

AIRPROX REPORT No 2010052

Date/Time: 20 May 2010 1019Z

Position: 5405N 00130W (4nm SW of Dishforth - elev: 117ft)

Airspace: UKDLFS/FIR (Class: G)

Reporting Ac Reported Ac

Type: Lynx Mk 9A Tornado GR4

Operator: HQ JHC HQ Air (Ops)

Alt/FL: 1000ft 1700ft
QFE (1027mb) RPS (1028mb)

Weather: VMC CLBC VMC CLBC

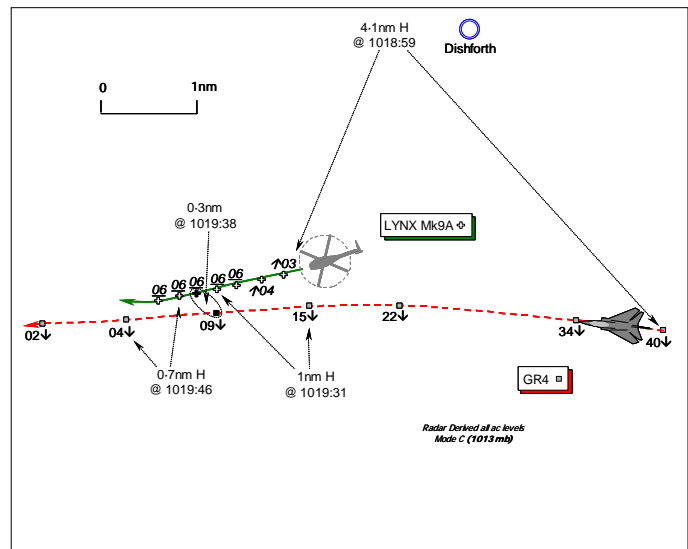
Visibility: 45km 10km

Reported Separation:

Nil V/200m H 1200ft V

Recorded Separation:

0.2nm [400yd] H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE LYNX MK 9A HELICOPTER PILOT reports he had departed Dishforth en-route to Blackpool under VFR and had been provided with a BS whilst working Linton ZONE. His helicopter has a grey/green camouflage scheme, but all the ac's lighting including the HISLS were on. A squawk of A0426 was selected, he thought [actually A7000] with Modes C & S on, but the Airprox occurred whilst switching from a BS with Linton ZONE on 118.550MHz to Leeds/Bradford.

In a level cruise at 1000ft Dishforth QFE (1027mb), heading 263° about 5nm S of Ripon at 100kt, a Tornado GR4 was first seen as it passed down his port side on the same course. No avoiding action was taken, and the Tornado was seen to be in descent through his level to low-level, passing close enough to cause disturbance to his helicopter from its wake turbulence. The three crew members aboard assessed the horizontal separation to be no more than 200m; the Risk was not assessed. He switched back to Linton ZONE to advise that an Airprox would be filed.

THE TORNADO GR4 PILOT reports that they were executing a descent to low-level and in receipt of an ATS from Linton ZONE, who briefed them about a helicopter on the planned descent track at low-level but he cannot recall the height that was specified by the controller. As they descended through BKN cloud cover at 5000ft, they gained VMC and the descent was continued VFR. Heading 270° at 400kt about 10nm W of Linton-on-Ouse, just as they prepared to ask ZONE for more TI about the helicopter, the Lynx and its lights were seen by both he and his navigator approximately in their 1 o'clock heading away from their flight path and below them. Both crew members commented on the intercom that they would be clear and the descent was adjusted to maintain more than 1000ft clear of the Lynx, which passed by in their 3 o'clock about 1200ft below them with a low Risk, but he was not sure about the horizontal separation. They were visual with the helicopter throughout; no avoiding action was necessary as the Lynx had been seen and assessed to be clear to the right of the ac's nose by both pilot and navigator

Their HUD video was broken, but they believed that compared to the briefed height passed by ZONE and their own their ac's height observed against the helicopter, their spacing was adequate. His ac has a grey camouflage scheme but the HISLS were on.

