

# NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering

Washington, DC

November 13, 2002

## Emery Flight 017 CVR - FDR overlay

Dennis Crider

### A. ACCIDENT

Location: Rancho Cordova, California  
Date: February 16, 2000  
Time: 1951 Local Time  
Aircraft: Douglas DC-8-71, N8079 U  
Operator: Emery Worldwide Airlines, A CNF Company (FAR Part 121  
Supplemental)  
NTSB#: DCA-00-MA-026

### B. GROUP

No group was formed for this activity

### **C. SUMMARY**

On February 16, 2000, at 1951 Pacific standard time, a Douglas DC-8-71F, N8079U, registered to and operated by Emery Worldwide Airlines as flight 17 for the 14 CFR Part 121 scheduled cargo service from Sacramento, California, to Dayton, Ohio, crashed shortly after takeoff from Mather Field, Rancho Cordova, California. Visual meteorological conditions prevailed and an instrument flight rules flight plan was filed. The airplane was destroyed by impact forces and a post-crash fire. The three flight crew members were fatally injured.

### **D. DETAILS OF INVESTIGATION**

The time correlation between the CVR and FDR is outlined in the Group Chairman's Factual Report of Investigation: Cockpit Voice Recorder. This report uses this time correlation to provide CVR comments on plots of selected FDR data. For clarity, the time scale has been expanded requiring three plots per parameter. Note that the 11 degree elevator correction<sup>1</sup> has been applied to the elevator in figure 1, 2 and 3. Also the column plotted figures 1,2 and 3 uses the zero point as defined by the airframe manufactures design, that is the column that produces zero control tabs. This is 13.5 degrees forward of the vertical column position seen as zero in the FDR extraction.

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<sup>1</sup> See Digital Flight Data Recorder Croup Chairman Factual Report for details.

