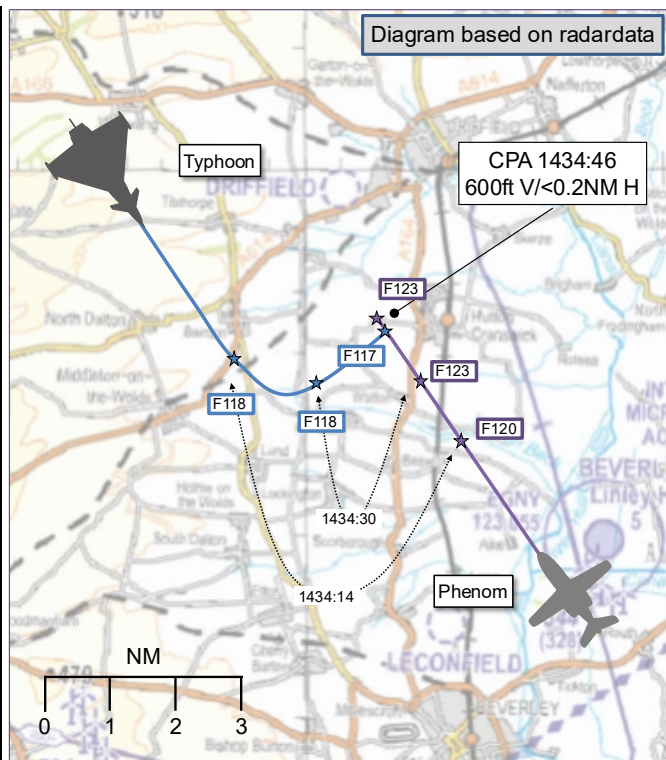


AIRPROX REPORT No 2026062

Date: 29 Apr 2026 Time: 1435Z Position: 5357N 00028W Location: 2NM S Driffield

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Typhoon	Phenom
Operator	HQ Air (Ops)	HQ Air (Trg)
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Traffic	Traffic
Provider	Swanwick Mil	Humberside
Altitude/FL	FL117	FL123
Transponder	A, C, S	A, C, S+
Reported		
Colours	Grey	Blue, White
Lighting	NK	Nav
Conditions	VMC	VMC
Visibility	NR	>10km
Altitude/FL	12000ft	FL120
Altimeter	QNH (1019hPa)	SPS
Heading	040°	350°
Speed	300kt	210kt
ACAS/TAS	Not fitted	TCAS II
Alert	N/A	RA
Separation at CPA		
Reported	500ft V/0m H	500ft V/0m H
Recorded	600ft V/<0.2NM H	



THE TYPHOON PILOT reports that they were a single Typhoon, operating in the altitude block 5000-14,000ft AMSL on 1019hPa, under a Traffic Service with Swanwick Military East. During a level turn to the left at 12,000ft, an aircraft was seen to travel directly overhead from right-to-left at an estimated separation of 500ft. As the aircraft passed, there was a call from the Swanwick controller reporting the traffic. The pilot instinctively bunted, but this was already too late. [The Typhoon] did not have any radar SA of the traffic; the Typhoon Enhanced Collision Alert system and Link-16 were both serviceable but there was no surveillance track on the Phenom.

Times in Zulu, events and communication taken from [Typhoon's] tape review:

1433:30 – [C/S] heading 142°, 300kt, 12,000ft (1019 hPa).

1433:40 - Swanwick “.....flight, traffic, south-east....north-west...indicating flight level 120”.

1434:16 – [Typhoon] commenced a level left-hand turn with 30° angle of bank.

1434:38 - Phenom observed directly over the top at an estimated 500ft above and 7L tail aspect¹ heading north-west. [Typhoon] heading 040° and bunted.

1434:39 - Swanwick “[C/S flight] previously called traffic north-east one nautical mile tracking north-west flight level 120”.

1434:46 – [Typhoon] descended to 11,000ft AMSL and turned co-heading with the Phenom, reporting to Swanwick “[C/S] that traffic's just gone overhead”.

Comments:

The call from Swanwick to [the Typhoon pilot] at 1433:40 was clipped and the full information did not come through on the Typhoon's radio; most importantly, there was no callsign or range of the traffic received in the Typhoon's cockpit.

¹ The Typhon pilot saw the Phenom from behind, just left of the 12 o'clock

[Typhoon C/S] was operating as a singleton and should be referred to as [C/S] and not [C/S Flight]. As the first word of the transmission at 1433:40 to come through to [the Typhoon] was 'flight', this was taken to refer to someone else (there was a pair of F35s operating in the airspace at that time). [Typhoon No2] had a significant delay on start-up and was transiting the airspace at the same time, en-route to the west coast, but was operating separately and at no time during the sortie did [Typhoon No1] and [Typhoon No2] operate together as a flight. They were also geographically displaced and altitude separated at the time. [The Typhoon pilot] did not therefore acknowledge the traffic call at 1433:40 to Swanwick.

