

FY 2022

GREAT LAKES (AGL) REGIONAL RUNWAY SAFETY PLAN

COMMITTED TO CONTINUOUSLY IMPROVING SURFACE SAFETY.



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EXECUTIVE SUMMARY

Surface safety in the U.S. national airspace system remains as one of the FAA's top priorities. In response to the agency goal and as a follow up to the Runway Safety Program's fiscal year (FY) 2021-23 National Runway Safety Plan (NRSP), the FY 2022 Great Lakes (AGL) Regional Runway Safety Plan (RRSP) serves as a road map with regional runway safety emphasis for the fiscal year.

Runway Safety's overarching objective is to reduce serious runway safety events by identifying, mitigating, and monitoring factors that combine to create risk before serious events occur. This proactive decision-making process is defined under the FAA's Safety Management System (SMS). This regional plan aligns its initiatives with the four SMS Functional Components: Safety Policy,

Safety Risk Management, Safety Assurance, and Safety Promotion.

In its mission to lead planning, development, operation, and maintenance of a safe and efficient system of airports within the region, the members of the Regional Runway Safety Governance Council (RRSGC) and the Regional Runway Safety Program Manager(s) (RRSPM) will determine the impact and resources of the initiatives described in this plan. This is a fluid and dynamic document which will be evaluated and modified as events warrant.

Runway Safety Program FAA Order 7050.1B prescribes the FAA Runway Safety Program and establishes policy, assigns responsibility, and delegates authority for ensuring compliance with this order within each organization.

Executive Roster

Rebecca MacPherson
AGL Regional Administrator

Christina Drouet
AGL Deputy Regional Administrator

Susan Mowery-Schalk
Manager, AGL Airports Division

Franklin McIntosh
Director, CSA Air Traffic Services

Doug Lockwood
Director (A), CSA Technical Operations Services

Matthew J. Porter
Sup Aviation Safety Inspector, AVS

Regional Runway Safety Team (RRST)

Margit McKee
AGL Regional Runway Safety Manager

Jennifer Settle
AGL Regional Runway Safety Manager

**REBECCA BYERS
MACPHERSON** Digitally signed by **REBECCA BYERS
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Rebecca MacPherson
AGL Regional Administrator

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Sup Aviation Safety Inspector, AVS

OVERVIEW



FAA Safety Management System

The FAA employs an SMS, which provides a formalized and proactive approach to find, analyze, and address risk in the national airspace system. A main function of the SMS is to collect and analyze relevant data that identifies the factors that constitute acceptable risk.

A fundamental impact of the Runway Safety Program's NRSP has been the successful integration of SMS principles into surface safety strategy. The NRSP focuses on the development of interagency strategic processes in the transition from event-based to risk-based analysis in the assessment of current risk and in the prediction of future risk.

The goal for the NRSP is to leverage new processes, sources of safety data, and integrated safety analysis to reduce serious runway safety events, and to identify, mitigate, and monitor the conditions and factors that combine to create risk before serious events occur.

To that end, and while formal directives and agreements are developing, this RRSP will align its activities with the principles and components of the FAA's SMS: Safety Assurance, Safety Risk Management, Safety Policy, and Safety Promotion.

Regional Surface Safety Focus

In addition to the Runway Safety Action Team (RSAT) activities and event tracking and trend analysis, the regional surface safety focus in FY 2022 will be working with AGL facilities to ensure a Runway Safety Area (RSA) Letter of Agreement (LOA) exists. As a member of the National Runway Safety Video Focal Team, the RRSPM will be working with the FAA Office of Communications and local stakeholders to develop *From the Flight Deck* videos for season 5.

Priority Airports

To determine Priority Airports, the Regional Runway Safety Team (RRST) evaluates surface event data along with trends from the previous years for each of the airports containing an FAA or Federal Contract Airport Traffic Control Tower (ATCT). In addition, other criteria such as upcoming construction, poor inspection records, and other factors that may contribute to additional surface risk, were also considered in decision making. Each of the region's Priority Airports has a unique driver behind the number and type of surface events at that location that may indicate an increased "exposure" to surface risk.

