



Hanscom Aero Club Safety Meeting

18 August 2021



Outline

- **Duty Day Review**
- **Recognizing Fatigue and Circadian Rhythm Disruption**



Duty Day Limits

- **AFMAN 34-152 Paragraph 6.16 states:**

	Single Pilot	2 Pilot (dual controls)
Max duty day (hrs)	12	16

IF	Duty Day	≤ 8 hrs	> 8 hrs
THEN Crew Rest =		10 hrs	12 hrs

- **Duty day starts when (whichever first):**
 - Show up to Aero Club
 - Show up to work
- **BLUF: Don't expect to make a 3-hour flight after an 8-hour work day**
 - 8 hours work
 - 1+ hours travel to Aero Club and flight prep

IMSAFE checklist

Illness
Medication
Stress
Alcohol
Fatigue
Emotion

It's not just about the numbers.

Flying when tired can be dangerous to you and your passengers



Causes of Fatigue

- **Fatigue characterized as:**
 - Increased discomfort
 - Decreased capacity for work
 - Reduced efficiency of accomplishment
 - Loss of power
 - Reduced ability to respond to stimulation
- **Causes of fatigue include:**
 - Boredom
 - Circadian rhythm disruption (CRD)
 - Physical exertion
 - Prolonged mental stimulation
- **Causes of CRD include:**
 - Shift work
 - Jet lag
 - Sleep disorders
 - Having a baby





Signs and Symptoms of Fatigue

- **Any fatigued person may exhibit**
 - Sleepiness
 - Difficulty concentrating
 - Annoyance
 - Memory problems
 - Task fixation
 - Increased errors
 - Increased reaction time
 - Slowing of higher-level functioning



None of these are good to have while acting as flight crew



Circadian Rhythm Disruption

- **Circadian Rhythm:**
 - The body's internal clock (25-hour)
 - Wake and sleep cycle
 - Eating patterns
 - Prehistoric: hunt during day, DNA replication (healing) at night
- **Common Disruptions:**
 - Sleep disorders
 - Shift work (constant or rotating)
 - Jet lag
- **Ways to Minimize:**
 - Exposure to sunlight
 - Regular exercise
 - Up to 30 minutes nap day of a flight
 - Don't nap >30 minutes
 - Nutrition / balanced diet





Recommendations and Takeaways

- **Don't:**

- Drink alcohol or caffeine 3-4 hours before bed
- Eat a lot before bedtime
- Take work to bed
- Exercise 2-3 hours before bedtime
- Use sleeping pills

- **Do:**

- Be mindful of drowsiness (side) effects of meds
- Diagnose/treat medical problems affecting sleep
- Create a comfortable sleep environment at home
- Choose comfortable hotels when on the road
- Get ≥ 8 hours sleep per night
- Keep both bedtime and wakeup consistent

Don't fly tired! Respect the duty day rules and cancel if needed.