Throughout the Typhoon's general handling, several traffic calls were made from Swanwick on traffic 2000-3000ft below the assigned altitude block, which could have unnecessarily increased the Swanwick controller's workload.

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

THE PHENOM PILOT reports that they were conducting the standard medium level north Nav route, anticlockwise, at FL120 tracking outbound from OTR toward Teesside with the student flying as PF. Humberside Radar called traffic 12 o'clock 500ft low, which was displayed on the TCAS. Visually the aircraft was moving slightly left, indicating they would pass down the left-hand side without issue. As the aircraft passed the 10 o'clock, it entered a turn which quickly became apparent was towards [the Phenom] with a converging vector. A TCAS Traffic Alert was quickly followed by TCAS RA Climb at 1434, with the aircraft visual below to their left in a steep (80-90° AoB) turn, approximately 500ft directly below them, before it passed out of visual line of sight. The TCAS indicated clear of conflict at FL130. The Typhoon rolled out, off the Phenom's right wing by approximately 1NM and descended. The sortie continued without incident.

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

THE SWANWICK MIL EAST TRAINEE CONTROLLER reports that they were training as the Tac Left [controller]. They were working [Typhoon No2] on 270.050MHz, orbiting at FL200 while a handover coordination could be arranged in preparation for a handover to West Bank. They also had [the Typhoon] operating in a block 5000-14,000ft, general handling in the Vale of York, and [another aircraft] at FL170 transiting to the Vale of York, on 284.675MHz. They completed the handover of [Typhoon No2] to West Bank, then noticed traffic approaching [the Airprox Typhoon] which was FL120 at the time, which was called southeast, 5 miles indicating FL120. They then went to reorientate their display, to make sure [their other aircraft] was free of conflict and to check the RPS. When they went to transmit to [the other aircraft] they were prompted by their instructor that [the Typhoon] was now closer to the traffic and turning towards it. They then called it again, this time NE 1 mile, to which the pilot replied that it had passed overhead. The pilot then asked if that traffic had been called as they weren't aware of it, the controller replied that it was, to which the pilot asked if they had been called to the conflicting traffic and informed them on frequency that they would have to investigate when back on the ground. The Planner called Humberside, and was told that their aircraft had taken a TCAS RA against [the Typhoon].

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

THE SWANWICK MIL EAST OJTI CONTROLLER reports that this was the trainee's third session of the day. They had just completed a non-standard transit of [Typhoon No2] to West Bank which required some instructor guidance and still had [the Airprox Typhoon] general handling in the Vale of York and [another aircraft] transiting to the Vale of York to general handle. After the handover, the trainee called the conflicting traffic to [the Typhoon pilot]. Following this, they re-adjusted their screen to give themselves a better air picture, at a similar time they went to complete further admin when they [the instructor] identified that [Typhoon C/S] had turned towards the previously called traffic. At this point they instructed the trainee to call the traffic again. The conflicting traffic appeared to climb to FL125 to avoid [the Typhoon] with the Typhoon displaying FL119. The Planner then called Humberside ATC to ascertain whether the conflicting traffic was visual with [the Typhoon] and was told they had taken a TCAS RA.

THE SWANWICK MIL SUPERVISOR reports that were the Supervisor at the time the loss of separation occurred, but did not witness the event as they were talking to the TAC(R) controller at the time. Swanwick Mil had building levels of traffic with 3 positions manned. TAC(R) controller (endorsed controller), a Planner controller (trainee with instructor sat behind) and the TAC(L) controller also a trainee with instructor sat behind (the position where the Airprox occurred)). Once they [the Supervisor] had been informed about the situation, they called a replacement controller in to relieve the controllers from console and stood them down from controlling duties for the rest of the day until the tapes had been reviewed by the bank BMUE. They also requested a call from the pilot of [the Typhoon] after they had landed, where they discussed their version of events. The DASOR was submitted by the trainee from memory of their version of events and the conversation with the captain of the aircraft happened before any footage had been reviewed, both versions roughly aligned with nothing extra mentioned that hasn't already been captured in this report so far.

THE HUMBERSIDE CONTROLLER reports that, at 1434, [the Phenom pilot] reported a TCAS RA 22NM north of Humberside at FL120. [The pilot] followed the TCAS and levelled at FL125. The pilot reported that the other traffic was a Typhoon which passed 500ft below, on an east heading. The Typhoon then turned north on a similar heading as [the Phenom] about 1000ft below and 1NM east. The controller noted that they had not seen the confliction until [the] pilot reported the RA. A few minutes later, Swanick Mil rang to ask if whether they had called this Typhoon to their aircraft. They told [the Humberside controller] that the Typhoon was operating 4000ft to a level well above the Phenom, and they were concerned that the Phenom did not avoid their traffic.

Factual Background

The weather at Humberside was recorded as follows:

METAR EGNJ 291420Z 09018KT CAVOK 15/01 Q1029=

Analysis and Investigation

Military ATM

Background

The Phenom [pilot] was conducting a Mid-Level Nav route, under a Traffic Service from Humberside ATC. The Typhoon [pilot] was General Handling, operating in the altitude block 5000ft-14,000ft, under a Traffic Service with Swanwick Mil. The Swanwick Mil controller was under training, with an instructor monitoring them.

