

AIRPROX REPORT No 2013090

Date/Time: 30 Jul 2013 1126Z

Position: 53 11N 000 06E
(11.2nm NE of RAF Coningsby)

Airspace: London FIR (Class: G)

Reporting Ac **Reported Ac**

Type: Typhoon FGR4 Hunter

Operator: HQ Air (Ops) Civ Pte

Alt/FL: 4500ft 6000ft
QFE (1011hPa) NK (NRhPa)

Weather: VMC CLBC VMC NR

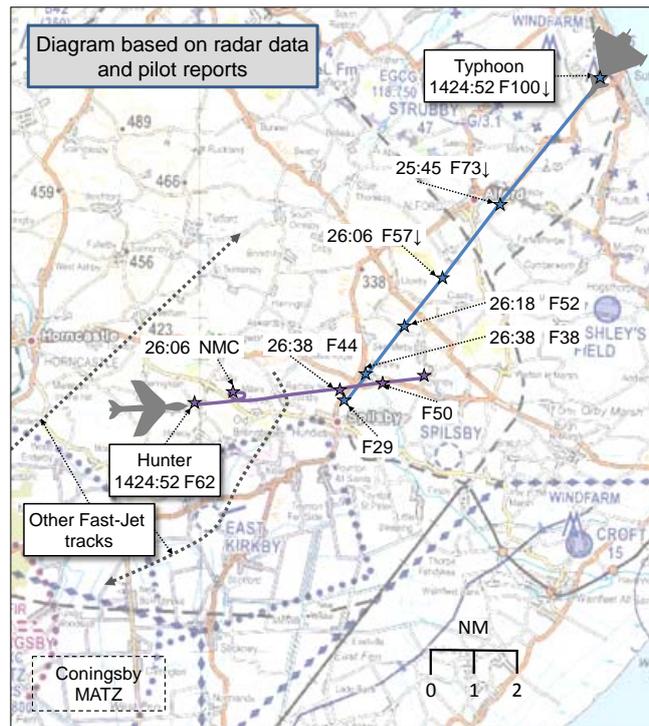
Visibility: 20km NR

Reported Separation:

500ft V/0nm H 1000ft V/2nm H

Recorded Separation:

600ft V/0.2nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE TYPHOON PILOT reports flying a light-grey aircraft, with HISLs and wing-tip navigation lights turned on, and transponder Modes 3/A, C and S selected. He was descending through 5500ft (Coningsby QFE, 1011hPa), at 320kts, 11.8nm from Coningsby on the 060° radial, for a radar-to-visual approach, from the north-east, to RW25 at RAF Coningsby, under a Traffic Service from Coningsby Approach, when he entered a cloud layer. He recalls being given traffic information on two aircraft in the vicinity of Coningsby, neither of which was a conflict. At 4500ft the pilot regained VMC below cloud, with the aircraft in a 5° nose down attitude. Around 4 seconds later he saw an aircraft in his right, 1 o'clock position, 1-1.5nm away, 'on an apparent collision course', and took avoiding action by 'bunting'¹ to 20° nose down. During the bunt the Typhoon pilot saw the Hunter fly around 500-600ft above him, and he did not see it take any form of avoiding action. The Typhoon pilot did not receive any Traffic Information on the Hunter, and he reports that the Hunter was a late 'pop-up' on Coningsby's radar and that its pilot was not in contact with Coningsby air traffic control.

He assessed the risk of collision as 'High'.

THE HUNTER PILOT reports flying VMC in a gloss-black, civilian registered, ex-military aircraft with HISLs turned on, squawking transponder Modes 3/A and C. He was in a 'manoeuvring' phase of flight at 6000ft and 300kts, receiving a Traffic Service from Cranwell. Cranwell passed Traffic Information on a contact in his 11 o'clock; the pilot could not see the other aircraft initially but eventually saw the Typhoon in his 1 o'clock, 2nm away and 1000ft below him. The Hunter pilot reports that he was sitting in the right-hand seat of his aircraft, that visibility below the canopy sill to the left-hand side of his aircraft is not good, and that his view of the Typhoon may have been obscured by the canopy arch.

He assessed the risk of collision as 'Low'.

