

Executive Summary

In response to the agency goal and follow up to the National Runway Safety Plan, the ANE Runway Safety Plan serves as a road map with regional runway safety emphasis for FY2021.

The members of the Regional Runway Safety Governance Council (RSGC) and the Regional Runway Safety Program Manager(s) (RSPM) will determine the impact and resources. This is a fluid and dynamic document, which will be evaluated and modified as events warrant.

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

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

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1/8/2021

COLLEEN M. D'ALESSANDRO

ANE Regional Administrator

X Timothy Goodall

2/22/2021

TIMOTHY GOODALL

ANE Regional Runway Safety Program Manager

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

CALVIN ROHAN III

ESA Air Traffic Services Director of Operations

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TABLE OF CONTENTS

04	FAA Safety Management System (SMS)
06	Regional Runway Safety Plan (RRSP) Methodology
07	FY21 RRSP Initiatives
08	Safety Assurance
09	Safety Risk Management (SRM)
10	Safety Policy
11	Safety Promotion
13	Appendices

FAA Safety Management System (SMS)

The FAA employs a Safety Management System (SMS), which provides a formalized and proactive approach to find, analyze and address risk in the NAS.

A fundamental impact of the National Runway Safety Plan has been the successful integration of SMS principles into Runway Safety Strategy. The NSRP focuses on the development of inter-agency 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, the New England Regional Runway Safety Plan will align its activities with the principles and components of FAA's current SMS to the greatest extent possible.

National Runway Safety Plan Objectives

SAFETY ASSURANCE

Remain the global leader in assuring runway safety enhancement initiatives are effective in maintaining an acceptable level of safety at U.S. airports with an air traffic control tower.

Identify Operating Hazards
Program Data
Voluntary Safety Reporting
Investigations
Safety Risk Monitoring
Data Analysis
Partnership for Safety
Audits and Evaluations

SAFETY RISK MANAGEMENT

Implement Runway Safety Enhancement Initiatives that manage or reduce the risk of airport operations. Analyze, Assess, Mitigate, and Accept Risk Develop Monitoring Plan Safety Risk Management Documents

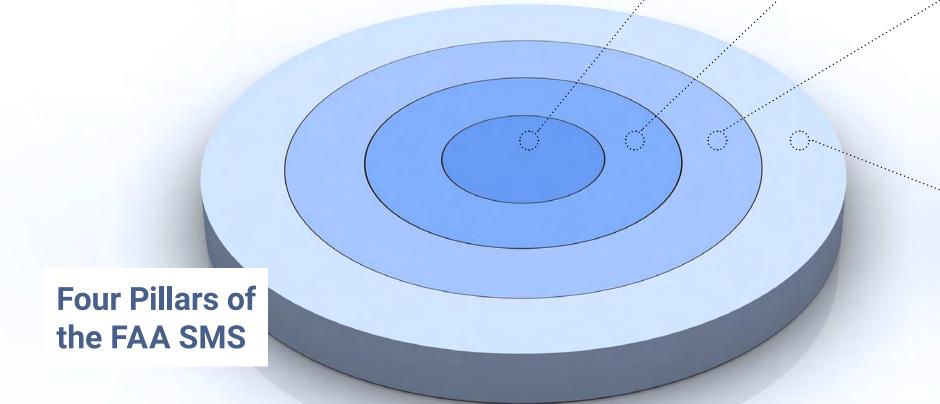
SAFETY POLICY

Establish and maintain policies and procedures to ensure adequate resources are available to accomplish the FAA's nearterm and strategic objectives. SMS Orders Safety Guidance FAA/ATO Safety Orders SMS Manual

SAFETY PROMOTION

Relentlessly promote best practices, lessons learned, and actionable information obtained from data analysis to our global runway safety stakeholders.

Outreach and Education Products Lessons Learned Workshops Safety Communication



Regional Runway Safety Plan (RRSP) Methodology

The Safety Management System (SMS) is composed of four main components which combine to create a systematic approach to managing and ensuring safety. These components are: Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion.

Safety Policy

Safety Policy is the organization's documented commitment to safety, which defines the safety objectives, accountabilities and responsibilities of its employees in regard to safety management. Safety Policy must be:

- Documented;
- Communicated to all employees and responsible parties;
- Consistent with FAA and U.S. SSP goals and objectives; and
- Reviewed periodically to ensure it remains relevant and appropriate.

Safety Risk Management

All applicable FAA organizations must establish and maintain a Safety Risk Management (SRM) function that provides for initial and continuing identification of hazards and the analysis and assessment of risk. SRM functions ensure that appropriate safety risk controls are developed and employed operationally.

Safety Assurance

All applicable FAA organizations must establish and maintain Safety Assurance processes to ensure that safety risk controls achieve their intended objectives and are used to assess operations to identify hazards. Safety Assurance includes monitoring systems of interest and assessing the need for new risk controls, modification of ineffective risk controls, or

elimination of those no longer needed due to changes in the operational environment.

Safety Promotion

Applicable FAA organizations must establish and maintain a safety promotion function. Safety Promotion is a combination of training and communication of safety information to support the implementation and operation of a Safety Management System. It includes actions taken to create an organizational environment where safety objectives can be achieved in fulfillment of its mission.

ANE FY21 Focus Airports

Following is a list of ANE Focus Airports referenced in various sections of this plan.

