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## NEWSLETTER

September 2026 | Volume XXVI | Issue IX

# SAFETYWIRE



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## Treat Runway Signs, Lights, SOPs as One System

(Source: NBAA Business Aviation Insider, July/August 2026)



Photo © Williamson Images

Business aircraft pilots continue to pursue the highest safety standards during ground operations as well as in the air. Safeguards such as runway guard lights, standardized signage, pavement markings and surface lighting remain some of the most dependable defenses against runway incursions.

However, these guides are only one layer in a larger safety framework. "Pilot training is what turns those cues into reliable behavior under workload, which is why operators need to treat signage, lighting and SOPs as one system instead of three separate checkboxes," explained Latitude 33 Aviation Director of Maintenance James Logue.

CAE Vice President, Global Civil Training Solutions Tim Schoenauer points out that "standardization is important for business aviation, where crews routinely operate into smaller or foreign aerodromes, often with limited ATC staffing, mixed traffic or non-towered environments. When signage and markings are ICAO-compliant, they significantly reduce ambiguity during taxi, especially for crews unfamiliar with local layouts."

## Signage and Lighting Advances

The FAA deploys runway status lights (RSLs), including runway entrance lights (RELs) and takeoff hold lights (THLs), to improve visibility and reduce runway incursion risk at busy airports. These are different from guard lights because they're automated and tied to live surveillance.

"RELs and THLs put a red stop cue right at the decision point when visibility is poor and your normal scan is degraded," said Logue. "The training piece is simple but critical: Red means stop, even if your clearance says go, and that takes recurrent emphasis to stick."

Even so, the industry still needs technology. Schoenauer noted that, while RSLs are most common at major U.S. airports, they remain highly relevant globally. Business aircraft crews operate in congested, mixed-traffic environments across varied platforms and regulations, and RSLs provide consistent, aircraft-agnostic safety information regardless of operator or onboard equipment.

## Emerging Technologies

How effective are the FAA's Surface Awareness Initiative (SAI), Universal Taxi Assist (UTA) for electronic flight bags (EFBs), or flight deck alerts such as Honeywell's SURF-A (Surf Alert) in preventing runway incursions?

"These tools excel in complex, unfamiliar or low-visibility environments by turning airport data into intuitive, geo-referenced cues."

**TIM SCHOENAUER** Vice President, Global Civil Training Solutions, CAE

"These tools excel in complex, unfamiliar or low-visibility environments by turning airport data into intuitive, geo-referenced cues," said Schoenauer. EFB solutions improve situational awareness of taxi routes and hot spots, while systems such as SURF-A deliver predictive alerts for runway conflicts or wrong-runway departures during high-workload phases.

Logue believes tools like Garmin SafeTaxi, SAI and UTA and systems such as SURF-A target the gap: runway collision risk. SafeTaxi, common in flight decks and EFBs, improves taxi briefing and hotspot awareness but does not provide maneuver authority. SURF-A advances safety by delivering alerts of runway occupancy without controller input. Operators should align upgrades with avionics work, train crews on alert types and integrate data currency into SMS.

SURF-A provides pilots with clear and timely alerts so they can recognize threats and avoid runway collisions during takeoff and landing, said Honeywell Aerospace Chief Test Pilot Josh Lewis. "Recent incidents and near-misses highlight the need for this runway-incursion prevention system," Lewis said. "Pilots, air traffic controllers, passengers and flight safety professionals all agree: This new vital safety layer can't come fast enough to the cockpit."

[Review NBAA runway safety resources at \[nbaa.org/runway-safety\]\(https://www.nbaa.org/runway-safety\).](https://www.nbaa.org/runway-safety)

## Li-ion Thermal Runaways on the Rise in Aircraft Cabins - Numbers are rising and the risk of a serious incident is increasing

(Source: Matt Thurber, AIN, August 13, 2026)



© UL Standards & Engagement

Lithium-ion battery thermal runaway incidents on passenger flights rose 15% from 2024 to 2025, according to the UL Standards & Engagement (ULSE) Lithium-ion Battery Incidents in Aviation: 2025 Data Review. Portable charger incidents rose 42%, making them the leading culprit ahead of e-cigarettes, with cell phones the third most common device involved in thermal runaways.

ULSE gathers information from its leading voluntary Thermal Runaway Incident Program (TRIP), which includes more than 40 passenger and cargo airlines submitting information to the TRIP database. According to ULSE, the rate of weekly incidents has reached 2.36, up from 2.05 in 2024. The cost to the industry now averages \$1.8 million a year, or \$96,000 per incident, “in damage, disruption, and associated losses.”