THE CONINGSBY APPROACH CONTROLLER reports that the Typhoon had been pre-noted inbound for a radar-to-visual recovery to Coningsby by LATCC(Mil). The Approach controller had just

¹ A 'bunt', in this sense, is an immediate downward manoeuvre, rather than an 'English bunt' describing a full outside loop.

handed a Tutor over to the Talkdown controller and was expecting another fast-jet to depart the visual circuit to join the radar training circuit when the Typhoon made radio contact. Approach informed the Typhoon pilot of both of these aircraft and instructed him to descend to 2500ft (QFE 1010hPa) to provide separation against the departing fast-jet until he could assess the aircrafts' tracks properly. Following this traffic information the Typhoon pilot declared 'Fuel Priority'. The Approach controller describes being distracted by tracks conflicting with the departing fast-jet, which had turned downwind in accordance with its clearance, but had not yet called on frequency; he called the Tower controller via land-line to expedite the transfer of control. When the departing fast-jet pilot made contact, the Approach controller passed traffic information to him on a track which he subsequently believed to be the Hunter; he then took a handover on a further inbound fast-jet, and established 2-way communications with its pilot. At this point the Typhoon pilot reported that he had taken avoiding action against the Hunter and asked if it was showing on radar. The Approach controller had to rotate the SSR labels to see clearly and could then see the Hunter's radar return, displaying a Waddington ATC squawk, and indicating FL038 'slightly above' the Typhoon; he reported that he had not passed traffic information on the Hunter to the Typhoon pilot at any point. Approach assessed his workload throughout the Airprox sequence as medium to high.

He perceived the severity of the incident as 'Medium'.

THE CONINGSBY ATC SUPERVISOR reports that, earlier in the day, she had refused a telephone request for the Hunter to carry out a practice diversion to Coningsby because of the predicted volume of Coningsby based traffic. She was present in the Approach Control Room during the Airprox and was supporting the Approach controller by assisting with liaison calls. She assessed the Unit's and the controllers' workloads as medium, with Approach handling 'mixed approaches', the Departures position manned, two Talkdown controllers being employed to allow a fast-jet to recover with a Tutor ahead, and several formations recovering earlier than expected. 'Multiple liaison calls' were required for pre-notes, inbound handovers and fuel priority calls, so she instructed that the next inbound aircraft should be handed to Director in order to relieve the Approach controller's workload. The Supervisor does not recall the Hunter being in conflict with the Typhoon initially, and opined that the Hunter's manoeuvring had changed the situation and led to a loss of its Mode C. Following the Airprox, she contacted Waddington ATC and arranged for the Hunter to be handed to Coningsby to ease recovery of their remaining aircraft.

The Supervisor opined that her refusal of permission for a practice diversion may have been interpreted by the Hunter pilot as a refusal to provide ATC services, including LARS² services, and that the pilot had subsequently wanted a handover to Waddington despite his location having a greater impact on Coningsby's traffic.

THE CRANWELL DEPARTURES CONTROLLER reports providing a Traffic Service to the Hunter pilot, departing Cranwell, on a VHF frequency, requesting general handling between 3000ft and 12000ft to the north-east of Cranwell. The Supervisor informed him that Coningsby were operating to capacity and could not accept the Hunter so he passed traffic information to the pilot on an aircraft 12nm away and commenced a handover to Waddington, which was the next suitable LARS unit. The Hunter was carrying out 'high energy' manoeuvres during the handover, and the previously passed traffic information was updated 'north-east, 5nm, above, descending, south-west bound'. Having heard the traffic information being passed, the Waddington LARS controller accepted the handover and the Hunter pilot left the Cranwell controller's frequency.

He perceived the severity of the incident as 'Medium'.

A QUALIFIED CRANWELL ATC SUPERVISOR reported on behalf of the actual Duty Supervisor on duty during the Airprox. The Duty Supervisor had not been aware of the Airprox because the Unit was only informed after he had departed on leave; however, the reporting supervisor was also on duty, in another role, at the time. He recalls that the Duty Supervisor had spoken to Coningsby ATC, who refused to accept the Hunter for a practice diversion and, due to traffic levels, could not provide it

² Lower Airspace Radar Services

with LARS. He assessed the [Cranwell] Unit's and the Departures Controller's workloads as medium-to-low.

THE WADDINGTON LARS CONTROLLER reports taking a handover on the Hunter from Cranwell Departures; he assessed his workload as 'low'. The aircraft was 5nm north-east of Coningsby so the Waddington controller suggested that it would be better to hand the aircraft to Coningsby ATC. The Cranwell controller replied that Coningsby ATC was unable to accept the Hunter and proceeded with the handover. Waddington LARS recalls hearing the Cranwell controller passing traffic information to the Hunter pilot '12 o'clock, opposite direction descending.' The Hunter was handed to the Waddington controller within the 3000ft to 12000ft block, indicating FL041; Cranwell Departures updated the traffic information to the pilot and the Waddington controller acknowledged the traffic information and gave Cranwell his frequency. By the time the Hunter was in contact with the Waddington LARS controller he reports that it was within 0.5nm of the Typhoon and he recalls his first call to the Hunter pilot was 'identified, traffic, 6 o'clock, half a mile, same level, Traffic Service'. The Hunter pilot replied that he could see the other aircraft and had been visual with it for some time.

