



NTSB National Transportation Safety Board

FATIGUE AND SLEEP DISORDERS IN TRANSPORTATION ACCIDENTS

Washington D.C. Sleep Society
First Annual Educational Meeting
August 29, 2009

All transportation modes

- DC Metro Collision (6/22/09)
- NYC US Airways ditching (1/15/09)
- Minneapolis bridge collapse (8/1/07)



Safety Recommendations

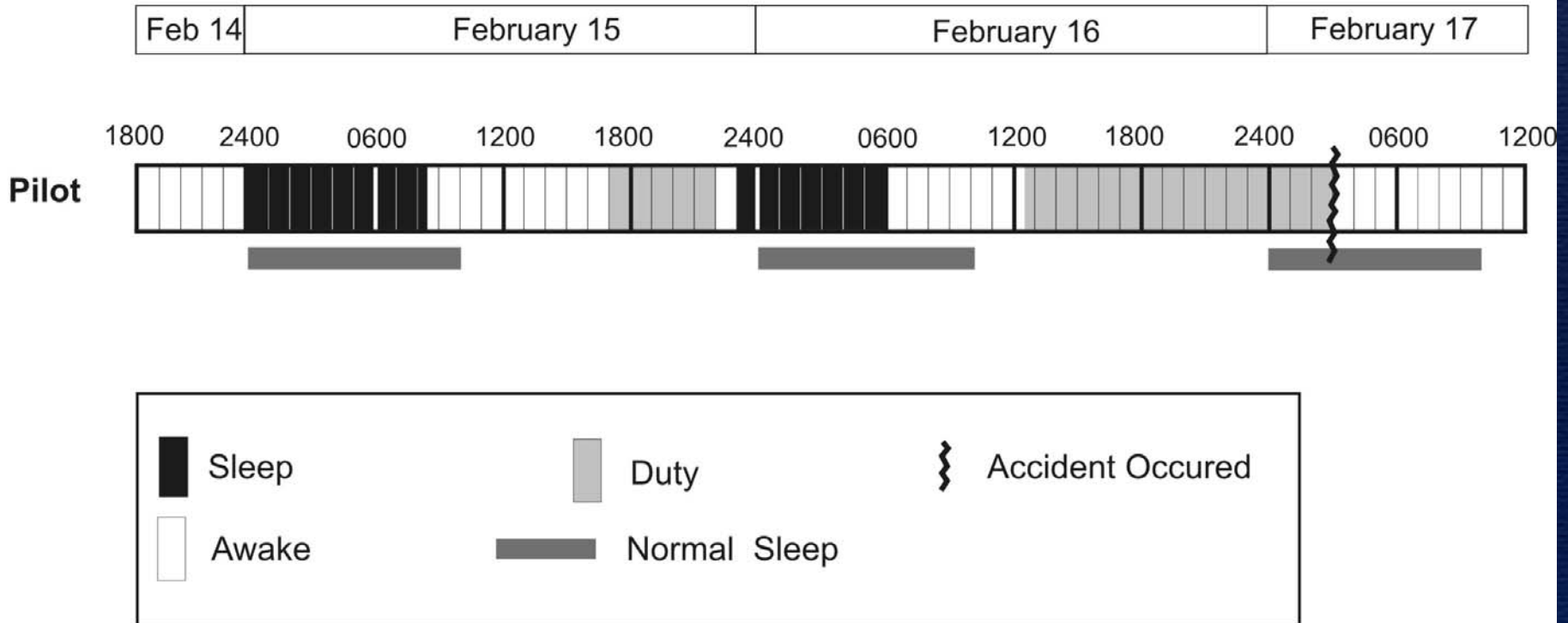


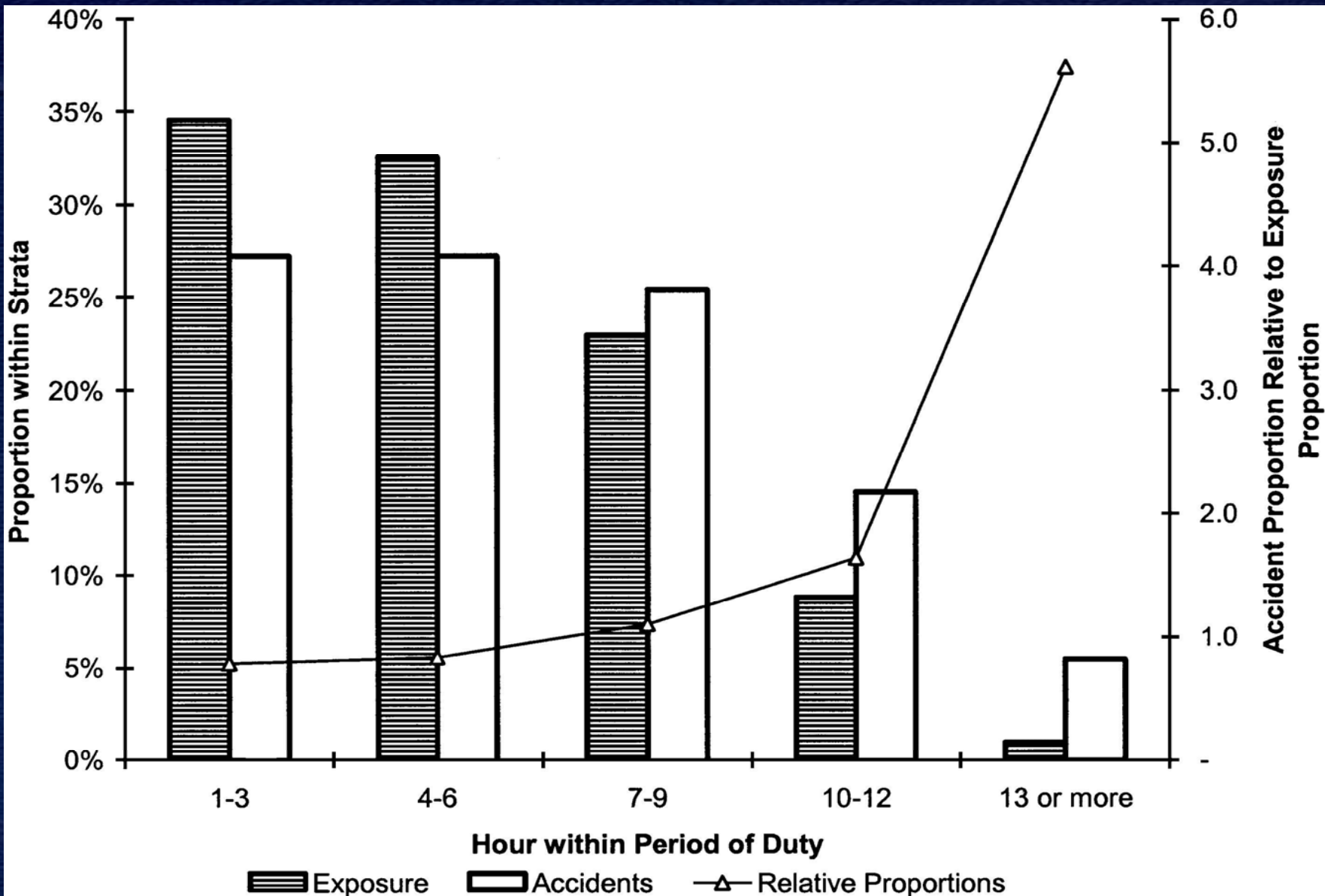
**More than 12,150
issued since 1967**