Passengers are still packing lithium-ion battery chargers in the worst possible place: in bags stored in the baggage space, which cannot be accessed in flight on airliners but can be in some business jets. “There are limited options to fight fires in the cargo hold: typically only through means such as halon extinguishers and oxygen-depriving systems,” ULSE explained. “However, these methods are not effective on lithium-ion battery fires, which are more difficult to extinguish and more likely to reignite compared to other materials.”

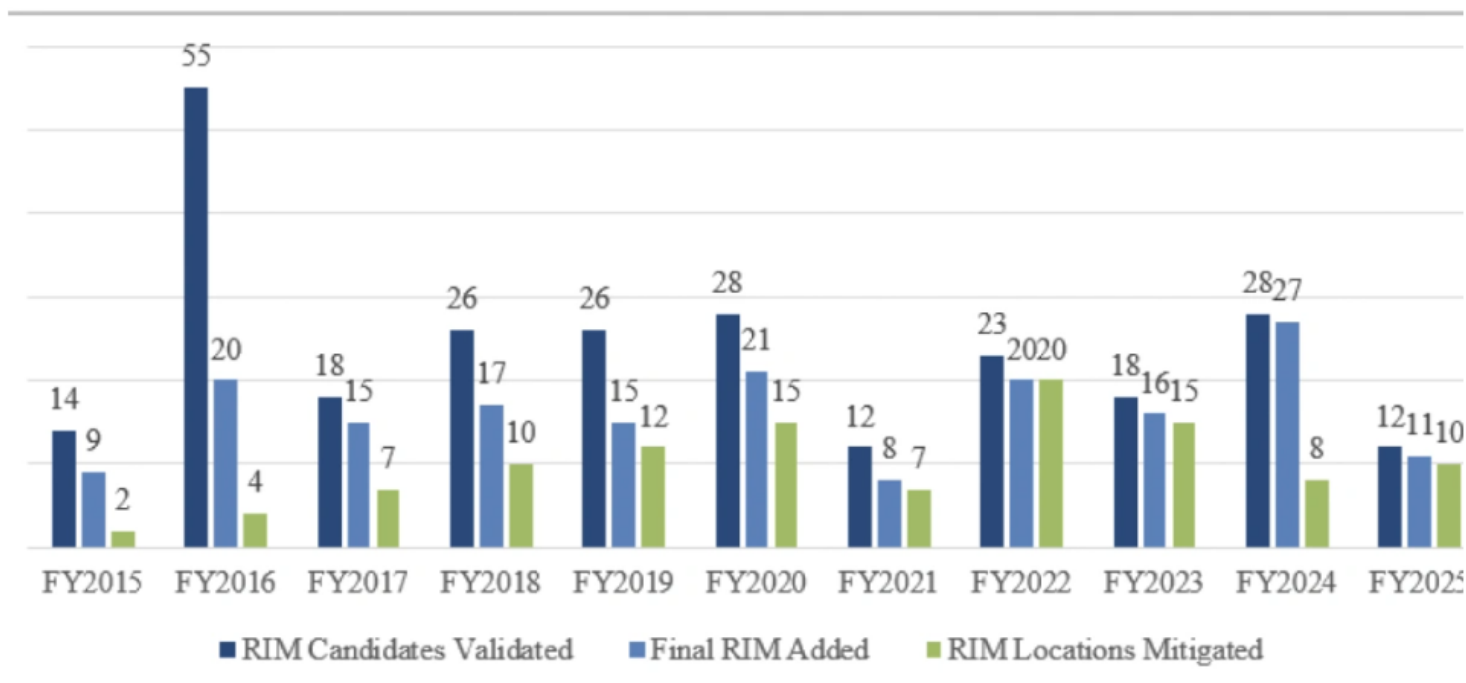
To mitigate the risk of thermal runaway incidents, ULSE recommends cabin crew training, standards for onboard safety equipment to help manage thermal runaways, and more passenger education. ULSE has developed a safety standard for fire-containment bags or boxes—UL 5800—and noted that while the FAA doesn't require this equipment, "some airlines have taken the initiative to stock their fleets. Efficacy and ease of use are essential to mitigating battery fires using these products."

"Every incident is a safety risk, and the trend line is moving in the wrong direction," said ULSE president and CEO Jeff Marootian. "Passengers do not need to be safety experts to reduce the risk. Keeping rechargeable devices within reach can help us all fly in safer skies."

