



PRISM

A member of the SGS Group

NEWSLETTER

March 2025 | Volume XXV | Issue III

SAFETYWIRE



VAI Spotlight on Safety: If you could see what I've seen—An investigator's perspective on accident prevention

Page 2

Fighting Fatigue

Page 6

Safety Manager's Corner: PRISM SMS: Account Manager – Hide Suspended Users

Page 8

Quote of the Month & CHICKEN WINGS

Page 9

VAI Spotlight on Safety: If you could see what I've seen—An investigator's perspective on accident prevention

(Source: Seth D. Buttner, VAI News, February 18, 2025)

How to improve the odds your flight crew makes it home safely tonight.



The First Fatal Aviation Accident

I was young when I read the story of the first known fatal aviation accident, the Sep. 17, 1908, crash of a Wright Model A piloted by none other than Orville Wright. The aircraft crashed during a demonstration flight in Fort Myer, Virginia. Wright's passenger, US Army Lt. Thomas Selfridge, was killed in the event. An investigation was set into motion, led by 1st Lt. Frank Lahm. Lahm was chosen for the investigation because he had the appropriate technical acumen as well as personal experience with the Wright Brothers, having flown in a Model A demonstration just days before.

Lahm's report was issued five months after the accident, which he attributed to a failure in the airplane's propulsion system. The propeller broke mechanically and struck a bracing wire on the tail, causing the tail to fail in flight. There's a famous photo of the aftermath of the accident; I have it hanging in my office as a reminder of the details one needs to be aware of in pursuing this passion for aviation science and flight.

It's interesting, isn't it? Orville, who is synonymous with sparking the dream of aviation, was involved with the first fatal crash and, as a result, the first accident investigation. And Lahm, who had just flown with Wright days prior—who had actually helped pull Wright from the wreckage on that September day in 1908—investigated it. Had events played out differently, Lahm very well could have been flying with Wright at the time of the crash. It's hard to find a more personal stake in safety than this.



If You Could Only See What I've Seen You'd Focus on What Matters

- **Know** How to Do Your Job Well
- **Make** Good Decisions
- **Always** Do the Right Thing

Spotlight on Safety

© 2025 Vertical Aviation International. All Rights Reserved.

VAI SAFETY

As a young man, when I first began learning to fly, I had worked as a helper at my local FBO, where I remember being tasked to disassemble a crashed-up Cessna. I don't remember the details about its circumstances, but it had been involved in a fatal accident right near my hometown of Crystal Lake, Illinois.

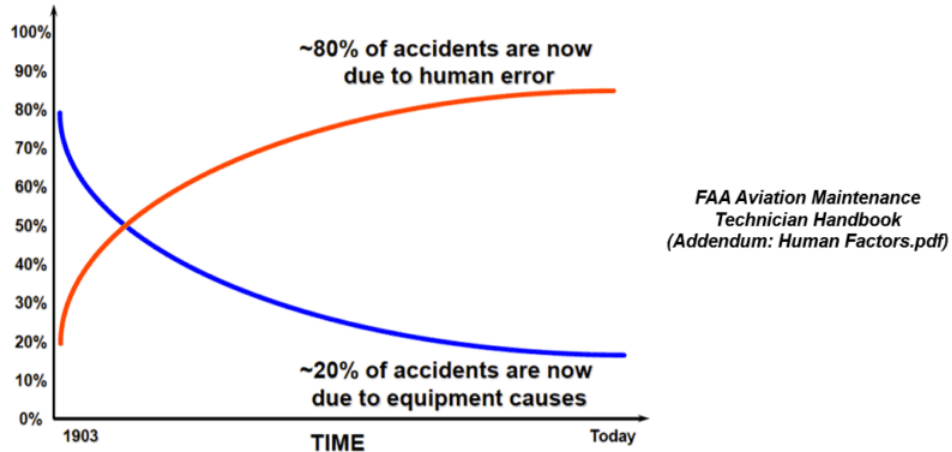
There I was, in the apprenticeship stage of my aviation career. I recall working at the FBO thinking about the "how and why" of aviation as I pulled parts and components off the aircraft. And so, the dream of aviation, which I love so much, for me has been viscerally tied to investigations from the start.

