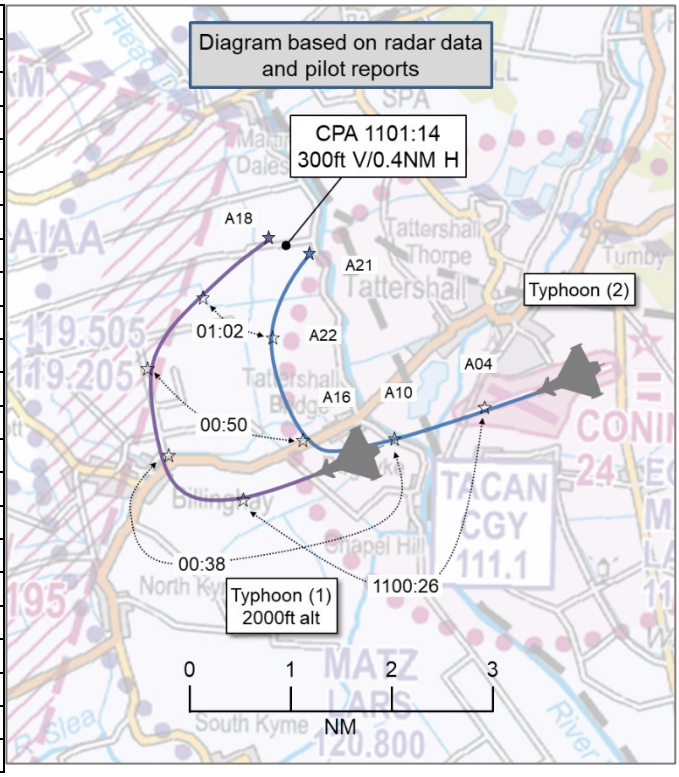
AIRPROX REPORT No 2025226

Date: 20 Oct 2025 Time: 1101Z Position: 5307N 00014W Location: 2NM NW RAF Coningsby

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Typhoon(2)	Typhoon(1)
Operator	HQ Air (Ops)	HQ Air (Ops)
Airspace	Coningsby MATZ	Coningsby MATZ
Class	G	G
Rules	IFR	IFR
Service	Deconfliction	Deconfliction
Provider	Coningsby Dir	Coningsby Dir
Altitude/FL	1800ft	2100ft
Transponder	A, C, S	A, C, S
Reported		
Colours	NR	NR
Lighting	NR	NR
Conditions	IMC	NR
Visibility	<5km	NR
Altitude/FL	2000ft	NR
Altimeter	NR (998 inHg) [sic]	NR
Heading	NR	NR
Speed	NR	NR
ACAS/TAS	Not fitted[1]	Not fitted
	Separation at CPA	
Reported	NR	NR
Recorded	300ft V/0.4NM H	



THE TYPHOON(2) PILOT reports [being] on their 4th live sortie of the [conversion to Typhoon] syllabus. After a 2hr flight, involving AAR and low level, they were recovering [to Coningsby] as number two of [formation C/S], a two-ship formation conducting an ILS in 1.5NM trail. Post-approach, the departure instructions were for [formation lead pilot] to fly an Alpha Departure (ahead to 1700ft/2.5d, right turn 050°, level 2000ft) and [the No.2 pilot] was cleared non-standard right turn north, climbing 2000ft recontact Director. This [non-standard] procedure required the pilot to delay turning until 1700ft, iaw Coningsby [regulations]. After their touch and go, they selected autothrottle at 230kt, however, the autothrottle was still set at 160kt from the previous approach. This led to a large amount of distraction during the climbout. They incorrectly began their turn onto north at 1000ft, a procedure from a previous [aircraft type], re-entered cloud about then and levelled at 2000ft. During this turn, the controller called the lead [aircraft] as traffic to them, to which they responded "traffic not sighted". It was at this point they were given avoiding action of a right turn onto south, which they promptly completed. With [the lead pilot] flying the Alpha Departure ground track and their early turn onto north, they had set themselves onto a collision course. The [lateral separation] range closed to 0.5NM at the closest point. The situation would have been improved, but not necessarily fully avoided, had they followed the correct procedure of delaying their turn until [reaching altitude] 1700ft. Additionally, departure instructions that included extension to 2.5d (the same ground track as [the Alpha] departure [the lead pilot] was flying) would have ensured separation. In their opinion, this incident occurred due to several factors; inexperience on the jet, distraction caused by the autothrottle and ambiguities about [non-standard] vs Alpha/MID departures.

The pilot perceived the severity of the incident as 'Medium'.

