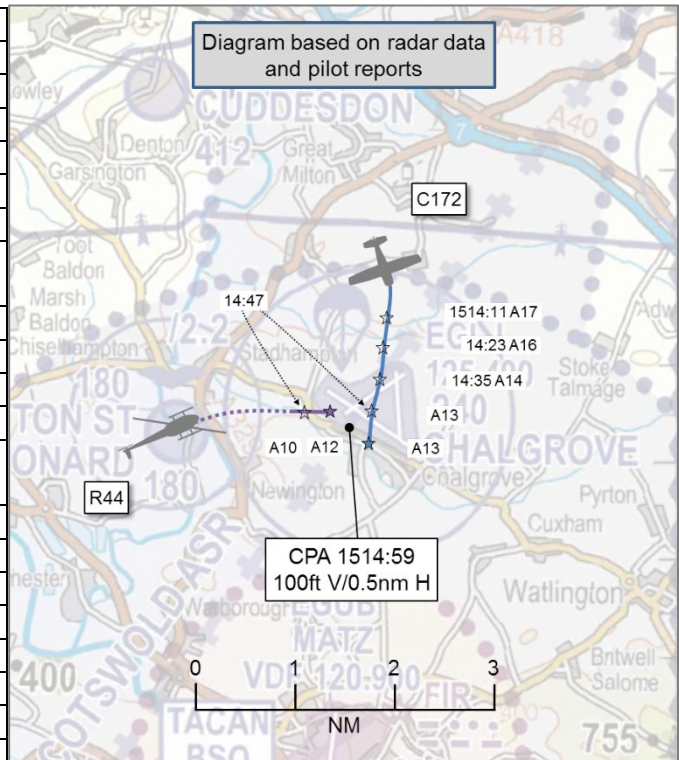


**AIRPROX REPORT No 2018314**

Date: 04 Dec 2018 Time: 1515Z Position: 5140N 00105W Location: Chalgrove airfield

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	C172	R44
Operator	Civ FW	Civ Helo
Airspace	MATZ	MATZ
Class	G	G
Rules	IFR	VFR
Service	Traffic	Basic
Provider	Benson Talkdown	Benson Zone
Altitude/FL	1300ft	1100ft
Transponder	A,C,S	A,C,S
<b>Reported</b>		
Colours	Mainly white	Silver
Lighting	Strobe, landing, taxi	NK
Conditions	VMC	VMC
Visibility		>10km
Altitude/FL	NK	1000ft
Altimeter	QFE	QNH
Heading	NK	280°
Speed	100kt	70kt
ACAS/TAS	Not fitted	Not fitted
<b>Separation</b>		
Reported	Not seen	0ft V/0.5nm H
Recorded		100ft V/0.5nm H



**THE BENSON ZONE CONTROLLER** reports that the R44 pilot free-called him and was instructed to squawk 3601. The pilot gave a position report 1nm west of Chalgrove airfield, heading east, and climbing to 1000ft on QNH 1022hPa. At this time, the C172 was on a radar approach to Benson. The R44 pilot tracked directly towards the C172. He called the radar traffic to the R44 pilot, who then called visual with it. Mode C information showed a separation of approximately 200ft. The primary radar returns touched, but did not fully merge.

He perceived the severity of the incident as ‘High’.

**THE BENSON TALKDOWN CONTROLLER** reports submitting a report because the Zone controller filed an Airprox between the C172 and the R44, which was operating close by on Zone’s frequency. His report was filed about 10 days after the event. He recalled that he was controlling the C172 pilot on a PAR and, when it was at about 5nm, he noticed a contact appearing in both aspects of the talkdown display at about 3.5nm. He had presumed this to be a CH47 operating at Chalgrove not above 500ft. This Traffic Information was passed to the C172 pilot but he did not reply to it. He continued the talkdown and noticed that between 3-4nm there were quite a few spurious contacts showing, none of which correlated in both aspects of the talkdown (except for the previously called CH47). Just before the C172 reached the 3.5nm point, he noticed that one of the spurious contacts correlated in both aspects of the talkdown; in azimuth it showed at similar height but in the centreline aspect it appeared to its right at 3 o’clock. He called the traffic immediately, although there was only a confliction in azimuth (at the same time the Supervisor pointed out the traffic to him). However, the information from the talkdown screen indicated that it would pass behind his traffic. The C172 pilot did not declare an Airprox, neither did he call visual with the other traffic or mention anything at a later point.

He perceived the severity of the incident as ‘Low’.

