

AIRPROX REPORT No 2014035

Date/Time: 8 Apr 2014 1118Z

Position: 5056N 00159W
(15nm SSW Boscombe Down)

Airspace: LON FIR (Class: G)

Aircraft 1 Aircraft 2

Type: Gazelle PA28

Operator: MoD ATEC Civ Trg

Alt/FL: 2500ft 2300ft
NK QNH(1021hPa)

Conditions: VMC VMC

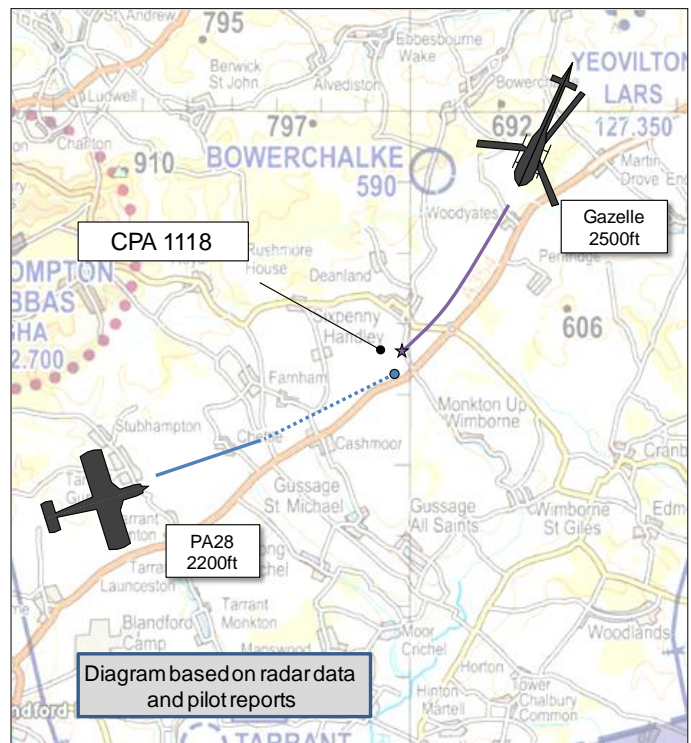
Visibility: 20K 20K

Reported Separation:

NK V/500m H NK

Recorded Separation:

NK



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE GAZELLE PILOT reports flying a white and blue aircraft on an instructional test-flying sortie with all lights illuminated and SSR transponder Modes 3A and C selected; the aircraft was not fitted with TCAS. He reported that during the first 10 minutes of the sortie there had been a lot of RT communication and notification of aircraft in the area. The interruptions were such that he was concerned with the lack of progress to the sortie; he considered requesting a quiet frequency but, instead, opted to move to an area that he believed to have less traffic density. During the transit the instructor continued with the sortie profile and briefed the next serial. Just before the test, the crew conducted a comprehensive lookout in preparation for the short period when the crew would be “heads-in” recording data. At this point they spotted a fixed wing GA aircraft on an opposing track 12 o’clock and at the same height; the traffic had been previously called by ATC. Without any relative rate of movement it was difficult to assess rate of closure so the instructor took control, rolled the aircraft right and descended. Once the helicopter presented a different aspect to the fixed-wing it also broke right, and the two aircraft passed port-to-port at a range of 500m.

He assessed the risk of collision as ‘High’.

THE PA28 PILOT reports flying a white and blue aircraft with SSR transponder Modes 3A and C. The aircraft was not fitted with TCAS. The pilot filed his report some weeks after the incident because he was not notified that he had been involved until then. He compiled his report from his flight notes at the time. He was on an instructional sortie and had just transferred to Bournemouth Radar for a Basic Service. The student was asked to carry out a position fix and then track on a radial towards SAM, this was all in good VMC. The pilot reports he has no recollection of coming into close proximity with another aircraft. He opined that it is a busy area with training aircraft, GA and military operators from local bases, and that the principles of see-and-avoid are particularly important.

THE BOSCOMBE APP CONTROLLER reports controlling 6 aircraft, 5 under a Traffic Service and 1 under a Basic Service, all of the aircraft were on the same frequency, general handling to the west of Boscombe Down. The controller was also listening out on two other frequencies. The weather conditions were good and there was a fair amount of traffic to be called, including possible gliding activity. The Gazelle had been under her control for some time when she noticed an unverified 7000 squawk 5nm south-west and tracking towards, indicating 200ft below. She called the traffic, the Gazelle pilot replied “looking” and she then called traffic to another aircraft under her control. She

then updated the Gazelle on the conflicting traffic, which was still indicating 200ft below, again the pilot replied “looking” and continued on track. To re-emphasis the traffic she decided to use the clock- code and called the traffic again this time, ‘12 o’clock, 1nm, opposite direction descending’. This time the pilot called visual and the controller went back to her other aircraft to call traffic information. A short time later the Gazelle pilot asked whether she had the callsign of the conflicting traffic, the controller replied that it was unknown traffic; the pilot informed her that he would be filing an Airprox.

