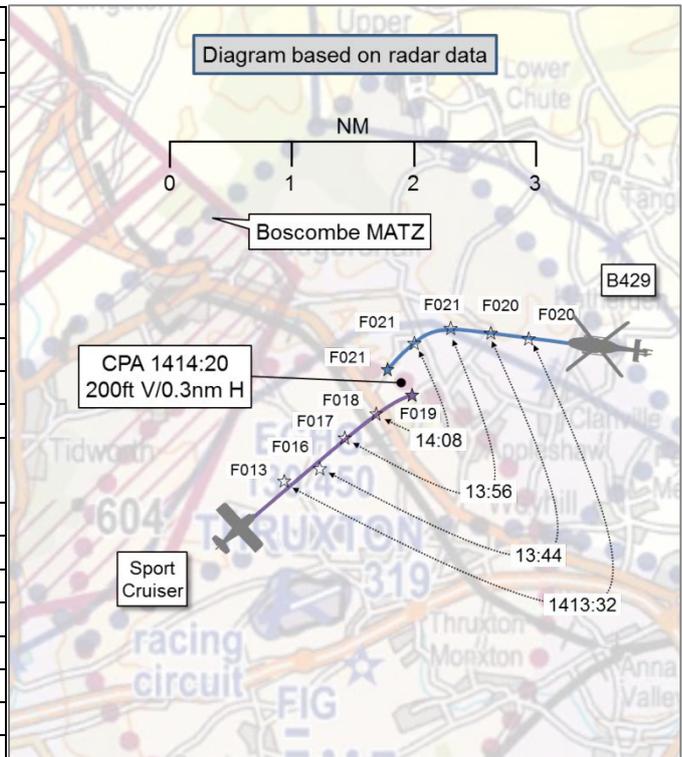


AIRPROX REPORT No 2015205

Date: 23 Nov 2015 Time: 1414Z Position: 5114N 00135W Location: 7nm NE Boscombe Down

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	B429	Sportcruiser
Operator	HEMS	Civ Pte
Airspace	Boscombe CMATZ	Boscombe CMATZ
Class	G	G
Rules	VFR	VFR
Service	Traffic	AGCS
Provider	Boscombe Down	Thruxton
Altitude/FL	FL21	FL19
Transponder	A/C/S	A/C/S
Reported		
Colours	Yellow/green	Silver/blue
Lighting	Nav, anti-collision, HISLs	Wing strobes
Conditions	VMC	VMC
Visibility	>10km	20km
Altitude/FL	2100ft	1500ft
Altimeter	QFE (1010hPa)	NK
Heading	230°	090°
Speed	100kt	80kt
ACAS/TAS	TCAS I	Not fitted
Alert	TA	N/A
Separation		
Reported	Nil V/500m H	300ft V/0.5nm H
Recorded	200ft V/0.3nm H	



THE BOSCOMBE DOWN DIRECTOR reports that he was working one aircraft on VHF, a Bell 429 (B429) on a Traffic Service, whose pilot had requested instrument approaches to Boscombe Down. The B429 pilot was descended to 2000ft on the QFE 1010hPa and fed in from the south of the Boscombe centre-line. At a suitable time, he turned the B429 pilot onto a heading of 270° and asked him to report localiser established. During this time there was pop-up traffic within the Thruxton ATZ with a squawk of 7000, indicating 1200ft below the B429. He called it to the B429 pilot as 'pop-up traffic south-west, 3 miles, manoeuvring, indicating 1200ft below, climbing, could be outbound from Thruxton'. Just north of Thruxton the aircraft turned onto a north-easterly heading appearing to fly up the approach-lane towards the B429 and continued to climb. He informed the B429 pilot that the traffic was in his 'left, 10 o'clock, 1 mile, crossing left-right behind indicating 300' below climbing, if not sighted continue present heading'. At this time the B429 pilot reported visual. The unverified aircraft continued to climb against the B429 slightly south of the centre-line and stopped climb approximately 9nm from Boscombe on the approach-lane, clear of the B429, with a Mode C indication of 2100ft.

He perceived the severity of the incident as 'Medium'.

