DCA12MA020 Human Performance Specialist's Factual Report

Attachment 4

Final Forensic Toxicology



THESE RECORDS MAY BE RELEASABLE UNDER THE FOIA REQUEST 15 DAYS AFTER SIGNATURE DATE UNLESS WE HEAR OTHERWISE FROM FAA NTSB COUNSEL

Mike Monroney Aeronautical Center P.O. Box 25082 Oklahoma City, Oklahoma 73125

Federal Aviation Administration Tuesday, February 14, 2012

National Transportation Safety Board 1515 W. 190th St., Suite 555 Gardena, CA 90248

 ACCIDENT #
 0287
 INDIVIDUAL#:
 001
 NAME:
 NIELD, LANDON J.
 MODE:
 AVIATION

 DATE OF ACCIDENT
 12/07/2011
 DATE RECEIVED
 12/12/2011
 PUTREFACTION:
 №

 N# 37SH
 NTSB #
 DCA12MA020
 CAMI REF #
 201100287001

LOCATION OF ACCIDENT Las Vegas, NV

SPECIMENS Blood, Heart, Kidney, Liver, Lung, Muscle, Spleen

FINAL FORENSIC TOXICOLOGY FATAL ACCIDENT REPORT

CARBON MONOXIDE: The carboxyhemoglobin (COHb) saturation is determined by spectrophotometry with a 10% cut off and confirmed by chromatography.

>> NOT PERFORMED

CYANIDE: The presence of cyanide is screened by Conway Diffusion. Positive cyanides are quantitated by spectrophotometry and confirmed by chromatography. The reporting cutoff for cyanide is 0.25 ug/mL. Normal blood cyanide concentrations are less than 0.15 ug/mL, while lethal concentrations are greater than 3 ug/mL.

>> NOT PERFORMED

VOLATILES: The volatile concentrations are determined by headspace gas chromatography at a cut off of 10 mg/dL. Where possible, positive ethanol values are confirmed by Radiative Energy Attenuation.

- >> NO ETHANOL detected in Muscle
- >> NO ETHANOL detected in Liver

DRUGS: Immunoassay and/or chromatography are used to screen for drugs. GC/Mass Spec, HPLC/Mass Spec, or GC/FTIR is used to confirm most positive results. Concentrations (ug/mL) at or above those in () can be determined for, but not limited to, the following drugs: amphetamines (0.010), opiates (0.010), marihuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), and antihistamines (0.020). For comprehensive information concerning all drugs detected by the laboratory, see the CAMI Drug Information Web Site http://jag.cami.jccbi.gov/toxicology/.

>> NO DRUGS listed above detected in Liver

Russell Lewis, Ph.D. TC, FAA, Forensic Toxicology Research Team CAMI

Date: 2012.02.15 14:04:37 -06'00'