

## **AIRPROX REPORT No 2010078**

Date/Time: 27 Jun 2010 1342Z (Sunday)

Position: 5137N 00404W (1nm N  
Swansea - elev 299ft)

Airspace: ATZ (Class: G)

Reporting Ac Reported Ac

Type: Vigilant PA28

Operator: HQ AIR (Trg) Civ Club

Alt/FL: 1000ft ↑  
(QFE 1009mb) (QNH)

Weather: VMC CLBC VMC NR

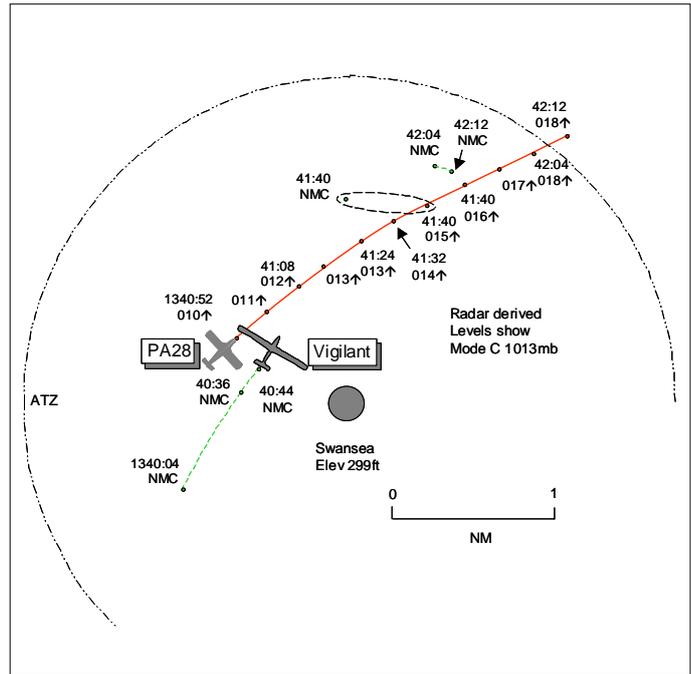
Visibility: 20km >10km

Reported Separation:

100ft V/10m H NR

Recorded Separation:

100ft V/<0.1nm H



### **PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE VIGILANT PILOT** reports flying a local sortie from Swansea VFR and in receipt of an A/G service from Swansea on 119.7MHz squawking 7000 with Mode C, he thought. The visibility was 20km flying 1000ft below cloud in VMC and the ac was coloured white with day-glo wing panels and HISLs were switched on. He was a Grade 1 pilot conducting a Gliding Induction sortie to the SW of Swansea before he recovered to the cct for RW22 RH cct by joining downwind and making the call "downwind full stop" at the appropriate position. Approaching the mid-point downwind heading 050° at 60kt and 1000ft QFE 1009mb he saw a PA28 which had just taken off make a sharp R turn placing the ac behind and below him. This was observed by the A/G operator who advised the PA28 pilot about the position of his Vigilant; the PA28 pilot confirmed he was visual with the Vigilant. The PA28 passed from R to L behind and then climbed on a parallel course to his W before it made a sharp R turn and flew across and above his ac, estimating it passed within 100ft vertically from the rear LH side of his ac. The PA28 made no course corrections at any time prior to or during this incident which he reported to the A/G operator. The PA28 continued in a NE'ly direction crossing the extended FAT for RW22. He assessed the risk as medium.

**THE PA28 PILOT** reports flying with another pilot and a passenger and departing Swansea for Shobden VFR and in receipt of a BS, he thought, from Swansea on 119.7MHz, squawking with Modes S and C. The visibility was >10km in VMC and the ac was coloured white/blue; no lighting was mentioned. Having completed his power checks at holding point A [mid point of RW] he was 'cleared' to enter and backtrack RW22 whilst an Autogyro flight behind him called ready for departure from the intersection and subsequently took-off before him. Parachuting was taking place to the S of the field and there was plenty of other traffic. He was cleared for take-off RW22 at his own discretion and at 500ft he turned R and continued to climb. As his heading for Shobden was 048° he turned towards downwind but initially onto 020°, to widen his cct outside that of the Vigilant, before turning onto to 040° at 80kt. He caught up a Motorglider [the subject Vigilant], which had joined downwind to land RW22 and continued to climb through cct height. His co-pilot maintained sight of the Vigilant whilst he concentrated on his lookout ahead. He was advised of other traffic and had 3 ac in sight; the second was another Motorglider late downwind and a third was on final. After he departed the zone to the NE he also saw another ac crossing from R to L, which he avoided by climbing above it. He was contacted by Swansea at Shobden and was told that both ATC and the pilot of a military trainer, presumably one of the Motorgliders, had filed an Airprox. He was unsure which of the ac he saw was flown by the reporting pilot.

**THE PA28 CO-PILOT** reports that whilst climbing and turning R, having flown clear of the Autogyro, onto a heading parallel to the RW he saw a Motorglider downwind ahead, to the R and above. They continued climbing and remained on heading passing well clear and to the L of the Motorglider, which by this time was abeam the RW22 threshold. He was visual continuously with this ac and with another Motorglider well ahead in the cct, which was by then on final. He recalled that both of these ac were practising ccts. He thought no more of what was to him, an unremarkable situation. When the ac was established at 2000ft just outside the zone he saw an ac approaching from their R so he warned the pilot and they avoided by climbing above it. He was not sure which of the ac was flown by the reporting pilot but if it was the Motorglider downwind he thought its pilot might not have been aware of their PA28 turning downwind and climbing behind them until they passed above and to their L. He had seen all four ac throughout and had made appropriate information comments to the pilot to aid his decision-making.

