

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division

Washington, D.C. 20594

April 29, 2020

**ADDENDUM - Flight Data Monitoring (FDM) Device -
Audio**

**Group Chairman's Factual Report
By Sean Payne**

1. EVENT SUMMARY

Location: Zaleski, Ohio
Date: January 29, 2019
Helicopter: Bell 407
Registration: N191SF
Operator: Viking Aviation, LLC.
NTSB Number: CEN19FA072

On January 29, 2019, at 0650 Eastern standard time, a single-engine, turbine-powered, Bell 407 helicopter, N191SF, collided with forested, rising terrain about 4 miles northeast of Zaleski, Ohio. The helicopter was registered to and operated by Viking Aviation, LLC, doing business as Survival Flight, Inc., as a visual flight rules helicopter air ambulance flight under the provisions of *14 Code of Federal Regulations Part 135* when the accident occurred. The certificated commercial pilot, flight nurse, and flight paramedic were fatally injured, and the helicopter was destroyed. Visual meteorological conditions existed at the departure location, and company flight following procedures were in effect. The flight departed Mt. Carmel Hospital, Grove City, Ohio at 0628, destined for Holzer Meigs Hospital, Pomeroy, Ohio, about 69 miles southeast.

2. ADDENDUM

A footnote was added to clarify the term *rotor blade slap*, which was noted in the transcript at 06:48:27.5.

06:48:27.5

CAM [Sound similar to main rotor blade slap.]

Footnote added: Rotor Blade Slap, also known as *blade vortex interaction* – *The Journal of Sound and Vibration*, Vol. 4, issue 3, defines Helicopter Blade Slap as, “*the sharp increase in helicopter rotor noise, at the blade passing frequency, that is characteristic of certain model helicopters during some régimes of flight.*” This condition can occur within the normal operating regime of a helicopter’s flight.