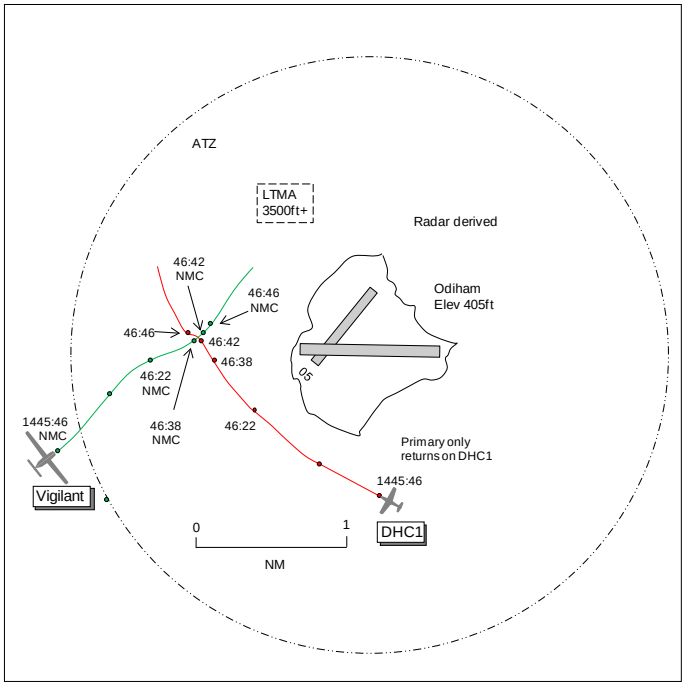
AIRPROX REPORT No 2011046

Date/Time:	21 May 2011 1447Z (Saturday)	
Position:	5114N 00058W (1nm W Odiham - elev 405ft)	
Airspace:	ATZ	(*Class: G*)
	Reporting Ac	*Reported Ac*
Type:	Vigilant	DHC1
Operator:	HQ Air (Trg)	Civ Club
Alt/FL:	750ft (QFE 1003mb)	1000ft (QFE 1004mb)
Weather:	VMC CLBC	VMC CLBC
Visibility:	30km	10km
Reported Separation:		
	20ft V/100m H	NR
Recorded Separation:		
	<0·1nm	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE VIGILANT PILOT reports flying dual training sortie from Odiham VFR and in communication with Odiham Radio on 122·1MHz, squawking 3647 with NMC. The visibility was 30km flying 2000ft below cloud in VMC and the ac was coloured white/dayglo orange with HISLs and landing light switched on. He was a 'B' Category instructor tasked to complete a Gliding Induction Course (GIC) with a Trainee Cadet. The RW in use was RW23 with a RH cct. The RAF Gliding and Soaring Association (RAFGSA), using conventional gliders, were operating from the grass with a LH cct. The RAFGSA DHC1 was using the RW for aerotow operations, departing in the LH cct and rejoining to land from a RH cct. On completion of the GIC exercise a downwind rejoin was planned. He approached Odiham from the NW abeam Old Basing town where a 2min to rejoin call was made to Odiham Radio before he then joined the Vigilant cct through an extended downwind. He was slightly upwind of the normal downwind radio call position heading 050° at 60kt at 750ft QFE 1003mb, owing to thermic conditions, when he then heard another ac's pilot transmit "downwind to land". He was not visual at the time and he immediately made a transmission of "downwind not visual one ahead" for better SA of the other ac. He completed a lookout scan and a red and white coloured DHC1 appeared from below and behind the starboard wing approximately in his 3 o'clock range 100m and 100ft below. The DHC1 had a tow rope attached and was seen to be manoeuvring sharply L to avoid his ac by passing behind. Both he and DHC1 then completed the cct and landed in turn. He assessed the risk as medium.

THE DHC1 PILOT reports flying a local sortie from Odiham, VFR and in communication with Odiham Radio on 122·1MHz; no transponder was fitted. The visibility was >10km flying 2000ft below cloud in VMC and the ac was coloured red/black with nav and strobe lights switched on. Having completed a tug release detail he rejoined the powered cct for RW23 RH cct from the deadside onto the crosswind leg from the upwind end of the RW, as per SOPs. As is normal, whilst complying with the ANO Rule 12, he used the time on the deadside to identify other traffic and conform to the current cct pattern. Before entering crosswind he identified all cct traffic including the reporting Vigilant flight, never losing sight of it. The Vigilant was observed to be on what appeared to be a very wide downwind leg in the process of correcting course to reach the normal downwind position at the start of the upwind end of the RW, not on a reciprocal RW track but tracking nose-in towards the RW. When he levelled his ac to enter crosswind he could see the Vigilant still some way off flying level upwind of the RW slightly L of his ac's nose but at least 100ft below his level. As he had the ac fully

in sight before he entered crosswind there was never any risk of collision. His track and position was entirely consistent with entering the crosswind for joining the cct, as illustrated in CAP413, namely across the upwind end of the RW, tight in and perpendicular to it. He progressed along the crosswind leg at 1000ft QFE at 80kt, adhering to the CAP413 guidance to 'Watch for existing circuit traffic and adjust your flightpath to sequence safely' whilst keeping the reporting ac in sight. He had to judge whether such an ac that is on the downwind leg but not yet abeam the upwind end of the RW is sufficiently far upwind that he could sequence safely by turning downwind well ahead of it from his crosswind leg or whether such a manoeuvre would cause a conflict in which case it would be normal and safe to give way and fit in behind the ac and enter downwind behind it. This latter case was exactly what he did by altering course behind the reporting ac. He believed that there was no Airprox and that as he was watching the other ac at all times from before entering the live side of the cct and was taking sensible actions to ensure separation, there was no risk of collision. He went on to say that because the reporting ac was on the downwind leg but in the process of establishing a more normal distance from the RW by the upwind end, both ac were not at the usual 90° closing angle. This he believed would have given the other pilot an illusion that there was something odd when he altered course to widen his crosswind leg further upwind to position behind the other ac.