Priority Airports

- BED
- BOS*
- PWM

Airports of Interest

- ACK
- BDL
- BTV
- MHT

Monitored Airports

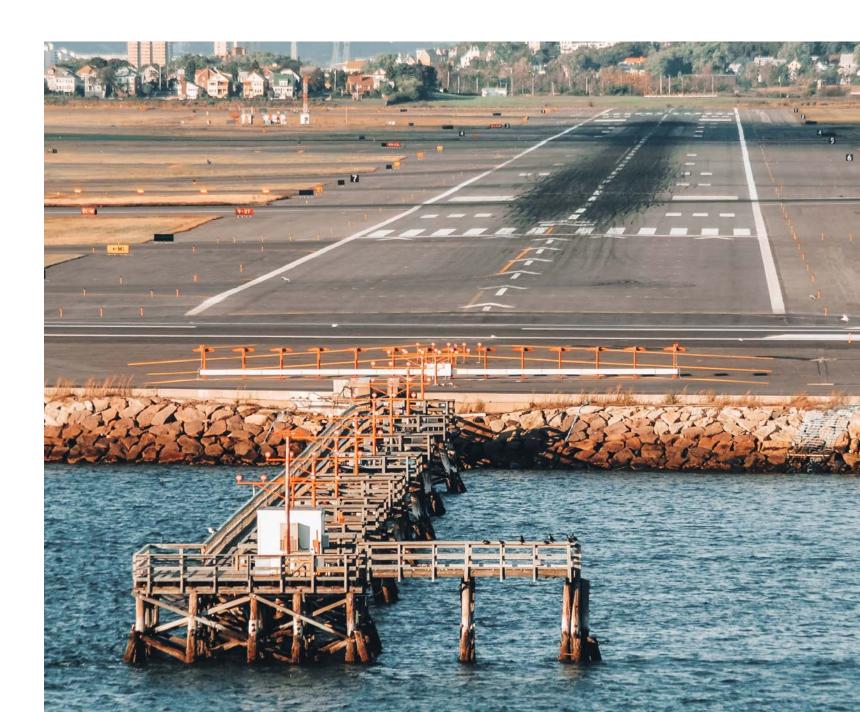
- ASH**
- LWM**
- BDR**
- MVY**
- DXR**
- ORH**
- EWB**
- OXC**PVD
- HFD**HVN**
- *Core 30, **Federal Contract Tower (FCT)

FY21 Regional Runway Safety Plan Initiatives

The Regional Runway Safety Team (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 Runway Safety Governance Council (RSGC) 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 New England Region Runway Safety Governance Council (RSGC).





Remain the global leader in assuring Runway Safety enhancement initiatives are effective in maintaining an acceptable level of safety at U.S. Airports with an air traffic control tower.

Runway Safety will support safety mitigations by proactively identifying hazards and risks based on continuous analysis of data. This plan supports the Administrator's commitment to risk-based decision-making: 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.

Activity 1

Safety Analysis and Mitigation:

- 1.1 Runway Safety will support the ATO Top 5 list of hazards directly related to Wrong Surface Landings. This includes support of the Taxiway Arrival Prediction Software for the remaining ANE site location of BOS.
- 1.2 Runway Safety, Flight Standards, Airports, and Air Traffic 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 within the New England Region and work with the appropriate LOB to address, publish and mitigate those areas of concerns.
- 1.4 Runway Safety will support the Runway Incursion Assessment Team (RIAT) by processing Runway Incursion Mandatory Occurrence Reports

(MOR) to 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 Runway Safety Action Team (RSAT) process to include compliance with 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) to identify relevant Action Items from RSAT meetings to aid in mitigating local risk. This may include, but not limited to support and coordination of Letters of Agreement (LOA), 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 the Quality Control Group (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 (SRM)

Implement Runway Safety Enhancement Initiatives (RSEI) that manage or reduce the risk of airport operations.

Local Runway Safety Action Team (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 Air Traffic Managers and others as necessary to explore ways to enhance the RSAT process.

Activity 2

Local Runway Safety Team (LRSAT) Meetings:

- 2.1 Runway Safety will attend/participate in annual Runway Safety Action Teams (RSAT) meetings for all "Priority" and "Interest" Airports published in the FY2021 New England Region (ANE) Regional Runway Safety Plan (RRSP) that fall under area of responsibility.
- 2.2 Runway Safety will attend/participate in annual RSAT meetings at monitored airports/ facilities that have not been attended by the Runway Safety Group (RSG) in the previous 3 years.
- 2.3 Runway Safety will promote the use of the Runway Safety Action Team (RSAT) Web Tool to conduct Runway Safety Action Team (RSAT) meetings throughout ANE through pre-RSAT coordination efforts and other ATM outreach efforts.
- 2.4 Runway Safety will coordinate RSAT meetings with the ATM at a minimum of 90% of named airports in the RRSP.
- 2.5 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.