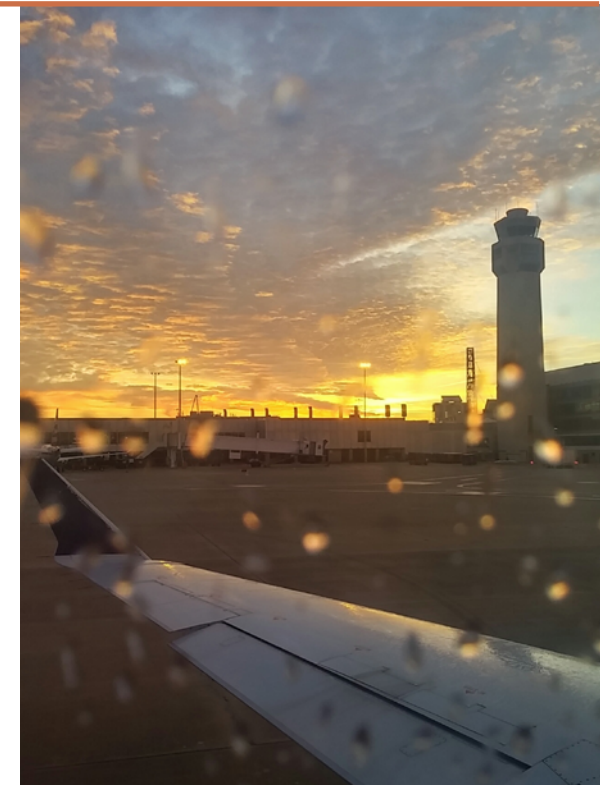
Runway Safety requests support and attendance from each RRST representative or management designee to the greatest extent practical at the Local Runway Safety Action Team (LRSAT) meetings at Priority Airports.

- Aurora Municipal Airport, IL (ARR)
- Duluth International Airport, MN (DLH)
- Flying Cloud Airport, MN (FCM)
- Grand Forks International Airport, ND (GFK)

Airports of Interest

The RRST also identifies airports that may warrant additional attention due to upcoming construction, changes to airfield operations, or other activities that may lead to surface events. The RRST members monitor these airports, participate in LRSAT meetings, attend Safety Risk Management Panels (SRMP), and conduct other activities to the extent practical. If runway safety related issues arise during the fiscal year, the RRST may determine that other measures or on-site activities may be warranted at the Airports of Interest listed below.

- Cleveland-Hopkins International Airport, OH (CLE)



- John Glenn Columbus International Airport, OH (CMH)
- DuPage Airport, IL (DPA)
- Indianapolis International Airport, IN (IND)
- Crystal Airport, MN (MIC)
- General Mitchell International Airport, WI (MKE)
- Chicago Executive Airport, IL (PWK)
- Rockford International Airport, IL (RFD)

All Other Airports

Airports not identified as Priority Airports or Airports of Interest will be monitored by the RRSPM. The RRSPM will identify airports that develop surface safety event trending that merit additional attention. The RRSPM may bring an airport to the attention of the RRST/RRSGC if there is any significant change in trending that may include but not limited to types of surface events, severity, and frequency. This may then elevate the airport to Airport of Interest or Priority Airport.



AIRPORT MONITORING

Regional Runway Safety Plan Updates

The RRST will undertake the initiatives listed in this plan. No specific completion dates are provided for each action item, but all are expected to be completed.

The RRST will provide the RRS GC with information to determine impact and necessary resources for assignment to these initiatives. This document is fluid and will be evaluated on a continuing basis and modified as events warrant.

All RRST members will collaborate in the development of this plan annually, with concurrence from the RRS GC.

FY 2021 Top AGL Surface Incidents (SI)			
AIRPORT CODE	NUMBER OF SIs	AIRPORT OPS	SI RATE PER 100K OPS
ORD	24	622411	4
DLH	13	64592	20
ARB	5	75811	6.60
FCM	5	133217	4
CVG	4	127282	3.14
DTW	4	272631	1
PWK	4	96596	4

AIRPORT MONITORING CHARTS

FY 2021 AGL Runway Incursions (RI) and Surface Incidents (SI)															
AIRPORT CODE	STATE	RIs	AIRPORT OPS	RI RATE/ 100K	INCIDENT TYPE				SEVERITY CATEGORY					NUMBER OF SIs	SI RATE PER 100K OPS
					OI	PD	VPD	OTHER	A	B	C	D	E		
ARR	IL	10	78531	12.73	2	6	2				4	6		1	1
CLE	OH	0	81536	0.00	0									1	1
CMH	OH	2	87514	2.29								2		1	1
DLH	MN	10	64592	15.48	3	5	2				4	6		13	20
DPA	IL	6	119042	5.04		3	3				3	3		0	0
DTW	MI	3	272631	1.10		2	1					3		4	1
FCM	MN	22	133217	16.51	2	17	3	0			4	17		5	4
GFK	ND	9	357515	2.52		4	4	1			2	7		3	1
IND	IN	3	171885	1.75	1	2					3			0	0
MDW	IL	12	172735	6.95	3	6	3				8	4		0	0
MIC	MN	8	36312	22.03		3	5					8		2	6
MSP	MN	4	288979	1.38	3	1					3	1		1	0
ORD	IL	15	622411	2.41	8	3	4				9	6		24	4
PWK	IL	3	96596	3.11	2	0	1				1			4	4
RFD	IL	4	46792	8.55	1	2	1				3			1	2

The RRSPM takes appropriate action to monitor the tiered support structure and address increasing surface error trends with the RRST. The RRS GC may elevate systemic issues as appropriate to their respective lines of business or to the National Runway Safety Council (RSC) through the Runway Safety Group Manager (RSGM). In addition, Priority Airports may also be candidates for national consideration for a Special Focus RSAT as determined by the RSGM.