# Emery 17

FDR/CVR overlay 19:48:30 to 19:49:30

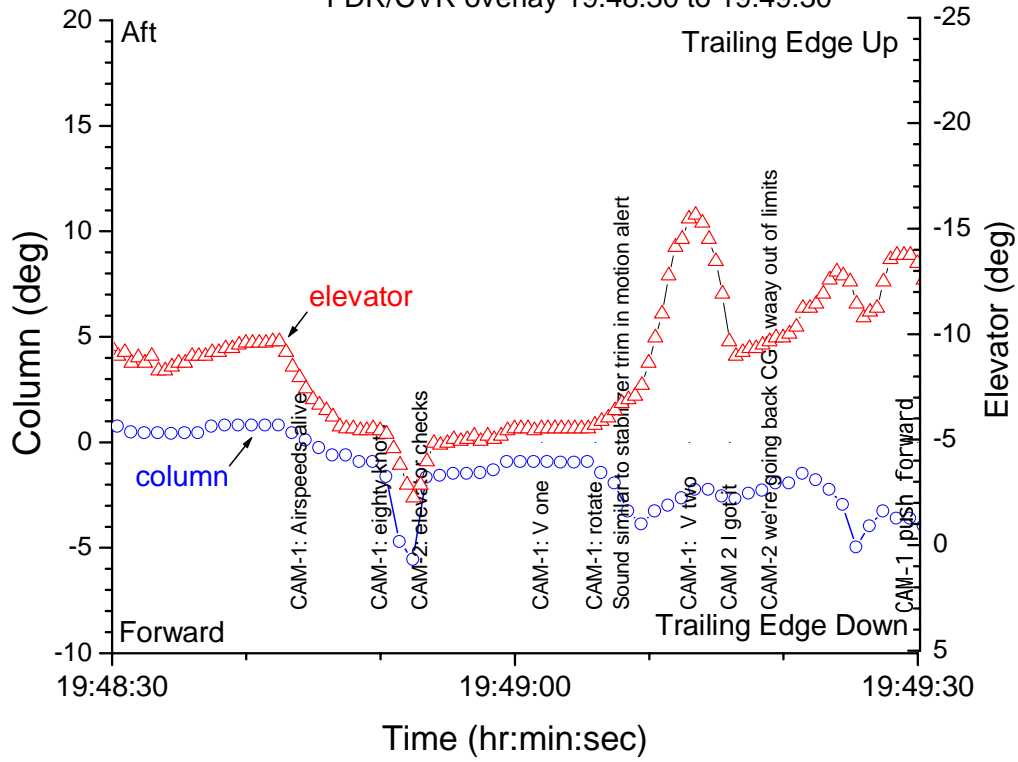


Figure 1: Elevator & Column 19:48:30

# Emergy 17

FDR/CVR overlay 19:49:30 to 19:50:30

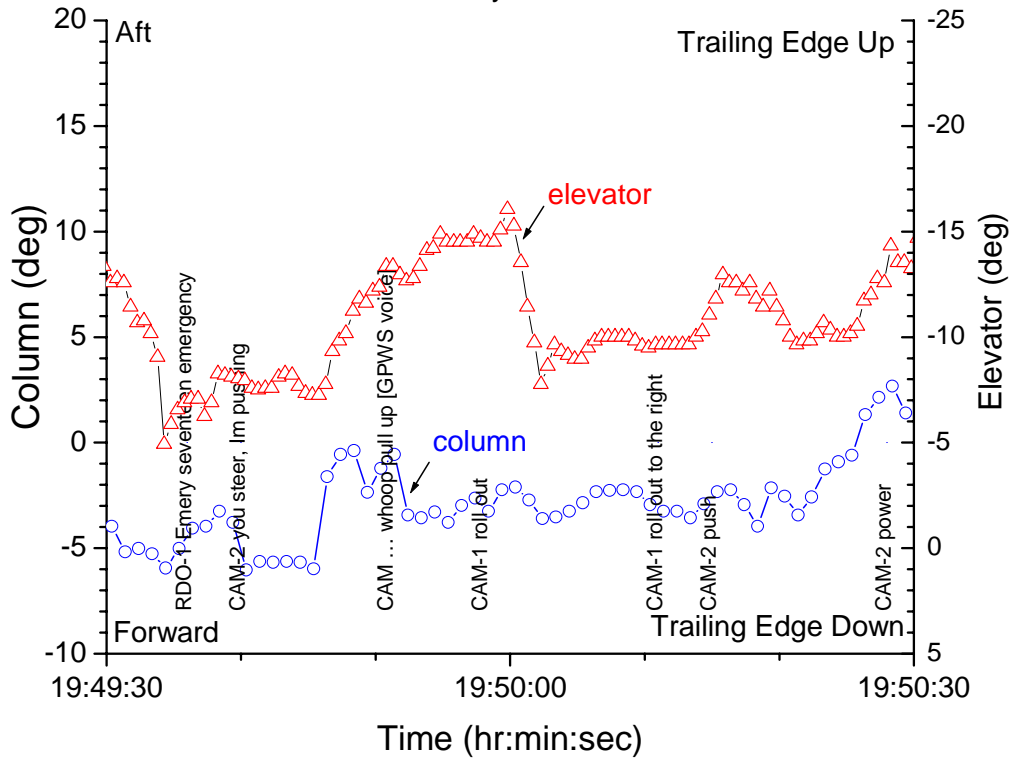


Figure 2: Elevator & Column 19:49:30

