National Transportation Safety Board
Washington, D.C. 20594

Safety Recommendation

Date: June 25, 2007

In reply refer to: A-07-41 through A-07-43

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Administrator
Federal Aviation Administration
Washington, DC 20591

The National Transportation Safety Board has investigated a number of aircraft accidents in which the Federal Aviation Administration (FAA) had information to indicate, and was or should have been aware, that the pilot had a history of substance dependence, and in which the pilot's substance dependence was relevant to the cause of the accident. As a result of such investigations, the Safety Board is recommending several changes in policy regarding the evaluation of airmen with a known or suspected history of substance dependence.

Records of Offenses

The FAA defines substance dependence (including alcohol dependence) as "evidenced by (A) increased tolerance, (B) manifestation of withdrawal symptoms, (C) impaired control of use, or (D) continued use despite damage to physical health or impairment of social, personal, or occupational functioning" [14 *Code of Federal Regulations* (CFR) 67.107(a)(4)(ii), 67.207(a)(4)(ii), and 67.307(a)(4)(ii)]. A history or clinical diagnosis of substance dependence is specifically disqualifying for airmen duties, except under certain circumstances described later in this letter. The FAA requires that airmen report a history of substance dependence (including alcohol dependence) on each Application for Airman Medical Certificate. The FAA also requires that airmen report any convictions involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug and any convictions or administrative actions resulting in the denial, suspension, cancellation, or revocation of driving privileges or resulting in attendance at an educational or a rehabilitation program; the FAA also performs a National Driver Register (NDR) inquiry to verify that all relevant convictions are in fact reported. The FAA does *not*, however, routinely obtain arrest reports or court records for drug or alcohol-related offenses identified through required self-reporting or through routine NDR searches, and details regarding the circumstances of the offense(s), including blood alcohol and driver behavior at the time of the offense, are not included in the NDR database. Such details are generally provided by the pilot and are not always verified by the FAA. As with other symptoms that may indicate serious disease (for example, chest pain as a symptom of coronary artery disease), objective details of such offenses may be necessary to determine if an offense is a symptom of substance dependence.

For example, in a recent accident investigated by the Safety Board,[1] the pilot had previously reported a DUI conviction to the FAA, but the FAA did not obtain records of that offense. The Safety Board subsequently obtained the arrest records, which noted that the pilot had a blood alcohol level of 0.28 percent more than an hour after his traffic stop. The records also detailed that the pilot had been actively controlling his vehicle, was completely conscious, and was conversing with the arresting officer. At a blood alcohol level of 0.28 percent, non-tolerant individuals would be unconscious or nearly so.[2] The fact that the pilot was able to operate a vehicle at a level even greater than 0.28 percent (his blood alcohol level would have dropped from the time of the traffic stop to the time of the blood alcohol testing) is evidence of tolerance; this pilot would have met the FAA's definition for substance dependence. As a result, this pilot would not have been issued a medical certificate, had the FAA considered the DUI arrest record as part of the medical certification application process.

As noted in the Safety Board's 2000 Safety Report, *Actions to Reduce Fatalities, Injuries, and Crashes Involving the Hard Core Drinking Driver*, data reviewed by the National Highway Traffic Safety Administration suggest that the risk of arrest for driving while impaired varies from 1 in 300 to 1 in 2,000 impaired driving trips.[3] It is therefore likely that an individual with a recent conviction reported in the NDR has a history of multiple instances of driving impaired. In addition, the Board report notes that in many cases, drivers arrested for impaired driving are not convicted of an impaired driving offense.

Thus, a pilot convicted of even a single traffic offense involving alcohol or drugs is reasonably likely to have driven impaired on a large number of occasions and may be substance dependent. Knowing the circumstances of such an offense will typically be extremely helpful in determining substance dependence accurately and in making a suitable decision about the pilot's continued medical certification. In addition, because police routinely query databases in addition to the NDR during a DUI arrest, arrest records will often include information on prior substance-related arrests and convictions that may not be included in the NDR because many states limit the information available through the NDR to the most recent 3 years or because administrative action has been taken in lieu of a conviction. Court records relating to reportable convictions or administrative actions will also often provide such additional information, even if such judicial actions were taken in the absence of an arrest and therefore no arrest records were available. Failure to require pilots to routinely provide such records hinders the FAA in accurately establishing a diagnosis of substance dependence. In contrast, the FAA routinely requires pilots potentially diagnosed with other chronic diseases to provide detailed records and often requires original media (such as coronary angiography films in the evaluation of coronary heart disease) to ensure an objective assessment of the pilot's condition. The Safety Board therefore

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[1] See the Safety Board Aviation Accident Database at http://www.ntsb.gov/ntsb/query.asp: Bullhead City, Arizona, July 23, 2006, NTSB accident number LAX06FA243.