- The RRST established a tiered support structure for the level of Runway Safety Action Team (RSAT) support to be provided at towered airports within the region:

 - Priority Airports
 - Airports of Interest
 - All Other Airports
- Special Focus RSAT (SFRSAT) and Regional RSAT Airports (if applicable)



1. SAFETY ASSURANCE

Runway Safety will support safety mitigations by proactively identifying hazards and risks based on continuous analysis of data. This plan supports the FAA's commitment to build on safety management principles to proactively address emerging safety risk by using consistent data-informed approaches to make smarter, system-level, risk-based decisions.

Initiative 1

Safety Analysis and Mitigation

1.1 Runway Safety will support the Air Traffic Organization (ATO) Top 5 list of hazards directly related to wrong surface landings.

1.2 Runway Safety, Flight Standards (AFS), Airports Division (ARP), and Air Traffic Services (ATS) will share relevant incursion data including analysis, trends, and findings to increase awareness and provide visibility of event data and trends at regional airports.

1.3 Runway Safety will continue to coordinate and review hot spots in Great Lakes Region and work with the appropriate lines of business (LOB) to address, publish and mitigate those areas of concerns.

1.4 Runway Safety will support the Runway Incursion Assessment Team (RIAT), support data collection and recommend best practices for pilots, controllers, and vehicle operators.

1.5 Runway Safety will coordinate with Quality Control Group (QCG) to monitor effectiveness of the RSAT process to include compliance with FAA Order 7050.1B. This will include RSAT planning and coordination, Runway Safety Action Plan (RSAP) review/ acceptance, action items tracking and any supporting data for External Compliance Verifications (ECV).

1.6 Runway Safety will work with Regional Air Traffic Managers (ATM) during RSAT meetings to aid in mitigating local risk. This may include but not limited to support and coordination of LOAs, hot spots, protection of Runway Safety Areas (RSA), airport operational procedures, etc.

1.7 Runway Safety will monitor and track action items that are developed during RSAT meetings and coordinate with QCG and applicable LOBs and stakeholders as necessary for completion.

1.8 Runway Safety will track runway safety data to support action items and mitigations that aid in producing improved safety and will work with airport sponsors, LOBs, stakeholders, etc. to modify/correct when appropriate.

2. SAFETY RISK MANAGEMENT

LRSAT meetings provide the foundation of the Runway Safety Program and are the primary means to identify and address site-specific surface risk at the local level. Runway Safety will work with ATMs and others as necessary to explore ways to enhance the RSAT process.

Initiative 2

RSAT Meetings

2.1 Runway Safety will attend/participate in annual RSAT meetings for all "Priority" and "Interest" Airports published in the FY 2022 AGL RRSP.

2.2 Runway Safety will promote the use of the RSAT Web Tool to conduct RSAT meetings throughout AGL through pre-RSAT coordination efforts and other ATM outreach efforts.

2.3 Runway Safety will promote/encourage the use of *From the Flight Deck* and other (FAA branded) safety videos, single-topic videos, and *Runway Safety Pilot Simulator* at RSAT meetings, as appropriate.

2.4 The RRSGC member or designee is the subject matter expert (SME) for runway safety related issues pertaining to their respective LOB and will proactively solicit input from field managers to obtain locally possible solutions to mitigation efforts. Participation in RSAT meetings at Airports of Interest is highly encouraged and may be virtually or in person when able.

2.5 Specific to SFRSAT meetings, Runway Safety will:

- Identify airports to be considered by the

MILESTONES FY 2022

• **Attend** RSATs at AGL Priority Airports: ARR, DLH, FCM, GFK

• **Support** RSATs at AGL Airports of Interest: CLE, CMH, DPA, IND, MIC, MKE, PWK, RFD

RRSGM for SFRSAT meetings based on defined criteria, historical data, and repetitive challenging events. Example data may include wrong surface operations risk, runway excursion risk, or surface collision risk.

- Provide local coordination for SFRSAT meetings.
- Partner with Office of Airports and AFS for their active participation at SFRSAT meetings.