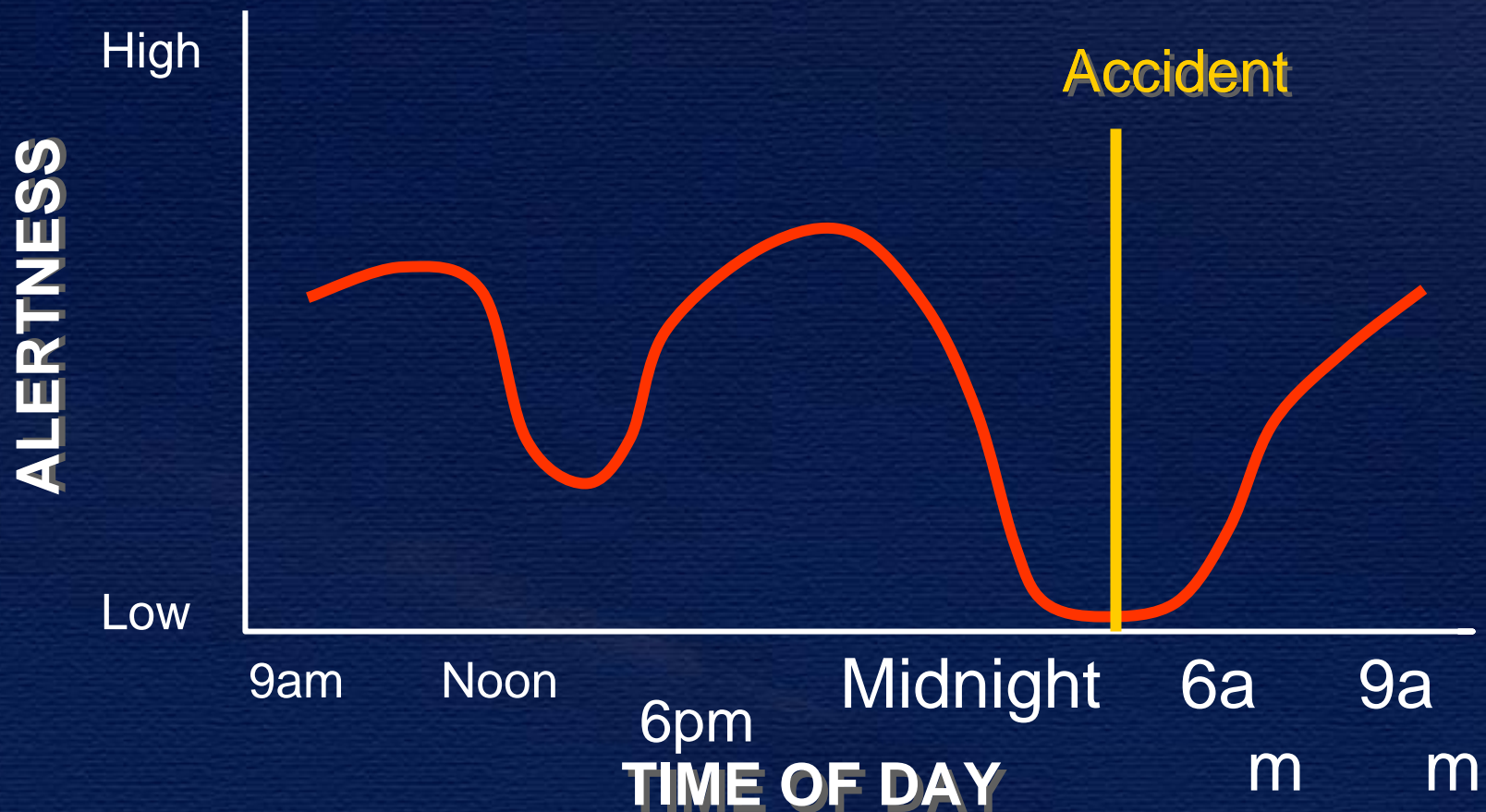


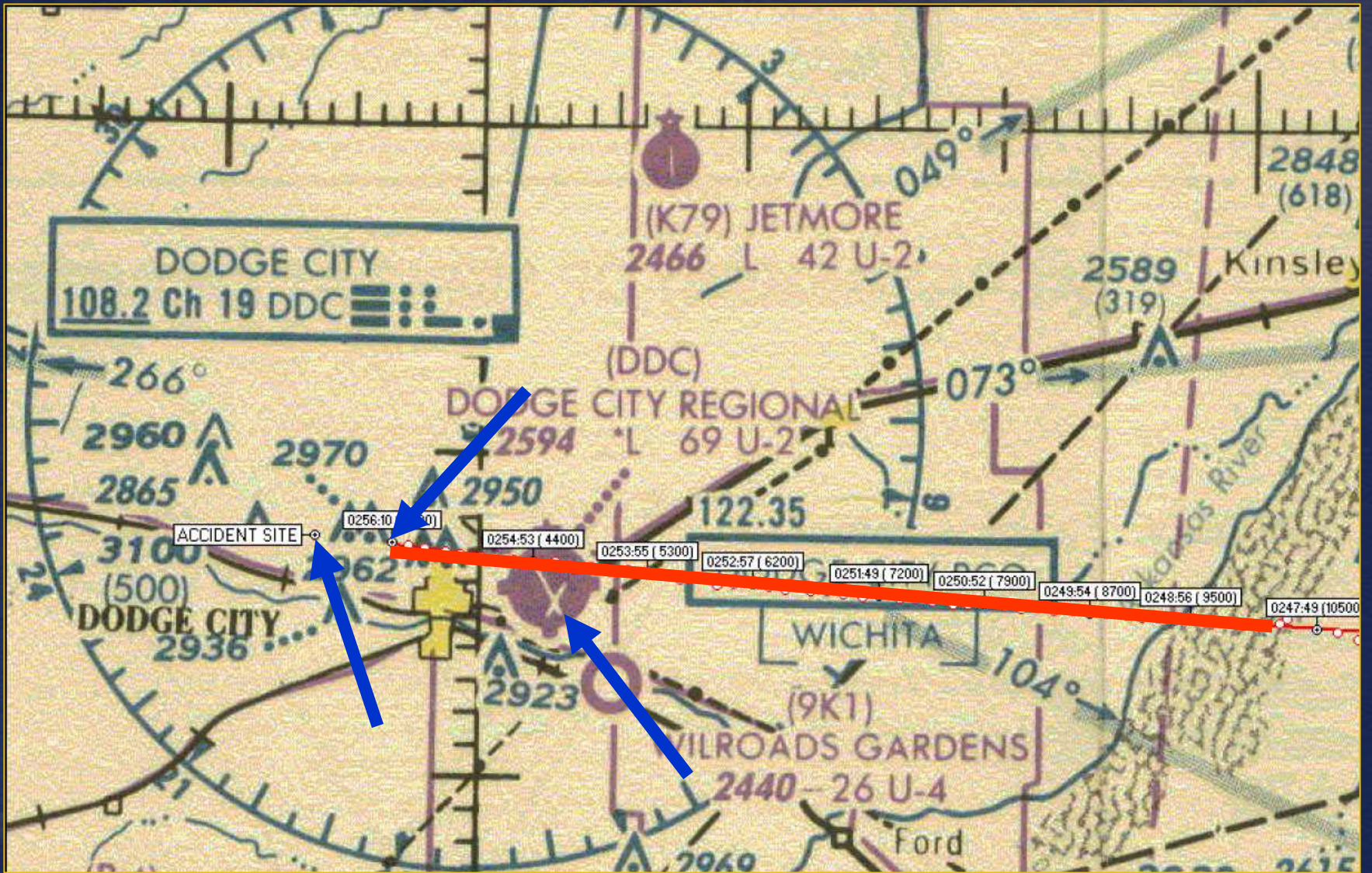
Estimated Sleep Schedule

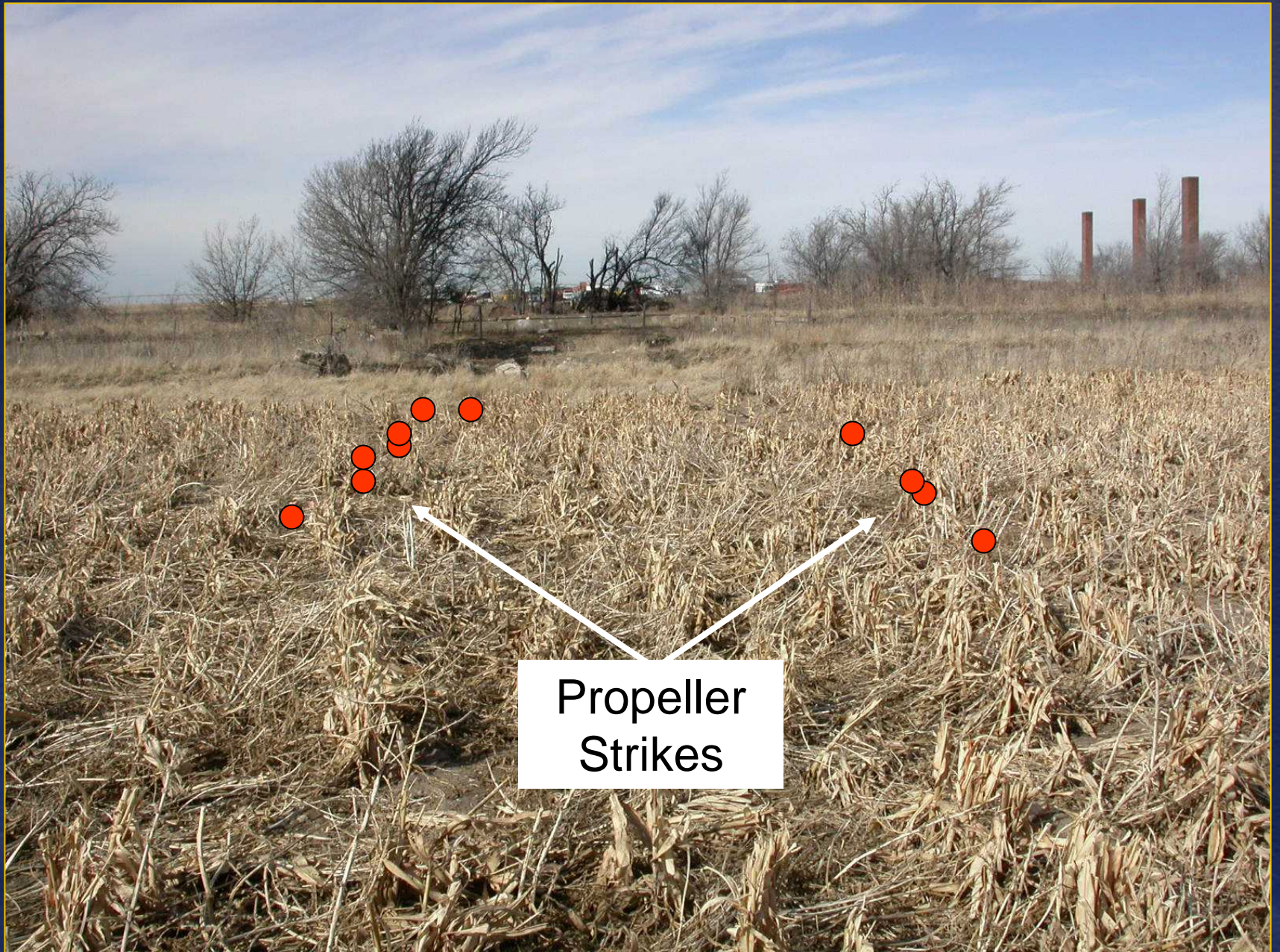




