

FRMS – Practical Application

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germanwings

Agenda:

- FRMS – How we use it
- Fatigue – How we “model” it
- Starting an FRMS
- Barriers to establish an FRMS
- Continuity - keeping the FRMS effective
- Benefits of the FRMS.

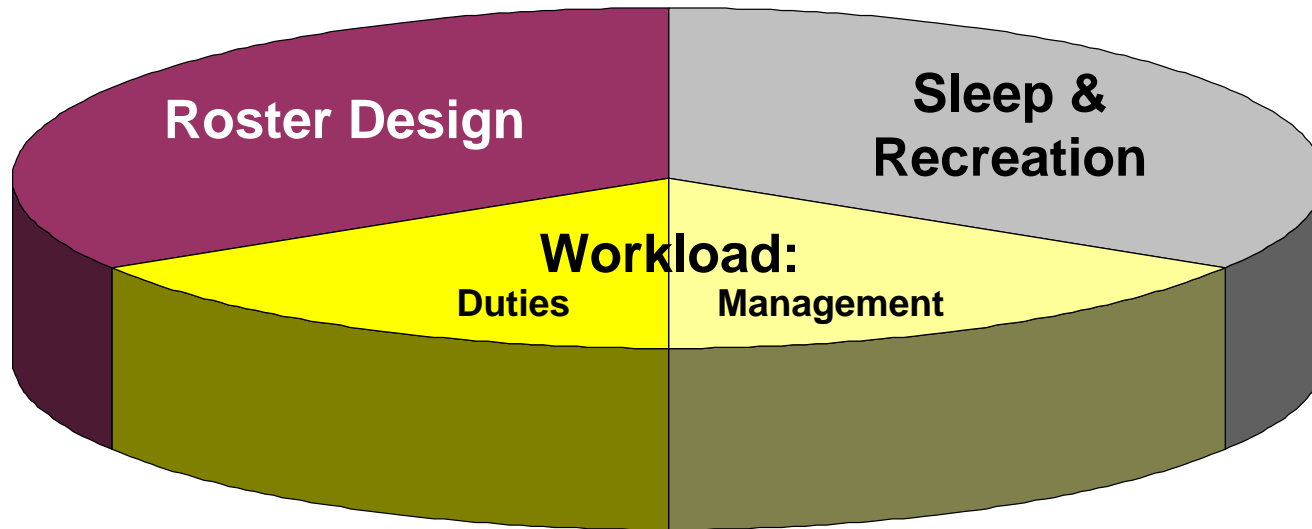
FRMS: How we use it

- The FRMS is expected to improve safety, efficiency, productivity and operational flexibility while satisfying the company's duty of care to its employees as well as the regulator's to the public;
- The FRMS is a performance based management system aiming for continuous improvement;
- The FRMS shall use operational experience and scientific knowledge for suitable mitigation measures where appropriate;
- The FRMS satisfies the operators responsibility and includes individual guidelines for the employees;
- The FRMS is part of the Germanwings SMS.

