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SAFETYWIRE

FAA Adds Fuel-Saving Arrival Routes for 11 Airports

(Source: FAA)

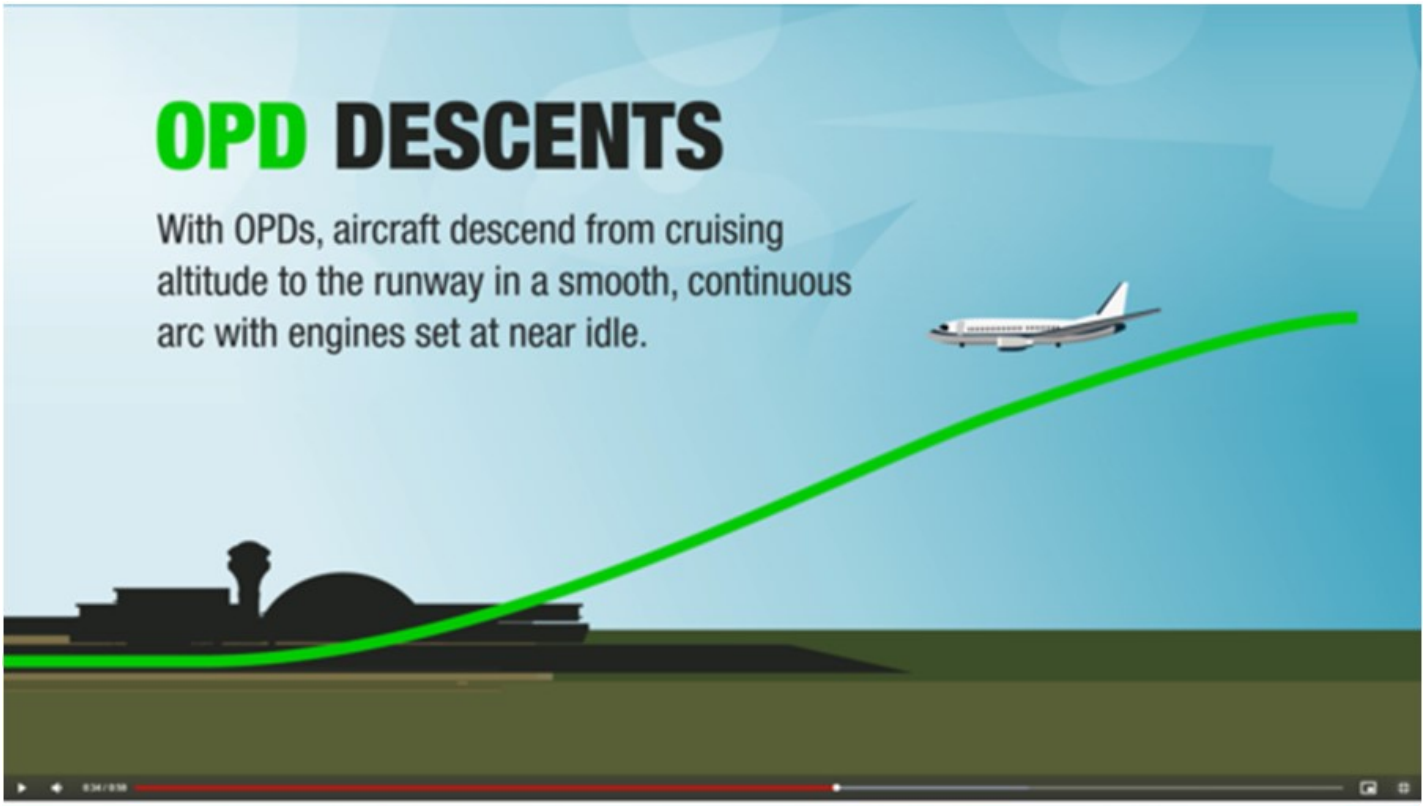
New Approaches Reduce CO2 and Other Emissions by 27,000 Tons Annually. Saves Equivalent of 62 Boeing 737 Flights Between New York and Cleveland.