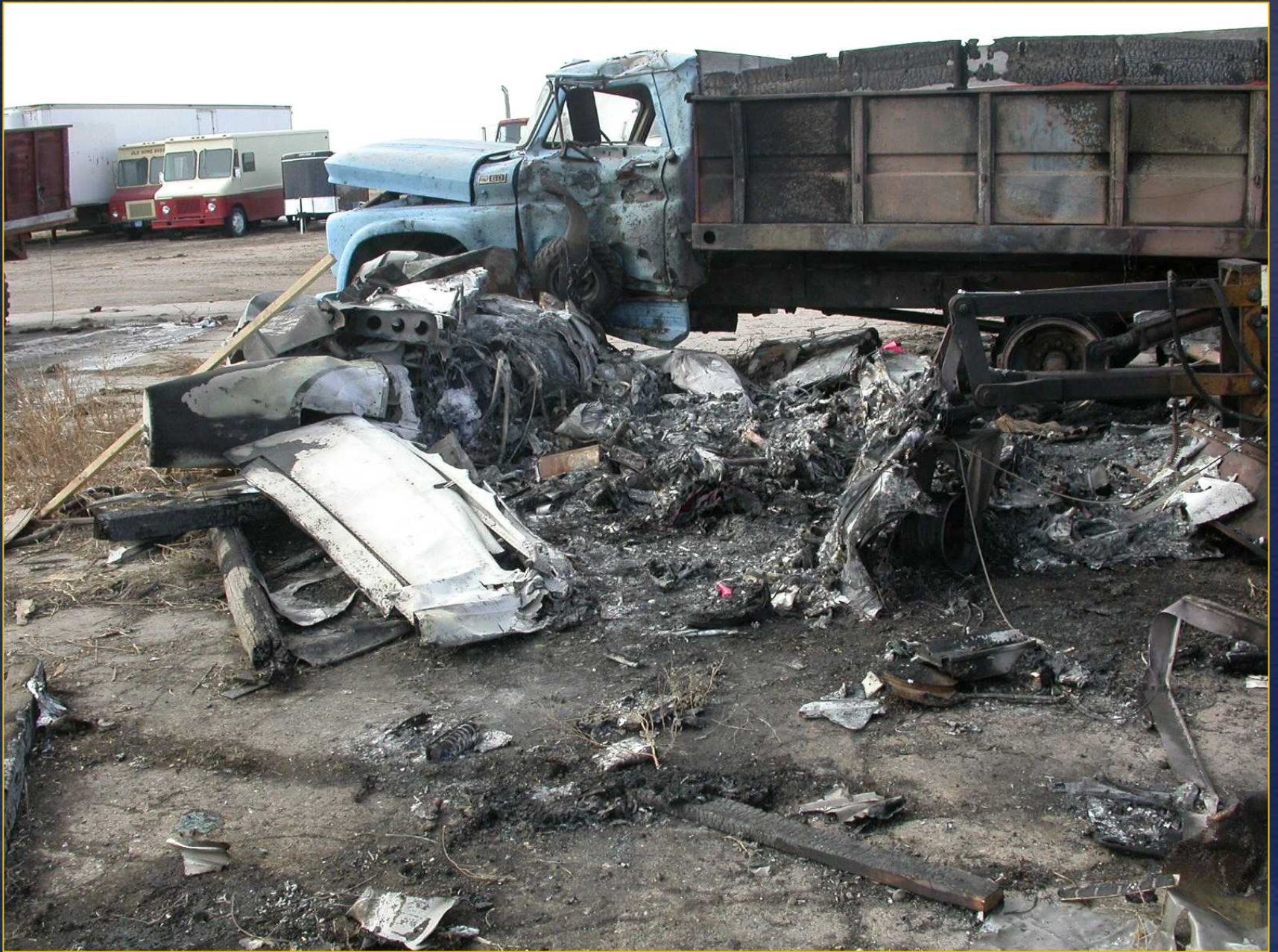
Fatigue: time of day







Propeller
Strikes



“...Eaglemed four has Dodge City in sight”