[2] See, for instance, M. A. Schuckit, Chapter 372, "Alcohol and Alcoholism," in *Harrison's Principles of Internal Medicine, 16th edition* (D. L. Kasper, E. Braunwald, A. S. Fauci, S. L. Hauser, D. L. Longo, J. L. Jameson, and K. J. Isselbacher, eds.) (New York, McGraw-Hill Professional, 2005).

[3] National Highway Traffic Safety Administration, *Alcohol and Highway Safety 1984: A Review of the State of the Knowledge* (Washington: National Highway Traffic Safety Administration), 56.

recommends that the FAA ensure that any airman undergoing aeromedical evaluation following a traffic conviction or administrative action that is required to be reported in the FAA Application for Airman Medical Certificate, form 8500-8, item 18v, is required to provide a complete copy of the relevant arrest report and/or court records, and that those records are placed in the airman's FAA medical file prior to clinical evaluation for certification.

Records for Evaluators

The FAA requires Aviation Medical Examiners (AMEs) to defer the issuance of a medical certificate for pilots with a history of substance dependence or abuse.[4] Pilots with a history of substance dependence or abuse who desire certification are required to submit to the FAA a current status report from a physician certified in addictive disorders and familiar with aviation standards. This report is a critical part of the FAA determination as to whether the pilot may retain or regain a medical certificate. The physicians generating such reports are not, however, routinely provided a copy of an airman's complete FAA medical record on file in the Aerospace Medical Certification Division, and therefore are entirely dependent upon the airmen themselves for providing details of their medical and/or legal history with regards to substance use. In addition, airmen with potentially disqualifying medical conditions may present those conditions in the most favorable light and may not provide evaluators with critical objective information regarding their substance use or abuse.

For example, in the investigation of a 14 CFR Part 135 accident due in part to the airline transport-rated pilot's impairment from cocaine,[5] the Safety Board found that the pilot had previously undergone a psychiatric evaluation in which he had indicated a history of incarceration for marijuana use only; the psychiatrist performing the evaluation concluded that the pilot could maintain his FAA license. However, the FAA medical records noted that the pilot had a cocaine habit and had been jailed for over 4 years following a conviction for distribution of 8 ounces of cocaine; this information was apparently not available to the psychiatrist performing the evaluation. Similarly, in another 14 CFR Part 135 accident a few years later,[6] due in part to another airline transport-rated pilot's impairment (from alcohol and cocaine), the Board found that the pilot had previously undergone a neuropsychology evaluation in which he had specifically denied any history of alcohol abuse, and the neuropsychologist performing the evaluation concluded that the pilot's prognosis was quite good. However, an outpatient treatment center discharge summary (preceding the neuropsychology evaluation) contained in

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[4] "Substance abuse" is considered disqualifying by the FAA if it occurs within the previous 2 years, and is defined by the FAA as the use of a substance more than once in a situation in which that use was physically hazardous, a verified positive or refusal to submit to a Department of Transportation drug or alcohol test, or misuse of a substance that the Federal Air Surgeon finds makes it unsafe to perform the duties or exercise the privileges of an individual's airman certificate (14 CFR 67.107(b), 67.207(b), and 67.307(b)). In many cases, substance abuse is a symptom of substance dependence.

[5] See the Safety Board Aviation Accident Database at http://www.ntsb.gov/ntsb/query.asp: Unalaska, Alaska, January 23, 2001, NTSB accident number ANC01FA033.

