AIRPROX REPORT No 2019216

Date: 25 May 2019 Time: 1147Z Position: 5136N 00052W Location: IVO Wycombe

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Miles Witney	Extra 330
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Listening Out
Provider		Wycombe Tower
Altitude/FL	NK	NK
Transponder	A, C, S	Off
Reported		
Colours	Silver, Blue	White, Blue
Lighting	NR	NR
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2000ft	NK
Altimeter	NK	QFE
Heading	165°	NK
Speed	110kt	NK
ACAS/TAS	Not fitted	Not fitted
Alert	N/A	N/A
Separation		
Reported	18ft V/20m H	Not Seen
Recorded	NK V/<0.1nm H	

THE MILES WHITNEY PILOT reports that the aircraft had just returned from maintenance having had a new 8.33KHz radio fitted. However, the radio was not properly set up, the engineer had taken the manual away, and there was a loud static noise which could not be suppressed by the squelch button. The outward flight was difficult, with various ATC agencies not able to be heard. He needed the squawk relaying by another aircraft at one point and so on the return flight he did not bother with Farnborough, preferring to keep a good look-out instead. He noted that, in addition to the radio problem, the aircraft was heavy with a centre of gravity that was too rearward, making control in gusty conditions tricky and increasing the workload. On returning he pointed out an old PA28, possibly a Piper 140 to his passenger, which was only about 100ft to the left, when suddenly a metallic-blue Extra passed directly overhead, in the opposite direction, just above and at high speed.

The pilot assessed the risk of collision as 'High'.

THE EXTRA 330 PILOT reports that he was not aware of the Airprox and did not see the other aircraft. He was conducting an aerobatic conditioning flight of about 20min duration. He was probably listening out with Wycombe Tower at the time of the incident.

THE PA28 PILOT reports that he was climbing to cruise altitude in the departure pattern from Wycombe and adhering to the noise abatement procedures. He was flying with another qualified pilot and neither of them could recall seeing any other aircraft that they considered to be a danger or in close enough proximity to be considered an Airprox. He commented that it was not uncommon to see other aircraft flying dangerously close to the edge of the ATZ when departing.

Factual Background

The weather at Benson was recorded as follows:

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METAR EGUB 251050Z AUTO 29008KT 9999 // FEW030/// SCT050 19/10 Q1019=
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Analysis and Investigation

UKAB Secretariat

At 1147:15, the Miles Whitney (squawking 7000) can be seen on the NATS radar approximately 3nm to the NW of Wycombe Airpark, heading south. A primary only contact, believed to be the Extra, can been seen just to the south-west of the Miles Whitney, this contact continues northbound. The only other contact in close proximity is an aircraft squawking 7000, believed to be a PA28, this aircraft closes to within 0.6nm before turning to the north-east.

