

## AIRPROX REPORT No 2010086

Date/Time: 6 Jul 2010 1407Z

Position: 5150N 00158W (15nm  
NW of Brize Norton - elev  
287ft)

Airspace: London FIR (Class: G)

Reporting Ac Reported Ac

Type: Lockheed L1011 ASW 27 Glider

Operator: HQ Air (Ops) Civ Pte

Alt/FL: ↓3500ft 3500ft  
QFE (1014mb) QFE

Weather: VMC CBCL NR

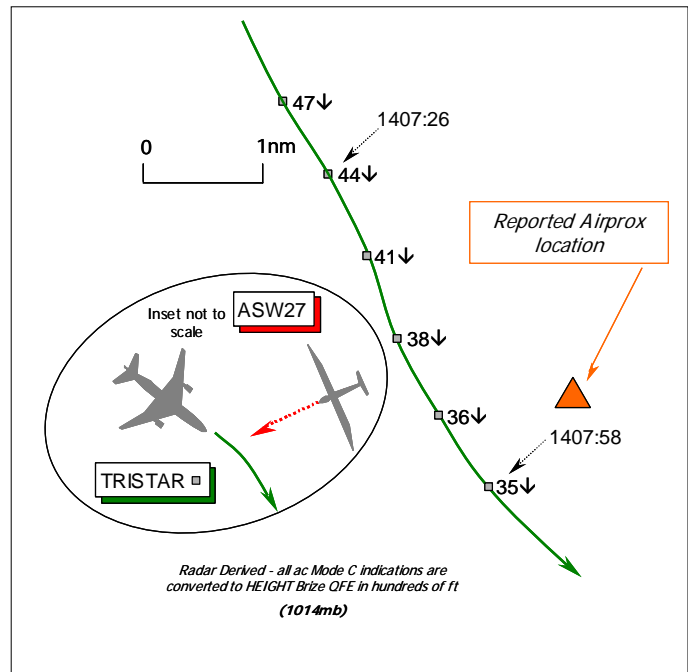
Visibility: 30km 10nm

Reported Separation:

200-300ft slant range 25-50m H

Recorded Separation:

Not recorded



## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE LOCKHEED L1011 TRI-STAR PILOT** reports he was inbound to Brize Norton under IFR in VMC and was in receipt of a TS from Brize DIRECTOR (DIR) on 133-750MHz. The assigned squawk of A3743 was selected with Mode C; TCAS and Mode S are fitted. The ac has a grey colour-scheme but the HISLs and anti-collision lights were all on.

In a gradual L turn towards the BZN TACAN, his ac was approaching a position about 15nm NW of Brize Norton at 250kt whilst levelling at their assigned altitude of 3500ft, he thought, when DIR called TI on an intermittent contact in their 11 o'clock with no Mode C readout. A white glider was eventually seen with difficulty at 11 o'clock about ½nm away, [whilst actually descending through 4700ft QFE according to the RT transcript] against the slightly low horizon on what appeared to be a constant relative bearing. To avoid it he initiated a gentle R turn away from the glider, which passed within 200-300ft of his ac to port and slightly low. Assessing the Risk as 'medium', he stressed that there were four crewmembers on the flight deck all looking out due to their being multiple contacts in the vicinity. He was subsequently informed about a gliding competition.

**THE SCHLEICHER ASW 27 GLIDER PILOT** reports he had departed from, and was returning to Nympsfield, in VMC in a level cruise at a height of 3500ft some 1500ft below cloud. Flying a SW'y course, approaching a position some 7nm E of Staverton at 60kt, the other ac was seen [the range was not specified] and a dive executed to avoid it. Minimum horizontal separation was about 25-50m as the other ac crossed ahead from R-L 'too close for comfort' he opined.

**BRIZE NORTON DIRECTOR (DIR)** reports that the Tristar was inbound to Brize Norton for a procedural TACAN approach and was descending to 3500ft QFE (1014mb). There was a mass of contacts in the sky as there was a gliding competition in progress. She called TI with no height information to the Tristar pilot, who reported visual and said that he would be filing an Airprox.

**THE BRIZE NORTON ATC SUPERVISOR (SUP)** reports that the controller was working 1 ac on recovery and 4 tracks crossing the Brize CTR; her workload was well within her capability. There were multiple glider contacts all around Brize Norton, due to several competitions from different glider sites. However, there was less traffic along the route of the inbound ac. The conflicting glider was

called in good time at a range of 10nm by the controller and the TI was updated again at 2nm. The pilot subsequently reported visual with the glider, but opined in a later telephone conversation that it had been a late sighting, possibly due to the background conditions and the size and colour of the glider. In the Supervisor's view, the controller fulfilled her responsibilities under the TS.

