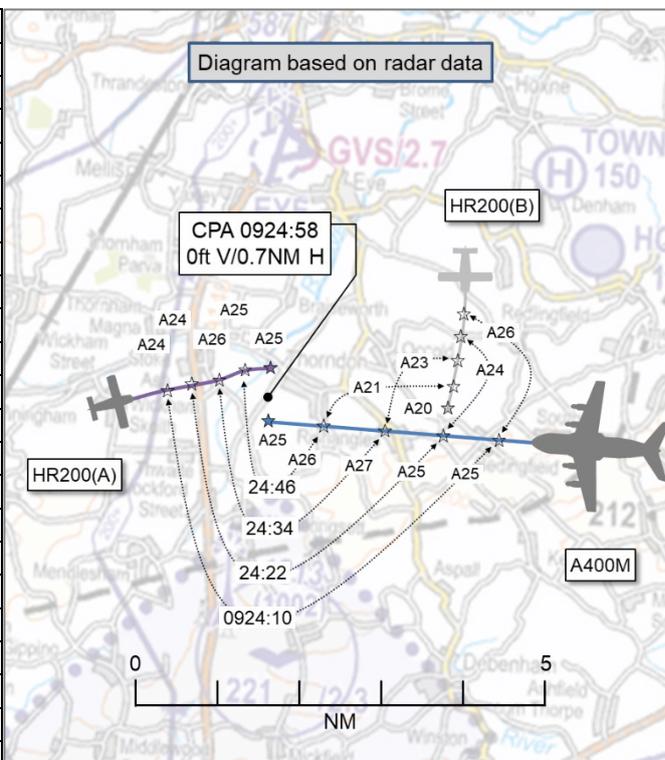


AIRPROX REPORT No 2024173

Date: 27 Jul 2024 Time: 0925Z Position: 5217N 00107W Location: Thorndon

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	A400M	Robin HR200(A)
Operator	HQ Air (Ops)	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Traffic (Reduced)	Listening Out
Provider	Norwich	(Wattisham)
Altitude/FL	2500ft	2500ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Grey	Blue/white
Lighting	'All on'	Strobe/Landing
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2500ft	2700ft
Altimeter	NK (NK hPa)	QNH (1014hPa)
Heading	270°	075°
Speed	200kt	89kt
ACAS/TAS	TCAS II	SkyEcho
Alert	TA	None
Separation at CPA		
Reported	Not seen	100ft V/0.7NM H
Recorded	0ft V/0.7NM H	



THE A400M PILOT reports in the cruise phase of a sortie, operating just outside Norwich zone on a Traffic Service whilst recovering to Marham. The crew noted numerous TCAS contacts in the local area, slowed, and called for extra crew in the cockpit for lookout. Shortly thereafter Norwich downgraded the service to 'reduced' due to the quantity of traffic in the area. The situation rapidly escalated to include various contacts at different vectors and heights, making a manoeuvre to leave the area impractical. The PF, operating from the right-hand seat, visually acquired traffic converging at the 3 o'clock position and called the traffic to the crew as TCAS announced a TA. The PF climbed the aircraft 500ft to increase separation as the aircraft passed behind. Closest point was about 1 mile, converging rapidly. The Airprox was reported on the radio and by phone after landing. The sortie was curtailed to leave the area and recovery carried out safely. The mission included 2 more sorties which were carried out safely after consultation with Norwich and Marham ATS.

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

THE HR200(A) PILOT reports conducting a local flight, tracking towards Bury St Edmunds, Halesworth and Clacton VOR. Wattisham was contacted for a service but was unavailable. Therefore, a blind call was made to Wattisham Traffic. Whilst tracking towards Halesworth from Bury St Edmunds, an aircraft was sighted at approximately the 1 o'clock position, moving left-to-right. They were approximately 2.5NM south of Eye disused airfield. No alert was received from [the TAS] on the [TAS display] moving map. The aircraft was a large 4-engine military transport but they were unable to identify the type. The aircraft appeared to be tracking in the opposite direction, parallel to their direction, and passed on the starboard side when they were just north of Thorndon village. No avoiding action was required to be taken as there was a low risk of collision.

