



REGULATORY UPDATES AND INITIATIVES AT TRANSPORT CANADA CIVIL AVIATION

Presentation to the 14th Meeting of the COSCAP-NA Steering
Committee – Ulaanbaatar, Mongolia
June 18-20, 2014

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SESSION OBJECTIVES

- Update on TCCA Safety Management Systems (SMS)
- Provide a list of TCCA Regulatory Priorities
- Share a Success Story – Transport Canada Biojet Fuel Research and Testing



SAFETY MANAGEMENT SYSTEMS



Vision

- Fully integrated approach to SMS across all certificates/sectors
- Better management of the aviation system through cross functional assessments of hazards and risks
- Harmonized approach to surveillance across all enterprises – systems entry point
- Proactive approach to safety that considers the life cycle of flight from design to maintenance to operation



Implementation to Date

- TCCA first regulated SMS in 2005; today, Canada's largest passenger air carriers (CAR 705) operate with SMS policies, processes, procedures and systems in place
- SMS covers more than 90 percent of fare-paying passenger kilometres. Transport Canada is one of a few civil aviation authorities in the world having implemented SMS to that extent
- Assessments verified that the SMS in these companies is working and contributing to a healthier safety culture within the organization
- In 2008 and 2009, SMS regulations for airports and air navigation services providers came into force. Assessments are continuing for airports to confirm level of maturity
- Following implementation in those sectors, a decision was made to delay further implementation in other commercial sectors to provide additional time to refine procedures, training and guidance material based on inspector and industry feedback
- Recently published regulations for private operators include a requirement for SMS



Lessons Learned

- An internal assessment was conducted in 2013 on the sectors already subject to SMS
- The assessment determined that for industry:
 - Management buy-in ensures a better understanding of safety risks and a dedication of resources to address priority safety issues
 - Improved control of regulatory compliance is achieved through robust QA programs
 - There are some additional costs to developing and operating a SMS
 - The additional workload associated is offset by preventing recurrence of problems
- The assessment determined that for TC:
 - There are opportunities for improvement to TC's sampling methods and surveillance practices
 - TC requires a well defined applicability criteria, effective guidance, interpretation, tools, and templates based on complexity, as well as a competent inspectorate and national consistency in documentation approval



Considerations

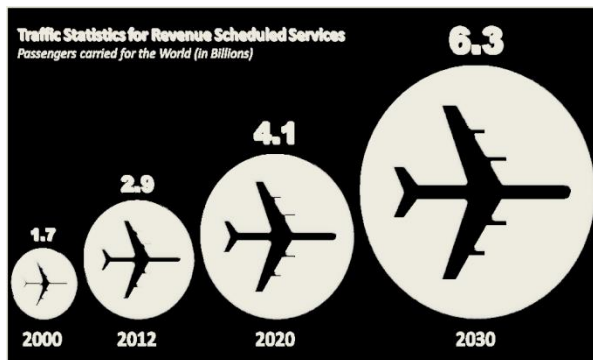
- Surveillance results demonstrate that companies with SMS are better run, more compliant
- Stable accident rate in certificate holders subject to SMS; 91 percent of aviation accidents occur in enterprises not subject to an SMS
- The aviation industry, including smaller operators, are now much more aware of SMS and the benefits
- TC has encouraged voluntary compliance through promotional and educational activities, and by making guidance material for smaller operators available
- Regulating SMS in all areas of industry will ensure that those companies also reap the benefits of SMS and establish a common baseline for oversight activities