Sequence of Events

At 1418:11, the Typhoon [pilot] began general handling in the Vale of York.

The Typhoon [pilot] was then provided 2 traffic calls on separate conflicting aircraft, ranges 11NM at 3700ft and 13NM and 2000ft.

At 1423:13, the Typhoon [pilot] was provided further Traffic Information, range of 7NM and 2000ft.

At 1434:37, the Typhoon [pilot] was given Traffic Information again; “....*flight previously called traffic ah northeast one mile tracking northwest flight level one two five*”.

At 1435:08, the Typhoon pilot transmitted “*I’ve got that traffic one mile to the west of me about one thousand high was not aware of a previous call on that*”.

At 1435:17, Swanwick Mil informed “*roger, that traffic was called*”. The Typhoon pilot queried if they had been called to the pilot of the conflicting traffic, to which the Swanwick Mil controller informed them the other aircraft was being controlled by another unit.

CPA occurred at 1434:44 with a lateral separation of 0.1NM and a vertical separation of 500ft.

Local BM Investigation

A local investigation was conducted by Swanwick Mil following the event to identify the ATS-related causal/aggravating factors.

The controller issued a timely traffic call; however, no acknowledgement was received from the pilot. The significance of the conflicting traffic was not fully recognised following the initial call, partially due to distraction from concurrent administrative tasks. Incorrect use of [the callsign] 'flight' and clipping calls contributed to a misunderstanding by the Typhoon [pilot] that the Traffic Information was intended for another aircraft. No positive acknowledgement or visual acquisition call was subsequently obtained, reducing situational assurance between controller and pilot.

STCA. As part of this investigation the BMFSO has suggested the use of STCA squawks for singleton general handlers. After some investigation into how STCA technology works and a discussion with the Bank safety rep, it is believed this is not a solution. The STCA squawk provides trajectory-based conflict alerts. This means during high energy manoeuvres there is high chance it will flash at traffic that is not relevant to the GH block or miss traffic that is. Historically, East Bank did not have STCA squawks due to [the] potential to cause alerts for civil tracks; it is believed there is a high possibility for this to happen against tracks that are separated by airspace or levels. On top of this, if the STCA flashes too often controllers may go "blind" to it and not action Traffic Information, or they will be too distracted by it and not divide their attention enough.

2Gp BM Analysis

The occurrence resulted from a combination of elevated workload, training activity and communication factors. Whilst the controller issued a timely traffic call, the significance of the conflict was not fully appreciated following the initial transmission. Incorrect use of [the callsign] 'flight' and clipping calls contributed to the Typhoon [pilot] not recognising the Traffic Information as applicable to them, and the absence of a positive acknowledgement or visual acquisition check reduced situational assurance between controller and pilot. The presence of a trainee and concurrent administrative demands likely contributed to attentional narrowing and reduced opportunity to identify the developing misunderstanding. The occurrence highlights the importance of RT discipline, positive acknowledgement techniques and effective instructor oversight during periods of high workload.

Humberside Investigation

Executive Summary

On 29 April 2026, [Phenom C/S] was receiving a Traffic Service from the APS controller whilst routeing north-westbound from OTR. During the same period, [Typhoon C/S] was operating within the Vale of York under Swanwick Military control. Humberside's Lower Airspace Radar Service (LARS) is normally promulgated within 30NM of Humberside and below FL100. [Phenom C/S] was operating above the published LARS upper limit and remained under a Traffic Service from Humberside due to Swanwick Mil capacity constraints.

The aircraft subsequently converged, resulting in [the Phenom pilot] receiving a TCAS Resolution Advisory (RA). The investigation determined that Traffic Information (TI) was not passed to [Phenom C/S] prior to the RA despite [Typhoon C/S] meeting the criteria for relevant traffic under CAP774. The available surveillance information provided multiple opportunities for the conflict to be identified and for TI to be promulgated.

The investigation found no evidence of deliberate non-compliance, reckless conduct, negligence or procedural violation. The occurrence is assessed as consistent with an unintentional lapse in conflict recognition during a low-workload operational period. Potential contributory human performance influences included reduced vigilance associated with low traffic density, expectation bias, and the

fact that [Phenom C/S] was operating outside the controller's routine LARS traffic profile within an area more commonly associated with military activity.

The severity of the occurrence was mitigated by existing lateral displacement between the aircraft, effective TCAS operation and subsequent visual acquisition by the pilot.

Background

Operational Context: Traffic levels were assessed as low. The controller was providing a Traffic Service to [Phenom C/S] and Basic Services to several other aircraft. Humberside Primary Radar was in use, with SSR from Great Dun Fell. The controller commenced duty at 1300 and assumed the APS position at 1345.

