

The Pilots' and Airline Operators' Perspective on Runway Incursion Hazards

Session 2 Presentation 1



Communication Hazards

- Quality
 - Standard phraseology is not always used
 - Reception is not always clear
 - Frequency congestion – an increasing factor at many airports
- Flight crews must often communicate simultaneously with multiple people
 - Flight deck: checklists and briefings
 - Cabin crew: passenger safety or technical issues
 - Dispatch, AIRINC or other services related to operational issues
- Multiple tower / ground frequencies

Operational Hazards

- Workload issues that must be managed during taxi-out:
 - Completion of pre-departure checklists
 - Second engine start requirements
 - Coordinating amended ATC clearances
 - Complex taxi routing
- All have the potential to contribute to incursion risks

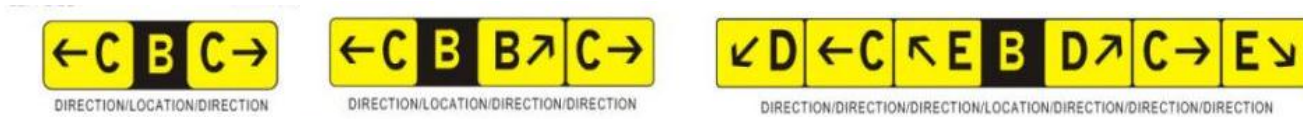
Visibility Hazards

- Flight crew disorientation
- CAT III landings have become routine, but the aircraft must still be taxied manually in low visibility operations
- Not only due to fog or other “low visibility” phenomena
- Visibility may be an issue in clear weather due to glare or reflection (snow or water) – potential for confusion issues when landing on closely spaced parallel runways
- Visibility hazards generally increase pilot workload and is a common contributing factor to incursion risk

Signage

Signage may be complex, inadequate or not clearly visible

- Complexity



- Bad positioning / bad environment



Airport Design Hazards



Boston, 14 July 2011

- Multiple runway and taxiway intersections
- Converging intersections at various angles
- Closely spaced parallel runways
 - Failure to hold short after landing
 - Runway confusion risk, especially for low visibility landing operations
- Runways in close proximity to terminal aprons

Construction Hazards

Hazards appear when part of the airport becomes non-operational

- Non-routine operations necessitating use of unfamiliar taxi routes
- Taxi routes that may result in more frequent runway crossings more frequently due to closed taxiways
 - The more crossings, the higher the incursion risk
- Increased use of intersection take-offs
- Runway confusion – potential for operations on closed runways

THANK YOU