She perceived the severity of the incident as ‘Low’.

THE BOSCOMBE SUPERVISOR reports that the unit workload was high to medium and he was present in the Approach Control Room at the time of the incident. It was busy within the “Boscombe triangle” and he observed the App controller giving and updating traffic information to the Gazelle. He reported that although the Gazelle had called visual with the conflicting aircraft, the controller continued to provide information on it as it remained in confliction.

Factual Background

The weather at Boscombe Down and Bournemouth was reported as:

```
METAR EGDM 081050Z 27015KT 9999 SCT025 09/04 Q1019 BLU NOSIG
METAR EGHH 081150Z 30012KT 9999 VCSH SCT049 11/06 Q1021
```

Analysis and Investigation

ATSI

As there was a significant delay in tracing the pilot of PA28, who may have been receiving no more than a Basic Service, there was no chance of the controller concerned recalling any useful information; the Bournemouth RT recordings had not been impounded within the required timescale and so would have been erased.

Military ATM

The Gazelle pilot was receiving a Traffic Service from Boscombe APP. At 1117:34, as per Figure 1, the controlled transmitted, “[Gazelle callsign] *further traffic south west five miles tracking north east, 200 feet below.*”

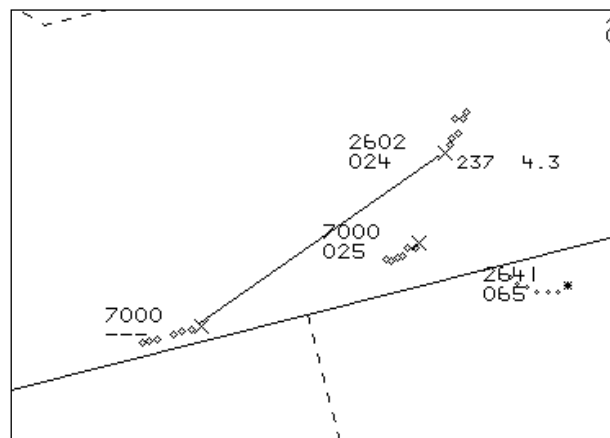


Figure 1: Traffic Information at 1117:34. Gazelle Squawking 2602

The update was provided at 1118:15, as per Figure 2, “[Gazelle callsign] *previously reported traffic south west two miles tracking north east, 200 feet below.*” The Gazelle reported that he was looking for the traffic.

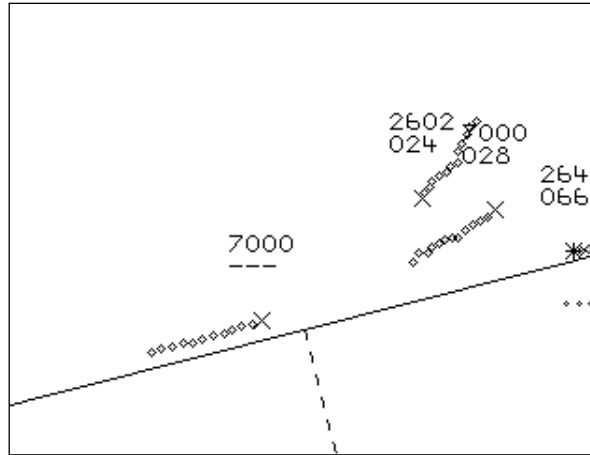


Figure 3: Traffic Information at 1118:15.

Although the 7000 squawk had dropped off the radar replay, the trail indicates the path of the other aircraft. Further Traffic Information, as per Figure 3, was reported at 1118:33 as, “[Gazelle callsign] *if steady 12 o’clock one mile opposite direction 200 feet below now descending.*”

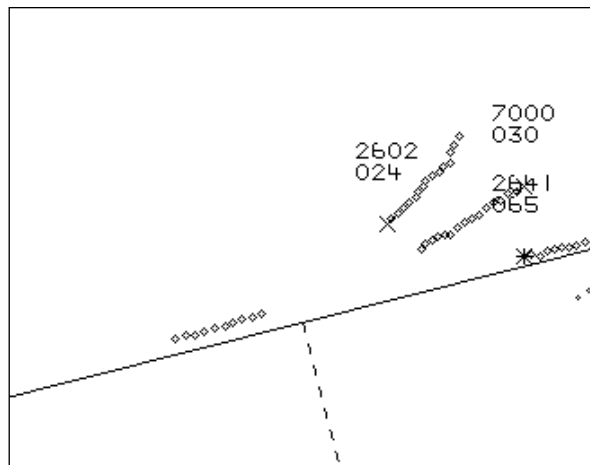


Figure 3: Traffic Information at 1118:33.