# Emery 17

FDR/CVR overlay 19:50:30 to 19:51:30

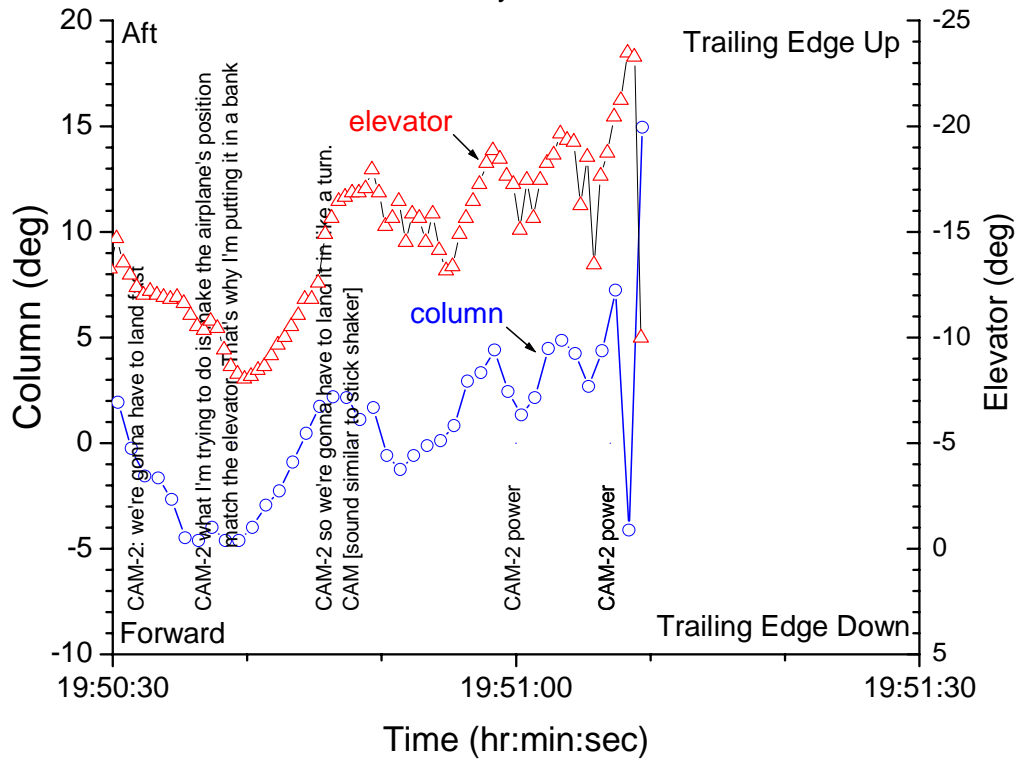


Figure 3: Elevator & Column 19:50:30

# Emery 17

FDR/CVR overlay 19:48:30 to 19:49:30

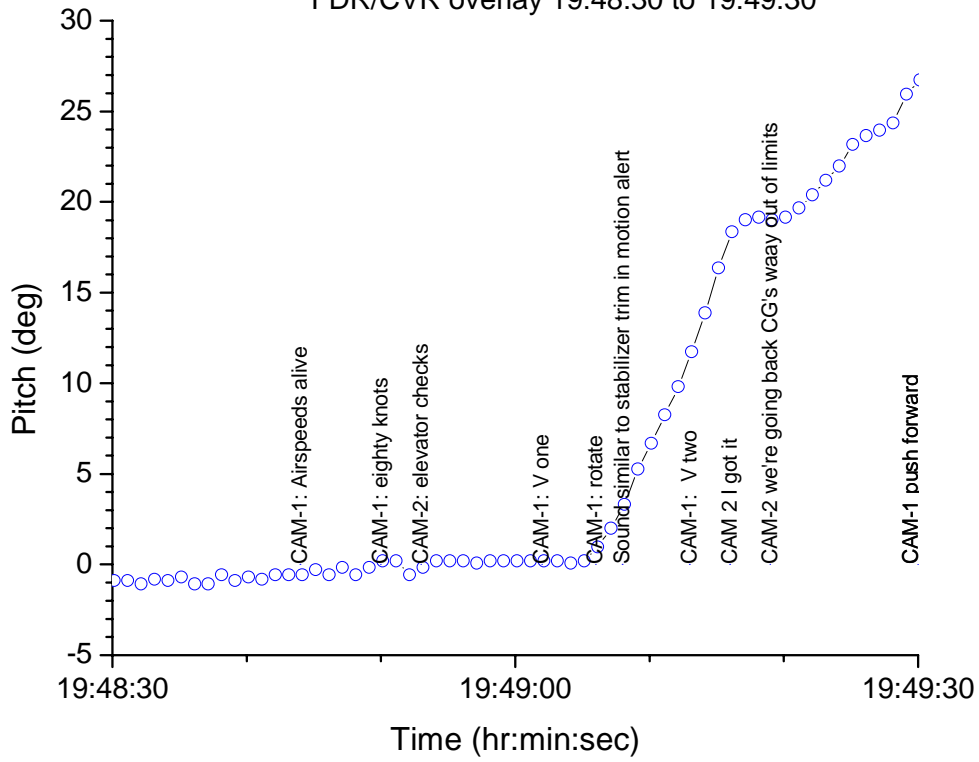


Figure 4 : Pitch Angle 19:48:30

