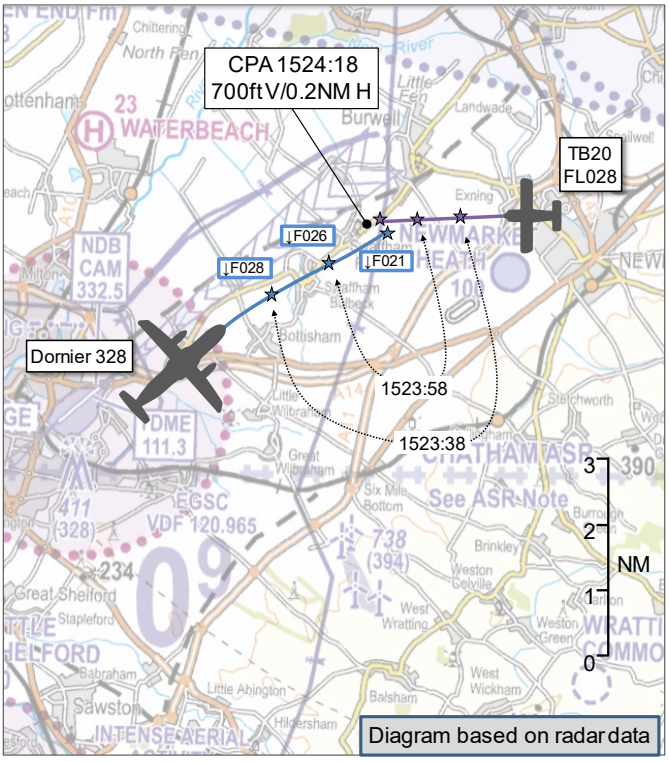
AIRPROX REPORT No 2024159

Date: 05 Jul 2024 Time: 1524Z Position: 5215N 00018W Location: NE Cambridge Airport

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Dornier 328	TB20
Operator	Civ Comm	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	VFR
Service	Procedural	Basic
Provider	Cambridge	Cambridge
Altitude/FL	FL021	FL028
Transponder	A, C, S+	A, C, S
Reported		
Colours	Company	NK
Lighting	NR	NK
Conditions	NK	NK
Visibility	>10km	NR
Altitude/FL	2000ft	NK
Altimeter	QNH (1004hPa)	NK
Heading	NR	NK
Speed	180kt	NK
ACAS/TAS	TCAS II	Unknown
Alert	RA	Unknown
Separation at CPA		
Reported	3-400ft V/0.5NM H	NR
Recorded	700ft V/0.2NM H	



THE CAMBRIDGE CONTROLLER reports that they were providing instruction to an ATCO in APP, having recently booked a validation date in early August for them. Traffic levels were light and non-complex. A Mooney was conducting IFR training, an NDB followed by an ILS to land on RW23 at Cambridge, under a Procedural Service. [Dornier 328 C/S] was inbound to Cambridge from [redacted]. [Dornier 328 C/S] reported on frequency and was given a Procedural Service and was cleared to the CAM in the descent to altitude 4000ft, and an EAT issued based on the outbound time of [the Mooney]. This timing would mean that [Dornier 328 C/S] would conduct a procedure turn over the CAM and then should be able to go outbound for their ILS RW23 with no further delays other than the procedural turn, with [the Mooney] landing at that time. [The Mooney] established on the ILS and was transferred to Cambridge Tower. The Tower ATCO called on the landline and reported that [the Mooney] had offered to conduct "a visual approach and take a Basic Service if that helps with the [Dornier 328 C/S] arrival". This was acknowledged by the trainee APP ATCO, however the Instructor stepped in and said no, that it wasn't needed. There was already little to no delay for [Dornier 328 C/S] and questions around the use of the term "visual approach", the flight conditions and a change of service when working another frequency were not going to help with APP training. As [the Mooney] continued their approach and was approximately a 2NM final to land, the Instructor overheard the Tower ATCO instruct a light-aircraft to line up on RW23. They commented in the room along the lines of "did they just line someone up with traffic to land on a 2NM final?" The APP ATSA went to the window in the corner of the room from where they could see the threshold and reported that there was traffic lining up with [the Mooney] now on about a 1NM final. The Instructor then went to the window to look, whilst still having their headset on, and saw [the Mooney] on very short final (crossing Newmarket road at the end of the runway) with traffic now rolling for departure ahead. At this point they heard the Mooney pilot report going around on the Tower frequency and [Dornier 328 C/S] reported ready for their approach within a couple of seconds of each other. They told the APP Trainee "No" and instructed them to keep [Dornier 328 C/S] in the hold, fully expecting an IFR go around from [the Mooney]. They returned to their normal OJTI position next to the Trainee ATCO. They overheard the Tower ATCO instruct [the Mooney pilot] to join the left-hand

visual circuit. A TB20 pilot reported on frequency transiting, reporting 15 miles to the east of Cambridge, westbound at 2600ft. [The TB20 pilot] was given a Basic Service and placed on a VFR conspicuity squawk 6176. [The TB20 pilot] was passed Traffic Information on [Dornier 328 C/S] in the hold. They offered to "route a little bit further south if that helps" or similar wording. The Instructor told the trainee to not accept the offer as in their current position they were visible on the surveillance display and appearing to head to cross about a 6-8NM final for RW23. Routeing further south would take them closer to the hold and, as it's an east-west hold to the south of the overhead, added to that the holding speed of the Dornier 328, they would have had a significant re-route to avoid the traffic completely. In fact, moving south would most likely increase the risk of a conflict. They looked at the weather as they considered asking [TB20 C/S] to climb, however the cloud was FEW020, SCT025 so a climb was not likely. The Tower ATCO informed them that [the Mooney] was now in the visual circuit. They asked if the pilot had cancelled IFR as they now needed to know what, if any, obligations they had to that aircraft. The response was given "No but they will do" and "do you want me to ask them?" They replied "no" and decided it best to keep [Dornier 328 C/S] in the hold for now rather than cause any distractions for the Tower ATCO. Using their position as the watch supervisor and UCA, they arranged for another ATCO and the DMATS to come to the Radar room for a brief on what occurred with [the Mooney]. As they entered the room, [Dornier 328 C/S] reported ready for the approach. [Dornier 328 C/S] was cleared for the approach, given Traffic Information on [TB20 C/S] and asked to report passing 2500ft in the descent. That way both the controllers, and the pilot of [TB20 C/S], would know that [Dornier 328 C/S] was through their level. [TB20 C/S] reported 8 miles east of Cambridge and was given an update on [Dornier 328 C/S]. The pilot reported that the [Dornier 328 C/S] would probably be in the cloud and that they wouldn't see it until late. At this point the Instructor took control from the trainee. They used the surveillance display to pass Traffic Information in the format of "I'm non radar but…." as, although the levels were now passing, it was apparent that they were going to become proximate. [Dornier 328 C/S] reported TCAS RA and could be seen increasing their rate of descent. Cambridge is in a fairly unique position of providing APP services whilst sat in front of a surveillance display. As part of the session the surveillance display was switched on and off at various times for training purposes. This was done because when a new APP trainee of previous APS experience sits in front of the surveillance display they have a tendency to not conduct "proper approach" relying on what they see on the display rather than applying the approach services as per CAP774. During the session the display was operated in both the 'on' and 'off' configuration, although during the Airprox it was turned on and utilised when it became apparent that the risk increased as there was a duty of care to the pilots.

THE DORNIER 328 PILOT reports that it was a normal flight. On arrival at Cambridge there was lots of local traffic so they took up the hold at 4000ft. They were given descent to 3000ft whilst in the hold. They conducted one full orbit after entering the hold and were told that next time at the CAM NDB they could start the approach. On beacon outbound for the procedure, they asked for descent to 1700ft and were told to descend according to the procedure. They started descent outbound and were told that there was traffic passing east-to-west. The other traffic was a small aircraft, and it triggered the TCAS RA. They descended according to the TCAS instruction and passed the traffic with separation around 0.5NM horizontally and 300-400ft vertically. They were visual with the traffic.

