

## AIRPROX REPORT No 2010068

Date/Time: 12 Jun 2010 (Saturday) 1208Z

Position: 5147N 00048W (3m W  
Halton - elev 370ft)

Airspace: Lon FIR (Class: G)

Reporting Ac Reported Ac

Type: Tornado F3 Cessna 172

Operator: HQ AIR (Ops) Civ Pte

Alt/FL: 2300ft 2400ft  
(QNH 1016mb) (NK)

Weather: VMC CLBC VMC CLBC

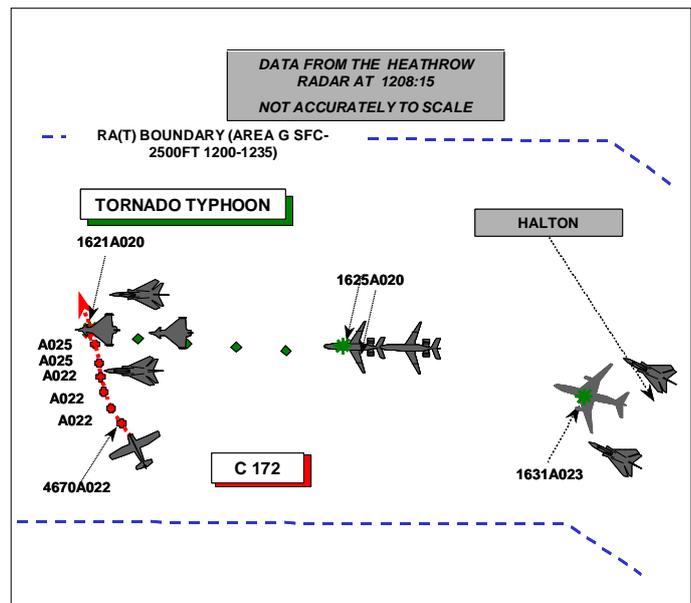
Visibility: >10km >10km

Reported Separation:

200ft V/100ft H NR

Recorded Separation:

500ft V/0 H



## PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

**THE TORNADO F3 PILOT** reports that he was in close formation with the leader of the lead section (2 Typhoons and 2 Tornado F3s) of a 30 ac extended formation participating in the Queen's Birthday Flypast in receipt of a TS from Luton Radar and squawking with Mode C. They had passed over London a few minutes previously but were still in a high workload situation, flying at 270kt and preparing to split the formation, when Luton Radar warned them of an unknown track at an unverified Mode C level [at an alt of 2200ft] directly ahead of them. At 1207 a formation pilot called the conflicting traffic estimated to be 2nm away just to the left of their track and in a turn. The intruder was a white high-wing light ac, which rolled out on a northerly heading on a direct collision course with his element so he called the formation to descend immediately.

The ac was then identified as a C172, passed slightly above and to the right of the formation (about 200ft above and 100ft to the right), close enough for the WSO to note the ac registration of the ac. If the descent had been made any later he would have to call an emergency formation break out manoeuvre requiring the separation of all the following elements.

The element No3's mission tape shows that at 1205 the formation was in receipt of a TS from Luton Radar and were flying at 2300ft on the QNH of 1016mb when Luton Radar transmitted, "C/S formation be advised 7000 contact 3 miles southwest of Halton westbound at 2200ft not verified" and Leader responded, "Got contact just northeast at 4000ft, looking for the other." The tape also recorded a sequence of calls starting at 1207 from the traffic to Luton, Luton Radar replying and a change of controller and a garbled transmission stepped on by internal calls from elements. It then records the following sequence: C/S 2 "Got him left 11.30...garbled", C/S 4 "C/S suggest we climb", Leader "Let's go down, let's go down". At 1207:55 "C/S Lead, just passed Halton. Light aircraft at 2300ft. All elements step down by 300ft". At 1208 Luton Radar transmits, "C172 C/S, First of the flypast below you now" and the C172 pilot responds "Roger, apologies for that."

The incident was reported at the time and he assessed the risk as being high.

**THE CESSNA 172 PILOT** reports flying a private flight from Denham to Wellesborne squawking 7000 with Mode C and monitoring Luton Radar. He was in the cruise and had just passed over the Chilterns, monitoring closely the activity at Halton, as it had been NOTAM'd as having intense gliding

activity, when he heard the Luton controller talking to the formation. The Controller stated that he had an unverified contact 5nm ahead of the formation at 2400ft; the formation leader replied that he had the contact visual. He immediately told the controller that he was on frequency and that he was probably the unverified contact. The controller then requested that he use a Luton squawk, which he did, but as he was changing the code a different controller instructed him to climb immediately to 2500ft.

He panicked a little at an unfamiliar voice and asked briefly to descend as he thought he might climb into cloud but no one acknowledged the call. On regaining his composure he immediately commenced a climb to ~ 2700ft and realised that the cloud was higher than he initially thought. This all took place in a few seconds and he saw the formation pass behind and below him. He assessed the risk as being Medium.

He continued with Luton until he was over Stow in Buckinghamshire when the Luton controller asked if they were still on frequency, which he confirmed and was then given a 7000 squawk was told to change to his en-route frequency.

After landing at Wellesbourne he checked his data and realised that had read the NOTAM but for whatever reason assimilated the restriction times to be local rather than UTC.

He totally accepts responsibility and realises the danger in which he placed the formation and his own ac and apologised for his error, requesting that this be relayed to all the crews involved.

