

## **AIRPROX REPORT No 2013075**

**Date/Time:** 26 Jun 2013 1122Z

**Position:** 5015N 00519W  
(1.5nm North of Camborne)

**Airspace:** LFA 3 (Class: G)  
Culdrose AIAA

**Reporting Ac** **Reported Ac**

**Type:** Sea King Pegasus  
Quantum

**Operator:** RN Civ Pte

**Alt/FL:** 1200ft 1500ft  
RPS (1029hPa) QNH (NK)

**Weather:** VMC HAZE VMC

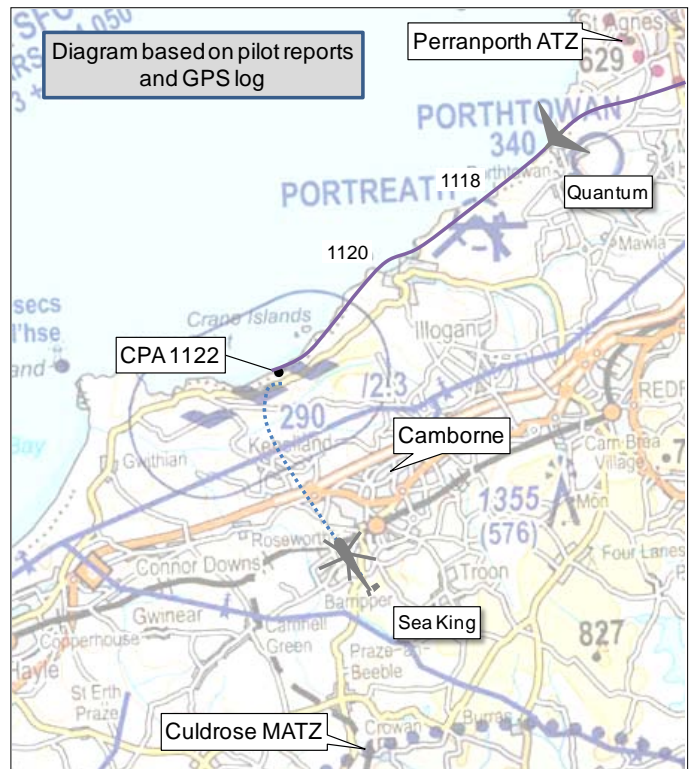
**Visibility:** 15km NK

**Reported Separation:**

50ft V/50m H 0ft V/400ft H

**Recorded Separation:**

NK



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

**THE SEA KING PILOT** reports conducting a post-maintenance flight test, seated in the RH seat with an Observer in the LH seat. The grey camouflaged aircraft had navigation lights and HISL selected on, as was the SSR transponder with Modes A and C. The aircraft was not fitted with an ACAS. The handling pilot was operating under VFR in VMC, in receipt of a Basic Service from Culdrose APR. Whilst flying a NE-SW race track pattern, in a right hand turn at 90kt with 15° angle of bank, the handling pilot saw a high-wing microlight through the left chin window at a range of 100m. It appeared to be climbing and was converging from below. He called the confliction to the crew and increased bank angle to about 35° to avoid the microlight. He noted that, prior to entering the turn, the observer had been 'eyes in', conducting part of the flight test procedure. The microlight passed astern at a range of about 50m and slightly below; it was not observed to manoeuvre at any point. The pilot stated that it was believed the microlight was 'underneath the nose' of the Sea King at the point of commencing the right turn and was therefore obscured by the instrument panel. The microlight only became visible as it climbed towards the left chin window. Equipment on board the Sea King was set to interrogate 'IFF Modes 3/A and C'; no returns were observed within 5nm of the helicopter for the duration of the flight.

He assessed the risk of collision as 'Medium'.

**THE QUANTUM PILOT** reports conducting a pleasure flight. The yellow and blue aircraft was not fitted with lighting, an SSR transponder or an ACAS. The pilot was operating under VFR in VMC with a Basic Service from Newquay APR. In straight-and-level cruise at 50kt, heading 225°, at 1500ft on the QNH, he and his passenger saw a grey Sea King helicopter in the left 10.30 position at a range of 3km. The Sea King appeared to be on a heading of about 315°, at the same altitude, before it then turned 90° right and flew past them, going in the opposite direction, at a distance of approximately 2km. Just after passing them, the helicopter turned 90° to the right again to assume a heading of 135°, before turning 90° right again to fly parallel with them. Due to the higher speed of the helicopter, it overtook them. It then turned right 90° back to its original heading of about 315°. At this point, because the helicopter was now on a constant relative bearing, the Quantum pilot grew anxious that the Sea King pilot was not aware of their location. At around 400ft away to his left, the helicopter turned sharply right to avoid them, at which point the Quantum pilot descended to avoid any possible

rotor wash. Shortly afterwards, Newquay APR requested that he switch frequency to his destination. The Quantum pilot stated that, having checked NOTAMS before the flight, it appeared that Culdrose was not 'offering a service' that day. Therefore, he felt Newquay was his only option for a Basic Service. On his return to home base that day, he spoke to a flying instructor, who checked the NOTAMS and confirmed that Culdrose were not 'offering a service'.

