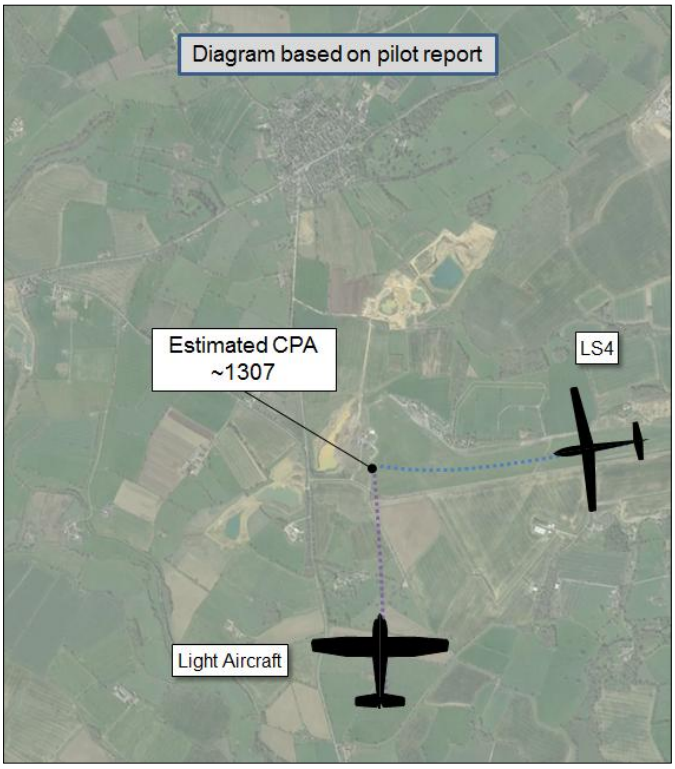
AIRPROX REPORT No 2016182

Date: 26 Aug 2016 Time: 1307Z Position: 5226N 00102W Location: Husbands Bosworth Glider Site

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	LS4	PA28
Operator	Civ Pte	Civ Pte
Airspace	Husbands Bosworth	Husbands Bosworth
Class	G	G
Rules	VFR	VFR
Service	None	NK
Provider	N/A	
Altitude/FL	NK	
Transponder	NK	
Reported		
Colours	White, Red	White
Lighting	NK	NK
Conditions	VMC	
Visibility	30km	
Altitude/FL	1400ft	
Altimeter	QFE	
Heading	270°	
Speed	70kt	
ACAS/TAS	FLARM	
Alert	Information	
Separation		
Reported	300ft V/0nm H	NK
Recorded	NK	



THE LS4 PILOT reports that he was winch-launching and the launching area appeared to be clear when the launch commenced. The high-wing light-aircraft was first observed approaching from the south and to the port side within 10secs of collision as he was in the launch at around 800ft. The closing distance was monitored with a view to releasing the winch cable if there was a risk of collision. The winch launch was into wind on runway 27, the winch being stationed at the far west end of the airfield. The other aircraft was carrying FLARM which gave a warning as they got close.

He assessed the risk of collision as 'Medium'.

THE LIGHT AIRCRAFT PILOT could not be traced.

Factual Background

The weather at Coventry was recorded as follows:

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METAR EGBE 261250Z 22011KT 9999 FEW038 22/12 Q1018
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Analysis and Investigation

UKAB Secretariat

The LS4 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]. An aircraft operated on

[1] SERA.3205 Proximity.

or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation[2].

Neither aircraft was visible on the available radar recording.

Comments

BGA

Unfortunately, this is yet another case of a light aircraft routing too close to the overhead of an active winch launching site. It is gratifying that the light aircraft was FLARM equipped thus aiding the LS4 pilot's situational awareness.

Summary

An Airprox was reported when a LS4 and a Light Aircraft flew into proximity at 1307 on 26th August 2016. Both pilots were operating under VFR in VMC, the LS4 pilot in was not receipt of a Service. The Light aircraft could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the pilot of the LS4.