MILESTONES FY 2022

• **Ensure** AGL facilities are establishing a local RSA LOA

3. SAFETY POLICY



4. SAFETY PROMOTION



Communication and engagement are essential to the success of this RRSP. Engaging with key stakeholders and customers enables Runway Safety to advance towards the goal of reducing surface safety risk.

Initiative 4

Communication Strategy and Engagement

4.1 Runway Safety and participating LOBs will discuss safety initiatives and share relevant information necessary for cross collaboration during each RRSGC meeting. This partnership effort is important in accomplishing regional safety initiatives.

4.2 Runway Safety will support the Regional Administrator's Office by sharing and providing pertinent Runway Safety data and RSAT dates as requested to support annual State Aviation Conferences and Meetings, National Association of State Aviation Officials (NASAO) Meetings and/or other aviation industry group meetings to promote aviation safety.

4.3 AFS will provide Runway Safety and the RRSGC with an analysis report on pilot deviation runway incursions upon request. This analysis will be used by the RRSGC to better understand possible causal factors related to incursions and to potentially help in identifying mitigations.

4.4 Runway Safety will provide copies of completed RSAPs for visibility and awareness of discussion items, mitigations, and safety recommendations to LOBs when requested and as necessary for collaboration on completing local action items.

4.5 Runway Safety will identify airports to include on a priority list for future *From the Flight Deck* videos.

4.6 For video locations in AGL, Runway Safety will coordinate with LOBs as necessary to identify key issues, draft the video script, review the video for accuracy, and promote the video upon release to all available parties.

4.7 Runway Safety will promote *From the Flight Deck* videos, *Runway Safety Pilot Simulator* animations and other safety products with the FAAS team and stakeholders for their use at general aviation pilot forums, etc.

Policy, responsibility, and accountability that bear on surface safety, and the organizations charged with risk mitigation and safety improvement, are put forth in FAA Order 7050.1B Runway Safety Program and the NRSP.

MILESTONES FY 2022:

Conduct Quarterly RRSGC meetings

Note: FAA Order 7050.1B is undergoing a rewrite effort. All attempts will be made to accommodate the enclosed goals and policies or some improved version thereof, however, any deviations will be addressed as needed to maintain the intent of the current document.

Initiative 3 Safety Policy

3.1 Regional Administrator will host and coordinate quarterly RRSGC meetings to include executive support and engagement with management from each LOB for participation and collaboration on regional runway safety initiatives.

3.2 In accordance with FAA Order 7050.1B, Runway Safety will coordinate this plan with all members of the RRST and the Regional Administrator.

3.3 In accordance with FAA Order 7050.1B, the Service Area Manager will submit the final plan to the RSGM for approval.

MILESTONES FY 2022

• **Support** the *From the Flight Deck* video initiatives at airports within the Great Lakes Region.

• **Communicate** Runway Safety products with AGL stakeholders

COMPLETED MILESTONES

SAFETY ASSURANCE

29 of 81 facilities are
establishing/have a local
RSA LOA

SAFETY PROMOTION

Airport Winter Operations
video
RELEASED 11-09-21

SAFETY POLICY

Q1 RRS GC Meeting
COMPLETED 10-06-21

Q2 RRS GC Meeting
COMPLETED 02-24-22

APPENDIX A: Regional Runway Safety Team (RRST) Roster

AGL Regional Administration	
Regional Administrator	Rebecca MacPherson
Regional Deputy Administrator	Christina Drouet
Runway Safety	
Runway Safety – AGL	Margit McKee
Runway Safety – AGL	Jennifer Settle
Midwest ATC RSPM	Tigh Savage
Air Traffic	
Midwest ATC GM	Amy St. Pierre
Midwest ATC AGM	Parry Campbell
	Joe Figliuolo/ Kevin Grammes/ Ronald B Lilly
Cleveland	
Indy/Memphis	Dale McNeal
Minneapolis	Hope Kubala/ Tony Postiglione
Chicago Tim Prendergast	Kathy Asselborn/
Salt Lake City	Michael Ralph
Kansas City	Daniel Needham
Tech Ops	
Cleveland	Carl Lapray
Indianapolis	Keith Patterson
Chicago	Terry Stoltz/ Mike Paulsen
Minneapolis	Andy Peek
Minneapolis North Group	Christopher Menz
Minneapolis Central Group	Josy Peterson
Minneapolis South Group	John Lynn Jensen
Michigan Group	Tracy Cuff
Kansas City	Christopher Hugunin

Airports	
AGL-620 Safety and Standards Manager	Denson Stasher
Lead Airport Certification Safety Inspector	Tricia Halpin
Airport Certification and Safety Inspector	Nader Kharazi
Detroit ADO (OH, MI)	John Mayfield/ Stephanie Swann
Chicago ADO (IN, IL, WI)	Deb Bartell
Dakota/Minnesota ADO (MN/ND/SD)	Lindsay Butler
Flight Standards/FAAS team	
FAAS team SLT Lead/ Overall POC	Charles “Chad” Gilbert, AFS-850
FAAS team SLT Leads	Jim Lamb, AFS-850
FAAS team Program Manager	Steven Steele

