writer-editor, and is currently pursuing a Sport Pilot Certificate.

Learn More

View the FAA's Special Airworthiness Information Bulletin (SAIB) CE-18-07
bit.ly/2zLJv5W



Typical Turbocharger to Tailpipe Interface Area



Spot-welded, 3-segment Coupling — The red arrow shows where the coupling is deformed at a spot-weld where the crack originated. The crack had not yet grown across the outer band and the coupling had not separated. Found on inspection for another issue.

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Angle of Attack

TOM HOFFMANN

What's Your Type?

The Role of Type Clubs in Enhancing Aviation Safety

If you have a hobby or favorite activity, no matter how common or unconventional, there is probably a club somewhere out there that caters to that interest. Auto clubs, TV show fan clubs, and book clubs; these are just a few among the myriad organizations that appeal to nearly anything you can imagine. But how about a club that can help save you time, money, and possibly even your life one day? Sound good? If you're an airman, it most definitely would.

Of course we're referring to aircraft "type clubs," which, for decades, have helped aircraft owners and pilots become more in tune with the performance and safety of their flying machines. In fact, anecdotal data, as well as accident data collected by some specific type clubs, suggest that members of an aircraft type club are less likely to have an accident than their non-member colleagues. Let's have a closer look.

Getting "Type" Casted

Aircraft type clubs are organizations formed to support airmen who share a common interest in a specific make, model, or manufacturer of aircraft. Although type clubs vary in how they operate and the services they provide, they generally function as a safety and informational support network to keep members abreast of best practices, as well as any changes or news regarding their aircraft. This is particularly important for a pilot transitioning to a new aircraft type, or one who owns an aircraft no longer supported by the manufacturer.

Enhancing safety among type club members is accomplished in a number of ways. It is facilitated chiefly through the availability of technical and

safety-related information, and supplemented by the first-hand knowledge and expertise of its members. How this information gets disseminated can vary among different type clubs, but websites, publications, and seminars are the more common vehicles.

In addition to making available a ream of online statistics and data about their aircraft, many type club websites also use blogs and chat rooms, allowing users to ask questions, post comments, and exchange ideas about anything ranging from which engine oil is the best to use, to where the best airport diners are.

"It may seem trivial, but simply providing a forum for networking and discussion about safety issues and the discussion of approaches and techniques is actually profound," says Coyle Schwab, president emeritus of the International Cessna 195 Club and current chairman of the Experimental Aircraft Association's Type Club Coalition (TCC), a consortium of nearly 50 agencies and type clubs formed in 2015. Schwab states that these information-sharing opportunities among like-minded aviators "are a type club's greatest asset" and a feature the TCC continues to leverage to improve knowledge transfer among the coalition.



The access to open communication lines has also been the catalyst for some aircraft type club members, particularly those of more recent design, to play a part in discovering and developing safe practices for undocumented issues, sometimes before the manufacturer gets wind of a problem. A good example that surfaced on one type club's online forum addressed what to do when a door inadvertently opens in-flight. Input from various members who had firsthand experience helped determine that more problems came from pilots trying to close the door than from just landing without being distracted by it. Such examples reinforce the safety role of type clubs and demonstrate why so many manufacturers maintain close symbiotic relationships with associated type clubs.

Type clubs also provide outreach via newsletters and magazines, as well as organizing safety seminars and pilot proficiency programs for their



In addition to providing and sharing tailored best practices, type clubs also help members to connect with qualified flight instructors specific to their type.

members. These live programs usually feature speakers well-versed in safety matters germane to their type-specific audiences, and can sometimes be supplemented with additional, one-on-one flight training sessions.

Another excellent safety promotion tool some type clubs offer are service clinics, where maintenance professionals will visually check a club member's aircraft for areas or items that are historically problematic. So whether you're more technically inclined, or prefer a more traditional hands-on approach to keeping up to speed on your airplane, you're bound to find a type club learning solution that suits your needs.

My Type of Club

Directories available online (see links in Learn More) list hundreds of type clubs and flying associations, covering every group of aviators from Cessna, Piper, and Mooney pilots, to those more taken with amateur-built, light-sport, or vintage designs. Then there are niche organizations based on pilot demographics, occupation, or locality and which have targeted audiences ranging from musicians and chiropractors to octogenarians and wheelchair aviators. While these groups don't necessarily focus on the safety aspects of a particular aircraft, they are still extremely useful in keeping members up to date with more generic safety matters, or issues that are relevant to their profession, area of interest, or specific environment.