He perceived the severity of the incident as 'Low'.

THE WADDINGTON ATC SUPERVISOR reports that the Hunter was clearly in conflict with a stream of fast-jets returning to Coningsby and, despite the Hunter pilot having visual contact with the Typhoon, opined that the overall traffic situation would have been managed better if the Hunter had been handed to Coningsby ATC. He assessed his Unit's and the controllers' workloads as 'low' and reports that, as the Airprox occurred before the Hunter pilot contacted Waddington, the LARS controller had done all he could by passing traffic information as soon as the pilot contacted him.

Factual Background

The Coningsby weather at 1050Z was:

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METAR EGXC 301050Z 22013KT 9999 BKN028 20/13 Q1011 BLU TEMPO SCT022 WHT
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The Cranwell weather at 1050Z was:

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METAR EGYD 301050Z 21010KT 9999 SCT030 20/12 Q1011 BLU TEMPO -SHRA SCT020 WHT
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The Waddington weather at 1050Z was:

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METAR EGXW 301050Z 23010KT 9999 SHRA BKN028 BKN120 19/12 Q1011 BLU TEMPO 7000 SHRA  
SCT024 WHT
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Analysis and Investigation

Military ATM

All heights/altitudes quoted are based upon SSR Mode C from the radar replay unless otherwise stated. Analyses of the unit RT transcripts determined that the Waddington transcript timings were approx 32-secs slow and have been amended accordingly. However, the combination of 3 different units' RT recordings and their varying time-bases will not correlate exactly with the NATS radar replay and it is likely that some error of up to +/- 2 secs remains.

Coningsby operate a typical division of responsibility for IFR and VFR recoveries; Director provides ATS³ to aircraft conducting instrument and Radar-to-Visual approaches, whilst Approach provides ATS to aircraft recovering visually.

³ Air Traffic Services

The incident sequence commenced at 1123:03 as the Typhoon called Coningsby Approach on handover from LATCC(Mil), descending to FL50. Coningsby Approach was providing ATS to 2 further aircraft operating in the Coningsby RTC⁴ and had received a pre-note from LATCC(Mil) on a further fast-jet recovering from EGD 323C for a visual recovery. At this point, the Typhoon was 28nm north-east of Coningsby, tracking south-westerly, indicating descent through FL155; the Hunter was 7.5nm west-south-west of Coningsby, tracking east-north-easterly, indicating a climb through FL42.

Between 1123:49 and 1124:04, Coningsby Approach accepted a pre-note from LATCC(Mil) on a pair of unrelated fast-jets recovering to Coningsby for an IFR approach. The Coningsby Supervisor reported that 'several formations were recovering earlier than expected' and that they 'opened' the Director control position for 'the next aircraft inbound...to relieve [Approach] workload'; it is reasonable to argue that this was following this pre-note for the IFR pair. At 1124:02, Cranwell Departures advised the Hunter pilot "*once you are clear of the lateral confines of Coningsby MATZ, manoeuvre altitude 3000ft to 12000ft, Barnsley 1-0-0-6*" which was read back by the pilot. At this point, the Hunter was 2.6nm north-west of Coningsby, tracking north-easterly, indicating a climb through FL53; the Typhoon was 23.7nm north-east of Coningsby, tracking south-westerly, indicating descent through FL129.

Between 1124:18 and 1124:27, Coningsby Approach 'warned in' the incident Typhoon and one further fast-jet to Coningsby Tower for visual recoveries. Coincidentally, Cranwell Departures initiated a handover of the Hunter to Waddington Zone. At 1124:22, towards the start of that handover, the Hunter was 3.7nm north-north-east of Coningsby, tracking north-easterly, indicating FL55; the incident Typhoon was 22.4nm north-east of Coningsby and indicating descent through FL117.