APPENDIX B: Programs and Definitions



Airport Construction Advisory Council (ACAC):

ACAC is dedicated to ensuring the safety of all stakeholders operating in the National Airspace System (NAS) during all runway and taxiway construction projects. The ACAC is tasked with developing strategies and risk mitigations, for Air Traffic Managers (ATMs) to employ, that will enhance surface safety and ensure that communication is complete and consistent. The ACAC strives to serve as a conduit for sharing good operating practices between managers throughout the NAS. The ACAC is responsible for transforming appropriate strategies and best practices into future Air Traffic Organization policy to perpetuate operational safety during all construction projects.

Airports Division (ARP): The Airports Division is involved in a number of programs and initiatives focused on improving airport and runway safety and reducing the number and severity of runway incursions. Provided below is a brief synopsis of these programs:

• **Airport Improvement Program (AIP):** The Airports Division administers the Airport Improvement Program (AIP) which provides grant funds to airport operators for airport planning and improvements. Airfield projects designed to reduce runway incursions may be eligible for AIP funding. These may include airfield geometry changes, certain Runway Safety Action Plan (RSAP) Action Items, certain airfield marking, lighting, and signage projects. All questions and discussions regarding AIP projects or eligibility must be referred to the appropriate Airports District Office (ADO).

• **Part 139 Airport Certification Safety Program:** The Airports Division certifies airports serving air carriers utilizing aircraft over nine passenger seats. Part 139 contains a number of regulations relevant to runway safety.

These include requirements and minimum standards for airport pavement; runway safety areas; airfield marking, lighting, and signage; limiting access to airport movement areas; and airfield driver training. Airport Certification Safety Inspectors conduct airfield inspections on a regular basis to ensure compliance with these and other applicable requirements. In addition, all Runway Incursions involving ground vehicles or pedestrian deviations (V/PDs) are formally investigated by the Airports Division. Any questions and discussions about compliance with Part 139 must be referred to the Airport Safety and Standards Branch (ASO-620).

• **Local Runway Safety Action Teams (LRSAT):** The Airports Division strives to participate in as many RSAT meetings as possible. Airports Division utilizes a Regional Tracking System to monitor Airports Division Action items in Runway Safety Action Plans and report on the status as part of Business Plan reporting.

• **Runway Incursion Mitigation Program (RIM):** In 2014, the Office of Airport launched the Runway Incursion Mitigation (RIM) Program to address non-standard geometry at airports. RIM initially mapped the location of all runway incursions occurring in 2007 through 2013. The data for 2014 has since been added. This information was then overlaid upon locations where airfield geometry appeared to not meet current FAA design standards. Locations with multiple runway incursions and non-standard geometry were identified as priority RIM locations and discussions were initiated with the airport operators regarding possible changes to the airfield to address the runway incursion risks. The RIM is a dynamic and continuing program using Risk-Based Decision Making to focus resources on the planning and construction of projects to reduce the potential for

runway incursions where airfield geometry may be a contributing factor.

Air Traffic Organization Technical Operations

(AJW): Technical Operations is responsible for maintaining and repairing National Airspace System (NAS) equipment. This may include but is not limited to Instrumental Landing Systems (ILS). Typically, the ILS is located in between or near runways. The Airway Transportation System Specialists (ATSS) attend required instruction annually to traverse in those areas. If a deviation has occurred involving Technical Operations, a “Lessons Learned” is completed and a review of driver training records is conducted. If need be, a briefing or Service Rendered Telecom (SRT) will take place involving the parties.

Air Traffic Services (ATS): The primary purpose of the ATC system is to prevent a collision between aircraft operating in the system and to provide a safe, orderly and expeditious flow of traffic. ATS provides safe, efficient and secure air traffic control and traffic management services to system stakeholders.

Air Traffic Services Quality Control Group

(QCG): The purpose of quality control, as defined in the ATO, is to assess the output (whether a product or service) of a particular process or function and identify any deficiencies or problems that need to be addressed. Within this quality control concept, it is a primary responsibility to take action, particularly at the Service Delivery Point (SDP), to ensure that these products or

services meet the requirements of the SDP and the ATO organizationally. Quality Control directives outline the processes and steps utilized to ensure the quality of products and services provided at the SDP level on an ongoing basis.

Anti-Runway Incursion Device (A-RID): Any device that is used to provide a reminder to a controller that the runway surface is in use and therefore not safe to be crossed, landed upon, used for takeoff, etc.

