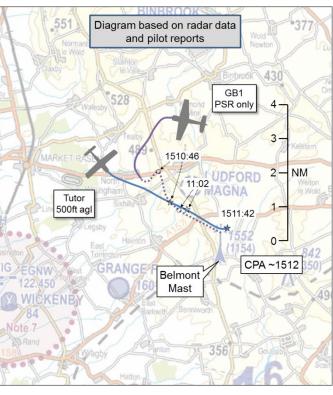
### **AIRPROX REPORT No 2015209**

Date: 1 Dec 2015 Time: 1511Z Position: 5321N 00010W Location: ivo Belmont Mast

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

| Recorded    | Aircraft 1    | Aircraft 2      | 551 Diagram bas      |
|-------------|---------------|-----------------|----------------------|
| Aircraft    | Tutor         | GB1             | and n                |
| Operator    | HQ Air (Trg)  | Civ Comm        | Normant and p        |
| Airspace    | London FIR    | London FIR      | Stainton<br>le Walle |
| Class       | G             | G               |                      |
| Rules       | VFR           | VFR             | 528 Valor to 528     |
| Service     | None          | None            | - Transport          |
| Altitude/FL | FL011         | NMC             | 7/ Tealby            |
| Transponder | A, C, S       | Off             | MARKET RAS 489       |
| Reported    |               |                 | S MARKET RASE        |
| Colours     | White         | Dark green/lime | North                |
| Lighting    | HISL, nav     | HISL, nav       | Tutor                |
| Conditions  | VMC           | VMC             | 500ft agl            |
| Visibility  | 40km          | 20km            | Legsby               |
| Altitude/FL | NK            | 1500ft          | ssington             |
| Altimeter   | RPS (1008hPa) | QFE (NK hPa)    | IG EGNW West GRANGE  |
| Heading     | 140°          | 180°            | 122.450 160          |
| Speed       | NK            | 150kt           | Y WICKENBY E         |
| ACAS/TAS    | TAS           | Not fitted      | 84 Bar               |
| Alert       | None          | N/A             | Note-7               |
| Separation  |               |                 | 158 Wragby           |
| Reported    | 0ft V/25m H   | 0ft V/50m H     |                      |
| Recorded NK |               | Hatton          |                      |
|             |               |                 |                      |



THE TUTOR PILOT reports instructing a low-level navigation exercise when he saw the GB1 converging from the right 5 o'clock position at a range of 50m. Believing the other pilot had not seen the Tutor, he immediately took control from the student and broke away to the left. Once he had completed the emergency break manoeuvre, he saw the GB1, 100m to the south, pointing directly at him. Believing the GB1 pilot still hadn't seen him, he re-entered a tight left hand turn, whilst becoming increasingly aware of the large cables of the Belmont mast in his immediate vicinity. Despite manoeuvering, he could not 'shake the GB1 from his 6 o'clock position' and he realised that the GB1 pilot was purposely manoeuvering 'onto his tail'. He rolled out, straight and level, and the GB1 pilot moved into the echelon right position. The Tutor pilot instructed the student, in the right seat, to give the formation hand signal to move away, which he did. The GB1 pilot moved into a position slightly forward of line abreast and started a series of aerobatic manoeuvres, including 4-point rolls and loops before breaking up and left, over the Tutor. The GB1 pilot then manoeuvred back into the 6 o'clock and the Tutor pilot climbed and manoeuvred in order to maintain visual contact with it. The GB1 pilot then moved into the echelon right position and, after the student had again signalled for him to move away, he moved out, conducted another 4-point roll and broke off. The Tutor pilot noted that during this extended incident, which lasted about 5min, he switched from the low-level common frequency to Coningsby Zone in order to report the incident and in the hope that the other pilot may have been in receipt of a service from Coningsby. The Tutor pilot stated that although he initially considered the incident an Airprox, it became apparent that the GB1 pilot's intentions were to formate on his aircraft and conduct low-level aerobatics in very close proximity. His TAS gave no warning of the other aircraft and Coningsby reported that an SSR return was not observed. He noted that the incident caused him significant concern because an unexpected manoeuvre on his behalf or a mishandled aerobatic manoeuvre on the part of the GB1 pilot could easily have resulted in a mid-air collision. In the Tutor pilot's opinion, the GB1 pilot displayed a profound disregard for the Tutor.