# Emery 17

FDR/CVR overlay 19:49:30 to 19:50:30

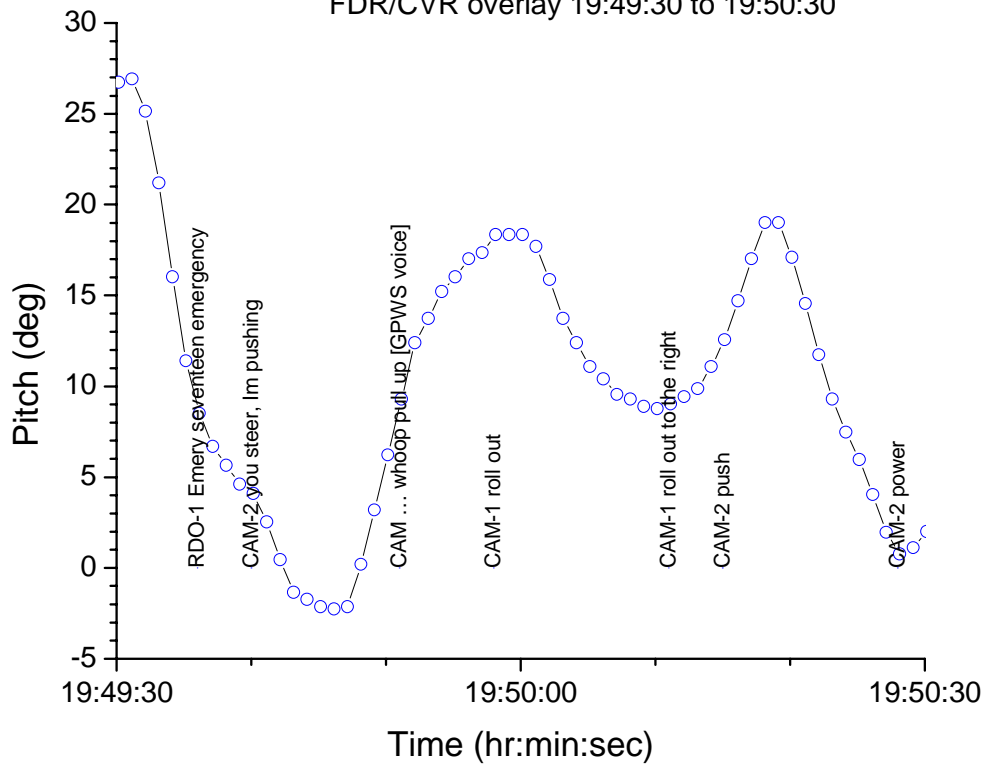


Figure 5: Pitch Angle 19:49:30

# Emery 17

FDR/CVR overlay 19:50:30 to 19:51:30

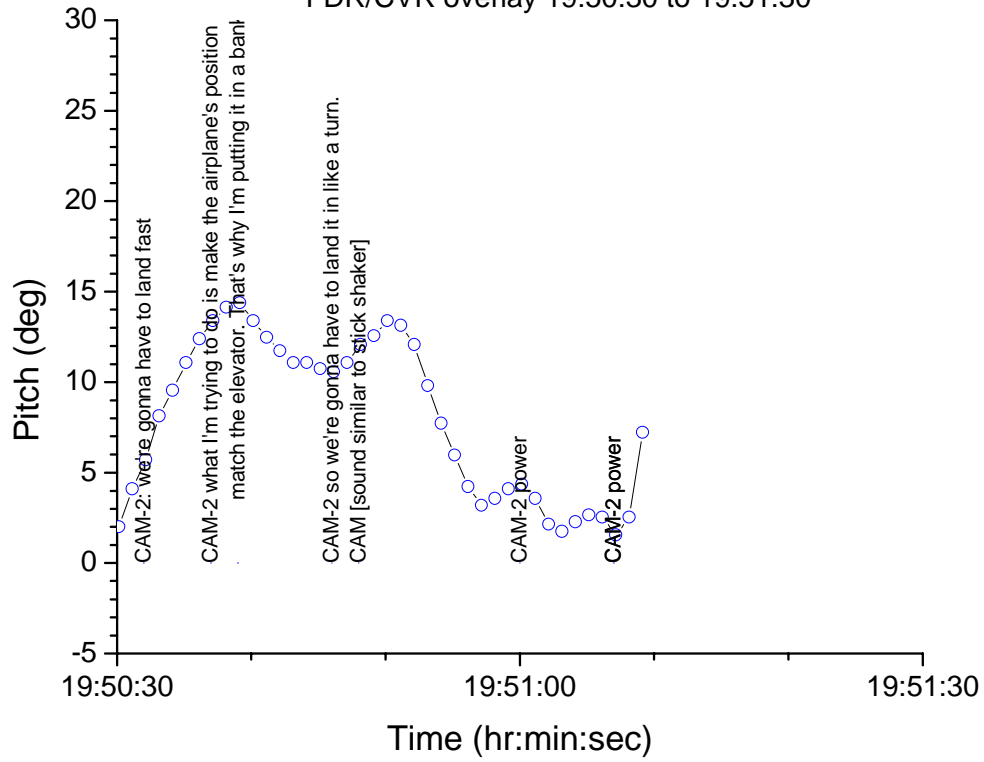


Figure 6: Pitch Angle 19:50:30



# Emery 17

FDR/CVR overlay 19:48:30 to 19:49:30