THE TB20 PILOT did not respond to requests to submit a report.

Factual Background

The weather at Cambridge was recorded as follows:

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METAR EGSC 051520Z 24008KT 190V290 9999 SCT035 21/13 Q1004=
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Analysis and Investigation

CAA ATSI

The D328 [pilot] had been cleared to the CAM NDB hold at altitude 3000ft. They were No2 to a Mooney ahead of them, which was also operating IFR, in receipt of a Procedural Service and carrying out a procedural ILS approach. The TB20 was flying VFR, intending to route through the Cambridge RW23 instrument approach area to the northeast of the airfield and in receipt of a Basic

Service. The Cambridge Approach controller was a trainee operating under the supervision of an OJTI, with the service being provided from the Cambridge Approach Radar room (ACR).

The Mooney pilot, intending to land from their approach, was transferred to the Tower controller when the pilot reported established on the ILS localiser (at 9NM) at 1512:23.

The pilot of the TB20 made their initial call to Cambridge Approach at 1517:25 advising: "*just routeing through the northern edge, through your instrument approach at 2600ft on 1005. I'm approximately 15, 20 miles to your east*" (Figure 1).

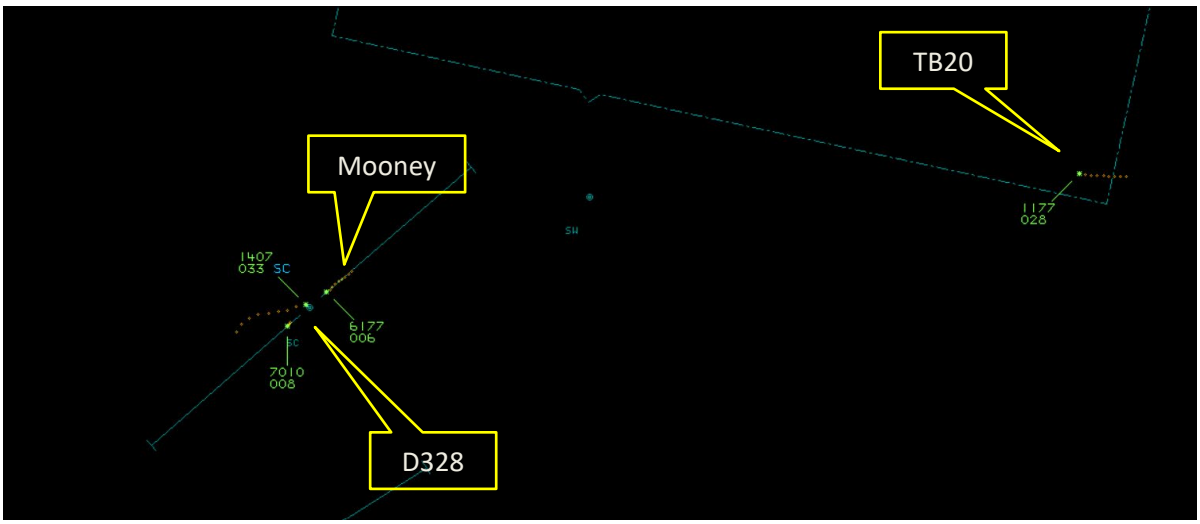


Figure 1 –1517:10

The Approach controller advised the pilot that it was a Basic Service, passed the Cambridge QNH and issued a squawk of 6176 (Cambridge VFR conspicuity) which was read back correctly by the pilot.

At 1518:08 the Tower controller advised the Approach controller of a VFR departure (a C152 - restricted to not above altitude 2000ft.)

The Tower controller rang again at 1518:42 to advise that the Mooney had entered the visual circuit, and a discussion took place between the controllers as to whether the Mooney was now VFR. The Mooney pilot had previously elected to go-around due to an aircraft departing ahead of them. Although this had not been formally communicated to the Approach controller (and OJTI), both were aware of it as the Tower frequency was monitored in the ACR as a matter of routine at Cambridge. It was decided by the OJTI that they would continue to treat the Mooney as IFR and so the D328 pilot, although not immediately cleared for the approach, was advised at 1519:12: "*next time over the CAM you can expect to go outbound for the approach and again, maintain 3000ft 'til advised*" which was read back by the pilot (Figure 2).

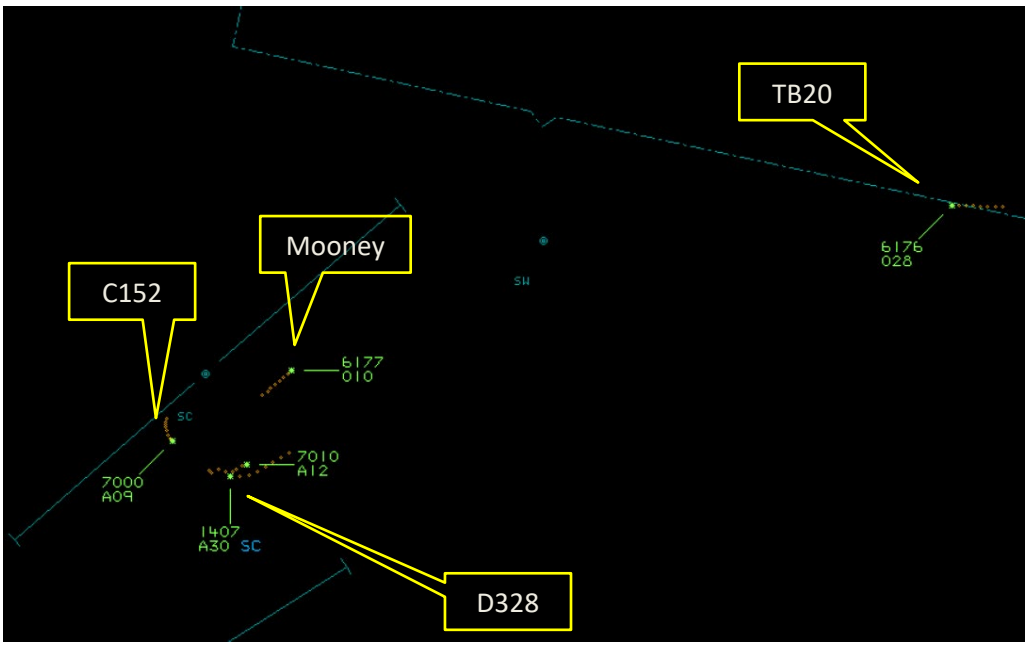


Figure 2 – 1519:12

At 1519:28 the Approach controller passed Traffic Information to the pilot of the TB20 in transit: "*traffic is a Jetstream 30 (sic), 328. He's in the CAM hold at the moment - will be going outbound shortly for an approach to Runway 23 descending from 3000ft*". The TB20 pilot asked: "*do you want me to route further south to stay out of his way?*" The controller replied: "*that's fine. You can report passing through the 23 final approach*" which was acknowledged by the pilot.

At 1520:38 the pilot of the departing C152, reported on frequency and was advised that it was a Basic Service, instructed to squawk 6176 and to continue not above altitude 2000ft until advised, which was all read back correctly by the pilot.

At 1521:00 another transit aircraft, a Beagle Pup (PUP) airborne from Duxford, called to the south of Cambridge. The pilot was given a Basic Service, QNH and squawk.

At 1521:38 the Tower controller confirmed with the Approach controller that the Mooney had landed.

At 1521:55 the Approach controller cleared the D328 pilot for the ILS approach and requested they report the CAM outbound which was acknowledged by the pilot (Figures 3 and 4).

Note: screenshots of the Cambridge Radar Display have been included because the display was On, and the traffic situation was being monitored by both the trainee and OJTI in the Approach position in the ACR.