The Primary Causal Factors of Accidents

In the history of accident investigation, we've always looked back on the event, trying to puzzle out what went wrong, so we can learn from our mistakes. Of course, today accident investigations work much the same. We follow in Lahm's footsteps, making engineering changes, safety recommendations, or improvements to aviation practices—whatever it takes. But this can only be done after we've fully analyzed the evidence and the circumstances surrounding the crash.

In over 30 years of investigations, I can tell you aircraft accidents and crashes have happened for a wide variety of reasons. I've seen many! Simply put, accident causes can be broken down into three categories of factors: environmental factors, mechanical factors, and human factors.

History of Aviation Accidents *Human Factors* vs *Mechanical* Over Time



Aircraft Accident Investigation

In my presentations, I often use a logarithmic graph showing two opposite exponential curves with a changing relationship between two of the categories listed above, mechanical factors and human factors (above). This graph shows us that early aviation industry accidents were largely caused by mechanical error. But, as technology has advanced, the portion of accidents caused by pure mechanical flaws has fallen drastically. Today, human factors are almost regularly a primary cause, if not a contributing element in the cause, of aviation accidents. The line on the graph has flipped.

So, if we've mitigated mechanical error by improving technology, what do we need to do to mitigate human errors?

Mitigating Human Error

Recently, I was part of a webcast with some other investigators in which we discussed real-life stories and what might tie them together. The conclusion we reached was focus. If pilots and technicians could see and understand firsthand the devastation that resulted from their choices and actions due to unwarranted risk, we'd be able to flatten the curve if not nearly eliminate fatal accidents altogether in aviation. I believe it would intertwine a new thread of safety into your passion for aviation.

I've investigated over 600 accidents in my career. I've seen too many smoking holes, too many broken bodies. If you could see what I've seen, you would:

- Slow down
- Pay attention
- Just say no.

The most human thing we can do as pilots and maintenance technicians is practice professional techniques. Maintaining respect for the science of aviation, humility in your actions on the job, and patience in your work will take you a long way. In addition, I am certainly a proponent of staying proficient in your training and holding to personal limitations as a key to being a safe, successful aviator.

So, back to that initial question: why accident investigation? It's simple. I want to help us look back, and therein do better in the future.

Each accident we investigate gives us another opportunity to learn, to make better, and to keep the dream of aviation soaring.

Seth D. Buttner is senior manager, accident investigations, for Airbus Helicopters North America.N.

Fighting Fatigue

(Source: Rebekah Waters, FAA Safety Briefing Magazine; Cleared for Takeoff, Jan 15, 2025)

Imagine this. You're out with friends watching the big game. You indulge in some adult beverages and tasty game day snacks — just a few won't derail your New Year's resolutions! It's getting late, but the score is close. You want to get home as soon as the game ends because you work tomorrow, but your partner wants to stay and celebrate the big win. This leads to an argument that puts a damper on the celebration, so eventually you head home.



The next morning, you sleep through your alarm. You don't have time for a shower or breakfast and grab a quick coffee as you rush out the door. Traffic is bad, and your temper gets the better of you when a driver won't let you over making you almost miss your exit. You make it to work just in time! Tired and a little stressed, you pick back up on the annual inspection you started the previous day almost on autopilot. At lunchtime, you grab some fast food and an energy drink and then get back to work. The previous night's festivities start to catch up with you as the day drags on. You have some more coffee and push through until quitting time. As you sit in more traffic on the way home, a bad feeling comes over you. Did you use the right amount of torque on those cylinder head bolts? Did you check the correct direction of movement of the ailerons after you replaced the worn cable?