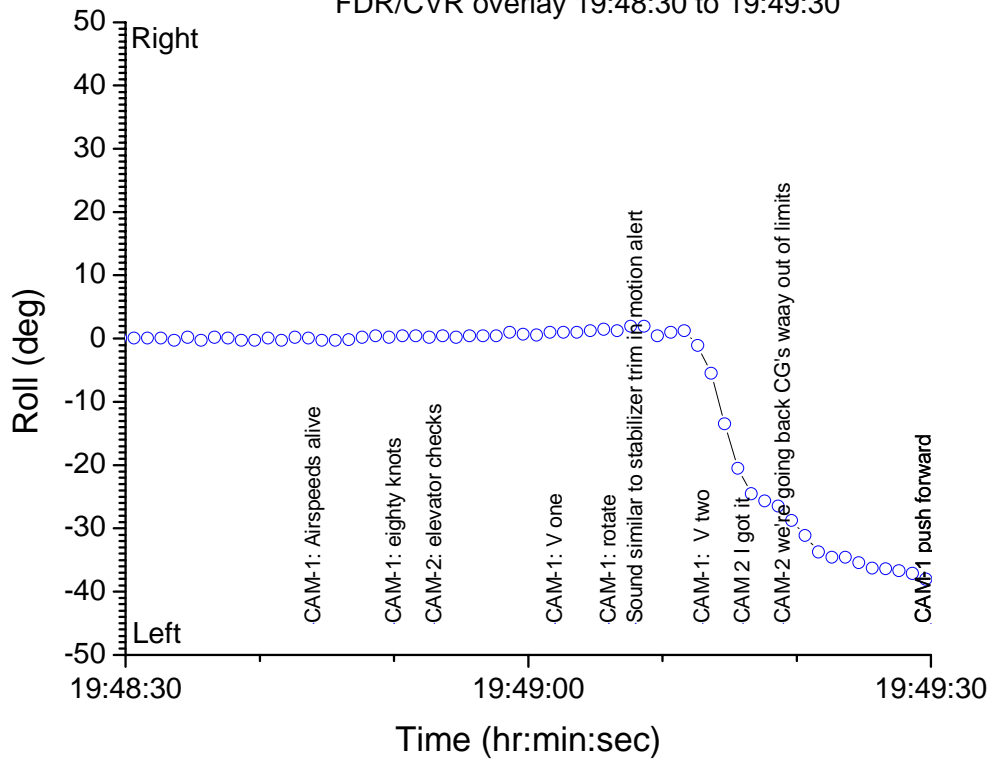


Figure 7: Roll Angle 19:48:30

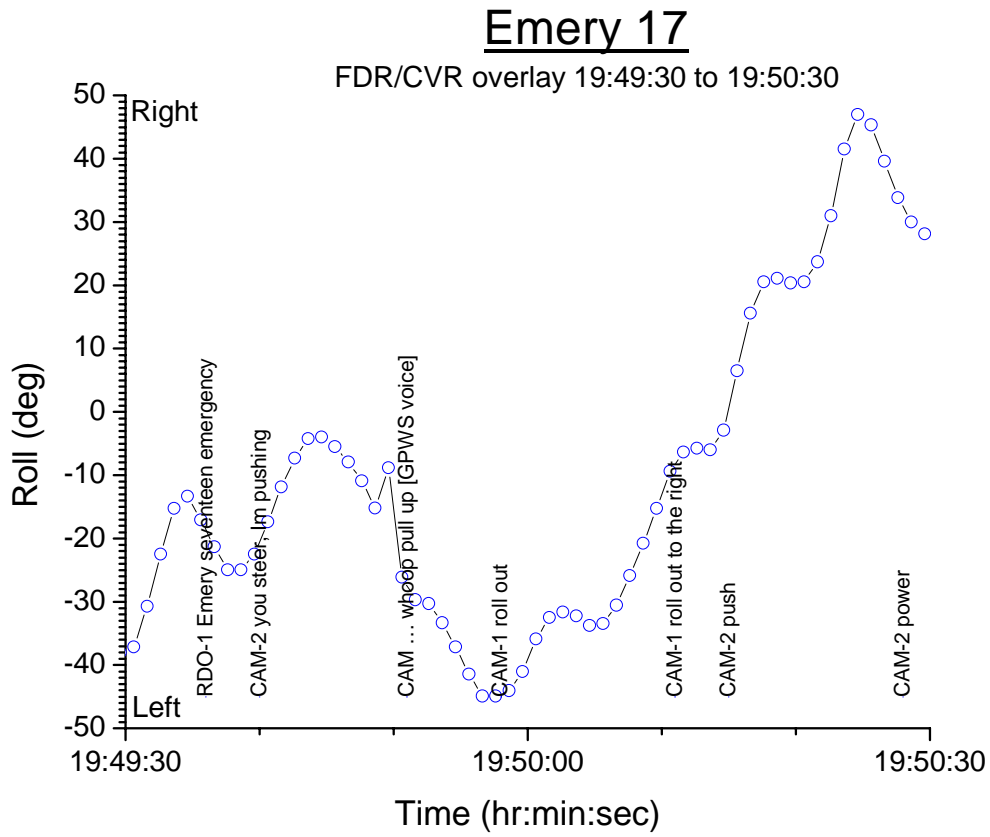


Figure 8: Roll Angle 19:49:30

# Emery 17

FDR/CVR overlay 19:50:30 to 19:51:30

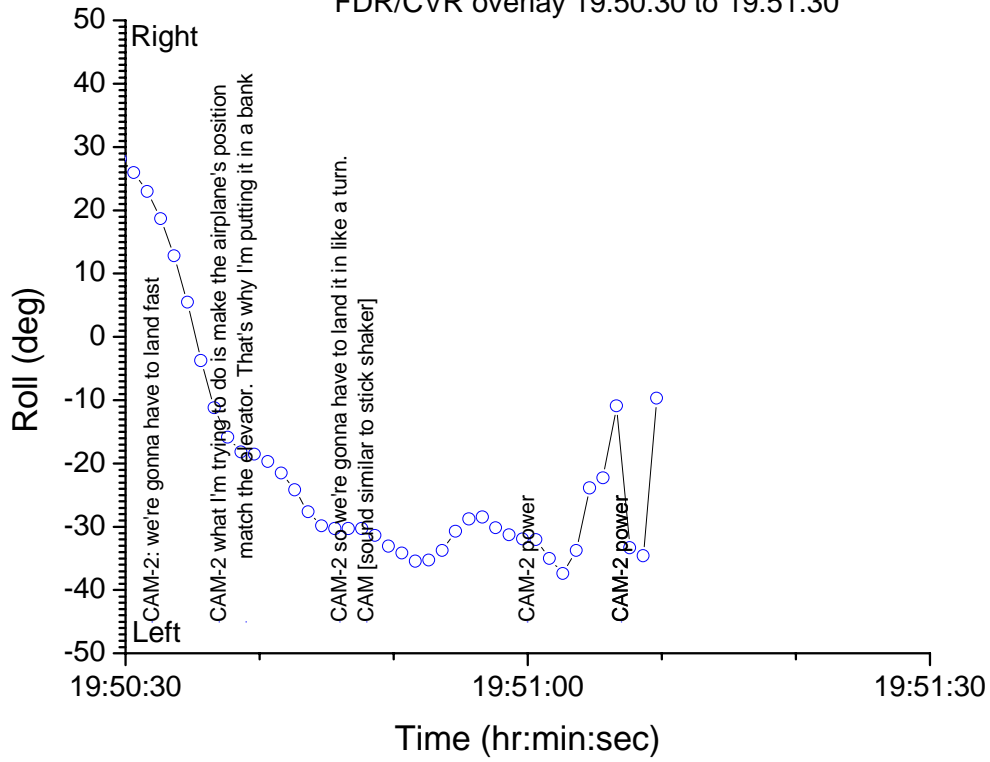