THE BOSCOMBE DOWN SUPERVISOR reports that he witnessed the occurrence. The Director was feeding in the B429 pilot when they both noticed traffic climbing out of Thruxton squawking 7000. The Director called the traffic to the B429 pilot as the unknown aircraft climbed out turning right downwind of Thruxton and proceeding in a north-easterly direction. The aircraft continued its climb and also did not follow the expected routing towards Andover. He pointed this out to the Director and the conflicting traffic was called again to the B429 pilot, who was level at 2000ft shortly to intercept the ILS and descend. The pilot of the conflicting traffic continued to climb and was tracking straight towards the B429. The Director gave instructions to the B429 pilot to maintain heading and not

intercept the ILS to avoid the conflicting traffic. The other aircraft flew just down the B429's left, indicating vertical separation of 150-200ft on Mode C and still appeared to be climbing. When clear of the conflicting traffic the B429 pilot continued his approach and the pilot of the other aircraft appeared to level off at 2000ft transiting to the northeast, never calling Boscombe LARS. He spoke to Thrupton and they passed him details of the aircraft [the Sportcruiser]. They also informed him that the pilot had been informed that Boscombe was open. He reported that when talking later to the Sportcruiser pilot he had said that he was unfamiliar with the standard procedure for departing out of Thrupton. He did inform him that he had been visual with two helicopters, and that he had stopped off clear of the one close to him. He was unaware that the B429 would have shortly started descent against him, and that they had avoided his profile out of Thrupton.

THE B429 PILOT reports that he was carrying out a radar-monitored ILS approach to RW23 at Boscombe Down. As Captain he was the safety pilot in the left-hand seat. A target was reported by ATC; he did not think it was a problem as he was visual with the aircraft and judged it would pass clear. He did not disrupt the other pilot because he was concentrating on flying the ILS under simulated IMC

He assessed the risk of collision as 'None'.

THE SPORTCRUISER PILOT reports that after back-tracking RW25 at Thrupton he turned to line-up and saw a helicopter taking off to the right. He believed it to be a Heli-med aircraft as it appeared to be brightly coloured. He waited for it to clear the airfield well ahead and then took off and turned right onto the circuit pattern. As he was gaining height, and almost immediately after turning on to track, he saw a dark-coloured helicopter above and to his right moving from right to left. He immediately throttled back and stopped climbing until it had passed to his left. He then continued on track. Having flown into Thrupton several times in the past Boscombe had always been non-active. On this occasion, because Boscombe was active, he had forgotten that special rules apply and he should have contacted Boscombe Radar. He apologised for this oversight and in future would make a point of contacting Boscombe when flying into Thrupton.

He assessed the risk of collision as 'Low'.

Factual Background

The weather at Boscombe Down was recorded as follows:

METAR EGDM 231350Z 20006KT CAVOK 06/02 Q1024 BLU NOSIG=

The Thrupton ATZ Dimensions: Surface-2000ft; a circle, 2nm radius centred on longest notified runway (07/25)'.
'

Airfield elevation 319ft.

The UK AIP¹ states the Thrupton procedures with reference to Boscombe Down:

Warnings

(a) Danger Areas EG D126, EG D127 Boscombe Down and Middle Wallop ATZ are located adjacent to the Thrupton ATZ. All are active H24.

(b) Thrupton ATZ is situated on the approach/departure path for the main runway at Boscombe Down. During Boscombe Down Combined Military Air Traffic Zone (CMATZ) hours of operation, aircraft being provided Air Traffic Service by ATC Boscombe Down will transit the Thrupton ATZ above 1450 ft above Thrupton aerodrome level.

¹ Pages AD 2.EGHO-5/6.

(c) Extensive military helicopter, transport and tactical jet aircraft operations can be anticipated at any time in the vicinity of Thruxton ATZ, associated with the Boscombe Down CMATZ.

Boscombe Down/Middle Wallop CMATZ procedures:

(a) During Boscombe Down/Middle Wallop CMATZ hours of operation, it is a condition of use of Thruxton aerodrome that the flight procedures set out below are complied with. Information on the CMATZ activity status may be obtained from the A/G station.

Departures to north/east/south-east.

Leave the Thruxton ATZ at 1200 ft ALT (Thruxton QNH), or a maximum altitude to remain in VMC, not above 1200 ft ALT. Before climbing above 1200 ft ALT, either free-call Boscombe Zone (126.700 MHZ) after leaving the Thruxton ATZ or delay further climb until clear of the CMATZ lateral limits.

Departures to west/south-west/north-west.

