

AIRPROX REPORT No 2010162

Date/Time: 25 Oct 2010 1241Z

Position: 5706N 00340W
(Cairngorm Mountains)

Airspace: LFA14/Scot FIR (Class: G)

Reporting Ac Reported Ac

Type: Tornado GR4 PA28

Operator: HQ AIR (Ops) Civ Pte

Alt/FL: 500ft agl 5500ft amsl
(RPS 1014mb) (QNH)

Weather: VMC CAVOK VMC CAVOK

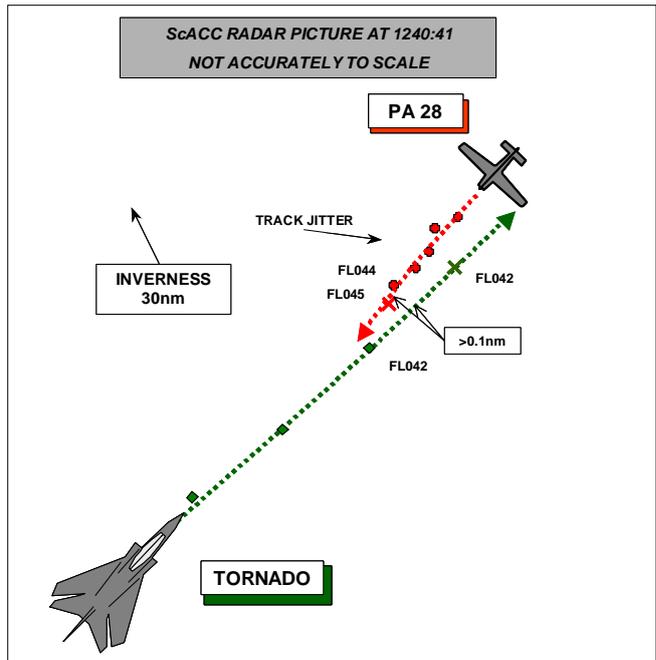
Visibility: 40km >10km

Reported Separation:

100ft V/500ft H 0ft V/600m H

Recorded Separation:

200 V/ >0.1nm H (See UKAB Note (1))



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE TORNADO PILOT reports flying a low level training flight in a grey ac with HISLs and nav lights switched on, squawking 7001 with Mode C but TCAS was not fitted. While heading 040° (out of sun) at 420kt over a flat section of the Cairngorm Mountain range and in a 10° right turn, the pilot saw a blue and white, low-winged, single-engine light aircraft, 1000yd away in their 11 o'clock, flying straight and level and coming towards them. The ac was slightly high and to the left of their flight path so he rolled wings level just before the light ac passed down the LH side and no further avoiding action was taken as he assessed that it was clear that the ac would not collide.

He considered that a factor in his late acquisition of the light ac had been that the front cockpit windscreen was dirty. The option of cleaning the windscreen in flight has been removed due to the windscreen wash bottles no longer being replenished. Although the cockpit workload was low, both crewmembers attention had initially been focused into the turn to the RH side of the ac, but due to previous training and experience the pilot then chose to look to the outside of the ac turn.

He assessed the risk as being Medium and reported the incident to Lossiemouth APP on first contact.

THE PA28 PILOT reports that he was flying a green and white ac on a private flight with a passenger on a local sortie from Inverness in receipt of a BS from them. His strobes and nav lights were switched on, he was squawking 6177 with Mode C, but TCAS was not fitted. While flying straight and level, heading 280° at 100kt, he saw a fast moving green military aircraft 800m away in his 11 o'clock, he thought in a near vertical climb, so he broke right to avoid it. He reported the incident by telephone to Inverness ATC after landing and assessed the risk as being high.

UKAB Note (1): Although the Tornado does not show on the lead-up to the CPA, for 4 sweeps including the CPA, both ac show clearly, as shown on the diagram above. The CPA however, takes place between sweeps and the horizontal separation was derived by projecting the ac positions.

HQ AIR (Ops) comments that this was another incident in Class G airspace where the fitment of TCAS to either ac would have increased the pilots situational awareness and may have allowed a greater separation distance to be achieved. It is disappointing that, having identified that he had a dirty windscreen, the GR4 pilot considered it appropriate to continue with the low flying exercise.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, radar recordings and a report from the Tornado operating authority.

Members agreed with HQ Air that, had the Tornado windscreen become so dirty during the flight that forward vision was reduced, then the ac should have been climbed out from low level and returned to base under IFR.

The Board was informed by the Secretariat that the terrain in the area of the incident is about 4000ft amsl; therefore the altitudes reported by the respective pilots are consistent. Further, it was thought most unlikely that a Tornado would have been in a 'near vertical climb' as reported by the PA28 pilot at such a low alt.

Both ac had been operating legitimately in Class G airspace where the pilots had an equal and shared responsibility to see and avoid other ac; Members assessed how the respective pilots/crew had acquitted this responsibility.

Members noted that the PA28 had been in receipt of a BS from Inverness and therefore would not routinely have been passed information on other traffic; even had he asked for a TS or DS, the Board agreed that, due to the ac location, Inverness would have been unlikely to be able to provide a radar based service. Also, Inverness is not a LARS unit. With no outside warning of its presence, the PA28 pilot saw the Tornado 800m away, effectively head on. Members considered that, although the Tornado was below the horizon from the PA28 pilot's point of view, it had not been obscured by terrain (the highest terrain in immediate area is 4085ft and the PA28 reported that he was at 5500ft i.e. well above it); Members therefore agreed that the PA28 pilot could have seen the Tornado, and initiated avoiding action, earlier.

Flying at a lower altitude, the converse applied to the Tornado i.e. the PA28 was above the skyline and also not obscured by terrain. Therefore, Members agreed that it could have been seen and avoided before it had closed to 1000yd.

Although the sightings were somewhat late, both pilots had seen the opposing ac and both had taken effective avoiding action thus ensuring that there was no risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Late sightings by the Tornado crew and the PA28 pilot.

Degree of Risk: C.