Compliance Oversight: In FY16, the FAA adopted a program now named Compliance Oversight which, for Flight Standards, mandates that Aviation Safety Inspectors finding any airman or organization not meeting the minimum regulatory requirements related to their certificate, evaluate underlying cause, airman/organizational attitude, and implement corrective action that promptly and effectively restores full compliance. Such actions are taken in a cooperative process involving specific compliance actions such as airman counselling, remedial training, or other specific program related to the problem(s) identified in the investigation. Airmen or organizations who demonstrate chronic noncompliance, inability to perform, or who have noncompliant attitudes are ineligible for Compliance Oversight. Beyond Flight Standards, Compliance Oversight exists throughout the FAA and is supported by the Safety Management System (SMS) approach to aviation safety.

Comprehensive Electronic Data Analysis and Reporting Tool (CEDAR):

Refers to the Comprehensive Electronic Data Analysis and

Reporting Tool used by ATO to report occurrences in the National Airspace System (NAS).

FAA Safety Team (FAASTeam): The FAASTeam supports the Administrator's Runway Safety initiatives by participating at LRSATs and providing Runway Safety outreach to pilots. FAASTeam employees working within (Flight Standards District Offices) FSDOs are engaged in the following efforts related to Runway Safety:

- Carry out tasks in the FAASTeam National Performance Plan (NPP) related to Runway Safety.
- Coordinate FAA outreach with airmen and aviation organizations in association with local ATC facilities and airport operators.
- Assist FSDO Inspectors in investigation of PDs to the extent that useful safety information is discovered and acted upon.
- Draft formal Safety Recommendations if applicable.
- Draft educational programs and/or products appropriate to local Runway Safety issues.
- Utilize volunteer FAASTeam Representatives including CFIs and DPEs in all aspects of Runway Safety Promotion.
- Assist FSDO Inspectors in implementation of airman remedial training and counselling per the Compliance Oversight.
- Report and analyze local safety issues and trends as a section of the annual FSDO Report to the FSDO Manager.

Flight Standards (AVS): The Flight Standards organization does business through Flight Standards District Offices (FSDO) and Certificate Management Offices (CMO) located strategically throughout the Great Lakes Region. Each FSDO/CMO Office Manager has been assigned direct responsibility for managing all matters relating to Runway Safety within the scope of Flight Standards oversight as concerns his or her geographical area of responsibility. These include:

- Oversight of certificated airmen and aviation organizations including certification, surveillance, accident/incident investigation, and enforcement.
- Safety Promotion and Educational Outreach utilizing the FAASTeam employees who report directly to each office manager.

- Collaboration with FAA LOBs and Stakeholders to identify aviation hazards and associated risks and to implement corrective action within the area of responsibility to reduce the potential of aviation accidents and incidents.
- Oversight of Flight Standards Programs at the local level intended to improve runway safety within the area of responsibility and to coordinate this with the RRST through Flight Standards Division Management.
- AVS Offices are engaged in the following specific efforts related to Runway Safety:
 - Prompt response and investigation of occurrences, incidents, and reported pilot deviations.
 - Creating high quality reports documenting all investigations.
 - Identification of systemic problems and forwarding recommendations and proposed mitigations for appropriate FAA action/response.
 - Implementation of the most effective corrective actions through the FAA Compliance Philosophy which emphasizes a cooperative approach with airmen and stakeholders.
 - Upholding minimum regulatory standards as applied to airmen and organizations that operate in the NAS.

Hotspot: An airport surface hotspot is a location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots/drivers/controllers is necessary.

Incorrect Presence: Presence inside the movement or protected area caused by non-compliance with a requirement or instruction.

Mandatory Occurrence Report (MOR): An occurrence involving air traffic services for which the collection of associated safety-related data and conditions is mandatory. CEDAR is the preferred method of submitting MOR's.

Movement Area: The runways, taxiways, and other surface areas of an airport/heliport which are used for taxiing/hover taxiing, air taxiing, and/or takeoff and landing of aircraft, and which are under control of



the operating ATCT. The movement area is typically defined in a local letter of agreement between the ATCT and airport operator.

National Association of State Aviation Officials Runway Safety Initiative: As put forth in a Memorandum of Understanding (MOU) between FAA and NASAO (National Association of State Aviation Officials) both parties will explore methods of working collaboratively, to provide and disseminate information on runway safety in order to reduce both incursion and excursions at towered controlled airports. The focus will be on providing educational outreach and subject matter expertise to the aviation community regarding Runway Safety operations, regulations, and related issues. The MOU is considered an ongoing commitment, until both FAA and NASAO determine the objectives of the MOU have been satisfactorily achieved.