Prior to departure, notify flight details to Boscombe Down ATC via telephone (01980 663246). After departure, fly the north/east/southeast departure procedure and contact Boscombe Zone when leaving the Thruxton ATZ. Any SSR code allocated should be selected immediately prior to departure. If a westerly routing is approved by Boscombe Zone, and entry to the Thruxton ATZ is required, it must be at or above 1907 ft ALT. If a climb to 1907 ft ALT or a higher level is not possible, ATZ crossing approval is to be requested and obtained prior to ATZ entry.

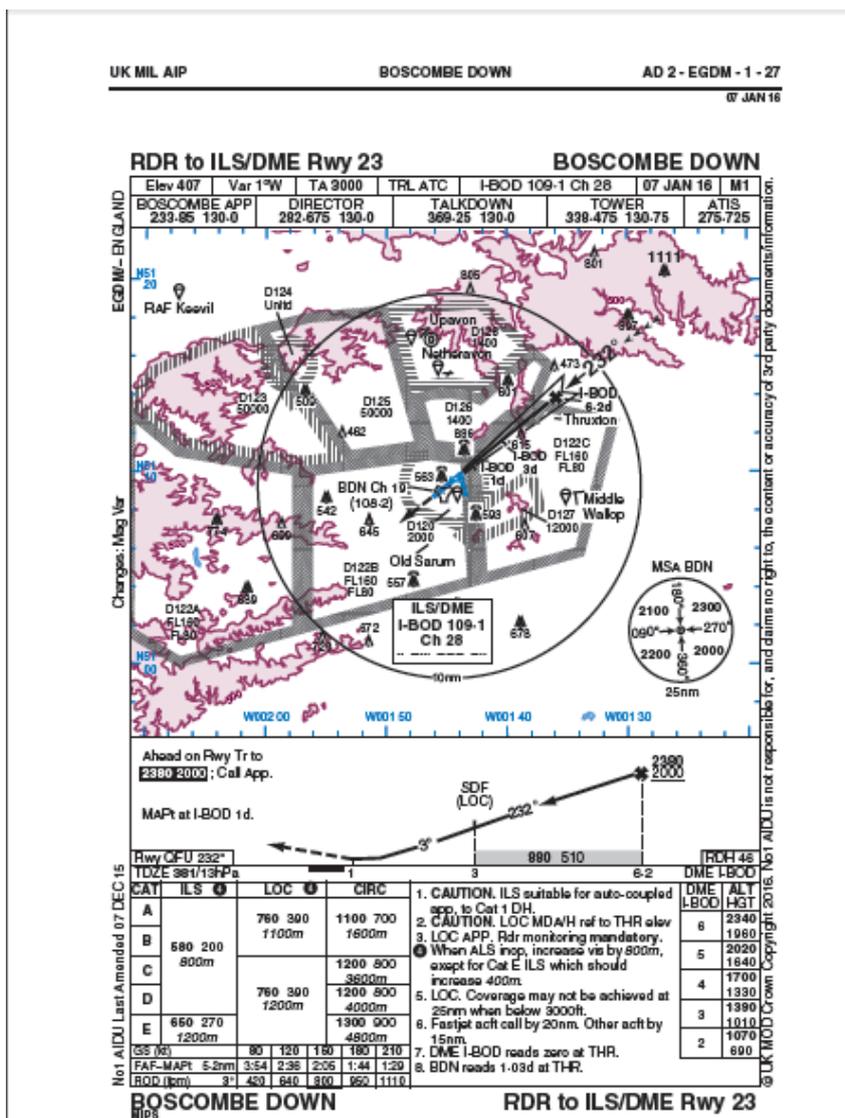


Figure 1. Radar to ILS/DME RW23 Boscombe Down.

Analysis and Investigation

Military ATM

The Boscombe Director was controlling the B429 pilot under a Traffic Service; controller workload was assessed as 'low' with the one aircraft on the frequency. The controller was providing radar vectors for an ILS approach and the helicopter pilot was vectored onto a heading of 270° to intercept the localiser.

The Sportcruiser departed Thruxton transponding 7000 and the Boscombe Controller provided Traffic Information to the B429 pilot at 1412:53 (Figure 2), as, "*pop up traffic southwest, 3 miles manoeuvring, indicating 1300 feet below, and climbing. Appears to be outbound from Thruxton.*" The pilot responded with "*looking*".

