

**NATIONAL TRANSPORTATION SAFETY BOARD
Office of Research and Engineering
Vehicle Recorder Division
Washington, D.C. 20594**



SPECIALIST'S FACTUAL REPORT OF INVESTIGATION

DCA19CA167

**By
Joseph A. Gregor**

WARNING

The reader of this report is cautioned that the summary of a cockpit voice recorder audio recording is not a precise science but is the best product possible from a Safety Board group investigative effort. The summary or parts thereof, if taken out of context, could be misleading. The summary should be viewed as an accident investigation tool to be used in conjunction with other evidence gathered during the investigation. Conclusions or interpretations should not be made using the summary as the sole source of information.

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January 23, 2020

Cockpit Voice Recorder

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1. EVENT SUMMARY

Location: Newark, New Jersey
Date: June 15, 2019
Aircraft: Boeing 757-200, registration N26123,
Operator: United Airlines, Flight 627
NTSB Number: DCA19CA167

On June 15, 2019, about 1:11 pm eastern daylight time, United Airlines flight 627, a Boeing 757-200, registration N26123, (aircraft no. 3213) operating as a domestic passenger flight from Denver, Colorado, bounced and had a subsequent a hard landing on runway 22L at Newark International Airport, Newark, New Jersey. There were no injuries and the airplane received substantial damage. A solid state cockpit voice recorder (CVR) was sent to the National Transportation Safety Board (NTSB) Vehicle Recorder Division for evaluation.

2. GROUP

A group was not convened

3. DETAILS OF INVESTIGATION

The NTSB Vehicle Recorder Division received the following CVR:

Recorder Manufacturer/Model: **L-3/Fairchild FA2100-1020**
Recorder Serial Number: **000121810**

3.1 CVR Carriage Requirements

Per federal regulation, multiengine aircraft with more than six passenger seats and requiring two pilots manufactured prior to April 7, 2010, and operated under 14 CFR 91/135, must be equipped with a CVR that records a minimum of the last 30 minutes of aircraft operation; this is accomplished by recording over the oldest audio data. The accident aircraft was manufactured in 1997.

3.2 Recorder Description

This model CVR, the L-3/Fairchild FA2100-1020, is a solid state CVR that records 120 minutes of digital audio. Specifically, it contains a 2-channel recording of the last 120 minutes of operation and separately contains 4-channel recording of the last 30 minutes of operation. The 120-minute portion of the recording is comprised of one channel that combines three audio panels sources and a second channel that contains the cockpit area microphone (CAM) source. The 30-minute portion of the recording contains 4 channels of audio information: one channel for each flight crew, one channel for a cockpit observer, and one channel for the CAM.

3.3 Recorder Damage

Upon arrival at the laboratory, it was evident that the CVR had not sustained any heat or structural damage and the audio information was extracted from the recorder normally, without difficulty.

3.4 Audio Recording Description

The recording consisted of two plus four channels of audio information, however none of the audio was pertinent to the incident/accident investigation. The audio was consistent with the CVR being overwritten or recorded over by subsequent events. Characteristics of overwritten CVRs include:

- Audio consistent with the airplane being stationary on the ground with electrical power on.
- Post-accident conversations or sounds that are irrelevant, or do not provide any additional information useful to the investigation.
- Conversations or other audio consistent with maintenance personnel working in or near the cockpit.
- Conversations or other audio indicating the airplane is taxiing after an incident.
- Background sounds in an unoccupied cockpit such as:
 - Radio transmission from other aircraft or ground facilities.
 - Unintelligible or difficult to discern conversation or other sounds likely emanating from the cabin or outside the airplane.