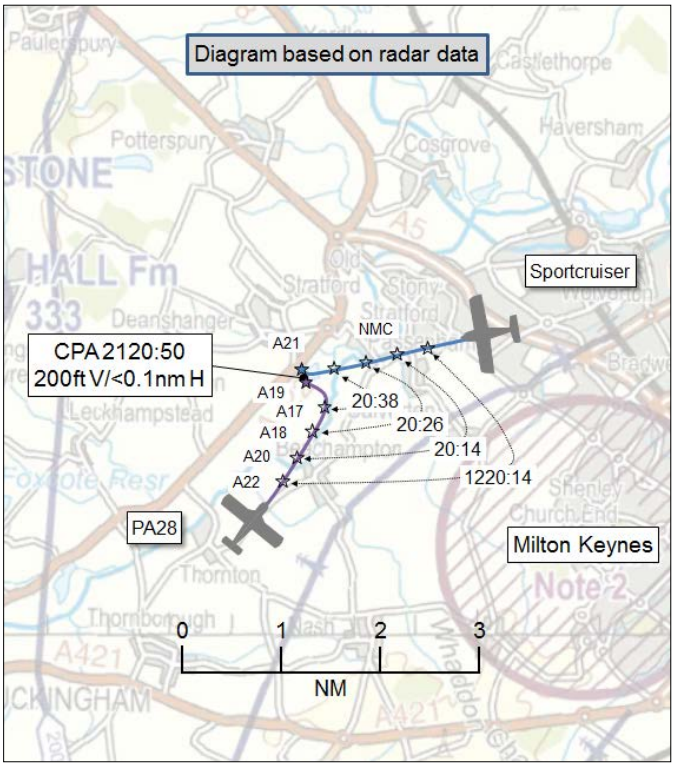
AIRPROX REPORT No 2017099

Date: 25 May 2017 Time: 1221Z Position: 5203N 00053W Location: 3nm W Milton Keynes

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Sportcruiser	PA28
Operator	Civ Club	Civ Trg
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Oxford	Cranfield
Altitude/FL	2100ft	1900ft
Transponder	A, C	A, C
Reported		
Colours	White, blue, gold	White, gold
Lighting	Strobes, nav	NK
Conditions	VMC	VMC
Visibility	>50km	10km
Altitude/FL	1892ft	2500ft
Altimeter	QNH (1023hPa)	QNH (NK hPa)
Heading	256°	NK
Speed	96kt	100kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	100ft V/300m H	500ft V/0.5nm H
Recorded	200ft V/<0.1nm H	



THE SPORTCRUISER PILOT reports the PF had just completed a radio call to Oxford Radar when 'P2' saw a white and magenta, low-wing, PA28-type aircraft closing from the 8 o'clock at a similar height and estimated distance of 300m. The 'P2' immediately called 'I have control' and executed a 360° right-hand turn whilst the former PF maintained visual contact with the other aircraft. Once back on track, and with the other aircraft to their northwest, they resumed their course. The other aircraft then turned through 180° and passed back over them with more vertical and horizontal separation. 'P2' called Oxford Radar to inform them that a plane had passed close by, from left to right. Oxford Radar told them that there was a lot of traffic squawking 4520 and offered to ident them, which they accepted. They were identified and then informed that an aircraft was leaving their vicinity to the south, which they presumed to be the aircraft they had just seen. They were asked if they wanted to continue with a Basic Service or to receive a Traffic Service and they elected to remain with a Basic Service as they were shortly to switch to their destination aerodrome's frequency. The pilot noted that the other aircraft's pilot not appear to see them because the aircraft did not vary its flight-path and did not give way to them.

He assessed the risk of collision as 'Medium'.

THE PA28 PILOT reports conducting an instructional sortie, in a left turn, when he saw an aircraft in proximity.

He assessed the risk of collision as 'Medium'.

