

## **AIRPROX REPORT No 2013002**

**Date/Time:** 12 Jan 2013 1511Z (Saturday)

**Position:** 5130N 00047W  
(White Waltham  
– elev 133ft)

**Airspace:** White Waltham ATZ (Class: G)

**Reporting Ac**      **Reporting Ac**

**Type:** PA28                      Nanchang CJ6

**Operator:** Civ Trg              Civ Pte

**Alt/FL:** 200ft                      250ft  
(QFE NR)                      (QFE NR)

**Weather:** VMC NR                      VMC HAZE

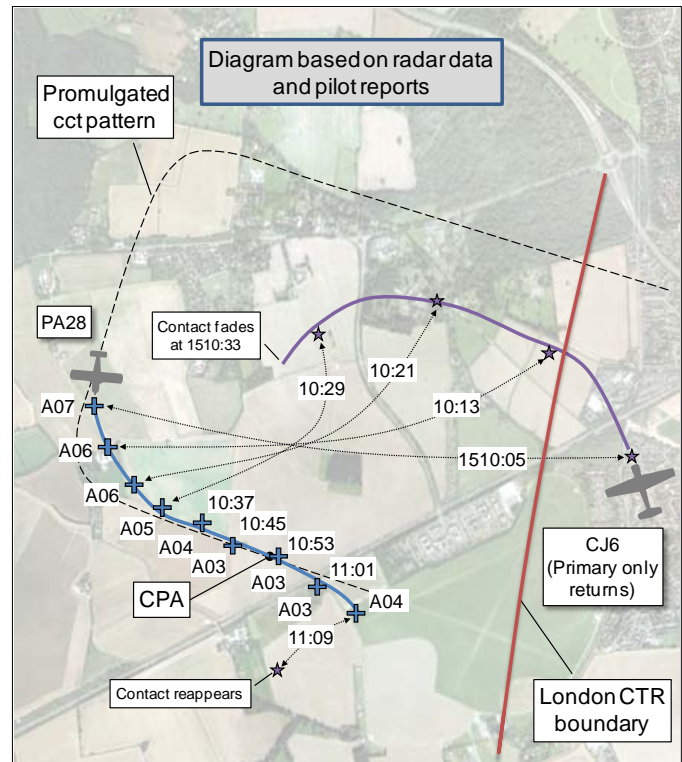
**Visibility:** >10km                      10km

**Reported Separation:**

0ft V/25m H                      0ft V/160ft H

**Recorded Separation:**

NR



**BOTH PILOTS FILED**

### **PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE PA28 PILOT** reports that he was instructing a cct rejoin exercise with a student pilot. He was operating under VFR in VMC in receipt of an A/G service from Waltham Radio [122.600MHz]. He was seated on the RH side of the ac, with the student seated on the LH side. The blue and white ac had wingtip strobes and an LED landing light selected on, as was the SSR transponder with Modes A and C selected. The ac was not fitted with Mode S or an ACAS. He departed White Waltham at approximately 1430 and conducted one rejoin without incident. On the second rejoin he completed a normal join for RW11 LH via the O/H [at height 1300ft at this A/D]. He noted one other ac in the cct, a Piper Super Cub, and did not see any other ac at that time. As he turned downwind it became apparent that the pilot of an ex-military training ac was also operating in the ATZ but he didn't recall any RT transmissions from him. As he approached short final, heading 110° at 65kt, he saw that the Super Cub pilot had begun a base turn from abeam the RWY threshold. He was uncertain whether the Super Cub pilot had seen him on final but continued the approach 'whilst watching him continually'. Meanwhile, the CJ6 pilot whom he had expected to go either ahead of him or behind him, made one continuous turn from downwind to final approach, until he was exactly L abeam, on final approach at height 200ft. He made an RT transmission to request the other pilot's intentions but, on receiving no response, decided to go around immediately. The other ac passed behind him and emerged on his RH side, apparently having elected to go around as well.

He assessed the risk of collision as 'High'.

He stated he was surprised that the other pilot did not have his undercarriage selected down and was still uncertain if his intention was to land.

**THE CJ6 PILOT** reports intending to conduct a short flight to include aerobatic training/practice. He was operating in a non-radio ac under VFR, in VMC. The green camouflaged ac had navigation and landing lights selected on. The ac was not fitted with an SSR transponder or an ACAS. After departure he had cockpit indications of an electrical failure; he completed the emergency checklist, which included advice to land at the nearest suitable A/D, and decided to return to White Waltham. He flew a 'PFL cct' with a constantly descending turn onto short finals. As he rolled out at 350ft at

100kt he saw a PA28 in his R 10'clock position at the same level and a range of 160ft. He performed a go around to the deadside, keeping the PA28 on his L.