THE LINTON ZONE CONTROLLER reports that his workload was 'medium to low' whilst operating the position with 235.2MHz – UHF and 118.550MHz - VHF. The GR4 crew was handed over from London MIL at FL145 for a let-down to low-level in the Linton area. When ready for descent, the GR4 crew was issued the Linton QFE (1029mb) and instructed to descend to 2500ft iaw the terrain safe level (TSL) and local airspace restrictions. The GR4 crew confirmed that they did not want the standard Linton MATZ crossing - 3nm to the N of the A/D E - W at 500ft QFE - and would maintain 3000ft QFE above the MATZ. At the same time a number of other ac were handed over for a TS or free-called and the Lynx was prenoted by Dishforth TOWER outbound via Newby Hall (a local reporting point) en-route to Blackpool. In accordance with standing regulations, the helicopter should have squawked A4530; however, when the Lynx crew called on VHF they reported squawking A7000 and the helicopter was never 'formally' identified, he thought. The Lynx pilot's initial call was 'stepped on' by traffic on UHF and he had to repeat his message. At this time, the GR4 was 5nm N of Linton, the crew confirming that they were VMC and visual with the surface. As the GR4 was indicating 4000ft and descending, TI was passed to the crew about the Lynx, he thought, as 'Traffic 12 o'clock - 3nm, indicating 700ft. This TI was acknowledged and the GR4 crew confirmed that they were happy to switch en-route, so they were given the Barnsley RPS (1028mb) and released. The Lynx crew reported changing to Leeds/Bradford APPROACH, but shortly afterwards returned to his frequency and asked if he had been working a Tornado. He replied that he had and that the GR4 crew had been given TI about his Lynx. The Lynx pilot then reported an Airprox with a horizontal separation of 500ft; he had been operating in VMC, below 1000ft, with a cloudbase in excess of 2000ft.

UKAB Note (1): The Transcription Unit was requested to review the Leeds/Bradford RT recording; it was confirmed that no transmissions of relevance were recorded.

HQ AIR BM ATM SAFETY MANAGEMENT reports that the GR4 was correctly identified on handover from LATCC (Mil) and placed under a TS by Linton ZONE. The Lynx crew called ZONE at 1017:48, approaching Newby Hall southbound at 500ft QFE (1027mb). Although the controller's report states the Lynx was never formally identified, the tape transcript reveals the controller did report to the pilot at 1018:06, that the helicopter was "*identified basic service*". The pilot then added that he was operating VFR squawking A7000, would be switching to Leeds shortly and "IFR from there". This was acknowledged by ZONE who reiterated the BS and passed the Barnsley RPS of (1028mb). At the time, the Lynx was not squawking the recognised Dishforth departure squawk of A4530, nor was the reported identification consistent with the position report method; however, this is not considered a causal factor. During the Airprox the GR4 crew was flying in VMC and in sight of the surface. ZONE identified that the Lynx's track would take them into close proximity with the GR4 and passed TI to the GR4 crew at 1019:00 about the Lynx, "*..Traffic 12 o'clock 2 miles opposite direction [sic] indicating 8 hundred feet*"; at no point was TI given to the Lynx crew about the GR4. [UKAB Note (2): It is apparent that ZONE passed incorrect advice about the Lynx's course.]

As the Lynx crew was flying VFR under a BS, ZONE acted in accord with the service provided; however, best practice would have been to pass a warning to the Lynx crew about the presence of the GR4 approaching from astern.

UKAB Note (3): The Claxby Radar recording shows the Lynx Mk9 departing to the S of Dishforth squawking A7000 with Mode C before turning westerly. The GR4 approaches from the E in a continual descent through 4000ft (1013mb), which equates to an altitude of 4450ft BARNSELY RPS (1028mb) at a range of 4.1nm from the Lynx. Maintaining a broadly westerly course, the GR4 closes from the Lynx's port quarter, the latter maintaining a level cruise at 600ft (1013mb) – about 1050ft RPS (1028mb) to a range of 0.3nm at 1019:38, when the GR4 is shown descending, 300ft above the helicopter. The GR4 overtakes the Lynx to port, in between sweeps, and is next shown indicating 200ft below, after descending through the Lynx's level into the helicopter's 11:30 - 0.7nm. The parallel track displacement is in the order of 0.2nm as the GR4 passed abeam the Lynx. The GR4 then opens on a steady track but the Lynx subsequently turns R into an apparent orbit.