UKAB Note(1): The UK Mil AIP at ENR AD 2-EGVO-17 Para 2.17 promulgates the Odiham ATZ as a circle 2nm radius centred on mid-point RW09/27 N511402.90 W0005634.17 from SFC to 2000ft aal; aerodrome elevation 405ft. Para 2.23 Additional Information Para 1 states 'Glider flying during daylight hours (outside ATC Ops hrs contact Odiham Radio or Kestrel Base on 122·1MHz). Special Procedures Para 3 states 'Rwy 05/23. Use restricted to ground and hover manoeuvres by Odiham hel and light ac only.'

UKAB Note (2): Odiham ATC was closed at the time of the Airprox. Frequency 122·1MHz was not recorded.

HQ AIR (TRG) comments that despite the DHC1 pilot's comprehensive report, there is no mention of an initial joining report call iaw CAP413. This would have aided the Vigilant pilot's awareness of other joining traffic. However, without a transcript it is not possible to say that one was not made. Joining a cct at an uncontrolled airfield requires sound lookout and self positioning of traffic and is complicated when ac join unannounced from different directions. The Vigilants are confined to the cct side because of conventional gliders operating on what would otherwise be the 'deadside'. As such, they cannot fly overhead joins and will join the downwind leg either from upwind or at 90 degrees. It is disappointing to note that the DHC1 pilot, with the Vigilant in sight, whilst reportedly trying to assess whether to fit in ahead or behind the Vigilant, continued to a point where separation was reduced to a degree that alarmed the Vigilant pilot. An early turn to position ahead or behind the other joining ac would have avoided the situation. Whilst the DHC1 pilot called 'downwind' he never was according to the Vigilant pilot's report and the radar trace, and the call was therefore contrary to CAP413, being neither on the downwind leg or abeam the upwind threshold. The call did, however, alert the Vigilant pilot to his presence, albeit rather later than necessary. It is unclear which ac, if either, was technically established in the cct at the point the Airprox was called. This incident is probably a conflict between 2 ac joining the visual cct on differing profiles, not aided by incomplete comms. Air Cmd are engaging with RAF Odiham to ensure that cct procedures between Vigilant and Gliding Club ac are robust and to ensure that Club ac conform to the standard RT procedures in the cct.

UKAB Note (3): The Heathrow radar recording at 1445:46 shows the Vigilant 2·2nm WSW of Odiham tracking 050° squawking 3647 NMC. At the same time a primary only return is seen, believed to be the DHC1, 0·9nm S of Odiham tracking 305°. The Vigilant then enters the ATZ on a steady track with the DHC1 converging from its 2 o'clock position. At 1446:22 the Vigilant is seen to have turned R approximately 20° whilst the DHC1 converges from its 0130 position range 0·75nm whilst crossing the extended C/L RW 05/23 onto a crosswind leg. Sixteen seconds later, 1446:38, the Vigilant is seen to have turned L onto a downwind track and is about to pass through the DHC1's 12 o'clock range 0·2nm. The next sweep at 1446:42 shows the DHC1 passing <0·1nm behind the Vigilant and turning sharply L before regaining a NW'ly track.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, radar video recordings and reports from the appropriate operating authorities.

The HQ AIR Trg Member informed the Board that the Flying Order Book did not include details of the glider-tug operations, hence the dialogue between HQ AIR and Odiham. An experienced GA/Gliding Member commented that at any airfield where non-standard ccts are flown, the documentation/orders/instructions should make it clear exactly how ac are segregated or how pilots are expected to integrate. Tug ac pilots are renowned for executing tight ccts on recovery as their overall goal is to climb to 2000ft to drop off a glider and then descend to land as quickly as possible in order to collect the next glider. At other gliding sites tug operations are normally carried out on the same side as the gliders with other traffic flying ccts on the opposite side of the airfield. Although the primary means of integrating into the cct is visually, RT calls by pilots improves the SA of other pilots on frequency, hence the need for timely and accurate position reports. In this Airprox, both flights were returning to join the cct, the Vigilant flight joining downwind and the DHC1 crosswind. Without an RT transcript it was unclear what transmissions were made by either pilot; however, it was clear the Vigilant pilot was unaware of the DHC1's presence until a very late stage. His first knowledge of the DHC1 was when its pilot called downwind and, as he was unable to see it, he broadcast his own downwind position. He then visually acquired the DHC1 in his 3 o'clock range 100m and 100ft below when it was apparently still crosswind and about to turn downwind. The DHC1 then turned L and manoeuvred behind his ac. Meanwhile the DHC1 pilot had visually acquired the Vigilant during his rejoin and had continued with his intended cct pattern whilst monitoring the Vigilant's progress. It appeared to Members that the DHC1 pilot had 'pressed on' with his chosen flightpath leaving it until the last minute before manoeuvring his ac to avoid the Vigilant which was effectively in the piece of airspace that he had intended to use. Members agreed that the DHC1 pilot should have altered his flightpath earlier and that he had flown unreasonably close to the Vigilant causing its pilot concern. Although the visual sighting and actions taken by the DHC1 pilot were enough to remove the actual collision risk, the Board concluded that the ac had passed with margins reduced to such an extent that safety had been compromised during this encounter.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The DHC1 pilot flew unreasonably close to the Vigilant, causing its pilot concern.

Degree of Risk: B.