

## **Mitigation: For air traffic controllers working a “2-2-1” schedule utilizing a Alternative Work Schedule (AWS), reducing the day shift before the mid to 7 hours while relocating that hour elsewhere within the administrative work week may help mitigate fatigue**

In facilities that utilize 2-2-1 counterclockwise schedules (Swing-Swing-Day-Day-Mid), controllers are encouraged to construct schedules to reduce the day shift preceding the first midnight shift from eight to seven hours, and begin that shift one hour later, in order to provide the opportunity for an extra hour of restorative sleep at the end of the nighttime sleep period.

This reduced shift duration would be offset by adding the hour to a shift, *or a combination of shifts*, earlier in the workweek. We recommended that the additional time be scheduled either at the beginning of a normal evening shift, or at the end of a normal day shift, so as not to infringe on nighttime sleep.

### **What’s the point?**

This fatigue mitigation, sometimes referred to as “fatigue flex” is supported by both FAA Management and NATCA, as it is scientifically shown that it may help mitigate fatigue. The goal is to improve safety in the NAS by increasing nighttime sleep opportunities for controllers. Because night time sleep is the most restorative sleep (deeper and more consolidated), any change which allows controllers to get more night time sleep will reduce fatigue risk (thereby reducing risk to the NAS).

Reducing the day shift before a mid by an hour and having that shift start an hour later provides an extra hour of night time sleep opportunity. Bio-mathematical fatigue modeling has demonstrated that the benefits of this extra sleep include enhanced performance during the day shift as well as a significant improvement to performance on the subsequent mid shift.

### **How does it work?**

- This mitigation is voluntary and cannot be forced as no bargaining unit employee will be required to work an AWS involuntarily
- Begin the second day shift an hour later and only work seven hours
- Add that hour to a shift, or a combination of shifts, in the administrative workweek
- A depiction of how this mitigation works in a schedule can be seen on the following page

**Myth: Air Traffic Managers have to approve the use of this mitigation.**

**Fact:** Use of this fatigue risk scheduling mitigation, within an AWS, has already been vetted through the approval process (both FAA Management and NATCA agreement). An AWS is negotiated at the request of the Union and requires local level management approval; use of this mitigation is approved for controllers on an AWS schedule.

**The chart below illustrates the 7 and 9 hour shifts fatigue risk mitigation: For air traffic controllers working a “2-2-1” schedule utilizing a Alternative Work Schedule (AWS), reduce the day shift before the mid to 7 hours and relocate that hour elsewhere within the administrative work week.**

In this example, instead of adding the full hour to another shift to create a 9-hour shift, the controller opted to relocate the hour in two 30-minute intervals. The portrayed schedule (in white) and hours off (in yellow) indicate the shift pattern after applying the schedule change.

