FRM TOOLS & METHODS

EASA FRM WORKSHOP

Vienna, January 2024

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DHL Air (Austria) GmbH – Excellence. Simply delivered.

Introducing DHL Air (Austria) GmbH

Background

Our Customer

Nature of our operation

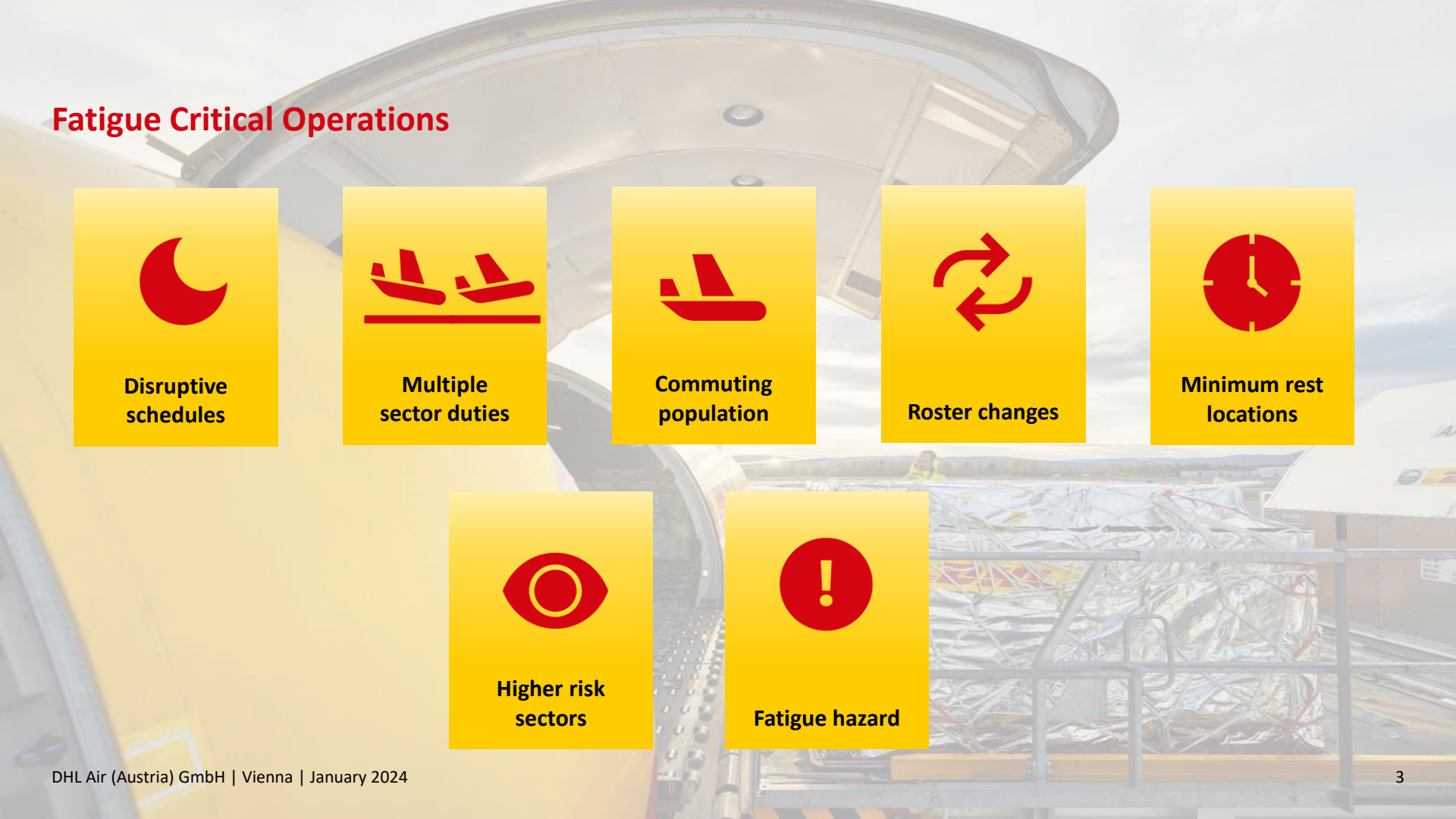
Our FRM team

AWAKE
Sleep Well. Live Well.

