AIRPROX REPORT No 2024009

Date: 18 Jan 2024 Time: 1435Z Position: 5220N 00120W Location: Draycote Water

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2	
Aircraft	TB10	TBM700	
Operator	Civ FW	Foreign Mil	
Airspace	London FIR	London FIR	
Class	G	G	
Rules	VFR	VFR	
Service	Basic	Basic	
Provider	Coventry Info	Coventry Info ¹	
Altitude/FL	2600ft	2800ft	
Transponder	A, C, S	A, C, S+	
Reported			
Colours	White, blue, red	White	
Lighting	Nav, beacon,	Landing, strobes,	
	landing, taxy	nav	
Conditions	VMC	VMC	
Visibility	>10km	>10km	
Altitude/FL	1800ft	3000ft	
Altimeter	QNH (1010hPa)	QNH	
Heading	NK	NK	
Speed	85kt	130kt	
ACAS/TAS	SkyEcho	Not fitted	
Alert	None	N/A	
Separation at CPA			
Reported	Oft V/0.2NM H	"not seen"	
Recorded	200ft V/	0.5NM H	

THE TB10 PILOT reports that, from crossing the M40, they had been under a Basic Service from Coventry Information, had reported that they were tracking to Draycote VRP and would call once overhead. The call was made overhead Draycote at 1800ft but, mid-transmission, a TBM flew close to their left-side from the rear and turned left, cutting in-front. Following that manoeuvre, the TBM seemed to be descending and then ascending to a point that [the TB10 pilot] thought it would be too high for Birmingham airspace.

[The TB10 pilot heard] the TBM pilot report to the Coventry [AFISO] that they were planning a visual approach. There seemed to be confusion between two TBM pilots. Following this, there was some sort of a go-around.

At the point that the [pilot of the TBM] had cut in front, [the pilot of the TB10] made a right turn for separation which led them to cut into NOTAM'd airspace.

[The pilot of the TB10 opines that cutting into NOTAM'd airspace was] partly their fault but they could see that there weren't any crews on the ground flying model aircraft and, at the time, thought it was safer to make separation. In hindsight, a left orbit would have been suitable, but other aircraft were in the area (but they had been unaware of their position). Draycote VRP is a busy area so they chose to avoid it. They watched the TBM pilot fly off into the distance, and [the pilot of the TB10] made a normal left-base join for RW23 at Coventry and a stable/safe landing following another departing aircraft. After landing, they called Coventry 'Tower' for the TBM's details.

¹ The pilot of the TBM700 reported that they had been in receipt of an AFIS from Coningsby Tower.

[The pilot of the TB10 believes that] this could have been avoided if the TBM pilot had been listening to radio calls and Coventry Information.

THE TBM700 PILOT reports that, after approval by Coningsby² Tower [they recalled], they were performing an emergency landing gear extension exercise. The exercise consisted of flying 'racetracks' while manually extending the landing gear. There were 2 crew members looking around to avoid a collision with other traffic (one extending the gear, the 2 other crew looking-out). Additionally, they had constant radio contact with Coningsby Tower [they recalled] for Traffic Information. They did not see the TB10.

THE COVENTRY AFISO reports that both pilots were inbound to Coventry and in receipt of a Basic Service. At least two other aircraft were also inbound, a C172 and a DA42. The circuit was active with a C152.

The pilot of the TBM700 had been handed over by Birmingham Radar and, from memory, positioned for a downwind left-hand join from the south-east for RW23. During the arrival phase, they received a telephone call in the VCR from Birmingham ATC [concerning the TBM700 pilot's routeing].

When turning final, the pilot elected to fly a missed-approach and, they believe, advised the [Coventry AFISO] that they were simulating a gear retraction failure. The pilot's transmissions were heavily accented, and they asked for go-around instructions to return to the local area. [The Coventry AFISO] passed the runway in use (RW23) and surface wind, and transmitted "Go-around at your discretion, Coventry Information 123.830". The aircraft overflew RW23, turned crosswind and departed the ATZ in a south-easterly direction.

The TB10 was inbound and, from memory, positioned to the south-east of the aerodrome. The pilot was asked to report at Draycote Water VRP for a left-base join at Coventry.

Traffic Information on each aircraft was passed to both pilots and acknowledgements were received. As the pilot of the TB10 acknowledged the Traffic Information on the TBM700, [the Coventry AFISO] re-called them saying 'Yes, we're definitely visual, he's just passed very close down our left-hand side' (or words to that effect). No airborne Airprox was filed by either pilot. The Coventry AFISO does not know whether the TBM700 pilot was aware of the proximity of the TB10.

