FAA Airport Safety and Standards Update

Airports Council International – North America
Operations and Technical Affairs Committee
Conference, Vancouver, BC

Michael J. O’Donnell, A.A.E., Director
Office of Airport Safety & Standards
Washington, DC

March 2015
Safety Management Systems (SMS)

- FAA received comments on proposed rule to require Airport SMS. We made modifications and will issued a revised proposed Airport SMS rule in spring/summer 2015 for further comment period.
- At the close of the comment period, the FAA will have 16 months to determine if it will impose a final rule on airport SMS.
- The FAA encourages airports to voluntarily adopt SMS. We can provide up to $50,000 in AIP grants for airport sponsors to procure SMS software systems.
- On June 1, 2011, we implemented SMS internally for our own procedures at large hub airports, requiring us to follow a Safety Risk Management process for projects that require a FAA approval.
- We are expanding the internal SMS process to medium hubs in FY 2015 and to small hubs in FY 2016.
Air Carrier SMS

• In January 2015, FAA published a final rule requiring air carriers authorized to conduct operations under Part 121 to develop and implement SMS for their aviation-related activities.
  — The rule complies with statutory requirements; addresses NTSB recommendations; and harmonizes with ICAO standards.

• It shifts industry from a reactive safety action emphasis to a proactive stance where air carriers anticipate and mitigate likely causes of potential aviation accidents through hazard identification and collaborative decision making.
Runway Safety Area (RSA) Program

• FAA started initiative to improve RSAs to extent practicable in 2000.
• Developed schedule for airports to complete RSA improvements by December 2015.
• Currently, 96% of all runways have been improved to the extent practicable and airports are on track to complete remaining RSAs by end of 2015.
• RSA improvements, land acquisition, relocating, re-aligning or shifting the runway, declared distances or installation of engineered materials arresting systems (EMAS).
• EMAS installations have safely stopped nine overrunning aircraft.
RSA Work is NEVER in Vain!
Asiana Flight #214, July 6, 2013, San Francisco International Airport (cbsnews.com)
Delta Accident at LaGuardia

March 5, 2015

- At approximately 11:18 A.M., Delta flight 1086, a Boeing MD-88 flying from Atlanta, GA to LaGuardia, NY exited the runway and came to rest with its nose on an embankment.

- There were 127 passengers (including 2 lap children) and 5 crewmembers on board the flight. Twenty three passengers received minor injuries, and others were transported to the hospital for evaluation. All passengers have been released from the hospital.
Delta Accident at LaGuardia (Cont.)

- The airplane departed the left side of runway 13 about 3,000 feet from the approach end of the runway. The tracks were on a heading of about 10 degrees from the runway heading.
- About 4,100 feet from the approach end of the runway, the airplane’s left wing initially struck the airport’s perimeter fence, which is located on top of the berm, and the airplane tracks turn back parallel with Runway 13.
- About 5,000 feet from the approach end of the runway, the airplane came to rest with its nose over the berm. The left wing of the airplane destroyed about 940 feet of the perimeter fence.
Delta Accident at LaGuardia (Cont.)

• The airplane had significant damage, including:
  — Damage on the left wing’s leading edge slats, trailing edge flaps, and flight spoilers.
  — The breach of the left wing fuel tank was noted in the area of the outboard end of the outboard trailing edge flap.
  — Damage to the front radome, weather radar and to the underside of the fuselage from the front of the airplane all the way back to the area of the left front passenger door.
  — Damage was also noted in the nose landing gear well and main electronics bay.
Runway Incursion Mitigation (RIM)

• Conducted Safety Data Mining effort (2003-2013) of surface events.
• Analysis identified the top airport risks to be Runway Excursions, Runway Incursions and Wildlife Strikes.
• Risk-based analysis produced an initial group of airport geometry locations with a higher potential for RIs
• FY 2015: develop preliminary mitigation alternatives & cost estimates
• FY 2016 and beyond: develop a schedule and budget to address these locations through mitigation steps
  — Capital Improvements
  — Operational Improvements
• Locations will be evaluated yearly based on latest data
Airports Geographic Information System (GIS)

Airports GIS program is the authoritative source for the entire FAA

- Surface Analysis and Visualization tool (20:1 evaluations)
- Modification of Standards tool
- Airport Layout Plan (ALP) tool
- Airport data source to support Instrument Procedure Development
- Airports GIS Roadmap and Commissioning
20:1 Issue Overview

- On November 15, 2013, a joint FAA memorandum was issued to provide Interim Policy Guidance for the mitigation of penetrations to the 20:1 Visual Area Surface.

- The interim policy guidance became effective on January 6, 2014 and contains a risk-based approach with varying action timeframes relative to the amount of penetration to the 20:1 surface.

- In November 2013, the ARP Regional Division Managers sent an email out to all of the NPIAS airports to emphasize their responsibility to regularly review and maintain clearance to all their approach and departure surfaces (beyond just the 20:1 surface).

- In the notice to the airport owners/ sponsors, the FAA highly recommends Airport Sponsors take a proactive approach by reviewing all approach surfaces in advance of any flight check schedule to ensure they are clear.
Airspace Evaluation Tool - 20:1 SAV (Phase I)
Protection for One Engine Inoperative Operations

**Issue:**
- Part 121 Operators must ensure there is a safe, alternate departure route in the event of engine loss on departure
- Increasing construction around airports is encroaching on the airspace, restricting acceptable OEI takeoff paths, especially at urban airports. Many times operators must off-load fuel, passengers, and/or cargo to meet OEI requirements

**Project:**
— AOSC completed a successful pilot project that demonstrated the local airport can work with its users and local community and develop a single OEI path and that path can be protected to the extents of Part 77

**Status:**
- FAA Proposal was published in Federal Register in April 2014
- Received hundreds of comments from across the US
- AOSC is answering the comments for a decision in Fall 2015
Serious Runway Incursions

- 9 Total A/B Errors
- 8 Category A
- 1 Category B

FY 2015 Performance Limit: .395 per million operations

*FY 2015 rates contain estimated activity counts. The Rate is cumulative from month to month.
Key Points

• **The Issue:** Runway Incursions are on the rise

• **Purpose/Objectives:**
  - Focus on executing the actions outlined in the *National Runway Safety Plan 2015-2017*
  - Identify causal factor trends
  - Implement action plans to address runway safety incidents

• **Scope:** *The National Runway Safety Plan* targets all FAA facilities, including FCTs and engages Industry stakeholders with short term initiatives (next 90 days)
Prioritization of *National Runway Safety Plan* initiatives.

- **Within 90 days:** All facilities who have not completed an Local RSAT will complete one
- Local RSAT Corrective Action Plans will be developed with performance targets and monitored

**FAA Communications Plan**

- Will provide corporate messaging materials
- Partnering with NATCA and Industry
- Outlines messaging, audience, partners, delivery vehicles, timelines, and deliverables
FAA Outreach Packet

• **Videos and Animations**
  - **VCARDS** - PSA Style Videos
  - De-identified **Replays and Animations** to simulate recent high-risk incidents and events

• **ATSAP Briefing Sheet:** What’s on your runway?
• **QA Safety Bulletin:** Know Before You Go: Taxiing on Runways
• **Guided Briefings**
• **Package will be sent to industry and FAA ATO**
Comments and Questions?

Michael J. O’Donnell, A.A.E.
Director, Airport Safety and Standards

Michael.j.odonnell@faa.gov
202-267-8776