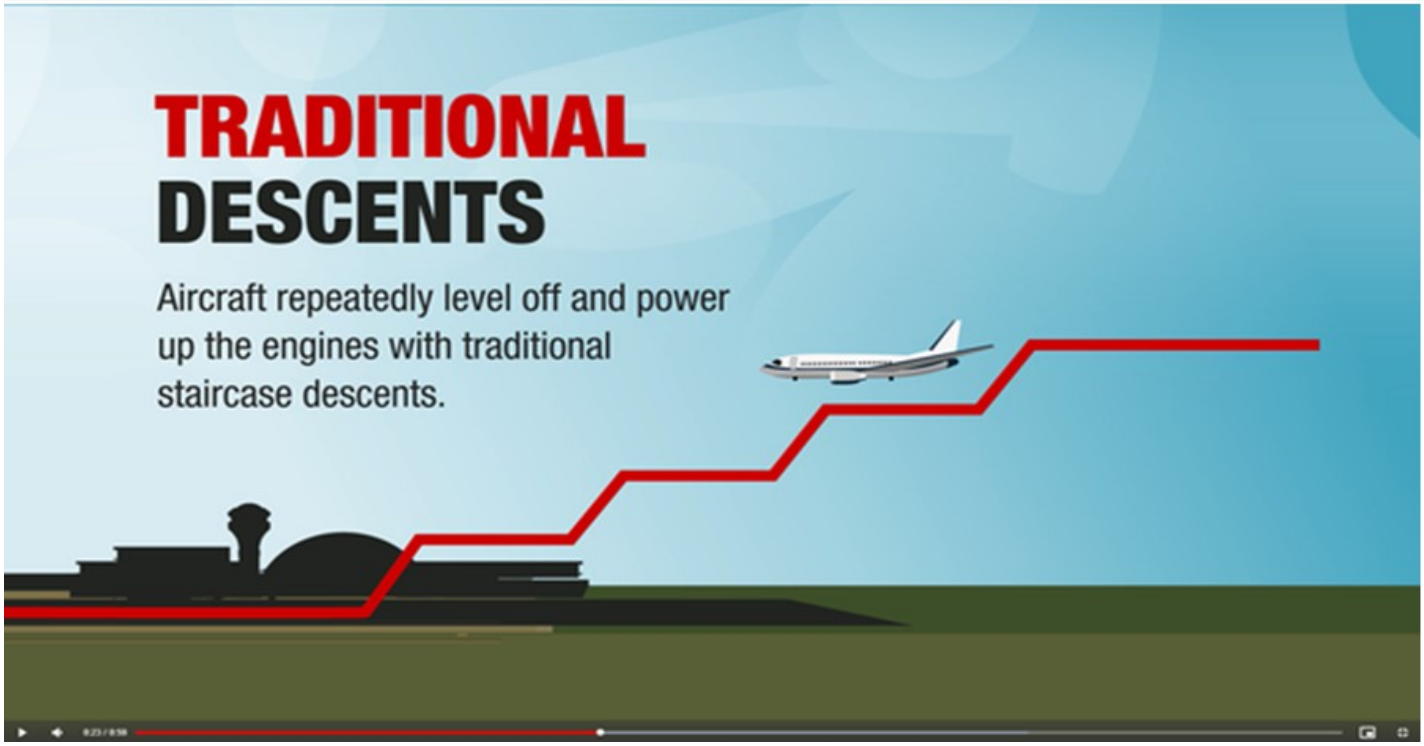
WASHINGTON — Planes heading to Orlando, Kansas City, Omaha, Reno and six airports in South Florida can now slide down from cruising altitude to final approach saving millions of gallons of fuel and reducing greenhouse gases.

“We are investing across the entire system to provide passengers with the best travel experience. The era of choppy descents is coming to an end, providing a smoother landing and saving fuel in the process,” said Acting FAA Administrator Billy Nolen.

The new Optimized Profile Descents (OPDs) safely eliminate the need for the fuel-consuming stair-step procedure. Under traditional procedures, aircraft repeatedly level off and power up the engines. This burns more fuel and requires air traffic controllers to issue instructions at each step. With optimized descents, aircraft descend from cruising altitude to the runway in a smooth, continuous path with the engines at near idle.

