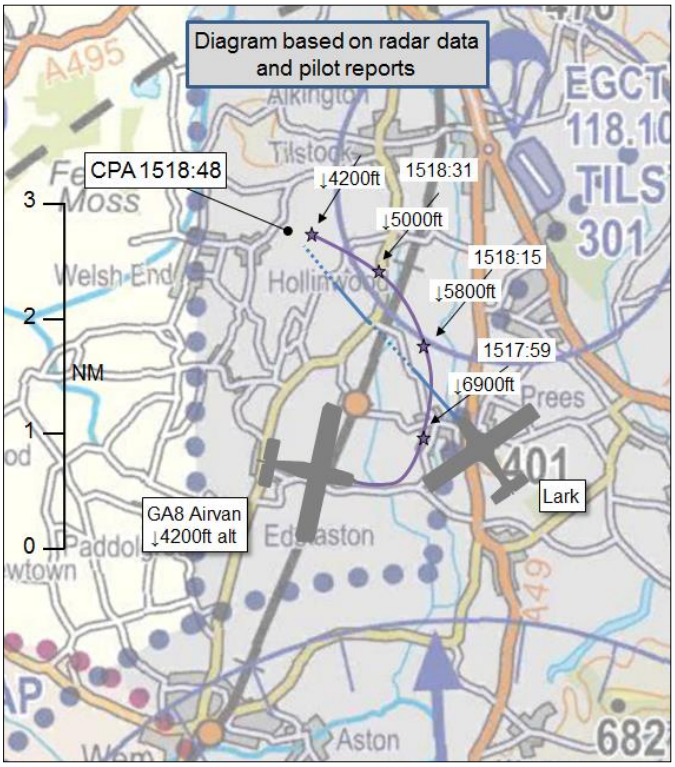
AIRPROX REPORT No 2017209

Date: 28 Aug 2017 Time: 1519Z Position: 5255N 00242W Location: Tilstock

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Helton Lark	GA8 Airvan
Operator	Civ Pte	Civ Club
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Listening Out
Provider	Hawarden	Tilstock
Altitude/FL	NK	4500ft
Transponder	Not fitted	A, C
Reported		
Colours	White	White
Lighting	Nil	Strobes
Conditions	VMC	VMC
Visibility	20km	
Altitude/FL	4400ft	4000ft
Altimeter	QNH (1015hPa)	NK
Heading	310°	NK
Speed	75kt	120kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	50ft V/100m H	0ft V/50m H
Recorded	NK	



THE HELTON LARK PILOT reports that he had planned his route to take him overhead Hawarden at around 3000ft, which would give him 2nm lateral clearance from Tilstock overhead. On passing 3000ft he could see that the top of the inversion was close, so he continued the climb to 4000ft, then 4500ft, to remain above the inversion layer in smoother air and better visibility. On passing abeam Ternhill he contacted Hawarden radio and requested a Basic Service. Due to the Lark's poor radar signature and lack of a transponder, he doesn't normally request a Traffic Service. The controller advised him that Tilstock was active, so he checked his moving map to ensure he was still clear and realised he was ¼ nm right of track so made a suitable heading adjustment to ensure 2nm clearance would be maintained. Approx 2 mins later, an Airvan appeared in his 2 o'clock just below with rapid overtake and banking away. His initial impression was that it had been in a climbing turn and had probably just taken avoiding action. The Airvan's turn continued, taking it out of sight. He called Hawarden to inform them that he had just had an Airprox, and, after looking up the frequency, switched to Tilstock to try and call them and let them know he'd seen the para-drop aircraft, but he received no direct response. However, the Airvan then made another pass on the starboard side and he heard the pilot report on the frequency that he had got his registration. He had thought that 2nm would be enough distance to pass by Tilstock, but with hindsight he thought his extra height might have put him within the 'cone' and too close for their comfort. He normally used PilotAware, but on this occasion had left the battery pack at home and so wasn't able to use it.

He assessed the risk of collision as 'Medium'.

THE AIRVAN PILOT reports that, following a live drop of parachutists from 10,000ft AGL, he commenced a descent and spotted an aircraft below him whose track had clearly taken him through the Tilstock 'perimeter' whilst freefallers had been in the air. The aircraft did not respond to hails on the DZ frequency and was not under a service from Scottish. He therefore arranged his descent in a way that would put him in a position to be able to read the aircraft's registration details. Due to the aircraft's registration being black writing on a red background, he could not clearly see the registration

and so broke off his position, and orbited round for a second attempt and successfully secured the details. He then advised the DZ controller that the other aircraft was on an established track away from the DZ because there have been instances of aircraft loitering in close proximity to the DZ whilst not in contact with anyone. He noted that Tilstock suffers from frequent infringements by aircraft who endanger the lives of the skydivers, and that identification of these aircraft proves difficult because they are often not in contact with any local ATC units.

