

Controlled Rest on the Flight Deck: A resource for operators

FATIGUE COUNTERMEASURES WORKING GROUP



NOVEMBER 2018

Controlled Rest on the Flight Deck

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About the Fatigue Countermeasures Working Group

The Fatigue Countermeasures Working Group is comprised of:

- Fatigue Safety Managers from multiple commercial air transport operators
- Labor representatives from multiple pilot unions
- Researchers and scientists from Clockwork Research, NASA Ames Research Center, and Washington State University
- Various independent fatigue and human performance research organizations

“...Improving operational safety by providing proven performance-enhancing strategies for managing fatigue risk in aviation.”

Why offer the resource guide?

- Fatigue risk management via flight time/duty time limitations alone may not be effective
- Operators who do not have a CR procedure may be lacking a very valuable tool in their fatigue management toolkit
- Operators who do have a CR procedure may not be fully appreciating the benefits available from CR
- Fatigue risk within an operation may be masked by the use of controlled rest when CR is not tracked
- CR may introduce unintended consequences in the form of sleep inertia when not properly mitigated

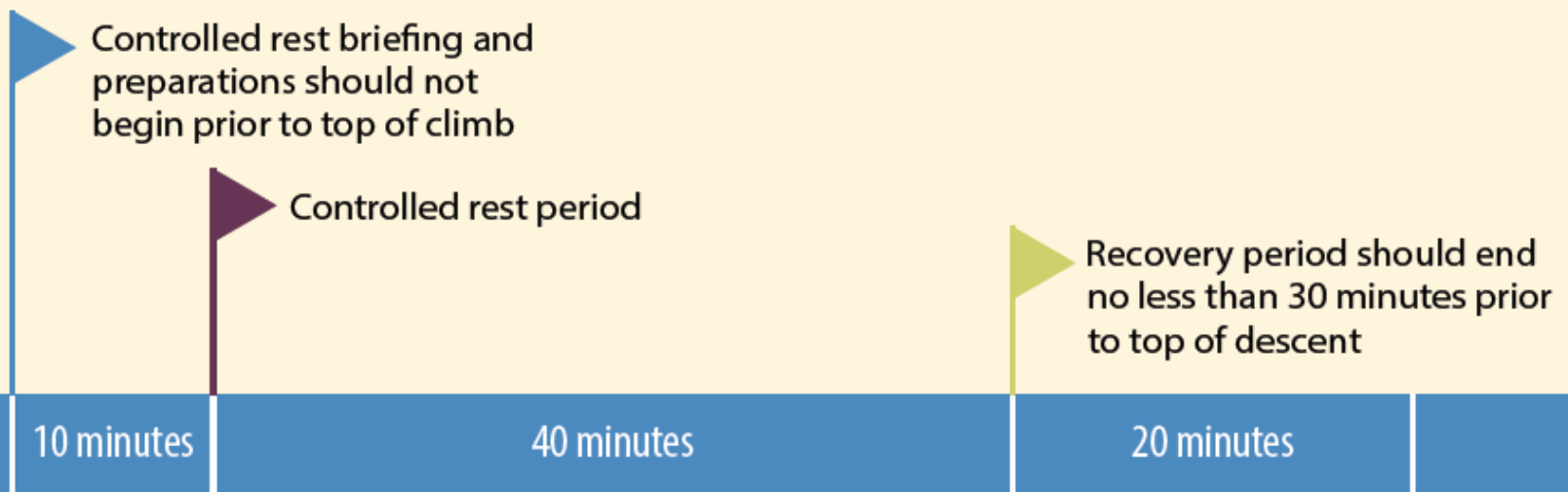
What is included in the resource document?

- Provide the first overview of the practice of CR
- Provide an up-to-date overview of the scientific research on napping, sleep inertia, and CR
- Assist operators new to CR in deciding whether to introduce a CR procedure
- Assist operators in documenting and implementing an effective CR procedure
- Assist operators with an existing CR procedure in reviewing and improving the procedure
- Provide guidance on how to monitor and continuously improve CR as part of an FRM program

Designing an effective CR procedure

Figure 1

Example of a CR profile within flight



CR = controlled rest

Source: Fatigue Countermeasures Working Group

Reports of the use of CR to enable FRM

- At 2 airlines, up to 30% of all fatigue reports cite the use of CR as a fatigue countermeasure
- 53% of pilots (n=253) operating regional and international flights used CR in the prior 12 months (Petrie et al., 2004)
- Case study: 20% of crew took CR on a long-haul daytime flight, which contributed to a decision to add an additional pilot

Conclusion

A formal CR policy and a supporting relevant procedure describing how to undertake CR are necessary to harness the benefits of napping while limiting the potential for uncontrolled microsleeps and napping.

Considering:

- the strength of the science demonstrating the benefits of naps to manage fatigue
- the common occurrence of uncontrolled or unintentional sleep where CR is not allowed
- positive feedback on CR from operators who are already experienced

CR should be considered a beneficial tool to help manage unanticipated fatigue.

Fatigue Management

Flight Path Monitoring

Go-Around Project

GSIP Toolkits

Past Safety Initiatives

Pilot Training and Competency

Podcasts

Special Reports

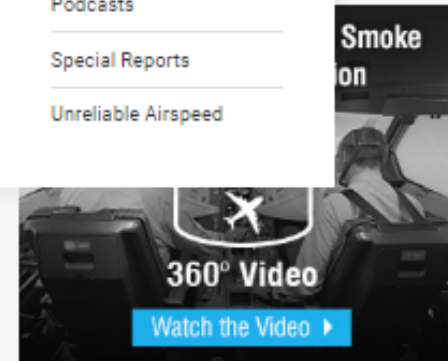
Unreliable Airspeed

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Fatigue Management

Controlled Rest Resource

Controlled Rest on the Flight Deck: A resource for operators was developed by the Fatigue Countermeasures Working Group and is presented here as a service to the aviation industry by Flight Safety Foundation to facilitate discussion among industry stakeholders. The Fatigue Countermeasures Working Group is comprised of fatigue safety managers from a number of commercial air transport operators, primarily located in the United States; labor representatives from multiple pilot unions; and researchers and scientists from Clockwork Research, the National Aeronautics and Space Administration (NASA) Ames Research Center, Washington State University and various independent fatigue and human performance research organizations.



UPCOMING EVENTS

WED 14 **71st International Air Safety Summit**
November 12 @ 8:00 am - November 14 @ 5:00 pm
Seattle WA

Questions?

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