THE TYPHOON(1) PILOT reports they were the supervising QFI and authoriser of this sortie and flying as formation lead. After completing their own Alpha Departure iaw Coningsby [regulations] they were aware from [datalink] situational awareness that [the No.2 pilot] had turned towards them and was likely

[1] Reported as 'TCAS fitted' but TCAS is not fitted to Typhoon.

to be a confliction. Communication and avoiding action was already being instigated by the ATC controller but, with [their awareness of] a closing vector [from on-board information], awareness of other potentially conflicting traffic (but not the specific position) and awareness of the Coningsby RVC, they elected to descend 200ft in an attempt to provide some vertical deconfliction should the lateral deconfliction not be successful. Once deconfliction was assured, they immediately re-established 2000ft. On completion of the sortie they liaised with the ATC supervisor, debriefed the sortie with [the No.2 pilot] and gained data from the video for the DASOR which they submitted together. [The lead pilot] also made recommendations to the DDH that inclusion of a common routeing point (extend to 1700ft or 2.5NM should be included in all instrument departures at Coningsby and that the [Coningsby regulations] be updated to include Bravo Departures and move 'hot press' [information] into the main document. These have now been incorporated into the [Coningsby regulations] and document republished.

The pilot perceived the severity of the incident as 'Medium'.

THE CONINGSBY UT DIRECTOR CONTROLLER reports they had [Typhoon formation], for a trail recovery, [lead] for a low approach, [No.2] for a touch-and-go and both for further radar [approach]. During their initial recovery, [the formation members] were IMC and therefore requested a Deconfliction Service. The UT controller and OJTI discussed the best way for [the formation members] to climb out as singletons after their initial approaches, to maintain their separation for their [subsequent radar patterns]. This was especially pertinent because they asked [the formation] if there was any change in their met conditions once they had descended to 3000ft but they still required a Deconfliction Service. As is a standard [radar] profile for RW25, they instructed [the lead pilot] to conduct an Alpha Departure after their Low Approach and for [the No.2 pilot], to 'turn right heading 360° and climb to altitude 2000ft' after their touch-and-go, both to recontact Director on Stud 5. The UT controller and OJTI discussed that, while there were limitations in place to ensure that [pilots] climbing out for [the radar pattern] should not turn ahead of/into each other (within the Alpha Departure), they still did not allow more than one element of a formation to conduct an Alpha Departure at a time. Hence, a heading of 360° for [the No.2 pilot]. The formation was handed over to Talkdown as standard, and conducted their trail approach without issue. During a quiet period during the approach, the OJTI and UT controller discussed separation required between the two elements and that they would need to ascertain from [the No.2 pilot] what type of service they required as it could be different to [that required by the lead pilot]. [The lead pilot] climbed out and was told to report steady and level downwind, as standard. Shortly afterwards [the No.2 pilot] began to climb out, checked in on frequency "*passing 1700 feet*" and began to turn earlier and sharper than anticipated. [The No.2 pilot] looked to have commenced their turn on to 360° while Mode C indicated 019 [which,] based on a QNH of 988hPa, would convert to an altitude of 1200-1300ft. They acknowledged [the No.2 pilot] and gave them Traffic Information on [the lead pilot] as "*Traffic northwest, 1 mile, in the right hand turn, [lead C/S] ahead of you*". At this point the aircraft were co-level. [The No.2 pilot] replied with "*Traffic not sighted*". They gave [the No.2 pilot] an avoiding action, turn right immediately heading 180°, and pointed out [the lead aircraft] as "*Traffic left, 1 o'clock (it was actually 11 o clock), crossing left to right ahead, indicating similar level*". Immediately after, the OJTI then stepped in on the frequency and also gave [the lead pilot] an avoiding action, "[lead C/S] *avoiding action turn left heading 360°, traffic was southeast tracking east indicating similar level*, [No.2 C/S]". During this call, [the No.2 pilot] took the initial avoiding action turn to head south. [The lead pilot] replied "[abbreviated C/S] *coming left*". The UT controller noted that they should have given the initial avoiding action turn to [the lead pilot], rather than [the No.2 pilot].

THE CONINGSBY SUPERVISOR reports they had nothing significant to add [to the UT controller's report].