The Board began with the glider member deliberating the actions of the LS4 pilot. He opined that, given the circumstances, a more prudent course of action on receiving FLARM indications and seeing the unknown light aircraft at 10secs to collision would probably have been to release the winch cable to ensure a greater level of manoeuvrability to avoid the conflict. That being said, both he and other members agreed that it was difficult to gain a full perspective of the situation given the limited narrative provided by the LS4 pilot. The LS4 would have been at a steep angle of climb at this point and the LS4 pilot's field of view would be limited; the Board commended him for his sharp lookout during what was a high-workload part of his flight, and members postulated that the unknown light aircraft having FLARM was probably significant in alerting the LS4 pilot to the presence of the other aircraft during his launch phase.

The Board then moved on to the actions of the unknown light aircraft. Whilst there were no radar recordings of the unknown light aircraft available, members agreed that given the LS4 was on the winch cable at the time of sighting they could safely conclude that the unknown light aircraft pilot had flown too close to the glider launch site. In this respect, they noted that the glider launch site at Husbands Bosworth was promulgated and active at the time, and so the unknown light aircraft pilot should reasonably have been expected to be aware of the risk related to transiting too close to the launch area.

The Board then looked at the safety barriers that were relevant to this Airprox and decided that the following were key factors:

- **Flight Crew Situational Awareness** was considered **ineffective** because the unknown light aircraft pilot had flown through an active and promulgated glider site.

- **See-and-Avoid** was assessed as **fully effective** albeit it was not clear whether the FLARM indications had first alerted the LS4 pilot or whether he had seen the unknown aircraft beforehand.

The Board then considered the cause and risk of the incident. Influenced by the fact that the LS4 pilot had felt it was safe to remain connected to the winch cable, they surmised that the separation and relative tracks between the aircraft had not been such that collision had been imminent. That

[2] SERA.3225 Operation on and in the Vicinity of an Aerodrome.

being said, it was clear that the unknown light-aircraft pilot had flown too close to a promulgated and active gliders site, if not through it. Some members opined that, by continuing on the launch, the LS4 pilot had potentially flown into conflict when, at 800ft+, he could have disengaged and landed. Others commented that disengaging prematurely from a launch at that stage was equally fraught with risk, especially given that he was presumably able to see that a collision was not imminent. After much discussion, these 2 factors were assessed as contributory to a situation that was probably best described as one where the LS4 pilot had been concerned by the proximity of the unknown light-aircraft. Turning to the risk, members were split as to the data available to them. Some members felt that there was sufficient information to make an estimate of the risk, and believed that although safety had been degraded there was no risk of collision (on the assumption that the LS4 pilot would not have continued to launch otherwise). However, the majority felt that the situation was not clear enough to come to a definitive assessment since there could easily have been a risk of collision but the LS4 pilot may have thought the risk of disengaging was greater. Also influenced by the fact that there was no report from the unknown light-aircraft pilot, the Board felt that it was safest to conclude that the risk was Category D; not assessable due to not enough information.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The LS4 pilot was concerned by the proximity of the unknown light-aircraft.

Contributory Factor(s): 1. The LS4 pilot continued the winch launch potentially into conflict with the unknown light aircraft.
2. The unknown light aircraft pilot flew close to a promulgated and active glider site below the published maximum winch launch altitude.