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

**THE GB1 PILOT** reports conducting yaw stability tests at 3000ft agl, approximately 3nm northeast of Belmont Mast, when he saw a Tutor manoeuvring on a generally southbound track. The GB1 pilot slowly closed in from about 300m in the 5 o'clock to a 3 o'clock position approximately 250m off the Tutor's right wing, until he saw both occupants had visual contact with him. When the person in the right hand seat gave a friendly wave (as it appeared to him) and the aircraft maintained level flight, he slowly moved closer to about 50m abeam their right wing, maintained that position for about 10 seconds and then accelerated and pulled away to the top right, away from the Tutor. The GB1 pilot stated that at no point were the aircraft on a collision vector, or could any manoeuvring of the Tutor have caused a collision hazard as he was in visual contact all the time.

He assessed the risk of collision as 'None'.

### **Factual Background**

The weather at Scampton was recorded as follows:

METAR EGXP 011450Z 23014KT 9999 FEW022 BKN044 13/11 Q1017 BLU=

## **Analysis and Investigation**

#### **UKAB Secretariat**

The Tutor and GB1 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. Aircraft shall not be flown in formation except by pre-arrangement among the pilots-in-command of the aircraft taking part in the flight<sup>2</sup>.

#### Comments

### **HQ Air Command**

Without a greater understanding of the intentions of the GB1 pilot, it is difficult to determine why he chose to close into proximity with the Tutor aircraft without the express permission of the pilot-in-command. Additionally, the disparity in the pilot's narratives presents difficulties in determining the actual sequence of events and the suitability of both pilots' actions.

Had the GB1 pilot selected his transponder on, the Tutor pilot may have been given warning of the approaching aircraft and prevented the startle effect of sighting the GB1, at close proximity, in his rear hemisphere. Without the ability to converse with the GB1 pilot on an appropriate radio frequency, and given the differing performance between the Tutor and the GB1, it is entirely understandable that the Tutor pilot chose to maintain a predictable flight path to avoid the potential for collision during the GB1 pilot's manoeuvres.

# **Summary**

An Airprox was reported when a Tutor and a Game Composites GB1 flew into proximity at about 1511 on Tuesday 1<sup>st</sup> December 2015. Both pilots were operating under VFR in VMC, neither in receipt of a FIS.

<sup>&</sup>lt;sup>1</sup> SERA.3205 Proximity.

<sup>&</sup>lt;sup>2</sup> SERA.3135 Formation flights

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

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the appropriate operating authority. It was noted that this was the first of 2 Airprox involving the GB1 pilot, the second of which (Airprox 2015210) occurred 5min later.

The Board first considered the pilots' actions and voiced their unanimous condemnation at those of the GB1 pilot. In the Board's view, although he undoubtedly felt that he was in control of the situation, his unnecessary and arbitrary conduct had potentially endangered both his and the wellbeing of another crew, whose intentions he could not know. The Board quickly agreed that his actions had resulted in safety margins being much reduced below normal, and had presented a significantly increased risk to a crew who were not party to a formation plan or brief, in flagrant disregard of the regulations concerning formation flight. Military members commented that extensive military rules and regulations concerning close formation flight had largely come about through the misfortune of those who regarded the activity as lightly undertaken. That the GB1 pilot should have closed to the ranges reported by both pilots without any pre-arrangement, and then reportedly flown aerobatic manoeuvres in close proximity, simply beggared belief.

## PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause</u>: The GB1 pilot flew into conflict with the Tutor.

Degree of Risk: B.