HQ JHC comments that the Lynx crew did not assess the Risk of collision. It is assumed that the Captain filed an Airprox because the GR4 passed close enough to cause disturbance to his helicopter from its wake turbulence but it is not clear to what level the disturbance was.

It appears that the GR4 crew was convinced that they were not affecting the Lynx in any way. The GR4 pilot's report states that they were visual with the ac throughout and they attempted to adjust vertical separation but did not attempt to increase lateral separation. However, this increase in vertical separation did not lead the helicopter crew to believe that there was sufficient separation to avoid the wake turbulence having an effect. If the Lynx had been notified of the GR4 approaching from astern, he would have been prepared for the GR4 and the possibility of wake turbulence but the GR4 was in a better position to take any action.

HQ AIR (OPS) had no comment as the recorded and reported separation was in excess of 1000ft.

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 video recordings, reports from the air traffic controller involved and reports from the appropriate ATC and operating authorities.

In the view of the Air Cmd fast-jet pilot Member, the separation accorded to the Lynx helicopter by the GR4 crew was satisfactory. Nevertheless, it was evident that with no prior warning from ATC the Lynx crew had been surprised by the appearance of the GR4. The JHC Member emphasised the potential hazard to helicopters from the wake turbulence of jets at close quarters but it was not evident whether the reported 'disturbance' to the helicopter from the GR4's wake was a definite hazard in this instance. Clearly the Board was charged with assessing the Risk of a collision between the two ac and not necessarily wake turbulence issues, however, the Board agreed that the Lynx pilot was entirely correct in reporting this Airprox so that the circumstances could be looked at for the benefit of the whole aviation community.

Members recognised that the Lynx crew, operating on VHF, would not have known at the time if the GR4 crew, operating on UHF, were visual with their helicopter as the jet overtook them to port and clearly at odds with the Rules of the Air. Controller Members agreed with HQ Air ATM Safety Management view that best practice would have been for ATC to pass a warning to the Lynx crew about the presence of the GR4 approaching from astern. In the absence of any technical ability to cross-couple ATC frequencies, the military terminal ATC Member spoke of local initiatives to put transit traffic onto the same VHF frequency where feasible, so that pilots might benefit from hearing other crews transmissions and improve their SA. This was in the same vein as a previous UKAB Safety Recommendation (2009-117) relating to ac in the visual cct operating on the same frequency, which had been accepted by the MOD. However, as the GR4 crew had not advised ZONE that they were visual with the helicopter, nor the controller questioned this, the Lynx crew would have been none the wiser here, so undoubtedly only a warning could have helped the Lynx crews SA. On the other hand, the Lynx crew were operating VFR under a BS and should not expect TI routinely. The Board was advised that a frequently used fast-jet low-level entry point lay to the W and helicopter crews should expect to encounter fast-jets in this vicinity, but plainly with this geometry the Lynx crew were unable to affect the outcome.

The GR4 crew having, the benefit of TI from ZONE, albeit partially incorrect, sighted the helicopter but the range of visual acquisition was not quoted. Nevertheless the GR4 crew had spotted it beforehand and it was only they that could choose what separation to afford the helicopter as they descended through its level. The radar recording shows that they passed about 400yd clear as they overtook the Lynx, but they were level with it as they passed abeam at the closest point, which had evidently caused the Lynx crew concern. Pilot Members opined that it would have been better airmanship to have afforded the helicopter a wider berth. The Board concluded therefore that this Airprox had been caused by the Tornado GR4 crew flying close enough to the Lynx to cause its crew concern, but that no Risk of a collision had existed in these circumstances.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Tornado crew flew close enough to the Lynx to cause its crew concern.

Degree of Risk: C.