Figure 9: Roll Angle 19:50:30

# Emery 17

FDR/CVR overlay 19:48:30 to 19:49:30

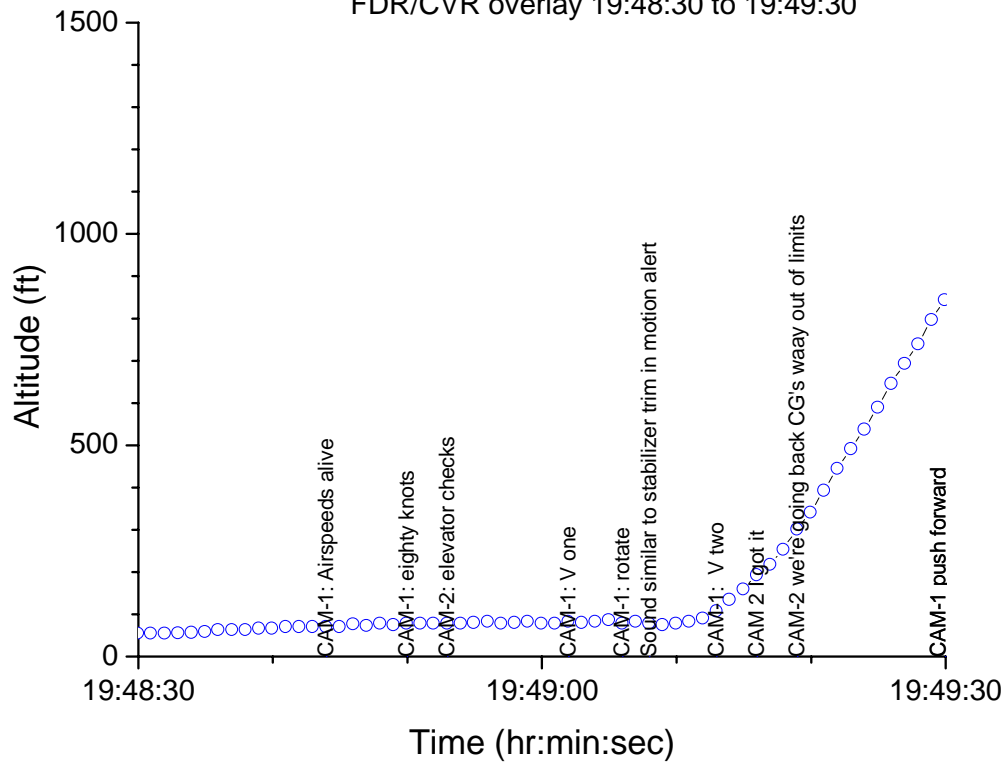


Figure 10: Altitude 19:48:30

# Emery 17

FDR/CVR overlay 19:49:30 to 19:50:30

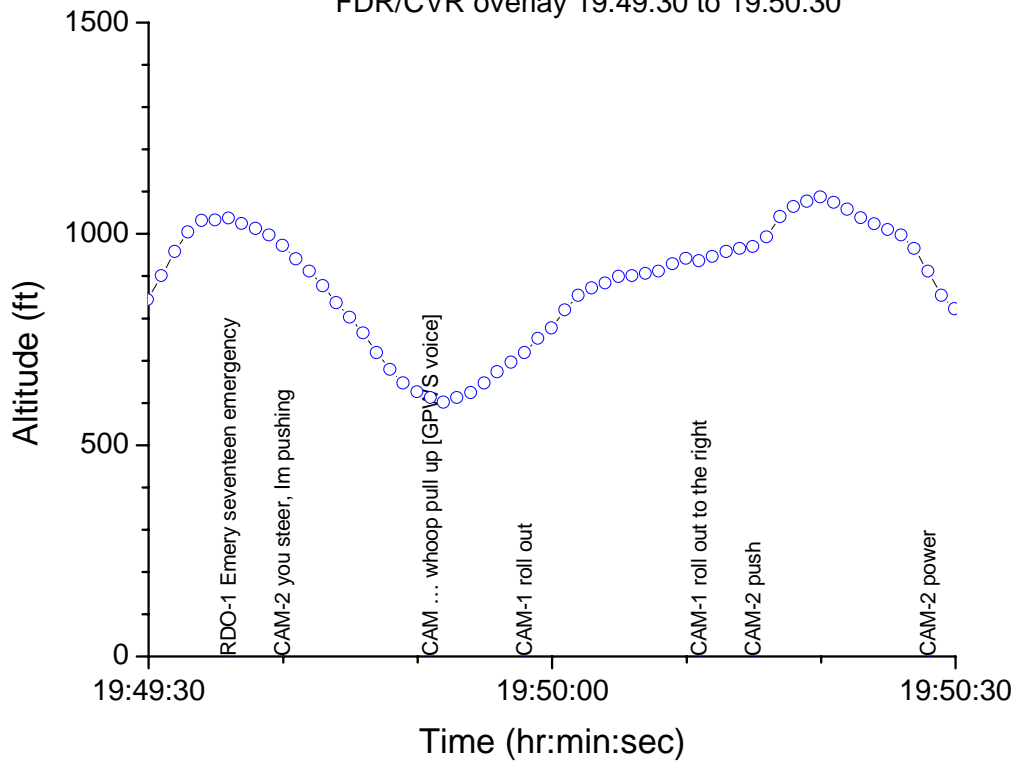


Figure 11: Altitude 19:49:30