**ATSI** reports that the incident took place at 1208:15, 18.5nm SW of Luton Airport and 3nm W of Halton. This position was within the RA (T) that was active from 1200 to 1235, extending from the surface to 2500ft amsl. The RA (T) Areas F and G were established to facilitate the passage of the large formation of ac departing the London CTR, routeing NW to Halton and then turning west towards Brize Norton. The formation was in receipt of a TS from LTC Luton INT DIR (Radar) and the reporting Tornado was the formation No2. The C172 was on a VFR flight from Denham to Wellesbourne Mountford.

The Luton weather was reported as:

METAR EGGW 121150Z 03007KT 360V060 9999 FEW026 SCT046 15/09 Q1016=

At 1200:00, as RA (T) Areas F and G became active, radar recording shows the C172 tracking NW, within RA (T) Area F, 12nm SE of Halton. The C172 was displaying a squawk of 7000 with Mode C indicating A2200ft. At 1206:12, as the formation tracked NW, Radar passed TI to it, "*Er (formation) C/S just be advised sir there is li-a seven thousand er about three miles southwest of Halton westbound two thousand two hundred feet but not verified*". The formation leader replied, "*Okay looking I have a contact just northeast at four thousand looking for the southwest contact.*" At 1205:28 radar recording shows the C172 tracking NW passing from RA (T) Area F to Area G and indicating A2200ft.

At 1206:46 two aircraft called together. A departure was instructed to climb 5000ft and then Radar asked, "*and the other station calling Luton*". At 1207:06 the C172 called "*er Luton (C172) C/S a one seven two from Denham er we're just tracking to Westcott I think we're your traffic you were reporting on the seven thousand squawk*", Radar replied "*er squawk four six seven zero please use your full callsign*" and at 1207:14 the pilot replied, "*four six seven zero er (C172) C/S*". At 1207:34 Radar advised, "*(C172) C/S you're into the er restricted airspace I suggest you climb immediately above two thousand five hundred feet there's fast military traffic that's two miles to the east of you proceeding westbound two thousand four hundred feet*". At 1206:50 the C172 pilot replied "*er we'd like to descend if we can ..... or er stay at this altitude due cloud*". At 1207:57 the radar recording shows the C172 and formation leader 1.1nm apart and closing. In response to the potential conflict, the formation leader transmitted, "*(formation) C/S just passed Halton west light aircraft two thousand three hundred feet all elements step down by three hundred feet*". At 1208:07 the C172 pilot advised, "*(C172) C/S visual and over two thousand five hundred (C172) C/S*". The radar recording shows the

two ac 0.5nm apart and closing, with the C172 indicating A2500ft and the formation leader at A2000ft. Radar then advised, "(C172) C/S roger the first of the aircraft is gonna pass below you now" and the C172 pilot makes an apology. At 1208:52 formation is transferred to Brize radar.

While operating within the notified RA (T) Area G, the formation was in receipt of a TS from Luton Radar. The C172 was not in receipt of an ATC service and infringed the restricted airspace. Luton Radar provided the formation with TI on the unknown contact. When the unknown C172 called and was identified, Luton Radar suggested an immediate climb to above 2500ft and passed TI on the lead formation. The formation leader instructed all elements of the formation to step down by 300ft and the C172 commenced a climb to above A2500ft.

CAP493, Manual of Air Traffic Services Part 1 (11/03/10), Section 1, Chapter 11, page 5, paragraph 4, states:

#### 4.1 Definition

- 4.1.1 A Traffic Service is a surveillance based ATS, where in addition to the provisions of a Basic Service, the controller provides specific surveillance derived traffic information to assist the pilot in avoiding other traffic. Controllers may provide headings and/or levels for the purposes of positioning and/or sequencing; however, the controller is not required to achieve deconfliction minima, and the avoidance of other traffic is ultimately the pilot's responsibility.

#### 4.5 Traffic Information.

- 4.5.1 The controller shall pass traffic information on relevant traffic, and shall update the traffic information if it continues to constitute a definite hazard, or if requested by the pilot. However, high controller workload and RTF loading may reduce the ability of the controller to pass traffic information, and the timeliness of such information.
- 4.6.1 Whether traffic information has been passed or not, a pilot is expected to discharge his collision avoidance responsibility without assistance from the controller. If after receiving traffic information, a pilot requires deconfliction advice, an upgrade to Deconfliction Service shall be requested. The controller shall make all reasonable endeavours to accommodate this request as soon as practicable and provide deconfliction advice at the earliest opportunity.

UKAB Note (1): The recording of the Heathrow radar (and others) shows the event clearly, as shown in the diagram above, with the C172 squawking 7000 with Mode C.

**HQ AIR (OPS)** had nothing to add.

### **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 controllers involved and reports from the appropriate ATC and operating authorities.

The Board noted that the C172 pilot had checked the NOTAMs but Members were unable to come to any conclusion as to why he had assimilated the RA (T) activation times as being local rather than UTC, which is always used in NOTAMs.

Members commended the C172 pilot for squawking with Mode C, which had allowed Luton Radar to see his ac with its alt displayed and provide timely TI to the formation leader, who in turn initiated avoiding action. Further, the C172 pilot was listening out on the Luton Radar frequency and on

hearing the formation, immediately identified himself to the controller who gave him avoiding instructions.

Aided by the TI provided by Luton and information calls from other formation members, the formation leader saw the infringing C172 about 2nm away and descended the formation at the same time as the C172 was being advised to climb above the RA (T) by Luton Radar. The C172 pilot saw the formation about 4-5nm away and the pilot climbed soon after being advised to do so by Luton, further ensuring that there was no risk of collision and that there was 500ft vertical separation when the ac crossed.

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

Cause: The C172 pilot infringed the RA (T) and flew into conflict with the military formation.

Degree of Risk: C.