Routinely, given the location of the Hunter's general handling, Cranwell would expect to 'hand' the Hunter to Coningsby; however, Cranwell Departures believed that Coningsby were unable to provide an ATS to the Hunter. Subsequent to the incident, Cranwell determined that someone on the unit had contacted Coningsby ATC to request a practice diversion on behalf of the Hunter pilot; this request was turned down due to traffic levels at Coningsby. Although the Cranwell Supervisor mentioned in their report that they had had this conversation with Coningsby, at the time of the BM SPA investigation, they could not recall having done this. Analysis of all recorded Cranwell ATC landlines did not highlight a conversation between the Cranwell Supervisor and Coningsby ATC and, had such a conversation occurred, it was likely that it would have been on a recorded landline. Moreover, standard procedure at Cranwell is for Station Operations to contact other units to request practice diversions, not ATC; consequently, it is unlikely that the Supervisor had done this. At 1110, as the Hunter was taxiing for departure at Cranwell; the Tower controller, operating in the band-boxed Tower/Ground position, advised them that "*Coningsby cannot accept you for a P-D*", resulting in the pilot asking to conduct a practice diversion at Waddington. Cranwell's landline and RT recordings had no record of Tower being advised that the Hunter had not been accepted for a practice diversion by Coningsby, but the message could have been passed to them person-to-person on an unrecorded land-line. At the time of the BM SPA investigation, the Tower could not recall how they came by this information, and it has not been possible to determine this through other means. At 1114, due to traffic loading, the band-boxed Tower/Ground position was split and, at 1115, Ground pre-noted the Hunter to Cranwell Departures who questioned whether there was a "*handover to Coningsby?*" Ground replied, "*Coningsby won't accept him; he's looking for a handover to Waddington.*" Cranwell Departures reported that the Supervisor also advised them that the 'Hunter was not to be handed to Coningsby' because they were 'operating to capacity'. What is reasonably clear is that at some point, one or more Cranwell ATC personnel developed the belief that Coningsby was unable to provide an ATS to the Hunter, having had the request for a practice diversion refused. As the Hunter was inbound to Waddington for a practice diversion, it was reasonable for Cranwell Departures to have handed the aircraft to Waddington ATC given that they believed that Coningsby could not provide it with an ATS and that Waddington is a LARS provider in the area.

⁴ Radar Training Circuit

Moreover, from the Hunter pilot's perspective, the critical factor was that he was in receipt of an ATS and thus received Traffic Information. However, given the Hunter's position at the point that Cranwell Departures initiated the handover to Waddington, it is reasonable to have expected Cranwell Departures to have ascertained the Hunter pilot's intended area for general handling and to have passed this information to Coningsby. Equally, it is perhaps more important to highlight that it was Coningsby ATC that required this information given the Hunter's proximity to the Coningsby RTC and the weather in the local area, yet this information was not sought.

During the Cranwell-Waddington handover at 1124:52, Cranwell Departures passed Traffic Information to the Hunter on the Typhoon, advising them *"traffic 12 o'clock, 1-2 miles, opposite direction, well above, descending, believed to be a recovery to Coningsby"* which was acknowledged. Figure 1 depicts the incident geometry at this point; SSR 3A 2601 is the Hunter (6.4nm north-north-east of Coningsby), SSR 3A 1743 is the incident Typhoon.

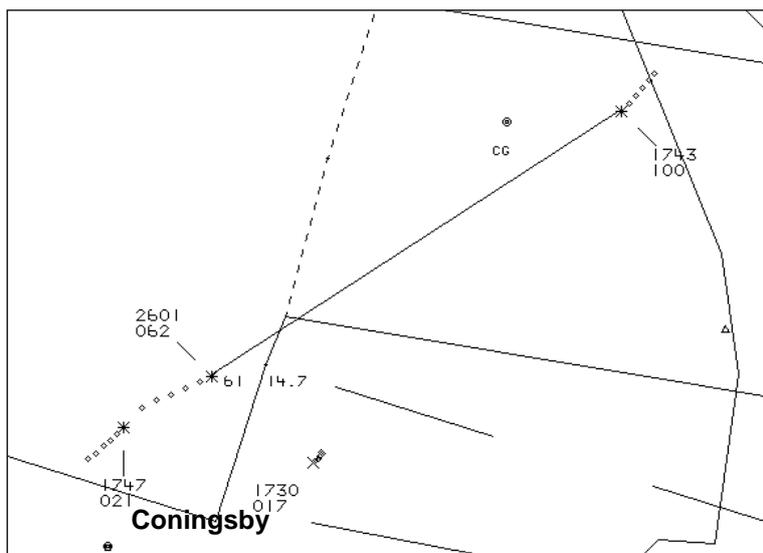


Figure 1: Incident Geometry at 1124:52.