DHA do not have an FRMS approval

Although equivalent tools and methods are used to manage fatigue risk

Fatigue Critical Operations



Disruptive schedules

Multiple sector duties

Commuting population

Roster changes

Minimum rest locations

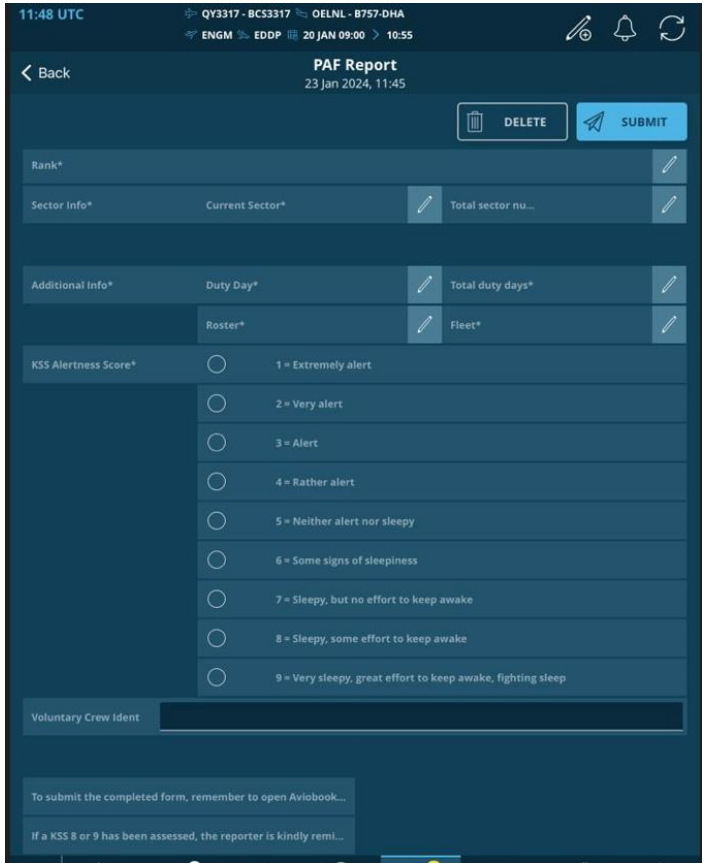
Higher risk sectors

Fatigue hazard

FRM Procedures and Processes

Data Collection

Pilot Alertness Form (PAF) at TOD



FRM Procedures and Processes

Data Collection

→ **Pilot Alertness Form (PAF) at TOD**

→ **Crew Fatigue Reports**

→ **Proactive**

→ **Reactive**

Reactive Crew Fatigue Reports

- Stood down due to Fatigue
- Fatigue contributing factor to an occurrence (i.e. ASR)
- Experienced fatigue whilst operating
- Assessed themselves as KSS 8 or 9 during PAF at TOD

FRM Procedures and Processes

PAF at TOD

Data Analysis

PAF at TOD

- Independent analysis performed by our Contracted Sleep Science organisation
- Monthly Fatigue Working Group to review analysis report
- Higher fatigue risk sectors identified

FRM Procedures and Processes

PAF at TOD

Crew Fatigue Reports

Data Analysis

Proactive Crew Fatigue Reports

Predefined Root Causes

- Disturbed Rest
- Self-Management of Rest
- Operational Disruption
- Rostering (planned)
- Rostering (changes)
- Management of Known Fatiguing routes
- Other
- Proactive predictive report

All reports discussed and root cause agreed for each in monthly Fatigue Working Group

Reactive Crew Fatigue Reports

identifed roster independently
lysed including biomathematical
delling

provide background / comment

ependent analysis of CFR

posed root cause assigned

FRM Procedures and Processes

Data Analysis	Assurance
Monthly SPI monitoring	CDR per 1000 duty periods (rate)
Monthly Fatigue Working Group	Roster stability (%)
Quarterly Fatigue Safety Action Group (FSAG)	Fatigue Reporting Culture (%)
Safety Review Board (SRB)	Percentage of KSS 8s and 9s received

FRM Procedures and Processes

Promotion, Training & Support

- **Initial and Recurrent Training by Sleep scientists**
- **Confidential support by Sleep scientists**
- **Safety nights by Fatigue Pilot**
- **‘Waypoint’ Safety Newsletter**

FRM Procedures and Processes

Supporting Disruptive Schedules

- Home base – dedicated sleep facilities
- DHL Hubs – dedicated sleep facilities
- Personal Commuting Declarations
- Rest day prior to N1
- Crew scheduling guidelines

FRM Procedures and Processes

Future Developments

- Actiwatch studies – providing individual feedback
- AIMS Fatigue Module and biomathematical model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