He assessed the risk of collision as 'None'.

THE HAWARDEN CONTROLLER reports that at 1516 the Lark pilot called on frequency in the Ternhill area to request a Basic Service and advised that he was not transponder equipped. He advised the pilot that Tilstock appeared to be active and he replied that he would avoid the site. At 1519, the Lark pilot reported an Airprox with the Tilstock paradropping aircraft. The controller asked whether he would like to pass more details over the RT, but the pilot said he would report more details over the phone later, he then said he would switch to the Tilstock frequency and try to speak to the other pilot. The Lark subsequently landed without further incident. The pilot later phoned and described the Airvan underneath him, banking hard right. He stated that when he switched to the Tilstock frequency, his first two calls were not answered, but what he heard on frequency led him to believe that the Airprox had been caused by the Airvan trying to get close enough to read the Lark's registration.

Factual Background

The weather at Shawbury was recorded as follows:

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METAR EGOS 281450Z AUTO 24013KT 9999 FEW033/// 23/14 Q1015=
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Analysis and Investigation

CAA ATSI

At 1516:30 the Lark pilot called the Hawarden Radar Controller, advised that they were inbound from Ternhill at 4500ft, and that the aircraft was not transponder equipped. The controller instructed the pilot to join left base for RW22 and to report at Wrexham. A Basic Service was agreed and the controller advised the pilot that Tilstock para dropping site appeared to be active. The pilot readback their joining instructions and responded that they would avoid the para dropping site. At this point the Airvan was maintaining FL105 (Figure 1). The Airvan commenced descent having completed the live drop of a freefall load, and the Lark was slightly east of the Airvan and last reported at 4500ft (Figure 2).

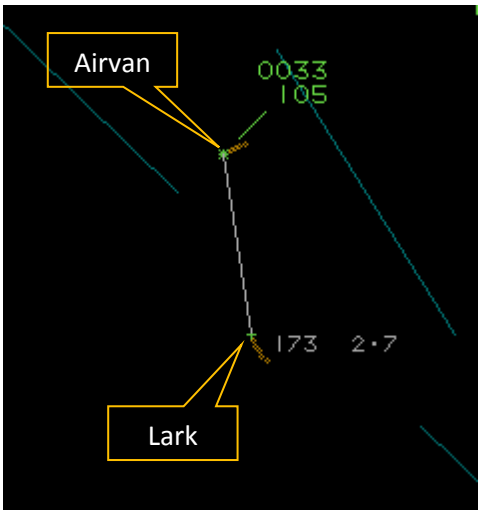


Figure 1 - 1516:30

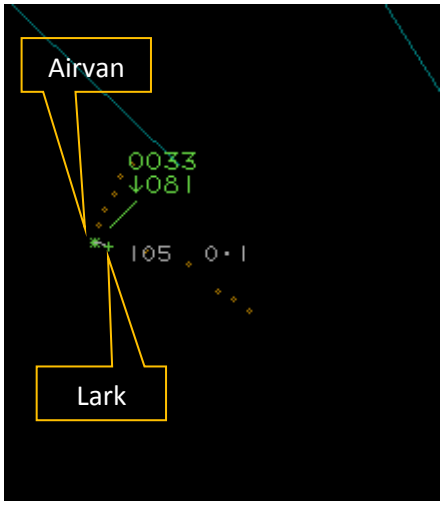


Figure 2 – 1517:28

At 1518:16 the Airvan was still in the descent, had undertaken a sweeping left turn, and started to tail the Lark (Figure 3). At 1518:38 the primary contact on the Lark faded leaving just the track history trail. The Airvan was on the right-hand side of the Lark,100ft above the Lark's reported level (now 4400ft), and descending (Figure 4).

