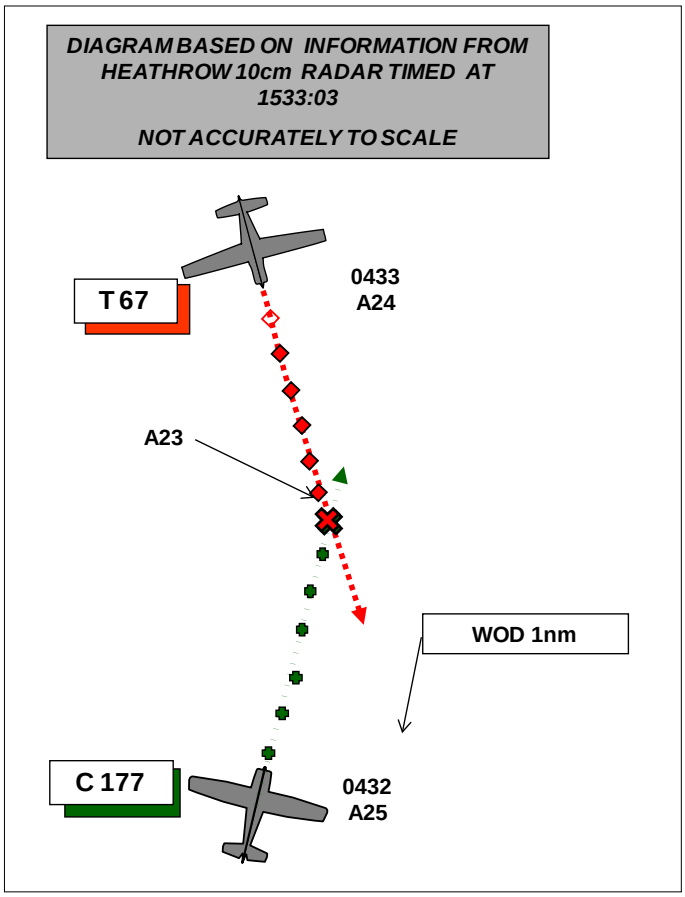
AIRPROX REPORT No 2011157

Date/Time:	1 Nov 2011 1533Z	
Position:	5130N 00051W (1nm N WOD)	
Airspace:	London FIR	(*Class: G*)
	Reporting Ac	*Reporting Ac*
Type:	C177 RG	T67M
Operator:	Civ Pte	Civ Pte
Alt/FL:	2500ft QNH (1010mb)	2500ft QNH
Weather:	VMC	VMC
Visibility:	10km	10km
Reported Separation:	100ft V/50m H	10ft V/120m H
Recorded Separation:	200ft V/0 H	



BOTH PILOTS FILED.

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE C177 RG PILOT reports flying a private flight under VFR from Cherbourg to Denham in a blue and white ac, squawking as directed with Modes C and S. At the time of the incident they were in a level cruise, heading 015° at 130kt and his co-pilot was talking on the radio with Farnborough Radar who were providing a BS; Farnborough asked them to confirm their alt then asked them to descend to remain below the London TMA. As pilot in command, he was maintaining level flight and had not commenced a descent when the incident occurred. He recalls looking to the E towards White Waltham and Heathrow and then glancing down at the GPS to confirm his position and that he was on track. On looking straight ahead again, he saw another ac very late, in front and slightly to the R and below him (a yellow low-wing single-engine type). By the time he had seen the other ac it was too late to take any avoiding action and it was only by chance that a collision was avoided and he assessed the risk as being high.

THE T67M PILOT reports that he was informed of the incident late and he could not recall the detail. He was flying a private VFR flight from Leicester to Redhill in a yellow and black ac with no TCAS fitted and was in the area of the WOD NDB at the time, cruising at 110kt at 2500ft [see below]; he was in receipt of a BS from Farnborough W LARS. He saw a high-wing white single-engine ac 400yd away in his right (1 o'clock) at about the same alt but it was too late to take any avoiding action. He reported the incident on the RT and assessed the risk as being medium-high.

UKAB Note (1): The C177 pilot had previously completed and posted an Airprox form but it was sent to the old UKAB address. His second report was received 3 weeks after the event but, since the T67 pilot reported the incident on the RT, the RT and radar recordings and an accurate Controller's report were available.

