Accident

Aircraft Type and Registration: Aeroprakt A32 Vixxen, G-RASP

No & Type of Engines: 1 Rotax 912iS piston engine

Year of Manufacture: 2023 (Serial no: LAA 411-15841)

Date & Time (UTC): 20 June 2024 at 1015 hrs

Location: Near Northrepps (Cromer) Airfield, Norfolk

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - None Passengers - None

Nature of Damage: Substantial damage to airframe and propeller

Commander's Licence: Private Pilot's Licence

Commander's Age: 69 years

Commander's Flying Experience: 1,711 hours (of which 32 were on type)

Last 90 days - 70 hours Last 28 days - 6 hours

Information Source: Aircraft Accident Report Form submitted by the

pilot

Synopsis

During a second approach to land at Northrepps (Cromer) Airfield, G-RASP encountered turbulence, which resulted in unexpected sink on short finals and caused the aircraft to land heavily on its nosewheel. Following the subsequent baulked landing go-around the pilot realised the rudder pedals were jammed and ascribed it to damage sustained at touchdown. Unsure of the consequences of trying to land on a hard runway with a compromised nose landing gear, and unwilling to use the aircraft's ballistic parachute in a pre-meditated way, the pilot elected to carry out a precautionary landing in a field of corn. After touchdown, however, the landing gear caught in the corn and the aircraft came to rest inverted. Both occupants were able to self-evacuate from the aircraft.

History of the flight

The aircraft took off from Nottingham City Airport with the pilot and passenger on board for a flight to Cromer Northrepps Airfield (Cromer) in Norfolk. The pilot was familiar with Cromer having landed there "many times" before. The surface wind was easterly at 8 kt so the aircraft was positioned for a straight-in-landing on Runway 04. As the aircraft passed over trees in the runway undershoot it experienced turbulence, which destabilised the approach. The pilot flew a go-around and repositioned for a second attempt on Runway 04.

The pilot reported that turbulence was again encountered on the second approach, "but this time it caused the aircraft to descend rapidly." He applied power and rudder in an

attempt to correct the disturbance but was not able to stop the aircraft landing heavily on its nosewheel. The pilot then initiated a baulked landing go-around during which he found the rudder pedals were jammed and he could not move them.

The rudder restriction appeared immediately after the heavy nosewheel-first landing so, given G-RASP had a steerable nosewheel connected by pushrods to the rudder pedals, the pilot deduced that damage to the steering assembly was preventing him from moving the rudder pedals.

The pilot considered diverting to an airfield with a longer and more in-to-wind runway but was concerned that any damage to the nose leg could lead to it collapsing on touchdown, with unpredictable consequences. While the aircraft was equipped with a ballistic parachute recovery system, the pilot said he was unwilling to use it in a pre-meditated way because the outcome would be "unknown." At this point his passenger was becoming increasingly distressed, so the pilot elected to conduct an immediate precautionary landing on the "softest soil and springiest crop" that he could find. He identified a corn field nearby and landed aligned with the furrows, using full flap for the approach. Just before touchdown he turned the fuel and battery master switches off and landed as close to the stall as he could. After touchdown the aircraft came to rest inverted (Figure 1). Both occupants were able to self-evacuate from the aircraft with only minor injuries.



Figure 1G-RASP inverted after landing in crop field.

Accident pilot's observations

The pilot stated that, having experienced it earlier, he was expecting turbulence over the trees on the second approach but was caught out by the associated sink, which had not been a feature of the first approach. Despite the sink, the pilot judged at the time that increasing power would be sufficient to correct the approach path, hence he continued to land rather than initiating a second go-around.

Despite the aircraft coming to rest inverted, the pilot considered that landing as slow as possible in the corn field had achieved a more predictable and safer outcome than using the ballistic parachute system or diverting to an airfield with a tarmac or concrete runway.