

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

Monday, November 07, 2011

National Transportation Safety Board 1515 W. 190th St., Suite 555 Gardena, CA 90248 **ACCIDENT #** 0220 INDIVIDUAL#: 001 NAME: LEEWARD, JAMES K. DATE OF ACCIDENT 09/16/2011

Muscle

N # 79111

RENO, NV

DATE RECEIVED 09/20/2011 NTSB # WPR11MA454

MODE: AVIATION PUTREFACTION: No CAMI REF # 201100220001

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

LOCATION OF ACCIDENT

SPECIMENS

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.

- >> 58 (mg/dL, mg/hg) ETHANOL detected in Muscle
- >> 234 (mg/dL, mg/hg) METHANOL detected in Muscle

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 Muscle

Dennis V. Canfield, Ph. D. Manager, Bioaeronautical Sci. Research Lab CAMI