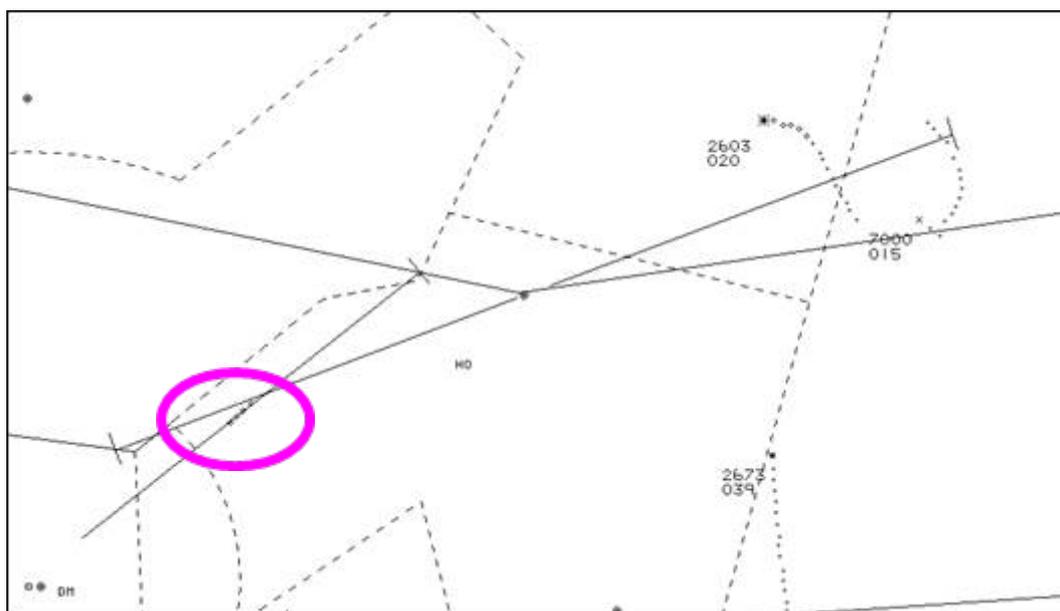


Figure 2: Traffic Information at 1412:53 (B429 2603; Sportcruiser non-squawking-circled).

The Sportcruiser pilot continued to climb and fly up the Boscombe approach lane. At 1413:28 (Figure 3), the Boscombe Director updated traffic with, "*that previously called traffic left 11 o'clock, 2.5 miles, crossing left to right, ahead, indicating 700 feet below climbing, unverified.*"

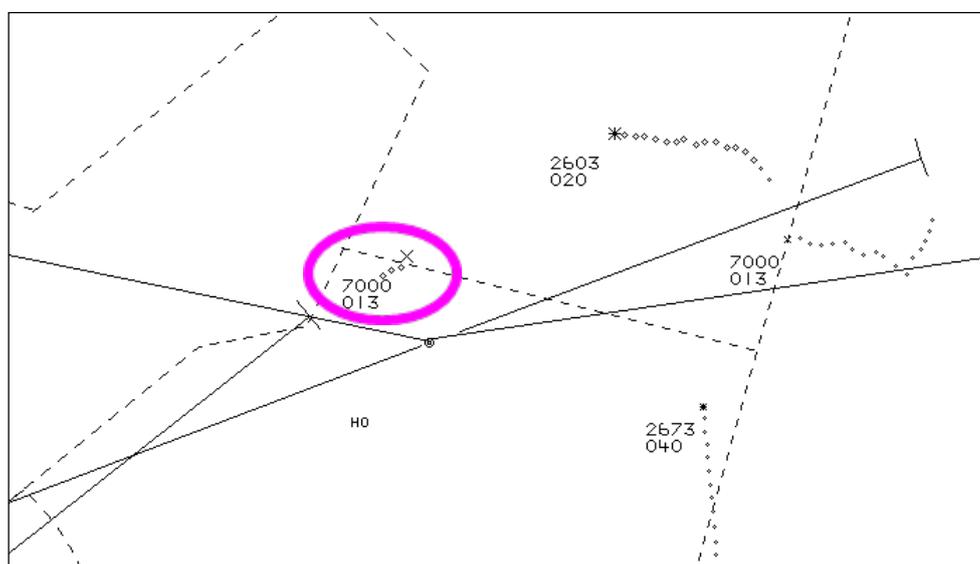


Figure 3: Traffic update at 1413:28 (Sportcruiser 7000).

