

AIRPROX REPORT No 2014027

Date/Time: 5 Mar 2014 1050Z

Position: 5049N 00111W
(Lee on Solent)

Airspace: Fleetlands ATZ (Class: G)
Aircraft 1 Aircraft 2

Type: Defender Mk2 ASK21

Operator: HQ JHC Civ Club

Alt/FL: 750ft 300ft
QFE (1022hPa) NK

Conditions: VMC VMC

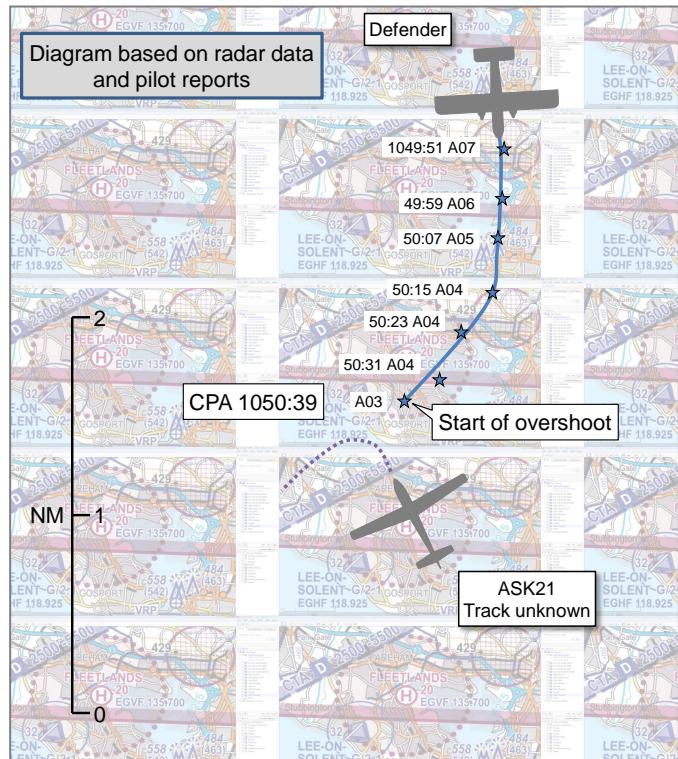
Visibility: 10km >10km

Reported Separation:

200m V/0m H 100ft V/500m H

Recorded Separation:

NK



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE DEFENDER PILOT reports transiting to land at Lee On Solent. The grey camouflaged aircraft had red strobes and 'collision lights' selected on, as was the SSR transponder with Modes A, C and S. The aircraft was fitted with TCAS. The pilot was operating under VFR in VMC, in receipt of an A/G Service from Lee on Solent. The crew were given a free call from Solent Radar to Lee Radio. The crew had 'exited radar control' as they were visual with Lee On Solent and its circuit. The crew were notified by Solent Radio of glider activity at the airfield. At that time a glider was seen getting airborne with a tow aircraft. This wasn't notified by NOTAM, as the 'Solent NOTAMS' discussed helium balloons and airfield work in progress. The crew called to join the field and did so from right base. The crew were notified of the airfield wind conditions and told to land at their discretion. The aircraft was at 750ft and half way around the finals turn, heading 200° at 100kt, when a glider pilot called joining from 'right' base to land. The crew saw the glider in the left 10 o'clock at about 500m and quickly established that the glider pilot was joining from left base and was cutting in front of them. The crew turned right away from the glider and began the over-shoot. The glider pilot then called final, at which point the tower responded "The Defender is now over shooting because of you". The Defender pilot continued around a standard right hand circuit and landed with no further issues. The Defender pilot noted that the crew had been on the Solent frequency for some time, were monitoring the frequency whilst descending under radar control with Solent Approach, and that the first time they were aware of the glider, its position and its pilot's intentions, was when the pilot called 'right' base. The Defender pilot stated that the glider may have been obscured due to the 'window configuration' of the Defender, and that this may not have been a factor if the circuit pattern had been known. The circuit appeared to be clear, except the departing glider. There was no active circuit traffic notified.