He assessed the risk of collision as 'Low'.

He commented that when downwind, he was 'looking into sun for ac on base and final on a hazy afternoon'.

**ATSI** reports that the Airprox occurred at White Waltham A/D, within the ATZ, in Class G airspace, between a Piper PA-28-161 Cherokee Warrior III (PA28) and a Nanchang CJ6, an ex-military, 2 seat tandem, training ac. The White Waltham ATZ comprises a circle of radius 2nm, centred on the midpoint of RW07/25 and extending from the surface to a height of 2000ft aal (elevation 133ft).

## Background

The PA28 departed from White Waltham under VFR at approximately 1430 for a cct rejoin training exercise with a student pilot. The CJ6 departed White Waltham non-radio for a VFR training flight, to include aerobatic practice.

White Waltham is operated by the West London Aero Club (WLAC) and lies on the boundary of the London Class A CTR, which extends from the surface to an altitude of 2500ft. The W portion of the ATZ lies within Class G airspace and the E portion, the White Waltham Local Flying Area (WW LFA), lies within the London CTR. Flights within the WW LFA are restricted to a maximum altitude of 1500ft.

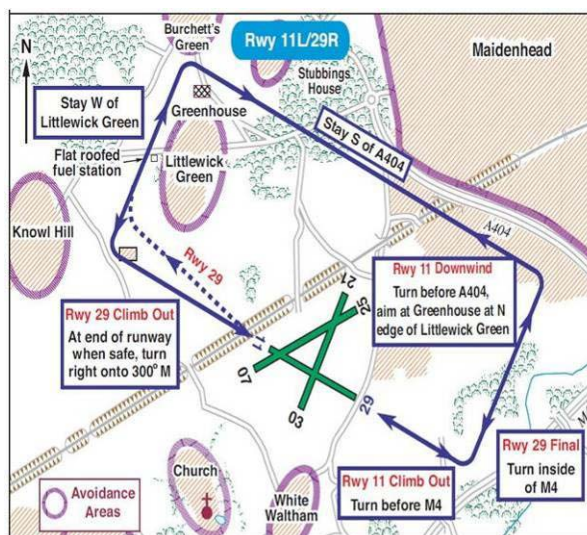
The UK AIP, pages AD 2-EGLM-5 and 6 state:

'White Waltham operate an Air/Ground radio on frequency 122.600MHz, in the winter from 0800 UTC to sunset.

Users of the aerodrome should be familiar with the West London Aero Club Flying Order Book (FOB) which is available at the aerodrome or on the [WLAC internet site].

All joins normally overhead at 1300ft QFE; circuit height 800ft QFE.'

RW11 was in use; the promulgated cct pattern to be flown appears in the WLAC FOB and is shown in a proprietary flight guide and on the WLAC web site, as shown below.



The ANO Rule 45 (5) states:

'If there is no flight information service unit at the aerodrome the commander shall obtain information from the air/ground communication service to enable the flight to be conducted safely within the zone.'

The White Waltham FOB, Section 1, Paragraph 2.5, states:

'...all flights on private aircraft are to be booked in and out on the sheets provided in Operations...'

The proprietary flight guide entry for White Waltham, states:

'(Remarks) Non-radio aircraft require telephone briefing from Operations prior to each flight.'

CAA ATSI had access to area radar recording, together with written reports from the two pilots concerned and a local investigation report. CAA ATSI also discussed the incident with the A/G Operator.

The Heathrow A/D weather was recorded as follows:

METAR EGLL 121450Z 09015KT 9999 BKN047 04/M02 Q1011 NOSIG=  
METAR EGLL 121520Z 09013KT 9999 FEW037 BKN045 04/M02 Q1011 NOSIG=

#### Factual History

At 1438:32, radar recording shows a contact airborne from RW11 at White Waltham squawking 7000 with Mode C indicating an altitude of 600ft. This correlated with times and routeings for the PA28 as reported in the PA28 pilot's written report. He was observed to route to the SW of the A/D and, at 1445:39, rejoined the traffic pattern from VRP SIERRA. At 1449:43 he was O/H the A/D at 1300ft with one other intermittent primary contact observed in the cct [a PA18].

At 1457:47, the PA28 pilot left the ATZ to the W and, at 1501:30, set course to rejoin from VRP WHISKEY. At 1506:57, he approached the O/H at 1300ft with the intermittent primary contact downwind. He was then observed to join crosswind and, at 1508:58, was downwind following the intermittent primary contact. At 1510:02, he turned onto final for RW11 at an altitude of 700ft with a primary contact, believed to be the CJ6, joining. The CJ6 pilot was observed to continue in a short cct pattern.

