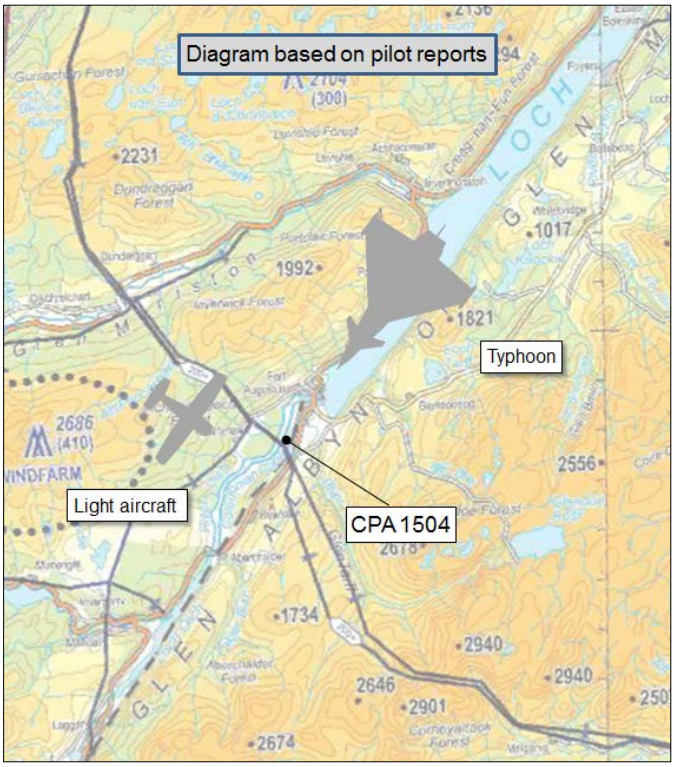
AIRPROX REPORT No 2016141

Date: 19 Jul 2016 Time: 1504Z Position: 5708N 00441W Location: Loch Ness

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Typhoon	Light Aircraft
Operator	HQ Air (Ops)	Unknown
Airspace	Scottish FIR	
Class	G	
Rules	VFR	
Service	None	
Provider		
Altitude/FL		
Transponder	A, C, S	
Reported		
Colours	Grey	White
Lighting	Strobes, Nav	
Conditions	VMC	
Visibility	10km	
Altitude/FL	360ft	
Altimeter	RPS (1008hPa)	
Heading	219°	
Speed	420kt	
ACAS/TAS	Not fitted	
Separation		
Reported	200ft V/1000ft H	
Recorded	NK	



THE TYPHOON PILOT reports that at 1500:47 he entered the low-level system 20nm south-west of Lossiemouth. He called on the VHF common frequency and deconflicted his route with a Tucano that was entering low-level at a similar point. At 1504:29 he again transmitted his position as 'entering the Great Glen heading south-west'. At the southern end of Loch Ness, he climbed briefly to maintain MSD against power lines and subsequently spotted a high-wing, light-aircraft approximately 3000ft ahead, slightly right of the nose and 200-300ft above. He immediately took avoiding action by manoeuvring left and down to ensure separation; the closest point was estimated to be 1000ft.

He assessed the risk of collision as 'Low'.

The light aircraft could not be traced.

Factual Background

The weather at Lossiemouth was recorded as follows:

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METAR EGQS 191450Z 09010KT CAVOK 21/15 Q1014 BLU NOSIG=
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UKAB Secretariat

The Typhoon and light aircraft pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[1]. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right[2].

[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(1) Approaching head-on.

If the incident geometry is considered as converging then the Typhoon pilot was required to give way to the light aircraft[3], which he did.

Comments

HQ Air Command

The Typhoon pilot was conducting low-flying training in accordance with current regulations. The acknowledged barriers to MAC in Class G airspace are electronic conspicuity, an appropriate Air Traffic Service (ATS) and 'see and avoid'. Additionally, in this part of the country, there is a low-level VHF common frequency in use for aircraft to mutually deconflict whilst airborne.

The Typhoon is fitted with a Mode S transponder but no CWS; however, since the light-aircraft could not be traced it is unknown whether or not it was equipped with a CWS that could interact with the transponder on the Typhoon. Given the position and height of the Airprox, it is also unlikely that an ATS could have provided a barrier to this encounter. The Typhoon pilot had transmitted his position and routing on the VHF common frequency approximately 2 minutes prior to the Airprox but had received no information from any other aircraft that his routing might have been in conflict with theirs. The final, effective, barrier in this case was 'see and avoid' – it cannot be determined if the light aircraft pilot saw the Typhoon but the Typhoon pilot saw the light aircraft at a range of approximately 1/2 nm and took action to increase separation, once again showing that disciplined lookout is essential in the avoidance of MAC.

Summary

An Airprox was reported when a Typhoon and a light aircraft flew into proximity at 1504 on Tuesday 19 July 2016. The Typhoon pilot was low-level and operating under VFR in VMC. The light aircraft could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted only of a report from the Tornado pilot.

Unfortunately, this incident did not show on the NATS radar due to the height of the aircraft and so the light-aircraft pilot could not be traced. This meant that the Board only had the Typhoon pilot's report on which to base their assessment of the incident. Noting that the Typhoon pilot had called on the VHF common frequency, it was disappointing that the Board could not determine whether the other pilot was also on this frequency or not, and whether terrain screening could account for him not hearing the Typhoon pilot's call. Anecdotal evidence had shown that pilots operating in Scotland have welcomed the common frequency, but the RAF member noted that, in the main, there had been little feedback given to the RAF on whether the GA community found it useful or not, or to what extent it was used. The Typhoon was not fitted with a CWS, and so its pilot could not get any prior electronic warning of the other aircraft other than through the Typhoon's on-board radar; given that the Typhoon was flying down the valley, the light-aircraft may have been obscured to the radar by the hills. Without a report from the light-aircraft pilot, the Board could not determine whether the light aircraft might have been fitted with a CWS but it was considered unlikely.

Ultimately, members agreed that see-and-avoid had worked in this incident in that the Typhoon pilot was able to see the light-aircraft with enough time to take avoiding action and ensure that there was safe separation between them. Indeed, some GA members opined that with a separation distance of 200ft vertically and 1000ft horizontally, the light aircraft pilot might not have thought it was an Airprox situation at all. Both pilots were operating as they were entitled to, and so the Board therefore concluded that the cause of the Airprox was simply a conflict in Class G, resolved by the Typhoon pilot. Members then debated the risk of the Airprox, with some members believing that safety had been degraded (Category C), whilst others argued that because of the early avoiding action by the

[3] SERA.3210 Right-of-way (c)(2) Converging.

Typhoon pilot normal safety standards had in fact pertained (Category E). In the end the Chairman put it to a vote and, by a large majority, the incident was assessed as Category E.

PART C: ASSESSMENT OF CAUSE AND RISK

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

Degree of Risk: E.