Sequence of Events

At 1431:45 [Phenom C/S] was observed north-west of OTR under a Traffic Service. [Typhoon C/S] was operating within the Vale of York on a converging track. Between 1432 and 1434 the controller continued to manage other aircraft while the tracks converged. By 1433:40 the aircraft were approximately 10NM apart. By 1434:10 they were approximately 5NM apart and no Traffic Information had been passed. At 1434:20 [the Phenom pilot] reported a TCAS Resolution Advisory. At 1434:51 the pilot reported clear of conflict and advised the Typhoon had passed approximately 500ft below. Traffic Information was subsequently issued and the traffic was reported visual.

1429:00 The APS controller completed a handover of [non-Airprox aircraft] to Coningsby.

1430:15 [Non-Airprox aircraft] was transferred to Coningsby.

1430:25 [The pilot of another aircraft] was asked to confirm their routeing.

1431:45 [Phenom C/S] (4274) – 6.5NM NW of OTR on a NW track. [Typhoon C/S] (6076) – 35NM NW of OTR on a reciprocal track. The aircraft were approximately 27NM apart from each other.



Figure 1 – Humberside radar screenshot

1432:08 The label on a 1774 squawk to the SE was toggled.

1432:26 The label toggled and traffic called to [non-Airprox aircraft] (4275).

1433:00 [Typhoon C/S] and [Phenom C/S] were still closing steady on track, Mode 'C' F119/F120 respectively.

1433:02 [Another pilot] called and was instructed to pass their message,

1433:37 The controller allocated a squawk to [another pilot].

1433:40 [Typhoon C/S] and [Phenom C/S] were steady on reciprocal tracks approximately 10NM apart and approximately 1NM laterally separated. Mode 'C' FL119/FL120.

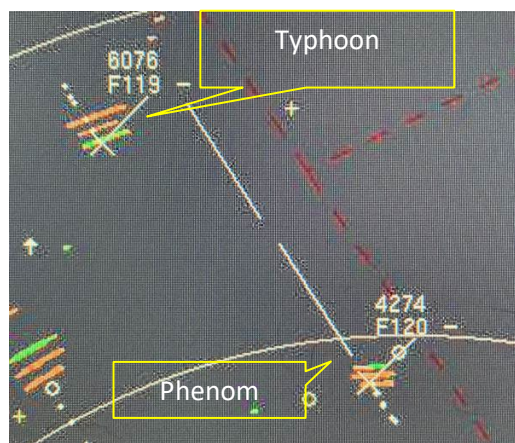


Figure 2

1433:51 [Another pilot was] placed under a Basic Service, which was acknowledged by the pilot.

1434:10 Both conflicting aircraft were now approximately 5NM apart and approximately 2NM laterally separated. Mode 'C' indicated FL119/FL120.

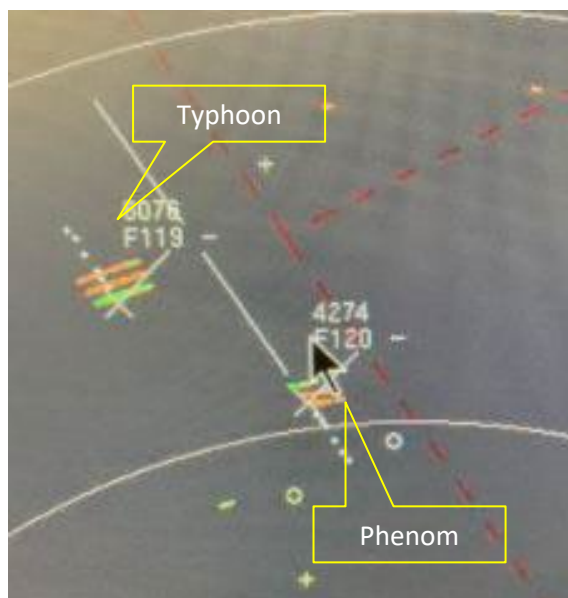


Figure 3

1434:20 [Phenom C/S] reported "TCAS RA standby".

1434:30 The controller's mouse toggled [Phenom C/S], the Typhoon turned left towards [Phenom C/S] and passed underneath.



Figure 4

1434:51 "[Phenom C/S], *clear of conflict, it's a single Typhoon 500ft below us, returning to maintaining F125*".

1435:03 The controller replied "[Phenom C/S], *Roger, that aircraft is turning to follow you again, 2 o'clock, ½ mile.*"

1435:11 "[Phenom C/S], *got the traffic in sight, co-level, same track, approximately, 1...3NM on my right.*"

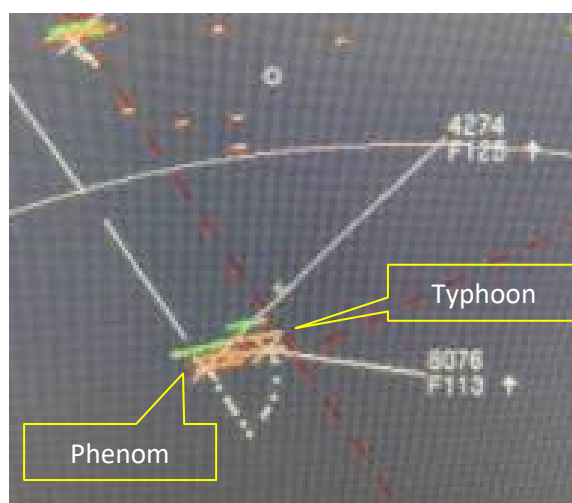


Figure 5

1435:21 APS controller: "*Affirm and its indicating about, just over 1000ft below you at the moment.*"

