

# 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** 

**E**motion

It's not just about the numbers.

Flying when tired can be dangerous to you and your passengers



## **Causes of Fatigue**

### Fatigue characterized as:

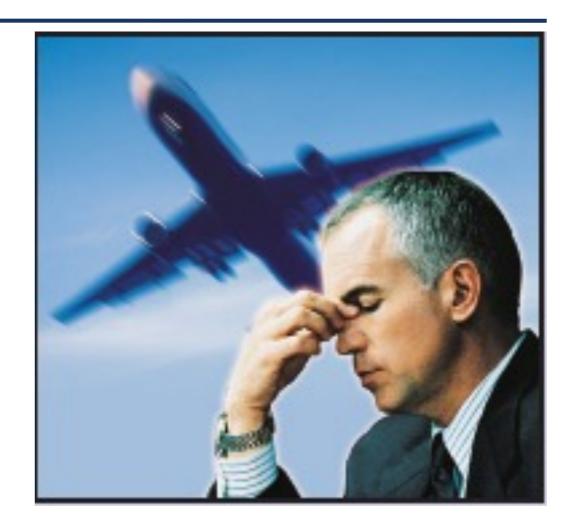
- Increased discomfort
- Decreased capacity for work
- Reduced efficiency of accomplishment
- Loss of power
- Reduced ability to respond to stimulation

### 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

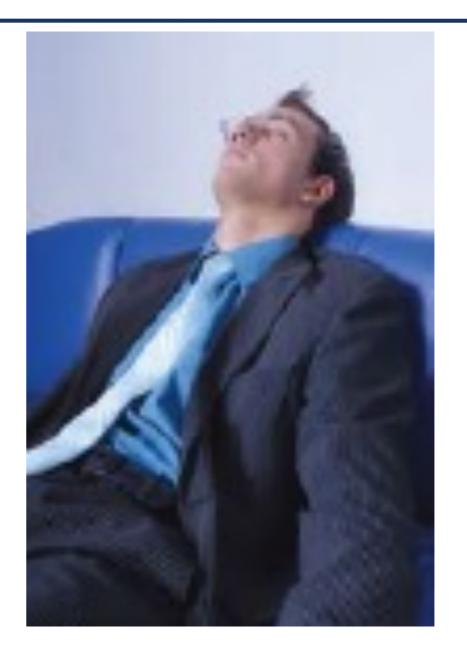




# Signs and Symptoms of Fatigue

### 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.