THE FARBOROUGH LARS WEST CONTROLLER reports at about 1530 she was working on the LARS W sector when during her scan she noticed a C177 from Cherbourg to Denham was just S of WOD NDB at 2500ft. She checked the level written on her strip which also said 2500ft, so she asked

the C177 pilot to confirm his level. The pilot confirmed that he was at 2500ft so she told him to descend to 2400ft to remain clear of CAS. Just as she finished telling him this she noticed that there was a 0433 (Farnborough) squawk just N of WOD indicating 2400ft. She was just about to warn the C177 about this traffic but thought that by the time she had told each of them about each other it would be too late. The C177 pilot then asked her to repeat her last transmission as he had just flown very close to another ac. The controller repeated her last transmission and the pilot did not say anymore on the matter. A couple of min later, the 0433 squawk that was a T67 from Leicester to Redhill asked for a TS, which she duly upgraded him to. At 1538 the T67 pilot asked if she had a C182 on frequency going opposite direction to him and the controller confirmed that she had worked a C177 on that detail. He then said he had a near-miss with that ac and would like to file an Airprox. Both ac were on a BS at the time of the Airprox.

ATSI reports that the Airprox occurred at 1533:04, in Class G airspace, 0.6nm NNE WOD NDB, at a distance of 15nm on the Heathrow 09R centreline and below the London TMA-1, Class A CAS, which has a base alt of 2500ft. The area around WOD is a known area of high intensity traffic below the base of CAS, with traffic routeing N and S overhead WOD.

The C177 was operating VFR on a flight from Cherbourg to Denham and the T67 was also operating VFR on a flight from Leicester to Redhill. Both ac were in receipt of a BS from Farnborough LARS-W; traffic levels were assessed as medium to high.

CAA ATSI had access to RTF and area radar recordings, together with written reports from the controller, both pilots and the ATSU unit investigation report.

The Heathrow weather was:

METAR EGLL 011520Z 23007KT 190V260 9999 FEW027 15/08 Q1010 NOSIG=

At 1518:20, the C177 pilot contacted LARS W, flying from Cherbourg to Denham via WOD and Wycombe, reporting just S of Petersfield at an alt of 2500ft on QNH 1010; a BS was agreed and the pilot was instructed to squawk 0432.

At 1526:21, the T67 pilot contacted LARS W on handover from LARS N squawking 5031; the pilot was instructed to squawk 0433 and a BS was agreed.

The LARS W controller's attention was drawn to the C177 just S of WOD at 2500ft, the base level of London TMA-1. At 1532:49, the controller asked the C177 to confirm his level and the pilot responded, *"Currently at 2500ft on QNH 1010".* Radar recordings show the C177 overhead WOD tracking N and indicating an alt of 2500ft with the T67, 1nm N of WOD tracking S indicating an alt of 2400ft. The controller replied, *"(C177 C/S) roger, can you descend to two four zero zero feet that will keep you clear below controlled airspace".*

The controller then noticed the 0433 squawk [the T67] indicating an alt of 2400ft and considered it was too late to pass a warning to the C177. At 1533:00, radar recordings show the distance between the two ac was 0.1nm on reciprocal tracks. The C177 was indicating an alt of 2500ft and the T67 2400ft. The C177 pilot then responded to the controller, *"Can you repeat that please, just had an ac pass by one hundred feet repeat please (C177 C/S)".* At 1533:05, radar recordings show the two ac had passed abeam; the C177 was maintaining an alt of 2500ft and the T67 at an alt of 2300ft descending.

At 1533:15, the controller again asked the C177 pilot to descend to an alt of 2400ft to keep outside CAS and this was acknowledged correctly. At 1533:32, the T67 pilot requested a TS and the C177 was shown indicating an alt of 2300ft.

At 1537:29, the C177 reported leaving the frequency for Denham and shortly afterwards at 1538:02, the T67 pilot asked if LARS W had spoken to a C182 routeing in the opposite direction; this was confirmed as the C177 and the T67 pilot advised that an Airprox would be filed.

