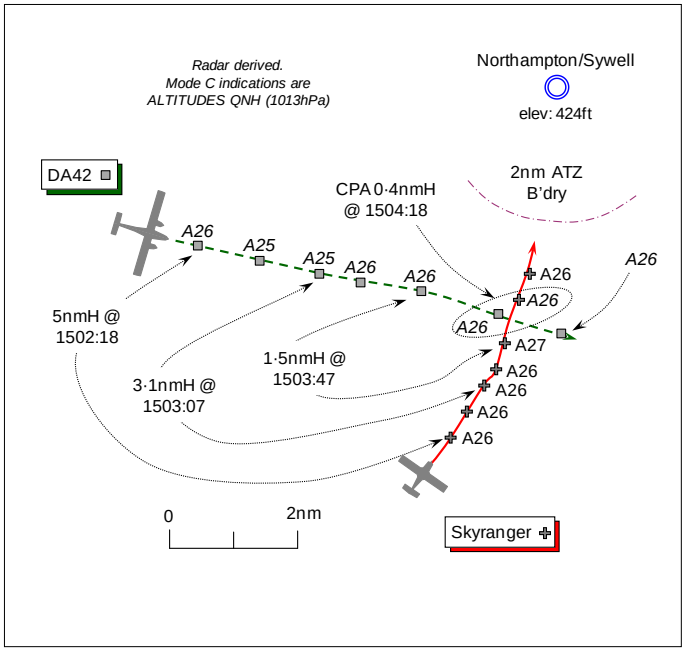
AIRPROX REPORT No 2012129

Date/Time: 23 Aug 2012 1504Z

Position: 5215N 00049W (3·6nm S of Sywell - elev 424ft)

Airspace: London FIR (*Class: G*)

	Reporting Ac	*Reported Ac*
Type:	Diamond DA42	SkyRanger ML
Operator:	Civ Trg	Civ Pte
Alt/FL:	2600ft QNH (1013hPa)	2600ft↓ NK
Weather:	VMC CLBC	VMC CAVOK
Visibility:	10km	>10km
Reported Separation:	Nil V/500m H	Not Seen
Recorded Separation:	Nil V/0·4nm H	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE DIAMOND DA42 PILOT reports he was instructing a cross country VFR navigation exercise routeing from Coventry Airport to Tempsford disused A/D near St Neots at 135kt, before turning for Leicester A/D. They were flying in VMC some 1400ft below and 2000m horizontally clear of cloud with an in-flight visibility of 10km+ whilst in receipt of a BS from Coventry RADAR on 123·825MHz. SSR was selected on [A0260, an unvalidated and unverified Coventry conspicuity code] with Mode C; Mode S elementary surveillance and TCAS I are fitted.

Heading 105° approaching a position 4nm S of Sywell A/D in a level cruise at 2600ft QNH (1013hPa), he became visual with a red/white-coloured high-wing ac – the SkyRanger – about 1000m away converging in the 'classic' 2o'clock position and with no apparent relative movement in the canopy. Just as he pointed the SkyRanger out to his student PF, TCAS enunciated a TA and the student acquired it visually. Commenting to his student 'you need to take avoiding action', he expected his student to turn R to pass behind the SkyRanger , but his student took no action; by the time this was realised it was too late and the SkyRanger crossed ahead from R – L some 500m away at the same altitude with a 'medium' Risk of collision. An Airprox was reported to Coventry RADAR on RT. He thoroughly debriefed traffic separation following the flight. His ac is white in colour and the HISLs and nav lights were on.

THE SKYRANGER MICROLIGHT (ML) PILOT reports he was positioning for a standard O/H join at Sywell and in communication with TOWER, he thought, but actually SYWELL INFORMATION, on 122·700MHz. A squawk of A7000 was selected with Mode C; elementary surveillance Mode S is fitted.

Flying VFR in CAVOK at 60kt, heading 360°, at the time of the reported incident approaching the Sywell ATZ boundary from the S, he was descending he thought [Mode C shows the ac flying level] through 2600ft [altimeter setting unspecified] and he is sorry to report that he has no recollection of seeing the ac flown by the reporting pilot. He would like to think he might have seen the DA42 and considered it to present no risk; however, this is by no means certain.

His aeroplane is coloured red/white and the HISLs were on. He also noted that his recently fitted Mode S Transponder had been very useful in announcing his ac's position to the reporting ac's TCAS and might have averted a potential worse situation.