Factual Background

The weather at Birmingham was recorded as follows:

METAR EGBB 111450Z 02009KT 9999 OVC014 06/03 Q1039 METAR EGBB 111420Z 02008KT 9999 BKN014 06/03 Q1039

A NOTAM had been in place for the flying of model aircraft 3NM to the east of Coventry Airport:

H8311/23 Q) EGTT/QWULW/IV/BO/W/000/019/5222N00124W001 A) EGTT B) FROM: 23/12/28 09:00 TO: 24/03/26 20:30 E) FLYING OF MODEL ACFT WI 0.5NM RADIUS 522203N 0012344W (WOLSTON). FOR INFO CONTACT 07519 665738. AR-2023-38855/AU2. LOWER: SFC UPPER: 1840FT AMSL SCHEDULE: 0900-2030

² UKAB contact with the TBM700 pilot was established some weeks after the event. Although the pilot reports having been in receipt of a FIS from 'Coningsby' Tower, it is highly likely that, being unfamiliar with UK airfields, they actually meant 'Coventry' Tower.

Analysis and Investigation

CAA ATSI

The RT impound request was sent on 22nd January 2024. Coventry subsequently sent RT media for the wrong date. When this was discovered and brought to the attention of Coventry, the media for the right date had been overwritten and was no longer available. A review of the RT recordings by ATSI was therefore not possible.

ATSI has reviewed the NATS radar recording, the pilot reports, the AFISO report and the Coventry Unit investigation report.

Summary of the event:

The TB10 pilot was with Coventry on a Basic Service, joining via Draycote VRP for left-base RW23.

The TBM700 pilot reported that they were in receipt of a service from Coningsby at the time of the Airprox. However, the Coventry AFISO, the Unit investigation report and the radar replay confirm that the pilot was in receipt of a Basic Service with Coventry. The pilot reported that they were flying racetracks while undertaking a practice emergency exercise involving manually lowering the landing gear. Review of the radar replay shows the aircraft approaching the airfield from the south. The aircraft passed through the RW23 climb-out lane in the descent to FL50 and then conducted a sweeping left turn to the west of the airfield before passing west-to-east at a distance of 3NM south of the airfield, where it came into [proximity] with the TB10 approaching Draycote Water (Figure 1).

The Coventry Unit investigation report has confirmed that there were two further unrelated inbound aircraft on frequency at the time and that the visual circuit was active with a C152. It confirmed that the pilots of both the TB10 and the TBM700 aircraft were receiving a Basic Service from the Coventry AFISO at the time of the Airprox. Reciprocal Traffic Information had been passed and acknowledged by the pilots of both aircraft at the point where the TB10 had reported at Draycote Water, and the TB10 pilot reported having the TBM700 in sight. The TBM700 pilot reported (in their written report) that they had not sighted the TB10.



Figure 1 - 1434.32

Coventry Airport Unit Investigation

The Investigator has listened to the recordings and verified that appropriate Traffic Information was passed. The pilots of the two aircraft, [the TB10] and [the TBM700], were both on a Basic Service whilst operating in the local area. [The pilot of the TBM700], according to the duty AFISO, had made a low approach and go-around on RW23 before returning to the local area. [The pilot of the TB10] was to report at Draycote Water for a left-base join.

After listening to the RT recordings, [the pilot of the TBM700] had called on frequency for rejoin instructions. At the same time, [the pilot of the TB10] reported over Draycote inbound for a left-base. At that point, the duty AFISO passed Traffic Information on [the TBM700] to which [the pilot of the TB10] replied "*definitely visual with that traffic*". No mention was made on the RT at that time that an Airprox had occurred. Both pilots then proceeded to left-base without further incident.

Working conditions were normal. The weather was not a factor as the 1350 METAR recorded in the watch log was CAVOK. The Duty AFISO was experienced and has an up to date medical along with a validation at Coventry. There was an assistant in the VCR throughout the day and a further valid AFISO also present on the admin desk in the VCR at the time of the incident. Therefore fatigue would not have been a factor.

An AFISO can only provide aircraft with a Basic Service inside the ATZ or whilst operating in the local area. After interviewing the duty AFISO, they believed that adequate Traffic Information had been passed to both pilots. The Airprox occurred approximately 8 miles to the south-east of the airfield over Draycote Water in Class G airspace. Pilots are responsible for their own separation at all times.

UKAB Secretariat

The narrative report supplied by the pilot of the TB10 had made reference to an area where model aircraft may have been operating. The nearest NOTAM for the flying of model aircraft to the location of the Airprox is shown in Figure 2.



Figure 2 – NOTAM for the flying of model aircraft

An analysis of the NATS radar replay was undertaken and both aircraft could be positively identified from Mode S data (Figure 3). The diagram was constructed and the separation at CPA determined from the radar data.



