



U.S. Aviation Safety Team (USAST) A Unified Approach for Managing National Aviation Safety

WHY

Aviation is the safest mode of transportation in the United States. This unprecedented level of safety has created an environment where the public and our elected officials have no tolerance for risk when flying.

Taking safety to the next level will require us to—

1. Reduce the time it takes to identify, manage, and promote risk;
2. Move toward a more proactive and predictive environment for addressing risk; and
3. Leverage proven advancements in artificial intelligence (AI) and machine learning (ML).

Risk in the National Airspace System (NAS) is continuously evolving, increasingly complex, and interconnected across different aviation industry sectors. Achieving additional safety improvements will require an integrated, holistic approach that accelerates the flow of information: from hazard identification through implementation on the front line of operations, to monitoring the effectiveness of mitigations developed by Safety Risk Management (SRM) panels. It also requires even more coordination, collaboration, and cooperation between Government and industry, as well as across industry sectors.

The community safety teams, including the U.S. Commercial Aviation Safety Team (USCAST), the General Aviation Joint Safety Committee (GAJSC), and the U.S. Helicopter Safety Team (USHST), convened a diverse group of nearly 100 safety experts from Government and industry to develop recommendations for a new governance and an operational model that takes advantage of advances in technology and industry Safety Management Systems (SMS). The group finalized two key recommendations from their work.

1. **Sharing safety intelligence in an evolving environment**, including open-source data, through improvements in the Aviation Safety Information Analysis and Sharing (ASIAS) system's and USCAST's governance.
2. **Harmonizing the disparate efforts of the safety teams** (USCAST, GAJSC, and USHST) under a cohesive national framework that can be expanded to encompass new entrants, employing the SMS process as its foundation.

HOW

The new, transformative USAST model integrates ASIAS with the existing safety teams, and allows the flexibility to add additional teams in the future. Supported by an Aerospace National Safety Issue Registry (ANSIR), this model bolsters the effectiveness of national-level aviation risk assurance. The USAST will be committed to a collaborative process prioritizing the system safety issues to be addressed by shared data-analytics resources or individual aviation community teams.

The USAST's Key Enhancements

- **Unified Governance Structure:** Centralizes the USAST's decision-making and action, ensuring a cohesive risk-management strategy across all aviation communities, including ASIAs.
- **ANSIR:** Establishes the ANSIR as a centralized repository for national safety issues, enhancing transparency and facilitating shared mitigation efforts across the industry. It leverages industry-leading analytics capabilities and allows stakeholders with safety personas to access and collaborate on shared safety intelligence.
- **Maintain Constant Vigilance:** Focuses work groups on safety assurance and enables proactive risk management, using data to identify emerging or latent risk to employ advanced data risk analysis, informing decision making.
- **Treat Risk With Expert Insight:** Pulls together ad-hoc, specialized front-line SRM experts as needed to develop voluntary safety enhancements.
- **Safety Is a Team Sport:** Encourages a trusted environment where Government and industry partners collaborate toward common safety objectives, enriching the process with diverse perspectives while sharing best practices and expertise.

The USAST and community safety teams use SMS-based techniques to address potential systemic safety issues identified through ASIAs, industry forums, or Federal Aviation Administration (FAA) data. The system-level safety cycle touches all components of SMS: safety policy (governance), safety assurance (data monitoring), SRM (development of new SEs), and safety promotion (sharing lessons learned with other safety professionals).

ANSIR

The registry facilitates the sharing of potential safety hazards to allow all organizations to proactively manage risks, ensuring a comprehensive approach to potential aviation safety issues. A team will monitor information contributed to the ANSIR, gather available data, and then present the USAST with a preliminary analysis for prioritization and agreement on the next steps.

Elevating Systemic Safety Issues

Definition: A systemic safety issue involves one or more potential hazards affecting multiple segments (for example, air navigation, airport operations, maintenance, manufacturing, or flight operations) or multiple industry entities within a single segment of the airspace system. Whether the potential hazard could have a global, national, regional, or local impact should also be considered; the broader the impact, the more likely the potential hazard is to be a systemic safety issue.

Criteria: A safety issue involving—

- An operational anomaly/outlier where current procedures or processes appear inadequate to address it; **OR**
- Elevated risk (for example, one identified because of an accident or incident, or assumed to have elevated risk) where no system-level safety risk assessment has been completed; **OR**
- An impending or urgent change to the aerospace system that could negatively impact the effectiveness of existing safety risk controls; **OR**
- High visibility, or the potential to become highly visible.