- 2.6 Runway Safety will encourage and coordinate with the following FAA Lines of Business and Staff Offices at the appropriate level to attend LRSATs, Special Focus RSATs (SFRSAT), Regional Runway Safety Team (RSST) Meetings, and Runway Safety Governance Council (RSGC) Meetings. The Line of Business or Staff Office will determine level of participation:
 - 1. Regional Administration
 - 2. FAASTeam
 - 3. Flight Standards District Office (FSDO)
 - 4. Air Traffic Services (ATS)
 - 5. Office of Airports (ARP)
 - 6. Technical Operations (AJW)
 - Quality Control (QCG)
 - 8. Aerospace Medicine (AAM)
 - 9. Office of Communications (AOC)
- 2.7 Specific to Special Focus RSAT (SFRSAT) meetings, Runway Safety will:
 - Identify airports for consideration of SFRSAT meetings based on 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 any Special Focus RSAT (SFRSAT) meetings at facilities selected by the Runway Safety Group Manager.
 - Collaborate with Office of Airports and Flight Standards in their active participation at SFRSAT meetings that occur within ANE.

10

3. Safety Policy

Policy, responsibility and accountability that bear on surface safety, and the organizations charged with risk mitigation and safety improvement, are put forth in FAA JO 7050.1B Runway Safety Program (RSP) and the National Runway Safety Plan.

Note: FAA Order 7050.1B is undergoing a rewrite effort in FY2021. 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.

How We Are Collaborating





Promote best practices, lessons learned, and actionable information obtained from data analysis to our global runway safety stakeholders.

Communication and engagement are essential to the success of this Regional Runway Safety Plan. Engaging with key stakeholders and customers enables Runway Safety to advance towards the goal of reducing surface safety risk. Runway Safety will promote increased collaboration with Flight Standards District Offices FAASTeam Program Managers.

Activity 4

Communication Strategy and Engagement:

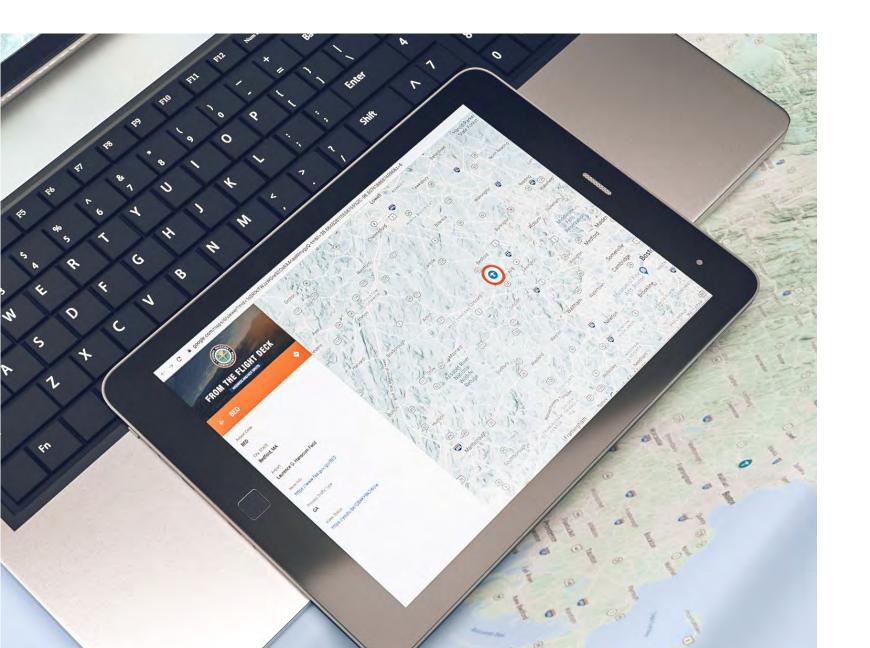
- 4.1 Regional Administrator will coordinate executive support and engagement with management from each LOB for Regional Runway Safety Government Council (RRSGC) participation and collaboration on regional runway safety initiatives. Runway Safety will co-chair a minimum of two (2) meetings with two ad-hoc meetings if needed based on regional priorities.
- 4.2 Runway Safety, Air Traffic Operations, Technical Operations, Airports Division and Flight Standards will convene Regional Runway Safety Team (RRST) meetings and regularly communicate and collaborate on regional runway safety concerns/issues to address surface safety risk

and barrier mitigations in advance of and preparation for the RRSGC meetings.

- 4.3 Runway Safety and participating LOBs will discuss safety initiatives and share relevant information necessary for cross collaboration during each RGC meeting. This partnership effort is important in accomplishing regional safety initiatives.
- 4.4 Runway Safety will support the Regional Administrator's Office by sharing and providing pertinent Runway Safety data/ trends information 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.
- The Inter-Disciplinary Team (IDT) meeting is a Regional Administrator's initiative for LOB collaboration on higher profile airport capital projects, schedules and construction issues. Runway Safety will support these meetings and, if called upon, will provide updates on surface safety events.

- 4.6 Runway Safety will provide copies of completed Runway Safety Action Plans (RSAP) 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.
- 4.7 Runway Safety will identify airports to include on a priority list for future From the Flight Deck videos.
- 4.8 For video locations in ANE, Runway Safety will participate in convening the local safety team, identification of key issues, drafting the video script, reviewing the video for accuracy, and promoting the video upon release to all available parties.

- 4.9 Promote From the Flight Deck Videos, Runway Safety Simulator Animations and other safety products with the FAASTeam and stakeholders for their use at General Aviation pilot forums, etc.
- **4.10** Promote ATM scheduling of pilot-controller forums with ATM coordination through the FAASTeam at all Priority, Interest and Monitored Airports in the Regional Runway Safety



5. Appendix A. Programs and Definitions

Definitions relating to runway safety are found in FAA order 7050.1B. The following are select definitions pertinent to this document.