He assessed the risk of collision as 'Medium'.

**CULDROSE ATC** reports that on the day of the Airprox, the Culdrose ATC radar was operating SSR only. Culdrose APR was only aware that the Airprox had taken place when the Sea King pilot reported it on frequency at 1123. The Culdrose SUP was informed and, because the microlight pilot was not on frequency, and was non-squawking (and therefore not on the radar display), immediate action was taken to identify who was working the microlight. Newquay International reported that they had just sent a microlight en route to Lands End but could not see his primary return. Lands End reported that they had a microlight from Perranporth, inbound to them. Lands End rang back to state that they had spoken to the pilot of the microlight who reported that a Sea King had orbited and passed him twice, but that no traffic information had been passed by Newquay ATC.

**NEWQUAY ATC** report that the Quantum pilot was in receipt of a Basic Service. The Quantum pilot did not declare an Airprox whilst on frequency and the controller did not recall any event of note. Analysis of the radar recording established that the microlight did not paint on radar at any time whilst in receipt of the ATS.

## Factual Background

The weather at RNAS Culdrose was recorded as follows:

METAR EGDR 261127Z 25005KT 9999 FEW012 FEW020TCU SCT024 BKN220 16/13 Q1032 WHT TEMPO SCT012 GRN

## Analysis and Investigation

### UKAB Secretariat

Both pilots were operating under VFR in Class G airspace and had equal responsibility for collision avoidance<sup>1</sup>; the Sea King pilot was required to give way<sup>2</sup>. Both pilots were in receipt of a Basic Service, defined as follows<sup>3</sup>:

'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.

*Basic Service relies on the pilot avoiding other traffic, unaided by controllers/FISOs. It is essential that a pilot receiving this service remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight.'*

It was established that neither Eurocontrol nor the RAF Low Flying Operations Squadron had issued a NOTAM for RNAS Culdrose for the date of the incident. There was no record of the reported NOTAM and therefore any content could not be established. It was ascertained in subsequent conversation with RNAS Culdrose that the station often rang round 'local airfields' on a daily basis to pass on operating information that was deemed important to other airspace users.

<sup>1</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

<sup>2</sup> *ibid.*, Rule 9 (Converging).

<sup>3</sup> CAP774 (UK Flight Information Services), Chapter 2 (Basic Service), paragraph 1 (Definition).

Although the microlight aircraft's registration and home airfield was identified by Culdrose ATC on the day of the Airprox, this information was not conveyed to the Airprox Board until 23<sup>rd</sup> October, some 4 months after the event. The microlight pilot provided a full report but his recollection of events was not assisted by the avoidable delay in notifying him. The RNAS Culdrose Occurrence Investigation did not retain a copy of the reported NOTAM. The Airprox occurred within the boundary of a notified hang/para-gliding winch-launch site with a maximum cable altitude of 2300ft. The CAA 1:500,000<sup>4</sup> and 1:250,000<sup>5</sup> charts recommend that 'aircraft should avoid overflying these sites below the indicated altitude'. The Military 1:500,000 low-flying chart displays symbology denoting winch-launched hang-gliding in the same area but without a promulgated maximum cable altitude. The UK Military Low Flying Handbook entry for LFA3 does not promulgate hang/para-gliding activity in that area.

## **RN Occurrence Investigation**

The RN Occurrence Investigation concluded that the Sea King pilot was operating in VMC under a Basic Service and came into conflict with a microlight, the pilot of which elected not to obtain a TS from Culdrose [*UKAB Note 1: in fact Culdrose could not have offered a TS given that it was SSR-only and the Quantum had no SSR*]. While it is understood he was visual with [Sea King C/S], had he called Culdrose, then this might have delivered greater SA to all, and resulted in a more effective lookout from the [Sea King C/S] crew. Such a call might also have been advisable given that Culdrose was operating SSR only (which had been promulgated by NOTAM) and therefore would not have been aware of the microlight's presence by radar. [*UKAB Note 2: the relevant authority had no record of a NOTAM being issued*].