Factual Background

The weather at RAF Coningsby was recorded as follows:

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METAR EGXC 201120Z 16010KT 9999 -SHRA BKN011 15/13 Q0988 TEMPO 5000 SHRA RMK GRN TEMPO
GRN=
METAR EGXC 201050Z 17011KT 9999 SCT010 BKN070 15/13 Q0988 TEMPO FEW010 RMK GRN TEMPO
BLU=
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Analysis and Investigation

Military ATM

Background

A two-ship Typhoon formation was returning to Coningsby following a two-hour sortie comprising air-to-air refuelling and low level operations. During the recovery phase, the formation entered IMC, resulting in an upgrade to Deconfliction Service. The aircraft subsequently conducted a trail ILS approach with intentions to depart as singletons and join the [radar pattern]. The Coningsby Director was a trainee and had an instructor seated with them.

Sequence of Events

At 1050:16, climb-out details were passed from Coningsby Director to the formation, "*Typhoon 1 after your approach it will be an alpha departure.*[2] *For Typhoon 2 it will be a turn right 360 degrees climb altitude 2000 feet and both elements recontact me stud 5"*. This was readback by Typhoon 1 and repassed to Typhoon 2 on request, who also read back correctly.
At 1059:30, Typhoon 1 [pilot] called Coningsby Director outbound on an Alpha Departure They were identified and retained a Deconfliction Service; Traffic Information on co-ordinated traffic inbound Waddington was passed.
At 1100:42, Typhoon 2 [pilot] called "*Director,... passing 1700ft heading 360*."
At 1100:50, Coningsby Director passed Traffic Information to Typhoon 2 [pilot] "*traffic NW, 1 mile in the right-hand turn, Typhoon 1 ahead of you*". Typhoon 2 [pilot] responded that the traffic was "*Not sighted*."
At 1100:59, Coningsby Director issued "*Typhoon 2, avoiding action turn right immediately heading 180 degrees traffic left 1 o'clock* [sic] *1 mile crossing left to right ahead indicating similar level*". This transmission was clipped because the Coningsby Director OJTI took control of the transmission to transmit to Typhoon 1 [pilot], "*Typhoon 1, Coningsby Director avoiding action turn left heading 360 degrees previously reported traffic was southeast 1 mile tracking east indicating similar level, Typhoon 2*.".
At 1101:25, Coningsby Director instructed "*Typhoon 2, continue right hand turn, roll out heading 250 degrees*." This was acknowledged by the pilot.
At 1101:33, Coningsby Director informed "*Typhoon 1, clear of traffic, turn right heading 070 degrees, eh previously reported traffic* (aircraft inbound to Waddington) *east 3 miles tracking north, 2000ft above descending*."

CPA occurred at 1101:14 indicating 300ft vertical separation and 0.4NM laterally.

Local BM Investigation

A local investigation was conducted by Coningsby following the event to identify the ATS-related causal/aggravating factors. It found that LoSS occurred between two Typhoons during climbout when the pilot under training initiated an early turn on a nonstandard departure profile.

Observations. Avoiding action restored safe separation.

Outcome. Local Orders have since been updated to mandate *1700 ft or 2.5 DME, whichever is later*, before turning. A full Squadron debrief and continued liaison with [ATC Control Centre] are in place to prevent recurrence.

2 Gp BM Analysis

The tactical actions taken prevented escalation but the event has highlighted areas where procedural clarity and standardisation are required. Substitution testing confirmed the assumption

[2] Alpha Departure: Climb on runway track to altitude 2000ft QNH, on passing 1700ft or CON 2.5d, whichever later, turn right heading 050deg, contact Approach/Director Stud 4/5.

that the aircraft would remain runway track to 1700ft or 2.5DME was shared across the controller team, indicating a systemic rather than individual issue.

The subsequent Local Order amendment has addressed the procedural gap issue.

UKAB Secretariat

The Typhoon pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[3] If the incident geometry is considered as converging then the [lead] pilot was required to give way to the [No.2 pilot].[4] If the incident geometry is considered as overtaking then the [lead] pilot had right of way and the [No.2] pilot was required to keep out of the way of the other aircraft by altering course to the right.[5]

Coningsby Occurrence Investigation

The Coningsby Occurrence Investigation found the following Outcome, Cause, Causal Factors and Observations:

Outcome: LoSS between 2 Typhoons on climbout into the [radar pattern].

Cause: [The No.2 pilot] was given a non-standard departure profile into the [radar pattern] to ensure they would be deconflicted with the [Waddington aircraft], the turn onto 360° was initiated early []. Recommendations(Mitigation): Full debrief on Sqn and liaison between [ATC Control Centre] and Sqn to discuss the event.

Causal Factor 1 (Contributory Factor): [The No.2 pilot] had a number of distractions in cockpit as they transitioned from low-approach to climbout, leading them to default to a previously known procedure (from relatively recent Hawk [experience]).
Recommendations (Mitigation): Full debrief on Sqn and liaison between [ATC Control Centre] and Sqn to discuss the event.