6021 South Syracuse Way
Suite 301
Greenwood Village, CO 80111
+1 513.852.5110
+1 800.361.2216
argus.sales@argus.aero





6021 South Syracuse Way
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+1 800.361.2216

argus.sales@argus.aero

During 2022, the FAA implemented new OPDs for the following 11 airports: Boca Raton Airport, Fort Lauderdale Executive Airport, Kansas City International Airport, North Palm Beach County General Aviation Airport, Eppley Air Field, Neb., Offutt Air Force Base, Neb., Orlando International Airport, Palm Beach County Park Airport, Palm Beach International Airport, Pompano Beach Airpark and Reno/Tahoe International Airport.

With these new descents in place, the FAA estimates that the industry will save more than 90,000 gallons of fuel on average and will reduce greenhouse gas emissions by 27,000 tons annually. This change is equivalent to fuel used by 62 Boeing 737 flights between New York and Cleveland.
The 11 airports brings the total number of airports with the procedures to 64. Since 2014, the FAA also has developed OPD procedures at airports in Atlanta, Charlotte, Cleveland, Columbus, Denver, Detroit, Fort Lauderdale, Houston, Las Vegas, Miami, Phoenix, Portland, Northern California, Southern California, Seattle, Tampa, Washington, D.C., and others.

In its Aviation Climate Action Plan, the United States set a goal to achieve net-zero greenhouse gas emissions from the U.S. aviation sector by 2050. To achieve it, the FAA:

- Has awarded $100 million to research and scale fuel-saving technologies and noise reductions
- Has awarded $327 million to electrify airport gate equipment and vehicles
- Has invested $35 million for universities to help build sustainable aviation fuel supply chains
- Has completed research and testing on reducing fuel burn and taxi time

Find more information about the FAA and its environmental efforts at its Sustainability Gateway Page and its list of accomplishments for 2022.

Safety Analyst Note: While many of you will have CDFA criteria, and standardized descent profiles, we bring this article to your attention for a reason. It may be a good idea to run a change management workflow on these updates. Make sure your operations standards are in line with what the FAA expects. Since it's no longer a " Best Practice" but a mandatory change to the airspace, crews are going to need to adapt to these changes, training will probably be necessary, and fuel costs, trip planning, and scheduling will all be affected.

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Suite 301
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+1 800.361.2216
argus.sales@argus.aero

Aviation Heeds Lessons from ICAO Annex 13

(Source: AIN online; by Jennifer Meszaros - February 13, 2023, 9:00 AM)

French and Singapore investigators provide sonar and acoustical locating equipment during the search and rescue of Lao Airlines Flight QV301

Preliminary data recovered from the cockpit voice recorder (CVR) and flight data recorder (FDR) from the fatal crash of Yeti Airlines Flight YT691 last month indicate that the propellers of both engines went into feather on the base leg, according to a statement by Nepal's Accident Investigation Commission. Speaking to AIN, joint secretary of the Ministry of Culture, Tourism and Civil Aviation Buddhi Sagar Lamichhane said the authority will release a preliminary report in the coming days.

A Nepali-language statement released by the ministry on February 6 said investigators will continue their probe while examining "technical and human aspects" of the January 15 crash of the ATR 72 twin-engine turboprop.

Authorities continue to analyze the flight recorders in Singapore with support from that country's Transport Safety Investigation Bureau (TSIB), France's Bureau of Investigation and Analysis for Civil Aviation Safety (BEA), the Transportation Safety Board of Canada (TSB), Pratt & Whitney Canada, and the European Aviation Safety Agency (EASA).

The provisions guiding all global civil aviation activities appear in the form of the International Civil Aviation Organization's (ICAO) 19 Annexes to the Chicago Convention, which took effect in 1947—the year ICAO came into existence. Today, 193 countries are signatories to the Convention; individual state laws and regulatory instruments also govern aviation.

6021 South Syracuse Way
Suite 301
Greenwood Village, CO 80111
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+1 800.361.2216
argus.sales@argus.aero

First introduced in 1951, Annex 13—Aircraft Accident and Incident Investigation lays out international Standards and Recommended Practices (SARPs) for investigators. It lists technical specifications spread across four parts: Organization and Planning, Procedures and Checklists, Investigation, and Reporting. Complementary documents (Doc) and circulars (Cir) also provide guidance, among them Doc 9973—the Manual on Assistance to Aircraft Accident Victims and their Families.

