



Runway Safety

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Director SFO ASPAC

APAC DG Meeting

Outline

Accidents and Precursors

Contributing Factors and Mitigations

Workshop:

Guidelines for Discussion

Feedback from States

Way Forward, Mutual Cooperation

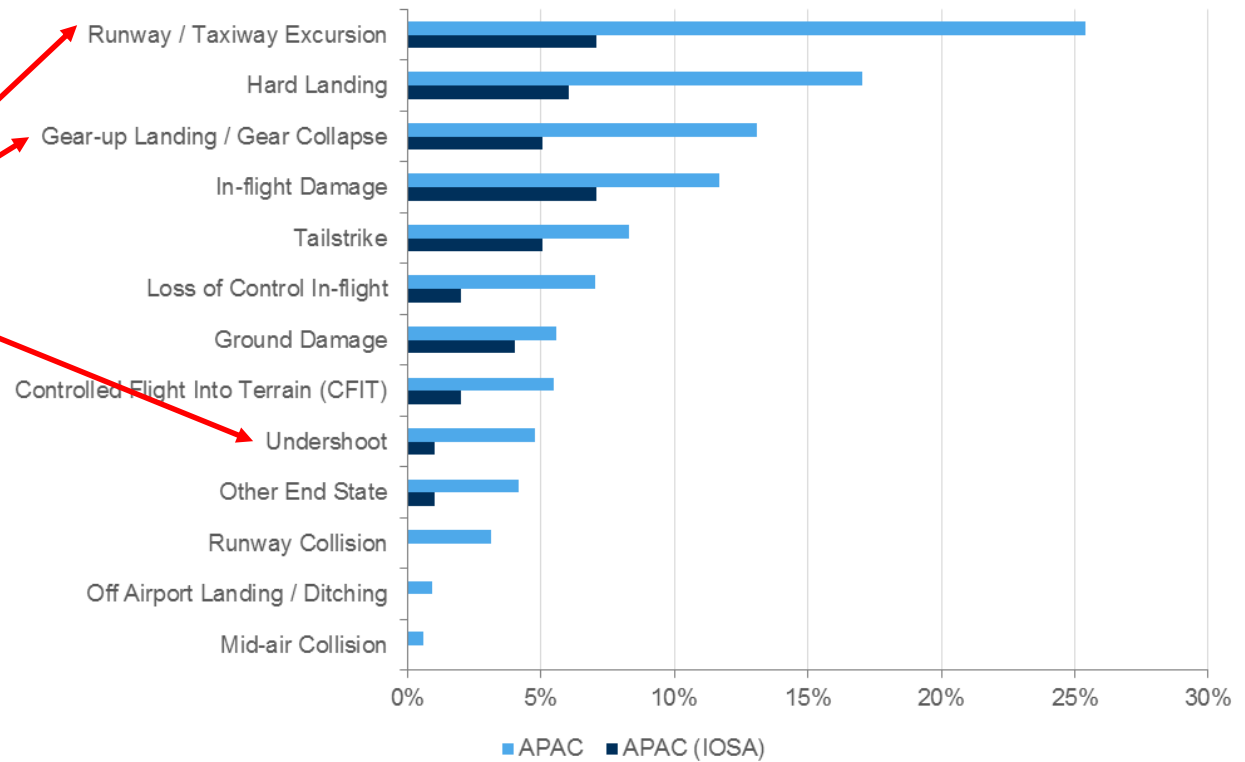


13 FEB 2012 - KLO

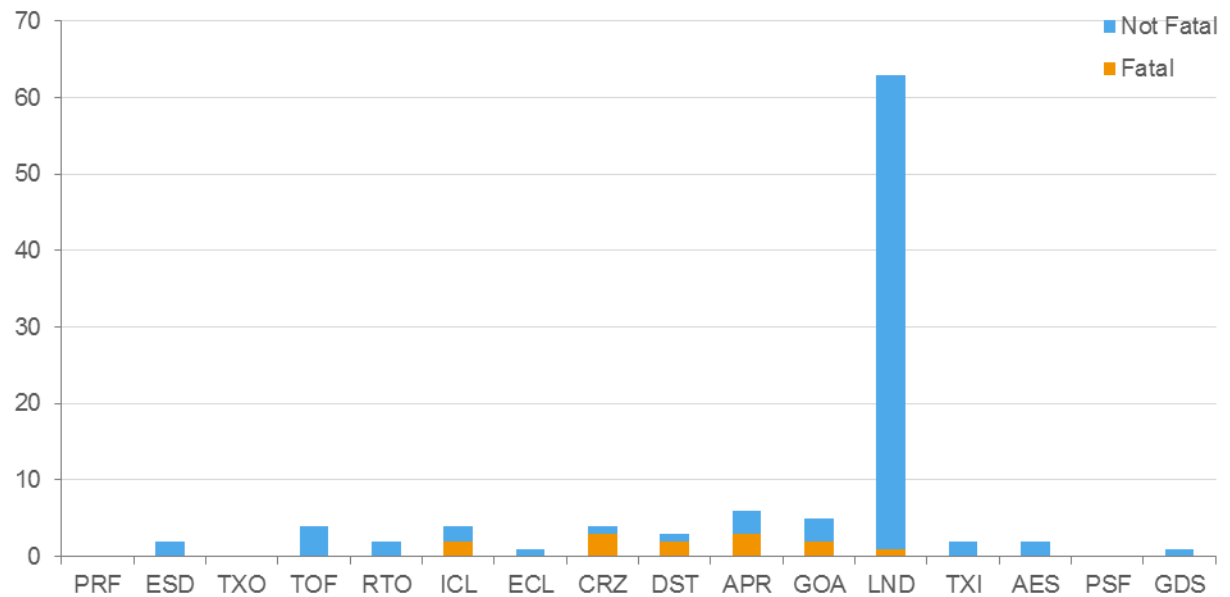


Period: 2012 – 2016, ASPAC All Accidents - percentage

Common
Contributing
Factors



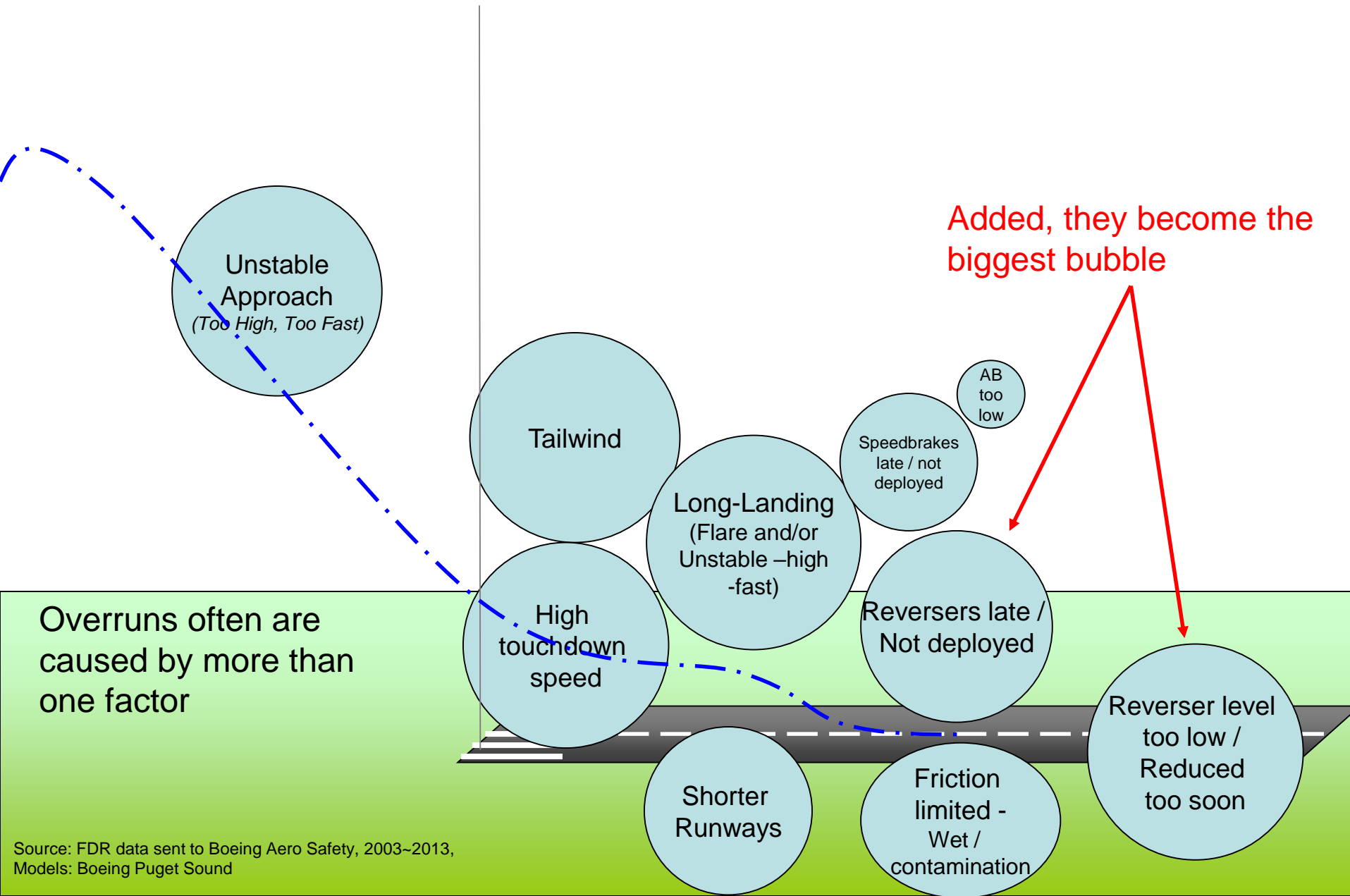
Period 2012 – 2016, ASPAC All Accidents - per Flight Phase