Protected Area: The protected area of a surface intended for landing or takeoff includes the area inside the runway hold position markings (e.g., hold line) on paved taxiways or ramps and the designated runway safety area.

Regional Runway Safety Governance Council (RSGC): Chaired by the Regional Administrator or designee, and composed of the RRSPM and executives or designees from Airports, Flight

Standards, and ATO Terminal Operations. Each region may choose whether to establish such a council, based on the needs of the region and the judgment of the Regional Administrator. The council is responsible for ensuring that regional initiatives and actions are being accomplished in the appropriate manner and timeframe, and to approve/concur or provide resources, if necessary, as recommended by the RRST.

Regional Runway Safety Program Managers (RSPM): Represents the Runway Safety Group in activities within the region. Chairs the RRST, develops and implements the Regional Runway Safety Plan. For a complete description of responsibilities please see Order 7050.1B.

Regional Runway Safety Team (RRST): The Great Lakes RRST is comprised of Runway Safety staff and at least one designated representative of Service Area Terminal Operations, Service Area Technical Operations, and the Flight Standards and Airports regional divisions. Advisory members of the team may include designees from each of the Air Traffic and Tech-Ops districts. RRST is charged with identifying regional priorities and working through their executive representative on the RSGC to ensure that issues are properly vetted through their respective LOB and for prior coordination before RSGC meetings.

Runway Excursion (RE): A veer-off or overrun off the runway surface.

Runway Incursion Prevention Shortfall Analysis (RIPSA): Runway Incursion Reduction Program (RIRP) has initiated the Runway Incursion Prevention Shortfall Analysis (RIPSA). RIPSA was created in response to NTSB Safety Recommendation A-00-66 and is also a Call to Action NextGen Technology Initiative. Initial candidate airports were selected from a list of 484 airports that reported runway incursions over a 10-year period ending FY 2014. The candidate airports were reevaluated and the list adjusted due to changes in RI trending. RIPSA focuses on small to medium airports that do not have existing surface surveillance systems.

Runway Incursion Warning System (RIWS): The RIWS system has been proven to prevent incursions by alerting a driver – visually and audibly, prior to the vehicle entering a runway safety area (RSA) or other airport defined hazard zones. The system meets the technical requirements for accuracy, frequency of positional updates, prediction of vehicle position, and alerting set forth by the FAA on windows or Apple iOS based systems. This is accomplished through proprietary software algorithms and precision WAAS enabled GPS modules on each device. The combination of software and hardware make it possible to calculate the position of the vehicle, its speed and direction of travel ten times per second and to predict if the vehicle will make entry into a protected area and alert the driver with sufficient time to take corrective action if not authorized to make entry.

The RIWS solution provides airports of all sizes with an added layer of safety for vehicle movements by:

- Preemptively alerting a drive of a potential incursion into a Runway Safety Area or protected space
- Improving situational awareness by displaying a highly accurate location of the vehicle over the airports own geographical information system maps.
- Displaying the position of aircraft and other vehicles in near real-time from sources such as the FAA ASDE-X/ASSC systems.
- Broadcasting the position of the vehicle through

FAA certified vehicle movement area transponder units to air traffic controllers and pilots.

- Displaying of static, airport predefined routes to common locations, to further assist in mitigating disorientation of a driver in reduced visibility or at night.

Runway Safety Action Team (RSAT): The RSAT convenes to discuss surface movement issues and concerns at a particular airport and formulate a Runway Safety Action Plan (RSAP) to address those concerns. Regional and local RSATs must include personnel from the ATCT and airport operator and may include personnel from various FAA lines of business (including Runway Safety) and interested users of the airport. Composition of special focus teams may vary. All attendees at the RSAT meeting are considered to be part of the RSAT. A Regional RSAT is led by Runway Safety and a local RSAT is led by the ATCT manager.

Runway Safety Service Area Manager: Located in the Service Center in Dallas/Fort Worth, the Runway Safety Service Area Manager supervises the Regional Runway Safety Program Managers and interacts with the ATO Service area offices, Regional LOBs Managers, and Regional Administrators. For a complete description of responsibilities please see Order 7050.1B.

Runway Safety Group (RSG): RSG is the focal point for runway safety initiatives in the NAS. RSG works with other FAA organizations and the aviation community to improve runway safety by reducing the frequency and severity of Runway Incursions (RI) Runway Excursion (RE) and Surface Incidents (SI). RSG responsibilities are set forth by FAAO 7050.1B, Runway Safety Program.

Runway Safety Program (RSP): RSP is a cross lines of business program focused on improving runway safety by decreasing the number and severity of runway incursion, runway excursions, and other surface incidents. The FAA lines of business are guided by FAA Order 7050.1B, Runway Safety Program. The order establishes policy, assigns responsibilities and delegates



authority for ensuring compliance with this order within each organization.