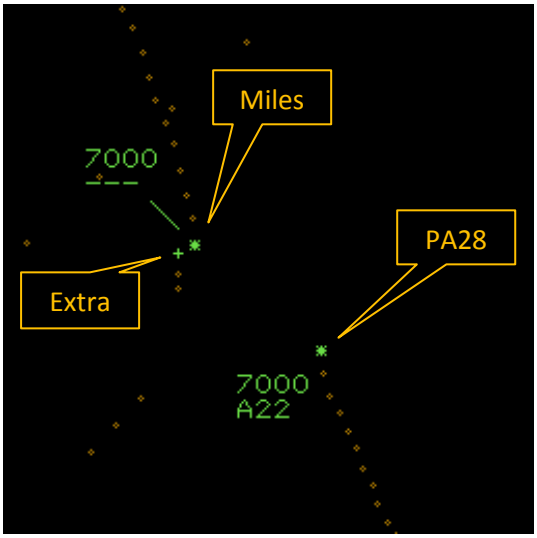


Figure 1:1147:15

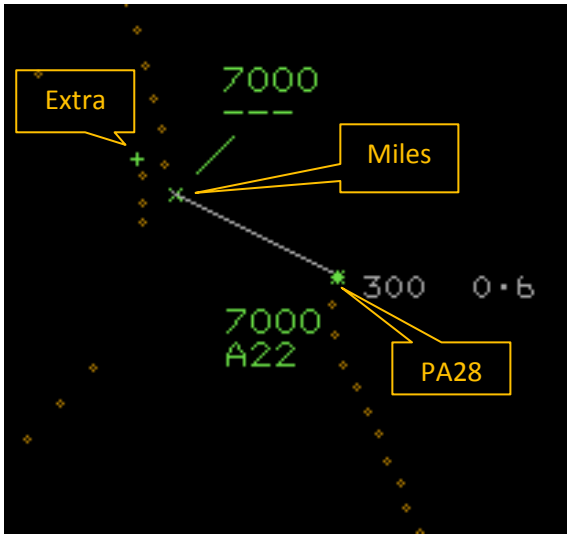


Figure 2:1147:23

The Miles Whitney and Extra 330 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]. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right[2]. If a transponder is fitted and functional and the aircraft power system allows, it is required to have all modes selected on[3].

Summary

An Airprox was reported when a Miles Whitney and an Extra flew into proximity at 1147hrs on Saturday 25th May 2019. Both pilots were operating under VFR in VMC, neither in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft and radar photographs/video recordings. 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 the Miles Whitney pilot. He reported that his radio was unserviceable and he had switched it off. Members thought that this was unfortunate because it denied him the opportunity to speak to Wycombe as his transited passed, and removed the possibility of him

[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(1) Approaching head-on.
[3] SERA.13001, SERA.13005

receiving Traffic Information. Some members went further and thought that he should have abandoned his trip on the outbound leg when he first discovered the radio problem, reasoning that it had become a distraction to him. However, others were not convinced, noting that it is legal to fly without a radio at all, and so the Board decided that although this in itself was not a contributory factor to the Airprox, they cautioned pilots about pressing on with sorties with unserviceable equipment. Moreover, they cautioned about getting airborne with unfamiliar equipment and thought the Miles pilot should have familiarised himself with the new radio prior to getting airborne. Without a radio or a CWS, the Miles pilot had no situational awareness about the Extra until he saw it at a very late stage (**CF3**), and members thought that the distraction of seeing the PA28 had likely meant that the pilot's attention was drawn towards that aircraft, meaning that he was not looking in the direction of the Extra as it approached (**CF4**). By the time he saw the Extra there was no time to take avoiding action (**CF5**).

Turning to the Extra pilot, he was conducting aerobatics in the area and did not see the Miles Whitney at all (**CF5**). He also did not have any situational awareness about the Miles because his aircraft was not fitted with a CWS and, although he was listening out on the Wycombe frequency, the Miles pilot had not called because of the radio issue (**CF3**). The Board noted that the Extra pilot had turned off his transponder and GA members commented that pilots conducting aerobatics, particularly underneath the London TMA, often switch off their transponder to avoid causing TCAS alerts to aircraft within CAS. Whilst the Board understood the rationale for doing so, members noted that SERA.13001 is unambiguous in clearly stating that pilots must operate with the transponder switched on at all times if one is fitted and serviceable (**CF1**, **CF2**). Although it wouldn't have made a difference in this Airprox because the Miles was not fitted with a TAS, a transponder that is switched off denies other aircraft fitted with a CWS the ability to detect their aircraft. Additionally, setting the Aerobatic squawk (7004) would provide controllers in the area with knowledge that they are conducting high-energy manoeuvres.

Finally, in assessing the risk, the Board quickly agreed that providence had played a large part in preventing a collision because neither pilot had seen the other in time to take avoiding action and separation had been reduced to the bare minimum; risk Category A.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2019216		
CF	**Factor**	**Description**	**Amplification**
	Flight Elements		
	• Regulations, Processes, Procedures and Compliance		
1	Human Factors	• Flight Crew ATM Procedure Deviation	Regulations/procedures not complied with
	• Tactical Planning and Execution		
2	Human Factors	• Transponder Selection and Usage	
	• Situational Awareness of the Conflicting Aircraft and Action		
3	Contextual	• Situational Awareness and Sensory Events	Generic, late, no or incorrect Situational Awareness
	• See and Avoid		
4	Human Factors	• Distraction - Job Related	Pilot looking elsewhere
5	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots

Degree of Risk: A.