[6] See the Safety Board Aviation Accident Database at http://www.ntsb.gov/ntsb/query.asp: June 14, 2004, Kodiak, Alaska, NTSB accident number ANC04FA063.

the FAA medical records noted that the pilot was "assessed as alcohol/cocaine abusive" and that "[h]is secondary issues include ... denial - minimization of alcohol abuse.…"

The FAA's requirement for specialist evaluation of those pilots suspected of substance dependence is consistent with Safety Board recommendation A-88-35, which was issued in part "since substance abuse detection is difficult and frequently complicated by an abuser's denial."[7] Given the possibility of such denial, the Safety Board believes that specialists evaluating substance use in pilots should have the benefit of all the objective information available. The Safety Board therefore recommends that, as is currently done for certain other consulting specialists, the FAA provide a copy of an airman's complete medical record (including relevant arrest and court records) on file in the Aerospace Medical Certification Division to any individual performing a clinical evaluation of that airman related to the airman's application for a medical certificate for the purpose of establishing, ruling out, or monitoring a history or diagnosis of substance dependence (including dependence on alcohol), as defined in 14 CFR 67.107(a)(4)(ii), 67.207(a)(4)(ii), and 67.307(a)(4)(ii), prior to the completion of such an evaluation.

Special Issuance

As noted above, a history or clinical diagnosis of substance dependence is defined in 14 CFR 67.107(a)(4), 67.207(a)(4), and 67.307(a)(4) as disqualifying for airman duties. For airmen who do not meet the regulatory criteria for medical certification for any reason, including substance dependence, the FAA may permit certification under a time-limited Authorization for Special Issuance (14 CFR 67.401). Before each such authorization or re-authorization, airmen must show evidence that the public is not endangered if they perform the duties permitted under the certificate. For every diagnosed disqualifying chronic condition *except* substance dependence (for example, myocardial infarction, insulin-treated diabetes, coronary heart disease, and epilepsy), airmen must be followed under guidelines for special issuance for as long as they hold such certificates.

In contrast with regulations governing all other disqualifying chronic diseases, current regulations permit an airman with a history or diagnosis of substance dependence to be certified *without* Authorization for Special Issuance "where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years."[8] Under such certification, an airman

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[7] Recommendation A-88-35 was classified "Closed—Acceptable Alternate Action," on November 5, 1990, based on provisions for the FAA "to provide screening for alchohol- and drug-related motor vehicle convictions rather than relying on the commercial operator as outlined in the recommendations." It asked the FAA to "[r]equire that all pilots identified as convicted substance abusers be medically examined and evaluated by a person qualified in the field of substance abuse detection and treatment to verify compliance with the medical certification requirements of 14 CFR Part 67.

[8] Title 14 CFR §§ 67.107(a)(4), 67.207(a)(4), 67.307(a)(4). The Safety Board recognizes that the FAA's enactment of this standard was the result of the Ninth Circuit's application of the Hughes Act to the FAA's regulation regarding medical certification. *Jensen v. FAA*, 641 F.2d 797 (9th Cir. 1981); see also 47 *Federal Register* 16,303 (Apr. 15, 1982) (quoting the Hughes Act, which stated, "[n]o person may be denied or deprived of Federal, civilian

with a diagnosis of substance dependence may never receive additional medical follow-up from the FAA.

For example, in the investigation of a general aviation accident due in part to the private pilot's impairment from alcohol,[9] the Safety Board found that the pilot's FAA medical records indicated a diagnosis of alcohol dependence with a high risk of relapse. According to those records, after several years of abstinence, the pilot was granted a third-class medical certificate without Authorization for Special Issuance or any additional follow-up, in spite of information provided by the pilot's internist 3 years later (in response to a request for information on an unrelated medical condition) indicating that the pilot continued to drink. Similarly, in another general aviation accident due in part to the private pilot's impairment from alcohol,[10] the Board found that the pilot's FAA medical records indicated a history of alcohol dependence with at least 3 failed treatments (relapsing once while attempting to regain his medical certificate after 3 years of sobriety). The pilot's medical records also showed an FAA decision to grant a second-class medical certificate without Authorization for Special Issuance or any additional follow-up, in spite of a false application (noting no history of alcohol dependence or abuse) for a second-class airman medical certificate less than 8 months before the accident. Under current FAA regulations and practice, even pilots who have been previously certified under Authorization for Special Issuance for substance dependence may be subsequently certified *without* such authorization if they submit evidence of 2 years of abstinence.

