## AIRPROX REPORT No 2012071

*Date/Time:* 28 May 2012 0848Z

*Position:* 5031N 00408W (2nm S Tavistock)

*Airspace:* LFIR (*Class: G*)

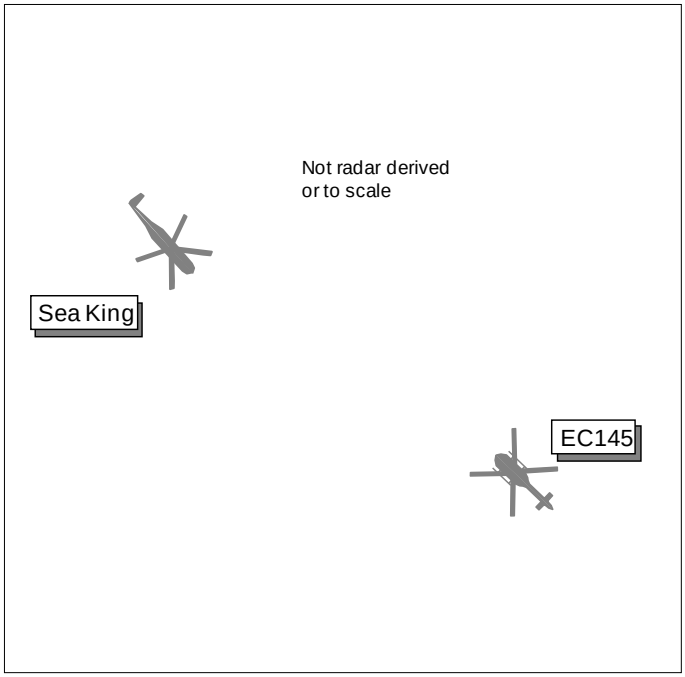
| | *Reporting Ac* | *Reported Ac* |
|---|---|---|
| *Type:* | Sea King Mk4 | EC145 |
| *Operator:* | HQ Navy | Civ Comm |
| *Alt/FL:* | 1200ft RPS (1014hPa) | 500-800ft (agl) |
| *Weather:* | VMC CLBC | VMC DRIZ |
| *Visibility:* | 15km | 5nm |

*Reported Separation:*

100ft V/2-300m H 100ft V/1nm H

*Recorded Separation:*

NR




## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE SEA KING PILOT** reports en-route from Okehampton to Bullpoint (Plymouth Naval Base), VFR and in receipt of a BS from London Information on 124·75MHz, squawking 1177 (Lon Info conspicuity code) with Modes S and C. The visibility 15km flying 200ft below cloud in VMC and the ac was coloured green with nav and HISLs switched on. About 3nm NW of Yelverton, cruising at 1200ft RPS 1014hPa heading 160° at 60kt, the aircrewman advised him of an ac, a blue and yellow coloured helicopter, in their 9 o'clock range 200-300m away flying in the opposite direction and 100ft below. Neither pilot had seen the helicopter until it had passed abeam so no avoiding action was taken and they had not heard its crew transmit on the frequency. They reported the Airprox to London Information later after deplaning troops and completed the CA1094 on return to Sqn.

**THE EC145 PILOT** reports flying a local sortie from a private site near Exeter, VFR and in communication with Plymouth Mil on 121·25MHz, squawking 0032 with Modes S and C; TAS was fitted. The visibility was 5nm flying in haze/drizzle VMC about 300ft below cloud and the helicopter was coloured blue/yellow with HISL and nav lights switched on. One observer was seated in the front LH seat while the other was seated behind him on the starboard side. Whilst in transit to St Ives over Dartmoor the Wx deteriorated, as expected, with a lowering cloudbase and reducing visibility, which necessitated flying between 500-800ft agl to maintain VMC. Heading 270° at 120kt, ATC reported helicopter traffic in the area so he included his TAS in his scan and noted an ac ahead and he warned his 2 observers. As they descended over the W edge of Dartmoor he saw the Wx was significantly worse over the rising ground ahead but it was clearer to the N so he started a R turn towards Launceston. As he did so he saw a Sea King flying low-level and slightly lower than him in his 11 o'clock about 1·5nm ahead and travelling from R to L in a RH turn onto a SE'ly heading towards Plymouth. There was no risk of collision and although they were obviously turning away from each other and had vertical separation, he continued his RH turn through a further 30° to open the range and continue en-route to Launceston on a heading to 300°. He estimated the ac passed about 1nm port to port on a diverging track with his helicopter 100-200ft above. From first sighting until they passed he was confident there was no risk of collision and he kept the Sea King visual throughout. It was seen to continue its R turn briefly and then roll out heading towards Plymouth. They were not close enough to see the ac registration or other markings but he recognised it as a RN Sea King Mk4. His TAS displayed a contact throughout but he did not recall a traffic warning which would have indicated it was closer than 1nm. He did not consider the encounter as an Airprox

so he did not report it but he told ATC that he was visual with, and clear of, the Sea King. Although situationally aware, thanks to ATC and TAS, he considered his relatively late sighting of the Sea King was a function of these factors: - a) both flights were operating in VMC at relatively low-level in quite poor Wx conditions and, b) as he descended his helicopter would have been sky-lined but he was looking down into a valley at a green camouflaged helicopter against a green backdrop of trees and rising ground. This incident has reinforced his view that a TAS is of enormous flight-safety value and should be fitted to military helicopters.