1435:26 "[Phenom C/S], *visual with it, many thanks.*"

Controller Account

The controller reported that, at approximately 1434 UTC, [The Phenom pilot] advised that they had received a TCAS Resolution Advisory whilst operating approximately 22NM north of Humberside at FL120. [The Phenom pilot] subsequently reported following the RA and levelling at FL125. The pilot reported that the conflicting traffic was a Typhoon which passed approximately 500ft below before turning north onto a similar track approximately 1NM east and approximately 1000ft below. The controller stated that the developing conflict had not been identified prior to receipt of the pilot's TCAS RA transmission. Following the occurrence, Swanwick Mil contacted the controller to establish whether Traffic Information had been passed to [Phenom C/S] prior to the encounter.

Investigation Findings

[Phenom C/S] was receiving a Traffic Service from Humberside APS.

[Phenom C/S] was operating above the published Humberside LARS upper limit of FL100 due to Swanwick Mil capacity constraints.

[Typhoon C/S] was operating under ATS provided by Swanwick Mil.

The aircraft remained on converging tracks for several minutes prior to the TCAS Resolution Advisory.

Mode C information indicated approximately 1000ft vertical separation throughout much of the encounter.

No Traffic Information was passed to [Phenom C/S] prior to the TCAS Resolution Advisory.

Controller workload was assessed as low during the period leading up to the occurrence.

The controller continued to provide ATS and Traffic Information to other aircraft during the occurrence period.

At approximately 1434, [the Phenom pilot] reported a TCAS Resolution Advisory whilst operating at FL120.

[The Phenom pilot] subsequently reported following the Resolution Advisory and levelling at FL125.

The pilot reported the conflicting traffic to be a Typhoon which passed approximately 500ft below the aircraft.

The controller reported that the interaction between [Phenom C/S] and [Typhoon C/S] had not been identified prior to receipt of the pilot's TCAS Resolution Advisory transmission.

Following the occurrence, Swanwick Mil contacted the controller to establish whether Traffic Information had been passed to [Phenom C/S] before the encounter.

Existing lateral displacement between the aircraft, TCAS functionality, pilot response to the Resolution Advisory and subsequent visual acquisition acted as effective recovery barriers.

Analysis

Relevant Traffic Assessment

CAP774 requires Traffic Information to be passed on relevant traffic to aircraft receiving a Traffic Service. Radar replay demonstrated sufficient surveillance information was available to identify [Typhoon C/S] as relevant traffic.

The investigation assessed that [Typhoon C/S] became relevant traffic no later than 1433:00 when both aircraft were maintaining converging tracks, approximately 1000ft vertically separated and tracking towards a reducing Closest Point of Approach (CPA).

Multiple opportunities existed thereafter for Traffic Information to be promulgated.

Operational Analysis

There was no evidence that workload, frequency occupancy, staffing levels or equipment limitations prevented the timely provision of Traffic Information.

The controller continued to provide ATS to other aircraft during the period under review, indicating that the occurrence did not result from a complete loss of situational awareness.

The evidence indicated that the developing interaction between [Phenom C/S] and [Typhoon C/S] was not recognised and assessed as relevant traffic in sufficient time to permit Traffic Information to be passed prior to the TCAS RA.

The controller's account corroborates the surveillance replay and RTF evidence, confirming that the developing conflict was not identified until [Phenom C/S] reported the TCAS Resolution Advisory. This supports the finding that [Typhoon C/S] was not recognised and assessed as relevant traffic in sufficient time to allow Traffic Information to be passed under the Traffic Service being provided.

Human Factors Analysis

The occurrence is consistent with an unintentional lapse in conflict recognition.

Potential human performance influences include:

- Vigilance decrement associated with a low-workload environment.
- Expectation bias linked to routine military activity within the Vale of York.
- Area ownership bias arising from military traffic operating under Swanwick Military control.
- Operation of [Phenom C/S] outside the controller's routine LARS traffic profile.

MATS Part 2 Considerations

[Phenom C/S] was operating above the published Humberside LARS upper limit due to Swanwick Mil capacity constraints.

The investigation identified no evidence that the provision of a Traffic Service to [Phenom C/S] was contrary to local procedures.

Whilst not considered causal, operation outside the controller's routine LARS traffic environment may have influenced conflict perception and traffic assessment.

Conclusion

[Typhoon C/S] constituted relevant traffic to [the Phenom pilot] whilst a Traffic Service was being provided. Traffic Information was not passed prior to the development of a TCAS Resolution Advisory despite multiple opportunities for conflict recognition and assessment.