"Airlines are taking the risk seriously, strengthening policies and training crew to respond when incidents occur. But they cannot solve this problem alone. Passengers need to understand the risks and know what to do before the rechargeable device becomes a safety threat," he added.

## FAA Runway Mitigation Program Shows Measurable Gains - New methodology targets individual intersections, not broad airport areas

(Source: Amy Wilder, AIN, August 10, 2026)



*RIM locations validated, added, or mitigated by fiscal year, 2015 to 2025 © FAA*

Airports where the FAA has mitigated problematic taxiway geometry are showing 77% fewer runway incursions per year after mitigation, according to the agency's fiscal year 2025 Runway Incursion Mitigation (RIM) Program Annual Summary, released last week.

U.S. runway incursions numbered close to 1,700 annually between 2019 and 2025, with a brief pandemic-era dip before reaching 1,758 in 2024. This is a persistent problem that regulators, manufacturers, and industry groups have been mobilizing to address.

The RIM program is the FAA's physical infrastructure response to that problem. It traces to a 2012 FAA study that identified 140 specific airport locations with disproportionately high incursion rates linked to nonstandard taxiway geometry: configurations that research showed created pilot confusion and elevated collision risk.

RIM launched formally in fiscal year 2015 to systematically mitigate those locations and track new ones as they emerge. It targets sites meeting defined threshold criteria: three or more incursions at a single location in one calendar year, or an average of at least one per year over the most recent decade. The FAA maintains a geographic information system database of approximately 520 towered airports, mapping every incursion to its specific location.

Mitigations are not merely procedural. They include physical reconstruction of taxiway geometry—reconfiguring intersections to meet 90-degree angles, narrowing taxiway pavement entrances, or closing direct ramp access to runways—along with lighting upgrades, signage relocation, and enhanced runway markings. In some cases, operational procedure changes supplement or replace physical work.

The 77% reduction figure is based on 98 locations that have contributed to reductions in the program's active inventory through completed safety enhancements or full mitigation. Mitigated locations logged 1,471 incursions before treatment and 146 after. The report describes the RIM program as “one of the most successful safety programs in the FAA,” noting, “there has been a 45% reduction in the RIM Inventory since program inception, due to mitigation activity.” Of the 248 locations prioritized for mitigation since the program's launch, the report indicates that 112 have been mitigated.

A defined two-stage standard is applied by the program for determining whether a location has been successfully “mitigated.” After safety enhancement work is completed, a location enters a “Safety Enhancement” stage, considered a short-term success, and remains under monitoring for up to three years. If incursions recur at threshold levels during that window, the location returns to the active RIM inventory for additional work. If not, it advances to what the report calls “Mitigation Complete,” at which point it is considered a long-term success. Locations where physical reconfiguration eliminates a runway/taxiway intersection bypass the monitoring window entirely and advance directly to Mitigation Complete. Critically, even fully mitigated locations “are still monitored to ensure long-term success.” That standard gives the 77% reduction figure additional weight.

The program has also refined how it measures success. Previously, the primary metric tracked changes in average incursion rates at mitigated locations, a measure the FAA determined did not accurately reflect program-wide risk reduction. The agency now tracks “Percent Change in RIM Inventory,” based on the principle that “a reduction in risk is a key aspect of program success, and that reduction in risk is achieved through a decrease in RIM Inventory locations.”

A related methodology update introduced in fiscal year 2024, called Hot Spot Reassignment (HSR), moved incursion analysis away from broad hot spot zones toward individual runway/taxiway hold lines. Previously, a single hot spot point represented an entire polygon area regardless of how many intersections it covered; under HSR, each runway/taxiway intersection is assessed individually. The result is more precise targeting of the highest-risk, specific intersections, rather than general airport areas. Eight locations were removed from the inventory as a result of HSR, and five were newly identified.

In fiscal year 2025, the program georeferenced 1,268 runway incursions from calendar year 2024 data, bringing the cumulative total to 19,207 runway incursions recorded since tracking began in fiscal year 2008. The update added 100 new problematic taxiway geometry locations, prioritized 11 for mitigation, and identified 10 as “mitigated.”

