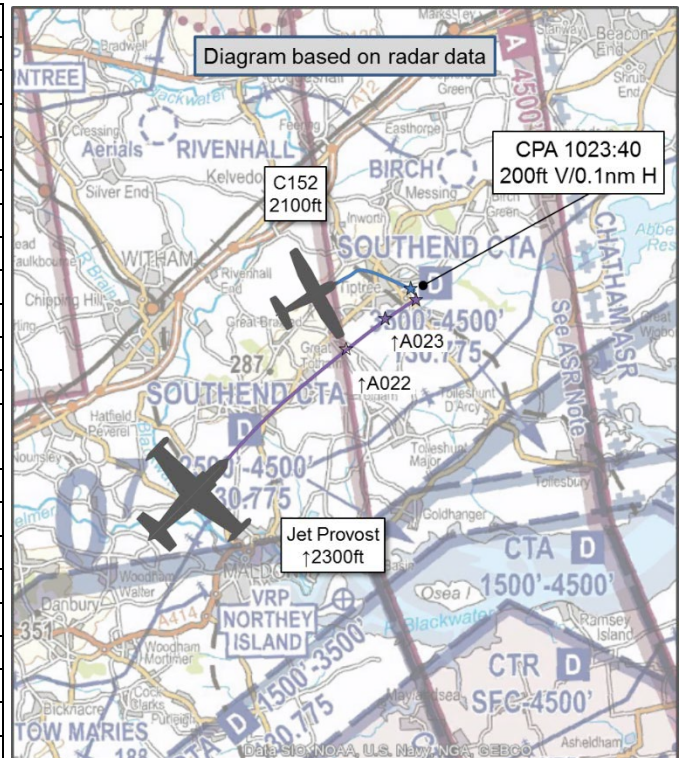


AIRPROX REPORT No 2018157

Date: 05 Jul 2018 Time: 1023Z Position: 5147N 00047E Location: SW Colchester

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C152	Jet Provost
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Unknown
Provider	Southend	
Altitude/FL	2100ft	2300ft
Transponder	A, C	A, C, S
Reported		
Colours	White, Red	
Lighting	Strobes, Wingtips, Beacon	
Conditions	VMC	
Visibility	N/R	
Altitude/FL	2000ft	
Altimeter	QNH (1015hPa)	
Heading	120°	
Speed	85kt	
ACAS/TAS	Not fitted	Unknown
Alert	N/A	Unknown
Separation		
Reported	50ft V/150ft H	NK
Recorded	200ft V/0.1nm H	



THE C152 PILOT reports that he was cruising at 2000ft and in receipt of a Basic Service from Southend. The controller gave Traffic Information about traffic on his right-hand side at the same level. He could sense the urgency in the controller's voice and scanned out of the right window for the traffic but couldn't see it, so replied that he was looking for the traffic. About 5 secs later an aircraft appeared in the forward window, crossing right-to-left slightly above. He estimated the aircraft was about 50ft above and 150ft ahead at its closest point, it was moving at speed. He believed it was a small ex-military jet and was dark in colour, black or navy blue. He informed the controller that he could see the traffic and the controller asked what type it was. The incident happened so quickly he did not have time to take any avoiding action; he estimated the time between seeing the aircraft and it no longer being a threat was approximately 1 sec. He believed that he hadn't seen it earlier due to it being hidden behind the high wing of the C152. Shortly afterwards, he told the controller that he would be filing an Airprox and the controller told him which airfield he thought the aircraft had departed from.

He assessed the risk of collision as 'Medium'.

THE JET PROVOST PILOT did not respond to a request to file a report.

THE SOUTHEND CONTROLLER reports that he was providing a Basic Service to the C152. He observed a fast moving contact to the west of the C152 at the same height and passed Traffic Information. The pilot reported that he had seen the aircraft and it appeared to be a small jet. At 1026z the C152 pilot reported leaving the frequency, and advised that he would file an Airprox.