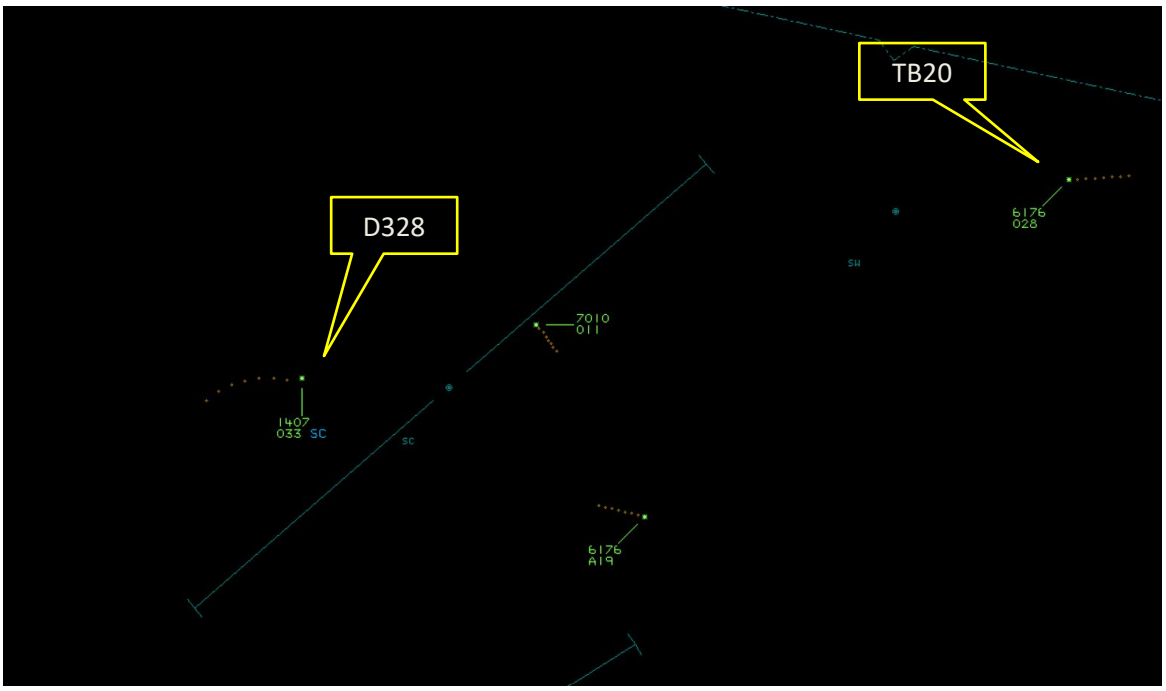


Figure 3 – 1521:55

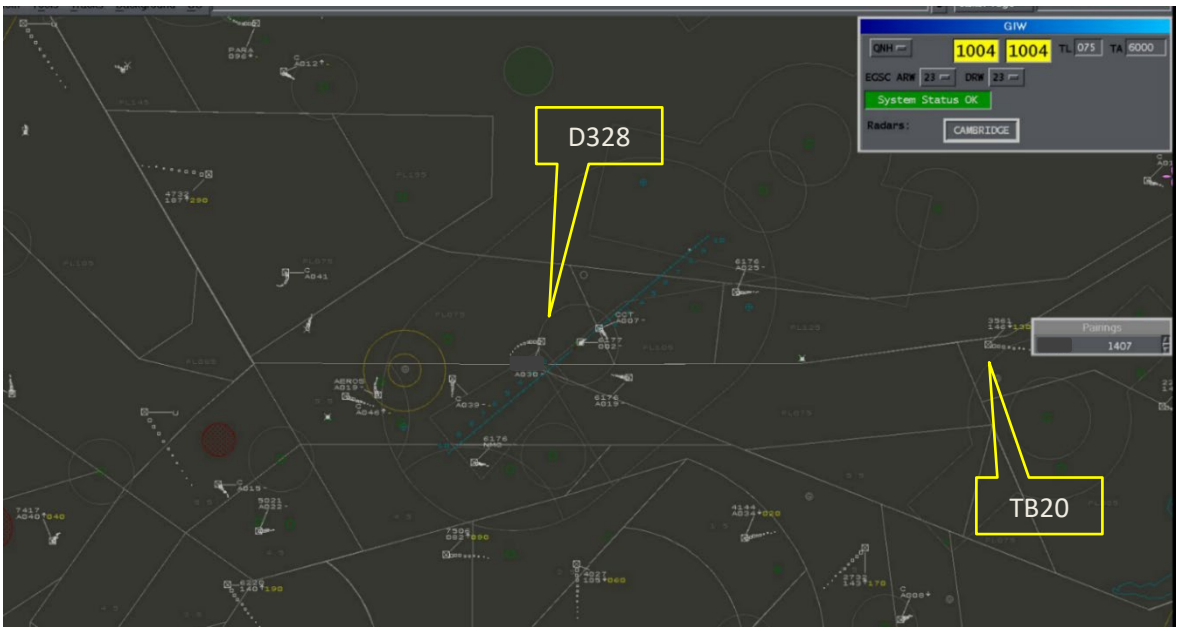


Figure 4 – 1521:55 (Cambridge Radar Display)

At 1522:20 the controller issued a warning to the pilot of the PUP about glider activity at Gransden Lodge, and then at 1522:31 requested a position check from the pilot of the TB20 – reported as 8 miles east. Note: The TB20 was actually to the north-east, not east of Cambridge (Figure 5).

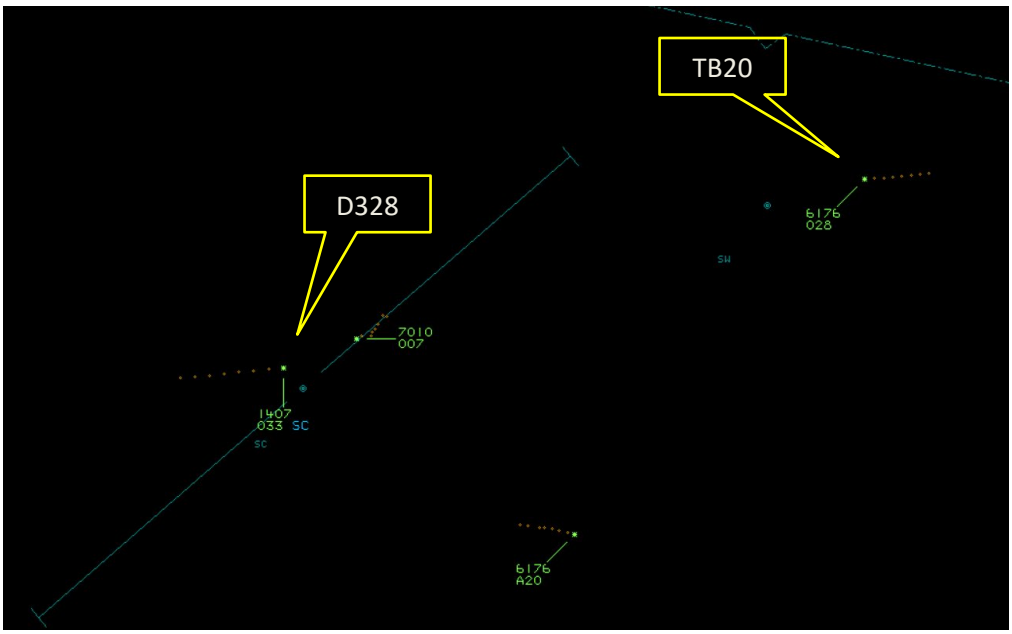


Figure 5 – 1522:31

At 1522:41 the controller advised the pilot of the D328: "*traffic is a TB20, 8 miles to the east of Cambridge transiting towards west-northwest. Last known 2600ft*", to which the D328 pilot responded: "*that's copied, are we cleared descent – we are beacon outbound now?*". The controller confirmed at 1522:55: "*affirm – descend in the procedure*" (Figure 6).