THE OXFORD CONTROLLER reports the Sportcruiser pilot free-called him requesting a Basic Service. The pilot was told 'pass your message' and proceeded to give details of the flight in the expected manner. A Basic Service was given and the pilot was issued with the Oxford conspicuity squawk (4520). Shortly after this the pilot asked if he was 'picking up' a PA28 in his vicinity. The controller explained that the Sportcruiser was not identified so he was unaware but requested the

pilot squawk ident. The pilot stated he was already squawking 4520 to which the controller explained that that was a conspicuity squawk and that there were numerous aircraft currently squawking the same code. The pilot did then squawk ident, the controller advised again that the pilot was only under a Basic Service but that traffic was observed southeast of the aircraft indicating 2200ft. Following this, the controller asked the pilot if he wished to upgrade to a Traffic Service, which the Sportcruiser pilot declined. The other aircraft in question was squawking 7000 and was not in contact with Oxford ATC.

Factual Background

The weather at Oxford was recorded as follows:

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METAR EGTK 251220Z 11006KT 9999 SCT032 23/14 Q1023=
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Analysis and Investigation

CAA ATSI

The Sportcruiser pilot was en-route, and had previously received a Basic Service from Cranfield Approach as he passed through their overhead. At 1216:50, the pilot reported ready to change frequency to Oxford, which was approved by the Cranfield controller. The PA28 pilot was also in receipt of a Basic Service from Cranfield, although during this period, the only communication heard was the passing and acknowledgement of a new QNH. At 1219:55 (Figure 1), the Sportcruiser pilot contacted Oxford Radar and reported having just passed Milton Keynes level at 1800ft (QNH) and requested a Basic Service.

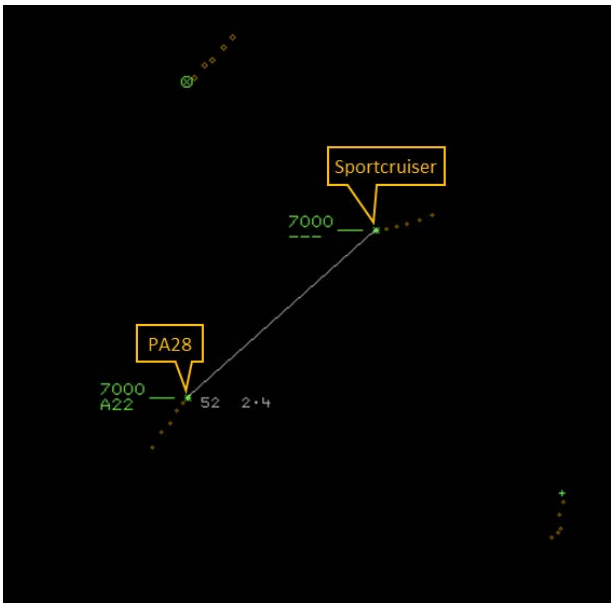

Figure 1 – 1219:55

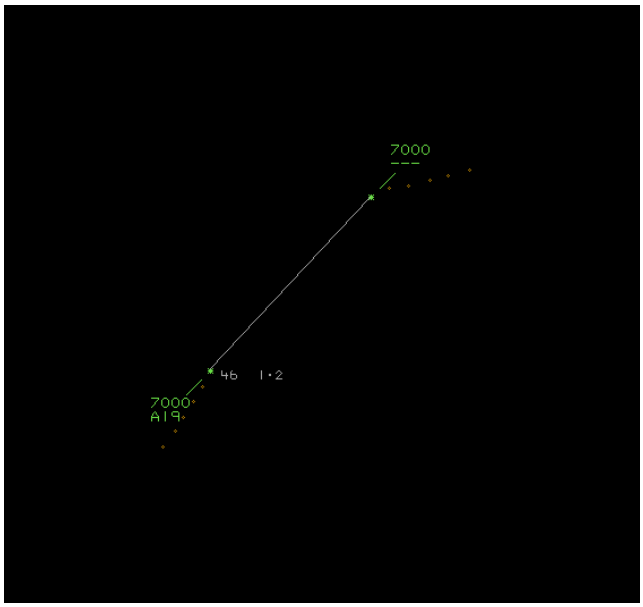

Figure 2 – 1220:20

The Oxford Radar Controller instructed the pilot to select transponder code 4520, (Oxford Radar Conspicuity), and agreed, at 1220:20, to provide a Basic Service (Figure 2).