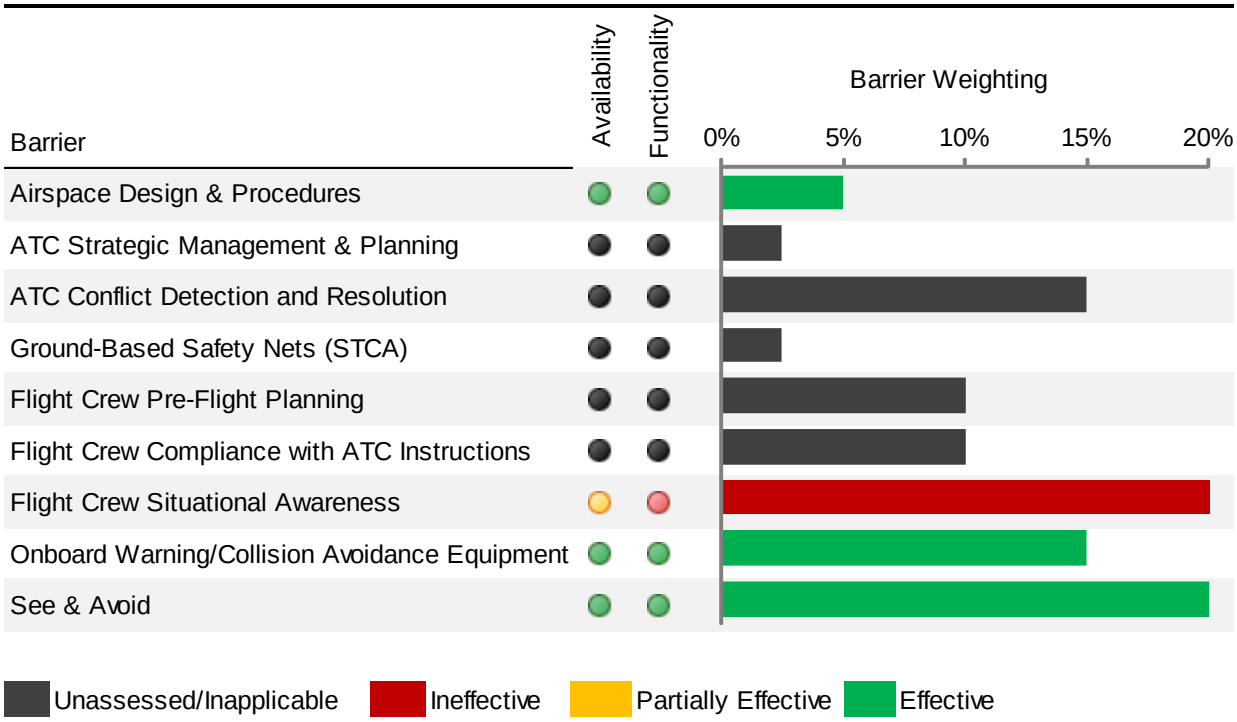
Degree of Risk: D.

Barrier Assessment:

Modern safety management processes employ the concept of safety barriers that prevent contributory factors or human errors from developing into accidents. Based on work by EASA, CAA, MAA and UKAB, the following table depicts the barriers associated with preventing mid-air-collisions. The length of each bar represents the barrier's weighting or importance (out of a total of 100%) for the type of airspace in which the Airprox occurred (i.e. Controlled Airspace or Uncontrolled Airspace).[3] The colour of each bar represents the Board's assessment of the effectiveness of the associated barrier in this incident (either Fully Effective, Partially Effective, Ineffective, or Unassessed/Inapplicable). The chart thus illustrates which barriers were effective and how important they were in contributing to collision avoidance in this incident.

[3] Barrier weighting is subjective and is based on the judgement of a subject matter expert panel of aviators and air traffic controllers who conducted a workshop for the UKAB and CAA on barrier weighting in each designation of airspace.

Airprox Barrier Assessment: Outside Controlled Airspace



Barrier Effectiveness		Functionality		
		Non-functional	Partially Functional	Functional
Availability		**1**	**2**	**3**
Completely Unavailable	**1**	1	2	3
Partially Available	**2**	2	4	6
Available	**3**	3	6	9

Key:

- Effective
- Partially Effective (If the system was partially available but fully functional score availability as 2.5)
- Ineffective
- Unassessed/Inapplicable