The investigation found no evidence of deliberate non-compliance, negligence or reckless conduct.

The occurrence is assessed as consistent with an unintentional lapse in conflict recognition resulting in [Typhoon C/S] not being identified as relevant traffic until after [Phenom C/S] reported the TCAS Resolution Advisory.

Existing lateral spacing, effective TCAS operation, pilot response to the RA and subsequent visual acquisition acted as effective recovery barriers and reduced the severity of the occurrence.

Although [Phenom C/S] was operating above the published Humberside LARS upper limit due to Swanwick Military capacity constraints, this was not contrary to local procedures and is not considered causal. However, operating outside the controller's routine LARS traffic environment may have influenced conflict perception and traffic assessment, contributing to the delayed recognition of [Typhoon C/S] as relevant traffic.

Safety Learning and Recommendations

This occurrence highlights the importance of maintaining an active radar scan during periods of low traffic demand, early identification of relevant traffic under a Traffic Service, awareness of vigilance degradation associated with low workload, and recognition of expectation bias when monitoring traffic interactions.

Individual Learning: Developmental debrief covering conflict recognition, vigilance management, expectation bias and CAP774 requirements.

Unit Learning: Disseminate learning through ABES and continuation training.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken, and both aircraft could be seen and identified using Mode S data, see Figure 6, with the Typhoon routeing southbound at FL118 and the Phenom northbound at FL120.

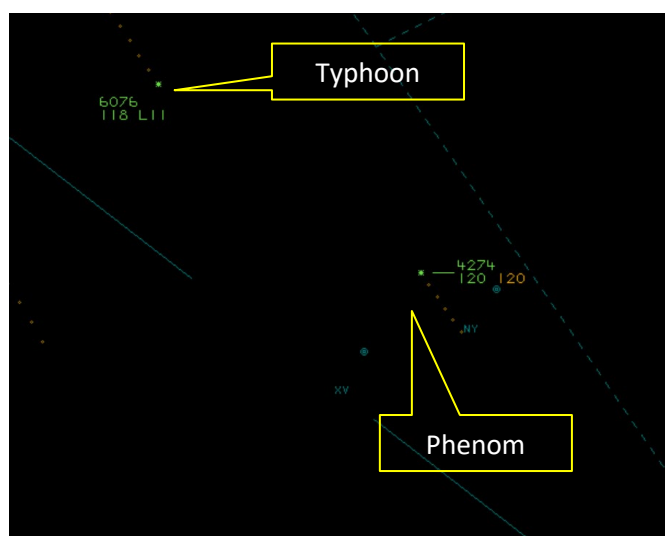


Figure 6 – 1433:55

The two aircraft continued on their respective headings until, at 1434:30, the Typhoon started to turn onto an easterly heading, towards the Phenom (Figure 7).

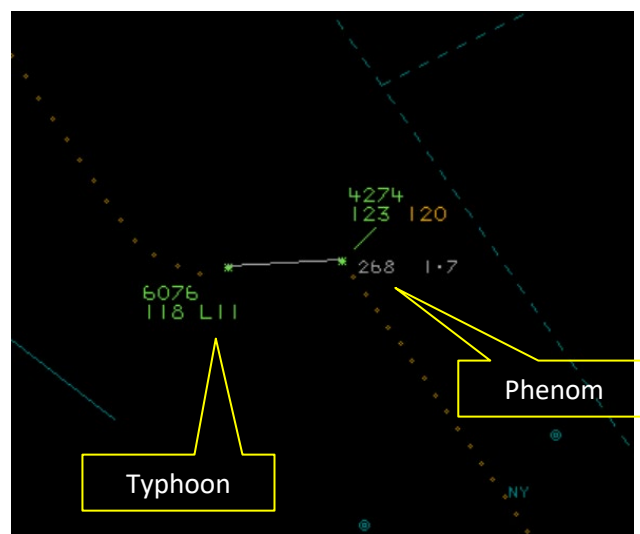


Figure 7 – 1434:30

Radar CPA occurred at 1434:46 with radar separation indicating 0.2NM and 600ft, although actual CPA was likely to have been between radar sweeps, therefore the separation was assessed to be less than 0.2NM.



Figure 8 - Radar CPA 1434:46

The Typhoon and Phenom pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.² If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.³ If the incident geometry is considered as converging then the Typhoon pilot was required to give way to the Phenom.⁴

Comments

HQ Air Command

The Airprox occurred in Class G airspace while both aircraft were operating VFR, conducting training serials. The Typhoon pilot was in receipt of a Traffic Service from Swanwick Mil East. The Swanwick controller did pass Traffic Information (TI) concerning the Phenom to the Typhoon, but due to a combination of clipped transmissions and the incorrect use of [the word] “flight” with the callsign, the information was not fully received or assimilated. Consequentially, the TI call was not acknowledged by the Typhoon pilot. The Phenom crew was in receipt of a Traffic Service from Humberside but, due to a lapse, the controller did not pass TI concerning the Typhoon to the Phenom crew. As the Phenom crew recall being alerted to the presence of the Typhoon before it turned towards them, this was most likely due to a TCAS TA. The Typhoon pilot commenced their left-hand turn having not sighted the Phenom, at which point the Phenom crew received a TCAS TA followed by an RA and climbed to avoid the conflict. During their turn, the Typhoon pilot became visual with the Phenom and bunted to descend further below it, before rolling out on a parallel track at approximately 1NM to the right and 1000ft below the Phenom. This incident again highlights the importance of a layered system of barriers to mitigate Airprox, as each individual barrier has inherent weaknesses.