A further traffic update was provided by the Boscombe Director at 1413:59 (Figure 4), “that previously called traffic is left 10 o’clock 1 mile, crossing left to right behind, indicating 300 feet below climbing, if not sighted continue present heading.”

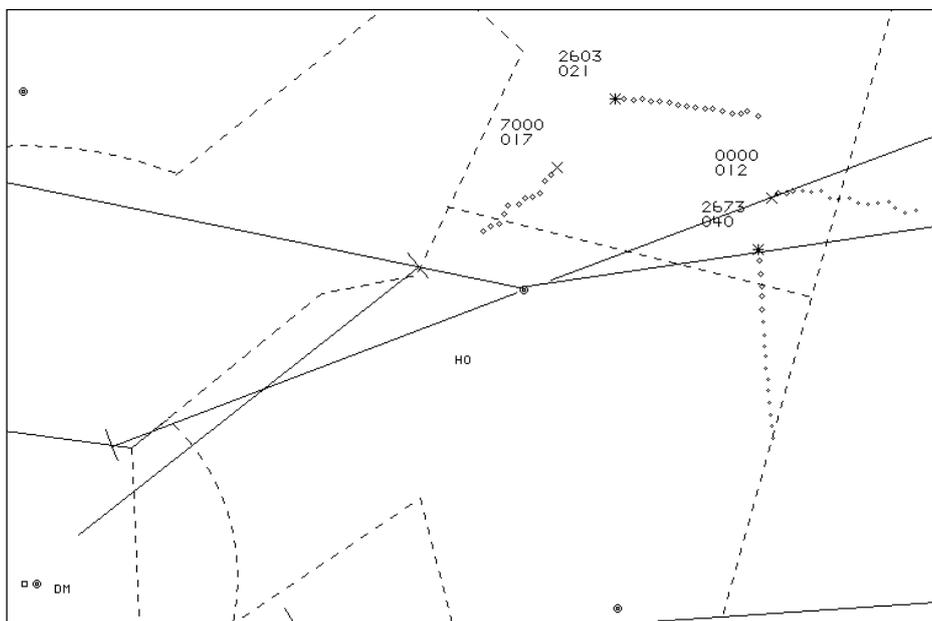


Figure 4: Traffic update at 1413:59.

The B429 pilot called “visual” at 1414:05 [UKAB note: the B429 pilot then turned inbound on the ILS]. The CPA was estimated at 1414:15 (Figure 5) with 200ft height separation and 0.3nm horizontal separation.

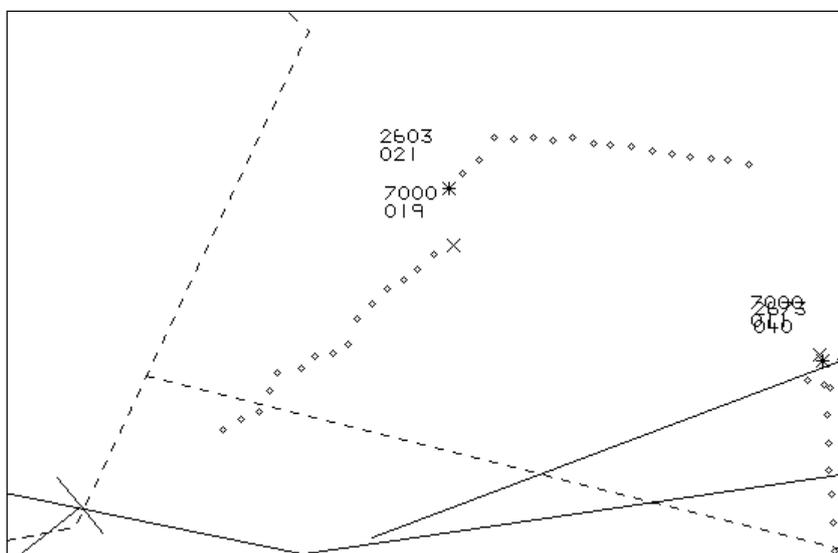


Figure 5: CPA at 1414:15.

The Boscombe Director called three sets of accurate and descriptive Traffic Information and, not wanting to knowingly introduce a risk of collision following radar vectors, a ‘maintain heading’ instruction was offered to assist with separation. The controller’s actions can be viewed as good practice for providing a Traffic Service under radar vectors.