**THE SWANSEA AIR GROUND OPERATOR** reports the PA28 departed RW22 initially following a RH cct pattern. He asked the pilot if he was visual with a Vigilant downwind and he replied that he was. The PA28 continued the climb on the downwind leg and passed over the top and L to R of the Vigilant within close proximity before departing the cct to the NE through the RW22 approach without making radio calls as to his intentions. The subject Vigilant pilot reported that the PA28 had just passed O/H within 100ft and that appropriate reporting action would be taken.

Unofficial Wx observation for Swansea was surface wind 240° 12KT 8Km SCT020 OAT 20°.

**ATSI** reports that Swansea Airport provides an Air/Ground Communications Service (AGCS), callsign Swansea Radio. CAP452 describes an AGCS. Of particular importance: 'Personnel providing an AGCS shall ensure that they do not pass a message which could be construed to be either an air traffic control instruction or an instruction issued by Flight Information Service Officers (FISOs) for specific situations'.

An ATZ (Class G) is notified in the UK AIP for Swansea. Its dimensions are a circle radius 2nm centred on longest notified runway (04/22). The vertical limits are surface to 2000ft aal (aerodrome elevation 299ft).

When the PA28 flight requested to taxi for departure on its flight to Shobdon, the pilot was informed the runway in use was 22, RH cct, and was passed the QNH, which was all read back correctly. When the ac reached holding point Alpha, the pilot reported ready for departure and requested to backtrack the RW. It was suggested that he should hold position due to traffic on base leg, shortly turning final.

[UKAB Note (1): The RT transcript timings do not correlate with the recorded radar, the RT timing is approximately 1 min ahead of the radar timing.]

Shortly afterwards, at 1334:44, the Vigilant reported at 2700ft, at Oxwich Bay (approximately 4nm SW of the airport), for rejoin. The pilot was advised of the RW and circuit direction and issued with the QFE. He reported, "...we're coming downwind for Two Two".

Once the ac in the circuit was clear of the RW, the pilot of the PA28 was advised there was no known traffic to affect his backtrack. Thereafter, after a departing Autogyro had cleared the departure path, which the pilot of the PA28 had previously reported visual with, he was informed, at 1338:13, "...no known traffic to affect your departure". The PA28 pilot reported departing. Shortly afterwards 2 ac reported RH downwind i.e. a light ac late downwind, followed by another Vigilant, who reported visual with the traffic ahead. At 1339:32, the subject Vigilant reported downwind for Two Two full stop, which was acknowledged.

The AGCS operator, noticing that the PA28 was turning R towards the downwind position, asked the pilot "...are you visual with the traffic err in just in front of you and right hand side". This message referred to the subject Vigilant. The PA28 pilot reported "...we have the traffic in sight". Less than one minute later at 1340:30, the pilot of the Vigilant commented, "I had an aircraft just go right above me erm on late downwind". He estimated the distance from his ac as less than a hundred feet. The

AGCS operator later confirmed that he thought that this was consistent with what he had observed. The view from the control room to the RW22 RH cct is unobstructed. It appeared to him that the PA28 passed behind the subject Vigilant and then turned R to pass O/H it in the late downwind position. In view of the very basic service provided by an AGCS, the operator did well to try and establish whether the PA28 was visual with the subject Vigilant downwind.

**HQ AIR (TRG)** comments that the departure profile flown by the PA28 pilot appeared non-standard to the Vigilant pilot and resulted in the A/G operator advising the PA28 pilot of the Vigilant traffic. The separation distance throughout this incident was controlled by the PA28 pilot and as he had the Vigilant in sight throughout there was little risk that a collision.

UKAB Note (2): The recorded radar does not capture the CPA as the Vigilant fades from radar whilst the PA28 passes the Motorglider in the downwind leg. The radar recording at 1340:04 shows a 7000 squawk NMC, believed to be the subject Vigilant, 1.1nm SW of Swansea tracking 040° before it fades after the sweep at 1340:44 when the ac is 0.6nm WNW of Swansea downwind RH for RW22. On the next sweep at 1340:52 the PA28 is first seen 0.2nm NW of the last radar point of the Vigilant, the PA28 indicating FL010 (1180ft QNH 1019mb or 880ft QFE 1009mb). The PA28 tracks generally NE'y and reaches FL013 (1180ft QFE 1009mb) at 1341:24. A single SSR only response is seen at 1341:40, believed to be from the Vigilant, 1.2nm N of Swansea with the PA28 0.5nm to its E climbing through FL015 (1380ft QFE). Thereafter the PA28 tracks 065° and is about to leave the ATZ at 1342:04 climbing through FL018 (1680ft QFE) 1.9nm NE of Swansea. At the same time the Vigilant reappears 0.6nm to its W tracking 120° on base leg RW22.

## **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/Ground operator involved and reports from the appropriate ATC authorities.

The Board discussed whether it would have been possible for either of the pilots on board the PA28 to have maintained continuous visual contact with the Vigilant during their 'climb-through' on the downwind leg. The radar recording indicates that at some point the Vigilant would have probably disappeared under the PA28 as they apparently crossed over it tracking NE'y, the Mode C data indicating the ac was climbing through cct height just to the NW of the aerodrome. That said, the majority of the Members accepted the PA28 pilots' perspective, believing that although the ac passed closer than ideal - a wider margin would have been better - the PA28 pilot had been content with the chosen separation distance. However this close passage had caused concern to the Vigilant pilot prompting him to file an Airprox report. Notwithstanding the 'miss distance' reported by the Vigilant pilot and A/G operator, the Board believed that, on the balance of probability, the visual contact maintained by the pilots on board the PA28 effectively removed any risk of collision.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: The PA28 pilot flew close enough to cause the Vigilant pilot concern.

Degree of Risk: C.