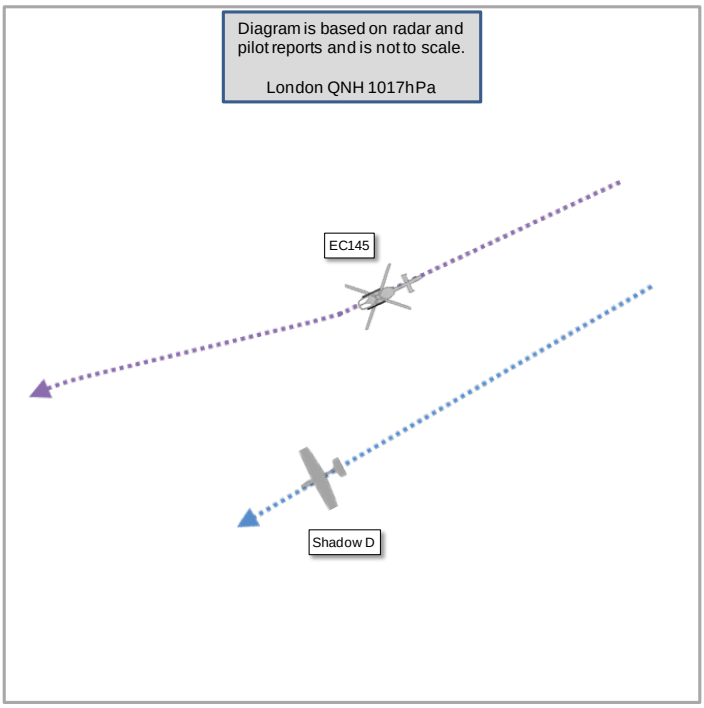
AIRPROX REPORT No 2012072

Date/Time:	27 May 2012 1443Z (Sunday)	
Position:	5012N 00515W (Near Redruth)	
Airspace:	Culdrose AIAA	(*Class: G*)
	Reporting Ac	*Reported Ac*
Type:	CFM Shadow D	EC145
Operator:	Civ Pte	Civ Pol
Alt/FL:	1900ft NK	2000ft NK
Weather:	VMC CLBC	VMC CLBC
Visibility:	>20nm	8nm in Haze
Reported Separation:	50ft V/100ft H	500ft V/0.5nm H
Recorded Separation:	NK	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE SHADOW D MICROLIGHT PILOT reports flying a VFR private local flight in a red microlight, with top and bottom strobes 'on'. A SSR transponder was not fitted but he was in receipt of a BS from Newquay LARS [133.400MHz]. While heading 240°, level at 1900ft [Newquay QNH 1019hPa] at 75kt a police helicopter passed him on the R side with a separation assessed as 100ft H and 50ft V. Although the police helicopter passed on the correct side, the close proximity gave the M/light pilot concern. He informed Newquay LARS that he was visual with the police helicopter that had just passed very close. Newquay informed him that the police helicopter had not called them despite crossing the extended centre line for RW30 [UKAB Note (1): Radar replay shows the police helicopter crossed the RW30 extended C/L at a range of 8nm]. Newquay LARS attempted to establish R/T communication with the helicopter on 2 occasions, but received no response to their calls. The Newquay Controller invited him to call on the land line on return to his home A/D if he wished, which he did.

He assessed the risk as High.

[UKAB Note(2): The CFM Shadow D is a microlight in the single engine 'pusher' configuration with a MTOW of 386kg, as shown below: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THE EC145 PILOT reports transiting to an urgent police task with a crew of 2 police observers, one in the front L seat and one in the seat behind the pilot on the R side. HISL and navigation lights were selected 'on' as was the SSR transponder, in modes 3A/C and S. He was receiving a BS from Newquay or he may have changed to London Info but no traffic had been reported in the area. While

heading approximately 245°, level at '... 2000ft on the RPS in VMC but hazy conditions made more difficult looking in to sun ...' at 120kt, the police observer in the R rear seat called visual with a small ac at close range in the 10 o'clock position and slightly below. The pilot concentrated his scan in that area and almost immediately saw a very small high wing microlight ac about 30° L of the nose, tail on with a similar heading, approximately 1.5nm ahead and 200ft below. He made a small alteration of course to the R and climbed slightly, maintaining visual contact to ensure safe separation as they overtook at about 40kts on the R side. He estimated they passed 0.5nm [laterally] and about 500ft above on a slightly diverging track and reported he didn't alter course again until well past.

He assessed there was no risk of collision and did not consider the incident an Airprox.

ATSI reports that an Airprox was reported to have occurred 17nm SSW of Newquay Airport in Class G Airspace between a microlight and helicopter. The times in the written reports of both pilots differed by one hr; the microlight pilot reported 1545 UTC and the helicopter pilot 1645 UTC. From the available RTF and radar replays, CAA ATSI determined that the Airprox occurred at 1443 UTC.

[UKAB Note(3): Discussion with the helicopter operations centre established that the helicopter took off at 1500L and landed at 1645L, thereby supporting the ATSI contention that the Airprox took place at 1443 UTC].