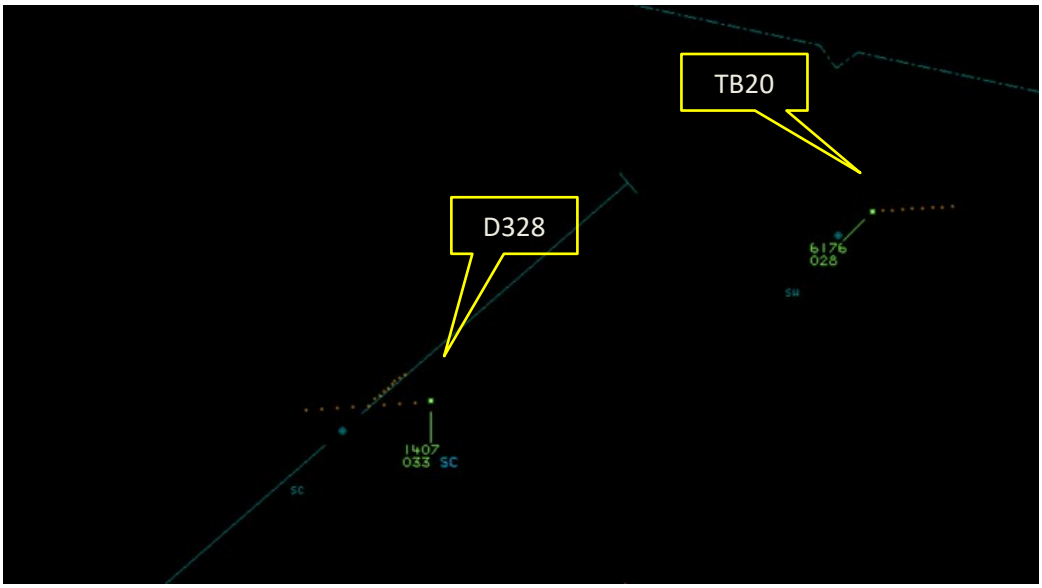


Figure 6 – 1522:55

The Approach controller then advised the Tower controller, at 1523:00, that the D328 was outbound for an ILS to land, which was acknowledged by the Tower controller.

At 1523:11 the Approach controller requested a report passing 2500ft in the descent from the D328 pilot, which the pilot acknowledged (Figure 7).

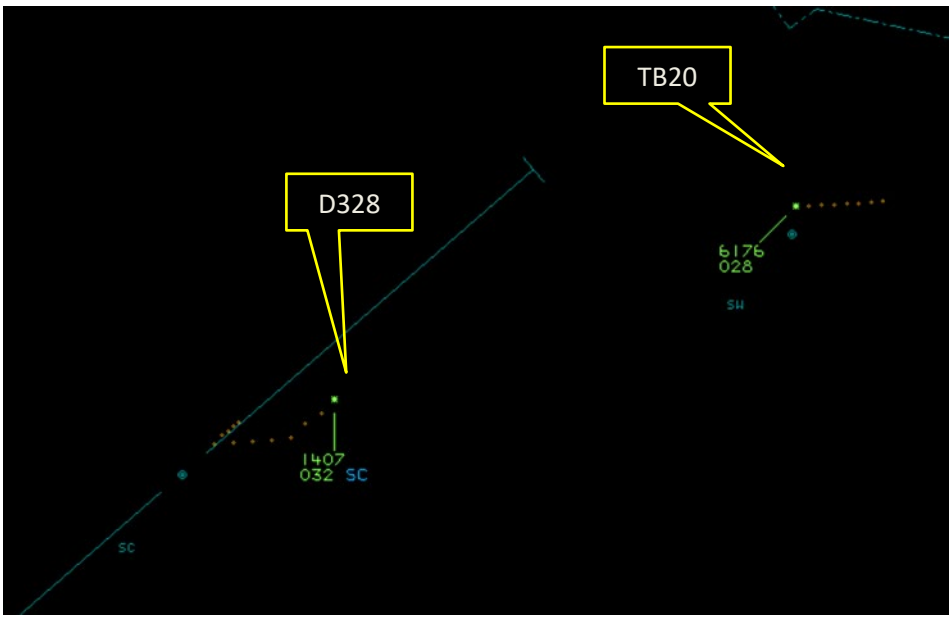


Figure 7 – 1523:11

At 1523:33 the controller passed further Traffic Information to the TB20 on the D328: "*traffic is the D328 – outbound from the CAM descending through your level. Report if you get him in sight*" (Figures 8 and 9).

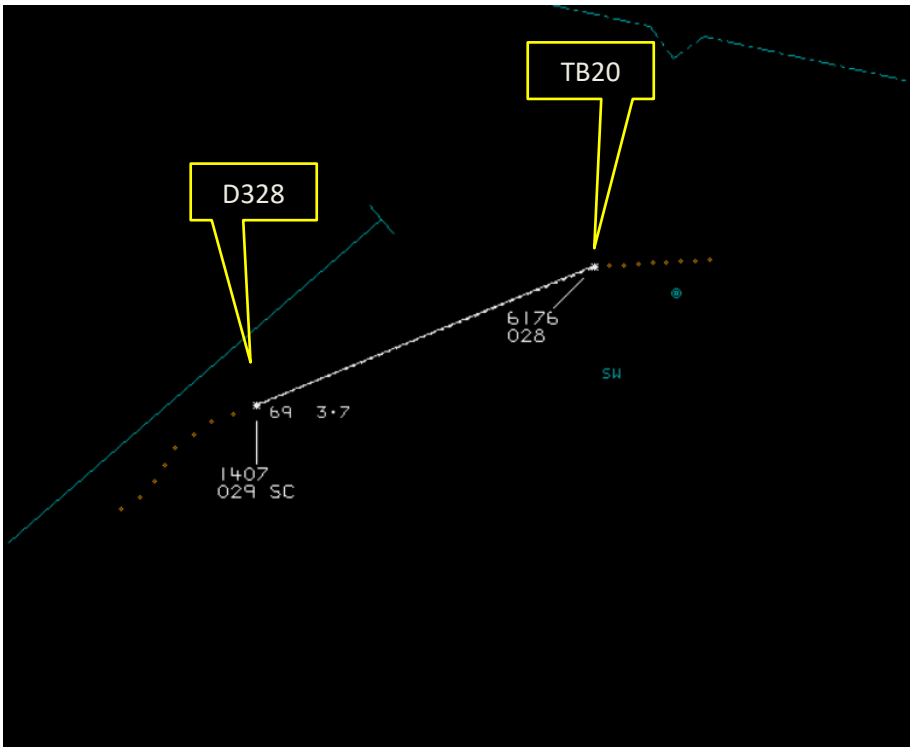


Figure 8 – 1523:33

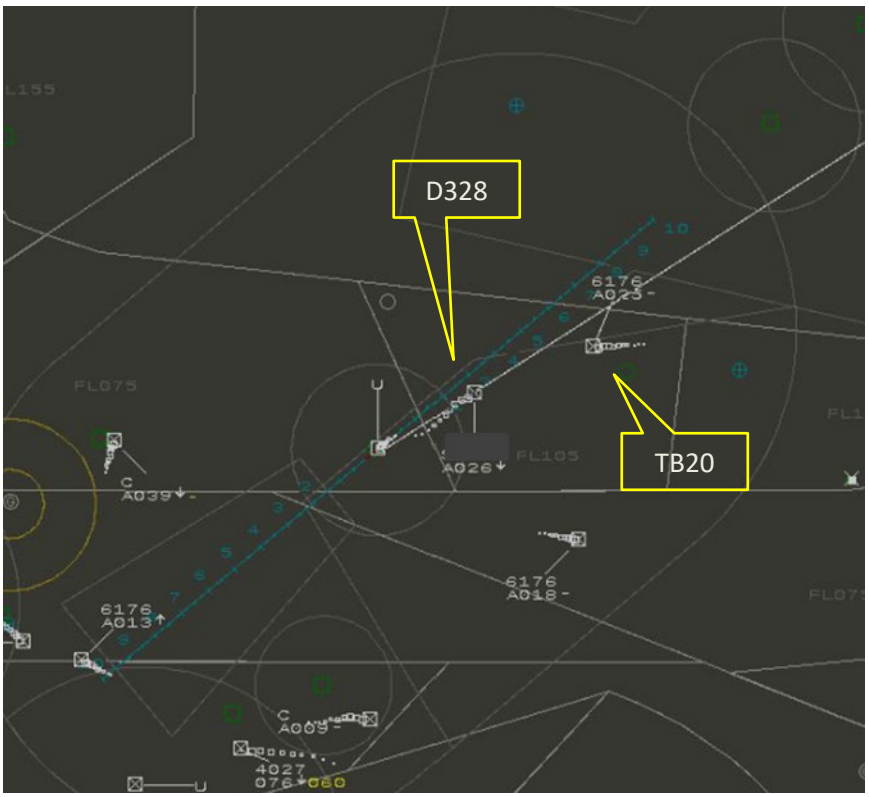


Figure 9 – 1523:33 (Cambridge Radar display)