The LARS W controller's attention was drawn to the C177 approaching WOD at 2500ft, the base level of the London TMA-1 Class A CAS. The controller had not observed the T67 and asked the C177 to descend to 2400ft to remain below CAS. The C177 pilot did not initially hear this transmission and maintained 2500ft as the T67 passed in close proximity 200ft below. The controller then recognised that the T67 was in conflict, but judged that it was too late to pass a warning as the two ac were already passing abeam. There was no requirement for the controller to monitor the flights as both ac were in receipt of a BS. CAP 774, UK Flight Information Services, Chapter 2, Page 1, Paragraph 1, states:

> 'A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.
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> *Basic Service relies on the pilot avoiding other traffic, unaided by controllers/FISOs. It is essential that a pilot receiving this service remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight'.*

The two ac flying on reciprocal tracks in the vicinity of WOD and operating below the base of the London TMA-1, came into close proximity. Both ac were flying VFR and in receipt of a BS from Farnborough LARS-W. The controller did not observe the conflict in sufficient time to pass a warning and under a BS there was no requirement for the controller to monitor the ac.

UKAB Note (2): An analysis of the Heathrow 10cm radar showed the incident clearly as depicted above. The C177, squawking 0432 approaches the CPA tracking 015° at an alt 2500ft. Meanwhile the T67, squawking 0433 tracks 165° at an alt of 2400ft before descending to 2300ft on the sweep before the CPA. The contacts merge 1nm N of WOD at 1533:03 the C177 indicating an alt of 2500ft and the T67 2300ft.

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 recordings, reports from the air traffic controller involved and reports from the NATS and the appropriate ATC and authorities.

UKAB Note (3): The following additional information was provided by NATS following a conversation between their investigator and the T67 pilot.

> 'The pilot of (T67 Reg) stated he had to push forward on the controller column to avoid (C177 Reg); the pilot stated this was the only option available. The pilot of (T67 Reg) stated he couldn't turn right as this would take the plane into the path of C177 Reg) and couldn't turn left as this may of caused a mid air wing tip collision'.

Although this was passed to the UKAB by NATS, it was inadvertently not included in the Part A distributed to Members before the Meeting. However, it was taken into account by the Members in theier assessment of the Airprox at the meeting.

Members observed that the incident took place in Class G, 'see and avoid' airspace at a known choke point where 'head on' encounters between N'bound and S'bound traffic are commonplace. In addition to the horizontal choking, the base of the LTMA is 2500ft and this is also a significant vertical constraint to VFR transits.

Members noted that both ac were operating under a BS from Farnborough LARS and that after the event the T67 pilot asked for an upgrade to a TS and this was granted. Members therefore agreed

that at the time Farnborough had the capacity to provide such a service and had the respective pilots been operating under a TS they would most likely have had a warning of each other and the impending conflict in time to take avoiding action.

Controller Members observed that the LARS controller was not under any remit to provide TI and pilots should not expect any warning of collision when operating under a BS. A controller Member opined, however, that the LARS controller should have seen the potential conflict in time to provide warnings to the pilots and that this was a more important task than ensuring that the C177 did not encroach into the base of the TMA; further the descent instructed from 2500ft to 2400ft would have of exacerbated the risk of collision had the C177 pilot obeyed the instruction immediately it was passed. Another controller Member reminded the Board of the large geographic area covered by LARS W and speculated that the returns from both ac could have been overlaid by returns from traffic in the CAS above them; given these factors LARS-W could not have been expected to see the impending confliction.

Notwithstanding the above, the respective pilots had a responsibility to see and avoid each other. The C177 pilot did not see the T67 until it was too late to take any avoiding action; although (from his initial report) the T67 pilot saw the C177 slightly earlier 400yd away (3.5 sec at a closing speed of 240kt) but (based on the information passed to NATS) just in time to initiate a bunt to avoid it. Fortunately there was also a little horizontal and vertical separation extant but the separation was small enough and the bunt late enough to persuade Members that there was an actual risk of collision.

Both pilots commented to ATC that they had been in a close encounter; Members commended the T67 pilot for stating explicitly on the RT that he would file an Airprox thus ensuring that controller reports and data were available when they might otherwise not have been.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively a non-sighting by the C177 pilot and a late sighting by the T67 pilot.

Degree of Risk: A.