

AIRPROX REPORT No 2012137

Date/Time: 5 Sep 2012 1433Z

Position: 5305N 00003W (4nm E of Coningsby - elev 24ft)

Airspace: Lincolnshire AIAA (Class: G)

Reporting Ac Reported Ac

Type: Typhoon FGR4x2 Untraced Glider

Operator: HQ Air (Ops) NK

Alt/FL: [3500ft]↑ NK
RPS

Weather: VMC CLOC NK

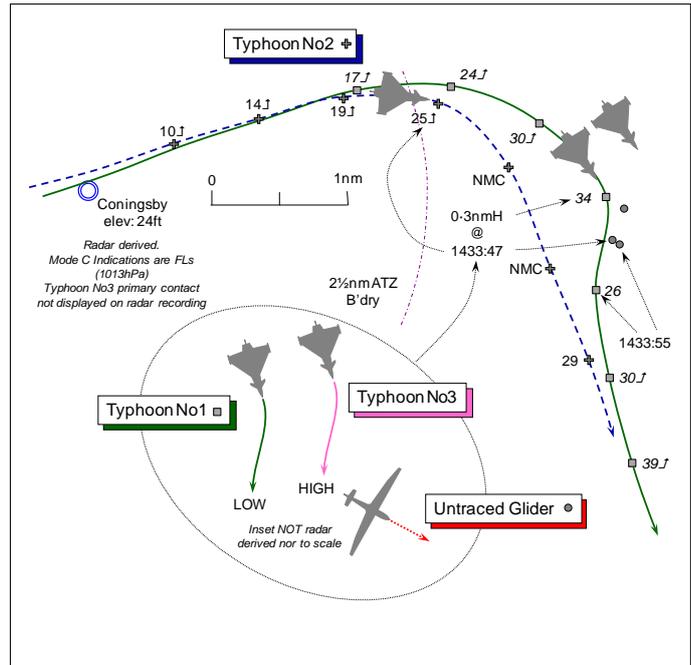
Visibility: 20km NK

Reported Separation:

<2500ft H NK

Recorded Separation:

<0.3nmH (1805ft H)



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE BAe TYPHOON FGR4 PILOT (TYPHOON NO1) reports leading a formation of three Typhoons on an escort sortie profile climbing out from Coningsby, VFR, prior to the formation splitting for GH. As they climbed out his wingman - Typhoon No2 - was 1nm in trail, with the escorted ac - Typhoon No3 - in company off the No1's port wing. They were in receipt of a BS from Coningsby DEPARTURES (DEPS) on Stud #3 and the assigned squawk was selected by Nos 1 and 2 with Mode C and S on; TCAS is not fitted. [A squawk for the No3 had been requested and assigned by DEPS but was not displayed at the time of the Airprox.]

About 3nm E of Coningsby, in a climbing R turn through 160° about 1/2nm horizontally clear of cloud with an in-flight visibility of 20km, at an unspecified altitude the pilot of Typhoon No3 observed a glider circling underneath a nearby cloud in the flightpath of the formation at a range of about 3000ft and called the formation to 'break right'. Typhoon No3 broke high and R, whilst he as Typhoon No1 broke low and R; the No2 Typhoon in 1nm trail was unaffected. The No3 Typhoon pilot had assessed that the leading element of the formation was in direct conflict with the white glider, and that immediate evasive action was required. The Risk was assessed as 'high' and an Airprox was reported to DEPS on RT.

LATCC (MIL) RADAR ANALYSIS CELL (RAC) has been unable to trace the reported glider, the identity of which remains unknown.

THE CONINGSBY DEPARTURES CONTROLLER reports he had been on watch in the DEPS position for less than 2min when he was notified that, after a formation approach to RW07RH, the Typhoon Combine (on an Escort Recovery Sortie profile) – comprising Typhoons Nos 1 & 2 escorting Typhoon No3, would depart VFR to the S climbing out to FL150.

When the Typhoon formation climbed out, he asked what form of ATS was required; the lead pilot replied initially that a TS was required followed by their intention to climb to FL150, but there then followed a revised request for a BS, which was applied, together with a climb to FL150. The lead Typhoon pilot then described how the formation would later split for GH to the S of Coningsby and requested a separate squawk for the No3 Typhoon, which was allocated. This was followed by a transmission 'break right'. The lead Typhoon pilot then passed the position of an Airprox with a

glider, about 3nm E of Coningsby at about 3500ft RPS. On looking into that area, a very small primary contact could be seen tracking N with no SSR; he estimated the minimum horizontal separation as 1nm. The formation then executed a split and continued with their sortie.

THE CONINGSBY ATC SUPERVISOR reports that when the Typhoon formation returned for QRA escort training, he briefed the APP, DIR and DEPS controllers on what the leader required and then proceeded upstairs to the VCR to ensure the ADC was fully briefed on the formation's intentions. After the formation departed the visual cct, he was informed by APP on the landline that an Airprox had occurred and the position of the glider contact. He pointed out an apparently stationary contact to the ADC and to warn any further Coningsby departures. This was the third glider in the airspace surrounding Coningsby on this day, as confirmed by the pilots of other ac; none of the glider pilots had called any of the ATC units in the area; however, all were outside the Coningsby ATZ and in this case above the Coningsby MATZ.