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

THE NORWICH CONTROLLER reports that at approximately 0925 an RAF A400M [pilot] reported an Airprox on the Norwich Radar frequency. The A400M was conducting a clockwise routeing around Norwich with the Airprox reported ivo Diss, approximately 20NM southwest of Norwich Airport. They had recently taken over the Norwich Radar operational position [approximately 4min before CPA] after a lengthy handover and had several other aircraft on frequency. Due to the expected routeing of the A400M they informed them of 'reduced traffic information from the west due to traffic density', but did call relevant Traffic Information on conflicts to their northwest (slightly above) and west (similar level with a specific warning about the traffic to their west due to the level). As the A400M turned west, the traffic to their north began to descend and was heading south. At this point the pilot called an Airprox, which was acknowledged. After a few seconds, once they had judged the [A400M] was clear of the first confliction, they re-issued Traffic Information on the traffic to the west, to which the pilot asked if they had acknowledged the Airprox, which they did again. The second confliction was safely avoided and the aircraft handed over to RAPCON for a CMATZ crossing on their way back to Marham.

Factual Background

The weather at Wattisham was recorded as follows:

METAR EGUW 270920Z AUTO 31006KT 9999 NCD 20/10 Q1013=

Analysis and Investigation

UKAB Secretariat

The A400M and HR200(A) 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 TCAS analysis indicated that the A400M TCAS TA occurred due to the proximity of HR200(A) and not with the aircraft that the A400M PF saw (HR200(B)) because that aircraft crossed below and behind the A400M. Separation at CPA with HR200(B) was 100ft V/1.2NM H at 0924:22.

Comments

HQ Air Command

The A400M was flown in a busy sector of airspace at the weekend when GA aircraft are prevalent. It was therefore wise to obtain a radar service from Norwich as a LARS provider. It is unfortunate that the other aircraft involved were not operating on the same frequency, which may have aided coordination. Efforts continue to publicise the availability of LARS, although it will not always be practical for all aircraft to operate on it due to their differing needs. Subsequent A400M tasking was moved to an alternate location, in consultation with ATC, where air traffic density was likely to be lower. The sortie profiles were altered to reduce the collision risk to the lowest possible level.

Summary

An Airprox was reported when an A400M and a Robin HR200(A) flew into proximity near Thorndon at 0925Z on Saturday 27th July 2024. Both pilots were operating under VFR in VMC, the A400M pilot in receipt of a reduced Traffic Service from Norwich and the HR200(A) pilot not in receipt of a FIS.

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 air traffic controller involved. 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.

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

Board members agreed that the A400M pilot had sighted HR200(B) but had received the TCAS TA from the HR200(A). With smaller vertical and horizontal separation at CPA, and having activated the A400M TCAS TA, HR200(A) was deemed to be the Airprox aircraft. In the event, members felt that all the barriers to MAC had functioned correctly, Risk E, with the following contributory factors:

CF1: The Norwich STCA activated, warning the controller who had also passed Traffic Information.

CF2: The A400M pilot had been concerned by the proximity of the other aircraft, HR200(B).

CF3: The HR200(A) TAS was incompatible with the A400M EC equipment.

CF4: The A400M TCAS had alerted with a TA.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2024173				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Electronic Warning System Operation and Compliance				
1	Technical	• STCA Warning	An event involving the triggering of a Short Term Conflict Alert (STCA) Warning	
Flight Elements				
• Situational Awareness of the Conflicting Aircraft and Action				
2	Human Factors	• Unnecessary Action	Events involving flight crew performing an action that was not required	Pilot was concerned by the proximity of the other aircraft
• Electronic Warning System Operation and Compliance				
3	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
4	Contextual	• ACAS/TCAS TA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system traffic advisory warning triggered	

Degree of Risk: E.

Safety Barrier Assessment²

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that all the barriers had functioned as intended.

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: 2024173		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 Conflicition & 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	■	■	■	■		□	