



# NTSB 2015 MOST WANTED TRANSPORTATION SAFETY IMPROVEMENTS

## REQUIRE MEDICAL FITNESS FOR DUTY

### *What is the issue?*

Some pilots, vessel and train operators, and drivers are not medically fit to operate vehicles. Those suffering from impairing medical disorders should not be at the controls unless they receive medical treatment that mitigates the risk to the public.

When you boarded your last flight, ferry, train or commuter bus to work, you may have wondered if the aircraft was safe for flight, if the ferry was recently inspected, if the train tracks were properly aligned, or if the motorcoach tires were in good condition. But the condition of the pilot, captain, train engineer, or bus driver is just as important.

Medical certification processes for safety-critical personnel vary widely across modes of transportation. For the railroads, required medical examinations cover only vision and hearing standards.

For mariners, the U.S. Coast Guard requires comprehensive medical examinations at regular intervals but like other modes, relies on the mariner to fully report medical conditions and medication use.

For commercial drivers, the Federal Motor Carrier Safety Administration has recently required training and certification for health care providers who perform medical examinations. However, there is no mechanism to ensure recommended guidelines are followed. Moreover, chiropractors with no experience with prescribing medications are considered acceptable medical examiners.

The aviation medical certification system may be the most robust, but pilots are increasingly testing positive for over-the-counter sedating medications. Moreover, although the NTSB has found that obstructive sleep apnea has been a factor in multiple accidents, all transportation modes still lack a complete screening process for this condition.

The NTSB has investigated numerous accidents in which it found that the medical condition of the vehicle operator contributed to the cause of a crash. In two train accidents – one in 1996 in Secaucus, New Jersey, and one in 2012 in Goodwell, Oklahoma – the engineers lacked the ability to accurately see and interpret wayside signals due to inadequate color vision.

In the 2013 train derailment in Bronx, New York, the engineer's sleep apnea was undiagnosed until the week following the derailment, despite many visits for occupational and personal health care. With a change in his work patterns, the combination of the untreated sleep apnea and fatigue from his disrupted sleep schedule led to his fatigue at the time of the accident. Since 2001, the NTSB has identified obstructive sleep apnea as a factor in at least nine accidents in four transportation modes.



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### What can be done?

Medical conditions and treatments that impair transportation professionals' performance directly affect safety. To mitigate the risk to the public, the NTSB has made recommendations for a comprehensive medical certification system for safety-critical transportation personnel, including these features:

- a complete medical history of the applicant, taken at prescribed intervals, that includes medications, conditions, and treatments as well as a physical examination
- specific historical questions and physical examination procedures to identify applicants at high risk for sleep disorders
- identification of specific conditions, treatments, and medications that initially disqualify applicants for duty, with certification contingent on further testing (specific to each condition)
- explicit and uniform processes and criteria for determining when the applicant has a treated but otherwise disqualifying condition
- certificates that are good only for a limited time for applicants with conditions that are currently stable but known to be likely to deteriorate, to ensure appropriate retesting
- medical examiners who
  - are licensed or registered to both perform examinations and prescribe medication in a given state;
  - are specifically trained and certified to perform medical certification exams; and
  - have ready access to information regarding disqualifying conditions and required further evaluation
- a review system for medical examiners' work product(s) with both the information and capacity to identify and correct errors and substandard performance
- the capacity to prevent applicants who have been deferred or denied certification from finding another provider who will certify them
- a process for dealing with conditions which could impair safety and are diagnosed between certification exams.

The goal is simple: to ensure that safety-critical professionals are medically fit for duty.

Critical changes  
needed to reduce  
transportation  
accidents  
and save lives



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NTSB on

The NTSB's Most Wanted List highlights safety issues identified from the NTSB's accident investigations to increase awareness about the issues and recommended safety solutions.

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation - railroad, highway, marine and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the Federal Government and other organizations to provide assistance to victims and their family members impacted by major transportation disasters.

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National Transportation Safety Board  
490 L'Enfant Plaza S.W.  
Washington, DC 20594

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202-314-6000