



# **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Research and Engineering  
Washington, DC

## **Medical Factual Report**

**November 29, 2016**

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Chief Medical Officer

### **A. ACCIDENT: WPR15FA250; Llano, CA**

On August 27, 2015, at 1206 Pacific daylight time, a Piper PA-25-260, N4369Y (callsign "Red Tow"), collided with terrain during the landing approach to Crystal Airport, Llano, California. The airplane was registered to, and operated by, Southern California Soaring Academy (SCSA), Inc., and was being utilized for glider tow operations under the provisions of 14 Code of Federal Regulations Part 91. The airline transport pilot was fatally injured, and the airplane sustained substantial damage during the accident sequence. The local flight departed at 1150. Visual meteorological conditions prevailed, and no flight plan had been filed.

### **B. GROUP IDENTIFICATION**

No group was formed for the medical evaluation in this accident.

### **C. DETAILS OF INVESTIGATION**

#### **1. Purpose**

This investigation was performed to evaluate the pilot for any medical conditions, the use of any medications/illicit drugs, and the presence of any toxins.

#### **2. Methods**

The FAA blue ribbon medical file, FAA medical case review, toxicology results, autopsy report, personal medical records, and the investigator's reports were reviewed.

#### **FAA Medical File and Medical Case Review**

According to the FAA files, the 67 year old male pilot reported 13,500 total flight hours as of his last medical exam, dated 08/21/2015. He had reported having high blood pressure controlled with medication for many years, as well as previous surgeries. At the time of his last exam, he

reported using lisinopril and minocycline and he was 71 inches tall and weighed 238 pounds. The pilot was issued a second class medical certificate limited by a requirement for corrective lenses.

Lisinopril is a blood pressure lowering medication available by prescription, commonly sold with the names Prinivil and Zestril.<sup>1</sup> Minocycline is an antibiotic often used to treat or prevent acne.<sup>2</sup>

### Autopsy

According to the autopsy performed by the Department of the Medical Examiner-Coroner, County of Los Angeles, the cause of death was multiple blunt force injuries and the manner of death was accident.

In addition, hypertrophic heart disease was identified. The heart weighed 530 grams; average for a 238 pound man is 406 grams with a range of 308- 536 grams.<sup>3</sup> The heart was described as “somewhat globular” and the myocardium as “mildly floppy.” The right ventricle was 0.5 cm, the interventricular septum was 1.5 cm, and the left ventricle was 1.7 cm in thickness. Average is 1.23 cm for the septum and left ventricle and 0.3 cm for the right ventricle.<sup>3</sup> No significant coronary artery stenosis was identified (<5%) and the remainder of the cardiac exam was unremarkable.

### Toxicology

Toxicology testing performed by the FAA’s Bioaeronautical Research Laboratory identified no tested-for substances.

### Personal Medical Records

According to records obtained from the personal physician, the pilot had longstanding high blood pressure treated with lisinopril. He had undergone a cardiac evaluation in 2013 at the request of the VA (he wanted to drive a van for the VA). His initial exercise stress test had been stopped after 6 minutes 25 seconds (8.3 METS) for shortness of breath and S-T depression in the lateral leads. A follow up stress test with nuclear imaging, thought to be more accurate, demonstrated normal perfusion of the cardiac muscle during exercise.

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<sup>1</sup> National Institutes of Health. US National Library of Medicine. DailyMed. Lisinopril. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=27ccb2f4-abf8-4825-9b05-0bb367b4ac07> Accessed 11/25/2016.

<sup>2</sup> National Institutes of Health. US National Library of Medicine. DailyMed. Minocycline. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=8082a9be-4b03-45ad-9501-28ee7aa573eb> Accessed 11/29/2016

<sup>3</sup> Kitzman DW, Scholz DG, Hagen PT, Ilstrup DM, Edwards WD. Age-related changes in normal human hearts during the first 10 decades of life. Part II (Maturity): A quantitative anatomic study of 765 specimens from subjects 20 to 99 years old. Mayo Clinic Proc., 1988. 63(2): 137-46.

#### **D. SUMMARY OF MEDICAL FINDINGS**

The 67 year old male pilot had a history of hypertension treated with lisinopril and had reported that to the FAA. Toxicology testing did not identify any substances. The autopsy identified hypertrophic cardiomyopathy or diffuse enlargement and thickening of the heart.