The FAA lists fatigue as one of the “Dirty Dozen” — a list of twelve common causes of human factors errors that make up about 80% of maintenance mistakes. Fatigue, a physiological state of reduced mental or physical performance capability, can be caused by one or more lifestyle issues including stress, lack of sleep or exercise, poor diet, alcohol consumption, and even over-the-counter medicine, like ones used to treat allergies or coughs. Everyone experiences fatigue from time to time, but in the world of aircraft maintenance, it can have deadly consequences.

Fatigue impacts your ability to perform work in various ways. It can affect your ability to make good decisions. Your attention to detail suffers. When you're fatigued you aren't as careful, and you might forget important steps or procedures. Some studies have shown that driving fatigued can be as dangerous as driving drunk. The same can be said about performing maintenance when fatigued.

So, what can you do to fight fatigue and all the dangers that come with it?

Winning the fight against fatigue starts with sleep. Most people fall short of the eight hours per night we all need to wake up well rested. In addition to this basic requirement, your sleep hygiene is also important. Stop your caffeine intake at least six hours before bedtime. Limit screen time at night, and refrain from it altogether in the hour leading up to sleep. Try not to work out in the hours before bedtime either. Make your bedroom as relaxing and comfortable as you can.

In addition to improving your sleep habits, there are other lifestyle factors that will help you combat fatigue. Get plenty of regular exercise — at the right time of day. Try to eat a healthy balanced diet and limit alcohol. Be aware of the side effects of all medications you take, including over-the-counter medications. Find healthy ways to deal with stress like talking to a friend, taking a walk, or even trying out meditation.

Fatigue can sneak up on you and impact your ability to work safely, so take good care of yourself. The aircraft you maintain and the people who fly in them are counting on you to keep them safe!

Learn More

[FAA MX Fatigue Focus Newsletter](#) (PDF download)

[Fatigue Countermeasures](#), FAA Safety Briefing, Mar/Apr 2023

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

This article was originally published in the January/February 2025 issue of FAA Safety Briefing magazine.

https://www.faa.gov/safety_briefing



SAFETY MANAGER'S CORNER

PRISM SMS: Account Manager – Hide Suspended Users

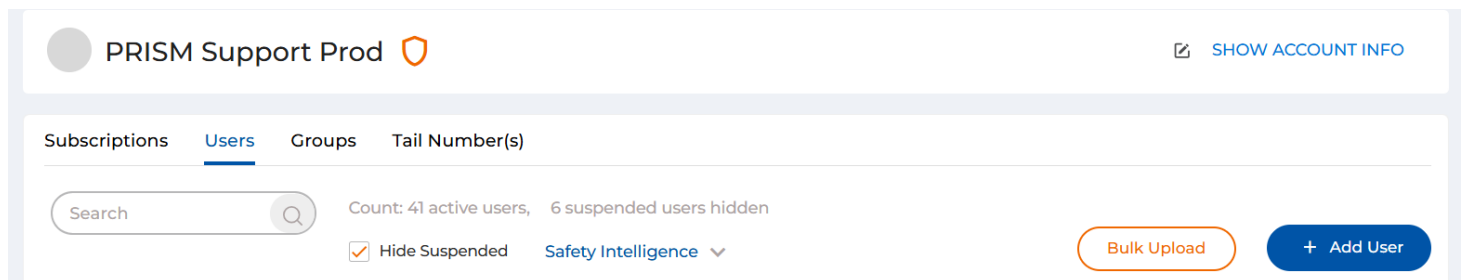
The Safety Manager's Corner in the January 2025 SafetyWire highlighted how to edit/suspend users in the Account Manager. Below is a refresher on those steps:

1. Click on the user's name.
2. Click the edit icon  on the top right-hand side of the page.
3. Make changes to username, email address, etc. or click the Suspend toggle switch.
4. Then click Update.