Next Steps

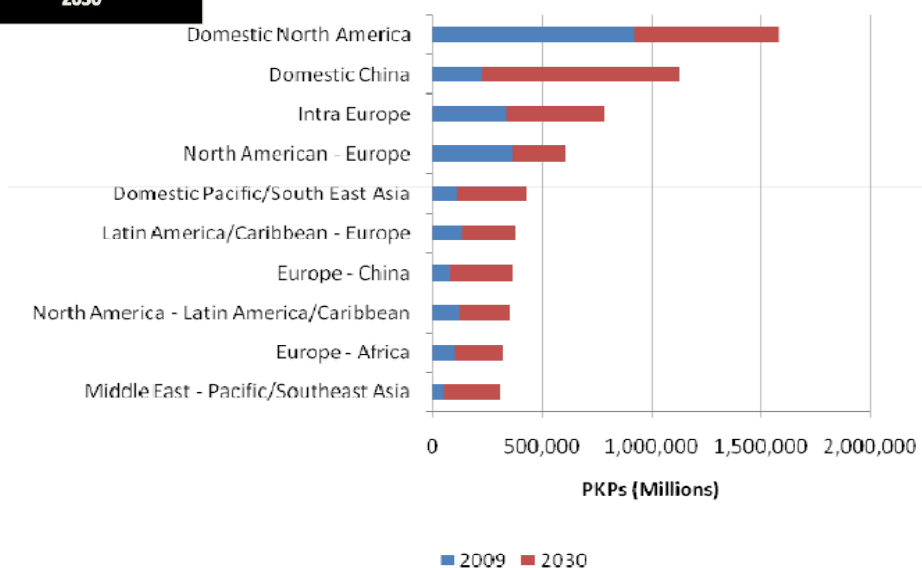
- Before putting in place SMS requirements for other sectors, Transport Canada is conducting an assessment to identify areas requiring attention and to verify that its inspectors and the industry are ready for this extension.

Activity / projections



SMS re-enforces the role played by the State in managing safety at the State level, stressing the concept of overall safety performance in all domains, in coordination with service providers.

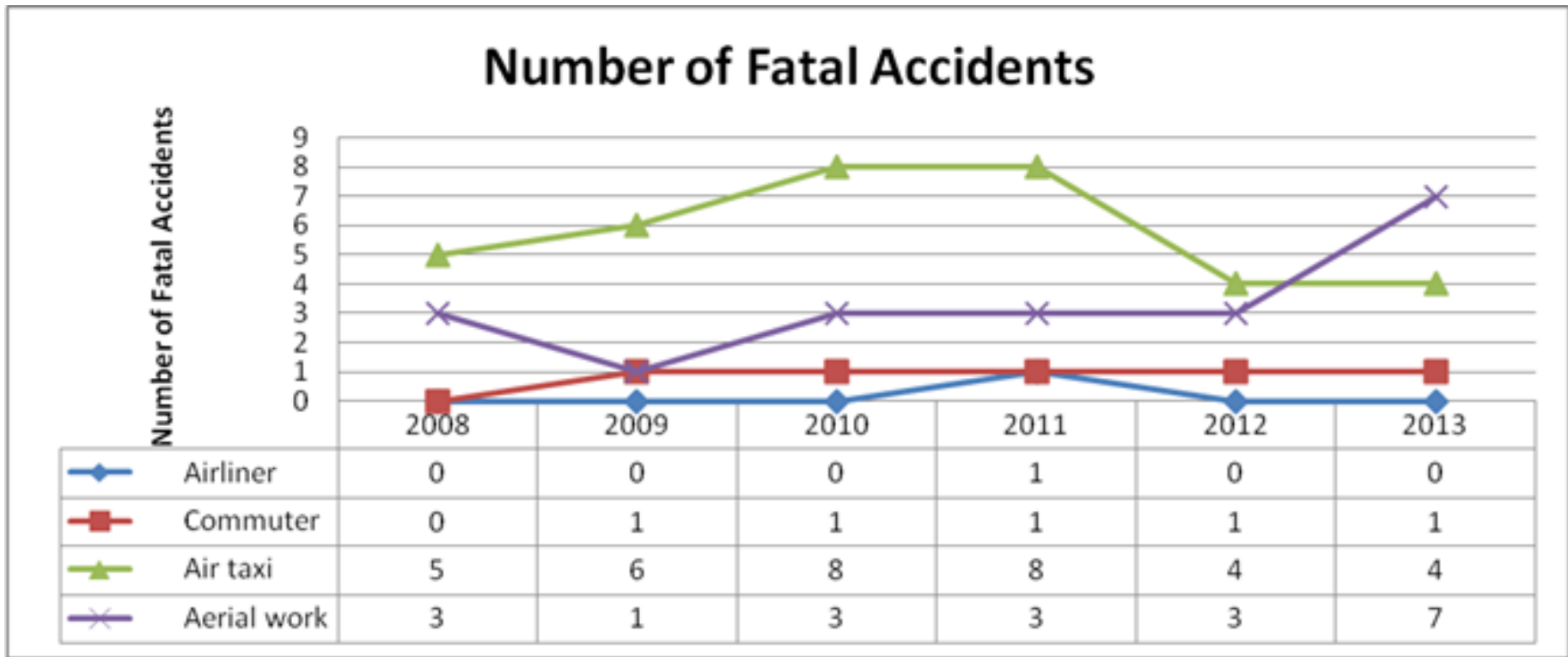
(Source: ICAO)