At 1220:40, the Sportcruiser transponder code was observed to change to 4520 (Figure 3).

CPA took place at 1220:51, just after the PA28 was observed to have made a left turn taking it towards the Sportcruiser, having previously been maintaining a track which would have taken it behind the Sportcruiser. The aircraft were separated by less than 0.1nm laterally and 200ft vertically (Figure 4).

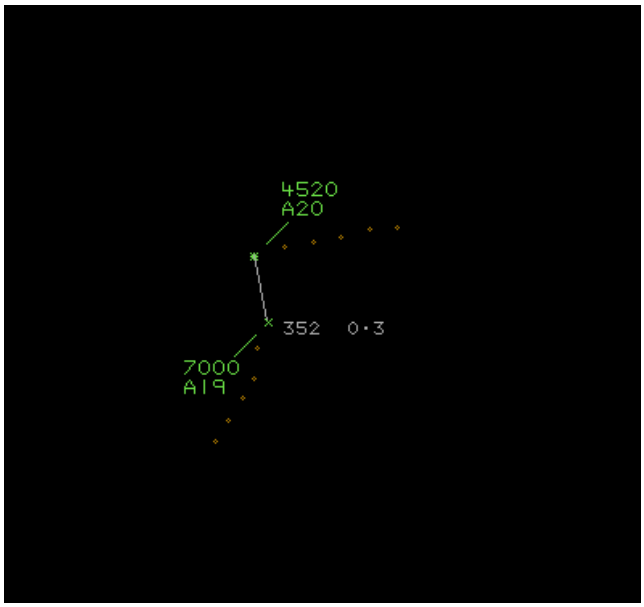

Figure 3 – 1220:40

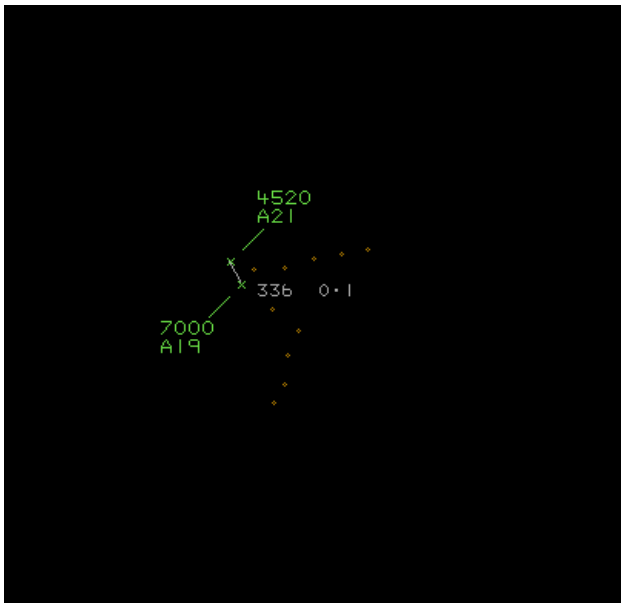

Figure 4 – 1220:51

The Sportcruiser pilot asked the Oxford controller about the PA28 at 1222:20. The controller advised the pilot that they weren't identified because the aircraft was wearing a conspicuity code, but then instigated the procedure to formally identify the aircraft. The controller was not able to identify the Sportcruiser until 1223:15, but then went on to pass Traffic Information on the PA28 which was still in the vicinity of the Sportcruiser, it having completed a complete turn to the left to track southeast.

