

One Level of Safety

What's the Difference Between Passenger and Cargo Operations?

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International Air Safety Summit
November 12-14, 2018



Air Line Pilots Association, Int'l

What's the Difference???



Snakes on Planes

- Cargo Aircraft = Undeclared DG
- Passenger Aircraft = Emotional Support Animal



Snap shot of today's conversation

- Accident Rate Disparity
- One Level Of Safety
- What's the Difference?

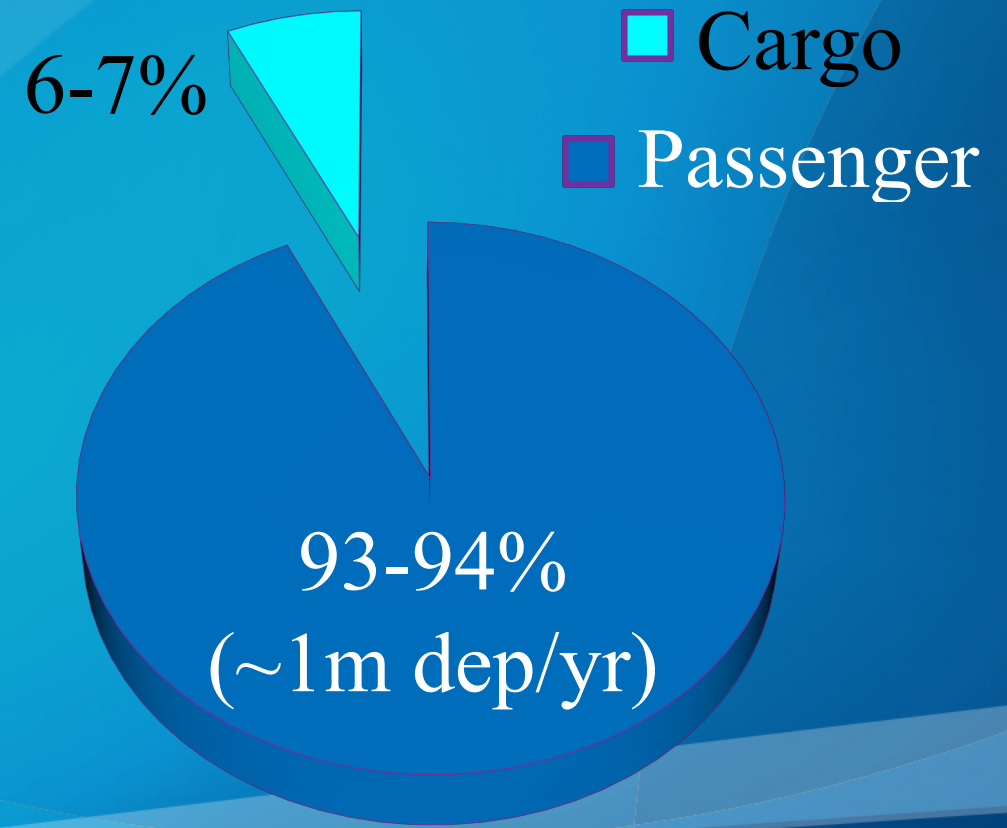
Systems Approach



Accident Rate Disparity

Part 121 Cargo: Cargo is 10-12 times more likely to have a fatal accident than Part 121 Passenger since 2001.

2017 IATA Safety Report: Cargo-only major accidents are 7-15 times higher than passenger airline accidents since 2012.



One Level of Safety

- What is it?
 - Equivalent Safety Performance
- Why do we want it?
 - Level the playing field of risk
- How do we achieve this?
 - Multiple “protection” methods



Risk

What else is different?