Between 1124:32 and 1124:51, Coningsby Approach was involved in trying to establish communications with the pilot of the unrelated fast-jet within the RTC, who had delayed his initial RT call to Coningsby Approach. At 1124:57, the unrelated fast-jet (SSR 3A 1747 in Figure 1) called Coningsby Approach, who was then involved in an exchange of RT with this aircraft until 1125:31. This exchange included Coningsby Approach passing Traffic Information to this pilot on the Hunter, erroneously describing it as a Tutor, having assumed the aircraft's identity based on the Cranwell SSR 3A code. During this exchange, at 1125:01, the Hunter commenced a period of dynamic manoeuvring and the aircraft's SSR Mode C became intermittent, suggesting that there was a vertical element to the manoeuvring. Whilst the SSR at terminal units is generally less susceptible to Mode C 'drop-outs' caused by high-energy manoeuvring than the NATS area radars from which the replay is taken, the Coningsby ATC personnel reported that they also observed the Hunter's SSR Mode C information 'dropping out'. At the point that the Hunter commenced manoeuvring, the aircraft was 6.2nm north-east of Coningsby.

At 1125:32, Coningsby Approach advised the incident Typhoon of the other Coningsby IFR traffic to affect them, providing specific Traffic Information on both aircraft. At the point at which Coningsby Approach passed Traffic Information to the incident Typhoon pilot on the RTC fast-jet, the Hunter was 2nm east of that Typhoon, tracking east-north-easterly, indicating FL57; however, Coningsby Approach did not provide Traffic Information to the Typhoon on the Hunter at this point, nor later in the incident sequence. During this exchange of RT with the incident Typhoon, the aircraft advised Coningsby Approach that they were *"fuel priority"* which was acknowledged.

CAP 774 Chapter 1 Para 9 states that ‘there may be circumstances that prevent controllers from passing timely traffic information and/or deconfliction advice, e.g. high workload, areas of high traffic density, unknown aircraft conducting high energy manoeuvres, or when traffic is not displayed to the controller or is obscured by surveillance clutter. Controllers shall inform the pilot of reductions in traffic information along with the reason and the probable duration. Coningsby Approach did not advise the Typhoon that the ATS was reduced.

As the handover of the Hunter from Cranwell to Waddington progressed, the SSR 3A assigned by Waddington to the Hunter became visible on the radar at 1125:42. Shortly after, at 1125:45, Cranwell Departures updated the Traffic Information on the incident Typhoon to the Hunter pilot, advising him “*previously reported traffic, north-east, 5 miles, south-westbound, above and descending*” which was acknowledged. Figure 2 depicts the incident geometry at this point; the Hunter’s SSR 3A was 3601.

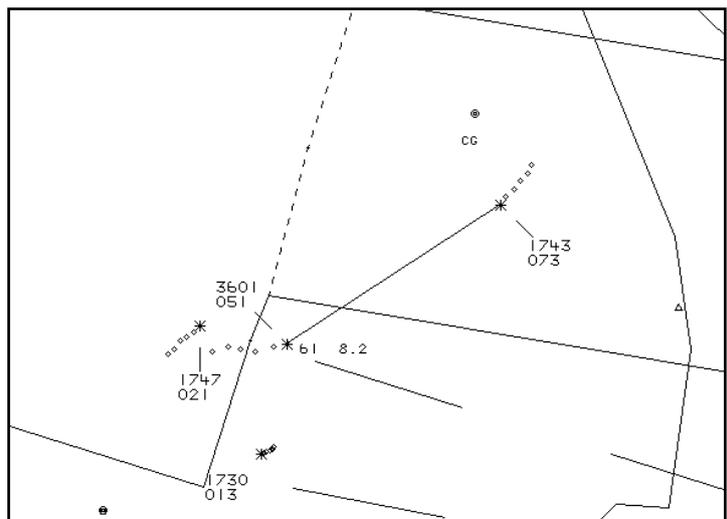


Figure 2: Incident Geometry at 1125:45.

At 1125:58, the Hunter commenced another period of dynamic manoeuvring with the aircraft’s SSR Mode C again becoming intermittent. Between 1126:07 and 1126:17, Coningsby Approach was involved in an exchange of RT with the next fast-jet recovering visually (32.3nm north-east of Coningsby, tracking south-westerly, indicating descent through FL131) whilst simultaneously advising Coningsby Tower of the incident Typhoon’s ‘fuel priority’ status. Co-incident with the start of this exchange, Cranwell Departures instructed the Hunter pilot to “contact Waddington Zone 1-2-7 decimal 3-5” which was acknowledged at 1126:09. Figure 3 depicts the incident geometry at this point, showing that the Hunter had adopted a westerly track.