Under a Basic Service there is no requirement for the controller to monitor the flight, and although the Oxford controller was utilising radar equipment:

> *'A controller with access to surveillance-derived information shall avoid the routine provision of traffic information on specific aircraft but may use that information to provide a more detailed warning to the pilot.'*[1]

The Oxford controller had not identified the Sportcruiser for the provision of the Basic Service, nor was there any requirement for them to do so:

> *'A controller may identify an aircraft to facilitate co-ordination or to assist in the provision of generic navigational assistance, but is not required to inform the pilot that identification has taken place.*
>
> *Identification of an aircraft in receipt of a Basic Service does not imply that an increased level of ATS is being provided or that any subsequent monitoring will take place.*
>
> *Controllers may allocate SSR codes to aircraft in receipt of a Basic Service. The issuance of such a code does not constitute the provision of a surveillance Air Traffic Service.'*[2]

At the time the Sportcruiser pilot left the Cranfield Approach frequency, the PA28 was more than 8nm southwest of the Sportcruiser, and there had been no recent communications between the Cranfield controller and the PA28 pilot. The Cranfield controller did not have access to surveillance-derived data and so would not have been aware of the position of the Sportcruiser after it passed through their overhead, nor that of the PA28. The next time the PA28 pilot made reference to their position was at 1226:20, some 5½ minutes after CPA.

As both aircraft were being operated in Class G airspace the pilots were responsible for their own collision avoidance.

[1] CAP774 UK Flight Information Services Ch2 Basic Service Para 2.7
[2] Ch2 Basic Service Para 2.4

UKAB Secretariat

The Sportcruiser and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[3]. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right[4]. If the incident geometry is considered as converging then the PA28 pilot was required to give way to the Sportcruiser[5].

Summary

An Airprox was reported when a Sportcruiser and a PA28 flew into proximity at 1221 on Thursday 25th May 2017. Both pilots were operating under VFR in VMC, both in receipt of a Basic Service, the Sportcruiser pilot from Oxford and the PA28 pilot from Cranfield.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

Members quickly agreed that there was little that the Oxford or Cranfield controllers could offer to either pilot (who were both operating in accordance with the service they requested), given that the Sportcruiser pilot was not identified by Oxford and the Cranfield controller did not have radar surveillance. It was noted that the Oxford controller subsequently offered the Sportcruiser pilot a Traffic Service, which indicated that it was available had it been requested. Some members wondered whether GA pilots habitually requested a Basic Service because it was the easiest option and they stressed again that a surveillance based service had to be requested if it was desired. In the event, with both pilots operating in Class G airspace without surveillance or a TAS, their only collision avoidance barrier was see-and-avoid. Each pilot saw the other aircraft late, which the Board agreed had been the cause of the Airprox, and it was unfortunate that the PA28 pilot had chosen that moment to turn left into conflict with the Sportcruiser, which he had been on track to pass behind. Noting that the recorded separation was less than 180m as the aircraft converged, and that the Sportcruiser pilot had immediately turned on sighting the PA28, members agreed that separation had been such that safety had been much reduced below the norm.

PART C: ASSESSMENT OF CAUSE, RISK AND SAFETY BARRIERS

Cause: A late sighting by both pilots.

Degree of Risk: B.

Safety Barrier Assessment[6]

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 ATC were not required to act under the terms of a Basic Service, unless a conflict was detected; the Sportcruiser was not identified and the PA28 pilot was in receipt of a non-surveillance Basic Service.

[3] SERA.3205 Proximity.
[4] SERA.3210 Right-of-way (c)(1) Approaching head-on.
[5] SERA.3210 Right-of-way (c)(2) Converging.
[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 Sportcruiser pilot could have requested a Traffic Service.

Situational Awareness and Action were assessed as **ineffective** because neither was in possession of sufficient Situational Awareness to affect the outcome.

See and Avoid were assessed as **partially effective** because both pilots saw the other aircraft at a late stage.