For example, maybe you're new to the Colorado area and want to expand your knowledge of high-altitude flying. What better way than to chat with experienced mountain flyers in your area?

And in case there isn't a club in your particular area, start one! All it takes is a few folks with a common interest to get it going.

Spreading the Good Word: Safety

In keeping with its strategic plan to reduce GA accidents, the FAA is looking to leverage the tremendous influence type clubs have on aviation safety. One example of this can be found in Advisory Circular AC 90-109A in which the FAA recommends using type clubs to help build familiarity when transitioning to a new experimental or unfamiliar aircraft.

"We recognize the significant safety value type clubs have for the aviation community," says FAA's General Aviation Operations branch manager Mark Giron, who is also a proud member of the American Bonanza Society. "In addition to providing and



Photo Courtesy of Lancair

The FAA's work with type clubs, in particular the Lancair Owners and Builders Organization, has led to the realization of the Additional Pilot Program for flight testing experimental aircraft.

sharing tailored best practices, type clubs also help members to connect with qualified flight instructors specific to their type, a task that can often be very challenging." Giron adds that the FAA's work with type clubs, in particular the Lancair Owners and Builders Organization, has also led to realization of the Additional Pilot Program for flight testing experimental aircraft. (See AC 90-116 for more).

Members of the FAA were scheduled to meet with the TCC at AirVenture 2018 to discuss a new TCC Transition Training Guide developed by the TCC's best practices workgroup. The goal of the guide is to provide example documents that serve as a starting point to communicate specific solutions to issues that a particular type club may wish to address. "We hope that this will become the baseline upon which type clubs can build custom, detailed training curricula that address their concerns," says Schwab.

There's a lot to gain from being a member of an aircraft type club: shared information, tried and true tips, trend data, locality-specific issues, not to mention a club's ability to provide important social and professional networking outlets for like-minded aviation enthusiasts. You may also consider joining a type club to offer up some of your own talents and expertise. So don't delay — join one today!

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

For More Information

List of Associations and Type Clubs on AOPA website
<https://hangar.aopa.org/groups/categories/5>

EAA's Type Club Corner
<http://eaavintage.org/about-us/type-clubs>

Type Club Coalition website
<http://bit.ly/TypeClub>



On June 27, 2018, the FAA published a final rule with provisions that will reduce or relieve existing regulatory burdens and costs on the general aviation (GA) community including pilots, flight schools, and part 135 operators. Many of these rule changes resulted from GA community recommendations including petitions for rulemaking, industry/agency meetings, and requests for legal interpretation. Here are brief descriptions for each of the 13 provisions; please note the scheduled effective dates for each. To view the complete final rule, go to: www.gpo.gov/fdsys/pkg/FR-2018-06-27/pdf/2018-12800.pdf.

Provision 1 – Instructor Requirement Change: Remove the requirement to have an instructor present to certify experience requirements for instrument recency in a Full Flight Simulator (FFS), Flight Training Device (FTD), or FAA-approved Aviation Training Device (ATD).

Regulation: 61.51(g)
Effective: 07/27/18

Provision 2 – Instrument Currency in ATDs: Reduce frequency of instrument recency flight experience accomplished exclusively in ATDs from every two months to every six months.

Regulation: 61.57(c)
Effective: 11/26/2018

Provision 3 – Logging Part 135 SIC Time: Allow a pilot to log Second-in-Command (SIC) flight time in a multiengine or turbine driven single engine airplane in a part 135 operation that does not normally require a SIC. This time can be credited for the ATP certificate experience requirements.

Regulation(s): 61.1; 61.39(a); 61.51(e), (f); 61.159; 61.161(c), (d), (e); and 135.99(c), (d)
Effective: 11/26/2018

Provision 4 – Instrument Currency in Part 135: Amendment provides the detailed instrument experience (currency) requirements and tasks within the part 135 regulations that previously referenced part 61.
Regulation(s): 61.57 (c)(1), (2); 135.245 (a), (c)
Effective: 07/27/2018

Provision 5 – TAA and Commercial Training: Allow a Technically Advanced Airplane (TAA) to be used to meet some or all of the required 10 hours of training that can be completed in a complex or turbine-powered airplane for the single engine commercial pilot certificate.

