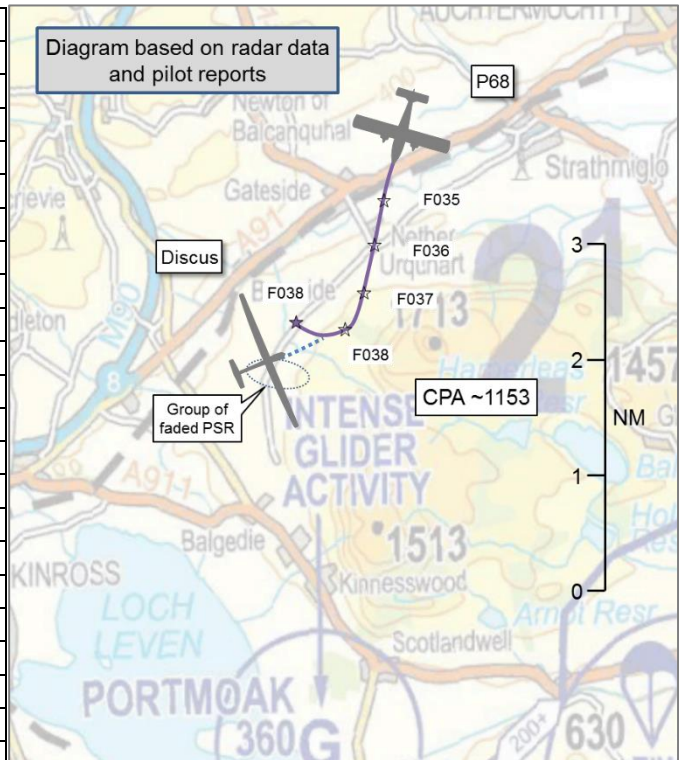


AIRPROX REPORT No 2017275

Date: 28 Nov 2017 Time: 1153Z Position: 5615N 00320W Location: 10nm N Portmoak

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Discus bT	P68
Operator	Civ Pte	Civ Comm
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	IFR	VFR
Service	None	Basic
Provider	N/A	Dundee
Altitude/FL	NK	FL038
Transponder	Not fitted	A, C, S
Reported		
Colours	White	White, blue
Lighting	Not fitted	Strobes
Conditions	IMC	VMC
Visibility	>30km	NK
Altitude/FL	3300ft	3500ft
Altimeter	QFE (NK hPa)	QNH (NK hPa)
Heading	060°	260°
Speed	60kt	100kt
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
Separation		
Reported	250ft V/300m H	Not seen
Recorded	NK	



THE DISCUS PILOT reports that he was attempting to soar in weak wave in excellent visibility with wind from the north and a lot of towering cumulus over the distant mountains from northwest through to northeast. He was running about 300ft above and 300m laterally clear along an east-west line of thin broken cloud, climbing very slowly and looking at the cloud to try and pick-up clues as to the location of lift. He was looking to his right as he tracked east, and had started a left-turn onto west when he suddenly saw a white high-wing twin-engine aircraft slightly above, heading west and banking away to the northwest in what appeared to be an avoiding manoeuvre. The pilot noted that ‘startle factor’ may have made the aircraft seem closer, although he could read the underwing registration markings. The aircraft made a wide circle around him before continuing on its way. The pilot thought that he might not have kept as good a lookout as he should; he was looking out but not really scanning for other aircraft. The white horizon and his white glider would not have stood out well, and he was probably partially into sun for the P68 pilot.

On landing, he discussed the incident with the resident instructor and identified the aircraft as a Vulcanair P68 operated by a company which specialises in aerial surveys. The pilot noted that the same aircraft returned the next day to continue the survey, which brought it over Portmoak airfield several times as it completed east-west swathes. Its altitude was displayed on an internet flight tracking website as 3400ft (Figure 1). The pilot commented that no NOTAM was raised on either day and, given its proximity to Portmoak, he felt that a NOTAM on the survey should have been raised. He stated that the P68 operating company did not respond to his attempts to contact them to inform them of the Airprox.



Figure 1. P68 survey track as displayed on internet flight tracker.

He assessed the risk of collision as 'Low'.

THE P68 PILOT reports conducting a survey flight in the Kinross area. He was just northwest of the Lomond Hills (about 10km north of Portmoak glider site) at the reported time of the Airprox and about to start the survey. He recalled that he was in touch with Scottish Information he thought, who told him to look out for gliders. He asked a colleague in the back of the aircraft to keep a good lookout as well. They saw a couple of gliders around the hills but they were a few miles away and well below so they were not a factor. They did not see any other gliders.

Factual Background

The weather at Edinburgh was recorded as follows:

METAR EGPB 281150Z 32008KT 290V350 9999 FEW035 06/00 Q1010=

Analysis and Investigation

CAA ATSI

The non-surveillance based Basic Service from Dundee provided the P68 pilot with a generic warning of glider activity. The Discus pilot was not in contact with an ATSU.

UKAB Secretariat

The Discus and P68 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right². If the incident geometry is considered as converging then the P68 pilot was required to give way to the Discus³. If the incident geometry is considered as overtaking then the Discus pilot had right of way and the P68 pilot was required to keep out of the way of the other aircraft by altering course to the right⁴.

The P68 radar track was displaying the Dundee VFR transponder conspicuity code.

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

³ SERA.3210 Right-of-way (c)(2) Converging.

⁴ SERA.3210 Right-of-way (c)(3) Overtaking.

Summary

An Airprox was reported when a Discus and a P68 flew into proximity at 1153hrs on Tuesday 28th November 2017. Both pilots were operating under VFR in VMC, the P68 pilot in receipt of a Basic Service from Dundee and the Discus pilot not in receipt of a Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs/video recordings.

Members first discussed potential mitigations to the event and noted that the P68 pilot was in receipt of a non-surveillance based Basic Service from Dundee, whilst the Discus pilot was not in receipt of a service. Additionally, the aircraft were not fitted with compatible systems for electronic conflict detection and consequently both pilots were relying on the barrier of see-and-avoid. In this instance, that barrier was not effective and it was the existing circumstantial separation of the aircraft which was the only effective 'barrier'. The Board agreed that the cause of the Airprox was a late sighting by the Discus pilot and a non-sighting by the P68 pilot. Some members initially felt that a collision had only been avoided by providence but, after further discussion, although this could be said to be the case, the Board agreed that in this instance the aircraft were separated sufficiently that although the potential for collision was high, there had actually been no collision risk given their height separation.

Members also commented that the P68 survey task was such that promulgation of a NOTAM would have served a useful purpose and that such operators would be well advised to do so, not least to improve the flow of information and situational awareness amongst the aviation community.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the Discus pilot and a non-sighting by the P68 pilot.

Degree of Risk: C.

Safety Barrier Assessment⁵

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

ANSP:

Situational Awareness and Action were assessed as **not used** because the Discus pilot was not in receipt of a service and the P68 pilot was in receipt of a Basic Service, which does not require the controller to detect conflict.

Warning System Operation and Compliance were assessed as **not present** because the Dundee radar console was not configured to provide automatic conflict detection.

Flight Crew:

Situational Awareness and Action were assessed as **partially effective** because the P68 pilot had only generic situational awareness from the controller that there may have been gliders in the area.

Warning System Operation and Compliance were assessed as **ineffective** because neither aircraft had a compatible warning system.

⁵ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

See and Avoid were assessed as **ineffective** because the P68 pilot did not see the glider and the glider pilot reported seeing the P68 at a point too late for avoiding action.