Note: the extended line emanating from the D328 is not a predictive track tool, it is the DF/QTE bearing activated by individual aircraft transmissions.

The TB20 pilot acknowledged this but advised, "*he'll be above the clouds so I'm not going to see him. I'm just approaching the instrument approach track now*" (1523:47).

At 1523:51 the OJTI transmitted *"(D328 callsign) – non-radar, but I do believe that previously called traffic is now 12 o'clock at 1 mile, crossing right-left, indicating similar level*" (Figures 10 and 11).

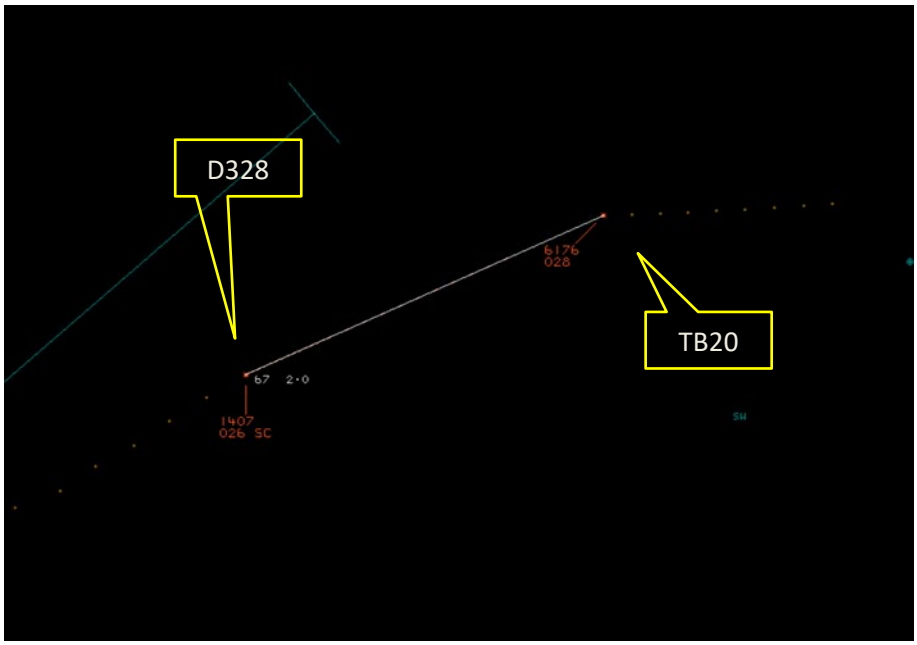


Figure 10 – 1523:51

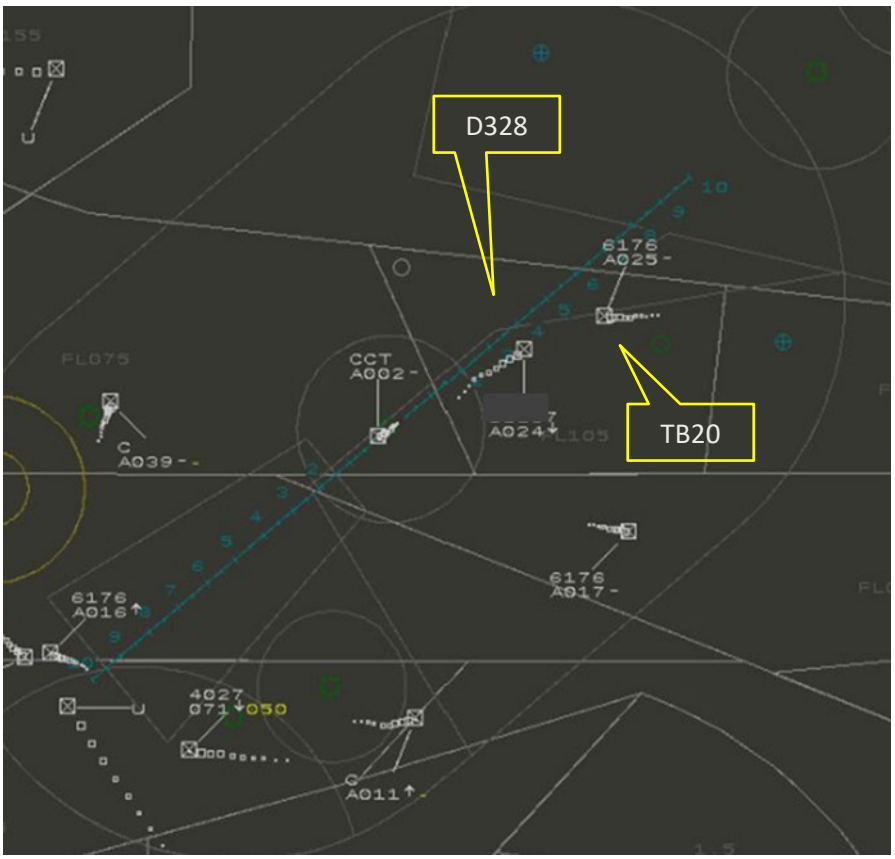


Figure 11 – 1523:51 (Cambridge Radar display)

The D328 pilot replied: "*er we have TCAS RA (callsign) – he's just in front of us*" (Figure 12).

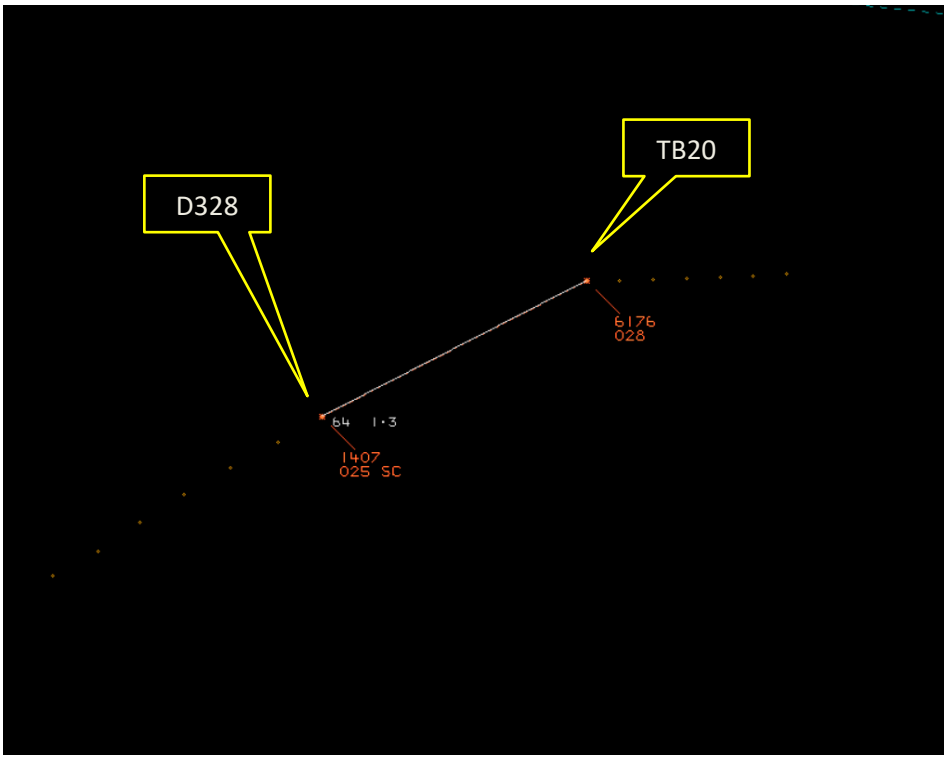


Figure 12 - 1524:00

At 1524:05 the TB20 pilot confirmed: "*I'm visual with traffic – he's below me*".

