

AIRPROX REPORT No 2010065

Date/Time: 9 Jun 2010 1039Z

Position: 5857N 00317W (12nm W
Kirkwall - elev 58ft)

Airspace: SFIR/UKDLFS (Class: G)

Reporting Ac Reported Ac

Type: EC225 Tornado

Operator: CAT Foreign Mil

Alt/FL: 1500ft 1200ft
(QNH 1017mb) (Rad Alt)

Weather: VMC CLBC VMC CLBC

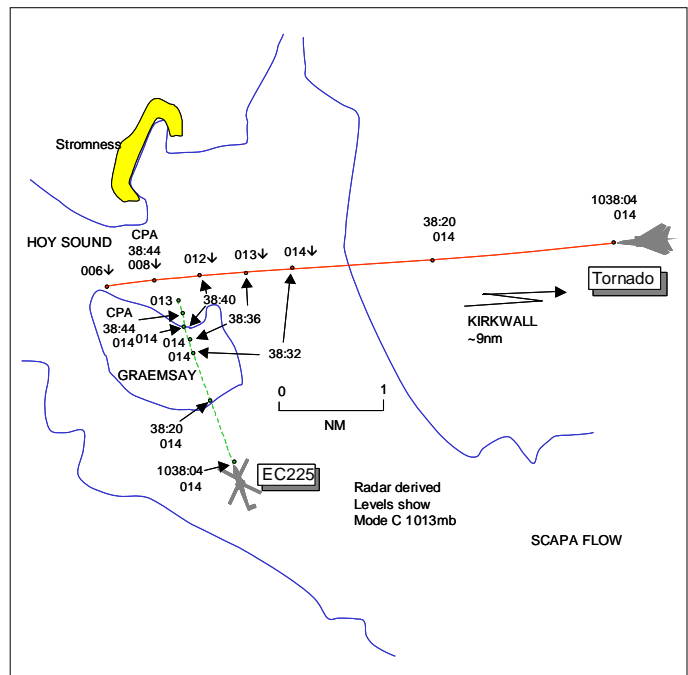
Visibility: 35km >10km

Reported Separation:

200ft V/O-25-0-5nm H 500ft V/800m H

Recorded Separation:

600ft V/O-4nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE EC225 PILOT reports flying en-route to an oil rig (about 90nm NW of Kirkwall) on a direct track from Aberdeen, VFR and in receipt of a BS from Kirkwall Approach on 118.3MHz, squawking with Modes S and C. The visibility was 35km flying 500ft below cloud in VMC and the ac was coloured red/grey with anti-collision, nav, flood and strobe lights all switched on. Approaching Stromness [12nm W of Kirkwall] heading 350° at 148kt and 1500ft QNH 1017mb, they became aware of a pop-up ACAS contact appearing 5-10nm to the E. They very quickly became visual with an ac and within a few seconds an ACAS aural TA sounded and the contact turned amber. They believed the other ac to be on a constant bearing and growing rapidly in the windscreen. The apparent speed and direction placed the other ac in their 2 o'clock on a converging course, slightly below. The PF started a deliberate action to reduce speed and allow the ac to climb. The other ac was identified as a military fast-jet, possibly a Tornado. The Tornado rolled to the L and appeared to descend passing an estimated 0.5nm ahead and approximately 400ft below. The PNF made a report to Kirkwall stating there was conflicting military traffic, however the controller had no reports of such ac in the area. The military jet pilot then called stating he was on frequency and had seen their helicopter at 1nm. They later informed Kirkwall that they would be filing an Airprox. They assessed the risk as medium.

THE TORNADO PILOT reports flying a low-level training flight in Northern Scotland with a minimum altitude of 1000ft and he was monitoring the Kirkwall frequency, 118.3MHz, squawking with Modes S and C. The visibility was >10km flying 2000ft below cloud in VMC and the ac was coloured grey with nav, obstruction and anti-collision lights all switched on. In the vicinity of Scapa Flow the heading was changed to 240° and to 1200ft Rad Alt. When steady on heading in straight and level flight at 400kt a helicopter was seen in his 11 o'clock range 1nm on a N'ly course slightly above. He descended to 700ft Rad Alt, and crossed 800m in front of the helicopter and 500ft lower. After the avoiding action a wing rock was initiated to indicate to the helicopter pilot that he had been seen and avoiding action had been taken. The helicopter pilot then reported his ac to Kirkwall so he replied on the frequency with his c/s. He assessed the risk as none.

THE KIRKWALL ADC/APP provided a report but the information given has been fully captured in the ATSI report so the controllers report has not been included for the sake of brevity.

ATSI reports that the EC225 was being provided with a BS by Kirkwall Approach. ATC is not equipped with any surveillance equipment at the unit. The pilot of the EC225 reported his flight

details to Kirkwall Tower/Approach at 1031. He was issued with the Kirkwall QNH and informed it would be a BS, with no reported traffic to affect. The pilot read back the pressure and ATC service. Some 6min later at 1039:00 the pilot reported, *“we just made visual contact with a fast moving like a Tornado in front of us and just in case you are aware of his position”*. The controller responded, *“no I had no information on that aircraft”*. After commenting about its position, a call was received from the pilot of the military traffic, *“The aircraft is on frequency Tornado is call sign XXXX we were visual with the helicopter and sorry for t- for the er close contact we saw you one mile out”*. The pilot of the EC225 responded, *“Okay thanks a lot yeah we did get you on ACAS er at the last minute but er yeah took us by surprise thanks”*.

With Kirkwall having no information about the presence of the Tornado, it is assessed that there are no ATC causal factors to the Airprox.

UKAB Note (1): The Tornado was authorised into LFA14 between 1015-1100. The LFH strongly recommends that aircrew should contact Kirkwall whilst within 15nm radius of Kirkwall airfield owing to the large number of inter-island flights.

UKAB Note (2): The radar recording clearly captures the incident. Prior to the Airprox the EC225 has remained on a generally steady NW'ly track whilst the Tornado has routed 9nm to E of the helicopter tracking 020° before turning 3nm SW of Kirkwall Airport on to a generally W'ly track. At 1038:04 the EC225 is seen 3nm S of Stromness squawking 0040 (N Sea conspicuity code) tracking 340° at FL014 (1520ft QNH 1017mb) with the Tornado in its 0230 position range 4.2nm tracking 265° squawking 3702 (Lossiemouth assigned code) indicating the same level. Both ac continue on converging tracks and by 1038:32 separation has reduced to 1.2nm. The next sweep at 1038.36 shows the Tornado descending through FL013 (1420ft QNH) in the EC225's 2 o'clock range 0.8nm. Four seconds later vertical separation has increased to 200ft whilst lateral separation has decreased to 0.5nm, the EC225 still at FL014 with the Tornado in its 1230 position at FL012. The CPA occurs on the next sweep at 1038:44, the Tornado descending through FL008 having crossed ahead of the EC225 and now in its 1130 position range 0.4nm, 600ft above at FL014. The Tornado then diverges and levels at FL006 with the EC225 in its 7 o'clock range 0.7nm which indicates FL013.

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 controllers involved and reports from the appropriate ATC authorities.

Members thought that the Tornado pilot would have been better informed if he had called Kirkwall for a service. Although he reported listening out on the frequency he was unaware of the EC225's presence, probably because there had been no exchange of RT after the EC225 flight's initial call over 6min prior to the Airprox. With both ac being in Class G airspace, each crew had equal responsibility for maintaining their separation from other traffic through see and avoid, although under the Rules of the Air the Tornado had right of way. The EC225 crew had been aware of the Tornado to the E from their TCAS equipment but became concerned when it approached rapidly on a constant bearing at the same level. Approaching the CPA the crew elected to slow down and climb before they visually acquired the Tornado as it descended before passing 0.5nm ahead and 400ft below. The Tornado crew saw the helicopter at 1nm range, slightly later than ideal but a range thought to be reasonable by a Mil fast-jet experienced Member, and had quickly descended whilst they passed 800m ahead and 500ft lower. Members agreed that the actions taken by both parties had removed the risk of collision but the Tornado crew had flown close enough to cause the EC225 crew concern.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The Tornado crew flew close enough to cause the EC225 crew concern.

Degree of Risk: C.