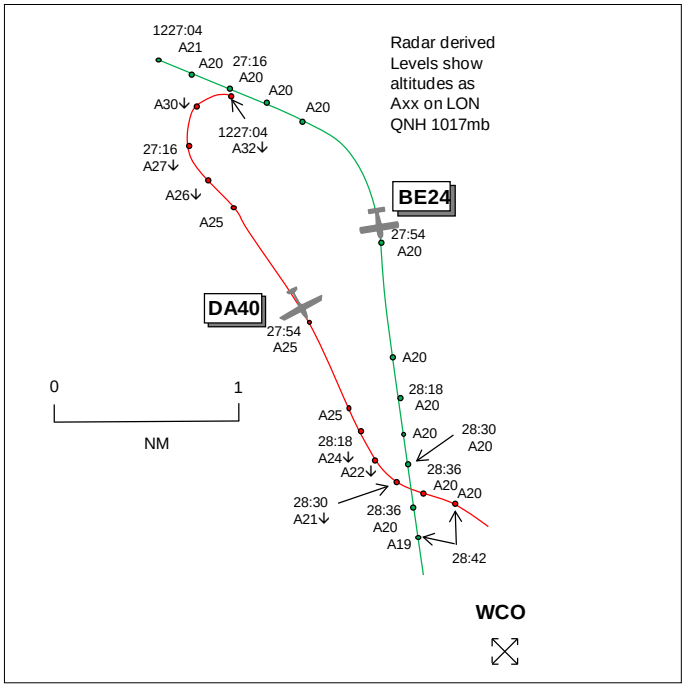
AIRPROX REPORT No 2011022

Date/Time:	28 Mar 2011 1229Z	
Position:	5152N 00058W (1nm NW WCO)	
Airspace:	LFIR	(*Class: G*)
	Reporting Ac	*Reporting Ac*
Type:	BE24	DA40
Operator:	Civ Trg	Civ Trg
Alt/FL:	2000ft (QNH 1017mb)	3000ft (QNH 1017mb)
Weather:	VMC HAZE	VMC CLBC
Visibility:	4000m	7km
Reported Separation:	30ft V/0m H	0ft V/5m H
Recorded Separation:	<100ft V/Nil H	



BOTH PILOTS FILED

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE BE24 PILOT reports flying a dual CPL Training Exercise from Wycombe, VFR and in receipt of a BS from Farnborough N on 132·8MHz, squawking 5034 with Mode C. The visibility was 4000m in haze and the ac was coloured white/red with anti-collision, nav and landing lights all switched on. They had been tracking inbound to WCO when 15D from CPT. When inbound on 350° QDR heading 170° at 120kt and level at 2000ft QNH 1017mb nothing was seen approaching the beacon and as they passed over it, he thought, he showed the student how they know they had station passage. They both became aware of a loud noise and saw a blue/white DA40 about 10m away before it passed above and slightly behind them, estimating vertical separation at 30ft. He pushed the elevator control fully down for avoiding action, his student stated seeing the other ac's tyre creep marks. He made an Airprox call to Farnborough N and soon after they heard the DA40 flight also report an Airprox. He assessed the risk as high, believing that both ac had been in the other's blind spot.

THE DA40 PILOT reports carrying out a dual training GH sortie from Elstree, VFR and in receipt of a BS from Farnborough N on 132·8MHz, squawking 5034, he thought [actually 5036], with Modes S and C. The visibility was 7km flying 1000ft below cloud in VMC and the ac was coloured white with nav and strobe lights switched on. At the time of the Airprox they were about 5nm N of WCO NDB, heading W to E at 115kt and level at 3000ft, he thought, QNH 1017mb. The other ac, a BE24, was first seen in their 7 o'clock as it passed 5m behind them on a S'ly heading at the same level and they maintained their heading and kept visual with it until no further risk was posed. The BE24 pilot first reported the Airprox whilst airborne followed by themselves. He assessed the risk of collision as high.

THE FARNBOROUGH LARS CONTROLLER reports working as the LARS N and E controller bandboxed under moderate traffic conditions that did not require the frequencies to be split. At approx 1229Z the BE24 pilot reported on frequency that he wished to report an Airprox on a DA40 ac in his close vicinity. The controller acknowledged the request, noted that the flight was receiving a BS and asked the pilot to make the report on landing. The BE24 then returned to Wycombe Air

Park. Shortly after the DA40 pilot, under a BS, informed him that he would also be filing an Airprox which the controller acknowledged. At all times both flights were under a BS with the relevant QNH.

ATSI reports that the Airprox occurred at 1228:36 (UTC), in Class G airspace in the vicinity of the WCO NDB.

The Diamond Star DA40 was operating on a local VFR flight from Elstree, conducting a GH exercise and was in receipt of a BS from Farnborough LARS.

The Beech Musketeer (BE24) was operating on a local VFR flight from Wycombe Air Park, conducting a CPL training exercise and in receipt of a BS from Farnborough LARS.

The Farnborough Radar controller was operating LARS N and E in a combined (bandboxed) mode. Traffic levels were reported as moderate with a number of other flights on frequency.