Regulation(s): 61.1; 61.129(a)(3), (ii), (j); Part 141 Appendix D; 61.31(e), (f)
Effective: 08/26/2018

Provision 6 – Instrument Instructors: Remove requirement for a flight instructor with instrument-airplane or instrument-helicopter (only) rating, to have category and class ratings on their flight instructor certificate, to facilitate training specific to the instrument rating in an airplane or helicopter.

Regulation: 61.195(b), (c)
Effective: 07/27/2018



John Steuernagle Photo



Provision 7 – Sport Pilot Instructor Training Privilege:

Allow a flight instructor with a sport pilot rating (Subpart K) to provide training on control and maneuvering solely by reference to the flight instruments (for sport pilot students only).

Regulation(s): 61.412; 61.415(h); 91.109(c)

Effective: 08/27/2018

Provision 8 – Sport Pilot Training Credit: Allow sport pilots to credit training received as a student pilot for certain aeronautical experience requirements for a recreational or private pilot certificate.

Regulation(s): 61.99; 61.109(l)

Effective: 07/27/2018

Provision 9 – Part 141 Pilot School Special Curricula Graduates: Allow part 141 pilot schools to count FAA-approved “special curricula” course completions towards pilot school certificate renewal requirements.

Regulation: 141.5(d)

Effective: 11/26/2018

Provision 10 – Airline Airman Validation Documents:

Allow a confirmation document issued by a part 119 certificate holder, or by a Part 91 Subpart K manager, to serve as a temporary verification of the airman and/or medical certificate during operations within the U.S. for up to 72 hours.

Regulation(s): 61.3; 63.3; 63.16; 91.1015(h); 121.383; 135.95

Effective: 12/24/2018

Provision 11 – Military Instructor Equivalency Credit:

Allow the addition of a flight instructor rating based on military equivalency experience to “simultaneously qualify” an airman for reinstatement of their expired FAA flight instructor certificate.

Regulation(s): 61.197; 61.199

Effective: 08/27/2018

Provision 12 – Restricted Category A/C Type Training:

Allow an operator to request and obtain a letter of deviation authority to conduct training and testing, and other directly related activities, for employees to obtain a “type” rating in restricted category aircraft.

Regulation: 91.313

Effective: 12/24/2018

Provision 13 – Large Military Aircraft: Allow pilots to operate certain large and turbojet-powered airplanes (specifically former military and some airplanes not type-certificated in the standard category) without a pilot who is designated as SIC. This is specific to large military aircraft “designed” with a single pilot seat or station.

Regulation: 91.531

Effective: 07/27/2018 

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Safety Management Enhancements

After three years of declines, the number of U.S. helicopter accidents increased in 2017 over the previous year. If current trends continue, it may increase again this year. No single reason stands out for this uptick in helicopter accidents.

The accident numbers reinforce the need for the helicopter community to figure out how to better promote safe practices. To that end, the 2018 FAA International Rotorcraft Safety Conference will take place October 23-25, 2018 to help tackle this complex issue. Anyone is welcome to participate in the Fort Worth-area conference by registering at www.faahelisafety.org.

Experts and advocates from major manufacturers, small operators, associations, and groups will discuss a range of topics from occupant protection research to making better flight decisions.

The U.S. Helicopter Safety Team (USHST) will also give a presentation regarding its work. This government-industry helicopter safety team has been spending the better part of a year promoting its 22 helicopter safety enhancements (H-SEs) developed to reduce accidents, particularly fatal accidents. See www.usbst.org for more details.

This column focuses on the six safety management enhancements. They are:

Helicopter Final Walk Around/Security of External Cargo: Industry and the FAA will develop guidelines and recommended practices for helicopter preflight inspections, final walk arounds, and post-flight inspections. They will promote the guidelines and recommended practices to the training and general pilot community. Inadequate aircraft inspections have contributed to fatal accidents. Target completion date: May 1, 2020.

Pre-Flight Risk Assessment for Student Flights: Industry and the FAA will provide recommended practices to instructors for assessing preflight student-flight risks. This H-SE will identify inherent risks and

how to reduce them before and during training flights. It will also identify gaps between recommended practices and what the helicopter safety team sees in its fatal accident analysis. An Advisory Circular may be a potential tool. Target completion date: July 1, 2020.

