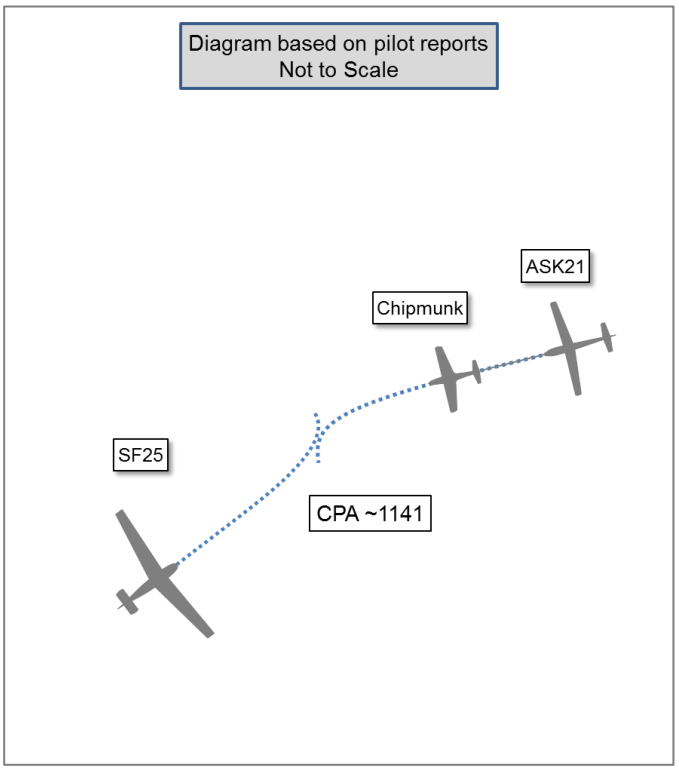
AIRPROX REPORT No 2014145

Date/Time:	17 Aug 2014 1141Z (Sunday)	
Position:	5225N 00106W (Husbands Bosworth)	
Airspace:	London FIR	(*Class*: G)
	Aircraft 1	*Aircraft 2*
Type:	Chipmunk and ASK 21	SF25 Falke
Operator:	Civ Club	Civ Club
Alt/FL:	1500ft NK	1500ft QFE (NK hPa)
Conditions:	VMC	VMC
Visibility:	30km	>50km
Reported Separation:	30ft V/50m H	50ft V/50m H
Recorded Separation:	NK	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE CHIPMUNK PILOT reports conducting a normal aerotow with an ASK21 glider. The white and yellow aircraft had strobe and navigation lights selected on. The aircraft was not fitted with an SSR transponder or a TAS. The pilot was operating under VFR in VMC, listening out on the local 'ground station and gliders' frequency. The take-off and climb-out was normal, with 'rough air' below 500ft, and gentle left and right turns were made to improve forward visibility. At about 1200ft, the ASK21 pilot requested an extended tow to 3000ft, which was acknowledged. At about 1500ft, the Chipmunk pilot started a gentle left turn and, passing 250° at 65kt, suddenly saw the Falke coming straight towards him at the same height. The Chipmunk pilot aggressively steepened the turn to get out of the path of the Falke. He assessed that there would have been a head-on collision had he not done so. He immediately tried to release the ASK21 but the glider pilot had released momentarily beforehand. The Chipmunk pilot noted as he was turning steeply that he saw the Falke diving through the position the tug and glider combination had been in. The pilot commented that the incident took place in the normal tow-out route for the day, given the strong westerly wind. The Chipmunk pilot stated that this was the 'closest flying incident' he had been involved in through 40 years of gliding and power flying. He noted that installation of FLARM might have helped to prevent this incident.

He assessed the risk of collision as 'High'.

THE ASK21 PILOT reports undertaking an aerotow behind the subject Chipmunk. Take off was uneventful, although 'a bit rough' until about 500ft when the conditions smoothed out somewhat. At this point he radioed the Chipmunk pilot requesting a tow to 3000ft. At approximately 1500ft, he saw the Falke heading directly towards the Chipmunk. He alerted the other occupant of the glider who acknowledged that he had also seen the approaching Falke. The ASK21 pilot waited 'a very short while', expressed his misgivings at the developing situation, released from the tow-rope, and turned hard left. At that point he momentarily lost sight of the Chipmunk and Falke. When he glanced back he perceived the Falke pilot diving and turning hard left and the Chipmunk pilot climbing and also turning hard left.