ATSI reports that the Airprox was reported in Class G uncontrolled airspace, 4nm S of Sywell A/D between a Diamond Twin Star DA42 and a Banks PA SkyRanger.

The DA42 was operating VFR on a flight from Coventry to Leicester and prior to the Airprox had been in receipt of a BS from Coventry RADAR on frequency 123·825MHz.

The SkyRanger was operating VFR on a flight from Finmere to Sywell A/D and was in contact with Sywell Information on frequency 122·7MHz, which is unrecorded.

The Coventry METARs

1450Z 26006KT 230V290 9999 FEW024 SCT037 19/12 Q1012=
1520Z 26007KT 230V290 9999 FEW024 SCT037 19/12 Q1012=

At 1501:18 the SkyRanger was 7·1nm SSW of Sywell on a NE'ly track indicating 2700ft altitude. The DA42 was 7·5nm NW of the SkyRanger , tracking E'ly, indicating 2600ft altitude and displaying a Coventry conspicuity squawk of A0260.

At 1503:40 the distance between the two ac had reduced to 1·9nm. The pilot of the DA42 requested a frequency change to Cranfield on frequency 122·850MHz. The Coventry RADAR controller instructed the pilot of the DA42 to squawk A7000 and to freecall Cranfield.

Between 1503:40 and 1504:26 the distance between the two ac continued to erode – the minimum distance between them was 0·4nm at the same altitude at 1504:18, just before the DA42 passed behind the SkyRanger.

At 1504:40 the pilot of the DA42 contacted Cranfield APPROACH.

The report from the pilot of the DA42 stated that the instructor saw the SkyRanger in the 2 o'clock position, converging. As the instructor was pointing this out to the student the TCAS gave a traffic advisory and the student acquired the SkyRanger visually. The instructor expected the student to turn right to avoid the SkyRanger and pass behind but the student took no action.

The report from the pilot of the SkyRanger stated that he had no recollection of seeing the DA42 although the pilot considered that it was possible that he saw the DA42 and considered it to be no risk.

The Airprox occurred in Class G airspace where the principles of see and avoid apply. The instructor and the student in the DA42 had sight of the SkyRanger before the Airprox occurred.

The DA42 had been in receipt of a BS from Coventry RADAR prior to the Airprox. Under a BS there is no requirement to monitor the flight and pilots should not expect TI to be provided.

At the time of the Airprox the DA42 crew was not in contact with an Air Traffic Service Unit.

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.

The Airprox occurred in Class G airspace where the pilots in both aircraft had a duty to see and avoid other traffic. For their part, the crew of the DA42 had a responsibility to give way to the SkyRanger on their right. The DA42 instructor recognised this responsibility and told his student to take avoiding action but the student did not comply. Members recognised that instructors must allow students time to respond and expect them to make mistakes; in this instance it seemed likely that the instructor might have waited too long for the student to react. The Board noted that the DA42 crew were in the process of switching from Coventry RADAR to Cranfield APPROACH. Although the crew had been in receipt of a BS from Coventry APPROACH, a controller Member was concerned that they had not been issued a warning by Coventry before they were told to squawk 7000 and free call Cranfield. Nevertheless, the DA42 instructor spotted the SkyRanger at an estimated range of 1km in his 2 o'clock before his TCAS warned off with a TA. For his part, the SkyRanger pilot does not recall seeing the DA42 and Members speculated that his lookout may have been distracted by his preparation for joining the Sywell circuit. Notwithstanding that the DA42 instructor had spotted the SkyRanger before his TCAS generated a TA, Members agreed with the SkyRanger pilot's remarks about the utility and value of the Mode S transponder. In assessing the Cause, Members considered that a late sighting by the DA42 crew and a non-sighting by the SkyRanger pilot might be justified. However, given the difficulty of spotting aircraft when there is little relative motion on a near collision course, the Board decided that the sighting at 1km was reasonable and the Cause was that the DA42 crew did not manoeuvre on sighting the SkyRanger.

In assessing the Risk, Members were satisfied that had the miss distance been less than the 0·4nm shown on recorded radar, the DA42 instructor would have been able to take control from his student and ensure there was no collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The DA42 crew did not manoeuvre upon sighting the SkyRanger.

Degree of Risk: C.