Summary

An Airprox was reported when a Typhoon and a Phenom flew into proximity 2NM south of Driffield at 1435Z on Wednesday 29th April 2026. The Typhoon pilot was operating under VFR in VMC in receipt

² MAA RA 2307 paragraphs 1 and 2.

³ MAA RA 2307 paragraph 13.

⁴ MAA RA 2307 paragraph 12.

of a Traffic Service from Swanwick Mil, and the Phenom pilot was operating under VFR in VMC in receipt of a Traffic Service from Humberside.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

The Board first discussed the actions of the Typhoon pilot. They had been general handling in a block of airspace and had been receiving a Traffic Service from Swanwick Mil. The pilot had reported not receiving any Traffic Information from Swanwick Mil on the Phenom, and when the RT had been analysed it had been apparent that, although Traffic Information had been passed, the controller had clipped the callsign and used the phrase 'flight' and so the Typhoon pilot had not thought that the Traffic Information had been for them and had not assimilated it. The Typhoon fleet is not fitted with a traditional CWS, and although an Enhanced Collision Alert System (ECAS) was currently being trialled in this airframe, this had not detected the Phenom on this occasion because it had been outwith the parameters of the equipment. As a consequence, the Typhoon pilot had not received any situational awareness on the Phenom from either ATC or their CWS (**CF7**). Indeed, the first time that the Typhoon pilot had been aware of the Phenom had been when they had seen it pass overhead (**CF9**), at which point the Typhoon pilot had descended.

Turning to the actions of the Phenom pilot, the Board heard that the Phenom pilot had also been receiving a Traffic Service, this time from Humberside Radar. The Phenom pilot had not received any Traffic Information from the controller, but had received some information from their TCAS; however, at first this had indicated that the Typhoon would not be a threat, and the Phenom pilot had therefore simply monitored the track. Once the Typhoon pilot had turned rapidly towards the Phenom, the Phenom's TCAS had issued an RA (**CF8**), which the Phenom pilot had followed and which had increased the vertical separation to 600ft, with the Phenom pilot sighting the Typhoon shortly afterwards (**CF9**).

The Board then turned to the actions of the controllers. Swanwick Mil had been providing a Traffic Service to the Typhoon pilot, and a trainee controller with an OJTI had been in position. The trainee controller had provided Traffic Information to the Typhoon pilot on the Phenom, but had clipped the first part of the Typhoon's callsign and included the word 'flight', normally associated with a formation of aircraft, when in fact this had been a single Typhoon (**CF4**) (although the Typhoon had been using a formation callsign and number e.g. xxxx 1). As a consequence, the Typhoon pilot had not thought the Traffic Information had been for them. Members noted that the pilot had not acknowledged the Traffic Information and thought that the OJTI monitoring the trainee should have picked up on the incorrect callsign use and the lack of acknowledgement from the pilot (**CF2**). The trainee then became busy conducting other tasks and had not been able to update the Traffic information to the pilot (**CF5**) until, prompted by the OJTI, they had passed updated information on the Phenom, at which point it had been too late for the Typhoon pilot to have taken timely action. Members noted that, although STCA was available to Swanwick Mil, the nature of aircraft general handling in a block meant that, in order to avoid unwanted alerts, the function had been inhibited; in this case the Typhoon squawk had been outside the select frame for alerting (**CF6**).

The Humberside controller had been providing a Traffic Service to the Phenom, and members heard that, whilst Humberside would not normally provide a service to an aircraft above FL100, they had the radar coverage to do so, and controlling members noted that they would normally provide such a service to aircraft joining CAS to the north of Humberside. Military advisors to the Board were asked why Swanwick Mil would not have provided a service to the Phenom and the Board was told that, like many controlling units at the moment, they are short of qualified controllers and, as a result, have a priority list of aircraft tasking for the provision of services; a transit at FL120 that could be controlled by another unit, as had been the case for the Phenom, would be a low priority. However, the Board was also informed that there is a plan in place to alleviate the issue by using other military units to take on some

of the tasking, although some training needs to take place before this can be implemented. Notwithstanding, the Board agreed that, whilst it would have been expected that the Humberside controller would have passed Traffic Information on the Typhoon to the Phenom pilot, on this occasion no such information had been forthcoming (**CF1, CF3**). The Humberside investigation had not found a specific reason as to why the controller had not passed any Traffic Information, and controller members noted that the Humberside controller had been providing other information to pilots on a Basic Service, and conducting other lower priority tasks, and wondered whether the controller had forgotten that the Phenom pilot had been on a Traffic Service.