Many common approaches to treatment (Alcoholics Anonymous, the Minnesota Model, and the Human Intervention Motivation Study) consider chemical addiction as a primary, chronic, and progressive disease, and include complete abstinence as a goal of treatment. In treated professional populations with substance dependence disorders, relapse is fairly common, even after prolonged periods of abstinence.[11] For this reason, prolonged follow-up is typical for programs treating substance-dependent populations. Because substance dependence is generally considered a lifelong disorder, pilots with such a history, like those with all other specifically disqualifying chronic diseases, should be continuously re-evaluated to ensure that their flying does not create unacceptable risk. The Safety Board therefore recommends that the FAA require

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or other employment or a Federal professional or other license or right solely on the grounds of prior alcohol abuse or prior alcoholism."). The Safety Board considers neither the *Jensen* opinion nor the Hughes Act to preclude the enactment of revised medical certificate standards for airmen with a history of alcohol abuse; since Jensen, Congress has recodified the Hughes Act and omitted the provision that the FAA cited at 47 *Federal Register* 16,303 (Apr. 15, 1982) (quoted above). See Alcohol and Drug Abuse Amendments of 1983, Public Law No. 98-24, 97 Stat. 175 (1983); S. Rep. No. 98-29 (1983).

[9] See the Safety Board Aviation Accident Database at http://www.ntsb.gov/ntsb/query.asp: Angela, Montana, August 18, 2004, NTSB accident number SEA04LA168.

[10] See the Safety Board Aviation Accident Database at http://www.ntsb.gov/ntsb/query.asp: Milwaukee, Wisconsin, November 12, 2005, NTSB accident number CHI06LA031.

[11] See, for instance, (a) G. Lloyd, "One Hundred Alcoholic Doctors: A 21-Year Follow-Up," *Alcohol and Alcoholism*, Vol. 34, No. 2 (2002): 370-4, in which at least 11% of alcohol-dependent physicians who had been in recovery for over 10 years subsequently relapsed; and (b) K. B. Domino and others, "Risk Factors for Relapse in Health Care Professionals with Substance Use Disorders," *JAMA*, Vol. 293, No. 12 (2005): 1453-60, in which 25 percent of physicians enrolled in a substance use treatment program relapsed, 13% suffering a first relapse after more than 5 years in the program.

that all airmen clinically diagnosed with substance dependence (including dependence on alcohol), as defined in 14 CFR 67.107(a)(4)(ii), 67.207(a)(4)(ii), and 67.307(a)(4)(ii), who are medically certified by the FAA subsequent to such diagnosis, are followed under guidelines for special issuance of medical certificates for the period that they hold such certificates.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

> Ensure that any airman undergoing aeromedical evaluation following a traffic conviction or administrative action that is required to be reported in the FAA Application for Airman Medical Certificate, form 8500-8, item 18v, is required to provide a complete copy of the relevant arrest report and/or court records, and those records are placed in the airman's FAA medical file prior to clinical evaluation for certification. (A-07-41)
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> Provide a copy of an airman's complete medical record (including relevant arrest and court records) on file in the Aerospace Medical Certification Division to any individual performing a clinical evaluation of that airman related to the airman's application for a medical certificate for the purpose of establishing, ruling out, or monitoring a history or diagnosis of substance dependence (including dependence on alcohol), as defined in 14 *Code of Federal Regulations* 67.107(a)(4)(ii), 67.207(a)(4)(ii), and 67.307(a)(4)(ii), prior to the completion of such an evaluation. (A-07-42)
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> Require that all airmen clinically diagnosed with substance dependence (including dependence on alcohol), as defined in 14 *Code of Federal Regulations* 67.107(a)(4)(ii), 67.207(a)(4)(ii), and 67.307(a)(4)(ii), who are medically certified by the FAA subsequent to such diagnosis, are followed under guidelines for special issuance of medical certificates for the period that they hold such certificates. (A-07-43)

Please refer to safety recommendations A-07-41 through A-07-43 in your reply. If you need additional information, you may call (202) 314-6177.

Chairman ROSENKER, Vice Chairman SUMWALT, and Members HERSMAN, HIGGINS, and CHEALANDER concurred in these recommendations.

[*Original Signed*]

By: Mark V. Rosenker
Chairman