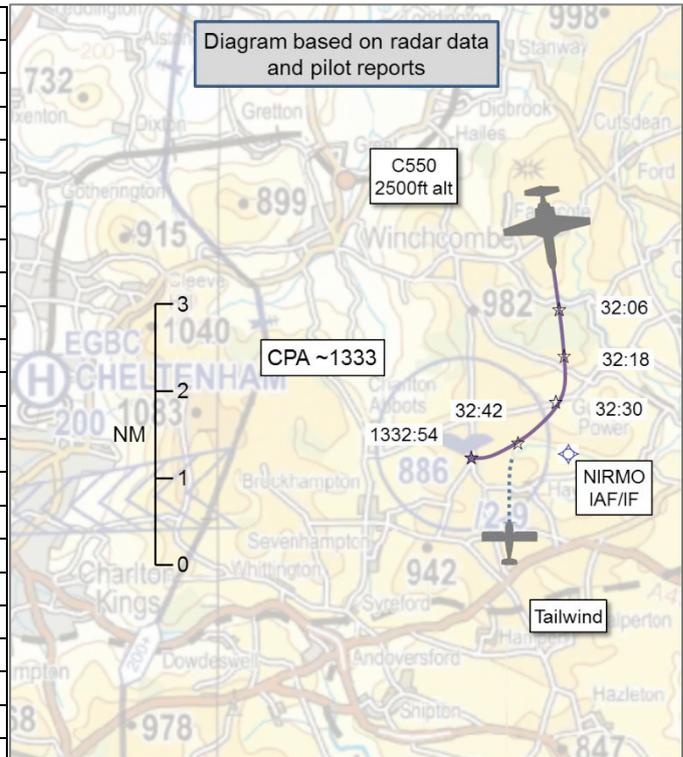


AIRPROX REPORT No 2018268

Date: 24 Sep 2018 Time: 1333Z Position: 5154N 00157W Location: 10nm E Gloucester

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Wittman Tailwind	C550
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	Brize Radar	Gloucester
Altitude/FL	NK	1800ft
Transponder	Not fitted	A, C, S
Reported		
Colours	Orange, white	White
Lighting	Not fitted	Strobes, nav
Conditions	VMC	VMC
Visibility	>10km	NK
Altitude/FL	2800ft	NK
Altimeter	NK (1038hPa)	NK
Heading	015°	NK
Speed	95kt	NK
ACAS/TAS	Not fitted	TCAS II
Alert	N/A	None
Separation		
Reported	200 V/300m H	Not seen
Recorded	NK	



THE TAILWIND PILOT reports being in straight-and-level cruise looking out to his left and below for possible hang gliders from a launching site [Cravens Gorse]. He had just turned 15° right to avoid the area when he saw a Citation business jet at a range of 500m, banked to its right, apparently completing a procedure turn for the approach to Gloucester. The pilot noted that he was well outside the 'feather' marking for the approach but clearly not far enough to avoid the approach area. He also commented that a NOTAM stated that the Gloucester radar was out of service and consequently he was on a listening watch with Brize Radar, although outside the Oxford AIAA.

He assessed the risk of collision as 'Medium'.

THE C550 PILOT reports that he did not see the Wittman Tailwind.

THE GLOUCESTER CONTROLLER reports that an Airprox was not declared on frequency and that he did not recall the event.

Factual Background

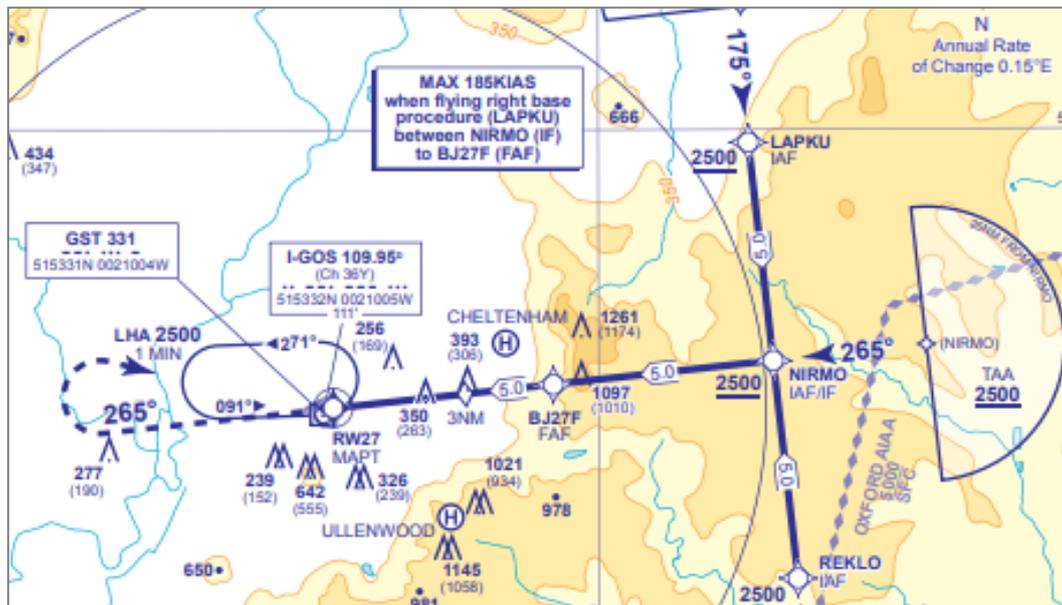
The weather at Gloucester was recorded as follows:

METAR EGBJ 241320Z 34002KT 9999 FEW040 15/04 Q1038=

Cravens Gorse hang gliding site is notified in the UK AIP¹ as follows:

CRAVENS GORSE, CHARLTON ABBOTS, GLOS A circle, 2 NM radius, centred at 515452N 0015528W	Upper limit: 1000 FT Lower limit: SFC		Site elevation: 886 FT AMSL. Hours: HJ
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A section of the GNSS approach to Gloucester RW27² is shown below:



The CAA VFR 1:500,000 scale chart Edition 44 contains the following advice:

***AERODROMES HAVING ONE OR MORE INSTRUMENT APPROACH PROCEDURES (IAP) - CONVENTIONAL OR GNSS - OUTSIDE CONTROLLED AIRSPACE.**

Aerodrome having one or more IAPs outside Controlled Airspace..... 

The symbols are aligned along the extended centreline of the MAIN instrument runways, and are not representative of the coverage area of the IAP associated with that runway. Pilots intending to fly within 10nm of any part of the IAP symbol are strongly advised to contact the aerodrome ATSU. Details of the extent of the IAP can be found in the UK AIP.

Of note, the criterion for contacting the aerodrome ATSU related to the IAP symbol was changed from ‘... within 10nm of the aerodrome ...’ to ‘... within 10nm of any part of the IAP symbol ...’ as of Southern VFR chart Edition 40, effective 3rd April 2014.

Analysis and Investigation

UKAB Secretariat

The Tailwind and C550 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard³. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right⁴. If the incident geometry is considered as converging then the Tailwind pilot was required to give way to the C550⁵.

¹ UK AIP ENR 5.5-1.

² UK AIP AD 2-EGBJ-8-7.

³ SERA.3205 Proximity.

⁴ SERA.3210 Right-of-way (c)(1) Approaching head-on.

⁵ SERA.3210 Right-of-way (c)(2) Converging.

Summary

An Airprox was reported when a Wittman Tailwind and a C550 flew into proximity on the approach path to Gloucester airfield at about 1333hrs on Monday 24th September 2018. Both pilots were operating under VFR in VMC, the C550 pilot in receipt of a Basic Service from Gloucester and the Tailwind pilot listening out with Brize Radar.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the air traffic controller involved.

Members first discussed the Tailwind pilot's actions and commended him for his proactive approach to use of the radio. However, they agreed that, given the Tailwind pilot's reported track, 2-way contact with Gloucester would have been more useful than listening out on the Brize Norton frequency, even though the Gloucester radar was out of service.

For their part, the C550 crew did not see the Tailwind and were no doubt concentrating on their GNSS approach, turning right onto the final approach track. Board members emphasised the need for a thorough and robust lookout scan, especially when conducting instrument procedures in Class G airspace, when at least one of the crew would be spending almost all their time looking inside the cockpit. The Board noted that the C550 was equipped with TCAS but that the absence of a transponder in the Tailwind prevented this barrier from being available.

Turning to cause and risk, members felt that the event was best characterised as a late sighting by the Tailwind pilot and a non-sighting by the C550 crew. The Tailwind pilot's account of the incident and estimate of separation at CPA was such that the Board agreed that although safety had been reduced, there had been no risk of collision.

Finally, members observed that although the Cravens Gorse hang gliding site was notified as having an upper height limit of 1000ft and an elevation of 886ft (i.e. 1900ft altitude upper limit), it was annotated on the VFR chart as having a top altitude of 2900ft, which was above the RW27 GNSS approach path that bisects the site (2500ft altitude). The Board felt that this may be a charting error but, if this was not the case then it was not a sensible state of affairs; given that this was not germane to the Airprox, the Chair agreed to contact the CAA separately to highlight the issue.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the Tailwind pilot and a non-sighting by the C550 pilot.

Degree of Risk: C.

Safety Barrier Assessment⁶

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 Tailwind pilot was not in communication with an ATSU and the C550 pilot was not in receipt of a service that required situational awareness or action from the controller.

⁶ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

Flight Crew:

Tactical Planning was assessed as **partially effective** because the Tailwind pilot did not contact Gloucester.

Situational Awareness and Action were assessed as **ineffective** because neither pilot was aware of the other aircraft until the Tailwind pilot saw the C550.

Warning System Operation and Compliance were assessed as **ineffective** because the Tailwind was not electronically conspicuous to the C550 TCAS.

See and Avoid were assessed as **partially effective** because only the Tailwind pilot saw the other aircraft, and at a late stage.