- People vs. Cargo
- Business models
- Protections



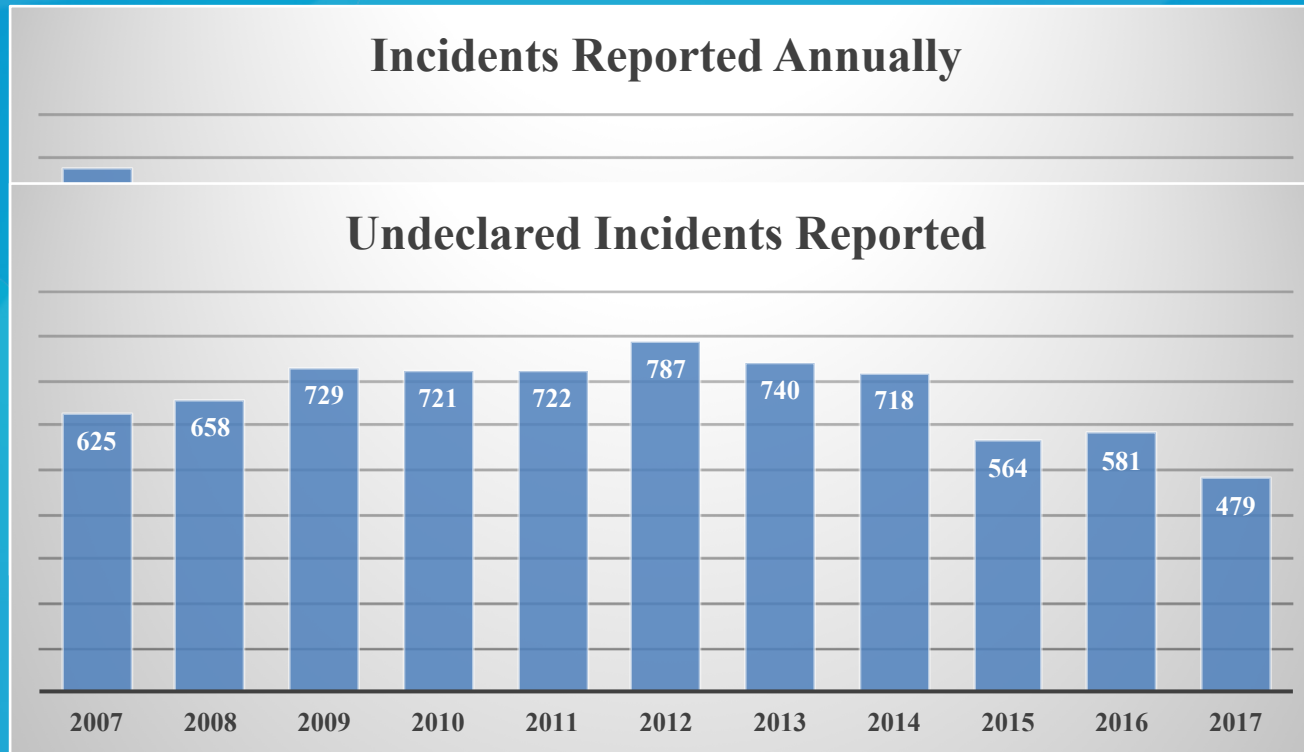
Dangerous Goods



Pallets of iPads for Cargo-Only Aircraft



Undeclared Dangerous Goods