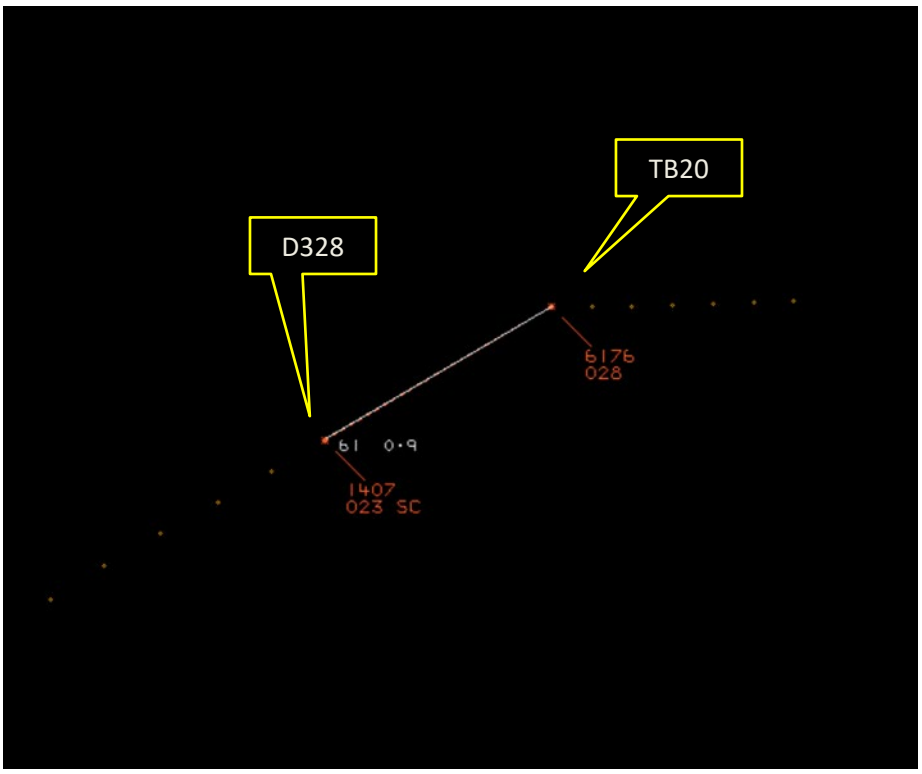


Figure 13 – 1524:05

CPA (Closest Point of Approach) occurred at 1524:12 with the aircraft separated by 800ft vertically and 0.3NM laterally (Figure 14).

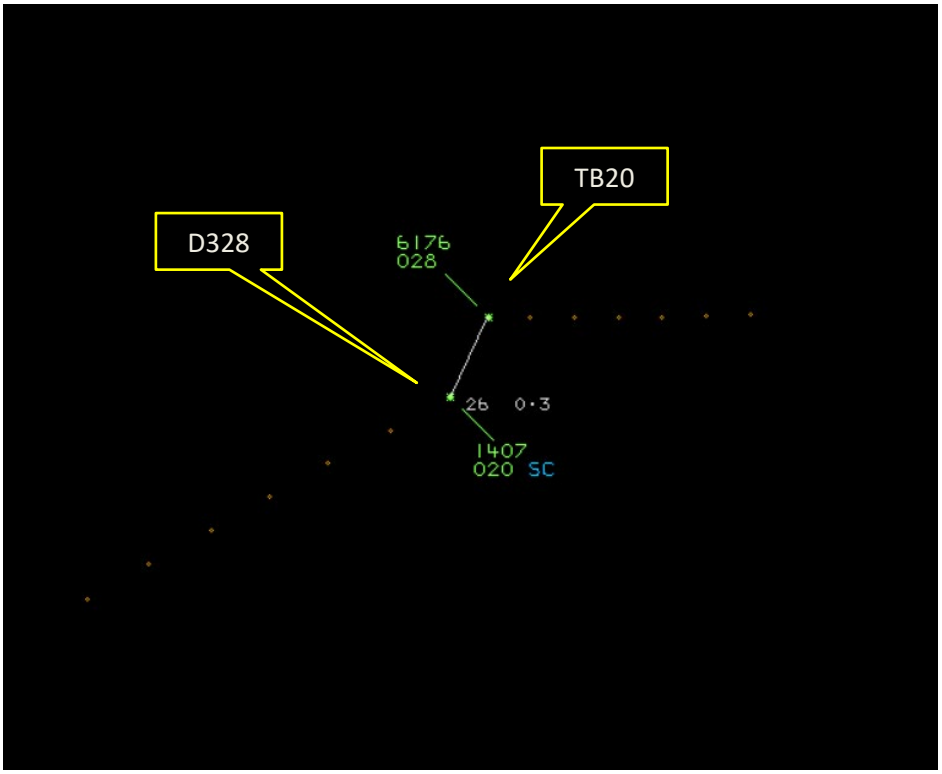


Figure 14 – 1524:12 CPA

Analysis

Cambridge ATC provided a copy of impounded RTF and surveillance recordings, and an ATSI Investigator attended the unit to conduct interviews in person. ATSI also used area radar recordings for the analysis.

The Airprox occurred in Class G airspace with the D328 pilot in receipt of a Procedural Service and the TB20 pilot in receipt of a Basic Service. Whilst the radar display was switched on in the lead-up to this Airprox event, and notwithstanding that controllers need to use their professional judgement when exercising the duty of care requirements outlined within CAP774, no regulatory requirement exists for the trainee or OJTI to utilise it to monitor the traffic situation. There was also no guidance available to the trainee or OJTI within the Cambridge MATS Part 2, with regard to what radar setting-up checks were required, and when and to what extent controllers were expected to utilise any information available to them on the display during periods where non-radar services were being provided.

When providing Procedural and Basic Services, controllers are required to apply the requirements of CAP 774.

In providing the pilot of the D328 with a Procedural Service the following paragraphs of CAP774 apply:

> Traffic information
>
> 5.5 The controller shall provide traffic information, if it is considered that a confliction may exist, on aircraft being provided with a Basic Service and those where traffic information has been passed by another ATS unit; however, there is no requirement for deconfliction advice to be passed, and the pilot is wholly responsible for collision avoidance.
>
> 5.12 Controllers may, subject to workload, initiate agreements (as defined in ATS Principles) with pilots of aircraft under a Basic Service to restrict their flight profile in order to co-ordinate them with aircraft in receipt of a Procedural Service. However, controllers shall limit the occasions on which they make such agreements to those where it is clear that a confliction exists, and only when controller workload permits.

In providing the pilot of the TB20 with a Basic Service the following paragraphs of CAP774 apply:

> Traffic information
>
> 2.5 Given that the provider of a Basic Service is not required to monitor the flight, pilots should not expect any form of traffic information from a controller/FISO. A pilot who considers that they require a regular flow of specific traffic information shall request a Traffic Service.
>
> 2.6 However, where a controller/FISO has information that indicates that there is aerial activity in a particular location that may affect a flight, in so far as it is practical, they should provide traffic information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller/FISO unless the situation has changed markedly, or the pilot requests an update.

