



26th Annual International Aircraft Cabin Safety Symposium

Torrance, CA
9-12 February 2009

Fatigue: The Flight Attendant Perspective

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Flight Attendant – 1930's “Sky Girls” Begin



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- A way to entice passengers to fly on the sometimes unreliable and dangerous airplanes

Flight Attendant

We are required to be onboard the aircraft for emergency purposes!

We are first responders.

We are trained to handle smoke & fire

We are trained in medical emergencies

We are trained to evacuate passengers quickly and safely

We are security personnel

Flight Attendant Fatigue

Why has the industry not been as supportive of studying flight attendant fatigue as they could have been?

“They don’t cause accidents...”

Flight Attendant Fatigue

**American Eagle Flight 4127, being
operated by Simmons Airlines,
July 9, 1995, ATR72**

- Loss of rear cabin door during takeoff climb**
- Minor damage to aircraft**
- Minor injury to 1 FA (4 crew/61 pax total)**

Flight Attendant Fatigue

**American Eagle Flight 4127, being operated by
Simmons Airlines, July 9, 1995, ATR72**

Probable cause:

- FA inadvertently opening the door due in part to FA fatigue from a lack of sleep (apx. 5 hours) and the long duty day**
- Contributing was a change in the design of the door locking mechanism.**

Flight Attendant Fatigue

Why has the industry not been as supportive of studying flight attendant fatigue as they could have been?

“They don’t operate the aircraft...”

Flight Attendant Fatigue

Flight attendant fatigue poses a potentially dangerous risk to aviation safety!

- **“I forgot to arm my evacuation slides”**
- **“I was pulled over by the police for drunk driving”**

Yet, just prior to that it was okay for the flight attendant to operate emergency equipment (per the FAA regulations)

Flight Attendant Fatigue

**U.S. Regulations on duty and rest
Different from pilots but also similar**

Duty **FA = scheduled up to 14 hours**
 Pilots = hard 24 hour limit

Rest **FA = 9 hours rest (reduced to 8)**
 Pilots = same

(domestic operations)

Flight Attendant Fatigue

What is “Rest Period?”

Can be misleading...

The “rest period” can begin as soon as fifteen minutes after an aircraft pulls into the gate and continues until one hour prior to their next departure. This “rest period” must also include travel through an airport, waiting time for a shuttle to the layover hotel, travel to the hotel, checking-in, possibly finding time to eat a meal since many of our carriers in an effort to cut costs have removed flight attendant crew meals from the flights, getting prepared for bed, getting dressed in the morning, getting breakfast and prepared for work the next morning, travel back to the airport and last, but certainly not least is sleep time.

AFA-CWA Fatigue Survey

- **Conducted early August to early September 2005**
- **Forms completed daily by members during trips (typically 2 to 5 consecutive days)**
- **Flight Attendants from multiple carriers**

AFA-CWA Fatigue Survey

- **Objectives of the Study**
 - **Characterize Flight Attendant Duty / Rest Periods**
 - **Catalog Flight Attendant Perceptions of Their Work**

- Trip Log (header and footer)

AFA-CWA Air Safety, Health and Security Dept. Trip Log

v. 7/20/05

Name:			Empl No:			Airline:		Base:			
Date (mm/dd/yy):			Phone:			Email:					
Specify a (primary) location type and airport during each designated period throughout the 24-hour day, and enter start and end times (using 24 hour clock, e.g., 1425 for 2:25 pm) for that period, for both Actual and Scheduled duty. Please don't leave any time gaps. For each time of day, you can use the starting time zone throughout, or multiple time zones; just make sure to specify the time zone assumed (for example, ET, CT, MT, PT, or an airport code when in an international time zone) in every row of data. Use additional sheets as necessary. Please note the additional instructions, data request, and room for comments on the back of this form.											
Time Zone	Loc'n Type ¹	Airport ²		Actual						Scheduled	
				Sleep	Prep	Eat	Duty	Ground Travel	Other	Duty	Rest
			Start:								
			End:								

			Start:								
			End:								
			Start:								
			End:								
			Start:								
			End:								

¹ Use P=Private Residence, A=Airplane/Airport, D=Depart Gate, E=Enter Gate, H=Hotel, F=Food/Drink, G=Ground Transportation, or O=Other

² Use the 3 letter code of the airport associated with each segment of the trip

AFA-CWA Fatigue Survey

- **Summary**

- **50 Members from 10 Airlines completed the survey**
- **Data analyzed for 58 trips typically 3-4 days duration each**

AFA-CWA Fatigue Survey

- **Descriptive Statistics, 58 Trips**
 - **Assumptions**
 - **Trips begin and end at airport**
 - **Each scheduled and actual duty day is a consecutive block of time, with no gaps (meal breaks at airport or in flight do not subtract from duty time)**
 - **Scheduled rest runs from the end of one duty day to the start of the next**
 - **Average trip length = 52.7 hrs**

