



Commercial Aviation Safety Team (CAST)

WP/12; Alignment of SEIs

RASG-PA/02

Bogota, Colombia

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INTRODUCTION

- Accident and incident analysis provides data that enables mitigation strategies to be developed
- Once identified, strategies must be prioritized for risk reduction
- Economic considerations must be considered

ALIGNMENT OF MITIGATION STRATEGIES

Aviation risk areas must be identified using a
data driven process

Accident categories must be clearly defined

Standardization with ICAO SARPS is
essential

ANALYSIS

- Three primary risk factors have been identified in the Pan American Region:
(Data from Boeing, Airbus, ICAO, FAA, CAST)
- 1) Runway Excursions (RE)
- 2) Controlled Flight into Terrain (CFIT)
- 3) Loss of Control, In-flight (LOC)

MITIGATION DEVELOPMENT

- Analyze accidents
 - Develop problem statements
 - Identify intervention strategies
 - Construct safety enhancements
 - Write detailed implementation plans
 - Implement the safety enhancements
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- Each risk area took the CAST over two years to complete

RUNWAY EXCURSIONS

- Boeing; Landing on Slippery Runways
- IATA; Runway Excursion Risk Reduction Toolkit
- Flight Safety Foundation; Approach and Landing Accident Reduction (ALAR) Toolkit (Includes Runway Excursion)
- Airbus; Tools for Landing Distance Determination
- FAA Advisory Circular; AC 121- 195-1A, Landing on Wet Runways
- FAA Advisory Circular; AC 120 -71A, SOPs for Pilots (Appendix 2, Stabilized Approaches

Controlled Flight into Terrain

- CAST; Numerous CAST Safety Enhancements have been developed
- SE-1; Implementing TAWS
- SE-2; SOPs for Flight Crews
- SE-9; MSAW for Air Traffic Controllers
- SE-10; FOQA and ASAP Programs
- SE-11; CRM Training for Pilots
- SE-12; CFIT Training for Pilots
- SE-120; TAWS Improved Functionality

Controlled Flight into Terrain **(continued)**

- Boeing; CFIT Training for Pilots
- Flight Safety Foundation; Approach and Landing Accident Reduction Toolkit (ALAR)
- Honeywell; Stabilized Approach Monitor for Pilots

Loss of Control, In-Flight

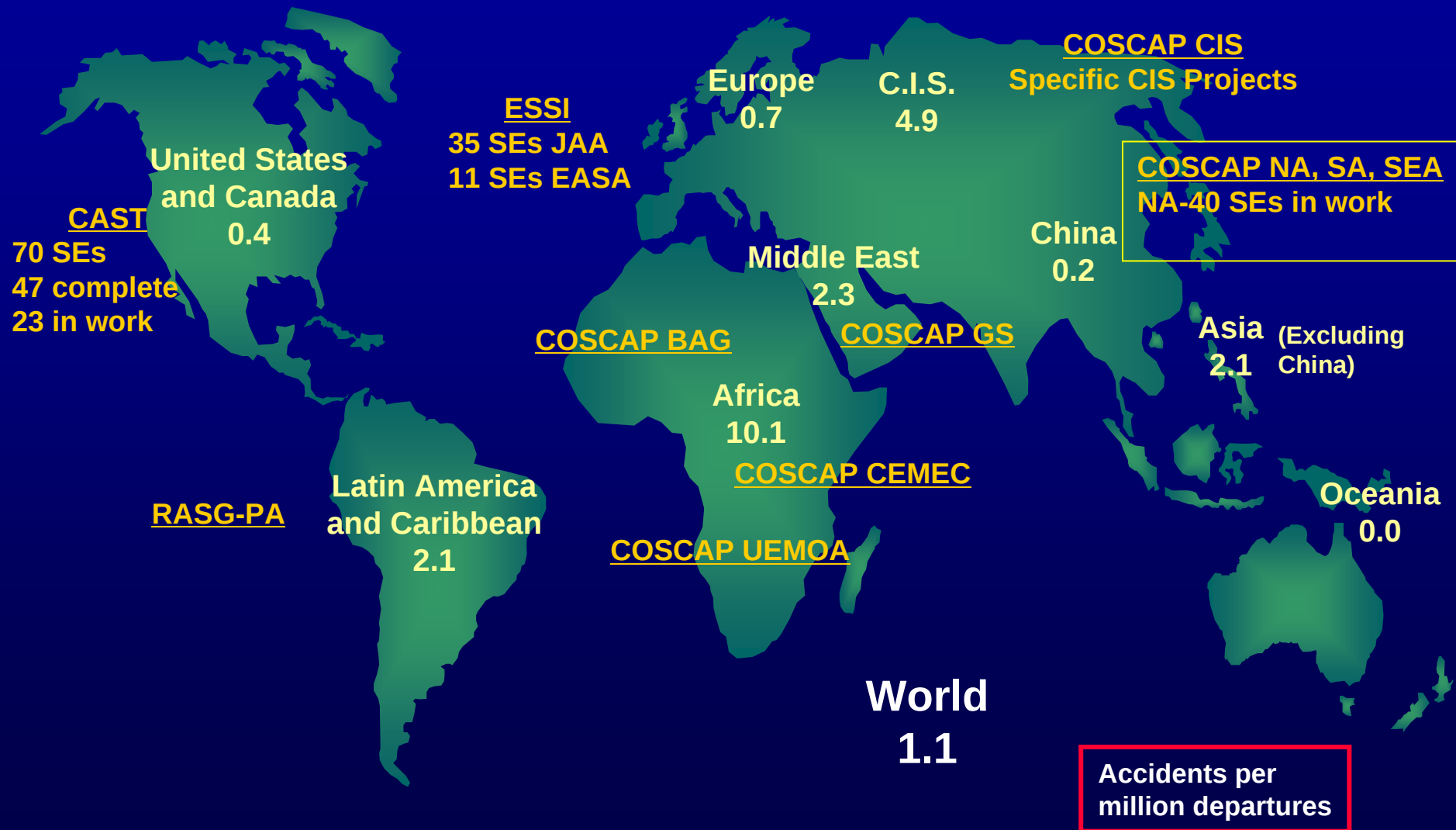
- CAST; Numerous CAST Safety Enhancements have been developed
- SE-26; SOPs for Pilots
- SE-27; Risk Assessment for Pilots
- SE-28; Policies and Procedures
- SE-30; Human Factors/CRM for Pilots
- Boeing; Airplane Upset Training
- Airbus; Abnormal Aircraft Operation

ACTIONS

- RASG-PA should consider using proven enhancements against known risks
- All risk reduction initiatives should be studied for use, not just CAST SEs
- One size does not necessarily fit all

International Perspective CAST Safety Enhancements

Western-built transport hull loss accidents, by airline domicile, 1998 through 2008



ALAR Activities

- Pretoria, South Africa; October, 2009
- Taipei, Taiwan; November, 2009

THANK YOU.