THE SF25 PILOT reports conducting a combined airfield familiarisation and field-landing refresher flight with a visiting pilot. The white and red aircraft had strobe and navigation lights selected on. The

SSR transponder was selected off. The aircraft was fitted with FLARM[1], which was selected on. The pilot was operating under VFR in VMC, listening out on the 'local airfield frequency' [the same frequency as the Chipmunk pilot]. The crew had already looked at landmarks and discussed field options to the west and south of the airfield. They started to progress back towards the north of the airfield and had just finished looking at further field options. Climbing back up towards 1800ft (QFE), and transiting in straight flight at around 60kts on a track of around 030°, they had just discussed the importance of a good lookout given the area they were in when the tug-and-glider combination appeared from behind the compass area of the canopy, growing rapidly and moving to the right. The non-flying pilot's view of the Chipmunk was of the underside of the aircraft so he immediately pushed hard forward on the control column so as to pass below the combination. He believed that both he and the handling pilot saw the combination at the same time and both simultaneously pushed together. A brief time after he started to push he saw the glider release from the tow as the Chipmunk pilot started to bank tightly to the left. The Chipmunk passed to the right and above at about 150-200ft closest distance.

He assessed the risk of collision as 'High'.

Factual Background

The weather at Coventry was recorded as follows:

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METAR EGBE 171150Z 27018G29KT 250V320 9999 FEW024 SCT039 19/08 Q1007
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Analysis and Investigation

UKAB Secretariat

The incident could not be observed on local area radar recordings, the diagram therefore reflects the geometry as related by those involved. All the pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision[2]. If the incident geometry is considered as converging then the Falke pilot was required to give way to the tug/glider combination[3]. If the incident geometry is considered as head-on then the pilots were required to turn to the right[4], notwithstanding the requirement to avoid collision.

Summary

An Airprox was reported when a Chipmunk and ASK21 tug/glider combination and a SF25 Falke flew into proximity at about 1141 on Sunday 17th August 2014. All pilots were operating under VFR in VMC, listening out on the local airfield ground frequency and not in receipt of an Air Traffic Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of all 3 aircraft and radar photographs/video recordings.

Although the incident geometry did not appear on radar recordings, Board members agreed that the pilots involved had painted a vivid picture of the incident. The Chipmunk and glider combination were using the 'normal tow-out route' for the strong westerly wind, the location of which members felt the SF25 pilot should have been aware of given that he was flying from the same location. Gliding members of the Board felt that the SF25 pilot would have been better served by avoiding the tow-out route, for instance by remaining sufficiently east of the airfield, and that both he and the tug pilot could have easily communicated their intentions and location via RT. It was also noted that the strong westerly wind would result in a steeper into-wind angle of climb for the Chipmunk/glider

[1] Flight Alarm, a Traffic Alerting System. http://www.flarm.com/product/index_en.html
[2] Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).
[3] ibid., Rule 9 (Converging).
[4] ibid., Rule 10 (Approaching head-on).

combination, and that it would have been higher and closer to the departure airfield than was perhaps anticipated. Members strongly agreed with the Chipmunk pilot's assessment that FLARM could have helped in this instance; Airprox data indicates that a TAS (or ACAS) has a significant influence on visual acquisition and gliding members were surprised that all the aircraft involved were not so fitted. In this instance, as the Chipmunk was not fitted with FLARM, the SF25 fitment of FLARM did not influence the outcome. Members also noted that fitment of PowerFLARM provides an alert against other SSR transponder equipped aircraft. Members reiterated the importance of selecting SSR on, with Mode C selected, for every flight due to it providing an alert capability to other TAS or ACAS equipped aircraft.

The Board agreed that the cause of the Airprox was a late sighting by all the pilots, although several members noted that the ASK21 pilot had probably seen the approaching SF25 first and, if time permitted, might have assisted by making a radio call to alert the Chipmunk pilot. Despite the lack of radar track information, the pilots' description of the incident was such that the Board agreed unanimously that the situation had only just stopped short of an actual collision, and that chance had played a major part in the outcome.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by both pilots.

Degree of Risk: A.

ERC Score[5]: 100.

[5] Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.