Helicopter Flight Data Monitoring: Industry and the FAA will promote the installation and use of data recording devices, such as helicopter flight data monitoring and camera recording equipment. The technology could be used to detect and monitor if aircraft and engine limitations were exceeded; collect and preserve data relevant to accident investigations; and detect and correct procedural noncompliance. Target completion date: February 1, 2022.

Full Authority Idle Protection Devices: Industry and the FAA will encourage the development and installation of full authority idle protection devices to prevent unintended loss of engine power. This is an issue with piston engines often caused by rapid throttle reductions. According to a USHST statement, "This would increase safety by reducing the risk of engine stoppage during flight training maneuvers, particularly simulated engine failure in a piston helicopter. The type of device being suggested would be capable of ensuring the engine remains running at a nominal RPM despite a pilot making a rapid throttle reduction." Target completion date: May 1, 2019.

Hazards of Over-the-Counter Medication: Industry and the FAA will emphasize the hazards of pilots flying impaired after consuming sedating over-the-counter medications, particularly antihistamines. Efforts will include renewed education and awareness initiatives and possibly simulator training. Target completion date: December 1, 2020.

UAS in High-Risk Environments: Industry and the FAA will encourage using unmanned aircraft systems (UAS) or drones to supplement or support piloted high-risk flights, such as low-altitude flights or flights near wires. "This technology should not be stressed as a replacement for a human pilot, but to assist and lighten the workload for the pilot during missions assessed in higher risk realms," the USHST states. This enhancement involves identifying high-risk flights or tasks, promoting UAS use through social media and regular media, and face-to-face discussions. Target completion date: June 1, 2021.

	2013	2014	2015	2016	2017
Accident Rate	4.95	4.26	3.67	3.45	3.74
Fatal Accident Rate	1.02	0.65	0.52	0.54	0.62
Fatality Rate	2.1	1.14	0.85	0.93	1.05

All rates per 100,000 flight hours

Gene Trainor is a technical writer/editor for the FAA Rotorcraft Standards Branch.



Flight Forum

Simulators for Proficiency

I am currently working on my certified flight instructor – instrument, and I find this article [The A to Z of ATDs in the Nov/Dec 2017 issue] extremely helpful. Thank you for all the information on aviation training devices (ATDs) and how ATDs were flight training devices (FTDs). I do have a question on ATDs used for the instrument proficiency check (IPC). Per 14 CFR part 61.57(d)(1)(ii), the regulation mentions full flight simulators (FFS) and FTDs but not using ATDs for the IPC requirement.

I wonder if the Airmen Certification Standards (ACS) and or advisory circulars (AC) precede regulation in this case? Thank you very much.

— Dah-Jin Ma

Hi Dah-Jin Ma, thank you for your email. The regulations always take precedence over any guidance documents, such as an AC or ACS document. However, the rule is silent on the use of an ATD for the IPC. The FAA Letter of Authorization (LOA) provided for Advanced Aviation Training Devices (AATD) references 61.4(c) that states, The Administrator may approve a device other than a flight simulator or flight training device for specific purposes.

This permits the FAA to approve the use of AATDs for the IPC, and identifies that allowance in the LOA for AATDs. Basic Aviation Training Devices cannot be used for the IPC.

Additionally, the Instrument ACS identifies the FFS, FTD, and AATD allowances for the IPC tasks required. When using AATD simulation exclusively, the FAA still requires some of the IPC tasks to be accomplished in the aircraft (see Appendix 8 and the task table in the Instrument ACS, FAA-S-ACS-8B).

Linking Up to Changes in the ACS

I just read that changes have been made to the Airman Certification Standards [(ACS)] this month. I just bought paper books for the Private, Instrument, and Commercial ACS last month! I couldn't find a link to a list of the changes that I could print and keep with my ACS books (or pencil in the changes). As an active CFI, I try to keep my library current, but I have limited funds to keep buying the same ones when they change. Is there a link to the change list?

— Steve

Hi Steve, thanks for your question. To see a list of the changes, I would reference the Major

Enhancements page at the beginning of each ACS document (right before the table of contents). You can find the main ACS page at www.faa.gov/training_testing/testing/acs.