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 certificates 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 (ANE-620).

Local Runway Safety Action Teams (LRSAT): The Airports Division strives to participate in as many RSAT meetings as possible.

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 nearrunways. 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 Philosophy: In FY16, the FAA adopted a program named Compliance Philosophy 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 Philosophy. Beyond Flight Standards, Compliance Philosophy 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 (FAAST): 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 Philosophy.
- 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 New England 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 noncompliance 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.

Runway Safety Initiative (FAA/NASAO 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 Southern 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. Appendix F lists the members of the RRST. 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. Within the New England Region, the NextGen team visited DeKalb-Peachtree Airport, Daytona Beach International Airport, Sanford International Airport, Miami Executive Airport, and Fort Lauderdale Executive Airport and met with airport and air traffic management to discuss the runway safety challenges at that airport, the present and planned mitigations to address runway safety related risks. The assessment report resulting from the visits suggested PDK, TMB, and FXE be revisited in FY18 for further analysis. DAB has been recommended as a potential candidate site and SFB will be reassessed in FY18. This will amount to selecting the candidate airports and identifying the technology that is the right size, right fit for that airport. The current projection is 12 to 18 months to gain approval and purchase the technology. The testing period could be up

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 bythe 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 system has demonstrated its capability to prevent runway incursions and improve situational awareness at airports like Dallas Fort-Worth, Baltimore Washington International,

Tampa and Centennial International Airports..

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 College Park, Georgia, 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

18

New England (ANE) Runway Safety Plan FY2021

1

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.

6. Appendix B. Region Districts and Towered Airports

AS OF OCTOBER 1, 2018, ATO WILL REALIGN DISTRICTS TO REFLECT THE FOLLOWING FAA FACILITIES:

Eastern Serv	vice Area				
Boston	Washington DC	Jacksonville	Miami	New York	Atlanta
TEBW	TEDC	TEJX	TEMA	TENY	TETL
Robert Jones	Teresa Mount	Shaun Sanders	Juan Fuentes	James Schultz (A)	Michael Schmidt
ACK	ACY	CAE	FLL	ABE	AGS
ALB	ADW	CHS	FPR	AVP	ATL
BDL	BWI	DAB	FXE	BGM	AVL
BED	DCA	FLO	MIA	CDW	ВНМ
BGR	FAY	JAX	PBI	ELM	CHA
BOS	HEF	MCO	PIE	EWR	CLT
BTV	IAD	MYR	RSW	FRG	CSG
MHT	ILG	ORL	SJU	HPN	GS0
PVD	ILM	PNS	SRQ	ISP	GSP
PWM	ORF	SAV	STT	JFK	MGM
SYR	PHF	SFB	TMB	LGA	PDK
	PHL	TLH	TPA	MDT	TRI
	PNE		VRB	MMU	TYS
	RDU			POU	
	RIC			RDG	
	ROA			TEB	

AS OF OCTOBER 01, 2018, ATO WILL REALIGN ITS DISTRICTS TO REFLECT THE FOLLOWING FACILITIES WITH FEDERAL CONTROL TOWERS

Eastern Se	ervice Area				
Boston	Washington DC	Jacksonville	Miami	New York	Atlanta
TEBW	TEDC	TEJX	TEMA	TENY	TETL
Robert Jones	Teresa Mount	Shaun Sanders	Juan Fuentes	James Schultz (A)	Michael Schmidt
ASH	СНО	ABY	APF	BDR	AHN
BAF	ESN	CRE	ВСТ	CXY	FTY
BVY	EWN	CRG	BKV	DXR	GMU
EWB	FDK	DHN	BQN	FOK	GYH
GON	HGR	ECP	EYW	HVN	HKY
HFD	ISO	EVB	FMY	IPT	INT
НҮА	LWB	FIN	HWO	ITH	JQF
LEB	LYH	GNV	LAL	LNS	LZU
LWM	MTN	HXD	OPF	OXC	MCN
MVY	SBY	ISM	PGD	SWF	RYY
ORH	TTN	LEE	PMP	UNV	TCL
OWD		MLB	SIG		
RME		OCF	SPG		
		OMN	STX		
		SGJ	SUA		
		TIX			
		VQQ			

Boston Di	strict
ACK	Nantucket-Memorial
ALB	Albany International
ASH	Boire Field, Nashua
BAF	Barnes Westfield
BDL	Bradley International
BDR	Sikorsky Memorial Bridgeport
BED	L G Hanscom Field Bedford
BGR	Bangor International
BGM	Greater Binghamton
BOS	Boston Logan International
BTV	Burlington International
BVY	Beverly Regional
DXR	Danbury Municpal
ELM	Elmira/Corning Regional
EWB	New Bedford Regional
GON	Groton-New London
HFD	Hartford-Brainard
HVN	Tweed New Haven
НҮА	Barnstable Muni, Hyannis
ITH	Ithica Tompkins Regional
LEB	Lebanon Municipal
LWM	Lawrence Municipal
MHT	Manchester Boston Regional
MVY	Martha's Vineyard
ORH	Worchester Regional
OWD	Norwood Memorial

Boston Di	strict						
OXC	Waterbury Oxford						
PVD	TF Green, Providence						
PWM	Portland International Jetport						
RME	Griffiss International, Rome						
SYR	Syracuse Hancock International						