UKAB Note (1): Coningsby METARs:

1350UTC 34008KT 9999 FEW040 19/07 Q1027 BLU NOSIG
1450UTC 02010KT CAVOK 19/07 Q1027 BLU NOSIG

BM SAFETY POLICY & ASSURANCE reports that this Airprox occurred 4nm E of Coningsby, between a formation of 3 Typhoon ac in receipt of a BS from Coningsby DEPS and an untraced glider operating VFR.

The Typhoon's avoiding action was detected on recorded NATS area radars after 1433:47. This investigation has relied upon the DASORs of the aircrews and controllers involved and the DEP RT and landline transcript.

Immediately after the lead Typhoon pilot queried DEP at 1434:06, as to whether they were, "*aware of the glider we just passed*", the controller replied, "*negative*", whereupon the Lead Typhoon pilot reported at 1434:11, "*OK you've got a glider our position north 1 mile at 3 thousand 5 hundred feet, gliding just at the base of the cloud*". The controller reports 'looking in that area and seeing a very small primary contact...tracking north', [advising the lead pilot at 1434:24, "*..there's a small primary contact showing*".] Subsequent investigation with the unit determined that this contact was small, faint and intermittent and displayed little track movement. Moreover, the Unit has stated that the Coningsby ASR often displays small amounts of primary clutter on the surveillance display, particularly close to the AD. In this instance, the Unit determined that there was nothing to differentiate the glider's faint and intermittent contact from routine clutter. Consequently, given that the glider lacked electronic conspicuity and had not contacted the unit, APP was not able to detect the confliction and pass a warning to the Typhoon formation.

SATCO Coningsby has stated that an agreement has been reached between military ADs in Lincolnshire to advise each other of known glider activity. Moreover, when able, one of the Coningsby ADC's responsibilities is to visually scan the local area, cued by information from the Hi-Brite VRD, to visually acquire gliders. In this instance, the combination of the glider's colour scheme and the Wx conditions breached this additional safety barrier.

UKAB Note (2): This Airprox is not illustrated clearly by the LATCC (Mil) radar recording. Only the No1 and No2 Typhoons are evident on the recording as the formation departs the Coningsby visual cct eastbound. The non-squawking No3 is not evident as a primary track at all during the period of the Airprox. A single primary return is evident at 1433:47, 0.3nm ahead of the No1 Typhoon just moments before the lead pilot's avoiding action R turn and descent is apparent as the No1's Mode C reduces from 3400ft to 2600ft (1013hPa) over a period of 8sec (one sweep). The No1 passes W of the primary contact which then fades. The Airprox is then reported on the RT by the lead Typhoon pilot at 1434:06.

HQ AIR (OPS) comments that this is the second Airprox in recent months between a military ac and a glider in the vicinity of a military A/D. Gliders are notoriously difficult to see and if they wish to soar in airspace adjacent to any A/D then basic airmanship should dictate that they do all that they can to inform an ATS provider of their intention so that a warning to other airspace users can be passed; they should not rely on being observed by the on-board systems of fast-jet ac, which are not optimised to detect gliders. Equally this serves as a reminder to military aircrew that lookout must remain a top priority; it currently remains the most effective defence against Airprox with soaring ac.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the Typhoon pilot, transcripts of the relevant RT frequency, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The BM Safety Policy and Assurance Advisor briefed the Board that there was an engineering investigation being conducted into the performance of the Coningsby Watchman primary radar. However the radar was judged to be useable and the difficulty of detecting gliders is well known. The Board agreed that it would be harsh to criticise Coningsby ATC for not detecting the glider and warning the Typhoon flight. The gliding Member advised the Board that this was a busy area for gliders but staying further away from the MATZ would be good airmanship. Another experienced gliding Member noted that the absence of a report from the glider pilot made it difficult to apply appropriate balance to the investigation. It was impossible to tell whether the glider pilot had seen the Typhoons; if he had been concerned he would probably have filed a report but the absence of a report could mean either that he didn't see the Typhoons or that he was unconcerned. It was likely that if the glider pilot had heard the Typhoons he would have been alarmed and submitted a report. The incident did illustrate an important lesson: gliders routinely orbit underneath convective cloud looking for lift. Therefore powered aircraft should avoid these areas whenever possible.

The Typhoon lead pilot reported that the No3 pilot spotted the glider at an estimated range of half a mile. Aware of the difficulty of seeing white gliders, the Board considered that this was a reasonable distance for a first spot. Therefore the Board assessed the incident as a conflict resolved by the Typhoon formation in which any risk of a collision had been rapidly removed by the Typhoon pilots' manoeuvres.

The CAA Flt Ops advisor briefed the Board on work in hand in the CAA on glider visual and electronic conspicuity and RT licences and phraseology appropriate to glider operations. Success in these areas should reduce the risks of similar incidents close to military main operating bases.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict resolved by the Typhoon formation.

Degree of Risk: C.