Under Annex 13, the state of occurrence bears responsibility for initiating an investigation but may delegate all or part of the responsibility to another country or a regional accident and incident investigation organization (RAIO) by mutual consent. Accident and serious incident investigations are not solo acts; as such, the following "Big Four" may appoint an accredited representative and associated advisers: the State of Registry, the State of the Operator, the State of Design, and the State of Manufacture.

Additionally, a country that holds a special interest (i.e., citizens involved) may send a technical expert. In the case of a dangerous goods (DG) aviation occurrence, the State of Origin can also appoint an accredited representative. (Note: Annex 13 provides separate definitions for advisers and accredited representatives.) Beyond Annex 13, states commonly enter into memoranda of understanding (MoUs) with one another to share facilities, equipment, and expertise and frequently participate in multilateral ICAO meetings across the year.

Annex 13 stipulates that investigators should read flight recorders without delay. Doc 10053 guides the protection of sensitive records during investigations. State adoption of investigation-specific legislation and regulations coupled with strong surveillance and regulatory oversight ideally strengthen the protection of records, from witness statements and crew medicals to flight recordings and transcripts.

Protection of CVRs, airborne image recording (AIR), and any related transcripts begins at the time of the accident or incident and continues after the publication of the final report. Protection of other records begins when the investigative authority assumes custody or control and continues after the final report is published, states Annex 13.

There is a caveat.

While records can be made available under Annex 13, their disclosure should hinge on a balance test conducted by a “competent authority” and weighed across nine variables for and against the public interest. Factors include “the requester’s intended use of that record, whether the rights or interests of a person or organization will be adversely affected by the disclosure or use of that record, and whether that record is of a sensitive or restrictive nature,” to name a few.

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Annex 13 starkly highlights the sensitivity and complexity of air crash investigations and the significance of collaboration. In the case of Ethiopian Airlines Flight ET 302, the U.S. National Transportation Safety Board (NTSB) and BEA called on Ethiopian authorities to amend the final report on the March 10, 2019 crash of a Boeing 737 Max 8 to address operational and human factors findings. Their requests fall wholly within the scope of Annex 13.

Under Part 4—Reporting, the investigative authority must send a confidential draft of the final report to the Big Four; in turn, states have 60 days to comment. Before public release, the authority shall either amend the final report or attach appended comments. Following this step, the final report is then sent to the Big Four authorities plus any state having suffered citizen fatalities or serious injuries and any state providing information, facilities, and expertise. For DG occurrences and accidents or serious incidents involving an aircraft with a certified maximum takeoff weight (mtow) of 5,700 kilograms or more, the final report also gets submitted to ICAO. The stipulation practically covers all commercial and business aircraft today.

The sole objective of the investigation and the final report is the prevention of accidents and incidents, not to assign blame or liability. While investigations can become highly politicized, Annex 13 calls for states to have an independent investigative authority, structured to "withstand political or other interference or pressure" and functioning separate from any judicial or administrative proceedings, any regulators, and any other entities.

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NBAA Forum Answers Questions About FAA's Safety Management System Proposal

(Source: NBAA.com)

Feb. 9, 2023

The FAA's recent notice of proposed rulemaking (NPRM) to expand applicability of mandated safety management systems (SMS) in 14 CFR Part 5 was the topic at NBAA's Hot Topics in Business Aviation session held at the 2023 NBAA Regional Forum at Miami-Opa locka Executive Airport (OPF).

The presentation, hosted by NBAA Director, Flight Operations and Regulations Brian Koester, CAM, offered a broad overview of the issue, including a brief history of FAA's SMS rulemaking and some of the key provisions of the NPRM.

An SMS, according to FAA, aims "to provide a systematic approach to achieving acceptable levels of safety risk." It's made up of four functional components: safety policy, safety risk management, safety assurance and safety promotion.

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The FAA's proposal calls for essentially expanding applicability in Part 5 beyond airlines to some Part 21 type certificate and production certificate holders, Part 135 charter operators and air tour operations under Part 91.147. Much of the regulatory impact of the NPRM has yet to be determined, which prompted questions during the NBAA session at OPF. The NPRM also proposes more than a half-dozen additions that are expected to change the rules of compliance for all involved operators

Koester reminded session attendees that the proposed rule is still in draft form and available for public comment until April 11 offering the business aviation community a chance to influence the FAA's final rule as the process moves forward.