At the end of fiscal year 2025, 136 active RIM locations remained at 79 airports across all regions, with the majority in planning, design, or construction phases. Among airports on the FAA's Core 30 list (those handling at least 1% of passenger enplanements or 0.75% of total nonmilitary itinerant operations), the

highest active location counts belong to Honolulu's Daniel K. Inouye International Airport (KHNL), five; Boston Logan (KBOS), four; and Hartsfield-Jackson Atlanta (KATL), three. Los Angeles International Airport (KLAX) and Chicago O'Hare International Airport (KORD), among others, each carry two. Outside the Core 30, general aviation airports figure prominently in the active inventory: Chino Airport (KCNO) in California leads all airports with six active RIM locations, and Montgomery-Gibbs Executive Airport (KMYF) in San Diego has five.

The report arrived on the heels of IATA, CANSO, and Airports Council International launching a joint runway safety initiative focused on data sharing, local runway safety teams, and shared mitigation practices across airports with similar operating environments. The RIM program's decade of georeferenced incursion data and documented post-mitigation outcomes represent the kind of location-specific evidence the joint initiative has identified as central to spreading effective safety measures across the global airport network.

# SAFETY MANAGER'S CORNER

## SMS Explained



In order to establish and maintain an effective safety management system one must thoroughly grasp its overarching characteristics. Below is an outstanding review of the what and why of safety management.

Safety cultures cannot be “created” or “implemented” by management decree, no matter how sincere their intentions. Every organization has a safety culture. It is embodied in the way the organization and its members approach safety in their jobs. If positive aspects of culture are to emerge, the organization’s management must set up the policies and processes that create a working environment that fosters safe behavior. A safety culture matures as safety management skills are learned and practiced and become second nature across the entire organization. The following have been found to be characteristics of organizations that consistently achieve safe results.

1. **Open Reporting.** Policies and processes that foster open reporting while, at the same time, stressing the need for continuous diligence and professionalism. The organization should encourage disclosure of error without fear of reprisal, yet it should also demand accountability on the part of employees and management alike.
2. **Just Culture.** The organization should engage in identification of systemic errors, implement preventative corrective action, and exhibit intolerance of undesirable behaviors such as recklessness or willful disregard for established procedures. This is often referred to as a “just culture.”
3. **Personnel Involvement.** Involvement of line personnel and all levels of management in functions dealing with aviation safety, including the accountable executive, is critical to effective safety management throughout an organization.
4. **Use of Information.** Effective use of all safety information assures informed management decision making.
5. **Commitment to Risk Reduction.** The organization expects direct management involvement in identifying hazards and managing risk.
6. **Vigilance.** Processes that provide vigilance of ongoing operations and the environment to ensure effectiveness of risk controls and awareness of emerging hazards.
7. **Flexibility.** Using information effectively to adjust and change to reduce risk, and a willingness to commit resources to making changes necessary to reduce risk.
8. **Learning.** The organization learns from its own failures and from those of allied and similar businesses. The organization actually uses acquired data to feed analysis processes, the results of which yield information that can be acted upon to improve safety.

## Quote of the Month

**Opportunity is the best captain of all endeavor.**

BY: Sophocles



Opportunity comes to those who think and do and not those who watch idly with little interest. Moving forward demands energy and passionate commitment, displaying an unwavering will to succeed and improve. The best of the best understand the limits of self-improvement and endeavor to take many others along the path forward and upward. The focused power of many amplifies opportunity and creates excitement, providing the energy necessary to propel forward and upward. True, hanging around and watching while maintaining a low level of interest requires little effort but it also provides little satisfaction and zero personal growth. Don't allow yourself to be fooled by the concept of luck; opportunities are not like winning the lottery. Rather they emerge and illuminate when properly fertilized with the dedication of individuals and teams.

## On Short Final...



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#PRISMPREFERS

## UPCOMING COURSES

Sept 15-16, 2026 -PRISM

**SMS Training Course**

Dallas, TX

Sept 22-24, 2026—PROS Course

**Airline Safety Management System (ASMS)**

Virtual

Sept 28-Oct 2, 2026—PROS Course

**Aviation Auditor Training (AAT)**

Virtual

Oct 22-23, 2026—PROS Course

**Recurrent Aviation Auditor Training (RAAT)**

Denver, CO

Oct 27-29, 2026—PROS Course

**Lead Aviation Auditor Training (LAAT)**

Virtual

Nov 16-18, 2026—PROS Course

**IOSA Conformance Auditor Training (ICAT)**

Virtual

Nov 19-20, 2026—PROS Course

**Risk-Based IOSA Training**

Virtual

Dec 15-17, 2026—PROS Course

**Airline Safety Management System (ASMS)**

Virtual

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