**THE BENSON RADAR SUPERVISOR** reports that he was positioned next to the Zone and Approach Radar consoles as the traffic levels had been spiking all afternoon. Traffic at the time of the incident was relatively light. He had a good appreciation of the air picture and saw the 7000 squawk appear just to the west of the RW19 inbound lane at approximately 3.5nm. There was a CH47 operating at Chalgrove, north of Benson by approximately 4nm (not above 500ft on 1015hPa QFE) and a civilian aircraft (the C172) inbound on radar approaching 3.5nm at a height of approximately 1170ft on QFE. The R44 pilot called on the Zone frequency lifting out of a site inside the MATZ and transiting to the east giving his callsign and aircraft type. It was initially quite confusing for the Radar and Talkdown controllers because the only contact in that area should have been the CH47 at Chalgrove. He immediately informed Talkdown and instructed them to pass Traffic Information to the C172 pilot; the Zone controller shouted out that the C172 pilot was visual so the talkdown continued. He asked the R44 pilot to call ATC upon landing. The R44 pilot explained that he was visual with the C172 and the CH47 operating at Chalgrove. He did not think he would be able to raise the Zone frequency whilst on the ground so he lifted and called as he began to transit. The Supervisor explained where he was in relation to their inbound/outbound lanes and asked that in future he attempted to call on the ground but, if unable to gain contact, could he lift into a low hover and remain in position until two-way communications had been established and a route agreed. He agreed with this suggestion.

**THE CESSNA 172 PILOT** reports that they were conducting an IMC training flight under a 'radar service' from Benson while flying a PAR approach to RW19. The Airprox occurred, he believed, on his second approach flown before returning to his base airfield. He recalled being passed Traffic Information during the flight but nothing was seen.

**THE ROBINSON R44 PILOT** reports that he had just taken off from a private site 1.5nm west of Chalgrove airfield and contacted Benson to let them know whilst still keeping under 1000ft. They first replied that they would call him back as they were busy. He saw the C172 about 0.7nm away and kept a check on his speed and altitude and assessed that there was absolutely zero risk of any sort of a collision. Benson then warned him about the C172, probably 30sec after his initial call to them; he said he was visual with the C172 and carried on towards his destination airfield.

He assessed the risk of collision as 'None'.

## **Factual Background**

The weather at Benson was recorded as follows:

METAR EGUB 041450Z 15003KT 9999 FEW012 POVC120 06/04 Q1022 BLU NOSIG=

## **Analysis and Investigation**

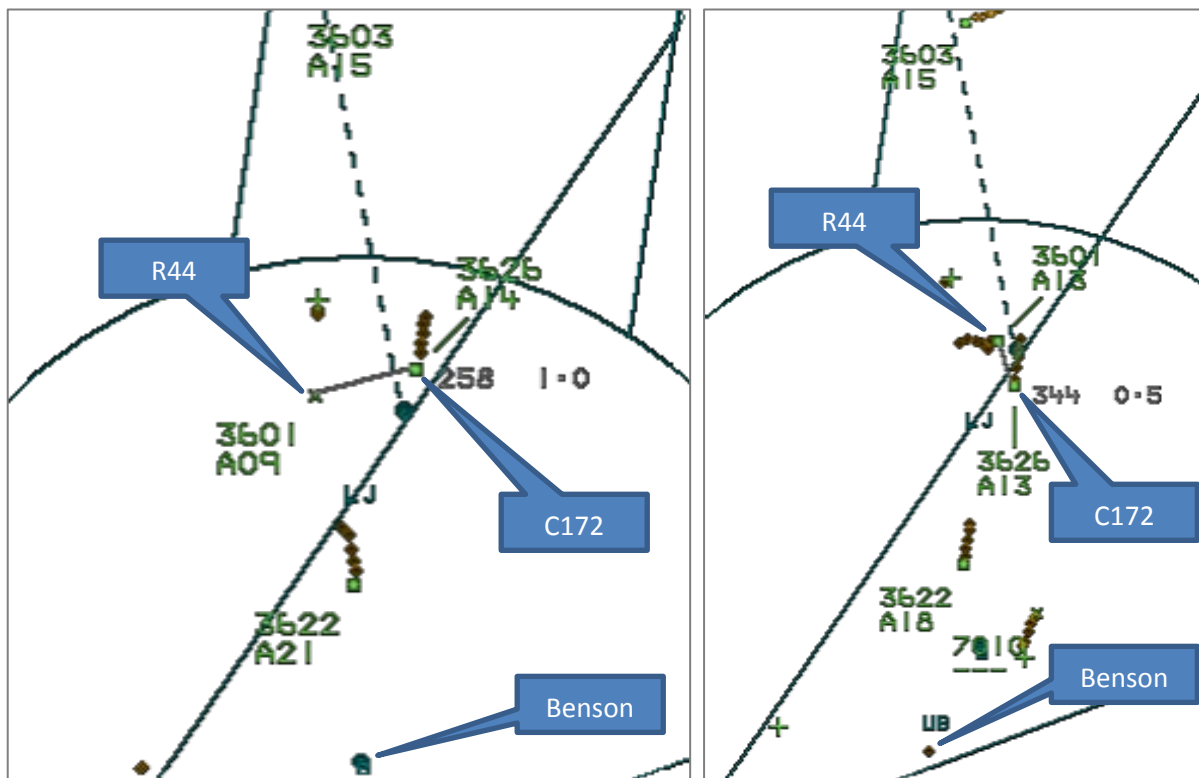
### **Military ATM**

The C172 pilot was conducting instrument approach training at Benson and was in receipt of a Traffic Service. The R44 pilot contacted Benson Zone whilst lifting from a private site near Chalgrove, climbing to 1000ft and requested a Basic Service. The Benson Zone Controller noted that the track of the R44 would take it close to the C172 and therefore passed Traffic Information; the Benson Talkdown Controller also passed Traffic Information to the C172 pilot. Although the R44 pilot reported visual with the C172, the Benson Zone controller believed that the proximity of the aircraft was close enough to warrant an Airprox being filed.

Figures 1-2 show the positions of the R44 and C172 at relevant times in the lead up to and during the Airprox. The screen shots are taken from a replay using the NATS Heathrow 10 Radar, which is not utilised by RAF Benson, therefore is not representative of the picture available to the controllers.

Having departed Chalgrove, the R44 pilot was in the process of obtaining a Basic Service from Benson Zone. Having ascertained the intentions of the R44 pilot, the Benson Zone Controller

passed Traffic Information on the C172 and the R44 pilot reported visual. Reciprocal Traffic Information was passed to the C172 pilot by the Benson Talkdown controller. The report filed by the C172 pilot indicated that they did not see the R44.



CPA occurred 30sec after Traffic Information was passed to both parties and was measured at 0.5nm at the same level.

The information presented to the Benson Zone Controller indicated that these two aircraft were going to conflict with each other and therefore the provision of Traffic Information to the pilot in receipt of a Basic Service was considered to be entirely appropriate.

### UKAB Secretariat

The C172 and R44 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. If the incident geometry is considered as converging then the R44 pilot was required to give way to the C172<sup>2</sup>, which he did.

### Summary

An Airprox was reported when a C172 and an R44 flew into proximity near the Benson radar approach path at 1515hrs on Tuesday 4<sup>th</sup> December 2018. The C172 pilot was operating under IFR in VMC and the R44 pilot was operating under VFR in VMC. The C172 pilot was in receipt of a PAR approach from Benson Talkdown and, just prior to the CPA, the R44 pilot had lifted from a local site and been placed under a Basic Service.

<sup>1</sup> SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

<sup>2</sup> SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from both pilots, the controllers involved and the appropriate ATC and operating authorities.

The Board first looked at the actions of the R44 pilot and noted that he had contacted Benson Zone only after getting airborne from the private site to the west of Chalgrove airfield. By the time the pilot was able to pass details of his flight, some 30secs later, he reported at 1000ft and was given Traffic Information about the C172 about 0.5nm ahead on the PAR approach. The R44 pilot reported visual with the C172 (he commented in his report that he had already seen the C172 at a range of 0.7nm), and it was only at that point that the Benson controllers could be sure that there was no collision risk between the 2 aircraft. Civil helicopter pilot members commented that, from their experience, it was generally possible to obtain two-way communication with Benson whilst on the ground at his departure point, and that in their opinion it would have been prudent for the R44 pilot to have tried to contact Benson before lifting off, or at least to have entered a low hover until being able to talk to Benson. Although the Board acknowledged that, in the end, the R44 pilot had satisfied his collision avoidance responsibilities, his later than necessary call to Benson, and his trajectory towards the C172, had caused unnecessary extra workload to the Benson controllers who could not otherwise have known his intentions until he had made his call. The Board was heartened to hear that the pilot had agreed to contact Benson before lifting during any further visit to the site.

With regard to the C172 pilot, the Board noted that the Talkdown controller had passed Traffic Information about the R44 to the C172 pilot, but did not receive a response. The C172 pilot commented in his report that he had received the Traffic Information but had not seen the traffic.

In determining the cause of the Airprox the Board quickly agreed that the Benson Zone controller had filed an Airprox report because, without knowledge of the R44 pilot's intentions, he was concerned by the proximity of the R44 to the C172. With regard to the risk, members noted that, although the C172 pilot had not seen the R44, the pilot of the R44 had sighted the C172 soon after lifting off from the private site and was avoiding it visually. Accordingly, the Board agreed that there had been no risk of a collision and that normal safety standards in Class G airspace had pertained; risk Category E.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: The Benson Zone controller was concerned by the proximity of the R44 to the C172.

Degree of Risk: E.

### Safety Barrier Assessment<sup>3</sup>

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

#### **Flight Crew:**

**Tactical Planning** was assessed as **partially effective** because the R44 pilot did not contact Benson until after he was airborne, and continued to climb to 1000ft in the vicinity of the Benson approach path before passing his details.

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<sup>3</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