22 MAY 2010 - IXE



Landing Overrun Analysis – Contributors





NTSB

National Transportation Safety Board

**Runway Overrun and Collision,
Southwest Airlines (SWA)
flight 1248,
Boeing 737-74H, N471WN**

Chicago Midway International
Airport (MDW)
Chicago, Illinois
December 8, 2005





Mitigations – (What has APRAST done?)

1. Landing Distance Assessment

Manufacturers provide standardized set of landing distance performance data
Air Carriers incorporate the guidance material into SOPs (APRAST RE 8)

2. Flight Crew Landing Training

Wet or contaminated runways, tailwinds, gusts, use of deceleration devices, etc.
(APRAST RE 6 and RE 8)

3. Overrun Awareness and Alerting Systems

Manufacturers make systems available on all new type certificate and major derivatives after June 1, 2015

Manufacturers study the feasibility of retrofit

Air Carriers implement on-board technology, as feasible (Not Yet Considered)

Mitigations – (What has APRAST done?)

4. Air Traffic Policies, Procedures, and Training

Airport arrival and departure configuration based on wind conditions (APRAST RS 1)
Wind reporting, measurement, and use (APRAST RS 1 and RE 6)
Training of air traffic controllers on factors that contribute to the risk of runway excursion (APRAST RS 1 and RE 6)

5. Runway Distance Remaining Signs

To improve flight crew awareness of airplane position on the runway and distance remaining (Not Yet Considered)

6. Consequence and Severity Mitigation

Improvement of runway safety areas (APRAST RE 5)*
Engineered Materials Arresting Systems (APRAST RE 5)*

* To APANPIRG



Runway Excursions - Workshop

Guidelines for Discussion:

Role of Effective Runway Safety Teams

Consider Mitigations

Obtain Feedback from States

Way Forward: Implementation, need for mutual cooperation

Thank You





Discussion

APRAST RS 1 – Runway Safety Maturity Checklist

Impact: High - Feasibility: Moderate (per APRAST)

Feedback: Implementation Status, Cooperation Needed



Discussion

APRAST RE 6 – Timely Notification of Runway Conditions

Impact: High - Feasibility: Moderate (per APRAST)

Feedback: Implementation Status, Cooperation Needed



Discussion

APRAST RE 8 – Risk Management Measures - ALAR

Impact: High - Feasibility: Moderate (per APRAST)

Feedback: Implementation Status, Cooperation Needed

Discussion

Possible Further Actions for APRAST:

Review and Update RS 1, RE 6, and RE 8 if required

Consider Runway Distance Remaining Signs

Consider Overrun Awareness and Alertness systems



Available Materials

Runway Excursion and Runway Safety SEIs – APRAST

Detailed Implementation Plans – APRAST

Runway Safety Maturity Checklists – APRAST

Runway Excursion JSAIT Report dated 12 FEB 2015

US FAA AC 91-79A dated 28 APR 2016

Mitigating the Risks of a Runway Overrun Upon Landing

US FAA AC 25-32 dated 22 DEC 2015

Landing Performance Data for Time-of-Arrival Landing Performance Assessments

Unstable Approaches 2nd Edition – 2016 (IATA, IFALPA, IFATCA, CANSO)

Thank You