• 1913 

• 0243 

• 0244 

Memphis, TN 4/4/02





Source: Girardin



Source: Memphis Police Department

Simulation Videos



Simulation Videos

Actual Restraint Condition

1/10th Speed

Simulation Videos

Available Restraint Condition

1/10th Speed



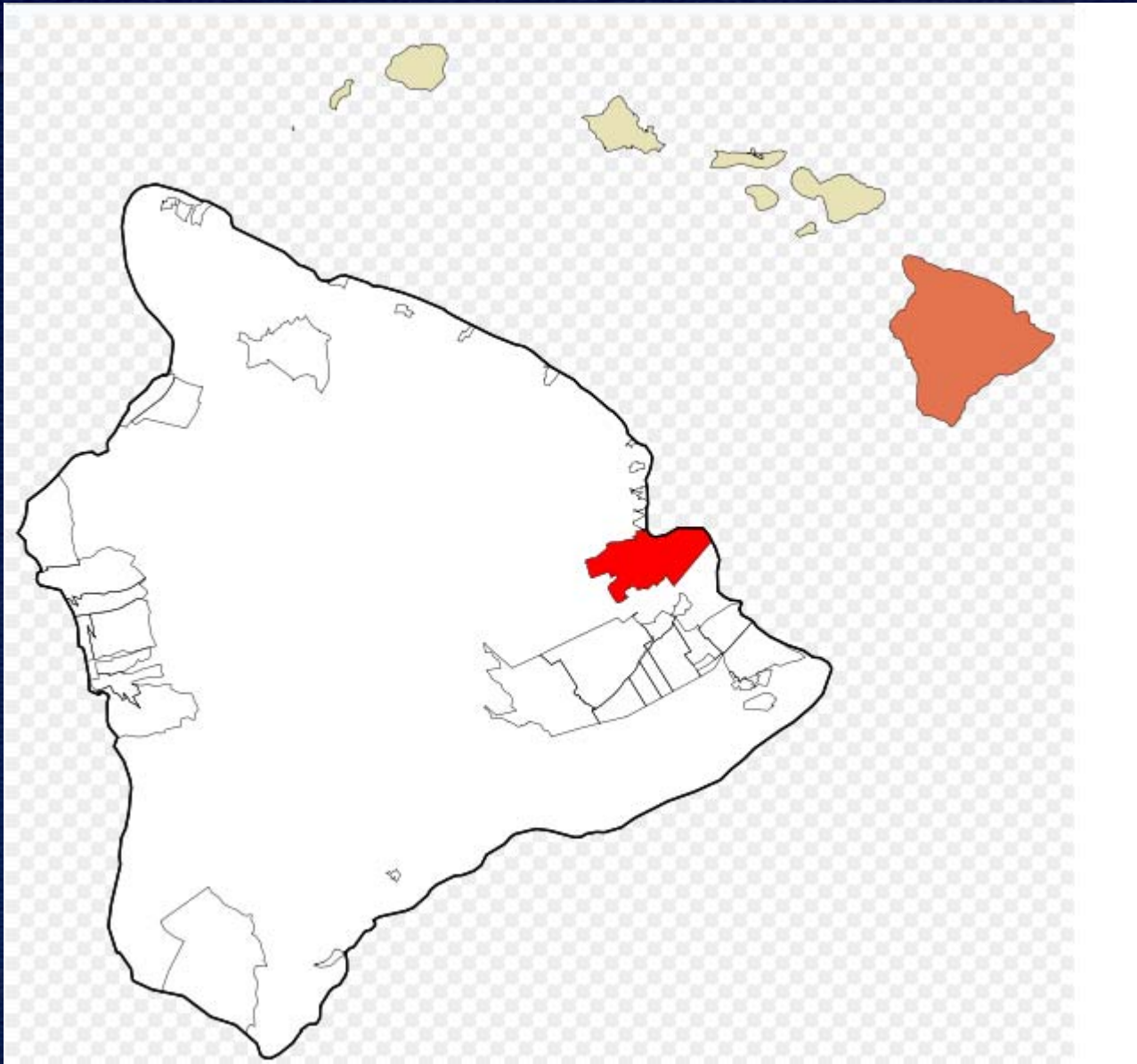
Shuttle America Flight 6448





Go! Flight 1002









operated by
Mesa Airlines, Inc.

go!

go.com

go!