Barrier	Availability			Functionality			Unassessable / Absent
	Fully (3)	Partially (2)	Not Available (1)	Fully (3)	Partially (2)	Non Functional (1)	
Airspace Design and Procedures	Appropriate airspace design and/or procedures were available	Airspace design and/or procedures were lacking in some respects	Airspace design and/or procedures were not appropriate	Airspace design and procedures functioned as intended	Airspace design and/or procedures did not function as intended in some respects	Airspace design and/or procedures did not function as intended	The Board either did not have sufficient information to assess the barrier or the barrier did not apply; e.g. TCAS not fitted to either aircraft or ATC Service not utilised. Note: The Board may comment on the benefits of this barrier if it had been available
ATC Strategic Management and Planning	ATM were able to man and forward plan to fully anticipate the specific scenario	ATM were only able to man or forward plan on a generic basis	ATM were not realistically able to man for or anticipate the scenario	ATM planning and manning functioned as intended	ATM planning and manning resulted in a reduction in overall capacity (e.g. bandboxed sectors during peak times)	ATM planning and manning were not effective	
ATC Conflict Detection and Resolution	ATS had fully serviceable equipment to provide full capability	ATS had a reduction in serviceable equipment that resulted in a minor loss of capability	ATS had a reduction in serviceable equipment that resulted in a major loss of capability	The controller recognised and dealt with the confliction in a timely and effective manner	The controller recognised the conflict but only partially resolved the situation	The controller was not aware of the conflict or his actions did not resolve the situation	
Ground-Based Safety Nets (STCA)	Appropriate electronic warning systems were available	Electronic warning systems is not optimally configured (e.g. too few/many alerts)	No electronic warning systems were available	Electronic warning systems functioned as intended, including outside alerting parameters, and actions were appropriate	Electronic warning systems functioned as intended but actions were not optimal	Electronic warning systems did not function as intended or information was not acted upon	
Flight Crew Pre-Flight Planning	Appropriate pre-flight operational management and planning facilities were deemed available	Limited or rudimentary pre-flight operational management and planning facilities were deemed available	Pre-flight operational management and planning facilities were not deemed available	Pre-flight preparation and planning were deemed comprehensive and appropriate	Pre-flight preparation and/or planning were deemed lacking in some respects	Pre-flight preparation and/or planning were deemed either absent or inadequate	
Flight Crew Compliance with Instructions	Specific instructions and/or procedures pertinent to the scenario were fully available	Instructions and/or procedures pertinent to the scenario were only partially available or were generic only	Instructions and/or procedures pertinent to the scenario were not available	Flight crew complied fully with ATC instructions and procedures in a timely and effective manner	Flight crew complied later than desirable or partially with ATC instructions and/or procedures	Flight crew did not comply with ATC instructions and/or procedures	
Flight Crew Situational Awareness	Specific situational awareness from either external or onboard systems was available	Only generic situational awareness was available to the Flight Crew	No systems were present to provide the Flight Crew with situational awareness relevant to the scenario	Flight Crew had appropriate awareness of specific aircraft and/or airspace in their vicinity	Flight Crew had awareness of general aircraft and/or airspace in their vicinity	Flight Crew were unaware of aircraft and/or airspace in their vicinity	
Onboard Warning/Collision Avoidance Equipment	Both aircraft were equipped with ACAS/TAS systems that were selected and serviceable	One aircraft was equipped with ACAS/TAS that was selected and serviceable and able to detect the other aircraft	One aircraft was equipped with ACAS/TAS that was selected and serviceable but unable to detect the other aircraft (e.g. other aircraft not transponding)	Equipment functioned correctly and at least one Flight Crew acted appropriately in a timely and effective manner	ACAS/TAS alerted late/ambiguously or Flight Crew delayed acting until closer than desirable	ACAS/TAS did not alert as expected, or Flight Crew did not act appropriately or at all	
See and Avoid	Both pilots were able to see the other aircraft (e.g. both clear of cloud)	One pilots visibility was uninhibited, one pilots visibility was impaired (e.g. one in cloud one clear of cloud)	Both aircraft were unable to see the other aircraft (e.g. both in cloud)	At least one pilot takes timely action/inaction	Both pilots or one pilot sees the other late and one or both are only able to take emergency avoiding action	Neither pilot sees each other in time to take action that materially affects the outcome (i.e. the non-sighting scenario)	