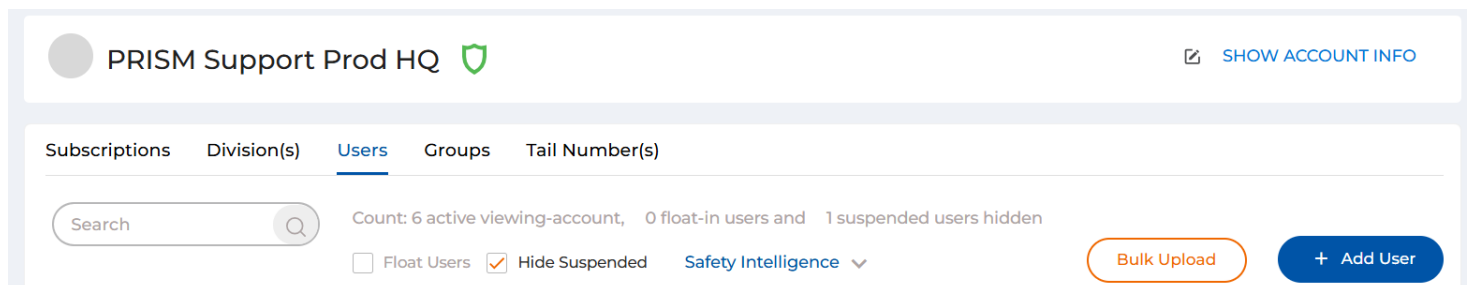


When a user is suspended, that name is moved to the bottom of the user list in the Account Manager and will show the letter S under status.

PRISM added a new feature in February 2025 that allows an account manager to hide suspended users. This feature also provides a count so that an account manager can easily how many active users they have and how many users are suspended.

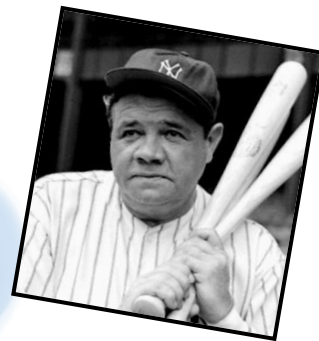


For HQ accounts, the count will also show the number of float-in users as shown in the image below.



Quote of the Month

The way a team plays as a whole determines its success. You may have the greatest bunch of individual stars in the world, but if they don't play together, the club won't be worth a dime.



BY: Babe Ruth

OK you've heard this a thousand and one times: There is no "I" in team. Dwelling on the subject of safety, let's move our thoughts towards teamwork fostered by cooperation and the oft spoken term of "buy-in." Each of us is a unique individual, with our own perspectives, opinions, experiences and capabilities. Those things present themselves paradoxically as both strengths and weaknesses. How does one act on their own best interest while simultaneously contributing selflessly towards team performance? Attitude is the answer. By making the effort to know and understand what is good for team and determining how that aligns with personal wants, needs and desires, individuals can reconcile actions and behaviors to align with team and self. Make no mistake, it's not easy. Doing whatever YOU want is the easy path, but is it the right path?

CHICKEN WINGS®

www.chickenwingscomics.com

ALL THE
FREEWAYS ARE
CLOGGED ...
TYPICAL L.A.

BUT WHO CARES?
I'M TAKING THE
AIRPLANE!

© Michael and Stefan Strasser - 1448

BY MICHAEL AND STEFAN STRASSER

3 BRAVO TANGO, TAXI RUNWAY 25L
VIA ALPHA AND FOXTROT. YOU ARE
NUMBER 15 IN LINE FOR TAKEOFF.

UH-OH.

SCREECH!!

Jenna Albrecht
Jenna.albrecht@prism.aero
Director, SMS Services

Wayne Ehlke
Wayne.Ehlke@prism.aero
Safety Analyst, SMS Services



6021 S. Syracuse Way, Ste 302
Greenwood Village, CO 80111
www.argus.aero

#PRISMPREFERS

UPCOMING COURSES

March 11-12, 2025—PROS Course
Risk-Based IOSA Training
Virtual

April 7-11, 2025—PROS Course
ALAT Training
Denver, CO

April 8-10, 2025—PRISM Course
Safety Management System (SMS)
Denver, CO

May 13-14, 2025—PROS Course
Risk-Based IOSA Training
Virtual

Go to [Upcoming Training Classes](#) to register.

