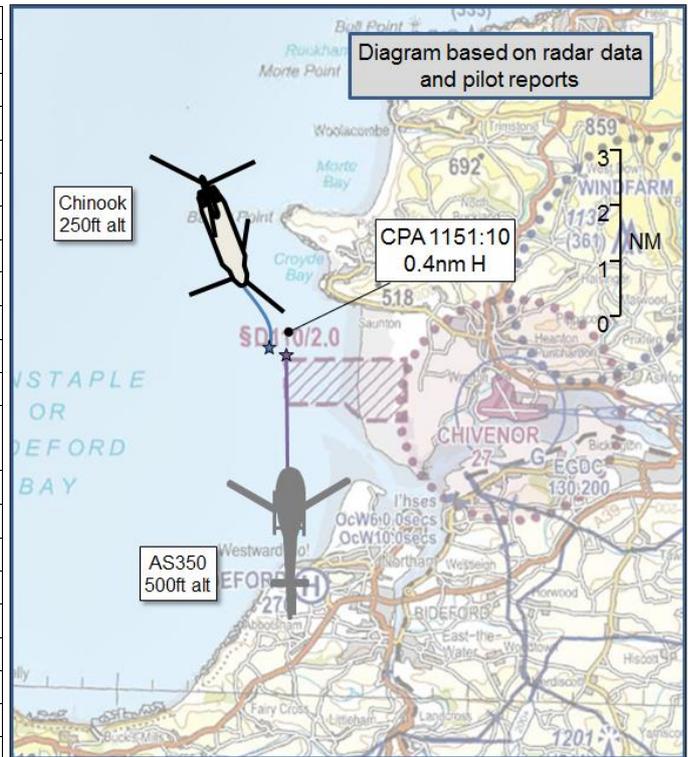


AIRPROX REPORT No 2016085

Date: 02 May 2016 Time: 1151Z Position: 5106N 00415W Location: 3nm NW Chivenor

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

| Recorded | Aircraft 1 | Aircraft 2 |
|-------------------|---------------------|---------------|
| Aircraft | Chinook | AS350 |
| Operator | HQ JHC | Civ Pte |
| Airspace | Lon FIR | Lon FIR |
| Class | G | G |
| Rules | VFR | VFR |
| Service | Basic | None |
| Provider | Cardiff | NA |
| Altitude/FL | FL001 | NK |
| Transponder | A, C, S | A, C, S |
| Reported | | |
| Colours | Green | Blue, Grey |
| Lighting | Nav, landing, HISLs | Nav, Strobes |
| Conditions | VMC | VMC |
| Visibility | 3km | 5km |
| Altitude/FL | 250ft | 500ft |
| Altimeter | RPS (1013hPa) | QNH |
| Heading | 180° | 350° |
| Speed | 120kt | 100kt |
| ACAS/TAS | Not fitted | TAS |
| Alert | N/A | None |
| Separation | | |
| Reported | 50ft V/500m H | 0ft V/0.5nm H |
| Recorded | NK V/0.4nm H | |



THE CHINOOK PILOT reports that he was transiting in a formation of two Chinooks to take part in an exercise. He was approximately 3nm NW of Chivenor when he saw a blue/grey Squirrel travelling in the reciprocal direction. They were flying at 250ft having been pushed down by low cloud. The Squirrel was in their 11:30 and judged to be at about 200ft ASL. The pilot turned right, away from the Squirrel and it passed down the left-hand-side at a distance of 500m. He attempted to call Cardiff to report the Airprox, but couldn't establish comms.

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

THE AS350 PILOT reports that he saw a formation of two Chinooks, they were on-coming at the same altitude and he didn't notice them until they were about 1nm away. He surmised that they may have been obscured by the headland ahead of him by 1-2nm until within the 1nm range. He judged that their tracks were not conflicting, but adjusted his track to his right, towards the beach. He perceived that the other aircraft made a relatively late and abrupt turn out to sea and he thought he had probably obtained visual contact with the Chinooks several seconds before they had visually acquired him, because their change of course seemed to occur when nearly abeam his aircraft and no conflict. He noted that although he was equipped with a TAS, he did not receive any aural warning.

He assessed the risk of collision as 'Low'.

Factual Background

The weather at Cardiff was recorded as follows:

METAR EGFF 021250Z 27016KT 3200 -DZ BR BKN004 10/09 Q1018 RERA=

Analysis and Investigation

CAA ATSI

ATSI were unable to observe both aircraft prior to and at CPA. The Chinook identified, was the second of a formation of two aircraft tracking south, approximately 1 nm offshore abeam Chivenor. The AS350 was not observed until after CPA, and was not transponding height information. The Chinook were indicating FL001 which equates to approximately 340ft altitude based on the Newquay QNH.