# Emery 17

FDR/CVR overlay 19:50:30 to 19:51:30

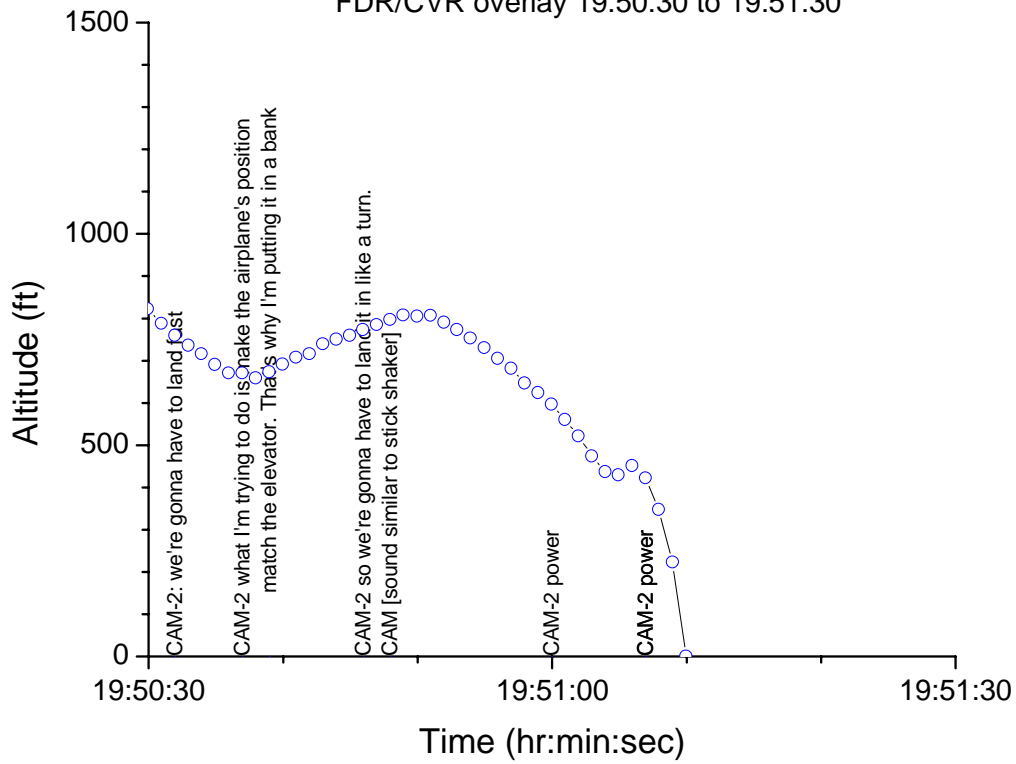


Figure 12: Altitude 19:50:30

# Emery 17

FDR/CVR overlay 19:48:30 to 19:49:30

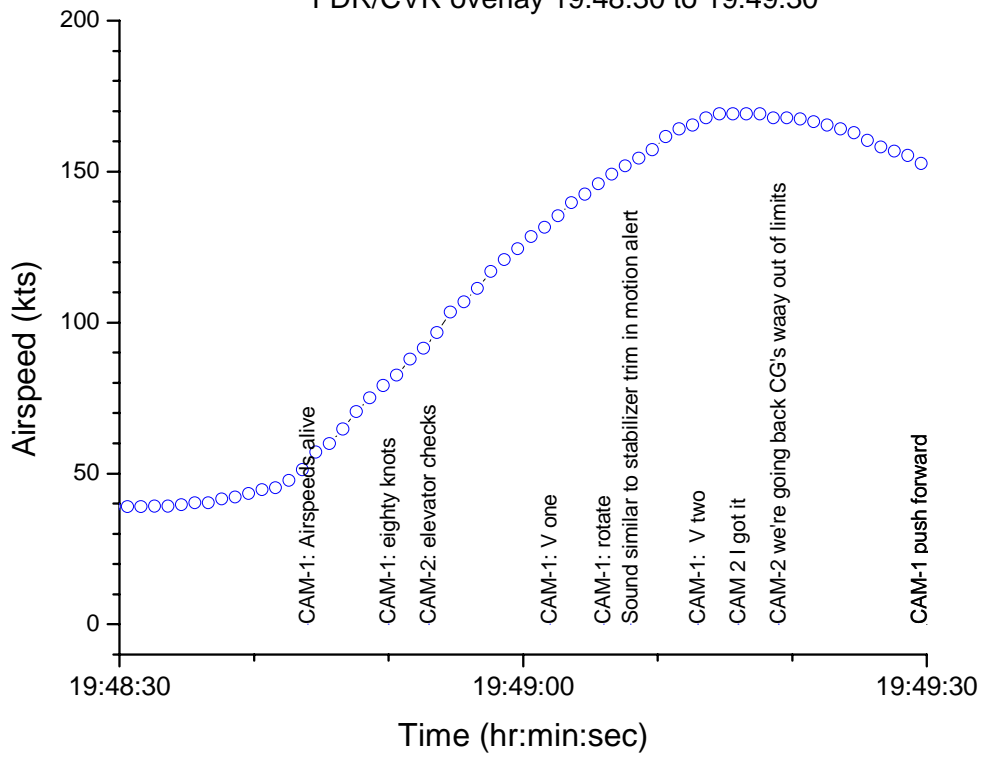


Figure 13: Airspeed 19:48:30

# Emery 17

FDR/CVR overlay 19:49:30 to 19:50:30