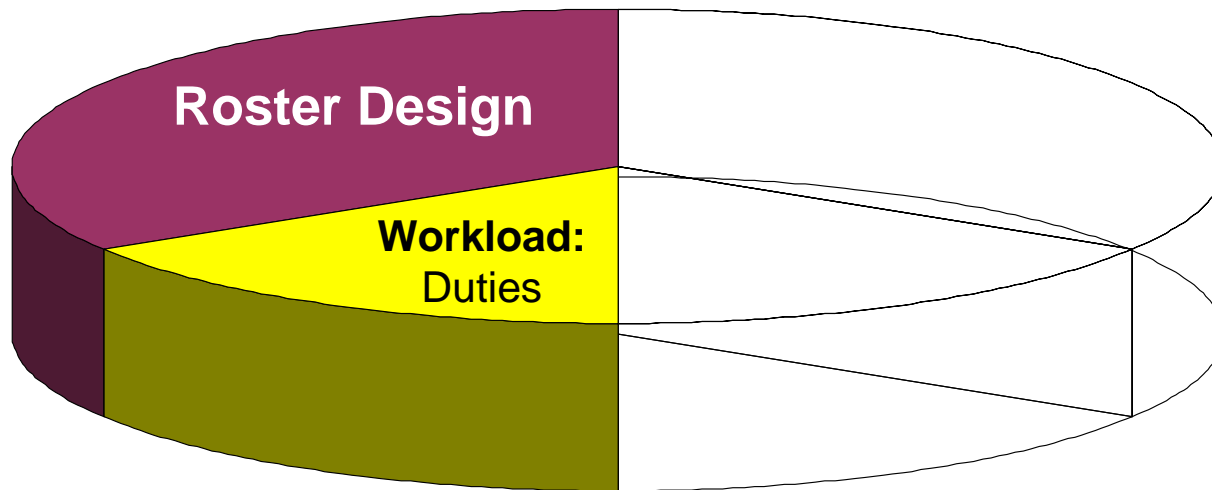
Fatigue – How we model it

Fatigue in aviation is a result of a complex system

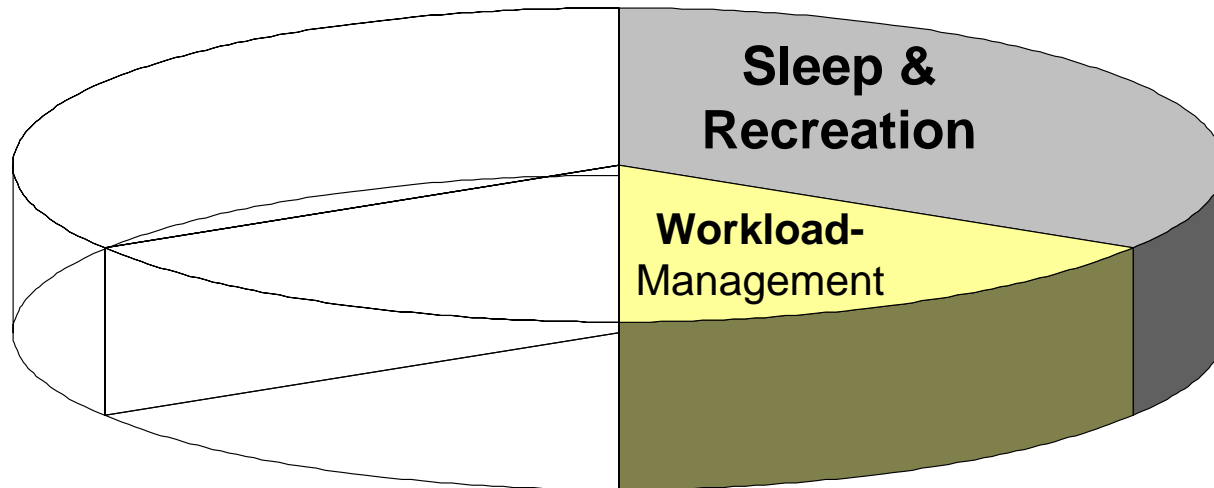
Fatigue Model



It is the responsibility of the operator to provide an appropriate Duty Roster and an acceptable amount of workload :



It is the responsibility of each employee to use the rest times provided and to manage the workload. This is beyond control of legislation, but may be part of training.



Starting the FRMS

- Fatigue was considered by Top Management as a major issue after analysis of operational experience, crew productivity and upcoming regulations
- FTLs and “union agreements” have been inefficient to control fatigue
- Implementation started “top-down” with a fatigue policy by CEO
- It was the first approach to “manage fatigue risk” for GWI
- Everyone understood the Fatigue Model used
- Everyone understood the “shared responsibility”.

Barriers to establish an FRMS

- The first barrier then was to convince “Mid-Management”
- The second barrier was to win the union
- A large barrier was to gain trust by the Crew Schedulers
- There were doubts from all sides – but interest as well
- The Policy Paper and clear rules were given from the start to overcome the doubts and resistance:

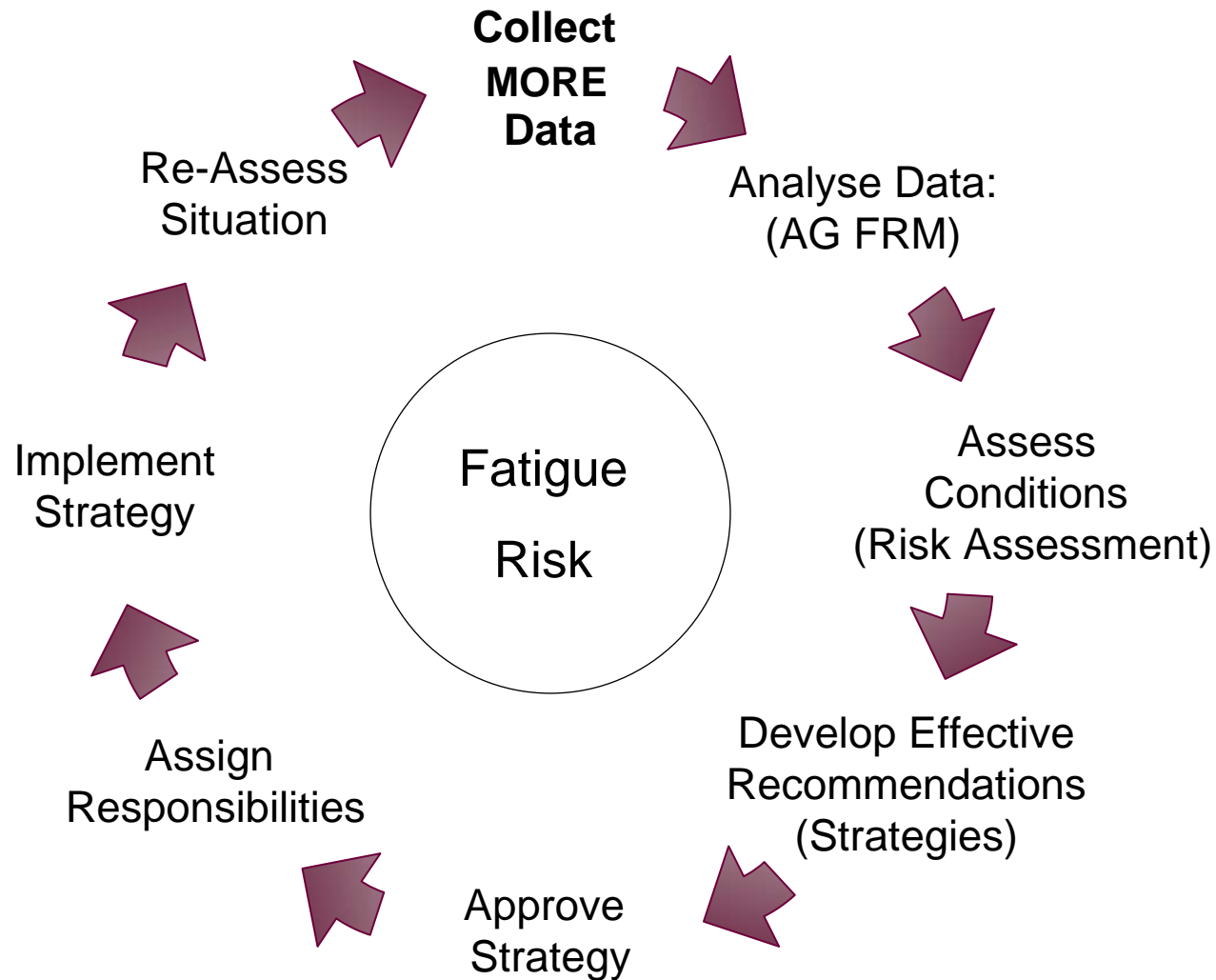
All risk fatigue mitigation measures have to be