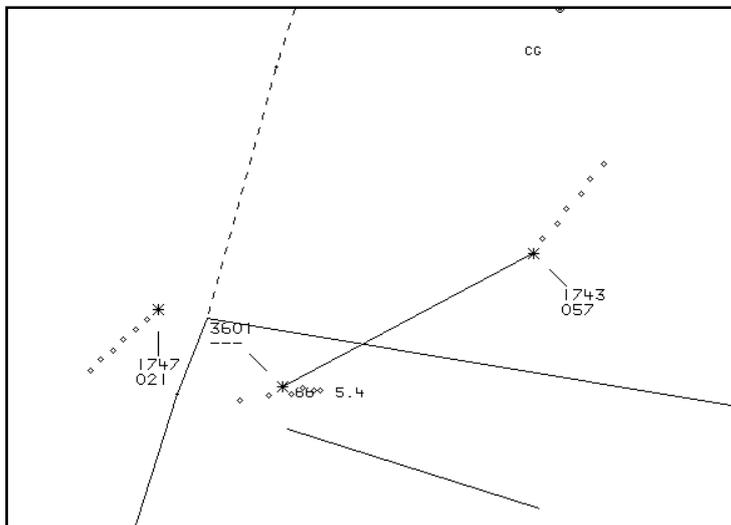


Figure 3: Incident Geometry at 1126:06.

At 1126:18, as Coningsby Approach advised Coningsby Tower that the incident Typhoon was 'fuel priority', the Hunter adopted an easterly track with no SSR Mode C information displayed. No other communication is recorded on the Coningsby Approach control position until after the CPA. Figure 4 depicts the incident geometry at this point

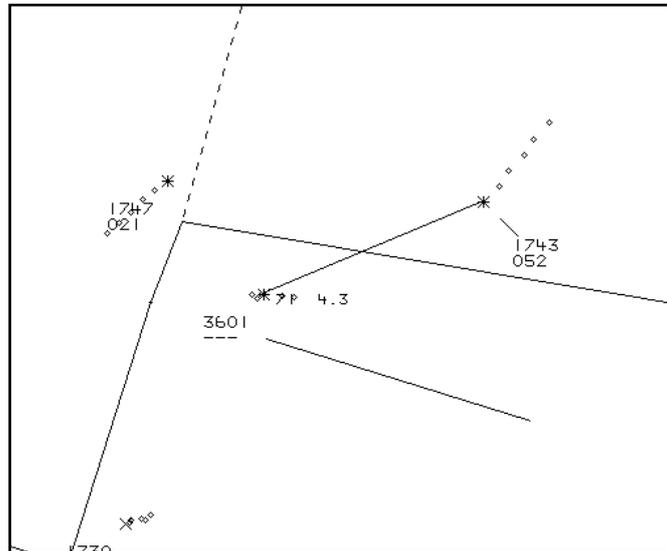


Figure 4: Incident Geometry at 1126:18.

At 1126:34, the Hunter's SSR Mode C becomes visible on the radar replay, 1nm south-west of the incident Typhoon, indicating FL44 with the aircraft maintaining its easterly track; the Typhoon was tracking south-westerly, indicating descent through FL44 with a rate-of-descent of approx 3000fpm. The incident Typhoon pilot reported 'regaining VMC below cloud at 4500ft' and sighting the Hunter around 4 secs later at a range of approx 1-1½nm. Assessing that the Hunter was on an 'apparent collision course', they initiated avoiding action by bunting from 5° to 20° nose down. The evidence of this bunt was clear on the next sweep of the radar at 1126:38, showing that the Typhoon's rate-of-descent had increased to approx 9000fpm; Figure 5 depicts the incident geometry at this point. The CPA occurred between sweeps of the radar at approx 1126:39, as the Hunter 'flew approx 500-600 ft above' the Typhoon. The Typhoon pilot then advised Coningsby Approach of the Airprox.