He assessed the risk of collision as 'High'.

THE ASK21 PILOT reports conducting aerobatic training. The white aircraft was not equipped with external lighting, an SSR transponder, a TAS or TCAS. The pilot was operating under VFR in VMC, in communication with 'ATC at Lee on Solent'. He was with another pilot, on the second glider aerobatics training flight of the day. They had completed the training at an appropriate height and joined a conventional circuit at about 7-800 ft. The other pilot in the glider made a downwind call, stating his intention to land on the hard runway, which was acknowledged by the tower. The ASK21 pilot did not recall, but was told after the event, that another instructor had heard that the Defender was advised of the ASK21's position in the circuit by the tower, but continued its final approach. On

the base leg, about to turn finals at 300-400ft and 65kt, the ASK21 pilot heard the Defender pilot calling he was going around and he observed his go around manoeuvre. They were at a similar height at a range of about 600-800m. The ASK21 pilot called finals and proceeded to a normal landing, stopping very short, and vacating the runway immediately onto the grass to the east of the runway. The ASK21 pilot stated that he considered 'normal rules of the air' applied, and that a powered aircraft gave way to a glider. He also stated that he had conformed to a normal circuit at normal heights and speeds, and made the correct calls.

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

THE A/G OPERATOR reports that at approximately 1040 on the 5th March 2014 a Defender called 'Lee Radio' requesting airfield information to join. The A/G Operator subsequently gave the Defender pilot the relevant information, the runway in use was RW23 on a right-hand circuit, and he also informed him of glider activity. The Defender pilot acknowledged the information and said that he intended to join 'right base' for RW23. At approximately 1045 a glider (of which he could not recall the call-sign) made a call of 'downwind left hand 23 hard' which he acknowledged and advised the Defender. At approximately 1050 the Defender pilot called 'Finals' for RW23. This appeared to the A/G Operator like a long finals approach as he did not have the Defender visual on right base, even though the pilot had stated that this was his intention. The A/G Operator believe he may have joined on a very wide right base which caused him to enter Fleetlands ATZ without making Fleetlands aware. He subsequently received a phone call from Fleetlands informing him of the Defenders actions. The Defender was now in his view on a long finals approach, which the Operator acknowledged. Moments later the Defender pilot called 'going around'. Due to a blind spot in the tower the A/G Operator could not see why he had made this call but, as he leaned forward to look past the blind spot, he could see the glider on left base to land on the 'hard 23'. The glider pilot did not make a 'left base' call. It then became apparent to him why the Defender pilot decided to go around as at that moment the Defender was on finals as the glider was on left base. The A/G Operator stated that he could not say for sure what the distances where between the Defender and the glider.

Factual Background

The Southampton weather was recorded as follows:

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METAR EGH1 051020Z 00000KT 9000 NSC 06/04 Q1021
METAR EGH1 051050Z 00000KT CAVOK 07/05 Q1021
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Analysis and Investigation

CAA ATSI

The Defender pilot was inbound to Lee on Solent and was in communication with Lee Radio (A/G) but was not in receipt of an ATS. The Glider crew was returning to Lee on Solent, having completed an aerobatics exercise, and was in communication with Lee Radio (A/G) but was not in receipt of an ATS.

Lee on Solent is an unlicensed airfield situated 1.9nm southwest of Fleetlands Heliport and lies partly within the Fleetlands ATZ as shown on the Topographical Air Chart of the UK 1:250,000 South (Ed.16), see Figure 1 below. Page 2 of the 'Lee-on-Solent Airfield Visitors Guide' provides a chart together with guidance on joining procedures and states: 'When Fleetlands Information is operating, they may be contacted for information, but, it is not necessary if remaining clear of the Eastern Sector.' The guide provides a chart showing the Eastern Sector, see Figure 2. For RW23, the circuit direction for powered aircraft is right-hand and, for gliders is left-hand.



