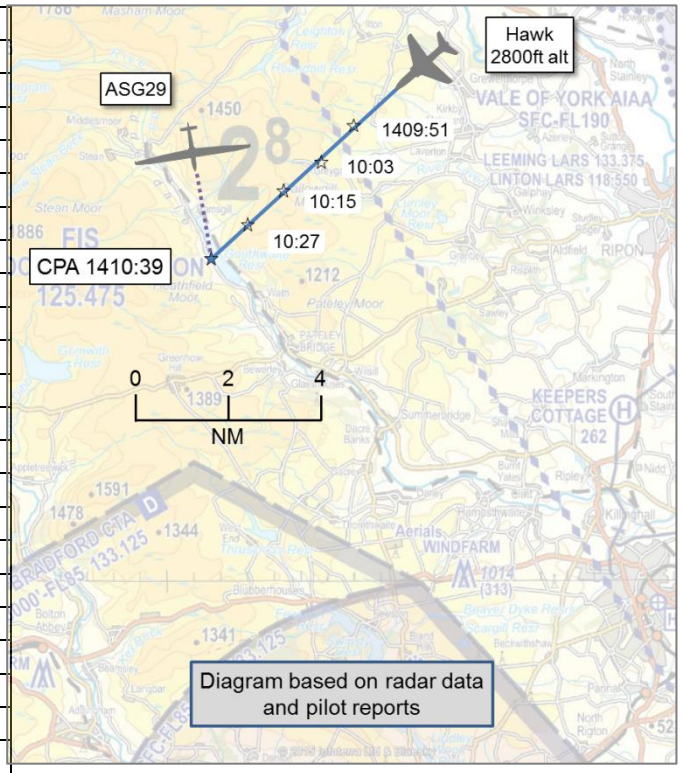
AIRPROX REPORT No 2015113

Date: 16 Jul 2015 Time: 1411Z Position: 5406N 00149W Location: Pately Bridge

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Hawk T1	ASG29
Operator	HQ Air (Trg)	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Not yet agreed	None
Provider	(Leeds Bradford)	N/A
Altitude/FL	2500ft	NK
Transponder	A, C, S	Selected Off
Reported		
Colours	Black	White/dayglow
Lighting	HISL, nose, nav	None
Conditions	VMC	VMC
Visibility	40km	30km
Altitude/FL	~1000ft	2680ft
Altimeter	agl	QNH (NK hPa)
Heading	225°	170°
Speed	NK	60kt
ACAS/TAS	Not fitted	FLARM
Alert	N/A	None
Separation		
Reported	100ft V/0m H	150ft V/0m H
Recorded	NK	



THE HAWK PILOT reports that, whilst in a slow descent into low-level just to the west of Pately Bridge, the aircraft, one of a pair, had to bunt firmly to pass under a glider that was at about 1000ft agl. It was estimated that the Hawk passed approximately 100ft under the glider. The Airprox occurred just after a double frequency change, a formation frequency on UHF and initial contact with Leeds Bradford ATC on VHF, having just left Leeming Approach. The pilot noted that it was a white glider, against a white cloud background, on a pure collision course.

He assessed the risk of collision as 'Very High'.

THE ASG29 PILOT reports gliding cross-country in a slow descent when he saw a Hawk very close in his 9 o'clock, which dived away to the west.

He assessed the risk of collision as 'Medium' to 'High'.

Factual Background

The weather at Leeming and Leeds Bradford was recorded as follows:

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METAR EGXE 161350Z 15006KT 9999 SCT044 21/10 Q1016 BLU NOSIG
METAR EGXE 161450Z 15008KT 9999 FEW045 BKN050 20/09 Q1016 BLU NOSIG
METAR EGNM 161420Z 10010KT 060V140 9999 SCT040 20/12 Q1016
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Analysis and Investigation

UKAB Secretariat

The Hawk and ASG29 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 converging then the Hawk pilot was required to give way to the ASG29[2].

Occurrence Investigation

The unit Occurrence Safety Investigation also established that:

- The Hawk formation leader had asked Leeming Approach whether there was 'any traffic to affect' before going en-route to Leeds Bradford ATC but that the glider did not appear on the Leeming Approach radar and consequently could not be passed as Traffic Information.
- The glider pilot did not use his radio to contact an external agency as 'he did not want the possibility of being ordered to go in a direction that he did not want to go in whilst maintaining Class G airspace'.
- The glider batteries were not sufficiently powerful to supply the transponder for the anticipated 5hr sortie duration and consequently it was selected off.
- The glider pilot only used the strobe light on recovery.
- Hawk pilots would not normally expect to encounter a glider at 1000ft agl at the Airprox location.

