

Alexander Lemishko  
Senior Air Safety Investigator  
NTSB, Central Region

**Date:** October 26, 2022

**Subject:** CEN23FA019 Wreckage Examination Findings

**Contacts:** Alexander Lemishko - NTSB IIC  
Myron Billet - FAA IIC, Baton Rouge FSDO  
Gary Howe - Bell Helicopters, Tech Advisor to TSB of Canada

After the accident, the position of the helicopter wreckage was located, marked, and additional flotation was attached. During the wreckage retrieval, the engine, transmission, flight controls, most of the cabin structure, tail boom, and main rotors were lost at sea due to rough, unfavorable sea conditions. The only parts of the helicopter wreckage that were recovered were portions of the intermediate fuselage/baggage compartment, and most of the landing gear skids. The skid-mounted floats were attached to the skids and were deployed. See Photographs 1&2.



Photograph 1 Recovered Wreckage at Sea (Courtesy of: Westwind Helicopters)



Photograph 2 Recovered Wreckage on Deck of Recovery Vessel Leslie Ann (Courtesy of Westwind Helicopters)

The wreckage examination was conducted on the deck of the Leslie Ann when it docked. The examination was conducted by the NTSB IIC with assistance from the FAA and Bell Helicopters.

#### Examination Findings:

- **Fuselage:** No doors or windows were recovered. The forward fuselage section from the nose of the helicopter to the front of the passenger compartment (just aft of the “broom closet”) was missing and not recovered. The intermediate fuselage from the fractured area aft of the “broom closet” to the baggage compartment was recovered and remained attached to the aft cross tube. The roof structure, main fuselage upper cowls and fairings were not recovered. The engine compartment and engine were not recovered.
- **Landing Gear/Floats:** Both skid and cross tubes were recovered. The forward cross tube

strap assemblies were fractured. The aft cross tube remained attached to the fuselage. The floats remained attached to the skid tubes and had been deployed. Note: The float system was activated from the cockpit prior to water entry. The helicopter was equipped with Apical emergency floats. Apical floats are mechanically activated from an activation handle that is located on the pilot's cyclic control stick in the cockpit. The float system is comprised of a series of cables that release compressed gas from the float cylinders into the skid-mounted float bladders when the cyclic activation handle is pulled. See Photograph 3.

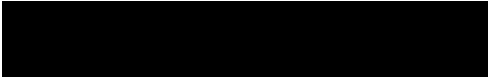


Photograph 3 Exemplar Cockpit Float Activation Lever (Red) Mounted on Cyclic Control (Courtesy of Westwind Helicopters)

- **Main Rotor and Main Rotor Drive System:** No components of the main rotor or main rotor drive system were recovered, so main drive continuity could not be established.
- **Tail Rotor Drive System and Tail Rotor:** No components of the trail rotor drive system or tail rotor were recovered, so tail rotor drive continuity could not be established.
- **Flight Controls:** No flight control components were recovered. Flight control continuity could not be established.

- **Fuel and Hydraulics:** Fuel was compromised by sea water due to the fracturing of the fuselage and the fuel cell interconnect tube being disconnected. A smell of fuel was present. No hydraulic system components were recovered.
  - **Instrument System, Electrical System and Avionics:** No instruments, electrical systems or avionics were recovered.
  - **Note:** According to the operator, the helicopter was equipped with an on-board Video Recording System. The system was not recovered.
- 

Alexander Lemishko



Senior Air Safety Investigator  
NTSB, Denver, Colorado