Note: Highlighted facilities denote Regional Administrator's visits per RA's Business Plan

7. Appendix C. New England Region Governance Council Meeting Schedule

Note: These dates are tentative and subject to change: invites will be sent out by the regional administrators office

FY21 QUARTER 1	December 15, 2020					
FY21 QUARTER 2	February 25, 2021	2DD ELOOD CONFEDENCE DOOM				
FY21 QUARTER 3	June 8, 2021	3RD FLOOR CONFERENCE ROOM				
FY21 QUARTER 4	September 16, 2021					

8. Appendix D. Regional Runway Safety Team Roster

Name	Position / Organization Representing	Team Role	Phone
Raymond German	Runway Safety Program Manager, New England Region	Core	781-238-7784
Timothy Goodall	Runway Safety Program Manager	Core	781-238-7781
Colleen D'Alessandro	ANE Regional Administrator, ANE-1	Core	781-238-7020
Steve Sherwood	ANE Deputy Regional Administrator, ANE-2	Core	781-238-7024
Ronald Curtis	Manager, Flight Standards Division	Core	781-238-7501
Christopher Burns	Asst. Manager Eastern Region Technical Branch –Air Carrier	Core	781-238-7681
Laurie Dragonas	Airport Lead Certification Inspector, ANE Airports Division	Core	781-238-7630
Gail Latrell	Airports Division Manager, ANE	Core	781-238-7603
John A Pallera	Technical Operations District Manager, Boston District	Core	603-881-1160
Tom Lafen	Support Manager, Boston District	Core	401-734-2828
Robert K. Jones	Air Traffic District Manager, Boston District	Core	603-594-5501

9. Appendix E. **Safety Assurance**

Data Monitoring and Analysis Objective: Remain the global leader in assuring Runway Safety enhancement initiatives are effective in maintaining an acceptable level of safety at U.S. airports with an air traffic control tower.

National Data

The below information depicts a summary of the previous 6 Years (FY2014 to FY2019), and a summary of the previous 2 Fiscal Years:

	6 YEARS: FY 2014 to FY 2019 (Sep 30, 2020)	2 YEARS: FY 2018 to FY 2019 (Sep 30, 2020)
SE	RIOUS RI - CATEGORY A & B	SERIOUS RI - CATEGORY A & B
1.	The rate of Category A & B runway incursions has decreased by 33%.	The rate of Category A & B runway incursions has decreased by 25
2.	When ATC is primarily responsible (OI), rate of Category A & B runway incursions has decreased by 33%.	When ATC is primarily responsible (OI), rate of Calegory A & B runway incursions has decreased by 31%.
CA	TEGORY A, E, & C	CATEGORY A. E. & C
3.	The Category A, B, & C runway incursions ranged from 41% to 48% of the TOTAL RUNWAY INCURSIONS. 2	The Category A, B, & C runway incursions changed from 42% to 41 the TOTAL RUNWAY INCURSIONS.
4.	When ATC is primarily responsible (OI), the Category A, B, & C runway incursions ranged from 79% to 92% of the TCTAL RUNWAY INCURSIONS. ³	 When ATC is primarily responsible (OI), the Category A, B, & C runway incursions changed from 88% to 83% of the TOTAL RUNW. INCURSIONS.
TO	TAL RUNWAY INCURSIONS	TOTAL RUNWAY INCURSIONS
5.	The rate of TOTAL RUNWAY INCURSIONS has increased by 22%.	5. The rate of TOTAL RUNWAY INCURSIONS has decreased by 119
6.	When ATC is primarily responsible (OI), the rate of TOTAL RUNWAY INCURSIONS has increased by 7%.	 When ATC is primarily responsible (OI), the rate of TOTAL RUNV INCURSIONS has decreased by 16%.
cc	RE 30	CORE 30
7.	CORE 30 airports have consistently accounted for 23% - 26% of the NAS-wide airport operations.	 CORE 30 airports changed from 25% to 23% of the NAS-wide airports operations.
8.	CORE 30 airports have averaged 24% of the TOTAL RUNWAY INCURSIONS.	CORE 30 airports changed from 22% to 22% of the TOTAL RUNW. INCURSIONS.
9.	CORE 30 airports have averaged 38% of the CATEGORY A, B & C RUNWAY INCURSIONS.	CORE 30 airports changed from 36% to 33% of the CATEGORY A, C RUNWAY NCURSIONS.

Total Runway Incursions by Fiscal Year

TIn FY 2019, New England Region ranks amongst the lowest in Runway Incursions with 59 total.



Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Airport Ops	51,254,958	50,739,762	50,576,043	49,936,655	49,623,893	49,722,104	49,995,304	50,324,768	51,770,422	53,261,551	4,649,382
AAL	38	27	25	42	53	59	55	53	51	49	
ACE	41	24	31	37	24	33	60	49	57	49	
ACA	77	90	146	114	150	145	133	175	159	131	
AGL	139	126	154	172	139	192	218	261	275	219	
ANE	32	28	25	44	22	44	30	63	67	59	
ANM	101	95	96	121	110	125	155	186	176	195	
ASO	173	178	199	231	222	268	248	284	336	295	
ASW	143	143	184	172	185	189	242	224	251	245	
AWP	222	243	290	309	351	403	419	443	435	430	

On September 19, 2017, the National Transportation Safety Board held a Runway Incursion Forum to raise awareness of the increase in runway incursions in the U.S. and the need to reverse the trend. Safety experts from the aviation industry participated, including representatives from major air carriers, the Aircraft Owners and Pilots Association (AOPA), and the Air Line Pilots Association (ALPA). Participating government agencies included the FAA, NASA and the Transportation Safety Board of Canada.

