

AIRPROX REPORT No 2015022

Date: 27 Feb 2015 Time: 1419Z Position: 5143N 05028W Location: Princes Risborough

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	A109	Monsun Bo209
Operator	HQ Air (Ops)	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	Northolt	N/A
Altitude/FL	2400ft	2300ft
ACAS/TAS	TCAS II	Not fitted
Alert	Nil	Nil
Transponder	A, C, S	S
Reported		
Colour	White/red	White/red
Lighting	HISL, Nav, landing and taxi	Anti collision beacon.
Conditions	VMC	VMC
Visibility	20km	10km
Altitude/FL	2400ft	2500ft
Altimeter	QNH (1020hPa)	NK
Speed	N/K	100kts
Separation		
Reported	0ft V/200m H	200ft V/60m H
Recorded	NK V/<0.1nm H	



THE A109 PILOT reports conducting instrument flying general handling in the vicinity of Princes Risborough. After commencing a descending turn initially to the left from 3000ft, the non-handling pilot noticed a low-wing aircraft heading east on a converging heading at 2400ft. The turn was reversed to the right and a climb back to 3000ft was initiated. After seeing the aircraft heading east, the A109 pilot commenced a descending right turn from 3000ft. After a quarter of the turn, the low-wing aircraft was then spotted approximately 200m away to the right. The A109 pilot climbed to 3000ft and cancelled the detail.

He perceived the severity of the incident as ‘Medium’.

THE MONSUN PILOT reports returning to Wycombe Air Park after local flying. After listening out on the Wycombe frequency, he was unable to make a position report or request a join due to high radio traffic. He observed the A109 to the east of Princes Risborough heading southwest. He commenced a right-hand orbit to the east of Princes Risborough to remain clear of the Wycombe ATZ. He was still visual with the A109 and noticed it was in a right turn, at a similar level. He commenced a slow descent to increase separation, but continued in the orbit because he was not sure of the helicopters’ intentions. The A109 passed in front, left to right.

He assessed the risk of collision as ‘Low’.

THE NORTHOLT APPROACH CONTROLLER reports working the A109 between 2400ft and 3000ft on a Basic Service. He noticed a 7000 squawk in the vicinity of the helicopter but thought it had manoeuvred away. He then turned his attention to a Northolt departure. Shortly afterwards the A109 pilot reported the Airprox on his frequency.

He perceived the severity of the incident as ‘Medium’.

Factual Background

The Northolt weather was recorded as:

METAR EGWU 271350Z 29009KT 9999 FEW040 SCT250 08/M03 Q1020 NOSIG

Analysis and Investigation

Military ATM

Northolt Radar had called four sets of Traffic Information to the A109 between 1412 and 1415. At 1416:04, Northolt Radar requested, "A109 C/S do you require a Traffic Service or a Basic Service now?" The A109 pilot replied with, "I'll take a Basic Service for the moment, but I will upgrade with one minute to complete." A Basic Service was confirmed by the pilot at 1416:13 (Figure 1) but the controller did not verbally confirm the service.

