



A member of the SGS Group

ROTARY WING NEWSLETTER

May 2023 | Volume XXIII | Issue V

SAFETYWIRE



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S is for Safety – conversation starters for drone nerds!

(Source: sUAS News, Gary Mortimer, 20th Feb, 2023)



Let's face it, if you have a drone business, safety makes you more sustainable, solid and survivable. It helps you save money in the long run. Yes, I am overusing things beginning with S. Sean (see what I did there) @Geeksvana came up with a few of those, but safety was on my mind first.

It's a two-sided coin, what we should do to ensure we are safe and what the regulator expects of us.

With my manned thing driver hat on I had to undertake human performance and imitations courses because those sorts of things were not a thing when I started out. I dreaded it and thought it was an imposition but came away thinking I really should have known this stuff.

I am not setting out in this post to bash regulators or operators, but rather to start getting folks to speak the same language.

You should know about two triangles, some cheese, and culture.

But all of these things IMHO are just conversation starters and handy things to drop in to chat when having cocktails with regulators.

The Aviation Safety Triangle Model is a concept used in aviation that represents the three sides of aviation safety: People, Technology, and Environment. Each side of the triangle represents a different aspect of aviation safety. All of these constructs are used in multiple industries.

The People side represents the human element, including the pilots, air traffic controllers, maintenance crews, and other personnel who operate and maintain aircraft.

The Technology side represents the equipment and systems used in aviation, including aircraft, avionics, and other technological devices.

Finally, the Environment side represents the external factors that can affect aviation safety, such as weather, terrain, and other environmental factors.

The next one is falling out of favour.

The Heinrich/Smith Safety Triangle is a model that's often used in the field of occupational safety and health. It was developed by H.W. Heinrich, a pioneer in the field of industrial safety, and later refined by W.H. Heinrich and E.A. Smith.



The triangle consists of three levels, with each level representing a different aspect of workplace safety. The levels are:

1. **Unsafe Acts:** This level represents the actions taken by employees that contribute to accidents and injuries in the workplace. Examples of unsafe acts might include failing to wear protective equipment, using equipment improperly, or failing to follow established safety procedures.
2. **Unsafe Conditions:** This level represents the physical or environmental factors that contribute to accidents and injuries in the workplace. Examples of unsafe conditions might include poorly maintained equipment, inadequate lighting, or cluttered workspaces.
3. **Accidents:** This level represents the actual accidents or injuries that occur in the workplace as a result of unsafe acts and/or unsafe conditions.

This is the model that produces the 300000, 600,30, 10, 1 triangles from the bottom up that pepper safety management systems (SMS) lecture that aviators have to endure. But that said, it's the safety culture that should be embedded in your workplace afterwards that is important.

Safety culture is the way in which an organization prioritizes and promotes safety. It includes the beliefs, values, and attitudes of employees and leadership regarding safety. A strong safety culture is one in which everyone is committed to safety and takes responsibility for it. Such a culture encourages open communication, continuous learning, and a focus on risk management.

The phrase ***just culture*** is similar.

It recognizes that human errors are inevitable and that individuals should not be punished for actions that were outside of their control or that were based on incomplete or inadequate information.

In a just culture, individuals are encouraged to report safety incidents and near-misses without fear of retaliation, with the goal of identifying systemic safety issues and implementing improvements to prevent future occurrences. The focus is on learning and improvement rather than punishment and blame. I am going to do a slight bit of bashing here, the CAA in the UK uses AAIB information taken out of context against the drone industry. I have a pull-up a sandbag story not about me but a friend (no really honest) who ended up in court after filing a CHIRP, but that's one for the pub. Back on track.

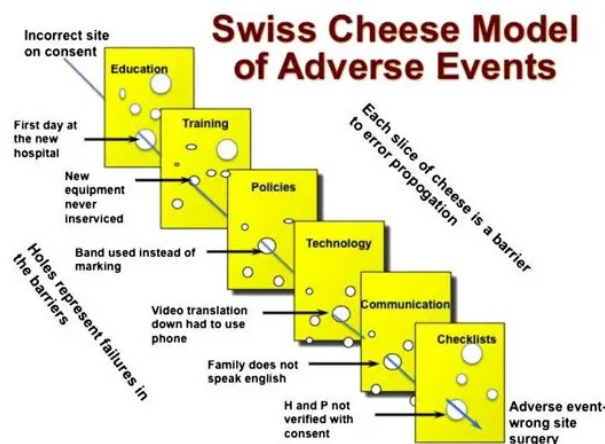
A just culture also recognizes that intentional acts of misconduct or gross negligence that put safety at risk must be addressed through appropriate disciplinary action. The key is to strike a balance between accountability and learning so that individuals are held responsible for their actions while the organization can continue to learn and improve its safety performance.

Now about cheese, in particular Swiss cheese, the one with holes in it.

