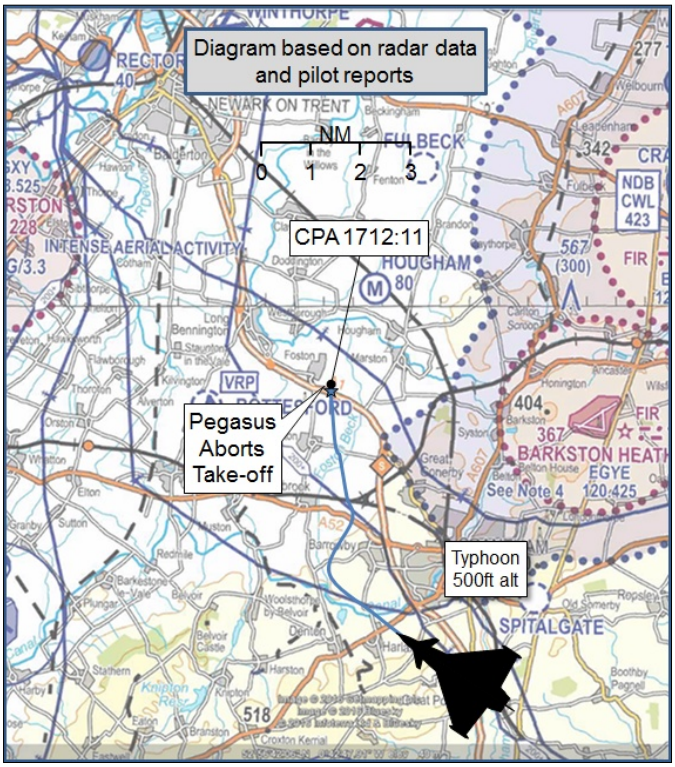
AIRPROX REPORT No 2016150

Date: 27 Jul 2016 Time: 1712Z Position: 5258N 00043W Location: Foston Microlight Site

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Pegasus Quasar	Typhoon
Operator	Civ Pte	HQ Air (Ops)
Airspace	London FIR	LFA
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	N/A	NK
Altitude/FL	On the Ground	500ft
Transponder	None	C, S
Reported		
Colours	NK	Grey
Lighting	NK	Nav, Strobe
Conditions	VMC	VMC
Visibility	NK	NK
Altitude/FL	0ft agl	300ft agl
Altimeter	NK	QNH
Heading	NK	360°
Speed	NK	420kt
ACAS/TAS	Not fitted	Not fitted
Alert	N/A	N/A
Separation		
Reported	NK	NK
Recorded	400ft V/NK H	



THE PEGASUS QUASAR PILOT reports that he did his normal [pre-take-off] checks and entered RW28 [at his private strip] after giving blind calls to both RAF Cranwell and RAF Waddington as to his intentions. He applied full power to climb out and, as he was about to rotate, a very fast-moving grey coloured Typhoon Jet appeared to his left and passed to his right at approximately 100-200 feet exactly in line with what would have been his climb-out over the end of the runway. He immediately took averting action by shutting off power and pulling his bar in [to prevent lift-off]; luckily, there was enough runway remaining for him to stop safely, although he still felt the Typhoon through the airframe on the ground so he suspected it was travelling at considerable speed. Had he departed 20 seconds earlier he suspects that it would have been a different story. He endeavoured to report the incident to Cranwell but they were closed so he reported the incident to the low-flying cell on their answer phone. As a Microlight flyer he tries to operate in as professional and as safe a manner as possible, and he found it both sad and distressing that, in his opinion, the RAF would operate in such a crass manner to endanger life. The NOTAMS for the day made no mention of any such activity although he is aware that it is a low-flying operational area and so he always climbs to 2000ft minimum height as fast as it is reasonably possible.

THE TYPHOON PILOT reports that he was unaware of any occurrence until contacted by the Station Safety Cell. He had planned a singleton sortie, part of which was to be conducted within the UKLFS. The sortie was appropriately planned, briefed and authorised, and the routing placed on CADS[1] but he did not know if the civilian pilot had access to CADS [UKAB Note: in fact few civilian users have access to CADS due to operational reasons, those that do are effectively limited to PINS, NPAS and HEMS operators]. .The low-level routing was planned to ensure adequate separation from all routine avoids & warnings and any NOTAM, there was no activity notified at the Foston Site, and the field

[1] CADS – Centralised Aviation Data Service: a military IT system in which crews are required to enter their low-level routing before flight so that, principally, other military operators are aware and can deconflict their own missions.

itself is not marked as an airfield on either the military or civilian-produced charts. At the planning stage, he therefore had no information to suggest that microlight activity was planned. The sortie was conducted as planned. Whilst routing to the east of Foston village, subsequent analysis showed that the Typhoon had overflown the unmarked microlight site at approximately 300ft agl and 420kts. His workload at the time was assessed as 'medium', and his positional & situational awareness as 'high'. As is SOP, the aircraft transponder was 'on', with code 7001 and mode C selected, and the pilot was monitoring the low-flying UHF Common frequency.

He assessed the risk of collision as 'Low'.

