Alcohol-Related Motor Vehicle Encounter With a Cow
By Michael D. Jacobson, DO, MPH

More than 32,000 aviators with a history of drug/ alcohol abuse or dependence or drug/alcohol-related offenses currently hold FAA airman medical certificates (Skaggs, Norris, & Johnson, 2012). Despite a proven, effective deterrence and rehabilitation program for airline pilots, alcohol is still associated with 6-8% annually of pilot fatalities in aviation mishaps, especially in general aviation. This article presents the case of an alcohol-related auto accident involving a first-class pilot and reviews the history and state of relevant FAA policy.

Background

A 40-year-old male first-class pilot with 900 total flying hours and 150 in the last six months, presented for first-class medical recertification four months after an alcohol-related motor vehicle accident. At the time of the incident, he held Airline Transport and Commercial Airman certificates.

The airman was restrained in his vehicle and traveling alone at night when he struck a cow in the road, triggering airbag deployment, a brief but indeterminate loss of consciousness, and multiple injuries. He was transported to a trauma center where comprehensive x-rays and CT scans revealed fractures of multiple ribs, sternum and scapula, and small, bilateral, apical pneumothoraces. Blood-alcohol concentration (BAC) in the emergency department was 105 mg/dL (0.105%).

He was hospitalized, treated conservatively for his injuries, and after three days was discharged on a normal diet and oral analgesics. The head injury was ruled a concussion (normal head CT), and he recovered uneventfully. Due to the blood-alcohol level, his airline employer requested a formal evaluation for alcohol/substance use disorder. A substance abuse professional reported that the airman had a history of controlled alcohol use without any consequent legal issues or offenses. Since the airman did not meet DSM-IV criteria for alcohol dependence, the substance abuse professional’s findings were inconclusive, and a recommendation of total abstinence from alcohol was rendered.

Aeromedical concerns

Alcohol depresses the central nervous system, thereby degrading mental and physical performance in a dose-response manner, ranging from subtle impairment, such as inattention, prolonged reaction times and forgetfulness, to visual disturbances, ataxia, dysarthria, respiratory depression, and myocardial conduction disturbance (Franzos et al., 2012). Mumenthaler et al. (2003) showed that impaired performance continues beyond the eight-hour sobriety period in pilots intoxicated to 0.10%.

Outcome

Each time an airman applies to the FAA for a medical certificate, he/she must acknowledge (Block 18v) if arrested, convicted, or had an administrative action taken in regard to driving while under the influence of alcohol or any other drug.
Since no legal BAC was performed and this airman was never cited for a DUI, he had no obligation to report this incident under that requirement. However, additional instructions in the FAA’s Guide for Aviation Medical Examiners for the application’s Item 47 (psychiatric history) defines substance abuse as “Use of a substance in the last 2 years in which the use was physically hazardous (e.g., DUI or DWI) if there has been at any other time an instance of the use of a substance also in a situation in which the use was physically hazardous.” In light of the obvious safety concern, the airline notified the FAA. After review, the FAA issued a letter affirming that the airman was still eligible for a first-class medical certificate, but warned him that any further alcohol-related offense or evidence of abuse would require a re-evaluation of his medical certification. This is the same likely FAA disposition if this were a first and only DUI offense (Guide for Aviation Medical Examiners, 2012).

**About the Author**

Colonel Michael D. Jacobson, USAF, MC, SFS, is Director of the joint United States Air Force Residency in Aerospace Medicine/Wright State University Family Medicine Residency Program. He is board certified in aerospace, family, and addiction medicine. Prior to returning to military service, Dr. Jacobson served as a civilian medical review officer and as medical director of an addiction treatment center, where he developed drug-free workplace and outpatient opiate treatment programs. He wrote this report while on rotation at the Civil Aerospace Medical Institute.

**References**


Drinking increases motor vehicle crash likelihood starting at blood alcohol levels as low as .02 mmol/L. Clinical experience tells us that drunken drivers "cycle through" the system many times, presenting opportunities for intervention. We describe the drunken driver's risk of occurrence at each juncture in the cycle and emphasize the opportunity for intervention. This commentary reviews current and past vehicle interlock programs for impaired driving offenders with a focus on the challenges that courts and motor vehicle departments face in attempting to implement mandatory programs as required by current federal legislation. There are few offenders in interlock programs compared to the large number of impaired drivers arrested each year. This suggests Alcohol-related relative risk of driver fatalities and driver involvement in fatal crashes in relation to driver age and gender: an update using 1996 data. Journal of Studies on Alcohol 2000; 61:387-395. National Highway Traffic Safety Administration. Modifying alcohol use to reduce motor vehicle injury. Injury and violence prevention: behavior science theories, methods, and applications. San Francisco, CA: Jossey-Bass, 2006 pp 534. ISBN 978-7879-7764-1. Holder HD, Gruenewald PJ, Ponicki WR, et al. Effect of community-based interventions on high-risk drinking and alcohol-related injuries. JAMA 2000;284:2341-7. Shults RA, Elder RW, Nichols J, et al. NYS Vehicle and Traffic Law Alcohol Drug Offenses, Procedures. Driving while ability impaired. Chemical test evidence | NYS VTL Laws. Any person who operates a motor vehicle in violation of this section, and who is not charged with a violation of any subdivision of section eleven hundred ninety-two of this article arising out of the same incident shall be referred to the department for action in accordance with the provisions of section eleven hundred ninety-four-a of this article.