Imagine it sliced and then stacked up. The slices are not neatly stacked so if you drop something into a particular hole it might not fall through to the plate below. Each slice represents solutions, but not perfect, those are the holes. If enough holes in slices line up then a problem could fall through the cracks. Yes, I know a different metaphor. In even shorter language look for holes and never let them align. Of course, there are problems.

- The model assumes that each layer of protection is independent of the others, which may not always be the case.
- The model does not account for human error, which can occur despite the presence of multiple layers of protection.
- The model does not consider external factors, such as natural disasters, that can affect the system.

You are very welcome to correct my interpretation of the Swiss Cheese safety model. Here is an example from the medical industry. I never understand why the slices in examples are always vertical.



In summary in order to move forward quickly all sides need to communicate using the same language surrounding the safe operations of drones. Safety really does begin at the top of an organization and is not to be sniffed at.

Decisions need the help of data gathered in serious testing.

Groups Ask For SMS Overhaul

(Source: AV web; By Russ Niles; Published: April 13, 2023)



Aviation groups are asking the FAA to overhaul a proposed rule requiring safety management systems for charters and tour operators. NBAA and the National Air Transportation Association have filed comments on the proposed rule, saying the one-size-fits-all approach by the agency unfairly burdens smaller, less complex operations. "For any SMS to be truly effective, it must be tailored to the size and complexity of each operation," said NBAA President Ed Bolen.

NBAA says the FAA has also not given operators enough time to get their SMS plans together, calling the 24-month deadline "unrealistic." It said a three- to five-year implementation is recommended by safety auditors. The group also doubts the FAA can meet that timeline. "The FAA has limited resources to meet existing SMS oversight requirements, much less to oversee new programs," NBAA said. It's recommending the agency go back to the drawing board and involve stakeholders in developing an effective plan for SMS implementation. Bolen also stressed that the industry is on board with the SMS requirement, but it needs to "better serve the wide diversity of operational types within business aviation."



Russ Niles

<http://www.avweb.com>



USHST United States Helicopter Safety Team



Monthly Safety Report

April 2023

The USHST is a regional partner to the Vertical Aviation Safety Team (VAST).

USHST GOAL: Reduce the 5 year average fatal US helicopter accident rate to **0.55 fatal** accidents per 100K hrs by 2025

USHST Vision: A Civil Helicopter Community with Zero **Fatal** Accidents

Safety by the Numbers!

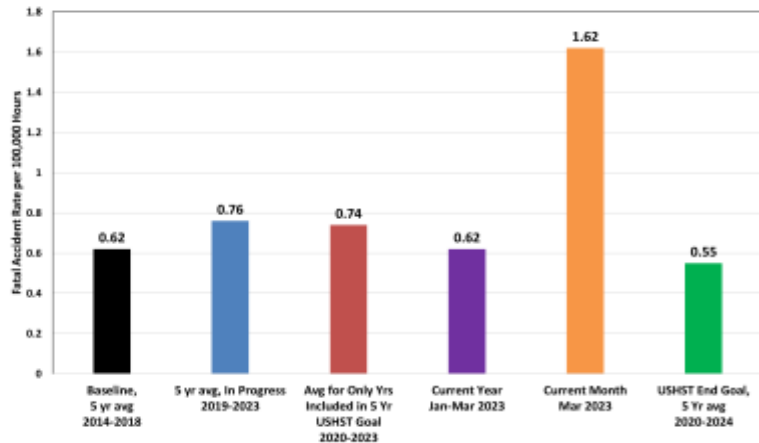
Metric	2019 - 2023	2018 - 2022
Avg Fatal Acc Rate	0.76	0.78
Avg Accident Rate	4.12	4.21
Year To Date	Current Year (CY23)	Previous Year (CY22)
Fatal Accidents	4	6
Accidents	18	24
Fatalities	11	12

Average number of days between fatal accidents:

2019: 16 days
 2020: 18 days
 2021: 17 days
 2022: 21 days
 2023: 20 days

Longest time between fatal accidents (past 5 yrs):

107 days (2020)



Fatal Accident Counter

2 : 20 : 28 : 56

Days : Hours : Mins : Secs

Each year the U.S. helicopter industry safely flies approx. 3 million flight hours and **every** second of **every** flight must be handled with professionalism.



Did "YOU" Know?

In the US there are **12,000 +** helicopters, **32,000 +** helicopter pilots and over **292,000** aircraft mechanics!

The USHST has identified the following industries for **OUTREACH**:

**Personal/Private,
Helicopter Air Ambulance (HAA),
Commercial and Aerial Application**

Your participation in joining our vision of zero fatal accidents is important to us. To determine how your interests best align with active USHST efforts, please click the link below to complete the form and submit.