Top ten traffic flows in 2030		
20-Year Growth %	%World RPKs	
2.6%	15.0%	
7.9%	10.7%	
4.3%	7.4%	
2.6%	5.7%	
6.7%	4.1%	
5.3%	3.6%	
7.8%	3.5%	
5.0%	3.3%	
5.9%	3.1%	
9.0%	2.9%	



Accident statistics (by sector)





TRANSPORT CANADA CIVIL AVIATION ***LIST OF REGULATORY PRIORITIES***

CIVIL AVIATION REGULATORY PRIORITIES



RDIMS #8420880

PENDING CANADA GAZETTE

Offshore Operations – Helicopters
Use of lasers in Navigable Airspace/83 bis
Water Aerodromes (CAR 306) (2NPAs)

IN DRAFTING

101
NPAs

Approved Training Organizations (ATO) (86 NPAs)
Minimum Take-Off Performance (6 NPAs)
SJC – Miscellaneous (0 NPA)
Winter Maintenance (3 NPAs)
Seaplane Operations (2 NPAs)
Cockpit Voice Recorders (CVR) (2 NPA)

TMX LIST – JANUARY – JUNE 2014

8
NPAs

Airside Access and Vehicle Control (AAVC) (3 NPAs)
Operations to and from dry/wet contaminated runways – CAR 705 (5 NPAs)
CAR 103.01 – Requirements for Stds Incorporated by Reference
Aerodromes
Flight Attendant Ratio

PRIORITIZED BY SENIOR
MANAGEMENT

SMS – 702/703/704 & corresponding 573 AMO
CAR 521 – Approval of the Type Design or a Change to the Type Design of an Aeronautical Product
Flight Crew Flight Duty Time
Crew Resource Management
CAR 404.04 – Issuance, Renewal, Validity Period and Extension of a Medical Certificate

NPA POOL (59)



CANADIAN AVIATION ENVIRONMENTAL RESEARCH

TRANSPORT CANADA BIOJET FUEL RESEARCH AND TESTING

Canada's Action Plan to Reduce GHG Emissions from Aviation

Goals:

- 2% fuel efficiency/year from 2005 to 2020
- Carbon neutral growth from 2020
- Absolute 50% GHG reductions by 2050

Complementary Measures:

- **Alternative Fuels:** Identify opportunities to advance alternative fuels for aviation in Canada



Current Activities

Testing / Research / Collaboration:

- US (FAA) and ICAO
- Biojet test flights
- Emissions and climate measurement impacts (NASA)

Policy / Economic:

- Assess biojet value chain in Canada (working with BioFuelNet Canada)





World's First 100% Unblended Biojet Flight





International Research on Aviation Impacts





THANK YOU