Figure 3 – CPA at 1434:35

The TB10 and TBM700 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.³ If the incident geometry is considered as converging then the TBM700 pilot was required to give way to the TB10.⁴

Summary

An Airprox was reported when a TB10 and a TBM700 flew into proximity at Draycote Water at 1435Z on Thursday 18th January 2024. Both pilots were operating under VFR in VMC and in receipt of a Basic Service from Coventry Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the AFISO involved and reports from the appropriate operating authorities. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

The Board first considered the actions of the pilot of the TB10. Members noted that they had been in receipt of a Basic Service and, as such, would not necessarily have expected to have been passed any Traffic Information on nearby traffic. Members also noted that the EC equipment fitted to the TB10 had not alerted to the presence of the TBM700 although such an alert would have been expected. It was therefore agreed by members that the pilot of the TB10 had not had situational awareness of the TBM700 until it had been visually acquired. Members appreciated that the sudden appearance of the TBM700 may have been startling to the pilot of the TB10, particularly due to its high relative airspeed, and that its proximity had caused the TB10 pilot some concern.

Members next turned their attention to the actions of the pilot of the TBM700. It was noted that they had been passed information on the TB10 by the Coventry AFISO, which had been acknowledged, but the TB10 had not been subsequently visually acquired. Members emphasised the imperative of a thorough and effective lookout, particularly whilst operating in Class G airspace and especially when approaching a VRP.

In consideration of the role that the Coventry AFISO had played in events, members acknowledged that, under the terms of the provision of a Basic Service, they had not been required to have monitored the flights of the TB10 and TBM700. However, having been contacted by the TBM700 pilot, and aware that they had intended to join from the south-east, they had subsequently passed Traffic Information on the TBM700 to the pilot of the TB10 as swiftly as had been possible. Nevertheless, from the perspective of the TB10 pilot, it was agreed that the information had been received after the TBM700 had already passed in front of them.

In conclusion of their discussion, members agreed that, although the pilot of the TBM700 had not visually acquired the TB10, and the pilot of the TB10 had not had situational awareness of the TBM700 until CPA, the separation had been such that there had been no risk of collision. Members were satisfied that normal safety margins had pertained and agreed on the following contributory factors:

- **CF1.** From the perspective of the TB10 pilot, the Traffic Information passed by the Coventry AFISO on the TBM700 had been passed late.
- **CF2.** Relative to the moment of CPA, the Coventry AFISO had acquired situational awareness of the TBM700 late.
- **CF3.** The pilot of the TB10 had not had situational awareness of the presence of the TBM700 until it had been visually acquired.

³ (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

⁴ (UK) SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

- **CF4.** The EC equipment fitted to the TB10 had not alerted to the presence of the TBM700 when an alert would have been expected.
- **CF5.** The pilot of the TBM700 had not visually acquired the TB10.
- **CF6.** The pilot of the TB10 had been concerned by the proximity of the TBM700.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024009										
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification							
	Ground Elements										
	Situational Awareness and Action										
1	Human Factors	• ANS Traffic Information Provision	Provision of ANS traffic information	TI not provided, inaccurate, inadequate, or late							
2	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness							
	Flight Elements										
	• Situational Awa	Situational Awareness of the Conflicting Aircraft and Action									
3	Contextual	 Situational Awareness and Sensory Events 	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness							
	Electronic Warning System Operation and Compliance										
4	Human Factors	 Response to Warning System 	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported							
	See and Avoid										
5	Human Factors	 Monitoring of Other Aircraft 	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non- sighting by one or both pilots							
6	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft							

Degree of Risk: E.

Safety Barrier Assessment⁵

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **partially effective** because the Coventry AFISO had acquired late situational awareness of the TBM700.

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as ineffective because the pilot of the TB10 had not had situational awareness of the presence of the TBM700 until it had been visually acquired.

⁵ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the <u>UKAB Website</u>.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC equipment fitted to the TB10 would have been expected to have detected the presence of the TBM700 but an alert was not reported.

	Airprox Barrier Assessment: 2024009	Outside	Controll	led Airspace			
	Barrier	Provision	Application %0	5%	Effectiveness Barrier Weighting 10%	15%	20%
ound Eleme	Regulations, Processes, Procedures and Compliance					Ċ	
	Manning & Equipment	\checkmark					
	Situational Awareness of the Confliction & Action						
	Electronic Warning System Operation and Compliance						
	Regulations, Processes, Procedures and Compliance	Ø	0				
	Tactical Planning and Execution		Image: Second				
	Situational Awareness of the Conflicting Aircraft & Action	8	I				
	Electronic Warning System Operation and Compliance		8				
	See & Avoid		Image: Contract of the second seco				
	Key: Full Partial None Not Present Provision Image: Constraint of the sector of the sect	it/Not Ass	essable	Not Used			