Comments

HQ Air Command

The normal barriers to an Airprox in Class G airspace are Traffic Information, electronic and visual conspicuity, and lookout. In this instance, the Hawk pilot took all reasonable measures to check for potential conflictions by confirming with Leeming Approach whether there was traffic to affect prior to his descent. The reluctance of the ASG29 pilot to contact Leeming ATC due to concerns regarding potential rerouting, in addition to his choice to switch off his strobe and IFF to preserve battery life, degraded the normal Airprox barriers and prevented other airspace users from identifying his aircraft at distance. As a result, collision was avoided due to the final barrier of lookout and associated manoeuvre, albeit at a late stage.

It is noteworthy that the recent Regional Airspace User Working Group (RAUWG) hosted by RAF Leeming discussed and encouraged the use of radios and other electronic aids to improve situational awareness. Additionally, the perception that glider pilots would be 'ordered' to take Military ATC directions that they either did not want, or with which they could not comply, was explained not to be the case. This incident will be used as a case study in subsequent RAUWGs as a means of reinforcing the mutual benefits of conspicuity aids (strobes, transponder, radio) when operating in Class G airspace

BGA

The BGA agrees that it would have been helpful for the glider pilot to have felt he could have used the electronic/visual conspicuity aids that he had made the effort to install. Replacement high-capacity LFP battery packs are now on the market and can be retrofitted with little effort. We concur that RAUWGs are an excellent initiative and hope to see more of them around the country.

Summary

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

An Airprox was reported when a Hawk and an ASG29 flew into proximity at 1411 on Thursday 16th July 2015. Both pilots were operating under VFR in VMC and neither were in receipt of an Air Traffic Service at CPA.

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 operating authority.

Members first discussed the glider pilot's actions and agreed that, although he was at sufficient range from Leeming that he would probably not have contacted them even if his radio had been selected on, it would have been worthwhile his at least making initial contact and advising them of his proposed routeing. In this respect, the Board was disappointed that the glider pilot felt that military controllers were likely to order him to follow a specific routeing, and emphasised that this was categorically not the case. A military controller member advised that military ATC controllers were aware of the need to minimise transmissions to glider pilots who may be preoccupied with maintaining altitude, and, if contacted, controllers would simply acknowledge calls and advise of CAS or other traffic if appropriate. Turning to the glider pilot's decision not to use his electronic conspicuity aids, Members were aware that this particular glider type was fitted with a sustaining engine and that, during extended flights, the pilot would be keen to preserve enough electrical power to ensure there was enough available to permit its starting should that have become necessary. Some members commented on the availability of new battery technology, and particularly the lithium ferrophosphate (LFP) type, which offered more than twice the energy density of current lead-acid battery technology. It was hoped that as the cost of these new technologies was reduced, increased uptake would enable more glider pilots' to power equipment such as radios and transponders for the duration of a potentially long flight. Gliding members also commented on the perception that the glider was unusually low at the Airprox position, and therefore unexpected by the Hawk pilot in that location. They pointed out that the performance of the ASG29 was such that, in still air, it would have been able to fly for at least another 20nm, without using its engine, and so this was not an unusual location or altitude for a modern glider.

The Board noted that the Hawk pilot had asked Leeming radar if there was any traffic to affect before leaving their frequency, but that the glider was unfortunately not displayed on the Leeming radar screen. Consequently, Traffic Information could not be passed, and the Board observed that it was only the Hawk wingman visually acquiring the glider, albeit at a late stage, that had prevented a much higher risk event; his pro-active lookout and warning to his formation leader, who saw the glider even later and bunted to pass below it, were commended by the Board. Notwithstanding, members commented that this was undoubtedly a late sighting by the Hawk pilot, due in no small part to the difficulties of seeing a glider under the prevailing conditions. They noted that the glider pilot saw the Hawk at a late stage as well, probably at, or just before, CPA. After some discussion, the Board agreed that, from the glider pilot's description, he had not had sufficient time to take avoiding action on seeing the Hawk and, therefore, that his was effectively a non-sighting. Although the Hawk pilot's avoiding action was effective, both pilots reported the aircraft passing directly over/under one another with a vertical separation of 100-150ft; as a result, members considered that safety margins had been much reduced below normal.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the Hawk pilot and effectively a non-sighting by the glider pilot.

Degree of Risk: B.