Factual Background

The weather at Stansted was recorded as follows:

METAR EGMC 051020Z VRB03KT 9000 FEW037TCU 23/15 Q1015=

Analysis and Investigation

CAA ATSI

At 1009:56, the C152 pilot established communication with the Southend Radar controller. The controller instructed the pilot to select SSR code 4575 and a Basic Service was agreed. At 1016:29 (Figure 1), the Jet Provost appeared close to North Weald displaying the SSR code 7010.

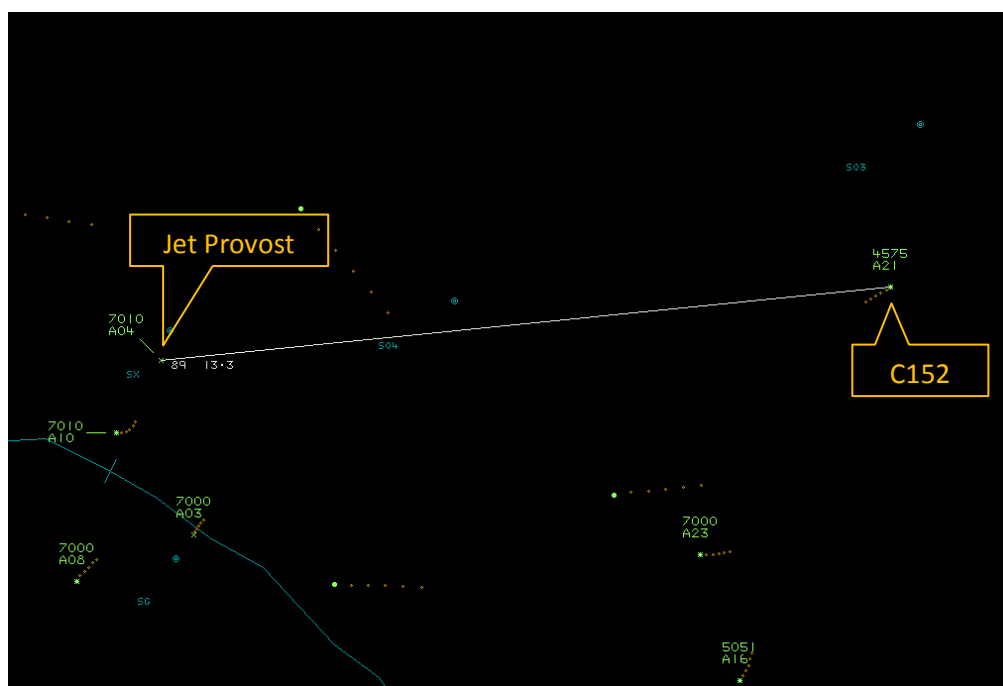


Figure 1 – 1016:29

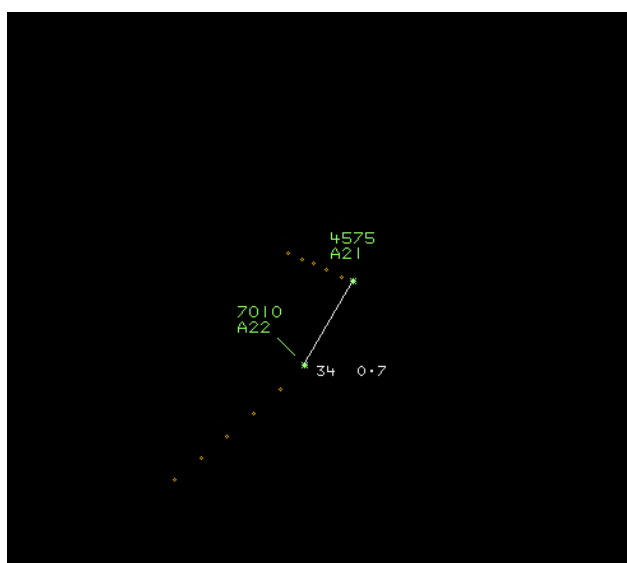


Figure 2 – 1023:29

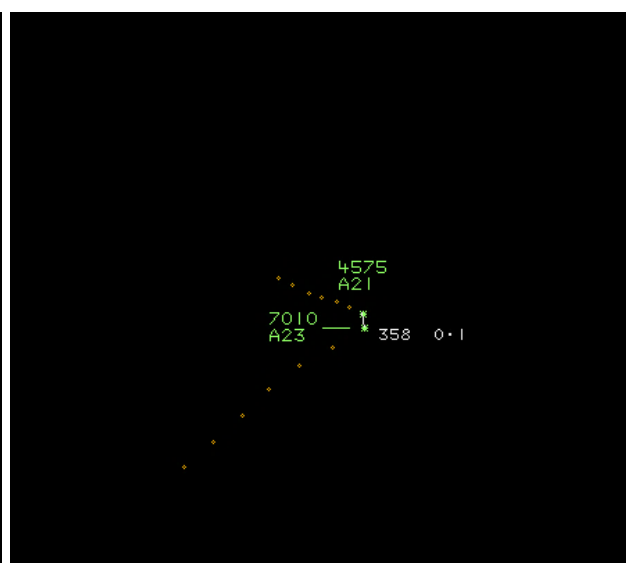


Figure 3 – 1023:39

At 1023:29 (Figure 2) the controller passed Traffic Information on the Jet Provost to the C152 pilot. The controller updated the Traffic Information at 1023:39 (Figure 3) which was concurrent with CPA.

The radar indicated that the aircraft were separated by 0.1nm and 200ft. At the time of the Airprox the C152 pilot was receiving a Basic Service. The Airprox took place in Class G airspace where collision avoidance is ultimately the responsibility of the pilot.

UKAB Secretariat

The C152 and Jet Provost pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as converging, then the C152 pilot was required to give way to the Jet Provost². If the incident geometry is considered as overtaking, then the C152 pilot had right of way and the Jet Provost pilot was required to keep out of the way of the other aircraft by altering course to the right³.

Although not germane to the incident, the Jet Provost was noted to be squawking 7010 which is for use by aircraft operating in an aerodrome traffic pattern, when instructed to do so by an ATS Unit.⁴

Summary

An Airprox was reported when a C152 and a Jet Provost flew into proximity at 1023hrs on Thursday 5th July 2018. The C152 pilot was operating under VFR in VMC and in receipt of a Basic Service from Southend. The Jet Provost pilot did not file a report so his flying conditions and whether he was receiving an ATS were not known; however, given that he was still squawking 7010, it is likely that the Jet Provost pilot was not receiving an ATS because he would have been requested to set a more appropriate squawk.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the C152 pilot, transcripts of the relevant RT frequencies, radar photographs/video recordings, a report from the air traffic controller involved and reports from the appropriate ATC operating authorities.