The ‘if not sighted continue present heading’ instruction at 1413:59 meant that the B429 pilot would be positioned away from the localiser but would also be on a divergent heading from the Sportcruiser. Boscombe had commented that the Sportcruiser pilot had not adopted the normal routing and had flown up the approach lane. The ATC Supervisor contacted the Sportcruiser pilot,

who did not seem to be aware of the standard procedure. Boscombe ATC initiated a liaison visit with Thrupton to reinforce procedures, promote a better mutual ATC understanding, and help educate GA crews on the profiles flown at Boscombe.

UKAB Secretariat

The B429 and Sportcruiser pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard². If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right³. If the incident geometry is considered as converging then the Sportcruiser pilot was required to give way to the B429⁴.

Summary

An Airprox was reported when a B429 and a Sportcruiser flew into proximity at 1414 Monday 23rd November 2015. Both pilots were operating under VFR in VMC, the B429 pilot in receipt of a Traffic Service from Boscombe and the Sportcruiser pilot in receipt of an Air/Ground Service from Thrupton. Traffic Information was issued to the B429 pilot. Both pilots obtained visual contact with the other aircraft before the CPA. The minimum recorded separation was 200ft vertical and 0.3nm horizontal.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from both pilots, the controllers concerned, area radar and RTF recordings and reports from the appropriate ATC and operating authorities.

The Board noted that this had been an Airprox filed by the Boscombe controller, and that both pilots had seemed relatively unconcerned by the incident. To try and ascertain the reason for the controller's concern, the Board turned its attention to the perception of the Boscombe controller when he became aware of the presence of the Sportcruiser, which had departed from Thrupton without following the published procedures as stated in the UK AIP. These procedures had been agreed between the two units to ensure the safety of aircraft operating at both airfields; not only are the two airfields close geographically, but the instrument approach to Boscombe's RW23 passes in the vicinity of Thrupton's overhead.

The Board noted that the Boscombe controller had not received an RT transmission from the Sportcruiser pilot, which was a requirement if he climbed above 1200ft before he had left the lateral limits of the CMATZ (the radar recordings showed that he had climbed above 1200ft within the CMATZ, and therefore had not complied with the Thrupton departure restriction). Consequently the controller would have been unaware of the Sportcruiser pilot's intentions, and how these would affect the progress of the B429, to which he had been providing a Traffic Service whilst positioning it for the Boscombe ILS RW23. The Board commended the controller for advising the B429 pilot to continue on his current heading rather than turning inbound on the ILS until he had sighted the unknown traffic. However, the Board noted that the B429 pilot had reported visual with the traffic and had turned inbound on the ILS approach (which was towards the vicinity of the Sportcruiser) which then absolved the controller of any responsibility for further Traffic Information. At CPA, the two aircraft had been on reciprocal tracks 0.3nm apart horizontally and 200ft vertically; although this would have seemed a close encounter to the controller when observing the radar display, he had been aware that the B429 pilot had been visual with the other traffic and had been happy to continue his approach.

Some members wondered whether the Sportcruiser pilot had been aware of the Thrupton departure procedures and noted that, in any case, it was apparent that he had not complied with them. A debate ensued about whether this had been the cause of the Airprox but, after a lengthy discussion, the Board considered that the controller would not have filed an Airprox just because the pilot had not

² SERA.3205 Proximity.

³ SERA.3210 Right-of-way (c) (1) Approaching head-on.

⁴ SERA.3210 Right-of-way (c) (2) Converging.

complied with the Thruxton procedures. It was apparent that the controller, prior to the CPA, had been concerned about the Sportcruiser pilot's flight path, especially relative to the B429's position, despite the fact that the B429 was visual with the Sportcruiser and was clearly happy to continue with his turn inbound to the ILS. In the end, it was decided that it was this concern which had caused the Airprox report to be filed; the fact that the Sportcruiser pilot had not complied with the procedures was considered to be a contributory factor.

The Board then turned its attention to the risk. It was readily apparent to the Board that normal procedures had not been followed because the Sportcruiser pilot had not complied with the relevant procedures. However, both pilots had reported being visual with each other's aircraft, which meant that there was no risk of collision. Therefore, the Board assessed the risk as Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Boscombe controller was concerned by the Sportcruiser pilot's flight profile.

Contributory: The Sportcruiser pilot did not comply with the Thruxton departure procedure.

Degree of Risk: C.