**What's Really In
The Box?**

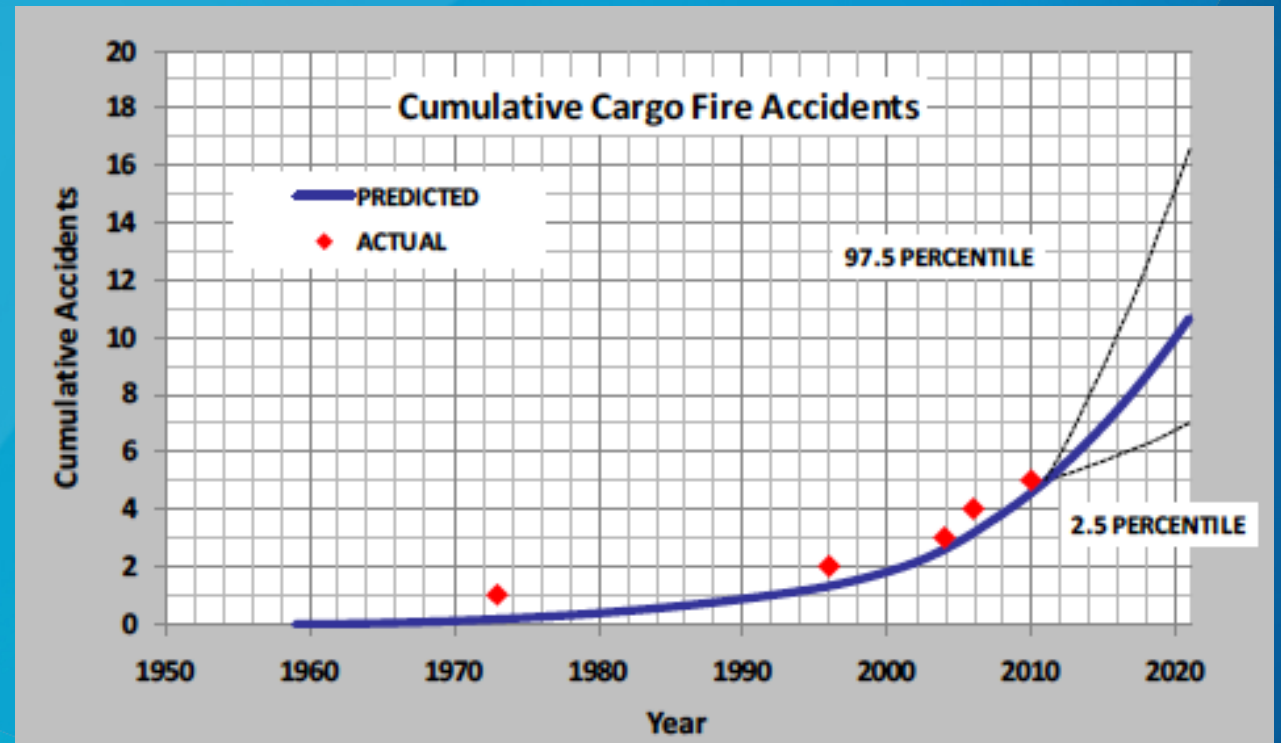


Risk Exposure to Cargo Operators & Pilots

Hazards

- Dangerous Goods
 - Volume
 - Lithium Batteries
- Undeclared Dangerous Goods (UDG)

