



Memorandum For Record

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As part of the investigation, the airframe, and specifically the flight controls and flap system were examined by representatives of the airplane designer with NTSB Virtual oversight. The following factual observations were noted:

Examination of the elevator flight control system revealed control continuity from the front and rear seat control sticks to the flight control surface.

Front and Rear Seat Control Sticks – Remained interconnected. The front seat aileron torque tube was intact and remained connected to the rear seat control stick.

LEFT WING EXAMINATION – Aileron Flight Control System

Examination of the aileron bellcrank near the control surface revealed the aileron was beyond normal limits in the trailing edge down position. Complete pushrod continuity was confirmed from the control surface to the center bellcrank then to the aft seat control stick. The aileron control surface position at impact could not be determined.

RIGHT WING EXAMINATION – Aileron and Flap Flight Control System

The flap remained connected to the flap actuator which was in a flaps fully retracted position.

The aileron pushrod in the outer center section of the wing was not in proximity to the aileron bellcrank at wing compression tube AC-WI-005, due to the structural damage to the wing. The bellcrank near the control surface had a dent on the tube from an adjacent bolt. That location put the aileron beyond the extreme limit in the aileron trailing edge down position. A rod-end near the bellcrank of the aileron pushrod was fractured consistent with bending overload with no evidence of preexisting fracture; the structure in that area was substantially damaged.

RUDDER FLIGHT CONTROL SYSTEM -

Control continuity was confirmed from the front seat rudder pedals to the rear seat rudder pedals and then to the control surface. There was no evidence of binding of the rudder control system and both control cables were around their respective pulleys and cable guard at FS 11 (float bulkhead) with no abnormal wear of either pulley noted.

AILERON FLIGHTCONTROL SYSTEM

In summary, the aileron flight control system was continuous from the front and aft seat control sticks to each control surface with the exception of bending overload to a rod end in the right wing attached to a pushrod which exits the center section. That same pushrod was bent aft with associated aft bending of the right wing main spar in that area.