AFA-CWA Fatigue Results

• **Descriptive Statistics, Averages for 58 Trips**

- **Scheduled duty = 44% of scheduled total trip time**
- **Scheduled rest = 56% of scheduled total trip time**
- **Non-Duty time comparisons**
 - **Sleep (actual) = 52% of scheduled rest****
 - **Other/NA (actual) = 25% of scheduled rest**
 - **Ground travel (actual) = 5% of scheduled rest**
 - **Eating (actual, not on duty) = 5% of scheduled rest**
 - **Prep (actual) = 12% of scheduled rest**

****Bottom line – on average 8 hours of scheduled rest allows only slightly more than 4 hours of actual sleep**

AFA-CWA Fatigue Results

- **Qualitative Data**
 - **Selected Flight Attendant Criticisms**
 - **Having to fly 10 short legs with little or no time in between flights, I had to eat in 3 short 5 minute segments. Got off of work during peak traffic time, took 45 minutes longer to get home than usual.**
 - **By the time we landed in BWI, I wish I could have taken a 20 - 30 min nap. 6 legs is awful hard on 1 F/A to do everything.**

AFA-CWA Fatigue Results

- **Qualitative Data**
 - **Selected Flight Attendant Criticisms**
 - **Had to switch rooms at the hotel. Right behind the elevators!! They rattled the room every time they went up or down! Hard to get back to sleep after switching rooms.**
 - **These 4:30 am reports are crazy. I got 1 maybe 2 hrs of sleep last night.**
 - **Only one place to eat in Intl terminal - McDonald's - too early for others. No food available for short turn in MBJ. I'm tired, not sure if I will eat or not - I've had a soda and some popcorn.**

Flight Attendant Fatigue

- **U.S. Congress Concerned**
 - **Directed the Federal Aviation Administration (FAA) to conduct a study of FA Fatigue**
 - **June 1, 2005 deadline for the report**
 - **FAA delayed release of the report for over one year even though the study was done**

We will call this the 2005 FAA Study

2005 FAA Study

The report concluded that flight attendants are “experiencing fatigue and tiredness and as such, [it] is a salient issue warranting further evaluation.”

The report also listed 6 recommendations* for further study.

(*listed in my paper)

Current FAA Study

The 2nd FAA study underway!

Survey of Operations

Apx. 22,000 FA

- **General demographics**
- **Sleep patterns**
- **Duty days (including scheduling practices)**
- **Fatigue (perceptions, factors, effects)**
- **Work environment (Corporate attitudes, safety, training, and management quality)**

Upcoming FAA Field Study

Procedures

- **Secure airline interest and participation**
- **Recruit volunteers – about 200 flight attendants**
- **Volunteers trained on all equipment and procedures**
- **Data collection across ~30 day protocol period (for each participant)**
 - *Sleep/Activity Patterns (wrist worn Sleep Band)*: continuously, 24-hours per day across protocol period (30-days)
 - *Psychomotor Vigilance Task (PVT)*:
 - Both duty and non-duty days: performed ~1 hr before duty and ~1 hr following duty; and 45 min after rising from major sleep period and just before going to bed on non-duty days
 - *Daily Log books*: 1x per day (~5 min) throughout the protocol period (30-days)
 - *Subjective Ratings*: beginning and end of each duty period
 - *Voice Records*: Obtained during the same time-frame as the PVT is conducted
 - *Workload (Pedometer)*: continuously throughout the scheduled flight operation

Upcoming FAA Field Study

Apparatus: Actigraphy

The Sleep Bracelet collects data throughout the day and night that is used to analyze the quantity and quality of your sleep. Its small, comfortable, and unobtrusive while being worn. “My Sleep” software downloads data from the Sleep Bracelet and sends it to Sleep Analysts for processing



Ultra Long Range Operations

ULR Ops have block times more than 16 hours
FAA created a template operation specification
Originally flight attendants were not included
in all aspects of the OpSpec
AFA-CWA fought to get our issues recognized
but we could not get a mandatory
requirement for bunk facilities

Fatigue in the U.S.

Seven U.S. airlines are now suing the FAA for implementing the ULR OpSpec contending that a public notice and comment period was required

Nineteen U.S. airlines filed comments opposing the FAA flight attendant fatigue research

Conclusion

Flight Attendant Fatigue must be addressed!

- **Fatigue for flight attendants is similar to fatigue for pilots**
- **Things we do can have safety ramifications**

Conclusion

- **Collect FA fatigue data from actual operating environments**
- **Create a crew reporting mechanism with associated feedback**
- **Process for investigating reports & implementing corrections or new procedures**
- **Non-punitive approach to fatigue – allows a FA to call in “fatigued”**

Conclusion

- **Management must support scheduling practices, operational practices, rest environments and attendance policies that support reducing fatigue in operations**
- **Education and awareness conducted for ALL employees (crewmembers, schedulers, dispatchers) having responsibility for combating fatigue**
- **Adequate onboard rest facilities need to be provided to flight attendants—especially for ULR operations**

Conclusion

Science can assist – but it should be in addition to and complement mandatory maximum duty and minimum rest requirements



Conclusion

Together we can achieve the aviation goal of preventing accidents and saving lives.