Excellence Through Knowledge

Timothy Arel
Deputy Vice President
Safety and Technical Training
FAA Air Traffic Organization
Establishing a New Baseline

LOCAL REPORTING → NATIONAL VOLUNTARY REPORTING
MINIMAL LOCAL ELECTRONIC MONITORING → AUTOMATED ELECTRONIC DETECTION
OPERATIONAL INCIDENT COUNTS → STANDARDIZED RISK ANALYSIS
DISTANCE-BASED CATEGORIZATION → APPLICATION OF RISK MATRIX
SINGLE EVENT MITIGATION → ADDRESSING SYSTEMIC ISSUES (TOP 5)
CATEGORIZATION BUCKETS (A,B,C) → IDENTIFICATION OF HIGH RISK EVENTS
EVENT REPORTING → INVESTIGATION AND ID CAUSAL FACTORS
A+B METRIC → METRIC ON RATIO OF HIGH RISK EVENTS
LOCAL MITIGATION MONITORING → NATIONAL HIGH-PRIORITY GOAL ON RISK MITIGATION

Result: ~300% Increase in Reported Incidents
SAFETY RESULTS
PROACTIVE RISK MITIGATION
Voluntary Safety Reporting

Reactive

Approximate Operational Incidents Over 3 Years

5,000

Proactive

63,000
ATSAP Reports

64% of Eligible Personnel Have Filed Report

300-350 Reports Per Week

170 Corrections Since Program Inception
# Proactive Occurrence Reporting

**APRIL 2012 - MARCH 2013**

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL VOLUME AIR TRAFFIC OPS</td>
<td>130,437,567</td>
</tr>
<tr>
<td>MANDATORY/ELECTRONIC OCCURRENCES FOR REVIEW</td>
<td>206,943</td>
</tr>
<tr>
<td>PROCESSED MANDATORY/ELECTRONIC OCCURRENCES</td>
<td>205,596</td>
</tr>
<tr>
<td>VALIDATED LOSSES OF SEPARATION</td>
<td>5,918</td>
</tr>
<tr>
<td>RISK ANALYSIS EVENTS</td>
<td>1,860</td>
</tr>
<tr>
<td>HIGH-RISK EVENTS</td>
<td>37</td>
</tr>
<tr>
<td>LOSSES PER OPERATION</td>
<td>0.00004537</td>
</tr>
</tbody>
</table>

Note: Most validated losses have multiple record entries for each loss identified. Data is for a rolling period beginning February 2012.
New Approach to Generate and Analyze Data

10x More Data Over Last 3 Years

New Technology Provides More Data
TOP 5 HAZARDS
IDENTIFYING THE CAUSE
Fixing the Top Five Hazards

2012

TURNS TO FINAL
PARALLEL RUNWAY OPERATIONS
GO-AROUNDS
CLEARANCE COMPLIANCE - ALTITUDE
COORDINATION

2013

RECOVERY
TRAFFIC ADVISORIES/SAFETY ALERTS
MONITORING INITIAL DEPARTURE HEADINGS
SIMILAR SOUNDED CALL SIGNS
CONFLICTING PROCEDURES

Prioritizing Resources and Focus
The FAA provides leadership and support to a number of international bodies, including ICAO, CANSO, EUROCONTROL, and others, with the aim of improving aviation safety.

Partnering with airlines to share thousands of safety reports through ATSAP, ASIAS and Confidential Information Share Program (CISP).
EMBRACING CHANGE

IT’S ALL ABOUT THE TRAINING