Safety Barrier Assessment[4]

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

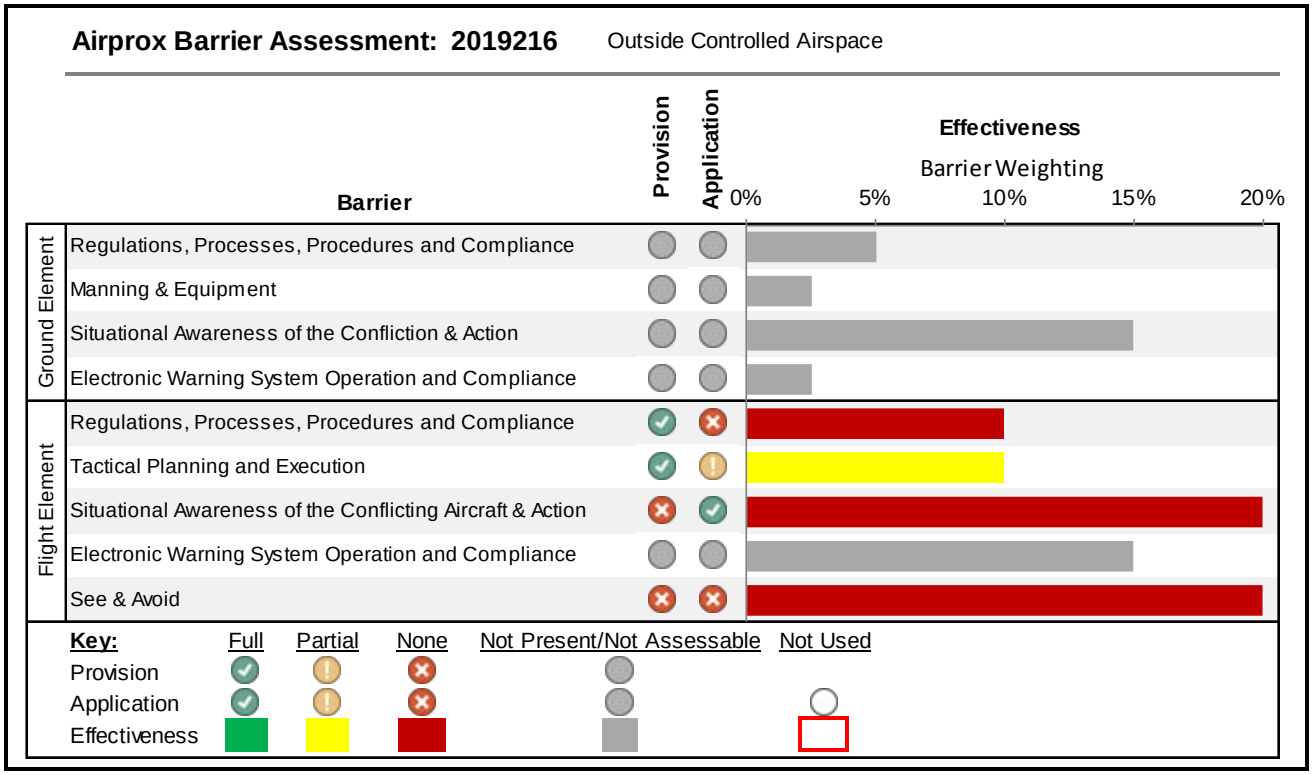
Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the Extra did not have its transponder switched on.

Tactical Planning and Execution was assessed as **partially effective** because the Extra pilot did not have his transponder switched on.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any information about the other prior to the incident.

See and Avoid were assessed as **ineffective** because neither pilot saw the other in time to take any effective avoiding action.



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