Causal Factor 2 (Aggravating Factor): It was assumed by the controller, that all climbouts would be flown to 2.5d before turning, it was therefore not reiterated to [the No.2 pilot] when passing their climbout instructions. Substitution tests show that all controllers asked responded with the same assumption.
Recommendations (Mitigation): Revisions to the [Coningsby Regulations] were submitted to reflect "the [radar pattern traffic] are to extend to 1700ft or 2.5d (whichever is later) before turning, irrespective of runway in use." The revised [Coningsby Regulations] were published 31 Oct 25.

Causal Factor 3 (Contributory Factor): [No.2 pilot] on 4th live sortie.
Recommendations (Mitigation): Full debrief on Sqn and liaison between [ATC Control Centre] and Sqn to discuss the event.

Observations: Avoiding action provided to [the No.2 pilot] was the most expeditious way to separate the aircraft. It would have been easy to debate the efficiency to the [radar pattern traffic] of also turning [the lead pilot], however it was deemed a 'belts and braces' as well as a means to effectively re-sequence [the lead and No.2 elements] with other aircraft also in the [radar pattern].

DDH/AM Comments

With a less attentive controller or lead pilot without the level of situational awareness that [they] had, this situation could have been very different. [The No.2 pilot] was a [pilot under training] with low experience who responded swiftly to ATC instructions. Procedures are being updated in the [Coningsby regulations] ASAP to formalise the requirement to extend to 1700ft or 2.5d (whichever

[3] MAA RA 2307 paragraphs 1 and 2.
[4] MAA RA 2307 paragraph 12.
[5] MAA RA 2307 paragraph 14.

is later) before turning and for Bravo Departure to be included, negating the current ['hot press' arrangement]. AO comment: reviewed and content to close. The swift action of the UT Director should be commended. [Coningsby regulations have] been updated to capture the recommendations and will be published imminently.

Comments

HQ Air Command

This incident occurred in the radar pattern at RAF Coningsby during IMC. A local investigation by the RAF Coningsby Safety Team has revealed that the trail aircraft was being flown by a trainee as part of a type-conversion training event and, unfortunately, a small error in systems management by the trainee meant that they became distracted as they conducted their planned go-around to re-enter the Coningsby Radar Pattern. This resulted in them flying the ATC-issued departure procedure incorrectly and their subsequent ground track put them on a collision course with their lead aircraft. The pilot of the lead aircraft was flying the [locally-designed] Alpha departure and was aware of the developing conflict as their aircraft was displaying the trail aircraft's position via data-link; the lead aircraft's pilot decided to take avoiding action by descending not iaw their ATC clearance, to increase vertical separation between the two aircraft. At the same time, RAF Coningsby ATC issued instructions to both [pilots] to further increase separation between the two aircraft. This incident highlighted that some potential for conflict exists for aircraft following the ground track for the Alpha departure and non-standard IFR departure requirements that can lead to conflictions between traffic climbing/rejoining the [radar pattern]. While it is acknowledged that the airspace in the Coningsby/Cranwell/Waddington clutch makes air traffic management challenging at times, it seems as though the current design of the locally agreed procedures require excessive levels of tactical control to effect safe separation and the current system is not inherently 'safe by design'.

Summary

An Airprox was reported when 2 Typhoons flew into proximity 2NM northwest of RAF Coningsby at 1101Z on Monday 20th October 2025. Both pilots were operating under IFR in IMC, both in receipt of a Deconfliction Service from the Coningsby Director.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report 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.

Board members first discussed the ATC aspects of the Airprox, and a military ATC member reported that they had been involved in extensive discussion prior to the Board. They had been content with the UT controller's actions and wondered whether the local departure procedure, the procedure stated in the so-called 'hot-poop' instructions, may have been a factor in the Typhoon(2) pilot's mistaken early turn on to north (**CF2**). The military ATC member informed the Board that the local departure procedure had been formalised in the Coningsby regulations and that similar action had been undertaken at other stations. It was also noted that, although the Typhoon(2) pilot had turned early, the UT controller and OJTI had managed the situation and issued appropriate avoiding actions The Board members discussed the local departure procedure at length; they were informed that it was a pragmatic procedure to improve flexibility in the Lincolnshire military aircraft operating area, with aircraft from RAF stations Coningsby, Cranwell, Barkston Heath and Waddington all operating in the area. The Board members were also informed that similar incidents had occurred in the past and that the available airspace was inherently limited due to the proximity of the 4 RAF airfields undertaking their operational and training tasks. Discussing the local procedure, the 'Alpha Departure', members agreed that, whilst the parameters at which to commence the turn had been clearly stated in the relevant documentation, the Typhoon(2) pilot had received a clearance '… *For* [No.2 C/S] *it will be a turn right 360 degrees climb altitude 2000 feet and both elements recontact me* …' and had then had to deal with an autopilot setting