JOIN/FOLLOW USHST



[USHST Facebook \(2573 Members, 7 New\)](#)

[USHST LinkedIn](#)

[USHST Twitter](#)




Helicopter Safety OUTREACH events:

- [Next USHST All Hands Webinar - TBD](#)
[Previous All Hands - February 23, 2023](#)
- [ROTOR Helicopter Association International - Upcoming Events](#)
- [Helicopter Safety Alliance - Upcoming Events](#)



Safety Enhancement Quick List



U.S. Helicopter Safety Team

Helicopter – Safety Enhancements
Our Vision: A civil helicopter community with zero fatal accidents

Loss of Control - Inflight (LOC-I), Unintended Flight into IMC (UIMC), Low Altitude Operations (LALT).

USHST continues to work on the implementation of Helicopter - Safety Enhancements (H-SEs) developed through data-driven analysis of 104 fatal accidents. The H-SEs use Outreach, Policy, Technology/Equipment, and Training to reduce fatal accidents in these categories.

HOT! The 16 Legacy H-SEs are now complete!

USHST and Lead Organizations will tackle the following New H-SEs:

1. Promote conservative go/no-go decision making (includes performance planning).
2. Educate hazards of low altitude operations (includes consideration of wire strike protection devices, hazard detection capability, and emerging technology).
3. Improve risk management of night operations (includes factors unique to "dark" night operations).
4. Improve fatigue awareness and risk mitigation of scheduling factors leading to fatigue.
5. Training on effects of adverse wind situations, particularly performance issues at low airspeed.

****Standby for opportunities to lend your expertise!***

USHST PRIORITY Safety Resources: [Videos](#) [Safety Apps](#) [USHST Report on Safety Enhancements](#)

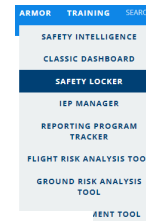
US Helicopter Safety Team Press Release (March 2023):
[USHST names Chris Baur as its next industry Co-Chair](#)



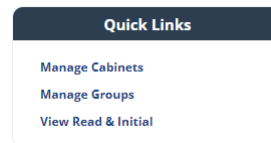
SAFETY MANAGER'S CORNER

Setting Up a Read and Initial Folder

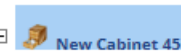
1. Select Safety Locker from the drop down ARMOR menu.



2.) Select Manage Cabinets from the Quick Links.



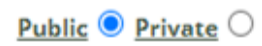
3.) Either Add a cabinet from the Quick Links or select the desired cabinet from the list of existing cabinets on the left side of the page.



4.) You can edit the cabinet name.

Cabinet Name
New Cabinet 45

5.) Next choose whether you want the cabinet to appear on the public or private tab.

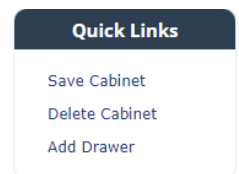


6.) If you choose, you may enter a description for the cabinet that will show up when a user mouses over the cabinet in the left hand menu.

Description:

The description will appear in a tooltip when mousing over the cabinet name in the left-hand menu

7.) Make sure to Save the Cabinet using the Quick Links.



8.) You can now edit the drawer within the cabinet that you created. You can also add an additional drawer by selecting the cabinet and clicking the Quick Link to Add Drawer.



9.) Either add a folder from the Quick Links or select the one provided.



10.) Follow the same guidance in the other Edit sections previously discussed.

11.) There will be an additional checkbox at the folder level for Read & Initial. If the Read & Initial box is selected, the system will track the read status of all documents added to this folder.



12.) Return to the Safety Locker Home in order to begin adding documents to the Read & Initial Folder.



Quote of the Month

“Respect your efforts, respect yourself. Self respect leads to self discipline. When you have both firmly under your belt, that’s real power.”

— Clint Eastwood



Devoting maximum effort on the job all day, every day requires an immense amount of dedication and mental stamina. Don’t take that for granted; putting on your “game face” does not happen by accident or default. Realize the intrinsic value your effort and performance and its effects have on the entire flight operation; what you do and more importantly how you do it defines the organization, sometimes in small ways and other times in very large ways. Impact, don’t doubt it. Actions speak louder than words, an old and venerable axiom that never goes out of style. Remember, it’s not just about following rules and procedures, it’s about the having the discipline to measure your contribution, evaluate your effort and execute the necessary adjustments. You are really in control when you don’t let “stuff happen.”

On Short Final...



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UPCOMING COURSES

May 15 to May 19, 2023—PROS Course
Aviation Lead Auditor Training (ALAT)
Denver, CO

Aug 21 to Aug 25, 2023—PROS Course
Aviation Lead Auditor Training (ALAT)
Denver, CO

Sept 26 to Sept 28, 2023—PRISM Course
Safety Management System (SMS)
Denver, CO

Oct 30 to Nov 3, 2023—PROS Course
Aviation Lead Auditor Training (ALAT)
Denver, CO

Online 2023—PROS Course
Recurrent ICAT Training (R-ICAT)
Online

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



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Greenwood Village, CO 80111

PRISM PREFERS

www.argus.aero