## **Comments**

### **Navy HQ**

The Sea King was operating VMC under a BS and came into conflict with a microlight that had elected not to call Culdrose during its transit. Whilst it is accepted that in hindsight the microlight pilot was visual with the Sea King, had he called Culdrose on his radio greater SA would have been available, especially considering that Culdrose were NOTAM'd [see *UKAB Note 2 above*] as operating SSR-only and would therefore not be able to see the microlight on PSR.

## **Summary**

A Sea King and a Pegasus Quantum microlight aircraft flew into close proximity at a position 1.5nm North of Camborne, at about 1122 on 26<sup>th</sup> June 2013. The Sea King pilot was conducting a post-maintenance flight airtest and was in receipt of a Basic Service from Culdrose APR. The Quantum pilot was transiting, with a Basic Service from Newquay APR.

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

Information available included pilots', ATC and relevant operating authority reports. The incident was not observable on area radar recording.

The Board first considered the pilots' actions. The Sea King pilot was conducting an airtest in VMC and was in receipt of a Basic Service from Culdrose who were operating SSR-only due to the fact that their primary radar was not serviceable. The Sea King pilot stated that, prior to entering the right turn, the observer had been 'eyes in', conducting part of the airtest procedure. Members pointed out similarities between this incident and other Airprox in which pilots had been conducting airtests, and noted that the increased amount of 'heads-in' time associated with the airtest process often reduced the capacity for lookout. Considering the reduced capacity for lookout during an airtest, members

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<sup>4</sup> Aeronautical Chart ICAO, Southern England and Wales, Edition 39 (2013).

<sup>5</sup> Topographical Air Chart of the United Kingdom, Sheet 7, The West and South Wales, Edition 9 (2013).

commented on the chosen location (in the vicinity of a designated paraglider/microlight winch-launching area), and, although the Quantum was in fact in transit rather than being operated from this location, opined that the airstest could sensibly have either been conducted in an area and at a height that was better deconflicted from other VFR traffic, or an extra crew member could have been carried to improve lookout in what was see-and-avoid airspace. Members also reiterated the benefit of a radar based ATS in these circumstances and noted that the Sea King crew were using on-board equipment to give them SA on other transponding aircraft. In the event, given that the microlight was not equipped with an SSR transponder, it would not have been seen on the SSR-only Culdrose radar or in the Sea King. Finally, members also commented that, notwithstanding operational imperatives, the combination of challenging weather and lack of appropriate ATS may have presented sufficient risk that the airstest could reasonably have been postponed altogether.

The microlight pilot reported that he had 'checked NOTAMS' before take-off, one of which stated that Culdrose 'were not offering a service' that day, and that he therefore did not seek to obtain an ATS from them. Members agreed that it would have been advantageous for the microlight pilot to have contacted Culdrose to pass his route details to them so that they, and the aircraft they were controlling, could have benefited from the increased SA that this would have provided even though a Traffic Service would not have been possible (given that the microlight was not equipped with an SSR transponder and that Culdrose were operating SSR-only). However, the Board concluded that the microlight pilot had been led to believe that Culdrose 'were not offering a service' that day, and so his decision to talk instead to Newquay was understandable, and in fact laudable, in that he had consciously chosen to communicate his routing and intentions to an ATS unit near his route.

With regard to the RNAS Culdrose NOTAM, the Board noted that there was no record of a NOTAM being issued for RNAS Culdrose on the date of the Airprox; members therefore wondered whether the microlight pilot may possibly have read information that had been passed by phone from RNAS Culdrose to local operators in accordance with their routine procedures. However, regardless of whether by NOTAM or phone call, the situation regarding SSR-only operations had either been misinterpreted by the microlight pilot, or had not been clearly conveyed. The Board noted that the microlight pilot's flying instructor had also independently confirmed that 'Culdrose were not offering a service', so there was clearly ambiguity of some sort. Ultimately, the Board could not reconcile RNAS Culdrose's belief that a NOTAM had been issued when in fact there was no record of such.

The microlight pilot saw the Sea King at range, was able to maintain visual contact, and took avoiding action from the rotor wash when the Sea King pilot turned right to avoid him. The Sea King pilot was required to give way but the crew did not see the microlight until just before CPA; the Board therefore decided that the cause was a late sighting by the Sea King pilot, and, although effective avoiding action had been taken, safety margins were much reduced below normal.

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

|                               |  |
|-------------------------------|--|
| <u>Cause:</u>                 | A late sighting by the Sea King pilot. |
| <u>Degree of Risk:</u>        | B.                                     |
| <u>ERC Score<sup>6</sup>:</u> | 101.                                   |

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<sup>6</sup> Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.