Back to the Future

I liked your magazine back when it was “General Aviation News”— Taught me about safety.

I was at Easton Maryland and the deluxe airport they have there. There was a stack of your May/June issue (PEGASAS) on the counter. I took one home and loved reading nearly every article. I hark back to the 1960's-70's when you called your publication “General Aviation News.” Thanks for all the lessons your magazine has taught. I recall being amazed that one could even have a magazine devoted to “safety.” Hey, accidents do not have to happen. What a revelation to a teenager flying with his dad in our '66 Cessna Skylane. I have enjoyed a career in the risk control/accident investigation field, both in aviation and general industry, in some part, based on what you showed me. Safety is the way to do it.

— John

Hi John, thank you for your kind words. The magazine has enjoyed a long history as the FAA safety policy voice for general aviation. We work very hard to help educate airmen about safety, training, and regulatory issues to reduce the rate of GA accidents. It is always nice to hear that in some way, our publication helped to support your efforts to promote safety in our aviation community. Thank you for being a long-term devoted reader, and we wish you continued success.

Let us hear from you! Send your comments, suggestions, and questions to SafetyBriefing@faa.gov or use a smartphone QR reader to go “VFR-direct” to our mailbox. You can also reach us on Twitter @FAASafetyBrief or on Facebook [facebook.com/FAA](https://www.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.



Our Role

FAA Safety Briefing *in Your Community*

As we close this aviation community-themed issue of *FAA Safety Briefing* magazine, it seems appropriate to sharpen the focus on what this publication can contribute to your personally-curated “kaleidoscope” coterie of organizations and resources.

Safety Policy Voice

The FAA necessarily devotes significant resources to the commercial sector — airline, corporate and, increasingly, commercial drone operations — because that segment of the aviation world affects the greatest number of people. As the masthead indicates, though, our fundamental mission is to serve as the safety policy voice for non-commercial GA. We are all passionately committed to this mission, and to the non-commercial GA community that we seek to serve. As you may already know, the members of the magazine team are all “citizens” of the non-commercial GA community. We take pride in our unique role, and in the trust and credibility we have worked to earn with fellow denizens of the personal aviation community.

Consistent with our stated mission, our role is to provide solid, authoritative information on safety and regulatory topics that affect personal aviation from both operations (flying) and airworthiness (maintenance) perspectives. Through an editorial approach built around specific themes for each issue, we seek to present current information in a broader and deeper context that enables their “shelf-stability” and utility as longer-term references. Examples of policy-related focus issues include those devoted to aeromedical issues, most recently the July/August 2017 magazine on BasicMed. Another that readily comes to mind is our January/February 2016 issue, which provided detailed information on the FAA’s Compliance Philosophy. Still another — and a topic we’ll cover even more extensively in 2019 — is ADS-B, which we last addressed in the March/April 2017 “Ins and Outs of ADS-B” issue.

FAA Resources

A second aim is to put a spotlight on GA-relevant FAA resources. The FAA is a big agency, and its website is also extensive. We seek to help our readers know what is available, where to find it on the FAA website and, again in keeping with the goal of serving as the safety policy voice for non-commercial GA,

how these resources apply to the kind of aviation activities common to this community. Given the rapid expansion of drones, our “You and UAS” focus for May/June 2017 offered pointers for operating these new entrant aircraft and for helping to integrate remote pilots into the aviation community. This issue also highlighted some of the extensive resources this agency has developed to help drone pilots.

Another example of this function is the information we regularly provide on the ongoing transition from the Practical Test Standards (PTS) to the integrated Airman Certification Standards (ACS) format. In the July/August 2017 issue, for example, we combined an update of our periodic student pilot guides with detailed information on the ACS. In the same vein, we have created several issues intended to help connect flight instructors to relevant FAA resources; the most recent of these is the September/October 2017 “Flight Instructor Refresher.”

Proficiency and Continued Training

Some of my favorite issues arise from our goal of encouraging our fellow airmen to raise the bar on safety and proficiency through continued study and training. We’ve published lots of content in this area, but the most recent examples include virtually all of our 2018 issues: “Back to Basics” in January/February 2018, the second edition of our GA Flying Companions Guide in March/April 2018 and, of course, the Casablanca-themed “Round Up the Usual Suspects” review in July/August 2018.

Because Style Matters ...