The weather at Farnborough and Luton were provided:
METAR EGLF 281220Z VRB04KT 7000 BKN043 14/05 Q1017=
METAR EGGW 281220Z VRB03KT 8000 BKN032 12/04 Q1016=

The BE24 flight was already on frequency and in receipt of a BS from Farnborough, with an allocated squawk 5034 when, at 1207:32, the DA40 flight made an initial call to Farnborough, but satisfactory 2-way communication was not established until 1208:48. The DA40 pilot reported, *"(DA40 c/s) we are a D A forty just out of Elstree er just passing overhead Bovingdon now two thousand three hundred feet on a Q N H one zero one five two P O B intentions er just gonna do some er general handling in the Westcott region between er er three thousand feet er to er one thousand feet request a Basic Service."* The Farnborough controller agreed a BS, allocated a squawk of 5036 and passed the London QNH 1017mb. This was acknowledged correctly by the DA40 pilot. (It was noted that the DA40 pilot's written report erroneously indicated the squawk as 5034.) At 1214:10 the DA40 pilot reported climbing to 3000ft.

At 1227:04 the radar recording shows 3 ac operating in close proximity in the vicinity of Westcott, with the SSR labels overlapping and garbling. An expanded radar picture showed the BE24 indicating altitude 2100ft on a SE'ly track. The DA40 was indicating altitude 3200ft in a L turn, passing through a W'ly track. The third ac was tracking N indicating altitude 3000ft.

At 1227:16 the radar recording shows both ac established on a SE'ly track with the DA40 positioned 0·4nm to the SW of the BE24. The BE24 was indicating altitude 2000ft and the DA40 was indicating altitude 2700ft in a descent.

About 1min later at 1228:18 the radar recording shows the BE24 had turned R onto a S'ly track, indicating altitude 2000ft and converging with the DA40, which was tracking SE and indicating altitude 2400ft in the descent. The DA40 was ahead and in the BE24's 2 o'clock position at a range of 0·3nm.

By 1228:30 the radar recording shows the 2 ac converging on steady tracks with the BE24 indicating altitude 2000ft and the DA40 indicating altitude 2100ft. The DA40 was slightly ahead and in the BE24 aircraft's 2 o'clock position at a range of 0·1nm.

[UKAB Note (1): The CPA occurs before the next sweep which at 1228:36 shows the ac having crossed, the BE24 at 2000ft 0·1nm SW of the DA40 which is indicating 2000ft. It is estimated that the ac crossed with no horizontal separation and <100ft vertical separation.]

At 1228:42, the radar recording shows that the 2 ac tracks diverging, with the DA40 indicating altitude 1900ft and the BE24 indicating altitude 2000ft.

At 1229:02, the BE24 pilot called Farnborough and reported the Airprox*, "Farnborough Radar er erm just in the Westcott area this time just er like to file an Airprox against er er D A Forty.....over*

flew us by about thirty feet erm from the west to the east we're flying erm north to south." The controller acknowledged the call and requested the pilot file the report on the ground at his destination. The pilot agreed and then reported leaving the frequency and squawking 7000.

Following these RT exchanges at 1229:52, the DA40 pilot also reported the Airprox, *"..listened to the last transmission yeah like to also er file an Airprox er just er passed us from behind by about thirty feet we're now heading er northbound and er two thousand feet Q N H one zero one seven.*"

The DA40 and BE24 flights were both in receipt of a BS from Farnborough LARS. The Farnborough radar controller's workload was considered to be moderate. The radar labels of the 3 ac manoeuvring in the WCO area were shown to be overlapping and garbling. CAP 774, UK Flight Information Services, Chapter 2, Paragraph 1, states:

> 'A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.'

Paragraph 5, states:

> 'Pilots should not expect any form of traffic information from a controller/FISO, as there is no such obligation placed on the controller/FISO under a Basic Service outside an Aerodrome Traffic Zone (ATZ), and the pilot remains responsible for collision avoidance at all times. However, on initial contact the controller/FISO may provide traffic information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller/FISO unless the situation has changed markedly, or the pilot requests an update. A controller with access to surveillance-derived information shall avoid the routine provision of traffic information on specific aircraft, and a pilot who considers that he requires such a regular flow of specific traffic information shall request a Traffic Service. However, if a controller/ FISO considers that a definite risk of collision exists, a warning may be issued to the pilot.'

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

It was clear to Members that this had been a very serious Airprox. Undoubtedly the visibility had played a part in the proceedings; however, within this Class G airspace, the pilots were responsible for maintaining their own separation from each other through see and avoid. It was not clear whether the BE24 student was under an IF Hood with the instructor responsible for the lookout as well as monitoring the student's actions whilst tracking towards the WCO NDB on instruments, or whether the crew were sharing the lookout responsibility. However, they were alerted to the DA40's presence only when it was heard before seeing it as it passed 30ft above and then behind, effectively a non-sighting and a part cause of the Airprox. The DA40 instructor also only saw the BE24 as it passed 5m behind in his 7 o'clock at the same level, another effective non-sighting and other part cause. The radar recording showed that there had been ample opportunity for both pilots to see each other's ac prior to the CPA but this had not occurred. Initially both ac were head-on about 1.5min before CPA with the DA40 1200ft above and turning L to the SE. The DA40 was always ahead of, and displaced to the SW of, the BE24 as it converged from its R descending. Although this geometry made it more difficult for the DA40 pilot, the BE24 was there to be seen even before he turned L just before the Airprox. Members considered that, if it was available, a TS would have been a more appropriate level of service, to assist the pilots in building better SA of the surrounding traffic. Members noted that Farnborough controller did not issue a traffic warning. The controller was working 2 sectors bandboxed with moderate traffic levels so it may have been that the controller did

not see the impending confliction while scanning a large area of responsibility or because of the overlapping labels in the busy WCO area.

Turning to the risk, with effectively non-sightings by both pilots and the ac passing by luck - the avoiding action taken by the BE24 pilot was considered to have been too late to affect the outcome - the Board were left in no doubt that there had been an actual risk of collision during this Airprox.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively, non-sightings by the pilots of both ac.

Degree of Risk: A.