The Board first looked at the actions of the C152 pilot. He was receiving a Basic Service from Southend and was fortunately given Traffic Information on the Jet Provost approaching from the right. Although the C152 had therefore been warned in a timely fashion, members commented that pilots should understand that operating under only a Basic Service did not guarantee any level of traffic information, nor even that the controller was monitoring their flight. Members noted that once he had turned right towards the Jet Provost (approximately 30 seconds before the Airprox occurred and before he had received traffic information that the Jet Provost was there), the C152 pilot was then required to give way to it. The C152 pilot had reported that he had not seen the Jet Provost until it was crossing in front of him, and some members wondered whether the C152 pilot had looked adequately before turning. Acknowledging that the high wing of the C152 may have blocked the Jet Provost from the C152 pilot's view as he turned, the Board noted that it was for the pilot to ensure that he ensured a robust lookout once rolled out, including adjusting his position in order to ensure he effectively cleared the 'blind area' inside the turn.

Turning to the Jet Provost pilot, the Board were disappointed that he had chosen not to participate in the Airprox process because this denied the Board the benefit of his perspective and the knowledge of the conditions within his cockpit. In examining the radar replays, members thought that he had probably been visual with the C152 as they closed with each other because he had climbed and descended again after CPA. Members speculated that the Jet Provost pilot may have seen the C152 earlier as he was overtaking it well to the right, and may have been taken by surprise as it turned ahead of him to fly across his flight path. Members agreed that he had most likely taken avoiding action by climbing because his Mode C indicated a 200ft climb in the closing seconds, and then descended back to his

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(2) Converging.