**HQ 1Gp BM SM** reports that as the AIRPROX is not shown on the Cleve Hill Radar recording, this analysis is based wholly upon the reports raised by the Tristar pilot, Brize DIR and the SUP together with the DIR RT transcript.

The Tristar crew was in receipt of a TS from DIR, whilst inbound for a procedural TACAN approach to RW26 at Brize Norton. At 1405:37, DIR passed TI to the Tristar crew on an intermittent primary radar contact, *"..traffic 12 o'clock 10 miles intermittent contact no height"*, which was acknowledged by the crew. This TI was updated by DIR at 1407:05, with the primary only contact described as, *"..left 11 o'clock, 2 miles manoeuvring."* Some 12sec later at 1407:17, the Tristar crew reported that they were, *"..visual with glider"* and in the background it is possible to hear a voice stating *"coming right"*, which accords with the pilot's report that they entered a gentle R turn to avoid the conflict.

Whilst DIR could have included as additional information with the TI that the contact may have been a glider, given the notified competition, the reverse argument is that had the ac not been a glider, this may have provided the crew of the Tristar crew with a false expectation, thereby introducing a further hazard to the situation. Consequently, from an ATM perspective, DIR fulfilled their responsibilities for the provision of TI in line with CAP774.

The CAA has been examining options for the carriage of Low Power SSR Transponders (LPST) on gliders. It is likely that in this instance, the carriage of a LPST by the glider would have provided increased SA for both the Tristar crew and ATC, facilitating a more focussed visual search for the crew and the operation of the Tristar's TCAS as the final safety barriers.

It was recommended that further work was conducted to mandate the carriage of transponders throughout UK airspace.

UKAB Note (1): This Airprox is not shown on recorded radar as the glider is not evident at all. The Tristar is shown descending through 4700ft QFE (1014mb) at 1407:18, when the crew reported visual contact on the glider. The descent is maintained as the Tristar turns gently R in accordance with the reported avoiding action turn whilst maintaining the descent at about 1800ft/min.

**HQ AIR (OPS)** comments that with the TI given and the nature of the conflicting traffic, the Tristar crew did well to see and avoid the glider by the margin they did. ATC also provided a good service given the constraints. If the glider had been able to squawk with a Mode C readout there would have been a significantly improved opportunity for the Tristar to achieve a greater separation. Small, white ac with no conspicuity aids such as HISL or SSR operating without RT contact in the vicinity of busy aerodromes will always present a hazard.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

Members discussed the difficulty of detecting gliders on radar. The DAP Advisor briefed the Board that work was ongoing by the CAA, following recent AAIB Safety Recommendations on this topic, to investigate a variety of glider conspicuity measures, including the increased use of RT by glider pilots for communication with ATSU's and the radar conspicuity of gliders with a composite structure. With the Tristar pilot reporting it was difficult to see the white glider, the carriage of some form of lightweight SSR transponder with altitude reporting would have made the glider conspicuous to the Tristar's TCAS and enhanced the crew's SA.

As it was the radar controller had seen the glider's primary radar contact and passed TI to the Tristar crew when the range was 10nm. She then updated the TI at a range of 2nm and it was plain to the Members that the controller had done a good job here in forewarning the Tristar crew about the approaching glider. These two transmissions had been instrumental in helping the Tristar crew to acquire the ASW27 visually – with difficulty ½nm away the Tristar pilot reported - allowing them to turn away from it and maximise what separation there was. Whilst it was unclear at what range the ASW27 pilot had spotted the Tristar, it appeared to have been quite close but in sufficient time to enable him to take robust avoiding action by diving away from the Tristar. As the glider was not shown on recorded radar it was not possible to determine the minimum separation that applied here; the Tristar pilot reported a minimum of 200ft and the ASW27 pilot a maximum of 50m. The Members agreed unanimously that this Airprox had been the result of a conflict in Class G airspace, but whilst the separation was undoubtedly less than ideal, the Board agreed that the combined action of the pilots involved ensured that any Risk of a collision was effectively forestalled.

### **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: A conflict in Class G airspace.

Degree of Risk: C.