

The airport operator's perspective on runway incursion hazards and mitigation options

Session 3 Presentation 2



Communication Hazards

- Factors that can result in confusion and unintended actions:
 - Lack of vehicle driver proficiency in:
 - ATC terminology and instructions
 - Communication techniques
 - English Language
 - Multiple tower / ground frequencies
 - Delayed response from tower

Communication Mitigation

- To achieve required standards
 - Establish minimum language standards
 - Use standard phraseology
 - Develop radio operating procedures
 - When in doubt seek clarification
 - Require regular training and testing
- Use separate tower / ground frequencies

Construction Hazards

Hazards that appear when part of the airport becomes non-operational

- May create unanticipated “hot spots”
- Potential need for vehicles or equipment to cross runways
 - The more crossings, the higher the incursion risk
- Potential impact on runway maintenance, snow removal or RFF procedures

Construction Mitigations

- Conduct a hazard analysis whenever the airport configuration changes
- Establish standard vehicle routes to avoid crossing movement areas
- Provide training for all drivers of vehicles that operate on the movement area

Visibility Hazards

Reduced visibility increases potential for ground crew disorientation and as a result incursions

- Not only due to fog, but also glare, rain, sand, or reflection from snow or water

→ **Implement low visibility procedures for all ground vehicles**

→ **Establish low visibility routes**

→ **Develop driver training / driver licensing programs**



Signage Hazards

Signage may be complex, inadequate or not clearly visible

- Complex signage



- Inappropriate positioning



Signage Hazards

- Inadequate signage for:
 - closed runway
 - taxiway
 - hot spots
 - Non-movement areas



- Establish a system to identify signage issues
- Install and maintain signs in accordance with regulatory requirements
- Establish a signage maintenance program

Airport Design Hazards

- Runway and taxiway intersections
 - Intersections at various angles
 - Multiple runways and taxiways intersecting
- Runways in close proximity to terminals

→ Identify high risk locations

→ Enhance signage and ground markings

→ Develop a briefing package

→ Implement SOPs for operations

Operational Hazards

Hazards that result from operational factors including:

- Emergency vehicle operations
- RFF operations
- Maintenance vehicles and equipment
- Snow removal and deicing equipment
- Unidentified hotspots

→ **Identify hazards associated with each of the operations**

→ **Mitigate the hazards using appropriate training and technology and regulations**

→ **Establish supporting guidance material**

THANK YOU