³ SERA.3210 Right-of-way (c)(3) Overtaking.

⁴ UKAIP ENR 1.6-5 ATS Surveillance Services and Procedures

original level. Given that it was unlikely he was receiving an ATS, it was probable that he did not get any Situational Awareness about the C152, unless his aircraft was fitted with a suitable CWS.

The Board commended the Southend controller for his actions; although only providing a Basic Service, which did not require him to monitor the aircraft on radar, the controller passed Traffic Information to the C152 pilot. It was just unfortunate that despite this, the C152 pilot did not see the Jet Provost in time to take any avoiding action. The Board thought it was also unfortunate that the Jet Provost pilot hadn't called Southend for an ATS, because if he had done so he may have heard the C152 pilot on frequency and it was likely that the Southend controller could have given him Traffic Information on it.

In determining the cause of the Airprox, the Board agreed that in the absence of the Jet Provost pilot's report the incident was best described as a conflict in Class G, which was probably resolved by the Jet Provost pilot's avoiding-action climb. Noting the Jet Provost's climb just prior to CPA, members agreed that although this indicated that it's pilot had seen the C152, it was probably at a late stage, to the extent that safety had not been assured given the closure speeds involved. The Board therefore assessed the risk as Category B.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G probably resolved by the Jet Provost pilot.

Degree of Risk: B.

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:

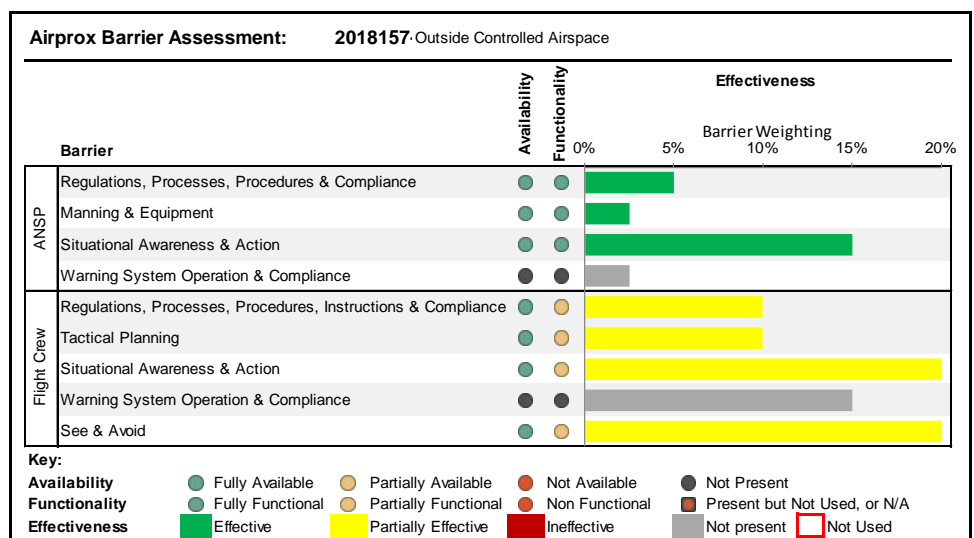
Flight Crew:

Regulations, Processes, Procedures, Instructions and Compliance were assessed as **partially effective** because the Jet Provost pilot did not set his transponder to 7000 outside the visual circuit.

Tactical Planning was assessed as **partially effective** because the Jet Provost pilot could have called Southend for an ATS, and if he had he may have received Traffic Information on the C152.

Situational Awareness and Action were assessed as **partially effective** because the C152 pilot received Traffic Information and could have reacted, although in mitigation this was only 10 seconds before CPA.

See and Avoid were assessed as **partially effective** because the radar indicated that the Jet Provost pilot climbed 200ft, so it was probable that he saw the C152 late and took avoiding action.



⁵ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).