Reciprocal Traffic Information was passed by the trainee to both pilots in good time, however the Traffic Information passed to the D328 pilot was based on an inaccurate position report provided by the pilot of the TB20. When reviewing the area radar replay, the profile of both aircraft indicated a continuing confliction after the Traffic Information had been acknowledged by the pilots.

The trainee requested "Radar" to resolve the confliction and the OJTI took control of the frequency and passed more specific and accurate Traffic Information to the D328 pilot using the radar display. The aircraft were separated by 2 miles and 200ft at this point, with the TB20 pilot having reported visual with the D328 and the pilot having advised the controller that the D328 was below them, and the D328 crew having reported that they were responding to the TCAS RA.

The earlier offer by the pilot of the TB20 to route further south was interpreted by the trainee as meaning that the aircraft would pass closer to the airfield overhead and was not accepted by the trainee because the potential conflict would have remained.

With the radar display being switched on and the OJTI being APS-rated, the OJTI was asked at interview whether they had considered issuing avoiding action. They responded that it was a procedural training session and that to transition to a surveillance-based service they would need to have ensured that the equipment checks had been completed, that the aircraft had been formally identified and service agreements in place. They said that they had used the radar display at that stage to provide "enhanced" Traffic Information, but that they believed that although the aircraft would "become proximate" there was no risk of collision with the D328 already indicating 200ft below the TB20.

The timing of the intervention by the OJTI and their supervision of the trainee was discussed during interview, with further discussion surrounding the potential that the OJTI had become distracted by the go-around by the Mooney on the Tower frequency prior to the Airprox.

There was the potential for distraction to have commenced when the OJTI overheard the Tower controller lining up the C152 ahead of the Mooney on a 2-mile final, with a C172 still in the climb-out lane after completing a touch-and-go from the visual circuit. At interview, the OJTI confirmed that they had moved away from the operational position to look out of the ACR window, but that they had continued to monitor the trainee, and their headset remained on (facilitated by an extra-long cable fitted to their headset).

There was further potential for distraction when the OJTI contacted a relief controller and the unit manager to request that they come to the ACR for a briefing on the events involving the Mooney.

The initial report from the pilot of the D328 was submitted as a TCAS RA, and then subsequently sent to UKAB as an Airprox. To date no corresponding report has been received from the TB20 pilot.

Conclusion

The Airprox occurred in Class G airspace with the D328 pilot in receipt of a Procedural Service and the TB20 pilot in receipt of a Basic Service. There was no requirement for deconfliction minima to be achieved in this scenario. Traffic Information was required to be passed to both pilots.

The trainee had the option, subject to workload, to attempt to initiate an agreement with the pilot of the TB20 to restrict their flight profile in order to co-ordinate them with the D328. The TB20 pilot had offered a potential alteration of their track, however, this proposal was considered by the trainee to have the potential to exacerbate the confliction and was rejected and no alternative agreement was reached.

In the lead-up to the Airprox event, the OJTI was focussed on the Mooney go-around and their subsequent conversations with the relief controller and the unit manager, potentially reducing their oversight of the trainee and the traffic situation.

During this period both the trainee controller and the OJTI had the radar display switched on, however the inaccurate position reports from the TB20 were passed-on verbatim to the D328, creating inaccurate situational awareness for the D328 pilot. The radar display would have shown that the TB20 was to the north-east and not east of Cambridge. The D328 pilot report did not reference the earlier Traffic Information passed to them on the TB20 which they had acknowledged, only the final information passed by the OJTI during the TCAS event.

At the time of CPA, the D328 pilot was already responding to a TCAS RA and had received Traffic Information from the OJTI. The pilot of the TB20 had also reported being visual with the D328 below them.

Notwithstanding that controllers need to use their professional judgement when exercising the duty of care requirements outlined within CAP774, no regulatory requirement or guidance currently exists

that supports the utilisation of a radar display, where one might be available, to monitor the traffic situation.

There was also no guidance available to the trainee or OJTI within the Cambridge MATS Part 2, with regard to what radar setting-up checks were required, and when and to what extent controllers were expected to utilise any information available to them on the display during periods where non-radar services were being provided.

UKAB Secretariat

An analysis of the NATS radar was undertaken and allowing the radar to continue to 1524:18 gave a radar CPA of 700ft vertical and 0.2NM horizontal separation.

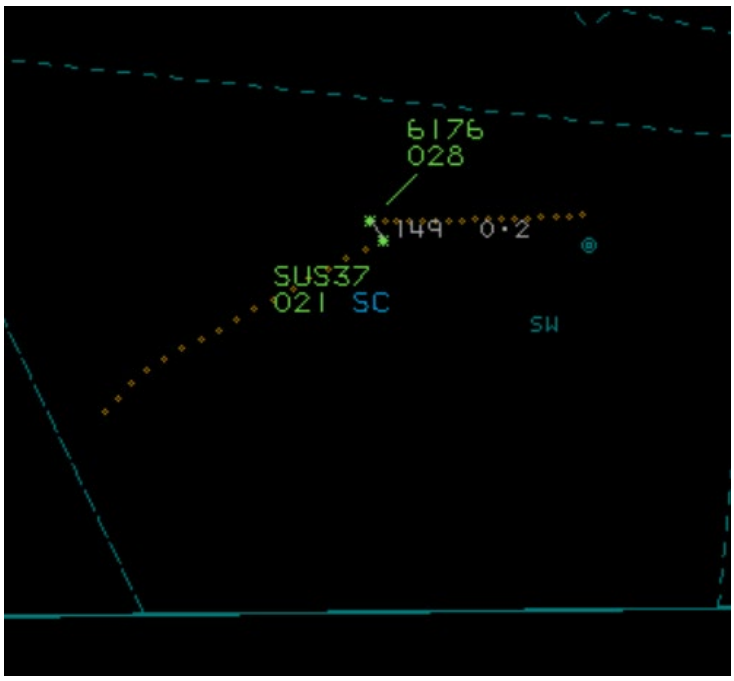


Figure 15 - 1524:18

The Dornier 328 and TB20 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[1]

Summary

An Airprox was reported when a Dornier 328 and a TB20 flew into proximity northeast of Cambridge Airport at 1524Z on Friday 5th July 2024. The Dornier pilot was operating under IFR in VMC in receipt of a Procedural Service from Cambridge and the TB20 pilot was operating under VFR probably in VMC, in receipt of a Basic Service from Cambridge.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the Dornier 328 pilot, radar photographs/video recordings, reports from the air traffic controllers 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 looked at the actions of ATC. There had been a controller under training and an OJTI in position, undertaking training for Procedural Approach without radar. Members were reminded that under the terms of a Procedural Service the controllers were not required to provide deconfliction between the two aircraft. It was noted that the OJTI had become distracted by the actions of the Tower

[1] (UK) SERA.3205 Proximity.

controller who had lined up an aircraft in front of the Mooney which had just made an approach ahead of the Dornier 328. This action had had the potential to impact on the Approach controller if the Mooney pilot had needed to go around for another approach. However, some controlling members opined that many units had stopped their controllers from listening-in to other frequencies for precisely this reason; it had the potential to become a distraction, with controllers second guessing and making decisions based upon what they were hearing, rather than simply dealing with the events as they unfolded and using co-ordination between the controllers. As it happened the Approach controller, on hearing the Mooney had been going around, kept the Dornier 328 in the Hold for longer, to allow for the Mooney to go back for another IFR approach; however, the Mooney had remained in the visual circuit to land. The OJTI had then become further distracted by organising a relief controller for Tower and members thought that this had impacted the mentoring of the U/T controller (**CF1**). Because they had been operating without radar, the controllers had not had accurate situational awareness on the position of the TB20 (**CF3**), although they had realised it had had the potential to conflict with the Dornier 328. The TB20 pilot had offered to change their routeing, which the controller had refused, because they had thought that going further south may have affected the Dornier at a later stage in the approach, but members noted that, with hindsight, the controller could have asked the TB20 pilot to change their altitude to ensure that they would have been crossing the approach lane well above the Dornier 328. Again, some controlling members thought that the controllers could have conducted all of the necessary radar set-up checks first thing in the morning so that, as happened here, if they needed to use the radar unexpectedly, they would be confident that it had been correctly set up. As it happened, the controller had passed Traffic Information to both pilots, but the inaccurate position report from the TB20 pilot had meant that the controllers had only that report to assess whether the two aircraft would become proximate. In the end, concerned that the TB20 pilot had reported a cloud layer and therefore had not been visual with the Dornier 328 (**CF2**), the OJTI had looked at the radar and had passed accurate Traffic Information to both pilots. Unfortunately, this had occurred at the same time as the Dornier 328 pilot had received a TCAS RA.