 The number of Runway Incursions has declined since 2018 while the level of airport operations has remained constant.

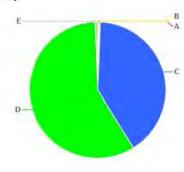
Detailed report on each region ranked by total Runway Incursions Nationally for FY-2019

AJI-14 Surface Events Monthly Surface Safety Report PDF

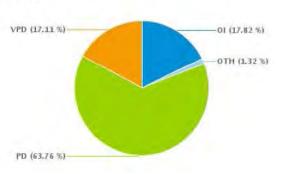
Runway Incursions by FY2019

Region						RI By C	atagory			RI	By Sever	ity	
	Service Area	Airport Ops	I Rate per 100	# of RIs	Ol	PD	VPD	Other	Á	В	c	D	E
AAL	WSA	840,477	5.83	49	8	24	15	2			16	33	
ACE	CSA	1,435,971	3.41	49	3	29	17				10	39	
AEA	ESA	6,099,974	2.15	131	41	60	29	1	1	1	68	60	1
AGL	CSA	6,248,357	3.5	219	50	115	51	3		1	75	142	1
ANE	ESA	1,781,888	3.31	59	13	38	8				30	29	
ANM	WSA	5,291,408	3.69	195	30	147	17	1			80	112	3
ASO	ESA	12,986,603	2.27	295	56	183	49	7		2	120	172	1
ASW	CSA	6,704,385	3.65	245	41	149	53	2		3	85	157	
AWP	WSA	11,872,488	3,62	430	56	321	47	6	2		194	230	4
	Totals	53,261,551	3.14	1,672	298	1,066	286	22	3	7	678	974	10

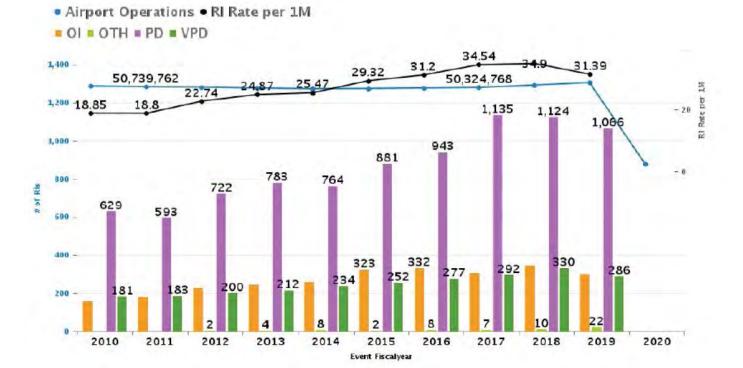
RI By Severity



RI By Type



Category A and B Runway Incursions National Trend



A & B Runway Incursions Broken Down by Regions and Years Runway Incursions for previous Fiscal Year by Regions



Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Airport Ops	51,254,958	50,739,762	50,576,043	49,936,655	49,623,893	49,722,104	49,995,304	50,324,768	51,770,422	53,261,551	4,649,382
AAL				1		1	t		1		
ACE	. 1				1.	1	1.		1		
AEA			2	3	3	2	2	1	1	2	
AGL		4	5		6	3	2			1	
ANE								2			
ANM		1	2		2	1	1		1		
ASO	1		:4	1		3	3	1	2	2	
ASW	1	1		1		2	5		2	3	
AWP	3	- 1	5	5	3	2	4	3	5	2	