To paraphrase an announcement you often hear on airline flights, we know you have lots of choices. So we aim to frame the content for our specific mission in interesting, engaging, and (we hope) creative ways.

We, in turn, have provided lots of choices for you to get this information. Paper subscriptions are available, but we now offer *FAA Safety Briefing* in three (free) electronic formats, and we are active in the social media community. We are happy to be part of the non-commercial GA safety community, and we hope you will continue to make us a part of yours.

Susan Parson (susan.parson@faa.gov, or @aviBrix for Twitter fans) is editor of FAA Safety Briefing. She is an active general aviation pilot and flight instructor.

FAA Faces

Valerie Palazzolo

National FAASTeam Manager, Safety Promotion Program Office

With more than 40 years of flying experience, Valerie Palazzolo has seen many elements of the



kaleidoscope community we call aviation. After flying single engine aircraft, her first turn to up her game was earning various certificates and ratings, including instrument, com-

mmercial, multi-engine, flight instructor, and airline transport pilot. The next twist was to build hours as a certificated flight instructor, which led her to the corporate world flying the Cessna 402 and 404.

Val's next move took her into the realm of the air carriers. She served as a first officer and eventually the first woman captain for American Eagle flying the ATR-42 and ATR-72 twin turboprops.

During the 1980s, Val also saw the FAA safety program in action through safety seminars while volunteering with The Ninety-Nines, the International Organization of Women Pilots.

After many years of airline flying, the FAA hired Val in 1991 as an air carrier operations aviation safety inspector (ASI). As an ASI, she assisted many part 121 airlines in multiple areas of operations, including flight checks in the Dornier 328, McDonnell Douglas DC-9 and MD-88, and Boeing 747 aircraft. Currently, Val is the manager of the FAA's Safety Promotion Program Office (SPPO), which is a combination of the FAA Safety Team (FAASTeam) and the *FAA Safety Briefing* magazine staff.

The FAASTeam exists to help the FAA and the aviation community focus resources on combined efforts to reduce general aviation accidents. The FAASTeam uses data to decide how to pursue this goal. That data comes from accident/incident reports, hazards identified by ASIs at local Flight Standards District Offices (FSDOs), and information from the local aviation community to formulate a plan to mitigate future accidents. The FAASTeam also manages the website FAASafety.gov, an online community that includes more than 800,000 users and serves as a vital tool for safety training.

As the SPPO manager, Val oversees the program's Safety Liaison Team. This team oversees and assists more than 100 FAASTeam Program Managers (FPMs) assigned to field offices across the country. The FPMs expand their outreach through more than 2,500 volunteers who serve as FAASTeam Representatives and Lead Representatives. These volunteers are highly accomplished and respected members of their local aviation communities. Guided by the FPMs, they use their kaleidoscope collection of talents to provide approximately 4,800 safety seminars and 100 webinars a year on specific safety topics.

"Our volunteer reps have all kinds of aviation knowledge that they want to pass along to our community at large," explains Val. "Every pilot and mechanic should be part of some kind of aviation group so they can learn safety from each other and have mentors in the aviation field for support and guidance."

Another major FAASTeam initiative is the WINGS Pilot Proficiency Program. Studies have shown that WINGS pilots are much less likely to be involved in accidents. WINGS provides an effective and comprehensive method of flight review compliance and an opportunity to promote safety risk-management culture to make our GA community safer.

Bringing all these pieces into focus can be a challenging task. That's why you will often hear Val say "We need to find a way to make it happen." This saying is the moral of the 1899 essay, *A Message to Garcia*. There is value in individual initiative and conscientiousness of the safety work we all do.

Val still flies with The Nighty Nines to attend meetings, so you may see her around the skies of Ohio. If you do see her around working at safety seminars, airshows, career days at high schools and colleges, or presenting the FAA's Wright Brothers Master Pilot or Charles Taylor Master Mechanic Awards, let her know that you "got your message to Garcia" — that is, you are taking a proactive approach to becoming a safer pilot or mechanic through being part of the community.

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





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Look Who's Reading FAA Safety Briefing



"Keeping the world's largest fleet of single-engine piston aircraft ready to respond requires coordination, preparation, and information. That's why I read FAA Safety Briefing."

Maj. Gen. Mark E. Smith, Civil Air Patrol's National Commander