When determining the risk, the Board considered both pilots' reports together with the controllers' reports and radar replay data. Members discussed that the Typhoon pilot had not been visual with the Phenom until it had crossed above them. However, they quickly agreed that the avoiding action by the Phenom pilot, in reacting to their TCAS RA, had increased the separation, with some members considering that this action had removed the risk of collision. However, others countered that the lack of timely Traffic Information to either pilot and the late sightings by both pilots had resulted in safety not being assured. A vote followed and, by a small majority, members agreed that safety margins had been reduced below the norm (**CF10**); Risk Category B.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2026062			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	Ground Elements			
	• Regulations, Processes, Procedures and Compliance			
1	Human Factors	• ATM Regulatory Deviation	An event involving a deviation from an Air Traffic Management Regulation.	Regulations and/or procedures not fully complied with
	• Manning and Equipment			
2	Human Factors	• Recurrent/OJT Instruction or Training	Events involving on the job training of individuals/ personnel	
	• Situational Awareness and Action			
3	Human Factors	• ANS Traffic Information Provision	Provision of ANS traffic information	TI not provided, inaccurate, inadequate, or late
4	Human Factors	• Callsign Confusion	An event involving callsign confusion	
5	Human Factors	• Task Monitoring	Events involving an individual or a crew/ team not appropriately monitoring their performance of a task	Controller engaged in other tasks
	• Electronic Warning System Operation and Compliance			
6	Technical	• Conflict Alert System Failure	Conflict Alert System did not function as expected	The Conflict Alert system did not function or was not utilised in this situation
	Flight Elements			
	• Situational Awareness of the Conflicting Aircraft and Action			
7	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			
8	Contextual	• ACAS/TCAS RA	An event involving a genuine airborne collision avoidance system/traffic alert and collision avoidance system resolution advisory warning triggered	
	• See and Avoid			
9	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
	• Outcome Events			
10	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

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:

Ground Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the Humberside controller did not pass Traffic Information to the Phenom pilot under a Traffic Service.

Manning and Equipment were assessed as **partially effective** because the OJTI monitoring the Swanwick trainee controller did not intervene early enough to allow Traffic Information to be passed and assimilated by the Typhoon pilot.

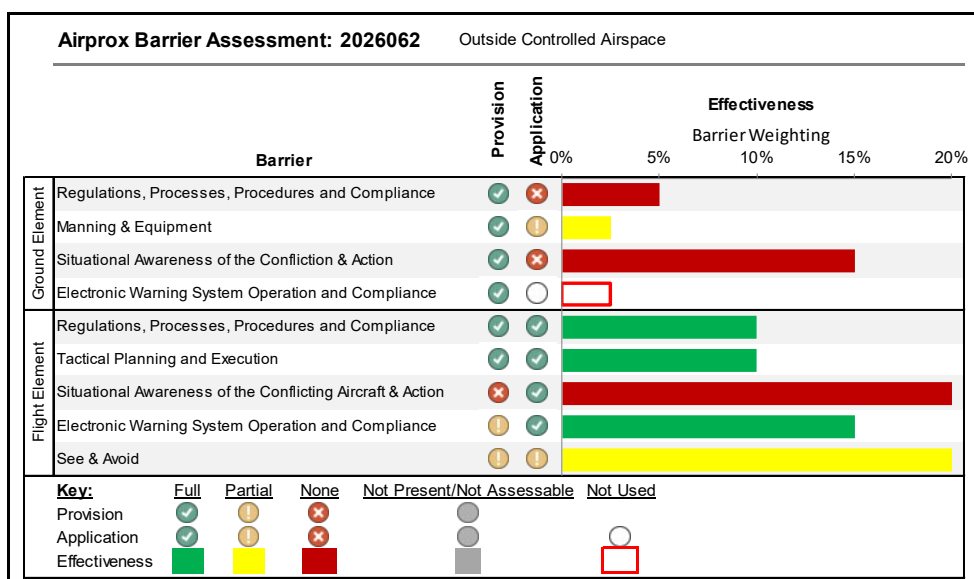
Situational Awareness of the Confliction and Action were assessed as **ineffective** because the Humberside controller did not pass Traffic Information to the Phenom pilot. Additionally, the Swanwick controller used incorrect callsign nomenclature which meant that the Typhoon pilot did not believe the Traffic Information call was for them, the controller did not receive acknowledgment of that Traffic Information and did not update the Traffic Information in time for the Typhoon pilot to make adjustment to their flightpath.

Electronic Warning System Operation and Compliance were assessed as **not used** because the squawk on the Typhoon was outside the select frame for STCA to alert at Swanwick Mil.

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the Typhoon pilot had not received any prior situational awareness on the other aircraft.

See and Avoid were assessed as **partially effective** because the Typhoon pilot had not seen the Phenom until a late stage and the Phenom pilot, although initially visual with the Typhoon, had not considered it a threat until it turned towards them, resulting in the necessity of late 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](#).