

MEMORANDUM OF RECORD

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National Transportation Safety Board Office of Aviation Safety - Eastern Region

NTSB Case Number: ERA17LA169

Subject: Examination of Aircraft Throttle Body Fuel Injection Servo, Piper PA32RT-300, N31678

FAA Inspector statement: Juan C Garcia

Examination of Aircraft:

Inspection of the aircraft found damage to the right wing rear left spar damaged. Underside of the left wing was found punctured by rocks allowing fuel to leak from the holes in wing underside and left fuel tanks. Left wing flap, aileron and left wing tip had significant damage due to contact with levy wall. The right wing tip, aileron, flap and underside were damaged due to contact with levy. Inspection of aircraft fuel tanks found approximately 25 gallons in the left fuel tank and 30 gallons in the right. The fuselage lower engine cowling area and lower section of empennage was damaged on impact. The step section that was mounted to the fuselage shears off and was found next aircraft final resting point. The nose landing gear was torqued and wedged inside the nose wheel bay. The left main landing gear torque link was sheared when the left landing gear made contact with levy. Examination of cockpit interior found the throttle jammed and only working the $\frac{3}{4}$ on an inch in the upper quadrant of throttle movement. The Propeller and Mixture levers operated normally. The landing gear lever was found in the down position and fuel tank position was found indicating the left fuel tank position.

Examination of Aircraft Throttle Body Fuel Injection Servo:

The throttle cable at linkage attachment was disconnected from throttle body. The throttle cable was inspected and found the cable to be operating smoothly without any binding and free of movement at close and open on the throttle position. Fuel Injection Servo Model number RSA-10EDI was removed from aircraft for further inspection and found throttle linkage pn: 2521196 loose at the attachment point to the Throttle Body Fuel Injection Servo. The castle nut and cotter pin were installed but the castle nut was found loose not allowing throttle linkage teeth to make full contact with Throttle Body Fuel Injection Servo linkage teeth that control's the butterfly within the throttle body. Operating the linkage manually found the linkage slipping since the gearing teeth where not tighten completely not making full contact to lock together. Further inspection found the throttle linkage pn: 2521196 gearing teeth worn with some flat spots on some of the gearing teeth. Throttle Body linkage gearing teeth also had some flat spots.