The Closest Point of Approach was estimated at 1118:39 because the 7000 squawk disappeared from the replay; the lateral separation was estimated as 0.3nm with no height information available. The controller provided accurate and timely Traffic Information and when she considered that the Gazelle was continuing into conflict, she changed her style of delivery to re-emphasise the immediate nature of the conflict. The test pilots on the Gazelle were seeking clearer airspace to allow the test point to continue. Despite the Traffic Information the Gazelle maintained a south westerly track taking them closer to conflict point; however, this action must be viewed in the context of the demanding nature of the tests and the high traffic density that limited routing options for the Gazelle. Prior to a ‘heads down’ test, the instructor used the Traffic Information to scan and this allowed visual acquisition of the conflictor.

The Gazelle is not fitted with an Airborne Collision Avoidance System but the crew picked an appropriate Type of Service for the conditions and this acted as an effective barrier. The Traffic Service was supplemented by an effective lookout that enabled avoiding action to be taken.

UKAB Secretariat

Initially, because the PA28 faded from radar, the pilot could not be traced, however, after some “cold-calling” the Radar Analysis Cell did manage to trace him. Unfortunately, it was too late for the pilot to remember any details; however, he did check his flight against the Bournemouth radar as seen on web-trak and provided the UKAB with a copy. This picture shows that the two aircraft both avoid to the right, implying that, although he did not recollect doing so due to the tracing delay, the PA28 pilot probably did see the other aircraft and adjusted his flight accordingly. This data is not normally used by the UKAB and cannot be verified for accuracy.

Both pilots were equally responsible for collision avoidance and for not flying into such proximity as to create a danger of collision¹. The geometry was ‘head-on’ and, if the pilots were aware of the other aircraft, they were both required to alter their courses to the right.²

Comments

HQ Air Command

The Gazelle crew successfully assimilated the TI being provided and apportioned appropriate priority to lookout. The Boscombe Approach controller is to be commended for managing a busy situation and adjusting the style of TI in order to emphasise the perceived risk to the Gazelle. The only questionable element is the decision by the Gazelle captain to maintain heading despite being aware of conflicting traffic ahead, though this must be taken into context with the busy airspace in the area and the fact that there were multiple TI broadcasts from Boscombe.

Summary

An Airprox was reported at 1118 on 8th April 2014 between a Gazelle and a PA28. The Gazelle was receiving a Traffic Service from Boscombe ATC and Traffic Information was passed on 3 occasions. The PA28 was receiving a Basic Service from Bournemouth and had no recollection of the incident.

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 photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board commended the actions of the App controller who gave Traffic Information to the Gazelle pilot twice before then changing the style of delivery in order to highlight the risk. In discussing the actions of the Gazelle pilot, the Board noted that he was given Traffic Information on the same bearing three times whilst maintaining track before he saw the other aircraft. They opined that he might have been better served by altering his course earlier, but recognised that there may have been other constraints on his actions. That being said, the Board highlighted that this was not the only Airprox in recent months where pilots had not reacted to multiple Traffic Information calls to the detriment of flight safety.

In turning to the PA28 pilot, the Board were very grateful for his report and regretted the late notification due to tracing difficulties. Although he couldn't remember the incident specifically, the Board thought that he probably had seen the Gazelle given that his radar track indicates a turn at the approximate point of CPA; however, the reported separation by the Gazelle pilot would indicate that any such action by the PA28 pilot was probably relatively late.

The Board decided that the cause of the incident was a late sighting by both pilots, but felt that a contributory cause was that the Gazelle pilot did not change his track despite the Traffic Information

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

² *ibid.*, Rule 10 (Approaching head-on).

of traffic on a constant bearing. The risk was assessed as B; although avoiding action was taken, safety margins were much reduced below the normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by both pilots.

Contributory Factor(s): The Gazelle pilot did not change his track despite the Traffic Information of traffic on a constant bearing.

Degree of Risk: B

ERC Score³: 20

³ 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.