Figure 1:Topographical Chart 1:250,000 Figure 2: Chart extract from Lee on Solent visitors Guide

CAA ATSI had access to area radar recording. There is no facility to record RTF at Lee-on-Solent. CAA ATSI discussed the occurrence with the Air/Ground (A/G) operator.

The A/G operator reported that glider activity was taking place and due to the recent heavy rain the ground was soft and gliders were using the hard surface. The A/G operator could not recollect the Defender pilot calling in advance for a pre-flight briefing but believed that this information had been passed to him on his first call inbound.

At 1048:17, radar recording showed the Defender, 4.3nm north of Lee on Solent, squawking 7000 and indicating FL012 (Altitude 1416ft QNH 1021hPa). In discussion, the A/G operator reported that the Defender pilot had contacted Lee Radio reporting inbound from the north for a right base join for RW23. He had advised the Defender pilot that gliding was active. Radar recording showed the Defender pilot enter the Fleetlands ATZ from the north and route towards Fleetlands Heliport. The Defender pilot commenced a right turn and, at 1050:11, passed 0.2nm northwest of Fleetlands at an indicated altitude of 500ft, see Figure 3

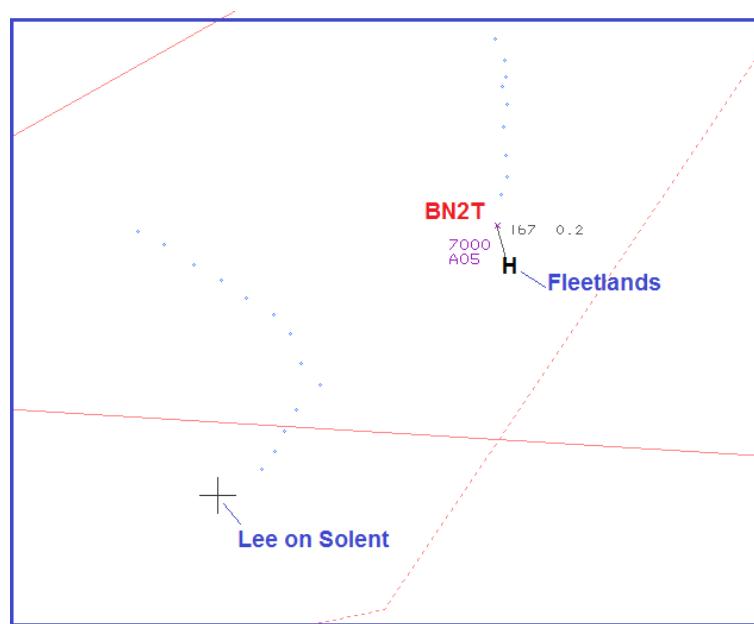


Figure 3: Swanwick MRT at 1050:11

The A/G operator recalled that the Defender pilot had called on right base but was not seen and he suspected that the Defender pilot had completed a wide circuit and was on long final. This was confirmed when Fleetlands called to advise that the Defender pilot had penetrated their ATZ without calling them. The A/G operator outlined how inbound aircraft normally approach within the western sector keeping clear of Fleetlands.

At this point the Glider pilot reported joining downwind and traffic information was passed to the Defender pilot. The A/G operator recalled that he had not sighted the glider on base leg and reported that gliders do not normally call base leg if they have previously reported downwind.

At 1050:30, the Defender pilot was 1.5nm northeast of Lee on Solent at an indicated altitude of 300ft. The Defender pilot saw the Glider joining from left base and commenced a go around. At 1050:44, radar recording showed the Defender pilot 1.1nm northeast of Lee on Solent, in a right turn. The Defender pilot climbed to altitude 500ft and then made a left turn to parallel the runway centreline. The A/G operator considered that the Glider had right of way. The glider was not shown on the radar recording and it was therefore not possible to show the geometry of the encounter.

The A/G operator passed traffic information to the Defender pilot regarding gliding activity and the Glider rejoining. Both aircraft were operating VFR at an unlicensed airfield in Class G uncontrolled airspace in good weather conditions and were responsible for their own collision avoidance in accordance with Rules of the Air .