- evidence based
- scientifically proofed
- economic.

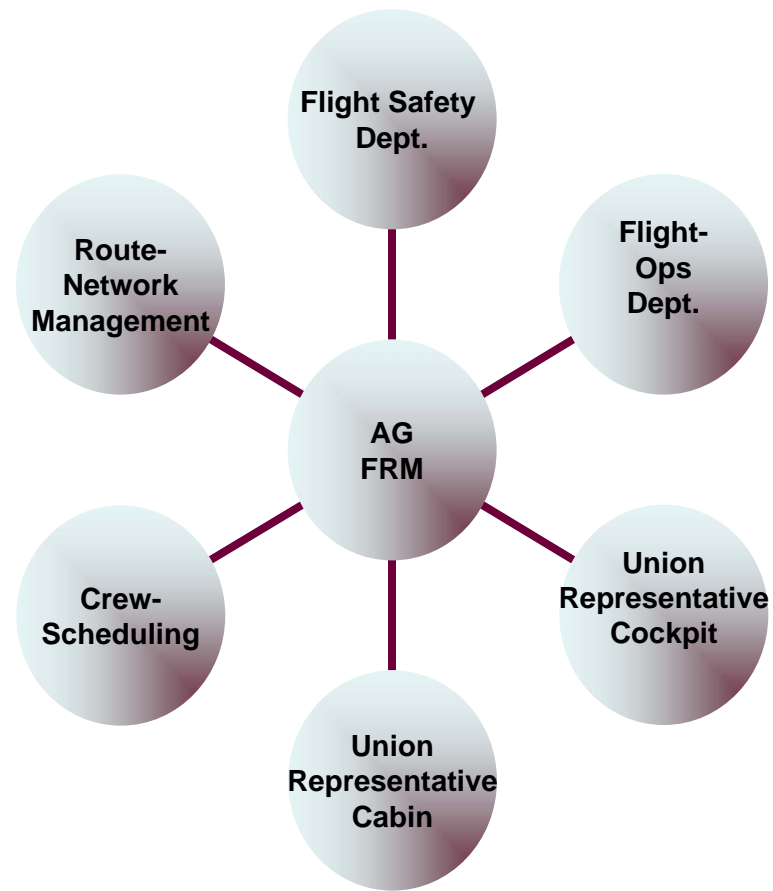
Continuity - keep the FRMS effective

- The main issue is to demonstrate what an FRMS is – and what it is not (!)
- An FRMS is a strategic approach to reduce fatigue risk - not an institution to replace or enforce contractual union agreements
- An FRMS is a way to reduce fatigue through a non-prescriptive program which monitors fatigue - instead of stricter and tighter rules
- An FRMS requires a change of thinking in the company – instead of just adherence to regulations
- The FRMS is risk-based and performance driven – not the result of a “wage agreement”
- FRMS is not a single process - it is a management system.

FRMS Management Cycle: (based on ICAO SMS)



AG Fatigue Risk Management



Today's benefits of the FRMS

- Identified and assessed fatigue risks
- Measures to control fatigue
- Monitoring of fatigue (FAID)
- Education and training
- Clearly established responsibilities and accountabilities
- We continue to improve – a field study started this September 08 with the Institute of Aerospace Medicine of the German Aerospace Centre (DLR).

Questions or Comments?

Thank you !