



# FLIGHT SAFETY FOUNDATION HUMAN FACTORS & AVIATION MEDICINE

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## Policy and Oversight in Fitness for Duty

*Passengers have an extraordinary trust in the air transportation system, and the airlines, FAA and individual crew members must honor it by ensuring that flight personnel are fit to fly.*

—  
by

Walter S. Coleman  
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Is crew fitness for flight an issue? The truth of the matter is that we have a very fit population of air carrier pilots. However, occasional events raise the issue of fitness for duty, and we in the industry must examine our policies and oversight capabilities to ensure that they are up to the task.

What determines the policy of fitness for duty and who has the oversight responsibility? The policy must be that only crew members who are fit to fly should do so, and the responsibility for crew members fitness be shared among the airline, the U.S. Federal Aviation Administration (FAA) and the crew member.

It is the responsibility of the certificate-holding air carriers to provide to the traveling public, crew members who are mentally and physically fit to fly. That responsibility is contained in specific regulatory language and in Section 601 of the U.S. Federal Aviation Act, which refers to the "duty resting upon air carriers to perform their services with the highest possible degree of safety in the public interest." Providing crew members who are not fit to fly would be contrary to that charge.

It is also the responsibility of the regulatory agency, that is, the FAA in its oversight role, to ensure that air carriers comply with their certificate-holding responsibilities in providing fit airmen. The traveling public expects this, as do fellow cockpit and cabin crew members.

The most important element in this combination of re-

sponsibilities for providing fit airmen is the crew member. No one else has greater control over the fitness of an airman than that individual.

The airline can and must provide a circumstance which is in compliance with regulatory requirements for flight time limits, rest requirements, and when appropriate, on-board crew rest facilities. Examples are suitable layover facilities, transportation arrangements and acceptable crew meals, if they are part of a contractual agreement. Presuming these obligations are met, it is now the crew member who must deliver himself or herself as fit and prepared to perform duties as a crew member.

If the airline is in compliance with flight time limits and rest requirements, an area which is examined by FAA principal operations inspectors during FAA inspections, what are the other fitness concerns?

One is that crew members must hold appropriate medical certificates and comply with applicable restrictions such as the wearing of corrective lenses.

Compliance with U.S. Federal Aviation Regulations (FARs) regarding alcohol consumption by crew members is a fitness concern (see "Foundation Endorses Drug/Alcohol Safeguards," May/June 1990 *FSF News*). Many airlines impose more stringent alcohol consumption guidelines than the FAA regulation does. The presumed motive when an airline imposes stricter rules is improved crew member fitness.

Drug abuse is also a fitness concern, illegal substances certainly. Also to consider are self-medication for a cold or other relatively minor health conditions.

There are additionally some conditions that may be called attitudinal problems, such as concerns with the financial health of the crew member's airline, labor/management differences, seniority resolution following mergers, adequacy of compensation and personal concerns with family or business affairs. With the exception of the merging of seniority numbers, these circumstances are not unique to airline crew members. Crew member fitness is unique in that airline passengers do not expect that issues such as those cited, as profound or as significant as they may be to operating crew members, would or should affect the safety of a flight.

Crew member fitness for flight is concerned, therefore, with flight time limits, adequate and appropriate rest, alcohol and drug abuse, attitudinal problems and general health including proper and compliant medical certification.

With few exceptions, air carrier pilots for U.S. airlines do not find themselves without considerable exposure to the demands and rigors that flying as an occupation requires. Flying gives individuals a profound appreciation for the significance of the earth's longitude demarkations and their associated time zones. A life of flying also introduces the aviator to work hours that provide sunrises and sunsets at unique times in the work cycle.

Add to all of that the fact that normally the most difficult part of the flight, the landing, comes at the end of the work day, or for the short-haul pilot comes all through the day or night — with still another one at the end.

Thus, the rigors of flying with an airline should not come as a surprise to air carrier pilots, and may even be easier than the type of aviation activities that preceded the airline flying, such as combat or crop-dusting. And, if the pilot formerly flew single-pilot freighters at night, at least as an airline pilot there is someone to talk with besides Air Traffic Control.