The CJ6 pilot's report indicated that he was operating non-radio and, after his earlier departure, had become aware of a 'fluctuating ammeter needle, with occasional hard over indication, which suggested arcing and Bus failure/low charge light'. The CJ6 pilot elected to return to White Waltham and completed a PFL cct with a constant descending turn onto short final.

At 1510:43, the PA28 pilot was on final, 0.4nm from touchdown, indicating an altitude of 400ft. The CJ6 pilot was on L base, in the PA28 pilot's 8.30 position at a range of 0.4nm and converging at a much faster speed. The CJ6 radar return then faded from radar.

The PA28 pilot's written report indicated that he had sighted the CJ6 in a continuous turn until abeam him on final approach. The PA28 pilot indicated that he transmitted and requested the intentions of the CJ6 pilot, but without any response. He reported that he elected to go around and noted that the CJ6 did not have any gear down.

The A/G operator, when questioned, indicated that he had observed the PA28 and the CJ6 on final approach. The CJ6 was below and moving to the right of the PA28. Both pilots had commenced a go around. The PA28 pilot turned crosswind early to increase separation. The White Waltham Aerodrome operator's safety sub-committee completed an investigation, which included a number of recommendations. Their report noted that the CJ6 pilot had not booked out and had not informed

anyone that he was operating non-radio. White Waltham intend to review their procedures for the operation of non-radio ac and will amend the Operations Manual/FOB and appropriate pages of the UK AIP.

## Analysis

White Waltham does not provide ATC or FISO services and requires pilots to comply with the Flying Order Book. In Class G airspace, pilots are ultimately responsible for their own separation on the principle of 'see and avoid'. For flight within the vicinity of an aerodrome, RoA Rule 12 states that the commander shall:

'conform to the pattern of traffic formed by other aircraft intending to land at that aerodrome or keep clear of the airspace in which the pattern is formed...'

The CJ6 pilot did not obtain information from the A/G operator to ensure that the flight was carried out safely within the ATZ and the pilot did not book out or report that he was operating non-radio. When the CJ6 returned to join the cct due to an electrical problem, the pilot joined for a short cct pattern and flew into conflict with the PA28 already established in the cct and on short final.

## Conclusions

The Airprox occurred when the CJ6 pilot joined the cct at White Waltham without conforming with the cct pattern already established and flew into close proximity with the PA28, which was established on short final for RW11.

[UKAB Note(1): Rule 13(Order of landing) of the RoA states:

(1) An aircraft landing or on its final approach to land shall have the right-of-way over other aircraft in flight or on the ground or water.

(2) An aircraft shall not overtake or cut in front of another aircraft on its final approach to land.

...

(4) If the commander of an aircraft is aware that another aircraft is making an emergency landing, he shall give way to that aircraft.

...

Rule 17(Notification of arrival and departure) of the RoA at paragraph 2 states:

'The commander of an aircraft arriving at or departing from an aerodrome in the United Kingdom shall take all reasonable steps to ensure, upon landing or prior to departure, as the case may be, that the person in charge of the aerodrome or the air traffic control unit or flight information service unit at the aerodrome is given notice of the landing or departure.']

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

Information available included reports from the pilots of both ac, radar video recordings, reports from the air/ground operator involved and reports from the appropriate operating authorities.

The PA28 pilot appeared to be conforming to the pattern of traffic in the White Waltham cct so the Board concentrated its deliberations on the actions of the CJ6 pilot. The pilot did not notify his departure, contrary to Rule 17(2) (Notification of arrival and departure) of the RoA, or that he would be operating non-radio, contrary to the White Waltham FOB. The White Waltham A/G Operator was therefore unable to pre-emptively notify other ac in the cct that the CJ6 pilot was operating non-radio.

Having departed the cct, experienced the ac emergency and carried out the checklist actions, the CJ6 pilot made the decision to return to White Waltham A/D where he carried out a 'PFL cct'. The RoA Rule 13(4) states that 'If the commander of an aircraft is aware that another aircraft is making an emergency landing, he shall give way to that aircraft'. The Board concluded that the PA28 pilot could not have known of the CJ6 emergency and that it was therefore the CJ6 pilot's responsibility to conform to the pattern of traffic intending to land, iaw Rule 12. However, the CJ6 pilot did not see the PA28 until he rolled out on final and had flown into conflict with it. Board Members were divided in their opinion of the severity of the conflict with some opining that safety margins had been much reduced below normal. However, noting the PA28 pilot's report that the CJ6 made a continuous turn on to final from downwind, the majority of Members concluded that he had gained an early visual sighting of the CJ6 and was therefore always in a position to break away, effectively removing the risk of a collision.

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

Cause: The CJ6 pilot flew into conflict with the PA28 on final approach, which he did not see.

Degree of Risk: C.