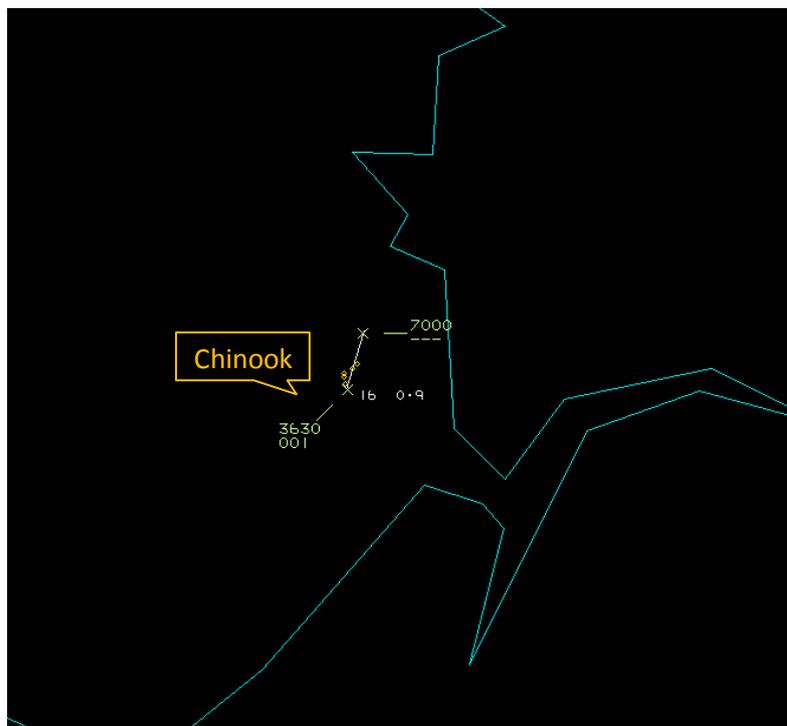


Figure 1 – Swanwick MRT – 1151:31

The Chinook formation reported receiving a Basic Service from Cardiff Approach, the AS350 pilot reported having the London FIR frequency selected, but indicated that he was not in communication with them and not receiving a service. The Chinook pilot attempted to report the Airprox to Cardiff Approach but was not able to establish communications, possibly due to its range and level from Cardiff (38nm) and with ground rising to 1100ft between the two.

UKAB Secretariat

The Chinook and AS350 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right², which they did.

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

Comments

JHC

Provision of a Traffic Service from Cardiff was not feasible due to the Chinooks' height and distance and their acknowledged communication problems with Cardiff, thus the only barrier remaining was lookout. Despite the minimum visibility of 1500m being greatly exceeded, this was a relatively late visual acquisition which yet again highlights the necessity for good lookout in Class G airspace. In similar circumstances in the future, with TAS being fitted to the Chinook fleet, had the Squirrel been squawking Mode C, then this would have provided a traffic alert the Chinook to the presence of the other traffic (whereas with no Mode C it would have merely displayed the traffic).

Summary

An Airprox was reported when a Chinook and a AS350 flew into proximity at 1151 on Monday 2nd May 2016. Both pilots were operating under VFR in VMC, the Chinook pilot was in receipt of a Basic Service from Cardiff and the AS350 pilot was not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings, and reports from the appropriate ATC and operating authorities.

The Board first looked at the actions of the Chinook pilot and noted that he reported the conditions as hazy, although still within JHC operating limits. The crew had been receiving a Basic Service from Cardiff; however, as they had approached their landing site at low-level they were on the very limits of both radar and radio coverage for Cardiff, and there wasn't a more suitable agency to get a radar service from. Consequently without a TAS, members agreed that the only mitigation available to the crew was see-and-avoid. Noting that they were flying in formation and approaching their landing site, the Board speculated that cockpit workload was probably reasonably high, and that the Chinook pilot was probably startled by the AS350's presence, likely assessing it as being closer than it actually was as he saw it relatively late. The Board were heartened to hear from the JHC member that the Chinook fleet is shortly to be fitted with TAS, which, in this situation, may have offered the crew an earlier warning and may have enabled them to see the AS350 earlier.

For his part, the AS350 pilot noted that he saw the Chinooks between 1 and 2nm away and with a slight right turn, judged that there was sufficient separation between the aircraft. Noting that the two Chinooks were a bigger target to acquire visually and that he saw them at some distance, the Board reasoned that this was why he viewed the event with less alarm than the Chinook pilot. The Board were unable to say why the TAS had not given the AS350 pilot any warning given that the Chinooks were squawking as was clearly visible on the NATS radars. Noting the ongoing VHF low-level common frequency trial currently being conducted in Scotland, some members wondered whether, had this frequency been available and in use in this area, the AS350 pilot might have been able to establish contact with the Chinooks when he sighted them in order to increase the SA of all.

The Board assessed the cause of the Airprox to be a late sighting by the Chinook pilot, but noted that he had been able to take action, as had the AS350 pilot, which, coupled with the radar separation indicating that there had been 0.4nm between the aircraft, led them to assess the risk as Category C; timely and effective actions had been taken with no risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the Chinook pilot.

Degree of Risk: C.