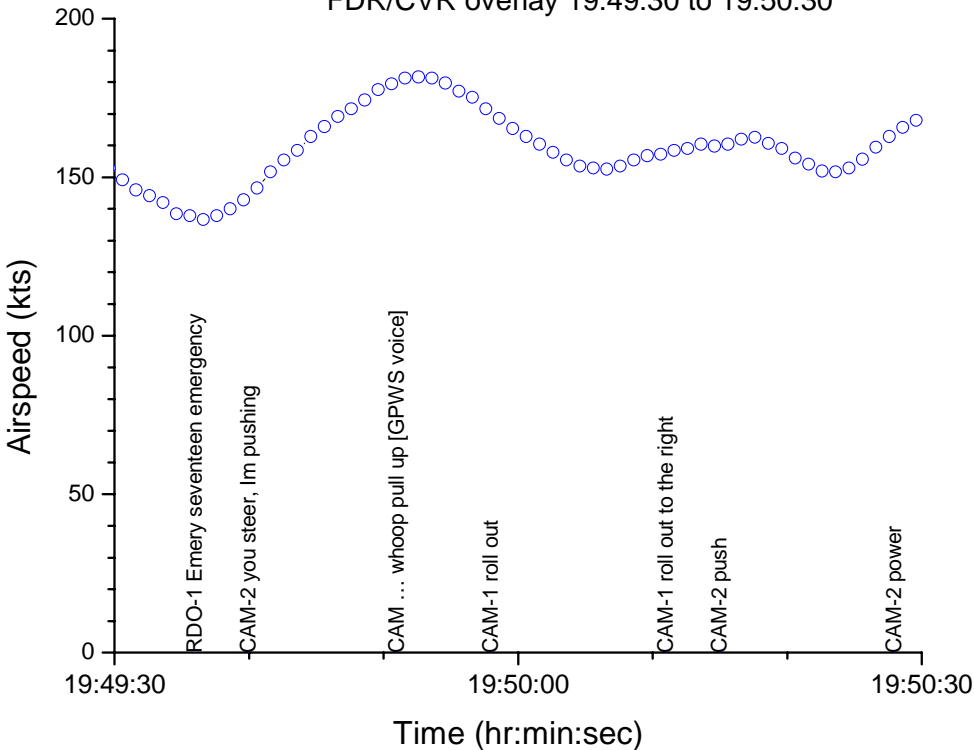


Figure 14: Airspeed 19:49:30



# Emery 17

FDR/CVR overlay 19:50:30 to 19:51:30

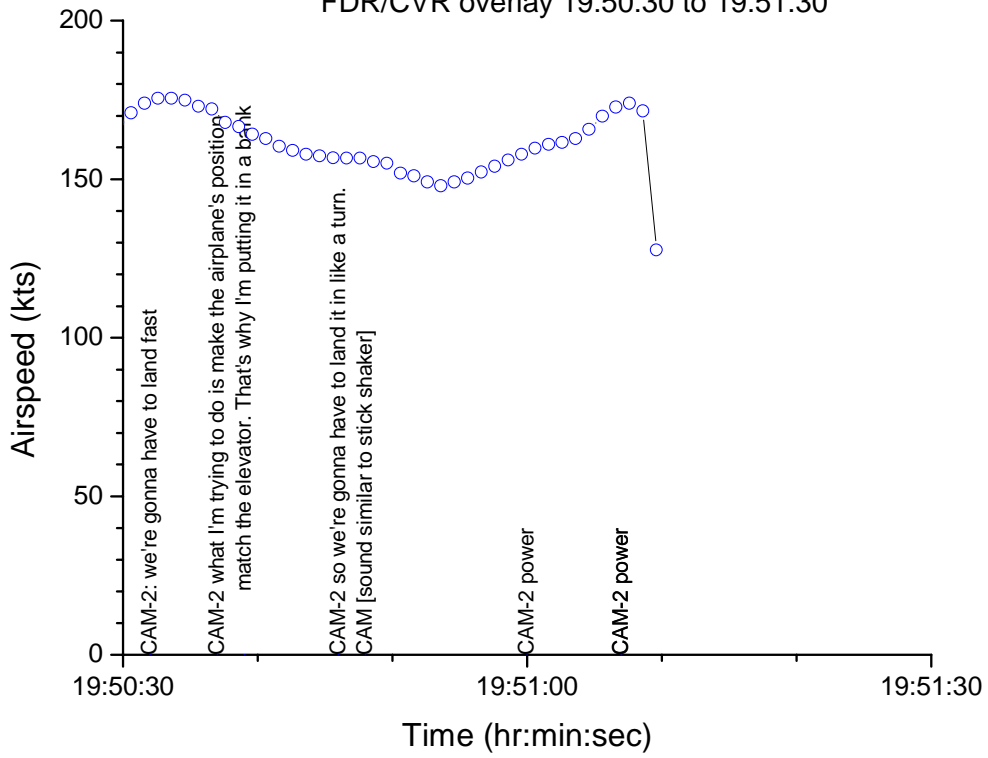


Figure 15: Airspeed 19:50:30

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