N646BR

- Modify the Application for Airman Medical Certificate to elicit specific information about any previous diagnosis of obstructive sleep apnea and about the presence of specific risk factors for that disorder.





- Implement a program to identify pilots at high risk for obstructive sleep apnea and require that those pilots provide evidence through the medical certification process of having been appropriately evaluated and, if treatment is needed, effectively treated for that disorder before being granted unrestricted medical certification.



- Develop and disseminate guidance for pilots, employers, and physicians regarding the identification and treatment of individuals at high risk of obstructive sleep apnea, emphasizing that pilots who have obstructive sleep apnea that is effectively treated are routinely approved for continued medical certification.

Lynn Canal, AK 6/23/95



Cosco Busan allision San Francisco Bay Bridge





HAN

10 feet

212 feet

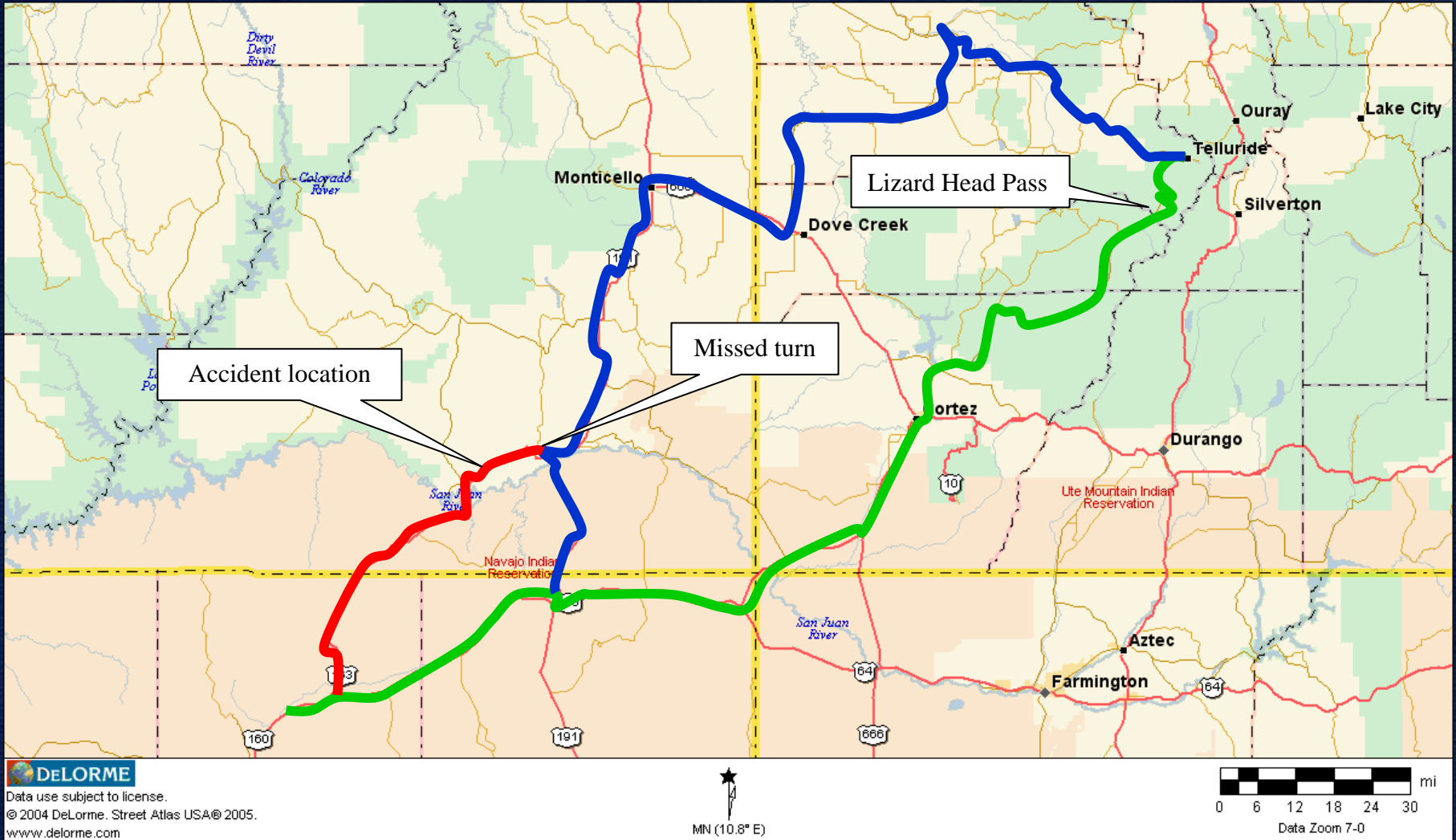


Damage area

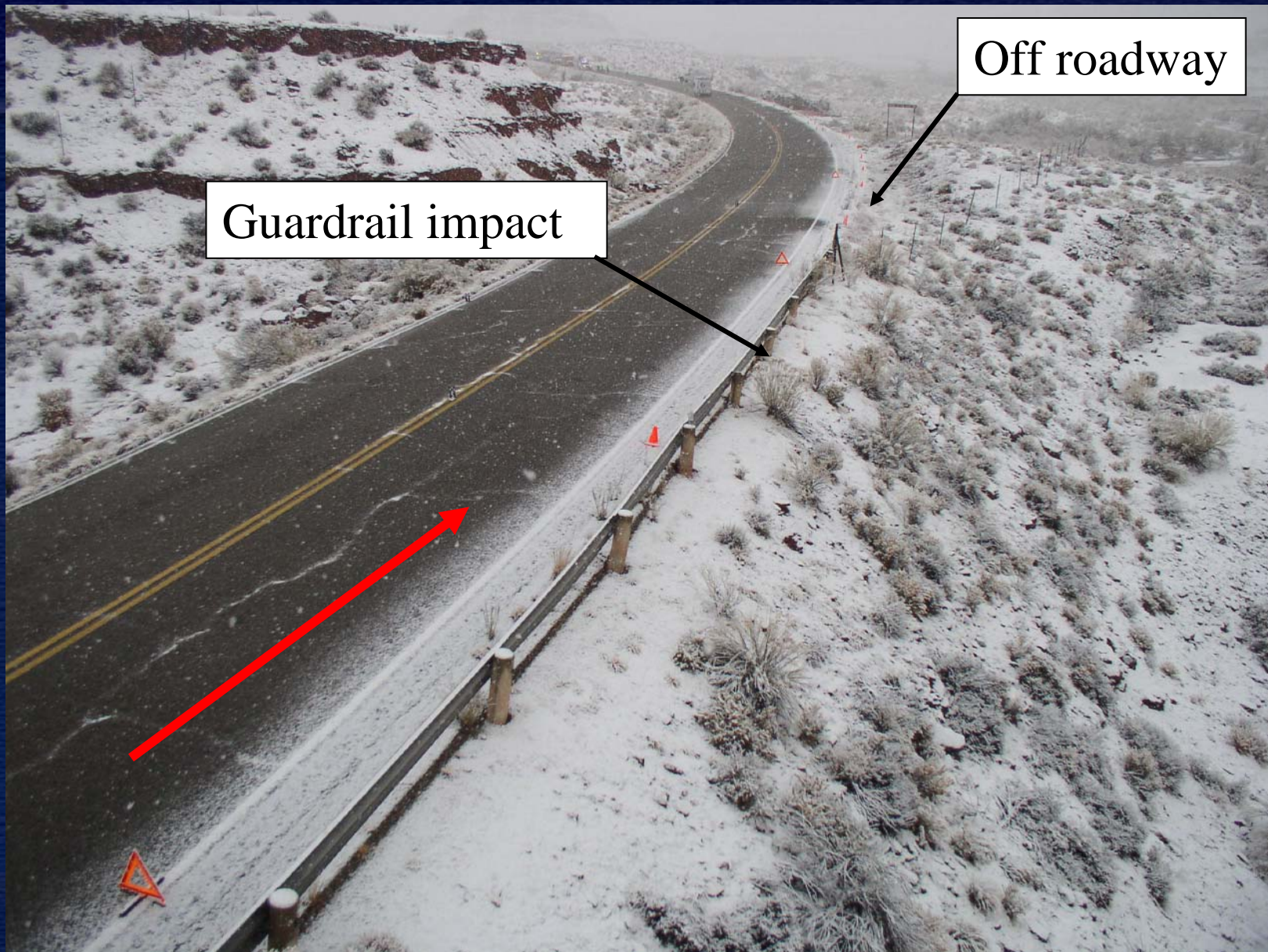
Mexican Hat, UT



Accident Trip













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