The point of all this is that by the time an airman becomes an airline pilot, he or she knows, on the one hand, the demands of such a position and, on the other hand, knows the profound importance of being fit for flight.

There are clearly defined regulatory and enforceable policies in several areas of crew fitness. There are also some active efforts to amend some of these regulations.

Flight time limits and rest requirements for large air carriers are contained in FAR Part 121 Subparts Q, R and S for Domestic, Flag and Supplemental carriers respectively. The domestic rules were revised in 1985. The international flag carrier rules have remained virtually unchanged for many years. Petitions to modify both sets of rules, one from a pilot organization to amend the domestic rules and one from the airlines to modify the flag rules, have been submitted to the FAA within the past few years. No rulemaking has been initiated by the FAA.

The current regulation on alcohol consumption in FAR Part 91 prohibits the crew member from acting or attempting to act as a crew member within eight hours after consuming an alcoholic beverage. At a recent public symposium on alcohol problems among air carrier crew members co-sponsored by the Air Transport Association of America (ATA) and the Air Line Pilots Association (ALPA), discussions about the merit of petitioning to change the eight-hour rule to a 12-hour rule appeared to have philosophical and medical support. Additionally, there seemed to be support for amending the acceptable .04 blood alcohol content level to a measurable .00 because there is evidence that there can be a performance decrement at a level below .04.

In the matter of drug abuse, the FAA imposed several requirements upon the air carriers to test employees to identify individuals who may be using illegal drugs. This includes pre-employment screening; post accident/incident, for cause; and random testing. This is a regulatory requirement. The random testing requirement began with the requirement to test 25 percent of the personnel subject to testing, and became 50 percent one year later.

The airlines recently provided the results of this drug testing for the first time to FAA. In more than 25,000 random tests, fewer than one half of one percent of the persons tested were found positive. With such a low positive finding, the random testing should be considered to be a deterrent rather than a discovery process. A reduction in the required random testing percentage of 50 percent should be considered, because this is a very expensive deterrent.

Attitudinal problems present a different aspect of crew fitness. Some attitudinal problems are personal and are only in the control of the individual crew member. Others are a function of employer/employee circumstances. Some of these receive oversight from FAA in an oblique way; a section of the FAA *Aviation Safety Inspectors Handbook* directs FAA action in the event of air carrier mergers,

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*“ ... the most  
difficult part of  
the flight ...  
comes at the  
end of the  
workday ... ”*

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bankruptcies and acquisition of air carrier operational assets. Carriers are also examined more closely by FAA personnel during times of financial strain. FAA inspectors may identify a condition which they believe jeopardizes safety, such as a preoccupation by airmen with their company's future or policies; however, this is a very difficult issue for FAA inspectors to measure or to act upon.

Discussions in the cockpit which express concern with the financial health of the crew's airline, criticism of the procedure of the merging of the seniority lists or dissatisfaction with their airline's management skills will frequently find reinforcing agreement among other crew members. Some have labeled this "swamp talk," that is, one person states how bad things are and everyone agrees. There is a very thin history of airline accidents and incidents resulting from swamp talk, but there is some. Considering all the challenges that air carrier flying presents to an airline crew, a cockpit that has some preoccupation with matters not directly concerned with flight is probably not as safe as it could be. Cockpit resource management or crew leadership courses can do much to address the issue of swamp talk.

The FAA has regulatory requirements and performs several oversight actions to ensure compliance. The certifi-

cate-holding air carriers must operate in compliance with the regulations or face fines, certificate action or damage to their reputations. Crew members must meet the regulatory requirements related to alcohol and drug use and meet their own standards for professional performance.