Runway Safety Tracking System (RSTS): The RSTS is a web based database application employed by the RSG to track events, action items, documents and other information pertinent to FAA's runway safety mission. The primary data sources are regional and local Runway Safety Action Team meetings.

Severity Classifications: Runway Incursions are assessed by Runway Safety and classified by the severity of the event. The Severity Classifications are:

- **Accident:** An incursion that results in a collision. For the purposes of tracking incursion performance, an accident will be treated as a Category A runway incursion.
- **Category A:** A serious incident in which a collision was narrowly avoided.
- **Category B:** An incident in which separation decreases and there is a significant potential for collision, which may result in a time critical corrective/evasive response to avoid a collision.
- **Category C:** An incident characterized by ample time and/or distance to avoid a collision.
- **Category D:** An incident that meets the definition of a runway incursion, such as incorrect presence of a single vehicle/person/aircraft on the protected area of a surface designated for the landing and take-off of aircraft, but with no immediate safety consequences.
- **Category E:** An incident in which insufficient or conflicting evidence of the event precludes assigning another category.

Surface Event: An occurrence at an airport involving a pedestrian, vehicle, or aircraft on the defined airport movement area that involves either a runway excursion, or an incorrect presence, unauthorized movement, or occurrence that affects or could affect the safety of flight of an aircraft.

Surface events are classified into the following types:

- **Operational Incident (OI):** A surface event attributed to ATCT action or inaction.
- **Pilot Deviation (PD):** A surface event caused by a pilot or other person operating an aircraft under its own power (see FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation and Reporting, for the official definition).
- **Vehicle or Pedestrian Deviation (VPD):** A surface event caused by a vehicle driver or pedestrian (see FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation and Reporting, for the official definition).
- **Other:** Surface events which cannot clearly be attributed to a mistake or incorrect action by an air traffic controller, pilot, driver, or pedestrian will be classified as "other".
- **Surface Incident (SI):** Unauthorized or unapproved movement within the designated movement area (excluding runway incursions) or an occurrence in that same area associated with the operation of an aircraft that affects or could affect the safety of flight.

Wrong Surface Operation: An event where an aircraft lands on the wrong runway, taxiway or at the wrong airport. Also an event where an aircraft departs on the wrong runway or taxiway.

APPENDIX C: Acronyms

AAAE	American Association of Airport Executives
ACAC	Airport Construction Advisory Council
AFS	FAA Flight Standards Service
AGL	Great Lakes Region
AIP	Airport Improvement Program
AOPA	Aircraft Owners and Pilots Association
ARP	FAA Airports Organization
ATCT	Air Traffic Control Tower
ATM	Air Traffic Manager
ATO	FAA Air Traffic Organization
ATS	Air Traffic Services
ATSS	Airway Transportation System Specialists
CED	Comprehensive Electronic Data Analysis and Reporting Tool
CFR	Code of Federal Regulations
CMO	Certificate Management Office
DPE	Designated Pilot Examiner
EAA	Experimental Aircraft Association
FAA	Federal Aviation Administration
FAAST Team	FAA Safety Team
FSDOs	Flight Standards Districts Offices
FY	Fiscal Year
ILS	Instrumental Landing System
JO	Joint Order
LOB	Line of Business
LRSAT	Local Runway Safety Action Team
MOR	Mandatory Occurrence Report
MOU	Memorandum of Understanding
NAS	National Airspace System
NASAO	National Association of State Aviation Officials
NBAA	National Business Aviation Association

NPP	National Performance Plan
NRSP	Nation Runway Safety Plan
OI	Operation Incident
PD	Pilot Deviation
PFC	Passenger Facility Charge
QCG	Quality Control Group
RE	Runway Excursion
RGC	Regional Governance Council
RI	Runway Incursion
RIAT	Runway Incursion Assessment Team
RID	Runway Incursion Device
RIM	Runway Incursion Mitigation
RMT	Regional Management Team
RRSP	Regional Runway Safety Plan
RRST	Regional Runway Safety Team
RSATs	Local Runway Safety Action Team Meetings
RSAP	Runway Safety Action Plan
RSGC	Runway Safety Governance Council
RSG	Runway Safety Group
RSP	Runway Safety Program
RSPM	Runway Safety Program Manager
RST	Runway Safety Tool
RSTS	Runway Safety Tracking System
SI	Surface Incident
SDP	Service Delivery Point
SME	Subject Matter Expert
SMS	Safety Management System
SRM	Safety Risk Management
SRMGSA	Safety Risk Management Guidance for System Acquisitions
SSR	System Service Review
VPD	Vehicle or Pedestrian Deviation

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