Fire Risk



FAATC Freighter Airplane Cargo Fire Risk, Benefit, and Cost Model - April 2013

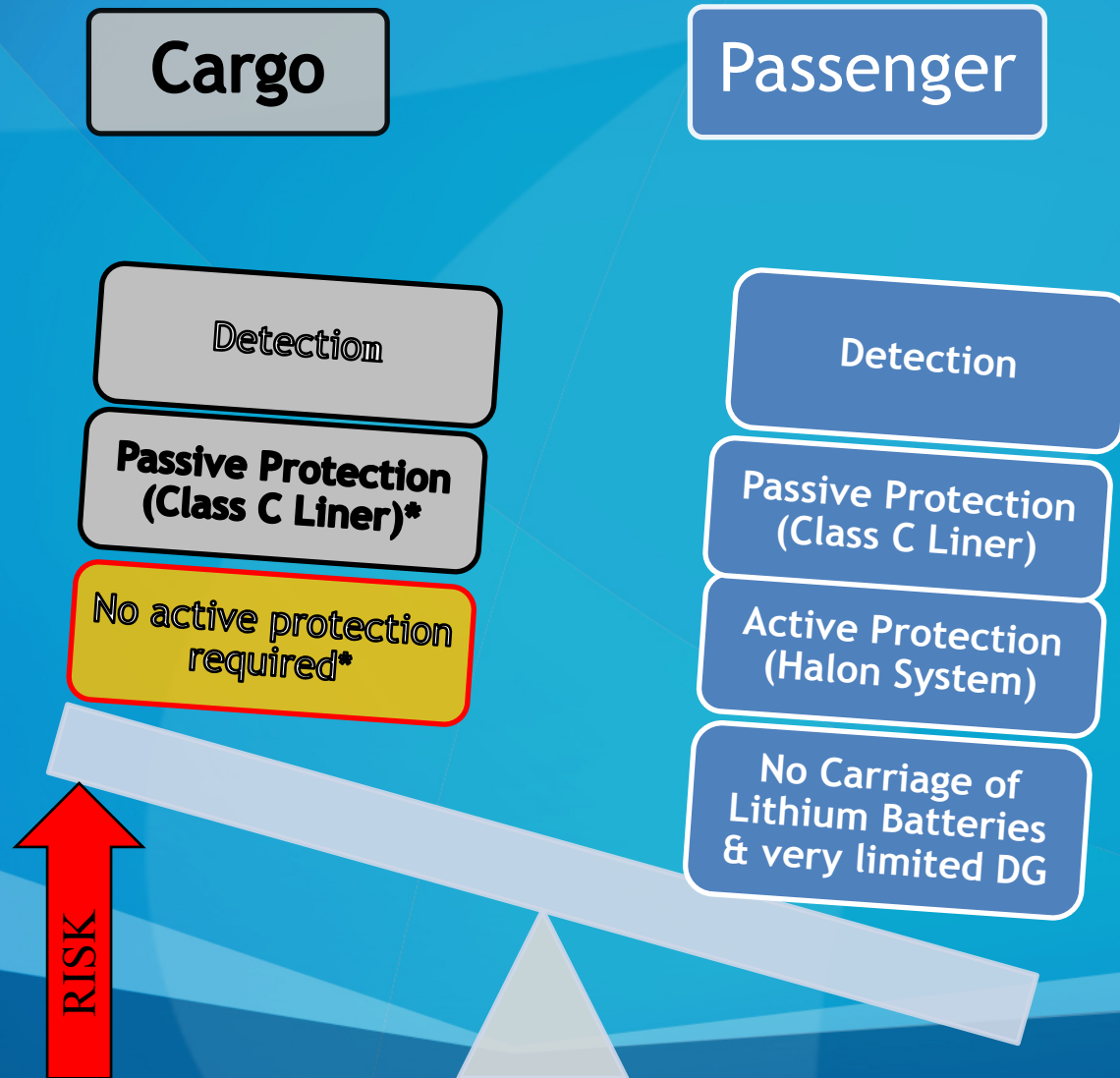


Prevention, Detection, Protection

- Prevention: ICAO (Intl shipments)
 - Instituted packaging requirements for lithium batteries
- Detection & Protection
- Some operators employ:
 - Fire Containment Covers (FCC)
 - Fire Resistance Container (FRC-ULD)
 - Fire Suppression Systems (FSS)



Fire Risk Mitigation Disparity



- Cargo carriers still plan to depressurize to “fight” fire
- 19 min = average time to recover aircraft to surface, or consider ditching