**THE LONDON INFORMATION FISO** reports moderate to busy traffic levels when he had to delay accepting the Airprox information by 40min. The Sea King crew reported a blue and yellow helicopter pass on their LHS at a distance of approximately 200m.

**ATSI** reports that the Airprox was reported by the pilot of a Sea King helicopter when it came into proximity with an EC145 in the vicinity of Yelverton at approximately 1200ft altitude.

The Sea King was operating VFR and was in receipt of a BS from London Information on 124·750MHz. The EC145 was operating VFR and may have been in contact with Plymouth Mil.

London Information is a non-surveillance based service and in accordance with notified procedures, ac in receipt of a BS from London Information may be requested to squawk SSR code 1177.

ATSI had access to both pilots' reports, London Information FISO report, recorded area surveillance and recording of frequency 124·750MHz.

Meteorological reports for Exeter between 0820Z and 0920Z included: '9999 FEW030'. Whereas, the meteorological report for Newquay over the same period included: '9999 BKN006' increasing to 'BKN007'. The Wessex RPS was 1014hPa.

The Sea King departed Okehampton at 0835UTC, climbed to altitude 1500ft and flew S towards Plymouth. The Sea King was squawking Mode A code 1177. The SSR code had been assigned by London Information when the Sea King last called London Information (at time 0809Z). The next call to London Information made by the Sea King was at 0848:53. As the Sea King departed Okehampton the EC145 was flying W'bound, away from Exeter, and was squawking a Mode A code appropriate to its task. Both flights were operating in Class G uncontrolled airspace.

The surveillance replay shows that the Sea King descended to 1300ft as it continued towards Plymouth and the EC145, continuing W'bound, maintained 1500ft until, at 0842:30, it descended out of surveillance coverage. The EC145 pilot reported that meteorological conditions deteriorated as the ac approached Plymouth.

At 0848:05 the Sea King was N of Plymouth, on a SE'ly track, W of Yelverton at altitude 1100ft. The EC145's position indication symbol then appeared behind the Sea King at altitude 900ft and tracked NW'ly.

At 0848:53 the Sea King crew called London Information reporting 5nm from Plymouth and changing frequency to Plymouth Mil. The Sea King flight was instructed to squawk 7000.

ATSI reviewed the London Information frequency between 0800Z and 0848Z. There was no call to London Information by the EC145 during this period. The Sea King flight recalled London Information at 0909:28 and, once the pilot had passed his intentions, he reported that he would like to file an Airprox.

The Airprox occurred in Class G uncontrolled airspace where responsibility for collision avoidance rests solely with the pilots of the ac involved. Meteorological conditions necessitated both flights to be operating at reasonably low levels. The Sea King flight was in receipt of a BS (non-surveillance) from London Information and London Information was unaware of the presence of the EC145 in the vicinity of Plymouth.

UKAB Note (1): The Plymouth Mil transcript at 0847Z shows the Plymouth Mil controller transmitting, *"(EC145 c/s) traffic believed to be you has traffic north-west one and half miles tracking south-east indicating similar altitude".* The EC145 pilot replied, *"(EC145 c/s) pretty sure it's a Sea King I think a Navy one and I'll be passing to his stern".*

**HQ NAVY** comments that although the EC145 was only receiving a BS from Plymouth Mil, the controller passed a timely and accurate traffic warning on the conflicting traffic thereby assisting the EC145 to attain visual contact on the Sea King. An ATS was available to both flights from Plymouth Mil LARS; indeed the Sea King flight called them for a BS approximately 1min after the Airprox, for its transit to Bull Point.

## 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, and reports from the appropriate ATC and operating authorities.

Members could not resolve the disparate separate distances reported by both crews. The EC145 pilot was given a traffic warning by Plymouth Mil and noted the Sea King on TAS before visually acquiring it as it was turning R towards the SE about 1·5nm away in his 11 o'clock as he turned R towards better Wx to the N. He turned further R to increase separation, estimating it passed 1nm to his L and 100-200ft below. Given the reported Wx in the area and the geometry described, Members thought the EC145 pilot had seen the Sea King as soon as reasonably possible and taken positive action to ensure that the ac were not going to collide. The Sea King crew, without the benefit of enhanced SA from surveillance based information (ATC or TCAS) only saw the EC145 as it passed down their LHS, they thought by 200-300m and 100ft below. It was unfortunate that as the ac passed both flights were on different frequencies, for had the Sea King crew called Plymouth Mil earlier they would have been aware of the EC145's presence from the RT exchanges that took place immediately prior to the Airprox. Military Members opined that military aircrew were usually comfortable with closer separation distances but it appeared the Sea King crew were surprised by the EC145's passage. In determining the Cause, the Board were left to consider 2 alternatives. If the Sea King crew's estimate of the separation distance was accurate then they should have seen the EC145 before it passed down their port side: effectively a non-sighting by the Sea King crew. Conversely if the EC145 pilot's estimate of the separation rage was accurate, it was not unreasonable, given the geometry and wx conditions, that the Sea King crew did not see the EC145 until it was passing 1nm away. On balance, the Board elected to classify the incident as a conflict in Class G airspace where the actions taken by the EC145 pilot had removed any risk of collision.

## PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Conflict in Class G airspace resolved by the EC145 pilot.

Degree of Risk: C.