

Occurrence Description Aircraft Model and Manufacturer: Aeroprakt A32

At approximately 15h50 on Sunday 23rd February 2020, while flying an Aeroprakt A32, I suffered an instantaneous and catastrophic windshield failure. This occurred around 5nM south of Mercer Airport at approximately 2400ft ASL. I was in straight and level flight at a cruise speed of approximately 105KIAS. The weather was fine with only slight turbulence and there was absolutely no prior warning. Immediately as this happened, my cap and headset were torn rearwards off my head but fortunately my sunglasses remained. The cockpit was filled with flying debris, charts, my jacket, cleaning cloths and various bits of paper and checklists. Within a few seconds, whatever was sucked outside brought the chaos in the cockpit to a milder level. The aircraft decelerated rapidly and pitched down around 25 degrees with an alarming rate of descent and deceleration to around 60KIAS of it's own accord. I immediately manipulated the controls to ascertain if I still had control or not and very quickly came to the conclusion that I still had control. At this stage, I was positioned over the swampy area to the east of Lake Waikare and I scoured the immediate vicinity for the most suitable place to land. There was no suitable place to safely land and with Mercer Airport dead ahead, I made the decision to press on. With full "up" trim and a fair amount of back-pressure on the yolk, it took full power to maintain my altitude of around 1500ft ASL and I still had full control around all 3 axis. I reached behind me to find my headset and put that on since I previously heard parachuting activity at Mercer. Once I had communicated with SBB, the jump aircraft, I communicated to them that I would like to arrive on a straight-in approach on RWY 27 since I had a problem. SBB communicated that they would hold off deploying the parachutists until after I had landed and also announced that I had vacated the active runway. After an uneventful landing, I announced my vacating RWY 27 in order for the parachuting operation to safely resume which they did.

Damage sustained: Except for a few peripheral shards of plexiglass, the entire windshield broke up into many pieces, some remained in the aircraft but most disappeared overboard.

A moulded part of plexiglass of the upper left part of the fuselage was also shattered. This conforms to the leading edge of the left wing and is part of one of the overhead storage receptacles where I would store small items. All of those items were evacuated out of the aircraft.

Both doors appear to have been deformed.

Both door latches and associated aircraft fuselage skin that forms part of the lower horizontal sill were severely deformed due to the sudden and intense rise in cockpit air pressure. 3 out of the 4 rivets (2 per side) had failed to hold the locking mechanism in place. Although the doors were straining at their latches and bulging outwards during flight after the occurrence, the latches fortunately kept them from opening. In flight, I could see a gap of around 40mm around both doors.

Occurrence DateTime 23/02/2020 3:50:00 PM

Local / UTC NZDT

Registration Mark A32

Location Mercer/Te Kauwhata

COB 0

POB 1

Altitude ASL 2400

Departure Point NZRO
Destination Point MZME
Flight Rules VFR
Scheduled No
Domestic Domestic
ETOPS No
NRP Cable
Distance From NRP 4
Bearing From NRP 120
Injuries Fatal Crew 0
Injuries Serious Crew 0
Injuries Minor Crew 1
Injuries Fatal PAX 0
Injuries Serious PAX 0
Injuries Minor PAX 0
Occurrence Type Defect
Nature of Flight Private Other
Flight Phase Cruise
Effect on Flight Significant Loss Of Control/Performance

System Affected Windshield
Part Manufacturer Aeroprakt
Part Model A32
ATA Code 5610 07 | Canopy (646)
TTIS Hours 298
Manufacturer Advised Yes
Aircraft Damage Level Substantial
Aircraft Disposal Repair