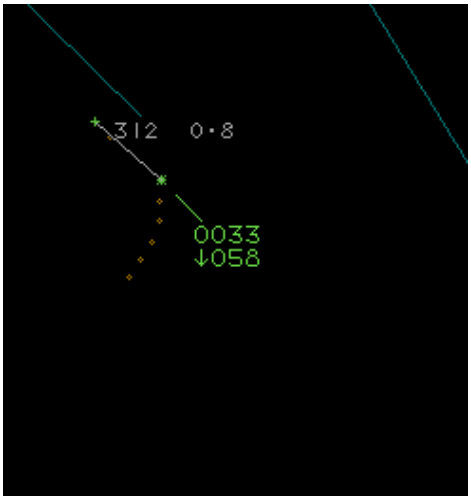


Figure 3 – 1518:16

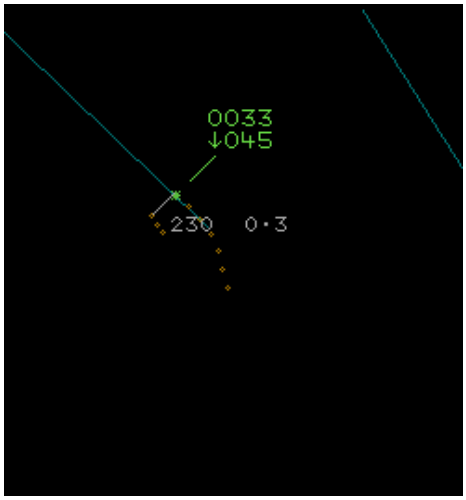


Figure 4 – 1518:38

At 1519:00, the Lark pilot reported the Airprox to the Hawarden controller but the primary return of the aircraft and the track history trail had faded. At 1519:46, the Lark primary return re-appeared and the Airvan was 300ft below the reported level of the Lark. By 1520:02 the Airvan was 0.4nm in trail and still 300ft below the reported level of the Lark, the primary return of the Lark again faded immediately after this (Figure 5). At 1520:45, the Airvan was 0.5nm in trail and indicating 4000ft. (Figure 6). At 1522:08, the Airvan commenced a turn to the south and continued descent inbound to Tilstock Airfield to land.

Figure 5 – 1520:02

Figure 6 – 1520:45

At the time of the Airprox the Hawarden Radar controller was providing a Basic Service to the Lark in Class G Airspace. Under the terms of a Basic Service the controller is not required to monitor the flight, and pilots should not expect any form of Traffic Information from a controller. However, where a controller has information that indicates that there is aerial activity in a particular location that may affect a flight, they should provide information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller unless the situation has changed markedly, or is requested by the pilot. However, if a controller notices that a definite risk of collision exists, a warning shall be issued to the pilot.[1] Whether traffic information has been provided or not, the pilot remains responsible for collision avoidance without assistance from the controller.

[1] SERA. 9001 and 9005 (b)(2)

The Airvan pilot appeared to be tailing and making close passes to the Lark. In the report filed by the Airvan pilot, they stated that identifying aircraft who infringe the Tilstock drop zone is often difficult and that on this occasion they had arranged their descent in a way which would allow them to obtain the aircraft registration details.

The requirements of a Basic Service were discharged effectively by the Hawarden Radar Controller, who made best endeavours to monitor the Lark aircraft. However, the aircraft was constructed of wood and was fading in and out of primary radar cover. The controller also passed a timely warning of the para dropping activity that they had observed on their situational display to Lark pilot who stated that he would avoid the site. The incident occurred in Class G Airspace where both pilots were responsible for their own collision avoidance.

UKAB Secretariat

The Lark and Airvan 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]. If the incident geometry is considered as overtaking then the Lark pilot had right of way and the Airvan pilot was required to keep out of the way of the other aircraft by altering course to the right[3]. Aircraft shall not be flown in formation except by pre-arrangement among the pilots-in-command of the aircraft taking part in the flight.[4]

Summary

An Airprox was reported when a Lark and an Airvan flew into proximity at 1519 on Monday 28th August 2017. Both pilots were operating under VFR in VMC, the Lark pilot in receipt of a Basic Service from Harwarden, and the Airvan pilot was listening out on the Tilstock frequency, not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and a report from the air traffic controller involved.

