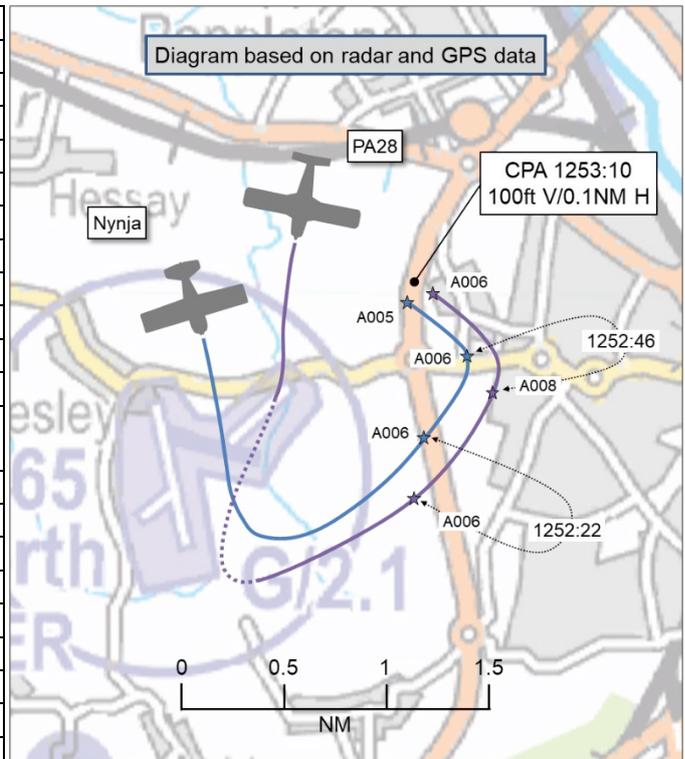


AIRPROX REPORT No 2024043

Date: 30 Mar 2024 Time: 1253Z Position: 5358N 00109W Location: IVO York/Rufforth

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Nynja	PA28
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Listening Out
Provider	Rufforth Traffic	Rufforth Traffic
Altitude/FL	500ft	600ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White	White
Lighting	Nav, strobe	Landing, beacon, strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	600ft AMSL	516ft
Altimeter	QFE (992hPa)	QFE
Heading	350°	230°
Speed	65kt	94kt
ACAS/TAS	Not fitted	PilotAware
Alert	N/A	None
Separation at CPA		
Reported	60ft V/100ft H	20ft V/0.66NM H
Recorded	100ft V/0.1NM H	



THE NYNJA PILOT reports that they were north of York for an inbound track from the northeast of Rufforth. They heard [the (uninvolved) pilot of a EuroFox] announcing their return ahead of them. At approximately 10NM out, [the pilot of the Nynja] announced [that they were inbound]. They also began to hear other transmissions (from the pilot of [the PA28]) which were, basically, "inbound" but did not confirm the station they were calling, the direction they were inbound from or a distance/time out. [The pilot of the Nynja] had assumed that they were talking to Rufforth Traffic. [The pilot of the Nynja], and their P2, kept a very vigilant lookout for the [PA28].

They updated their position and situation as they got closer to Rufforth. [The pilot of the EuroFox] had also transmitted their circuit progress and they had visual contact with them, but despite a few more confusing transmissions from [the pilot of the PA28] they had not been able to identify them or where they were likely to have been.

They completed their pre-landing checks early, joined the circuit following local protocol and announced "Rufforth Traffic, [Nynja callsign], downwind, left-hand RW23" as soon as they had turned onto the downwind leg. Within a few seconds, they heard "Rufforth Traffic, [PA28 callsign], downwind left-hand 23" and, as they could not see [the PA28] anywhere ahead or abeam, they transmitted "[PA28 callsign] this is [Nynja callsign]. Confirm you have me visual, I am downwind left-hand for 23" and gave their height AGL.

They only heard a broken transmission which they think was from [the pilot of the PA28]. They continued with their circuit, and planned a 'what-if' scenario as well. As they made their final turn, their P2 finally saw [the PA28] through the transparent roof panel and they, the pilot, got a fleeting glimpse as well. The [PA28] was less than 50m away, inside their turn and slightly higher. They heard [the pilot of the PA28] transmit "going around" and [the PA28] gained height, so [the Nynja pilot] continued with their approach, landed and vacated the runway. [The PA28] subsequently landed.

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

THE PA28 PILOT reports that, 10NM south from Rufforth Airfield East, they reported on the radio (120.380MHz) their intention to join and land. They were advised 'circuits 23 left-hand'. They reported their intention to overfly the airfield at 1800ft and to descend on the deadside to the north. They reported joining from the deadside, as advised, to the north of RW23LH. They reported downwind and then spotted an aircraft ahead in the circuit. They decided to extend downwind to allow sufficient space for the other aircraft to land, however, when they turned onto base-leg, they noted that the other aircraft was still on final approach. They continued to final and reported going-around for another circuit, and subsequently reported downwind, reported final, and landed. They were not aware of any other aircraft other than the one stated, nor any likely Airprox incident. No-one approached them after landing with any issues, only a marshal who advised them on the best place to park.