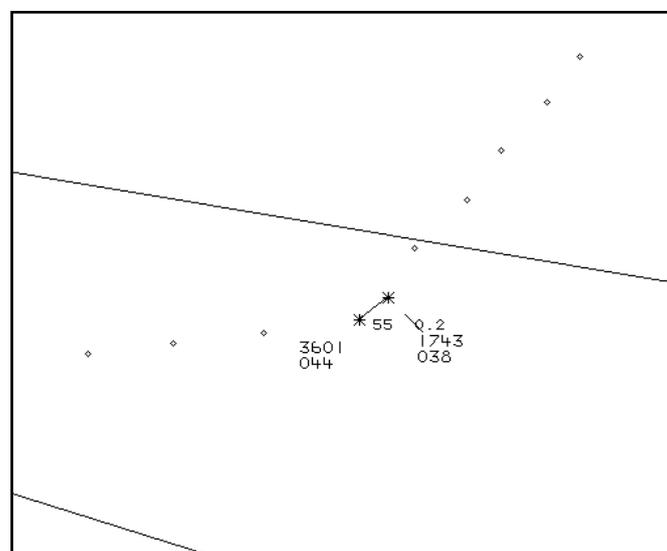


Figure 5: Incident Geometry at 1126:38.

Following the handover from Cranwell to Waddington, the Hunter first contacted Waddington Zone at 1126:39, 30 secs after leaving Cranwell's frequency, and was immediately given Traffic Information on the Typhoon. The Hunter's pilot acknowledged the Traffic Information, replying that they were "good visual and good V-M-C, we saw each other very early."

Coningsby Approach made a frank admission in his report that he did not pass Traffic Information to the Typhoon on the Hunter, adding that after the pilot had advised them of the Airprox, they rotated the SSR labels on their surveillance display and 'could then clearly see a Waddington SSR code'. It is clear that Coningsby Approach had sighted the Hunter on their surveillance display earlier in the incident sequence; however, this did not translate into them passing Traffic Information to the Typhoon. This may have been caused by workload related Human Factors, through their effect on memory or attentional capacity, or it may simply have been that Coningsby Approach was engaged in administrative tasks that distracted them from the surveillance display, missing the point at which the Hunter adopted an easterly track into conflict. Moreover, once the Hunter was on that easterly track, given Coningsby Approach's comment on the orientation of the SSR labels on their surveillance display and the range scale that that display would have been set to, it would have been difficult to have detected the Hunter.

In terms of Coningsby Approach's operation in the band-boxed control position, it is reasonable to argue that the situation was being managed and that Coningsby ATC had been affected by the early return of Station based aircraft. The Coningsby Supervisor was actively supporting Approach in making 'multiple liaison calls' and opening the Director position and, given that the unrelated fast-jet was completing its final RTC, the decision for this aircraft to remain on Coningsby Approach's frequency was understandable. The remainder of the traffic in receipt of an ATS from Coningsby Approach was 'typical' Approach traffic and thus the band-boxing itself may not have been a contributory factor.

Waddington Zone were unable to affect the outcome of the Airprox given that the Hunter pilot only established RT contact with them after the CPA. From Cranwell Departures' perspective, they provided timely and relatively accurate Traffic Information to the Hunter and, given that the Hunter had adopted a westerly track as Departures finalised the aircraft's handover to Waddington, they understandably did not provide a further update to that Traffic Information. Notwithstanding, the liaison between Cranwell and Coningsby ATC did have a part to play in this incident. Whatever the source of the misunderstanding regarding Coningsby's ability to provide an ATS to the Hunter, whilst the Hunter received Traffic Information on the Typhoon, had Coningsby ATC been providing ATS to the Hunter, or had the 2 units conducted landline liaison over the Hunter's intentions, then Coningsby ATC would have had greater situational awareness of its flight profile. Given the level of liaison normally conducted between Cranwell and Coningsby ATC, it was surprising that in this instance, Traffic Information was neither passed by Cranwell, nor sought by Coningsby ATC.

OBSERVATION

BM SPA noted that MMATM Chapter 11 Para 26 states that 'when the prevailing circumstances suit the use of only approximate level information (ie slightly above/below, above/below, well above/below), the following may be used as guidance:

- a. Slightly above/below - vertical difference up to 1000ft.
- b. Above/below - vertical difference of between 1000 ft and 3000ft.
- c. Well above/below - vertical difference exceeding 3000ft (such information would normally be irrelevant but could be of importance, eg, if a high rate of climb or descent is involved)'.

However, the MMATM does not give examples of circumstances in which only approximate level information may be used or useful. Moreover, this reference is at odds with CAP 413 Chapter 5 Para 1.6 which provides the phraseology that 'should' be used 'whenever practicable' and it is noteworthy that the guidance within the MMATM is not incorporated within CAP 493. BM SPA have requested that the MAA review the content of MMATM Chapter 11 Para 26 to determine whether this guidance remains extant, in the light of CAP 413.

