

Mental Health in Aerospace: What We're Still Not Talking About



At the 70th Business Aviation Safety Summit (BASS), the aerospace community faced a brutal truth: even as traditional accident rates decline, mental health-related risks are rising. From pilot suicide to chronic burnout, the dangers we don't talk about may be the ones hurting us most.

"Mental well-being and performance issues that are undisclosed, untreated, and unmonitored represent a significant threat to flight safety." – IPAAC Mission Statement.

In fact, between 2011 and 2020, intentional acts—including suicide—accounted for nearly five times the number of deaths caused by traditional crashes in commercial aviation. And the trend hasn't slowed.

Key Takeaways from the Mental Health Panel at BASS

- ✓ Pilots face safety-relevant stressors, not just personal ones, from social isolation to irregular work hours.
 - *These stressors aren't always visible, but they erode performance over time. Pilots working irregular shifts or missing family events may begin to show subtle signs of fatigue, disengagement, or burnout, long before a critical incident occurs.*
- ✓ Hesitancy to report remains high due to stigma, confidentiality concerns, and fear of losing certification.

- *Even when pilots want help, fear of certificate loss or being grounded keeps them silent. BASS emphasized the need for systems that offer both privacy and support to remove barriers to care.*

✓ Outcomes of untreated mental health disorders include substance use, degraded interpersonal relationships, and even suicide attempts.

- *Unaddressed psychological challenges often manifest in operational behavior. When left untreated, they can escalate into behaviors that jeopardize personal health and team safety, often without warning.*

✓ Resilience factors—like self-awareness, social support, and adaptability—can buffer against these risks, but must be intentionally cultivated.

- *Building resilience isn't just about coping—it's about readiness. Pilots with strong social networks and mental flexibility are more likely to adapt under pressure, recover from setbacks, and model safe behavior.*

✓ Safety Management Systems (SMS) are evolving to recognize psychological safety as a hazard that must be mitigated, not ignored.

- *Panelists emphasized that an SMS isn't complete without addressing well-being. Integrating psychological safety can enhance compliance and performance from peer support systems to fatigue risk management.*

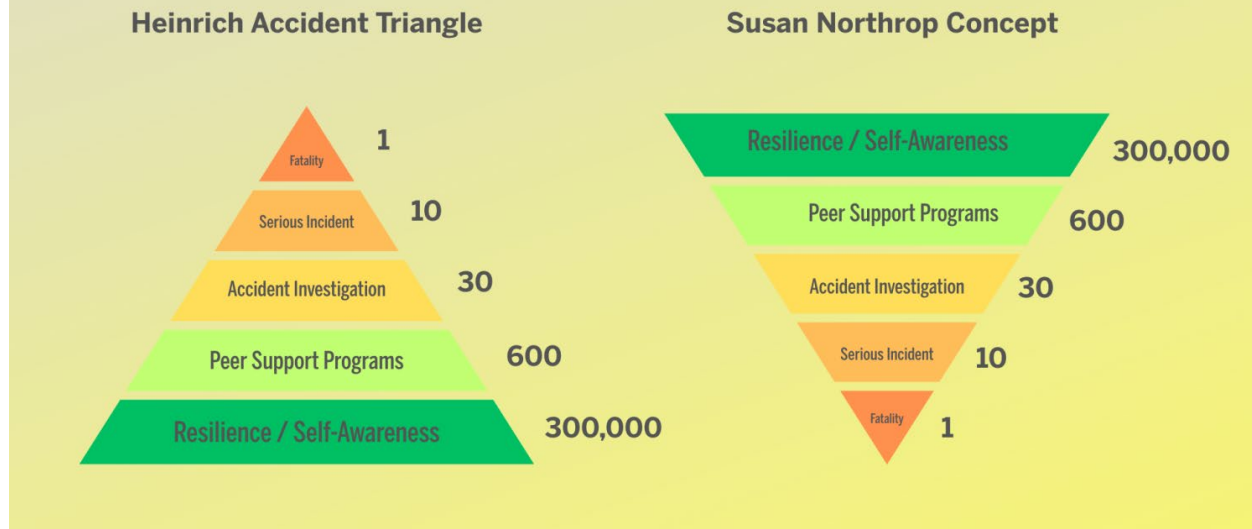
The Safety Pyramid Reframed

Borrowing from the "Susan Northrop Concept," the panel emphasized that for every fatality at the top, there are:

- 1 fatality
- 10 serious incidents
- 30 accident investigations
- 600 peer support cases
- 300,000 instances of compromised emotional well-being

Supporting mental health isn't just compassion—it's prevention.

The Safety Pyramids



The **Heinrich Accident Triangle**, developed in the 1930s, suggests that for every major accident, there are many more minor incidents and near misses, implying that reducing lower-level events can prevent serious ones.

In contrast, **FAA Administrator Susan Northrup's modern perspective** emphasizes that not all precursors are equal; a small event may carry a high degree of latent risk, and focusing solely on frequency can cause organizations to overlook rare but high-consequence hazards. Her approach encourages a more nuanced, risk-based view, **prioritizing severity and potential system weaknesses** over raw numbers.

When applied to mental health, this lens helps us see that **rare disclosures** or breakdowns may be just the visible tip of a much larger, underreported hazard that requires proactive, systemic attention.

Understanding the Optimal Arousal Zone

One powerful framework discussed was the Window of Tolerance—the zone in which individuals are emotionally regulated, alert, and capable of making sound decisions. When stress pushes a person above this zone, they may experience anxiety, reactivity, and cognitive overload. When pushed below, they may become withdrawn, numb, or disengaged. For aerospace professionals, operating within this window is critical for safe and effective performance.

Elevating Safety Through Communication

A key message from the BASS 2025 session was the vital role of open communication in advancing mental health and safety. Whether it's between pilots and managers, peers, or medical professionals, open and stigma-free dialogue forms the backbone of a safety culture that cares. Providing adequate support systems—including confidential peer assistance and access to mental health professionals—is essential.

Equally important is ensuring that **regulatory frameworks evolve** to support rather than hinder access to care. When aerospace professionals feel safe speaking up without fear of punitive consequences, the system becomes more resilient.

At its core, mental well-being in aerospace is not just about individual coping—it's about organizational trust, shared responsibility, and communication bridging divides. Safety is a conversation we must keep open.

WYVERN's Commitment

At WYVERN, we believe safety lives at the intersection of systems and humanity. Our SMS tools help organizations build psychological safety into daily operations through data, leadership training, and wellness integration.

"Safety doesn't start on the runway. It starts in the mind—and in the culture that supports it."

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