UKAB Secretariat

Both crews shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision¹ and the Defender pilot was required to conform to the pattern of traffic intending to land². The Rules of the Air 2007 (as amended) only makes provision for flying machines and airships to give way to gliders under Rule 9 (Converging), which in turn is subject to Rule 10 (Approaching head-on) and Rule 11 (Overtaking). Notwithstanding statute, it would be impractical for a glider pilot to give way to a powered aircraft in the landing phase without introducing significant additional risk to the glider pilot. For all practical purposes, the UKAB therefore considers that powered aircraft pilots have a duty to give way to gliders when on a normal approach to land.

Comments

JHC

The Defender pilot was advised by Solent Radar to free call Lee-on-Solent to join and land. He was made aware of a glider operating from a winch out of Lee-on-Solent. He elected not to contact Fleetlands due to the limited time and distance between leaving Solent's RTF and positioning to land, but It is acknowledged that he should have done so, as he flew through their Eastern sector. He heard the glider call "Right base", but shortly after became aware that it was actually at left base. As soon as he saw this he took the safe and correct option in electing to overshoot and give way to the glider.

Summary

An Airprox was reported when a Britten-Norman Defender and an ASK21 glider flew into proximity at about 1050 on 5th March 2014 whilst positioning onto final approach for RW23 at Lee on Solent. Both pilots were operating under VFR in VMC, listening out on Lee Radio.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both aircraft, radar photographs/video recordings, a report from the A/G Operator involved and reports from the appropriate ATC and operating authorities.

¹ Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

² ibid., Rule 12 (Flight in the vicinity of an aerodrome).

The Board first considered the actions of the ASK21 pilot. He was flying a ‘normal’ circuit and making normal radio calls. He was not aware of the presence of the Defender until turning final, when he saw it begin its over-shoot. He then continued for a normal landing on the hard runway. Aware that gliders do not normally make radio calls in the visual circuit to the same extent that powered aircraft do, members opined that because the adjacent grass was rain-soaked and consequently could not be used this might have warranted more explicit calls from the ASK21 pilot at the start of his base turn in order to ensure that all airspace users would be aware that he was committed to landing on the only available airfield surface without an option to go around.

Turning to the Defender pilot, he had been given generic Traffic Information on glider activity at Lee on Solent, both by Solent Radar and Lee Radio, but did not see the ASK21 until it was on final approach when he perceived the conflict, overshot, and joined the powered circuit to the right. The Board were in agreement that the root cause of this was that the Defender pilot did not appear to have planned his approach to Lee on Solent with sufficient rigour: the requirement to call Fleetlands if crossing the ‘Eastern Sector’ was not complied with; and the pilot performed what amounted to a long, ‘straight-in’ approach rather than the normal right-base approach. A radio call to reflect this would have allowed other traffic (and specifically the ASK21 pilot) to assimilate better his position and intentions. In mitigation, the Board noted that Lee on Solent was not a licensed aerodrome and did not appear in the UK Military AIP; consequently, the Defender pilot did not have an easily accessible means of ascertaining airfield joining details. Notwithstanding, given that Defenders were regularly flown into the airfield for maintenance (the Defender aircraft manufacturer is based at the airfield), the Board felt that all Defender crews should have access to this information and that it would be particularly advantageous to explicitly address integration of traffic in circumstances where only the hard runway was useable.

Members were also of the opinion that the A/G Operator could usefully have informed the Defender pilot that the gliders were operating on the single hard runway; this might have alerted the Defender pilot at an earlier point to the potential for conflict.

Considering cause and risk, the Board were unanimous in their opinion that the Defender pilot had not integrated with the pattern of traffic intending to land at Lee on Solent and that he consequently flew into conflict with the ASK21. However, he did see the glider at a range of 500m and, despite some apparent confusion as to the Rules of the Air, he correctly overshot into the powered visual circuit; the Board therefore considered that timely and effective actions were taken to prevent the aircraft colliding.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Defender pilot flew into conflict with the ASK21.

Degree of Risk: C.

ERC Score³: 20

³ 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.