Comments

HQ Air Command

A misunderstanding on the readiness of Coningsby to provide any type of ATS led to the Hunter being passed TI by 2 alternative agencies, adding to the liaison workload underway in the Coningsby radar room. That said, there is a question as to how well the Hunter pilot assimilated the TI passed, given that the ac continued manoeuvring with the reported traffic (incident Typhoon) continuing to close. The fuel priority for the incident Typhoon would have encouraged the most expeditious recovery but this should not influence the type of ATS requested in the pursuit of adequate deconfliction. The subsequent Airprox appears to have been the result of many supposedly trivial factors combining, fortunately without any more serious consequences.

Summary

This incident occurred 11.2nm north-east of RAF Coningsby between a Typhoon and a Hunter (operating on the civil register). The Typhoon was recovering from EGD 323C to Coningsby RW25 on a visual recovery and was in receipt of a Traffic Service from Coningsby Approach. The Hunter was general handling northeast of Coningsby prior to conducting a practice diversion at RAF Waddington and in receipt of a Traffic Service from Cranwell Departures.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

This Airprox generated a great deal of debate as it was agreed that all of the parties involved could have taken some action which would have broken or controlled the incident sequence. The Board first discussed the actions of the Typhoon pilot and noted that, despite the fact that the cloud layer was relatively thin, given the amount of traffic in the area he could have helped himself by requesting updated Traffic Information, or an upgrade to a Deconfliction Service, before descending through cloud. This might have then prompted the Coningsby Approach controller to check the area around the Typhoon more thoroughly, and he may have noticed the Hunter at that point. Given that the Typhoon pilot subsequently declared Fuel Priority, Board members opined that he may have been focussed on managing his fuel and flying an efficient approach at the time, and that this may have influenced his decision on ATS selection.

Turning to the actions of ATC, it was noted that the Coningsby Approach controller had reported honestly that he had not seen the Hunter's radar return and, consequently, had not passed Traffic Information on it to the Typhoon Pilot; the Board felt that this was a contributory factor, especially because early Traffic Information might have allowed the Typhoon pilot the option of attempting to use his radar to look for the Hunter. Over and above this individual lapse, the Board agreed that a key element of this Airprox had been ineffective communication between the Coningsby and Cranwell ATC units. The Board agreed that, whilst these units frequently communicate and co-ordinate very effectively in this busy airspace, on this occasion several members of both teams had had the opportunity to see and resolve the confliction on radar but had not done so. In addition, the Board noted that several of the controllers involved could have controlled the situation more strongly; Cranwell Departures could have strongly encouraged the Hunter pilot to operate in a more suitable area for GH, the Cranwell Supervisor could have questioned the perception that Coningsby did not

wish to work the Hunter, and the Coningsby Supervisor could have called Cranwell to request that the Hunter was handed over to them. The Board noted that the Airprox happened whilst Coningsby ATC were in the process of splitting the bandboxed Approach/Director task, and it was felt likely that, having perhaps been caught out by early aircraft recoveries, the Coningsby Supervisor had made this decision too late.

Finally the Board turned to the actions of the civilian Hunter pilot; the Board agreed that, although he was operating in Class G airspace in accordance with see-and-avoid principles, he was flying a high performance aircraft and he had chosen an entirely unsuitable area for general handling and high-energy manoeuvres. Given that the Hunter was based at Cranwell, the pilot should have been well aware of the traffic patterns at Cranwell and Coningsby, and the Board agreed that he would have had sufficient experience to have known that fast-jets frequently recover to Coningsby from the north-east. Members agreed that the Hunter pilot's unwise decision to conduct high-energy manoeuvres in close vicinity to the Coningsby MATZ approach stub, especially in the prevailing meteorological conditions, was a contributory factor in this Airprox.

Turning to the degree of risk, the Board agreed that safety had not been assured and it had been the Typhoon pilot's bunt that had been effective in increasing separation to avoid a collision; they concluded, unanimously, that this Airprox was a Cat B risk.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A confliction of flight paths resolved by the Typhoon pilot.

Contributory Factor(s):

1. Lack of TI to the Typhoon pilot from Coningsby ATC.
2. Poor communications between Cranwell and Coningsby ATC.
3. Unwise choice of location for GH by the Hunter pilot.

Degree of Risk: B

ERC Score⁵: 20

⁵ Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.