

## **PRESCRIBED TRAVEL SCHEDULES FOR FATIGUE MANAGEMENT**

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The NASA Fatigue Management Team is developing recommendations for managing fatigue during travel and for shift work operations, as Clinical Practice Guidelines for the Management of Circadian Desynchrony in ISS Operations. The Guidelines provide the International Space Station (ISS) flight surgeons and other operational clinicians with evidence-based recommendations for mitigating fatigue and other factors related to sleep loss and circadian desynchronization. As much international travel is involved both before and after flight, the guidelines provide recommendations for: pre-flight training, in-flight operations, and post-flight rehabilitation. The objective of is to standardize the process by which care is provided to crewmembers, ground controllers, and other support personnel such as trainers, when overseas travel or schedule shifting is required.

Proper scheduling of countermeasures - light, darkness, melatonin, diet, exercise, and medications - is the cornerstone for facilitating circadian adaptation, improving sleep, enhancing alertness, and optimizing performance. The Guidelines provide, among other things, prescribed travel schedules that outline the specific implementation of these mitigation strategies. Each travel schedule offers evidence based protocols for properly using the NASA identified countermeasures for fatigue. This presentation will describe the travel implementation schedules and how these can be used to alleviate the effects of jet lag and/or schedule shifts.