Existing Voluntary SMS Programs

A number of general aviation operators are already taking part in voluntary SMS programs, Koester told attendees at the session.

For example, the International Standards for Business Aviation Operations (IS-BAO), established by the International Business Aviation Council, with NBAA guidance, today has more than 700 participating companies worldwide. "Under IS-BAO, a number of operators have had an SMS in place for many years," Koester said. "Those systems are actively enhancing the level of safety in their operations. So, one of the questions we have as we evaluate this is how is this rule going to affect those operators that have an existing SMS?"

FAA SMS Voluntary Program

An existing FAA mechanism aimed at recognizing a GA SMS is through the agency's Voluntary SMS Program, according to Koester. This is intended to be a scaled down version of Part 5 – basically taking the rules currently used for airlines and scaling them to general aviation. "About 250 or so GA operators have applied for this program," Koester said. "Roughly 50 have gone all the way through the requirements to receive formal recognition by the FAA for their SMS program, and that's a recent development."

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Applicability to Part 91 Operators

During the session's questions and answers, Josh Hernandez, a pilot for a Part 91 operation based in Chicago, wanted to know if the FAA has a proposal on the table to expand Part 91 operations beyond those operators that are conducting operations for compensation.

"NTSB Chair Jennifer Homendy has indicated the board would like to see the requirement for SMS expanded to anyone conducting operations for compensation," Koester said. "So my hunch is that this means [broadening a set of SMS mandates to] Part 125 [operations] instead of expanding to additional Part 91 operators and potentially Part 91(k) [operations]. But beyond that, I wouldn't expect an expansion to all Part 91 operations. There isn't anything on the table – there's no proposal."

Koester explained that the FAA would have to release a new NPRM before they would issue new rules that would affect other regulatory segments. "They'd have to go through all the administrative procedures and acts as well as a cost benefit analysis. There are a lot of steps required when the FAA puts out new regulations. And they can't simply skip those by adding other regulatory or operating parts into the final rule that weren't included in the original NPRM."

NBAA is currently assessing the NPRM and preparing to submit comments. As FAA officials have developed the SMS proposal, NBAA has continually provided guidance to the agency. Above all, NBAA has emphasized a critical guiding principle: for any SMS to be truly effective, it must be tailored to the size and complexity of the operation.

NBAA
National Business Aviation Association

Koester encouraged attendees to email NBAA at sms@nbaa.org if they have additional questions about the FAA's NPRM.

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SAFETY MANAGER'S CORNER

Safety Manager Training:

What does it take to be a successful safety manager in a business aviation operation? That's a question with quite a detailed litany of answers so let's close up the aperture and focus on what type of training contributes to a safety manager's successful performance. There aren't many people who can learn everything at once or have an infinite amount of available time, so setting training personal priorities is really important. This month's Corner is going to focus on subject matter knowledge important to every safety manager.

First and foremost, a safety manager must thoroughly understand the safety management system; sounds obvious but there's more there than meets the eye. A safety management system is not especially complicated but it does possess abundant branches and a very wide swath, and therefore commands a breadth of subject matter surprising to many individuals. Safety management systems are comprised of four major components- policy, hazard identification and risk management, assurance, and promotion. Let's break each down individually and identify some requisite individual skills and knowledge.

Policy: An in-depth knowledge of regulations and industry guidelines. Organizational management. Process development. Excellent writing skills. Emergency response planning and coordination.

Hazard identification and risk management: Operations management. Aircraft and facilities maintenance. Incident and accident investigation. Root cause analysis.

Assurance: Analytical report writing. Quality management. Auditing and evaluation programs. Project management. Data and trend analysis. Statistical modeling.

Promotion: Excellent verbal and writing communication skills. Ability to relate to employees of all levels. Leadership skills. Coaching and teaching skills. Ability to act as a principal advisor to flight operation top management. Understand and promote model behaviors.

Knowing how to implement a system may also be a required skill, depending upon the safety management posture of your flight operation. You might start from the beginning or have to pick up the implementation mid-stream. In either case, a safety manager must have a firm grasp on project management and outstanding communication skills.