error during the departure (**CF5**). As a result, they had mistakenly commenced their turn reportedly at an altitude consistent with a procedure flown on a previous aircraft type (**CF4**) and, the Board felt, had in fact simply flown the departure clearance as given without superimposing the requirements of the local Alpha departure (**CF3**). Members felt that the departure parameters of the latter of 1700ft or 2.5NM could have been restated when the Typhoon(2) pilot had been given their departure clearance, but were informed by a military ATC advisor that the departure clearance at Coningsby had been designed with brevity in mind for locally based pilots, due to their familiarity with the procedures at Coningsby and the need to avoid unnecessary repetition in R/T transmissions. Members pointed out that Typhoon OCU pilots, recently arrived at Coningsby, may not be so familiar with the Coningsby procedures and that the potential for error or mistake was higher due to their high workload and the burden on capacity whilst learning to manage and operate a new aircraft type. In the event, both pilots had been in cloud for at least 30sec prior to CPA and so each had been obscured from the other (**CF7**). However, although the Typhoon(2) pilot had not assimilated the collision risk with Typhoon(1) caused by their early turn (**CF6**), the Typhoon(1) pilot had maintained a high degree of situational awareness on the Typhoon(2) position and track and had been able to mitigate the risk by descending slightly. This action, along with the prompt avoiding action instructions from the controllers, had, the Board members felt, mitigated the collision risk to that of Risk C, safety degraded but risk of collision avoided.

The Board members discussed the design of the departure procedure and agreed that, for it to work safely without ATC intervention, all pilots flying the departure profile had to start their initial turn into the radar training circuit from the same point in space. This requirement was complicated by the need to be above 'radar vector chart' safety altitudes before turning. Members acknowledged that the root cause of this Airprox had been due to pilot error, but also felt that a contributing factor had been the procedure design (**CF1**) in that the use of R/T brevity had been used on the basis of adequate pilot experience, when that experience may not yet have been firmly embedded in pilots on the OCU and new to the aircraft and airfield. Members were heartened to hear that Coningsby had started a further review of local departure procedures but, on the basis of their previous discussion and that similar incidents had occurred in the recent past, they resolved to recommend that, '*RAF Coningsby considers a further review of all their departure profiles, including a review of the balance between RT brevity and pilot experience*'.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025226			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Regulations, Processes, Procedures and Compliance			
1	Organisational	• Aeronautical Information Services	An event involving the provision of Aeronautical Information	The Ground entity's regulations or procedures were inadequate
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
2	Human Factors	• Flight Crew ATM Procedure Deviation	An event involving flight crew deviation from applicable Air Traffic Management procedures.	
3	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
	• Tactical Planning and Execution			
4	Human Factors	• Action Performed Incorrectly	Events involving flight crew performing the selected action incorrectly	Incorrect or ineffective execution
	• Situational Awareness of the Conflicting Aircraft and Action			
5	Human Factors	• Interpretation of Automation or Flight Deck Information	Interpretation of Automation or Flight Deck Information by the flight crew.	Pilot engaged in other tasks
6	Human Factors	• Understanding/ Comprehension	Events involving flight crew that did not understand or comprehend a situation or instruction	Pilot did not assimilate conflict information

	• See and Avoid			
7	Contextual	• Visual Impairment	Events involving impairment due to an inability to see properly	One or both aircraft were obscured from the other

Degree of Risk: C.

Recommendation: RAF Coningsby considers a further review of all their departure profiles, including a review of the balance between RT brevity and pilot experience.

Safety Barrier Assessment[6]

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

Ground Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the departure procedure had relied on pilot experience in order to use R/T brevity, when that assumption may have been incorrect.

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **partially effective** because the departure procedure had relied on pilot experience in order to use R/T brevity, when that assumption may have been incorrect.

Tactical Planning and Execution was assessed as **partially effective** because the Typhoon(2) pilot had been distracted to a degree by the incorrect autothrottle setting and had then reverted to a previously learned departure profile.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the Typhoon(2) pilot had not had the situational awareness to be aware of their converging course on Typhoon(1).

See and Avoid were assessed as **not used** because both pilots had been in cloud.

[6] 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: 2025226 Outside Controlled Airspace