The CFM Shadow D was being operating VFR on a local flight from Roche airfield situated 7nm E of Newquay Airport and in receipt of a BS from Newquay Radar. The EC145 was operating VFR from a private site at Middlemoor near Exeter. It was established that the EC145 pilot was in receipt of a BS from London Information.

CAA ATSI had access to RTF recordings for Newquay Radar, London Information and NATS Area Radar, together with written reports from the two pilots and the ATSU. Due to the limited radar coverage in the area only the EC145 was showing on radar.

The weather for Newquay and Exeter was reported as follows:

METAR EGHQ 271420Z 22005KT 150V260 9999 FEW016 15/11 Q1019=
METAR EGTE 271420Z 31008KT 270V330 9999 FEW030 20/14 Q1018=

[UKAB Note(4): The weather for Culdrose was reported as follows:

METAR EGDR 271450Z 16007KT 9999 HZ FEW018 BKN220 17/13 Q1018 BLU]

At 1408:55, the M/light pilot reported departing from Roche airfield. He requested a BS at not above 1500ft, later changed to not above 2000ft. At 1411:33, the EC145 pilot contacted London Information and reported departing from Exeter westbound to operate in the Penzance area, routeing across Dartmoor at an altitude of 2500ft on 1018hPa, and requesting a BS with a squawk of 0032. London Information agreed a BS and passed the RPSs for Wessex [1013hPa] and Scillies [1009hPa], which were correctly acknowledged.

At 1436:28, the Newquay radar controller observed the EC145 showing on radar and noted that the pilot had not called Newquay as was his usual practice when in the area. At 1438:40, radar recording showed the EC145 positioned 11.3nm SSW of Newquay Airport indicating alt 2500ft [derived from radar QNH 1017hPa]. At 1442:27, the EC145 is shown 1.6nm from the reported Airprox position, tracking SW and still indicating alt 2500ft. The EC145's track and level remain constant and shortly afterwards the helicopter is shown passing 0.3nm north of the reported Airprox position. RTF replay showed that no call was made to or from the pilot regarding the Microlight.

At 1443:03 the Microlight pilot advised Newquay radar that he was visual with the EC145 helicopter passing on his R side. The Newquay radar controller replied that the helicopter looked as though it was routeing to Penzance or St Ives. At 1443:10, having established the callsign of the EC145, the Newquay radar controller made a blind transmission to the EC145, with no response.

At 1447:55, the EC145 pilot advised London Information that he was 'on task' at Penzance. At 1504:20, the Microlight pilot reported descending towards Roche and agreed to phone when on the ground regarding the EC145.

The EC145 was in receipt of a BS from London Information without the aid of surveillance equipment. The Microlight was not on the frequency and would have been unknown to the FISO and EC145 pilot. The Microlight was in receipt of a BS from Newquay Radar. The ATSU indicated that the Microlight was not visible on radar for 10mins prior to and after the reported Airprox. Therefore, although the EC145 was visible on the Newquay radar, it would not have been obvious to the controller that there was any confliction. The Newquay controller was surprised that the EC145 had not called as was his usual practice when operating in that area.

CAP774, UK Flight Information Services, Chapter 2, Page 1, Paragraphs 1, 3 and 5, state:

> '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.'
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> 'Basic Service is available under IFR or VFR and in any meteorological conditions.'
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> 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.'

CAP774, UK Flight Information Services, Chapter 1, Page 1, Paragraph 2, states:

> 'Within Class F and G airspace, regardless of the service being provided, pilots are ultimately responsible for collision avoidance and terrain clearance, and they should consider service provision to be constrained by the unpredictable nature of this environment.'

The Airprox occurred in Class G airspace when the Shadow Microlight pilot became concerned about the relative position and proximity of the EC145, which, having sighted the Microlight 1.5nm ahead, altered course to overtake it by passing to the R and above.

Under a BS, pilots are ultimately responsible for collision avoidance and it was not possible for either Newquay Radar or London Information to provide any warning to their respective aircraft.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Members noted that the EC145 pilot did not communicate with the Newquay controller whilst transiting in proximity to the A/D and that more situational awareness would have been gained by the use of a LARS service from Newquay. This in turn could have aided the EC145 pilot by, for example,

increasing his cruise altitude to pre-empt deconfliction based on knowledge of the microlight pilot's planned cruising altitude.

Members noted the Shadow and EC145 pilots' disparate estimates of the minimum separation between the ac. In the absence of recorded radar data, Members considered that the actual separation was probably somewhere between the 2 estimates. Since the EC145 crew saw the microlight in challenging conditions and EC145 pilot was visual with the Shadow and always in a position to turn away to increase the separation if necessary, the Board was satisfied that there was no risk of a collision. Nevertheless the Shadow pilot had been concerned and the Civ helo member opined that this Airprox reinforces the need for a wide berth between helicopters and microlights, not least due to the impact of helo rotor downwash on their relatively fragile structures.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Shadow microlight pilot was concerned by the proximity of the overtaking EC145.

Degree of Risk: C.