OK it's understandable to gasp at all those topics, but it's important to take the proper "Rome wasn't built in a day" approach. You may already possess several or most of those attributes and just need continuing education; other topics might be brand new subject matter and a choice between self-learning or dedicated instructional training. Managing a safety system demands skill and knowledge, as well as the dedication to attain both. Keep pushing forward on the right training path and things will fall into place quite nicely.

6021 South Syracuse Way
Suite 301
Greenwood Village, CO 80111
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+1 800.361.2216
argus.sales@argus.aero

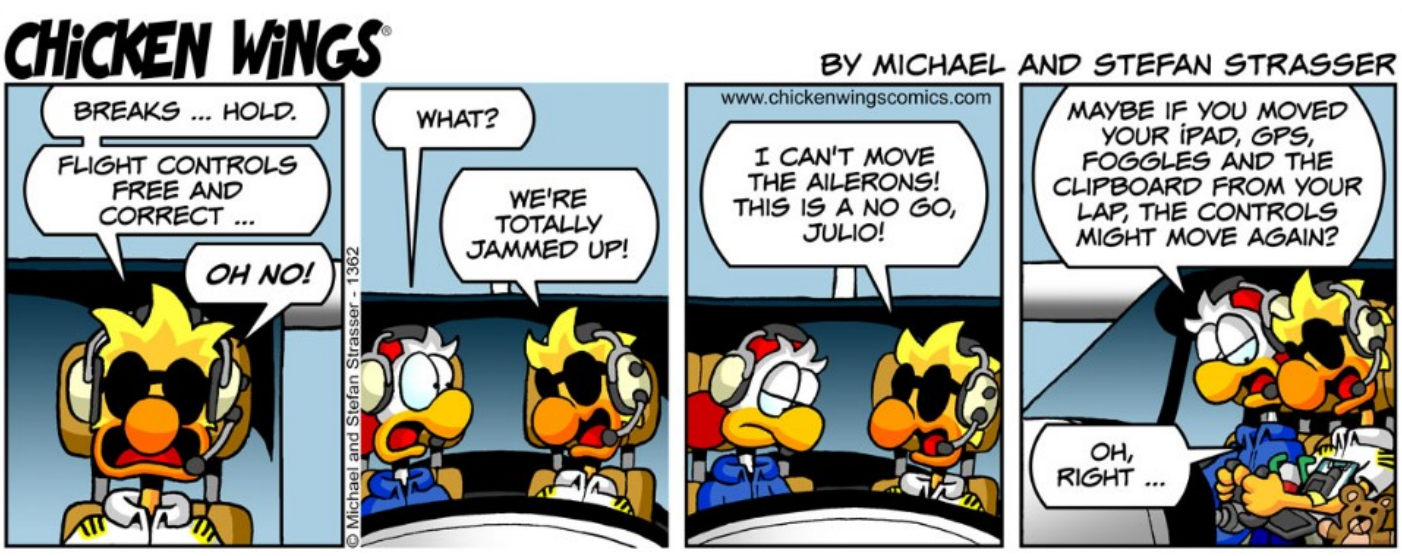
Quote of the Month

"Life moves pretty fast. If you don't stop and look around once in a while, you could miss it."

— Ferris Bueller

Aircraft move fast, so we move slow. It is important, especially as safety managers to slow down the torrent. Information can come at you quicker than you have time to effectively manage it. This can lead to solving problems that didn't exist, or even worse missing the obvious solution. Remember that when it comes to day to day safety, you and your department set the pace.

On Short Final...



6021 South Syracuse Way
Suite 301
Greenwood Village, CO 80111
+1 513.852.5110
+1 800.361.2216
argus.sales@argus.aero

CONTACT LIST

Susan Cadwallader
susan.cadwallader@prism.aero
VP,SMS Services

Jenna Albrecht
Jenna.albrecht@prism.aero
Program Manager, SMS Services

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

Rhodri Norton-Quick
Rhodri.Norton-Quick@prism.aero
Safety Analyst, SMS Services

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

UPCOMING COURSES

March 28 to March 30, 2023—PRISM Course
Safety Management System (SMS)
Denver, CO

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

On Demand —PROS Course
Virtual IOSA Conformance Auditor Training
Denver, CO

On Demand —PROS Course
Recurrent ICAT Training (R-ICAT)
Online

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