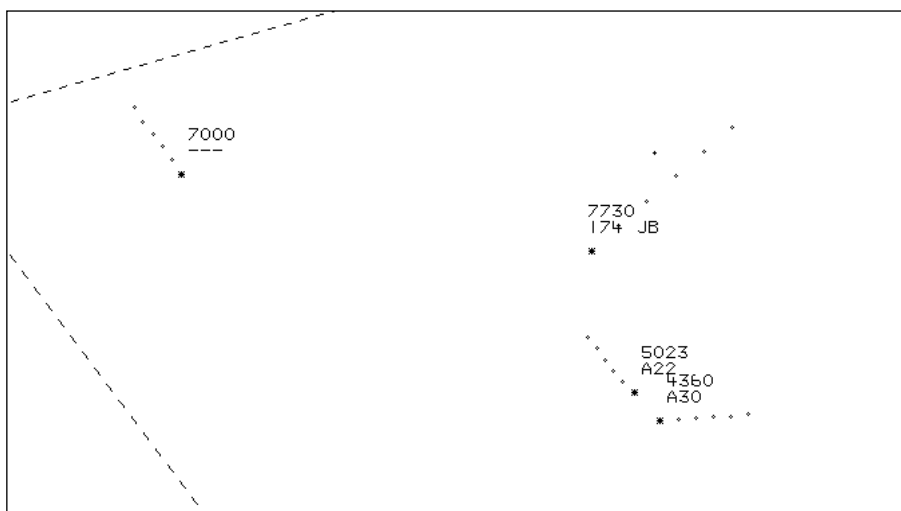


Figure 1: Geometry at 1416:13 (A109 squawking 4360; Monsun squawking 7000 no mode C)

Between 1417:15 (Figure 2) and 1417:51, Northolt Radar identified a departure, placed it under a Radar Control Service and sent it to London Control.

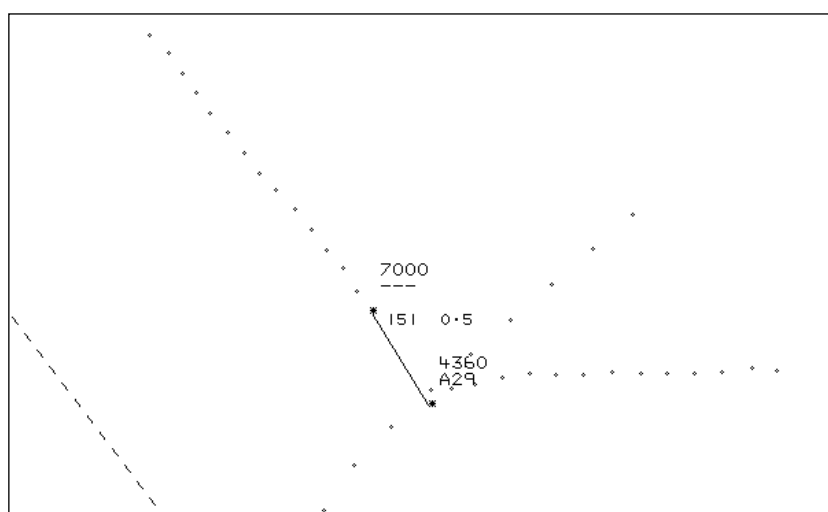


Figure 2: Geometry at 1417:15 with 0.5nm horizontal separation.

At 1419:08 (Figure 3), the aircraft were flying similar profiles.

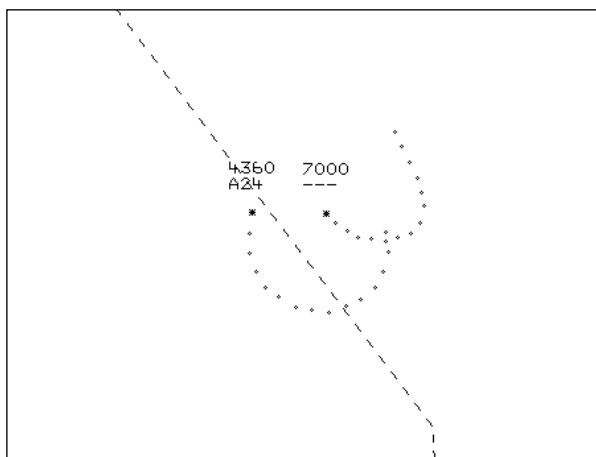


Figure 3: Geometry at 1419:08.

The CPA was estimated between 1419:25 (Figure 4) and 1419:29 with 0.1nm separation.

