NATIONAL TRANSPORTATION SAFETY BOARD
Vehicle Recorder Division
Washington, DC 20594
July 17, 2015

Image Recorders

Specialist's Factual Report
By George Haralampopoulos

1. EVENT

Location:	Reno, Nevada
Date:	September 8, 2014
Aircraft:	Backovich GP-5
Registration:	N501GP
Operator:	Private
NTSB Number:	WPR14FA369

2. GROUP

In agreement with the Investigator-In-Charge, a group did not convene and a summary report was prepared.

3. SUMMARY

On September 8, 2014, about 1516 pacific daylight time, an experimental amateur built Backovich GP-5 airplane, N501GP, was destroyed when it impacted terrain following an in-flight breakup while conducting a practice race at the Reno-Stead Airport (RTS) Reno, Nevada. The airplane was registered to Lancair Northwest LLC, Portland, Oregon, and operated by the pilot under the provisions of Title 14 Code of Federal Regulations Part 91. The commercial pilot, the sole occupant of the airplane, was fatally injured. Visual meteorological conditions prevailed and no flight plan was filed for the air race flight. The local flight originated from RTS about 5 minutes prior to the accident.

A USB drive containing several video and image files were sent to the National Transportation Safety Board's Image Laboratory for readout and evaluation. The USB files included; onboard video at different perspectives from multiple GoPros from a participant in the race, high quality still images from an observer on the ground, a video taken from a handheld camera by a second observer on the ground.

4. DETAILS OF INVESTIGATION

4.1. GoPro Video File Descriptions

The GoPro files were captured from a participant in the practice race with the accident aircraft. None of the files contained pertinent information to this investigation, and no further work was done with the GoPro video files.

4.2. Spectator #1 Still Image Descriptions

A total of 17 images were received and contained the impact sequence as follows:

- The first photo shows the aircraft turning left wing down bank angle.
- The second photo shows the aircraft inverted with its horizontal stabilizer breaking up with a portion of the right wing broken off near the aileron.
- The third photo shows debris breaking off from the aircraft's empennage.
- The fourth photo shows a dust cloud near the point of impact.
- The following still images contain a settling of the debris over time and were not pertinent to the investigation.

4.3. Spectator #2 Video File Description

A video taken from a spectator with a hand held camera captured the aircraft break up and impact sequence. The video file was 36 seconds in length with a resolution of 1920 x 1080 pixels at 29 frames per second.

4.3.1 Timing and Correlation

The file had a creation time of 0518:36 PM pacific daylight time (PDT); however, this time could not be correlated because the settings of the spectator's camera were unknown, thus the time is given as is.

4.4. Summary of Recorded Contents

The video file began at 0518:36 PDT with camera view shown on a runway with ground carts in view. The accident aircraft can be seen in the distance flying past the spectator. The camera began to zoom into the aircraft and disappeared from the frame as it flew past vehicles parked on the runway.

The aircraft reappeared at 0518:52 PDT, and maintained altitude while in a left wing down bank angle. The aircraft continued through its turn until 0519:04 PDT, when a piece of the right wing broke off from the aircraft (figure 1).

Consequently, the aircraft began a spiral until it impacted the ground at 0519:10 PDT.

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Figure 1.Extracted video still highlighting inflight breakup.