The Board first looked a the actions of the Lark pilot and noted that he was well aware of Tilstock and had planned his routing to keep clear by what he thought was a sensible margin. He was receiving a Basic Service from Harwarden, and when they informed him that Tilstock was active, this prompted the Lark pilot to assess his track and adjust it to keep further out. A prolonged discussion then ensued amongst Board members as to how far a pilot should avoid a para-drop site. Although there were differing views even amongst the Board members, it was agreed that the Lark had most definitely not overflown the para-drop site, and that the circle marked on the VFR chart was not indicative of any avoidance requirement or 'perimeter' per se, but was simply there to highlight the site to aviators. Although good airmanship dictated that pilots should avoid para-dropping sites by as wide a margin as possible, those conducting parachuting operations had no remit to challenge other pilots who flew in the circle marked on the charts. That being said, members pointed out that the Lark pilot would have been better served by calling on the Tilstock frequency as he approached just to inform them of his routing and ascertain their level of activity. This would have alleviated the concerns of the Airvan pilot, either by requesting the Lark pilot avoid a particular area, or by delaying his drop. Nevertheless, members were clear to point out that the Lark pilot was entitled to operate where he had.

Turning to the Airvan pilot, the Board assumed that he was familiar with the advice in the UKAIP that other pilots are not required to avoid 'Drop Zones' but are merely 'strongly advised to give a wide berth to all such Drop Zones where parachuting may be taking place'[5]. Although the Board

[2] SERA.3205 Proximity.
[3] SERA.3210 Right-of-way (c)(3) Overtaking.
[4] SERA.3135 Formation Flights
[5] UKAIP ENR1.1, 5.5.4.2 Free-fall Parachuting Drop Zones

understood that it was frustrating when aircraft flew nearby and potentially endangered their parachutists, members wished to discourage pilots from taking matters into their own hands. Some members opined that it was most ill-advised for the Airvan pilot to fly close enough to try to see the Lark's registration; mindful of the regulation regarding formation flying, without knowing the intentions of the other pilot there was the risk that they might turn unexpectedly, thereby increasing the risk of collision between the 2 aircraft. In this case the Lark pilot had avoided Tilstock anyway, there were presumably no parachutists in that area (otherwise the Airvan pilot would also have been endangering them), and, by flying close to the Lark, the Airvan pilot had created a situation that was potentially more dangerous than that which he was trying to prevent.

The Board briefly looked at the actions of the Harwarden controller and noted that he was providing only a Basic Service to the Lark pilot and, as such, did not need to provide Traffic Information. He did give a warning that Tilstock was active, and the Board thought that there was little more that he could have been expected to do given that he did not need to monitor either flight on his radar.

Finally, in assessing the cause and risk, the Board were unanimous in deciding that the GA8 Airvan pilot had flown into conflict with the Lark. However, in assessing the risk of the incident, they also agreed that because the Airvan pilot was visual with the Lark at all times, and although safety had been degraded, there had been no risk of collision on the assumption that the Airvan pilot would not have allowed himself to collide with the Lark (although something of a moot point had the Airvan pilot misjudged his intercept, or had the Lark pilot unexpectedly deviated from his track).

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The GA8 pilot flew into conflict with the Lark.

Degree of Risk: C.

Safety Barrier Assessment[6]

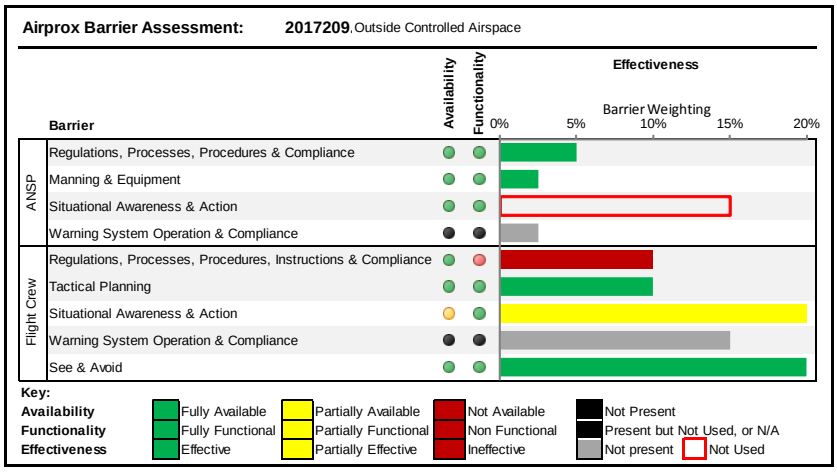
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Crew:

Regulations, Processes, Procedures, Instructions and Compliance were assessed as **ineffective** because the Airvan pilot flew too into close proximity with the Lark.

Situational Awareness and Action were assessed as **partially effective** because the Lark did not have any information on the Airvan prior to seeing him visually.

Warning System Operation and Compliance were assessed as **not present** because neither pilot had a CWS.



[6] The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the UKAB Website.