The airlines, the FAA and individual crew members must honor the extraordinary trust that passengers have that the system will provide crew members who are fit to fly at the beginning of every segment. We cannot have it any other way. ♦

### *About the Author*

*Walter S. Coleman is vice president, operations for the Air Transport Association of America (ATA). He joined the organization in 1981 and has headed the Operations Division since 1984.*

*Coleman served four years as a pilot/flight engineer and eight years in management positions with Pan American World Airways. Prior to that, he was on active duty as a U.S. naval aviator and is a captain in the U.S. Naval Reserve. He graduated from Ohio University with a bachelor of science degree in business administration.*

## **Snoring — Danger Signal in the Sky**

*Flight crew members can do something about this common sleep disorder that can affect flight performance.*

—  
by

*Derek S. Lipman, M.D.*

More than 50 million Americans snore. For many, it is a constant nightly disturbance that disrupts their partner's sleep and strains relationships. In addition, snoring is frequently the cardinal sign of a condition called "obstructive sleep apnea," in which the snorer periodically stops breathing during the night.

Apnea, which means "for want of breath," affects several million people in the United States. Almost always associated with heavy snoring, obstructive sleep apnea causes the sleeper to stop breathing many times during the night, triggering a chain reaction that results in oxygen deprivation to tissues and organs. Because of these frequent breathing interruptions, people with obstructive sleep apnea

lose the hours of deep sleep crucial for good rest resulting in tiredness during the day. This sleepiness may be mild, encouraging minor catnaps after lunch, but in its more severe forms, it can cause debilitating fatigue which as a flight crew member, can affect his or her safe operation of an aircraft.

Sufferers from established sleep apnea will frequently fall asleep during meetings or nap while driving their cars. In addition to extreme daytime sleepiness, sleep apnea may be responsible for headaches, high blood pressure, heart attacks, depression, impotence and even sudden death. Snoring is the result of vibration in the tissues and muscles of the throat; in cases of apnea, the throat tissues

vibrate and collapse to the point of completely blocking the upper airway.

Sleep apnea sufferers are often unaware of their problem, and specialized sleep laboratory studies may be the only method by which their condition can be diagnosed. A physician then can recommend one or several remedies from a wide selection of treatments now available to the snorer, especially one who has been diagnosed with sleep apnea.

### **When To Suspect Sleep Apnea:**

- Extremely loud snoring throughout the night in all body positions
- Interrupted breathing between snores
- Restless leg and body movements during sleep
- Uncontrollable sleepiness during waking hours
- Early morning headache, weight gain and general fatigue, coupled with severe snoring

### **Self-help for Snorers:**

- Follow a supervised weight-loss and exercise program that can improve muscle tone and enhance healthy sleep.
- Cut down or stop smoking.
- Do away with alcohol before bed.
- Avoid sedatives, antihistamines and sleeping tablets wherever possible.
- Sleep on a firm mattress with a single pillow in a cool, well-ventilated room.

### **Treatment Now Available for Severe Snoring and Sleep Apnea:**

- There are now more than 2,000 sleep disorders

centers throughout the United States and Canada, providing diagnostic and treatment facilities.

- Medications currently prescribed include drugs that clear the nasal air passages, stimulate respiration or promote wakefulness.
- Mouth devices are available that pull the tongue forward and widen the upper airway.
- A device can be obtained that pumps air into the nose during sleep, overcoming the tendency of the tissues to collapse. Known as "continuous positive airway pressure," this method is gaining increasing acceptance in helping people with apnea to get a good nights sleep.
- A number of surgical therapies have been perfected for snoring and apnea, ranging from procedures to improve nasal air flow to surgeries that remove excess tissue in the back of the throat.

Snoring is no longer regarded as merely a conjugal nuisance, but rather a medical condition that is both treatable and curable. Flight crew members who nod in the cockpit and drivers who nap behind the wheel, a source of potential danger to themselves and others, can now have their snoring and associated apnea accurately diagnosed and treated.

*This information, including a directory of sleep disorders centers in the U.S. and Canada, is contained in "Stop Your Husband from Snoring" by Derek S. Lipman, M.D. (Rodale Press, 1990). ♦*

### **About the Author**

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