Category A and B Runway Incursions National Trend

AJI-14 Surface Events

Monthly Surface Safety Report PDF

Runway Incursions by FY

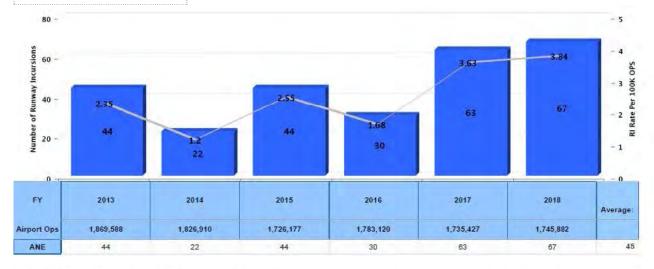
							RI By C	atagory			RI	By Sever	ity	
Region	Event Fiscalyear	Service Area	Airport Ops	Rate per 100	# of Rls	OI	PD	VPD	Other		В	c	D	E
	2015	WSA	823,713	7.16	59	12	34	13			1	17	41	
	2016	WSA	813,312	6.76	55	10	2/	18			1	21	33	
AAL	2017	WSA	788,742	6.72	53	6	31	14	2			16	37	
	2018	WSA	830,504	6.14	51	5	33	13		4		12	36	2
	2019	WSA	840,477	5.83	49	8	24	15	2			16	33	
	2015	CSA	1,455,355	2.27	33	9	18	4	2	1		13	19	
	2016	CSA	1,432,735	4.19	60	7	40	13			1	16	43	
ACE	2017	CSA	1,408,123	3.48	49	15	31	3				22	27	
	2018	CSA	1,406,078	4.05	57	16	27	14		4		17	39	
	2019	CSA	1,435,971	3.41	49	3	29	17				10	39	
	2015	ESA	5,932,441	2.44	145	46	78	21		1	1	77	66	
	2016	ESA	5,963,315	2.23	133	47	65	21			2	67	64	
AEA	2017	ESA	5,914,279	2.96	175	57	76	41	1	4		96	78	
	2018	ESA	5,917,401	2.69	159	44	82	33			1	92	66	
	2019	ESA	6,099,974	2.15	131	41	60	29	1	1	1	68	60	1
	2015	CSA	6,039,993	3.18	192	43	106	43	+	1	2	81	108	
	2016	CSA	6,099,754	3.57	218	78	96	43	1	1	1	98	118	
AGL	2017	CSA	6,104,486	4.28	261	67	149	45	7 - 7			113	148	
	2018	CSA	6,200,160	4.44	275	52	162	57	4			101	173	1
	2019	CSA	6,248,357	3.5	219	50	115	51	3	1 1	1	75	142	1
-	2015	ESA	1,726,177	2.55	44	18	22	4				29	15	
	2016	ESA	1,783,120	1.68	30	9	17	4				17	13	
ANE	2017	ESA	1,735,427	3.63	63	17	30	16			2	35	26	
	2018	ESA	1,745,882	3.84	67	18	43	5	1	1	11 7 2	35	32	
	2019	ESA	1,781,888	3.31	59	13	38	8	-		-	30	29	
	2015	WSA	4,671,266	2.68	125	25	78	22		1		59	65	
	2016	WSA	4,798,582	3.23	155	15	101	37	2	100	1	52	101	1
ANM	2017	WSA	4,882,656	3.81	186	19	131	36		1		61	124	
	2018	WSA	5,156,764	3.41	176	19	132	23	2	-1		61	114	
	2019	WSA	5,291,408	3.69	195	30	147	17	1	-		80	112	3
	2015	ESA	11,405,813	2.35	268	62	168	38		3		132	133	F
	2016	ESA	11,505,552	2.16	248	50	149	47	2	===	3	116	129	
ASO	2017	ESA	11,702,165	2.43	284	39	198	45	2		1	110	169	4
	2018	ESA	12,270,093	2.74	336	83	199	53	1	1	1	157	175	2
	2019	ESA	12,986,603	2.27	295	56	183	49	7		2	120	172	-1
	2015	CSA	6,452,697	2.93	189	26	121	42		2		82	105	
	2016	CSA	6,366,726	3.8	242	56	144	42		3	2	105	131	1
ASW	2017	CSA	6,369,937	3.52	224	36	150	38				85	139	
	2018	CSA	6,528,287	3.84	251	38	147	66			2	83	165	- 1
	2019	CSA	6,704,385	3.65	245	41	149	53	2		3	85	157	
	2015	WSA	11,214,649	3,59	403	82	256	65		2		202	199	
	2016	WSA	11,232,208	3.73	419	60	304	52	3	3	1	206	208	1
AWP	2017	WSA	11,418,953	3.88	443	48	339	54	2	3		191	249	
2011	2018	WSA	11,715,253	3.71	435	68	299	66	2	3	2	182	246	2
	2019	WSA	11,872,488	3.62	430	56	321	47	6	2		194	230	4
		Totals	259,723,531	3.17	8,235	1,600	5,149	1,437	49	33	32	3,537	4,608	- 0

Runway Incursions for previous Fiscal Year by Region Historical Data for New England Region

RI - FY 2019 Year to Date as of 11/15/2019

HCF/ HNL	Airport Name	# of RI's	RI Rate Per 100K OPS	Airport Operations
BOS	General Edward Lawerence Logan Intl. Boston, MA	23	5.31	432,722
BTV	Burlington Intl. Airport Burlington, VT	16	21.76	73,529
BED	Laurence G. Hanscom Field, Bedford, MA	8	6.24	128,141
PWM	Portland Intl. Jetport; Portland, ME	5	8.55	58,465
BDL	Bradley Intl. Airport; Windsor Locks, CT	2	2.16	92,414
BGR	Bangor Intl. Airport; Bangor, ME	2	4.44	45,00
MHT	Manchester Regional Airport; Manchester, NH	2	3.96	50,503
OWD	Norwood Memorial Airport; Norwood, MA	1	1.71	508,201
OXC	Waterbury-Oxford Airport; Oxford, CT	1	2.73	36,561

RI Rate per 100K OPS



Monthly Runway Incursion Briefing Total RI's by year

All Measures

■ Number of Runway Incursions ■ RI Rate Per 100K OPS

ANE_ Runway Incursion report

Previous Fiscal Years Data (Continued)