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

THE RUFFORTH EAST AIRFIELD OWNER reports that they have no aerodrome personnel who witnessed this incident, nor any evidence to support it such as AGCS radio recordings or any interaction with local ATS units. Rufforth East is an unlicensed aerodrome without a designated ATZ.

They do not operate a staffed AGCS apart from in certain circumstances which are promulgated via their website, such as fly-ins when they anticipate a larger number of visitors who may be unfamiliar with the airfield.

Their records show that they had a visiting aircraft that afternoon, [PA28 callsign], around the reported time of the incident.

Factual Background

The weather at Leeds Bradford was recorded as follows:

METAR EGNM 301250Z 21008KT 160V250 9999 SCT048 11/03 Q0993

Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft could be positively identified from mode S data.



Figure 1 – CPA at 1253:10

Both aircraft were depicted on the radar replay as having been at Flight Levels. A suitable correction was applied to determine their respective altitudes.

The Nynja and PA28 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 An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation.²

Summary

An Airprox was reported when a Nynja and a PA28 flew into proximity in the vicinity of York/Rufforth at 1253Z on Saturday 30th March 2024. Both pilots were operating under VFR in VMC, and listening-out on the Rufforth Traffic frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots 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 considered the actions of the pilot of the Nynja. Members noted that they had joined the airfield from the north into the crosswind leg of the circuit for RW23 and had been aware of another pilot who had announced that they had been "inbound". Members noted that the Nynja had not been fitted with additional EC equipment which, on this occasion, may have provided additional information to aid the pilot. It was agreed by members that the pilot of the Nynja had had generic, rather than specific, situational awareness of the presence of the PA28 (**CF1**).

Members noted that, shortly after the pilot of the Nynja had made a call that they were downwind, they had heard the pilot of the PA28 also give their position as "downwind". It was agreed that, although the pilot of the Nynja would not have been expected to have visually acquired an aircraft that had been behind them, members were heartened by their decision to have requested the pilot of the PA28 confirm that they had been sighted.

Members appreciated that it may have been startling to have subsequently sighted the PA28 above them and acknowledged that its proximity had caused them concern (**CF3**). However, members agreed that the pilot of the Nynja had had time to have considered the safest course of action and that they had assessed that, with the PA28 climbing away and separation increasing, they could continue to land.

Members next turned their attention to the actions of the pilot of the PA28 and pondered their positioning as they entered the circuit pattern for RW23. It was noted that the PA28 pilot had descended whilst approaching the circuit from the north and had passed over the downwind end of the runway at circuit height. They had then turned right slightly and integrated into the crosswind leg. From analysis of the radar replay, members noted that it appeared that there had only been the Nynja and the PA28 in the circuit at that time, however, one member with particular knowledge of general aviation operations suggested that it may have been far more prudent to have conducted a 'standard' join.

Members agreed that the EC device fitted to the PA28 would have been expected to have detected the presence of the Nynja but the pilot reported that they had not received an alert (**CF2**). Nevertheless, members noted that the pilot of the PA28 had visually acquired the Nynja ahead of them and had positioned further westwards for spacing for their downwind leg. Some members wondered whether the pilot of the PA28 had lost visual acquisition of the PA28 during the downwind leg and had not noticed that their speed in the circuit had been greater than that of the Nynja. Notwithstanding, members noted that the pilot of the PA28 had, inevitably, caught up with the Nynja and, assessing that the separation had not been agreeable, had elected to conduct a go-around.

Concluding their discussion, members summarised their thoughts. It was agreed that the pilot of the Nynja had had generic situational awareness of the presence of the PA28 behind them in the circuit. It was also agreed that it had been incumbent upon the pilot of the PA28 to have integrated into the circuit

¹ (UK) SERA.3205 Proximity.

² (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

pattern and to have ensured adequate spacing from the aircraft ahead of them. Members agreed that there were measures that the pilot of the PA28 could have taken to have reduced their speed within the circuit but, having realised that the separation had reduced to a minimum, had elected to conduct a go-around. Members agreed that safety margins had been eroded but there had not been a risk of collision. The Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2024043				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Situational Awareness of the Conflicting Aircraft and Action				
1	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				
2	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				
3	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: C.

Safety Barrier Assessment³

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

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the pilot of the Nynja had generic situational awareness of the presence of the PA28.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC device fitted to the PA28 would have been expected to have detected the presence of the Nynja but no alert was reported.

³ 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: 2024043		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							