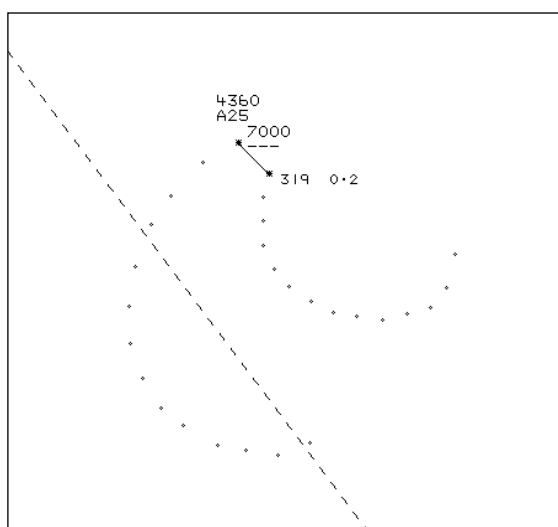


Figure 4: At 1419:25 immediately prior to CPA.

At 1419:38, the A109 called Northolt and at 1419:44 declared an Airprox. At 1419:56 (Figure 5), the A109 pilot requested, “Can you see an aircraft in my 6 o’clock, he not squawking mode 3, he’s just squawking mode A?” Northolt Radar responded with, “The no height information is now tracking south bound.” The crew asked if it was wearing a Farnborough squawk but no squawk was observed by Northolt Radar. At 1420:14, the pilot declared, “Ok, he’s certainly squawking. But, Airprox, time 1419, and its altitude 3000ft on 1020 and in the Princess Risborough area. Can you mark my position?”

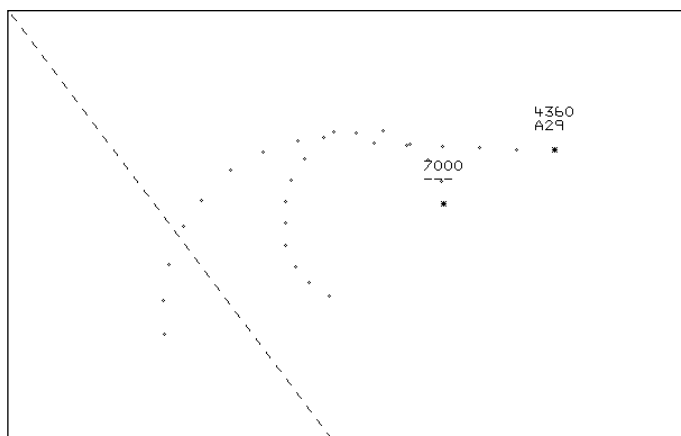


Figure 5: Geometry at 1419:56.

The pilot had downgraded the service to a Basic Service at 1416:13 (although the controller did not confirm Basic Service over the RT). The Northolt controller became involved in identifying an IFR outbound for an airways joining and this track was provided a Radar Control Service: at this time the Airprox aircraft were initially at 0.5nm horizontal separation. The controller rightly prioritised his service to the outbound aircraft, including a scan for conflicting traffic, rather than the A109. As per the CAP774, Ch. 2, the provider of a Basic Service is not required to monitor the flight and the pilot should not expect Traffic Information. The Princes Risborough area chosen for the general handling is a well-known visual reference/navigation point, and an area known for funnelling traffic between ATZs and CTRs. Whilst it is difficult to find airspace clear of traffic in the area, a Traffic Service would have assisted the crew with situational awareness albeit with regular RT interruptions from the controller.

The main barriers to an Airprox of this nature would be 'see-and-avoid' and ACAS. The A109 had been under a Traffic Service prior to the Airprox and had been given Traffic Information in the area. With limitations to lookout, selecting a radar-derived service from ATC would have added another barrier. The A109 had TCAS, but the first alert was at the time of the Airprox and the Monsun was not squawking Mode C. It is not known if the Monsun was ACAS fitted, but the aircraft heading did change throughout the incident to follow the profile of the A109. The A109 crew had been scanning prior to conducting their turn, and had spotted an aircraft that was then confirmed as clear. Another coordinated turn was conducted and the Monsun was spotted at 200 metres; a left-hand turn was commenced to remain clear. The limitations of a Basic Service, TCAS and human lookout were evident during this incident.