Turning to the actions of the Dornier 328 pilot, they had been conducting an IFR approach in Class G airspace. They had been given Traffic Information on the TB20, but the inaccurate information may have led the pilot to believe that the TB20 had not been a problem, particularly as they had been given clearance to commence the procedure and descend. It wasn't clear from the pilot's report whether they had been visual with the TB20 before they received the final Traffic Information from the controller, which had been given as traffic 1NM ahead, but in response they had reported the TCAS RA (**CF5**).

Finally, the Board looked at the actions of the TB20 pilot. Members were disappointed that the pilot had not responded to requests for a report, as this denied them the opportunity of knowing at what point the pilot had become visual with the Dornier 328. The pilot had called on the Cambridge frequency and had been receiving a Basic Service. The controller had not been monitoring the radar and so had been reliant on the TB20 pilot's own position reports for all situational awareness. On first being told about the Dornier 328, the pilot had helpfully offered to change routeing to keep out of the way, which the controller had not required them to do. However, when the controller had asked for an updated position report the pilot had given it as 8NM east, when in fact they had been 8NM northeast (**CF4**). Unfortunately, this had probably led the controller to believe that the TB20's routeing would not have affected their traffic. It had been the TB20 pilot's report that they had been approaching the approach lane and that a cloud layer might have prevented them from seeing the other aircraft that had prompted the OJTI to intervene and use the radar for accurate Traffic Information, after which the TB20 pilot had reported visual with the Dornier 328 below them.

When determining the risk of collision, members considered the report from the Dornier pilot and that of the controller, together with the radar replay. They noted that TCAS had not been designed for operations in Class G airspace and so the alerting of the TCAS RA was not a measure of risk by itself. Although it had not been clear from the Dornier 328 pilot's report when they had become visual with the TB20, the Dornier pilot had descended in response to the TCAS RA and the final separation had been 700ft vertically and 0.2NM horizontally. Some members felt that this separation could be considered to be normal operations (Risk Category E), whilst others thought that, by following their TCAS RA, the Dornier pilot had taken timely and effective action to ensure that there had been no risk of collision, but

that safety had been degraded. The Chair put it to a vote and, by a majority, the latter view prevailed; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024159			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Manning and Equipment			
1	Human Factors	• Recurrent/OJT Instruction or Training	Events involving on the job training of individuals/ personnel	
	• Situational Awareness and Action			
2	Human Factors	• Expectation/ Assumption	~~Events involving an individual or a crew/ team acting on the basis of expectation or assumptions of a situation that is different from the reality~~	Concerned by the proximity of the aircraft
3	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			
	• Tactical Planning and Execution			
4	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
	• Electronic Warning System Operation and Compliance			
5	Contextual	• ACAS/TCAS RA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system resolution advisory warning triggered	

Degree of Risk: C.

Safety Barrier Assessment[2]

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

Ground Elements:

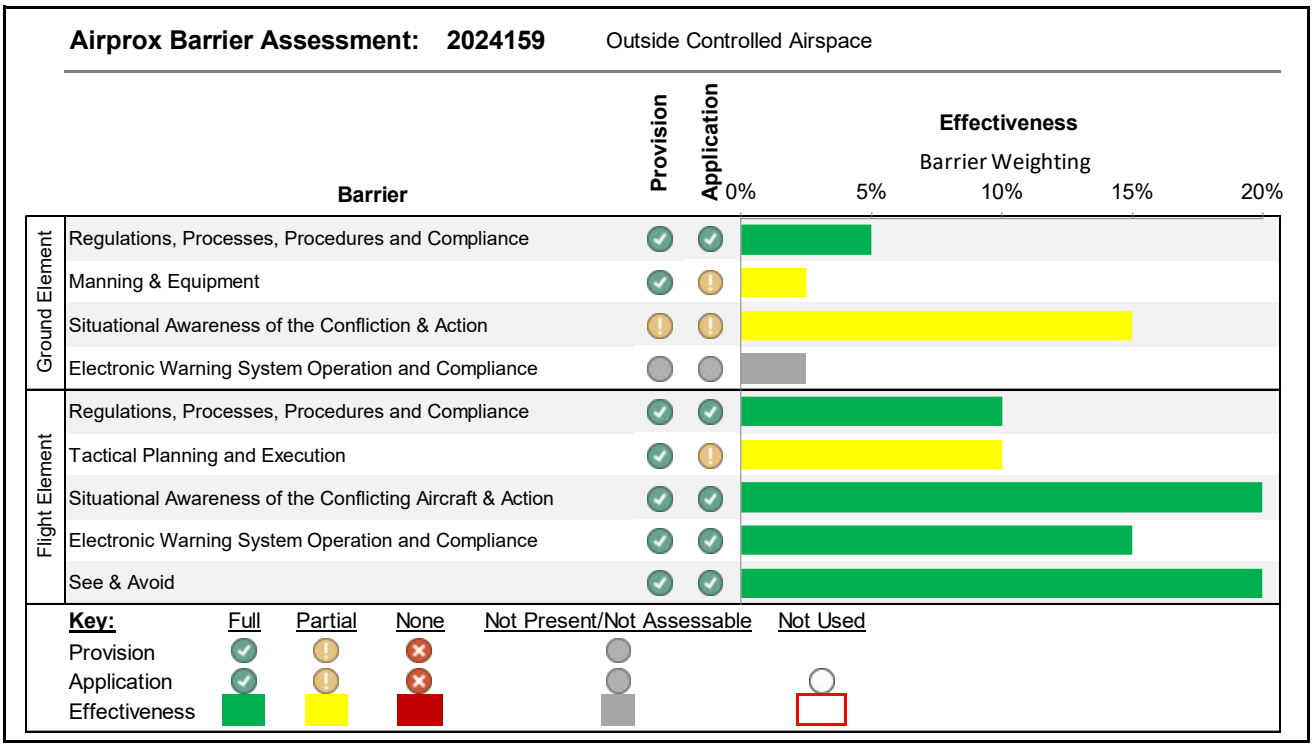
Manning and Equipment were assessed as **partially effective** because the OJTI had allowed themselves to become distracted by the events happening elsewhere in the tower, to the detriment of monitoring the UT.

Situational Awareness of the Confliction and Action were assessed as **partially effective** because the controller had inaccurate situational awareness about the exact position of the TB20, due to the inaccurate position report from the pilot. Once the controllers had realised the exact position of the TB20, they became concerned by the proximity of the two aircraft.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the TB20 pilot provided ATC with an inaccurate position report.

[2] The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the UKAB Website.


Airprox Barrier Assessment: 2024159
Outside Controlled Airspace
Barrier
Provision
Application
Effectiveness
Barrier Weighting
0%
5%
10%
15%
20%
Ground Element
Regulations, Processes, Procedures and Compliance
Manning & Equipment
Situational Awareness of the Confliction & Action
Electronic Warning System Operation and Compliance
Flight Element
Regulations, Processes, Procedures and Compliance
Tactical Planning and Execution
Situational Awareness of the Conflicting Aircraft & Action
Electronic Warning System Operation and Compliance
See & Avoid
Key:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness