

AIRPROX REPORT No 2011111

Date/Time: 20 Aug 2011 1127Z (Saturday)

Position: 5334N 00305W
(Woodvale - elev 37ft)

Airspace: ATZ (Class: G)

Reporting Ac Reported Ac

Type: Vigilant DR400

Operator: HQ Air (Trg) NK

Alt/FL: 600ft↑ 1000ft
QFE (1014mb) QFE (NK)

Weather: VMC CLBC VMC CAVOK

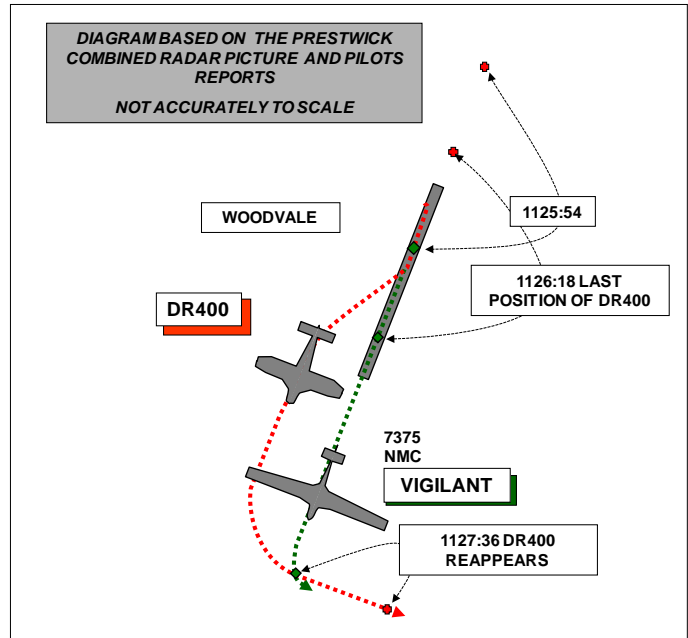
Visibility: 15km 9999km

Reported Separation:

100ft V/20m H 500ft V/0.5nm H

Recorded Separation:

NR



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

UKAB Note (1): There were irreconcilable differences in the time of this incident. All times discussed have been changed to UTC where possible. The Vigilant pilot reported the incident as taking place at 1400 and the DR400 pilot as 1230 with his flight times logged as 1235–1335. The flight times were confirmed with the pilot in a later telephone call and he confirmed that the incident had taken place towards the end of the flight. The CAA SRG Transcription Unit listened to many hours of RT tapes and the only time that there was a RT call of the DR400 (C/S) asking the Vigilant (C/S) asking if he was about to roll was at 1226:54; although the Transcription Unit believed this to be a UTC time, further investigation with the unit showed it to be BST so all the times in the ATSI report have been adjusted accordingly. The recording of the Prestwick combined system radar, commencing at 1125, shows tracks corresponding to both the Vigilant, squawking 7375, and a primary only track in the cct flying precisely the profile described by the DR400 pilot. It is thought likely therefore, that the incident occurred just after 1127UTC; at that time the non-squawking DR400 had disappeared from radar, reappearing at 1127:36 ahead of the Vigilant as shown above.

THE VIGILANT PILOT reports that he was undertaking a Gliding Scholarship pre-solo training flight with a student pilot in a white glider with Day-Glo patches, in receipt of an A/G service from Woodvale Radio on the Approach frequency and squawking 7535 [Woodvale conspicuity] but Modes C and S were not fitted. The Vigilant student called 'lining up' and proceeded onto RW21L and they then heard the DR400 pilot call 'final' (to roll). The DR400 pilot then called 'Vigilant, are you rolling' and the instructor replied 'C/S rolling ...' as student started to roll; they then took off and entered the climb heading 210° at 55kt. At about 500ft the DR400 was first seen climbing roughly parallel to them about 100m to their R and slowly overtaking. At about 600ft with the DR400 slightly ahead, it was seen to commence a L turn and the instructor considered that it would pass very close, so he took control, lowered the nose, reduced power and commenced a descent. The DR400 passed above and slightly ahead of them with an estimated 100ft V and 50ft H separation.

He assessed the risk of collision as being medium and reported the incident on landing.

THE DR400 PILOT reports that this was one of a number of flights flown with an examiner over the last few weeks as P1 under supervision regulations in order to revalidate his licence which had

lapsed while his locally-based, group-owned ac was being re-engined. During the period the same examiner/instructor had covered GH, PFLs, ccts etc.

On the day of the incident, two separate flights of one hour each were flown, again with the same examiner with particular emphasis on ccts, particularly on tightening up to conform with RAF requirements and recognising the differential in airspeeds between the Robin, Tutor and Vigilant powered gliders that regularly fly from Woodvale.

At that time three or four Vigilants were in or around the cct giving him valuable hands-on experience in a busy environment. At the time no Tutors were airborne and ATC was not operational although A/G radio from the Vigilant facility was in use.

Half way through the second flight they were downwind for RW21 and a downwind RT call was made; during that time a Vigilant was seen to enter RW21 from the hold and position for take-off. During the base leg the Vigilant was seen to remain in the same position as he made a call of 'finals for touch and go' when turning for the RW. At almost the same time the Vigilant began its take-off roll and a possible go around decision was discounted as the separation was thought to be adequate. By the time of touchdown, the Vigilant was well into its climb-out, so he set his ac for a go-around and the take-off was undertaken. As the climb-out progressed on the RW heading of 210° and at 100kt, the closing speed became obvious and he considered two courses of action. Firstly, because no radio calls had been made from the Vigilant, he thought that there may have been a basic student at the controls and a call by them might have confused the student. Secondly, it was known that some Vigilants had continued to make RH ccts on RW21 for some days after the order to change the direction to LH was issued. He therefore decided to turn 30° to the R (the dead side) while watching the Vigilant closely to ensure that it maintained its parallel track.

As the Robin's climb was continuing, the Vigilant began to descend in what looked like a practice engine failure after takeoff [EFATO]; the separation at that point was considered safe and increasing when he made a L turn, well above the other ac to rejoin a downwind position in the cct.

As they joined the downwind position, his examiner closed the throttle to simulate an engine failure and a successful crosswind landing on RW26 was made to complete flight.

On his return to GA Ops he was aware that the examiner was in a discussion with the Vigilant Instructor.

He does not consider there was any possibility at any time of an Airprox between the two ac as he had the Vigilant continuously in sight and ensured that they were well separated.

THE DR400 EXAMINER reports that he was informed 2 weeks after the flight that an Airprox had been filed and as a result he elected to visit Woodvale ATC the following day.

He confirmed he was examining the pilot for the purposes of the re-issue of the single-engine piston Land Rating qualification of the Handling Pilot (HP).

He clearly recalled the incident. On the climb out, the Robin was gaining on a Vigilant that had departed earlier from the same RW so the HP turned approx 40° to the R and the dead side. On passing 800ft (cct height) they made a L turn to parallel its track. The Examiner asked the HP if the Vigilant was in sight to which he replied 'Yes, he's below on my left and descending'.

No radio calls were received for EFATO or avoiding action which seems to be the norm at Woodvale as Vigilants seem only to communicate with their 'ground wireless' and not with other ac, nor is there acknowledgement of requests for 'radio checks'.

The pilot under test levelled at 1000ft QFE and he (the examiner) commented that the Vigilant was probably on a 'fan stop'. When he asked 'do you still have him in sight' the reply was 'Yes, I intend to

pass behind on a left hand turn'. As they passed the examiner observed the Vigilant to his R and well below.

He made the following observations:

Point 1. If the Vigilant took avoiding action at 600ft by descending and they were at or about 1000ft, there must have been at least 400ft separation.

Point 2. The HP turned L to parallel track and the Vigilant instructor might have misconstrued this to be a turn towards them.

Point 3. In his opinion, complete lack of communication had lead to this incident. If there is ever a potential risk of conflict, a radio call is often a good means of resolving the situation.

Point 4, As a result of the ensuing meeting with ATC and OC flying at Woodvale, it was suggested that a third ac (Vigilant) may have been unnoticed and behind them which would corroborate the claim that they were above and in front of another ac posing a possible conflict. His response to that theory 'where did it come from?' and if it was behind them, then the DR400 had the right of way. In any case there is no evidence of any other ac in that part of the cct at that time.

At no time did he feel it necessary to take control of the ac, as he would be obligated to do if safety was jeopardised. Further, he was satisfied with the performance of the HP on that flight and on the previous flight testing, awarding him a pass and re-issue of his Rating.

ATSI reports that at the time of the Airprox the ATS Unit was closed and an A/G Service was being provided by the gliding facility, albeit generally blind transmissions were being made, particularly in the cct.

The DR400 departed for LH ccts on RW21 at 1038. The aircraft was still carrying out circuits at 1113, when the Vigilant reported taxiing to RW21. The DR400 then made four more touch-and-go approaches before reporting, at 1125, downwind 21 LH. During this message there was a part simultaneous transmission but the DR400's call was clearly readable on the recording. The DR400 pilot stated, in his report that, at the time, he saw the Vigilant entering RW21 for departure. No lining up transmission by the Vigilant was evident on the recording of the frequency. The DR400 reported on final approach RW21 for a touch and go at 1126:31, 22sec later the DR400 pilot asked the Vigilant pilot if he was rolling and he replied "*Rolling now thanks*". [See UKAB Note (1) regarding timings].

No further comments were made on the frequency about any conflict between the two ac.

UKAB Note (2): At the time of the incident the recorded wind at Liverpool (16nm to the S) was 220° at 12kt. After the Vigilant gets airborne its radar derived groundspeed (GS) increases to 60kt but over a 1 minute period from 1127:02 it reduces to an average of 30kt before increasing again to 50kt at 1127:49. A primary return corresponding to the DR400 reappears ½nm away in the Vigilant's 3 o'clock just before the Vigilant turns crosswind behind it. Although not called on the RT or mentioned in the Vigilant pilot's report, its flight profile (although it could not be confirmed by Mode C information) would correspond with that of an EFATO drill.

UKAB Note (3): Woodvale has an 2nm radius ATZ that is active Tue – Sun 0800 – 1800.

Note (1): May close earlier – status from local ATC units. That being the case the ATZ was active.

HQ AIR (TRG) comments that RT practices differ between airfields and there is no common standard. It falls to each airfield operator to set and enforce RT standards amongst its airfield users. In spite of the RT inconsistencies raised in this report, both parties report being fully aware of the

other's position, which is reassuring. However, the reason for the differing perceptions of proximity needs to be determined in order to assess the actual 'risk'.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, recordings of the relevant RT frequency, radar recordings and reports from the appropriate ATC and operating authorities.

Members were perplexed by the timing issues but were content that the geometry of incident was as portrayed in the diagram above and the actual time was not particularly significant. A GA Member informed the Board that integrating traffic flying at significantly differing speeds in the visual circuit can be challenging for pilots. The basic rules however, still apply and following ac must conform to the pattern being flown by those ahead regardless of the size. If they cannot conform safely, they should go-around or leave the circuit and rejoin in a more suitable position.

Members noted that Woodvale ATC was closed and that the gliders and DR400 were operating under local radio procedures that had been devised to suit the nature of cadet glider operations. It was pointed out that these are not the same as those used in a civilian A/G service; not all of the usual position reports expected by the DR400 Examiner were being made and both the DR400 pilots' SA might have been less than comprehensive. Further, since he was in the RH seat, his view of the Vigilant to his left and below would probably have been obscured but the HP would have been able to see it; the Board agreed therefore the some of his report was based on what he was told rather than what he saw. Members agreed that despite the limited RT, the DR400 pilot seemed to be broadly aware of the position and intentions of the Vigilant as his limited information permitted and he had allowed for any possible manoeuvring by the ac. Further, he was aware that the ac was most likely being flown by an inexperienced cadet pilot and again he had allowed for that. Notwithstanding these factors the Vigilant Instructor had been concerned by the proximity of the DR400 as it overtook and he was not aware of what the ac was doing; one Member opined that a simple RT call from either pilot might have alleviated that concern or removed it entirely.

Although there was much discussion, Members were not able to resolve positively the significant differences in the separation reported by the two pilots; they agreed however that since there was little doubt that the separation was determined by the DR400 pilot who had a better picture as he climbed from below and behind to overtake he was better placed to make a reasonable estimate. Nevertheless the Board considered that the DR400 pilot may have underestimated the rate of climb of the Vigilant and the time it would take for him to cross ahead of it. Certainly the separation had been close enough to cause the Vigilant Instructor concern although there had been no risk of collision as the DR400 pilot had the former visual throughout and had not turned across its path until he considered that separation was adequate and the Vigilant instructor was alert to the DR400's manoeuvre.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The DR400 pilot flew close enough to cause the Vigilant instructor concern.

Degree of Risk: C.