Factual Background

The weather at Cranwell was recorded as follows:

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METAR EGYD 271650Z 28010KT 9999 FEW045 BKN250 21/11 Q1014 BLU
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Analysis and Investigation

UKAB Secretariat

The Pegasus and Typhoon pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[2].

Foston microlight site has an elevation of 33m. Radar recordings show the Typhoon overflying Foston microlight site at 500ft alt (approximately 400ft agl).

Comments

HQ Air Command

This is an unfortunate incident where it appears that both pilots involved took reasonable actions to try and inform other airspace users of their activity. The Typhoon pilot had planned, briefed and authorised his sortie in accordance with current regulations. He entered his low-level route on CADS – though it is acknowledged that the Microlight pilot would not have had access to that information – with an authorised Minimum Separation Distance (MSD) of 250ft. Foston microlight site is not marked on any charts and is not mentioned as a site in the UK AIP, thus 'planning to avoid' as a barrier to MAC was not available in this instance. The Typhoon is fitted with a Mode S Transponder (but no CWS) but the microlight was not fitted with equipment that could interact with this. Blind calls to local ATC agencies (such as Cranwell and Waddington in this case) could only be effective if they gained a response, and this barrier would also only be applicable if both aircraft were visible on the controller's screen. The final barrier to MAC in Class G airspace is 'see and avoid' – the microlight pilot saw the approaching Typhoon and aborted his take off.

Routine military low-level training is not subject to NOTAM action, but information on military low-flying activity is available to all through a number of publically accessible means (internet, telephone etc.). Whilst it is commendable that the microlight pilot made the effort to contact local RAF stations to inform them of his intended activity, the Typhoon was not based at either of the stations that the pilot contacted so could not have been expected to have been informed of aerial activity taking place from an unmarked site.

Summary

An Airprox was reported when a Pegasus and a Typhoon flew into proximity at 1712 on Wednesday 27th July 2016. Both pilots were operating under VFR in VMC, the Typhoon pilot in receipt of a Basic Service and the Pegasus pilot not in receipt of a Service.

[2] SERA.3205 Proximity.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft and radar photographs/video recordings.

The Board first looked at the actions of the microlight pilot and the military member praised him for endeavouring to alert the surrounding aerodromes to his presence and flight. However, he then pointed out that Military aircraft fly from all parts of the country, and passing information regarding the operation of one microlight site just to local airfields would not guarantee timely transfer of this information to all users. This was further complicated when bearing in mind the number of small flying strips across the country who might be operating; any system for notifying all individual flights, or placing all small private flying strips onto aeronautical charts, would soon result in information overload or too much clutter on maps. The Board agreed that, unfortunately, the methods employed by the Pegasus pilot to inform local aerodromes of his presence, whilst commendable in their intent, would have been unlikely to have had much effect. Aircraft on the ground making blind calls are rarely heard by local ATC units even when they are manned and operating, and it was quite likely that RAF Cranwell and RAF Waddington may have been closed at the time of this incident. Furthermore, low-level fast-jet aircraft are unlikely to be communicating with these local airfields due to the transitory nature of their passage, and so would be unlikely to be on the same frequency as the Pegasus pilot when he transmitted blind. Notwithstanding, the Board commended the Pegasus pilot for his attempts to tell someone of his flight, although members commented that a better approach would have been to contact the MOD Low Level Advisory Service[3] who would then be able to tell him of any planned activity through his area so that he could then arrange his flight to avoid these times.

The Board then looked at the actions of the Typhoon pilot. Mindful that he was entitled to fly down to a height of 250ft above ground level in that area, they noted that, in fact, he was at approximately 400ft agl at the time and therefore well within his authorised limits. Members with military fast-jet experience commented that, not being aware of the private site; it would be highly unlikely that the pilot would have recognised it as such because it would simply appear to him as another field. Furthermore, he would be unlikely to see a microlight that was on the ground given that his attention would be focused on navigating and avoiding aircraft that were airborne and at his altitude. In short, not being marked as a microlight site on his map or in any planning material, the Typhoon pilot could not be expected to avoid the site and would have been unlikely to have seen the microlight manoeuvring on the ground as it rolled for take-off.

The Board then considered the cause of the Airprox and agreed that both pilots had been entitled to operate where they were. The Typhoon pilot had been unaware of the microlight site and had had little opportunity to see the Pegasus on the ground, whilst the Pegasus pilot had probably seen the Typhoon as soon as was practical under the circumstances and was able to abort his take-off in good time. As such, the Board agreed that the incident was best described as a conflict in Class G resolved by the Pegasus pilot. Turning to the risk, the Board agreed that even if the Pegasus pilot had carried on his flight, the crossing rate of the Typhoon versus the climb rate of the Pegasus would have resulted in the two aircraft remaining separated. Furthermore, given that the Pegasus pilot was visual with the Typhoon anyway, he would have avoided its flightpath after lifting off and so the Board decided that although safety had been reduced, there had been no risk of collision; the incident was therefore assessed as risk Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

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

Degree of Risk: C.

[3] https://www.gov.uk/low-flying-in-your-area/contact-mod: MOD Low Level Advisory Service operating hours: 0800-1700 Nov – Mar, 0800-2000 Apr – Oct (all times local).