



MEMORANDUM FOR RECORD

Timothy W. Monville
Sr. Air Safety Investigator
Office of Aviation Safety-Eastern Region

Date: November 12, 2024

Subject: ERA24LA269, Fuel Quantity Indicating System Testing

Contact: Timothy Howard, President of Cape Air Aerial Tours, Inc., d/b/a Stick'n Rudder Aero Tours

Mr. Timothy Howard, President of Cape Air Aerial Tours, Inc., d/b/a Stick'n Rudder Aero Tours, holder of an airframe and powerplant mechanic certificate with inspection authorization electrically and operationally tested each fuel quantity indicating system and video taped the findings. He provided the videos to NTSB for review.

Video 20240621_171546, a 21 seconds long video was taken inside the cockpit with a view of the fuel sending unit and in part the left fuel gauge. The video began with the fuel sending unit fully extended and the left fuel gauge reading empty (Figure 1). As the video continued the fuel sending unit was moved up with a corresponding view of the left fuel quantity gauge showing an increase in fuel. At the upper limit of the fuel sender the fuel quantity gauge indicated full.



Figure 1: Electrical and Operational Testing of Fuel Quantity Indicating System. View Depicts Left Fuel Quantity Gauge Indicating Empty When fuel Sending Unit was Fully Extended

Video 20240621_172333, a 20 seconds long video was taken inside the cockpit with a view of the fuel sending unit and in part the right fuel gauge. The video began with the fuel sending unit fully extended and the right fuel gauge reading empty (Figure 2). As the video continued the fuel sending unit was moved up with a corresponding view of the left fuel quantity gauge showing an increase in fuel. At the upper limit of the fuel sender the fuel quantity gauge indicated full. The fuel sending unit was lowered again to the fully extended position and the right fuel gauge again indicated empty.



Figure 2: Electrical and Operational Testing of Fuel Quantity Indicating System. View Depicts Right Fuel Quantity Gauge Indicating Empty When fuel Sending Unit was Fully Extended