All of this is Special Cargo



12-ton MRAP Vehicle

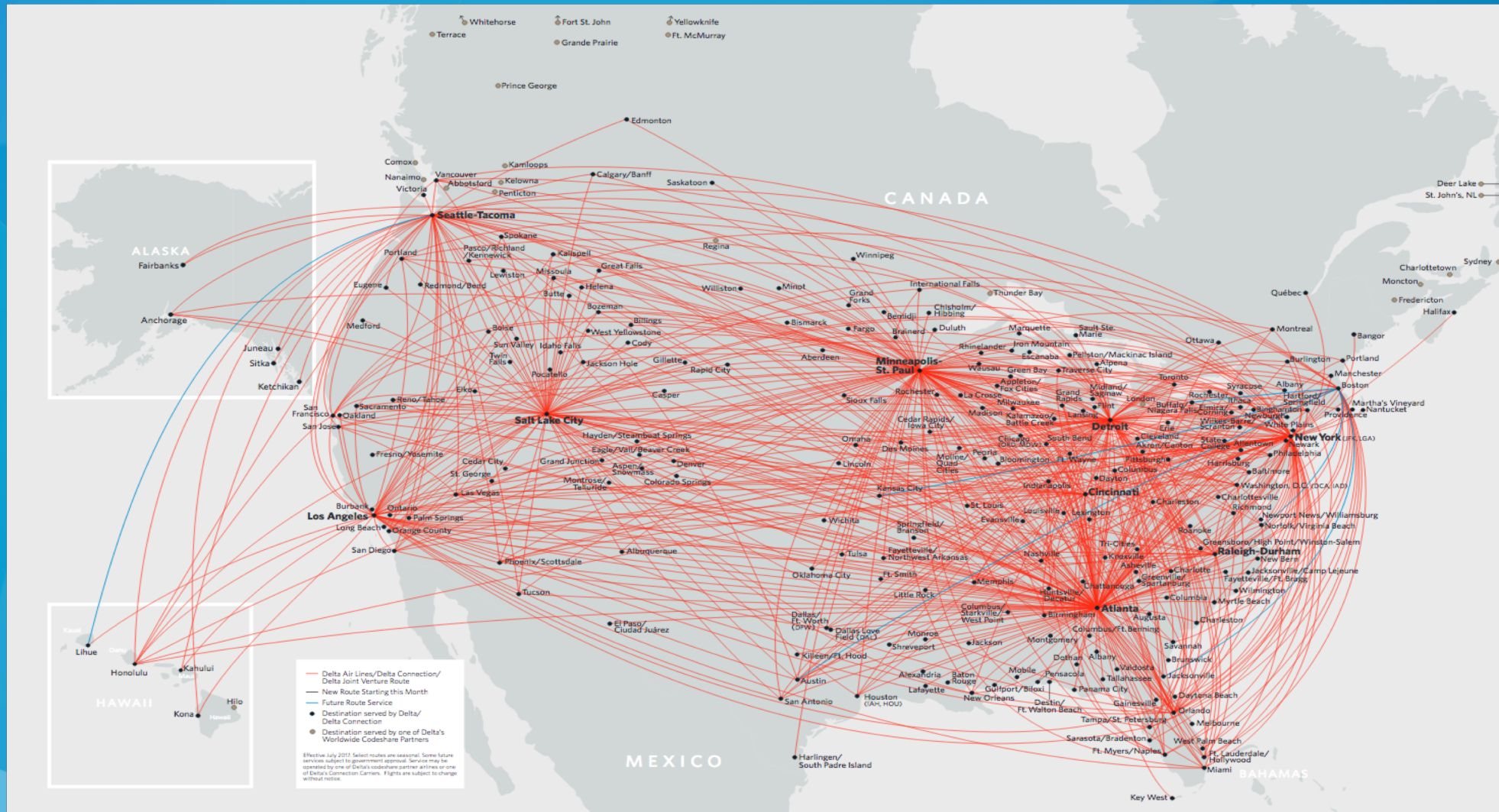


Protections:

- FAA Cargo Focus Team
- Loadmaster Cert WG
- AC 120-85B



Business Model Diversity



Work-Rest Differences



Aviation Infrastructure Differences

- Time of Day
 - Air Traffic Services
 - Non–Tower Ops
 - Airport maintenance
- Aircraft Rescue Fire Fighting (ARFF)
- Wide Body aircraft at smaller airports



Protection Differences (Industry Level):

- Legislation
- Federal Aviation Regulations (FARs)
- ICAO SARPs & Technical Instructions
- Advisory Circulars (ACs)
- CAST Safety Enhancements (SEs)



Mitigation Differences (Operator level):

- Safety Management System (SMS)
- Collective Bargaining Agreements (CBA)
- Safety Technology employed



Obstacles to level the playing field of risk:

- Cost Benefit Methodology
 - Regulatory imbalances
 - Alternative Means of Compliance (AMOC), Exemptions, Deviations
- United States Postal Service (USPS)
 - Different rules on Shipping, Investigation, Declaration of Commodities - or lack thereof (UDG)



Leveling the Playing Field of Risk





Thank You!

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QUESTIONS ?