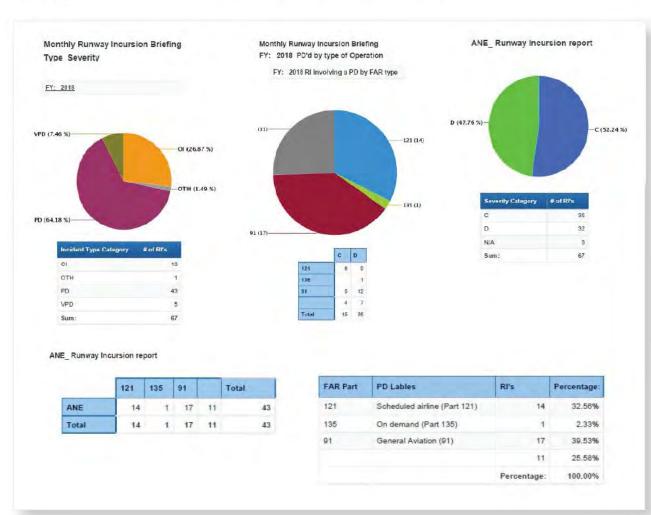
Monthly Runway Incursion Briefing

All Measures

ANE_Runway Incursion report

A&B RI's

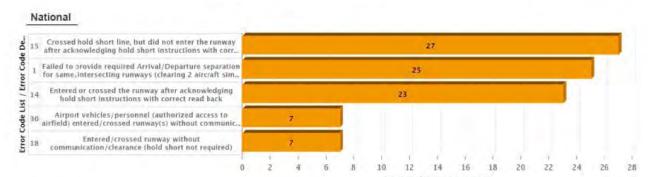
■ Total Numbers of A's and B's ■ A&B rate Per 100K OPS



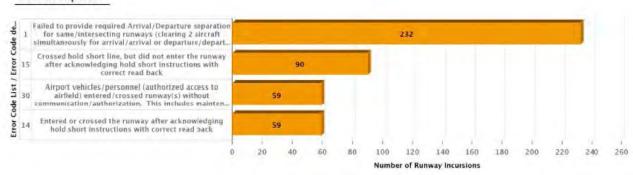
Monthly Runway Incursion Briefing Top 4 Error Codes

ANE_Runway Incursion report

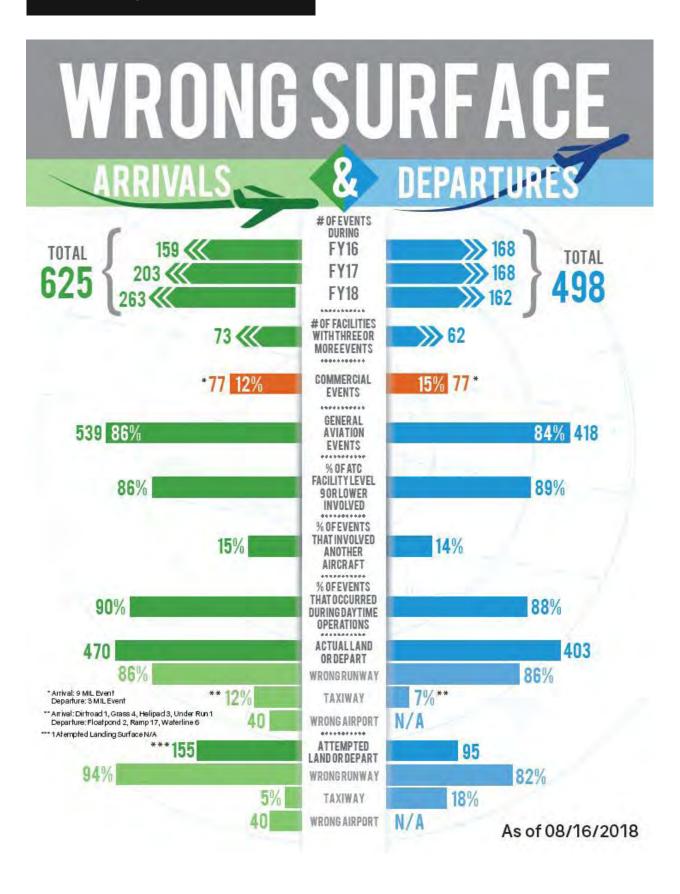
Top Four Error Codes in FY 17 and 18



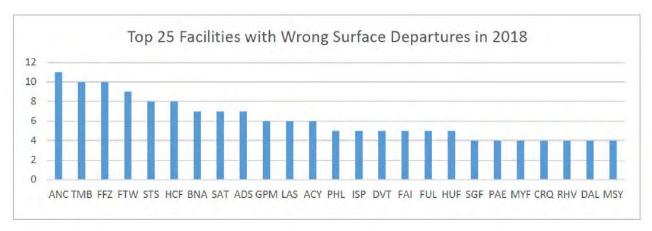
Core 30 airports

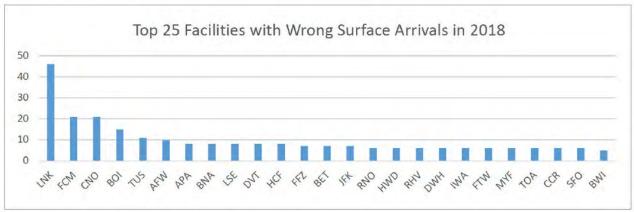


National Wrong Surface Event Statistics



National Wrong Surface Event Statistics (Continued)





Raymond German and Timothy Goodall

Runway Safety Program Manager

New England Region 1200 District Avenue Burlington, MA 01803

More information can be found on the Runway Safety website at https://www.faa.gov/airports/runway_safety/

For More Information:

Runway Safety Program Managers, New England Region Raymond German and Timothy Goodall

1200 District Avenue Burlington, MA 01803





U.S. Department of Transportation

Federal Aviation Administration