UKAB Secretariat

The A109 and Monsun pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision¹. The incident geometry is considered as converging and so the A109 was required to give way to the Monsun², which he did.

Comments

HQ Air Command

This incident highlights the importance of choosing a suitable operating area coupled with the selection of an appropriate ATS for the flight conditions and activity.

The A109 pilot chose to conduct instrument flying general handling (IFGH) in the vicinity of Princess Risborough before conducting an ILS approach to Northolt. Although the pilot's choice of operating area did not directly cause the Airprox, it was likely that his sortie would experience a high level of traffic in the Princess Risborough area; the location is a popular navigation point used by aircraft flying VFR in Class G airspace as they are funnelled between the Luton CTR, Halton ATZ and the Wycombe Air Park/Booker ATZ. It is accepted that it is very difficult for Northolt based aircraft to find locations that are both suitable for general handling and clear of passing traffic, especially to the north of the London CTR. However, the choice of an operating area further afield may have reduced the likelihood of encountering large amounts of traffic.

Despite a query from ATC, the pilot of the A109 elected to remain with a Basic Service as he conducted his exercise; possibly to allow for a perceived greater freedom of manoeuvre. Had a radar-derived service from ATC been selected, the A109 pilot may have been given increased situational awareness (SA) as he manoeuvred. This is particularly pertinent given the degraded lookout experienced by the A109 crew during IFGH. In contrast, the Monsun pilot was not in receipt of any service as he approached an area of intense activity. Although not a requirement in Class G airspace, selection of an ATS from an appropriate agency may have provided additional SA, and the prospect for both aircraft to coordinate their movements.

¹ SERA 3205 (Proximity).

² SERA 3210 (Right of way).

Once visual, there was an opportunity for both aircraft to position themselves clear of the conflicting traffic. The A109 crew assumed that the Monsun had departed the area to the east, which led them to continue with their detail. At CPA, when the A109 crew identified that the Monsun was in close proximity, appropriate action was taken to vacate the area.

Summary

An Airprox was reported when an A109 and a Monsun flew into proximity at 1419 on Friday 27th February 2015. Both pilots were operating under VFR in VMC, the A109 pilot in receipt of a Basic Service from Northolt Approach, the Monsun pilot was not in receipt of an Air Traffic Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, 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 first considered the actions of the A109 pilot. Although perfectly entitled to operate in the vicinity of Princes Risborough, given that the pilot was Northolt based and would be aware of the likely intensity of aircraft flying through that area, the Board agreed with the HQ Air Command comment that he would have been better served in electing to fly his Instrument Flying General Handling detail away from this well-recognised choke point. Notwithstanding, Board commended him for his lookout during the task, and for taking action to resolve the conflict once he had identified that the Monsun was also orbiting in the area.

Turning to the Monsun pilot, the Board also noted that he was entitled to operate in the area, and that ordinarily his plan to orbit Princes Risborough whilst he gained contact with Booker was a practical choice given the need to remain clear of the Booker ATZ until two-way communications had been achieved. Notwithstanding, once it was clear that he was in proximity with the A109, the Board questioned the wisdom of continuing his orbit inside the A109's track where his presence could have caused concern. Although the A109 pilot was required to avoid him in the latter stages of the conflict, the Monsun pilot did not know that he had seen him, and the Board considered that the more prudent course of action would have been to clear the area.

Turning to the cause of the Airprox, the Board quickly decided that this had been a simple conflict in Class G airspace that had been resolved by the A109 pilot. As for risk, the Board considered that the timely and effective avoiding action by the A109 pilot, coupled with the fact that the Monsun pilot had had the A109 in sight at all times, meant that there was no risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the A109 pilot.

Degree of Risk: C.