

ICAO / IATA / IFALPA

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FRMS: Challenges and Lessons Learned



✈️ Prior to 2006

- North Atlantic/West Pac/South America Ops
- Long Haul - 4 fleets (L1011/MD-11/A310/767)

✈️ 2006-2009

- Eastbound ULR Ops
- New fleet type (777-200ER)
- 3 fleet types eliminated (L1011/MD11/A310)

→ 2009 – Present:

- Merger with large international carrier
- West Pac hub
- 2 fleet types plus variants
(747-400, A330-200/300, 777-200LR)
- Westbound ULR
- Multiple day long haul/ULR pairings

→ 3 Pilots

- 8 to 12 Hours Scheduled Flight time
- 10-14 Hours Scheduled FDP

→ 4 Pilots

- Above 12 Hours Scheduled Flight Time
- Above 14 Hours Scheduled FDP



Ultra Long Range

→ Scheduled Flight Time

- 16 hours or more

→ Scheduled FDP

- 18 hours or more

Times of Continental U.S Departures

Times are driven by commercial requirements

→ Long Haul – 2 and 4 pilot operations

- East: 1600 - 2000
- South: 1900 - 2300
- West: 1000 - 1500

→ Ultra Long Haul – 4 pilot operations

- East: 1830 - 2350
- West: 1000 - 1500

Early Use of Fatigue Risk Management Principles

→ Long Haul

- Prescriptive FDT Regulations
- Operational Experience

→ ULR

- Flight Safety Foundation Report
- Internal Long Haul Experience
- Experience/Data of OAL

Current Use of Fatigue Risk Management Principles - Operations All Under SMS

→ Long Haul

- Prescriptive Regulations
- Operational Experience
- Scientific Principles
- Results of Data Collection/Scientific Studies

→ ULR

- Operational Experience
- Scientific Principles
- Results of Data Collection/Scientific Studies



Lessons Learned

- ✓ Operational experience counts.
- ✓ Education and availability of information are important.
- ✓ Data collection is necessary.
- ✓ Develop relevant KPIs/SPIs.
- ✓ Science/scientists are needed, but don't over-rely on them.



Lessons Learned

- ✓ Time of day for departures is a factor.
- ✓ Social factors should be considered.
- ✓ Longer layover time isn't necessarily better.
- ✓ Clear guidance needs to be given to operational managers for irregular operations.



Lessons Learned

- ✓ Prescriptive onboard rest doesn't work.
- ✓ Cultural issues from previous employers, different nationalities or fleet types vary greatly.
- ✓ Change is difficult and needs to be managed with care.
- ✓ Collaboration with the regulator is essential.
- ✓ Transparency and information enhance buy-in from all stakeholders.



Thank you for your attention