NATIONAL TRANSPORTATION SAFETY BOARD
Vehicle Recorder Division
Washington, D.C. 20594

November 27, 2012

17 - Video Factual Report

Specialist's Factual Report
by Bill Tuccio

A. EVENT

Location: San Marcos, Texas
Date: November 1, 2012
Aircraft: Cessna 320E
Registration: N10PM
Operator: Private
NTSB Number: CEN13FA039

B. GROUP - No Group

C. SUMMARY

On November 1, 2012, about 0605 central daylight time (CDT), a Cessna 320E airplane, N10PM, was substantially damaged during collision with flat terrain shortly after takeoff from San Marcos Municipal Airport (HYI), San Marcos, Texas. The certificated private pilot was fatally injured. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91. Night instrument meteorological conditions prevailed and no flight plan was filed. The flight originated from HYI about 0603.

D. DETAILS OF INVESTIGATION

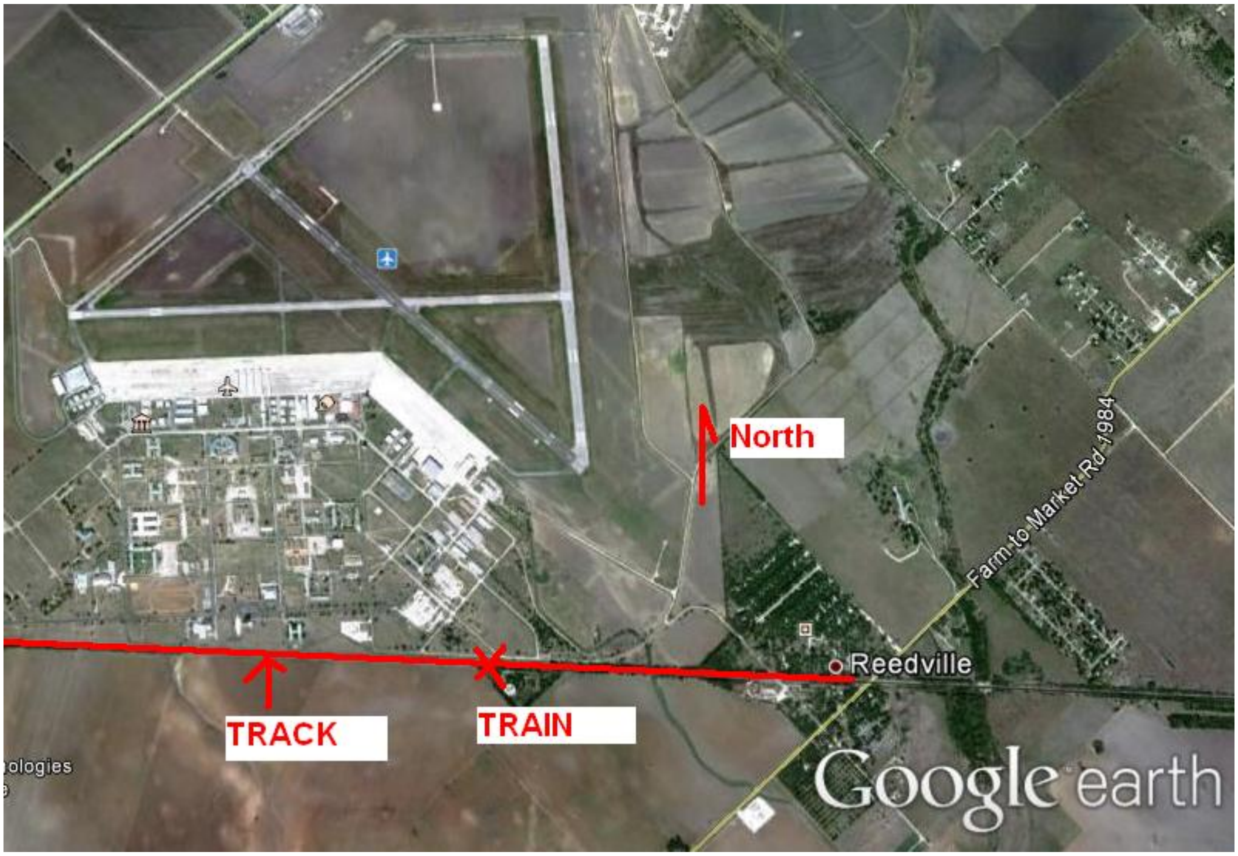
The NTSB Vehicle Recorder Laboratory received a video file from a Wabtec Traintrax LDVR train mounted video recording system.

Train Video

The Wabtec Traintrax Video recorder is a forward facing video camera that records to an external hard drive. It records video at a resolution of 704x480 pixels and 15 frames per second. External audio is also recorded. Some versions will also record GPS position and speed. Each frame is time stamped to the second by the recording system.

The black and white video was taken from a Union Pacific Railroad Locomotive UP4392. The train was travelling westbound at the time it recorded the aircraft accident. The approximate position of the train at the time of the aircraft accident is shown by the Google Earth overlay in Figure 1.

Figure 1. Location of train tracks and train at time of accident.



Video Description

The times reported in this report are train reported CDT. No attempt was made to verify train reported CDT time. The audio recorded by the train did not record any sounds of the accident.

The visibility in front of the train was restricted by fog, precipitation, or a combination of the two in the vicinity of the accident location. The video quality and night lighting conditions hindered unambiguous identification of the visibility restriction.

Figure 2 shows a time lapse sequence of eight consecutive frames (about 30 seconds) between 0616:11 and 0616:12. The aircraft was moving from left to right. The trajectory was approximately 45 degrees down, measured relative to the ground visible from the train.

After the aircraft impacted the ground north of the tracks, the motion continued northerly along the ground. About 1.5 seconds after the last image recorded on the time lapse photograph in figure 2, an explosive fire saturated the video image for about 1 second. The train began to pass south of the impact area at about 0616:27; a fire from the accident was burning, starting from an area a few yards north of the track extending further north.

Figure 2. Time lapse image of eight consecutive frames (0616:11 to 0616:12 CDT).