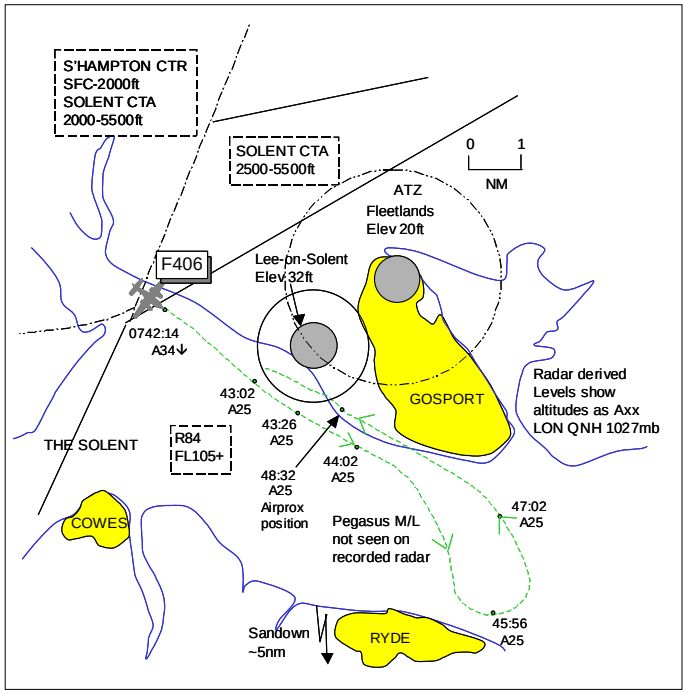
AIRPROX REPORT No 2010118

Date/Time:	31 Aug 2010 0749Z	
Position:	5048N 00112W (1nm SE Lee-on-Solent - elev 32ft)	
Airspace:	LFIR	(*Class: G*)
	Reporting Ac	*Reporting Ac*
Type:	F406	Pegasus Flexwing M/L
Operator:	Civ Comm	Civ Pte
Alt/FL:	2400ft (QNH 1027mb)	2400ft (QNH)
Weather:	VMC CAVOK	VMC HAZE
Visibility:	10km	>10km
Reported Separation:	Nil V/100m H	Nil V/100m H
Recorded Separation:	NR	



BOTH PILOTS FILED

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE F406 PILOT reports carrying out a photographic survey flight and in receipt of a limited TS from Solent Radar on 120·225MHz, squawking 3660 with Modes S and C. The visibility was 10km in CAVOK VMC and the ac was coloured purple/white with nav and strobe lights switched on. After completing runs at FL70 to the NW of Southampton, he descended to altitude 2400ft towards Gosport and flew the first line to the SE before carrying out a teardrop to re-establish on a NW'ly line (300°). He heard a M/Light flight contact Solent Radar reporting airborne from Sandown, crossing the Solent N'bound at 2200ft, he thought. He looked for the M/Light, aware of the potential conflict, although the M/Light pilot had reported at 2200ft and he was flying level 200ft above. Heading 300° at 135kt and 2400ft QNH he continued the survey run whilst looking for the M/Light traffic. When close to Lee-on-Solent he caught sight of the M/Light in his 9 o'clock range 500m at the same level on a converging heading so he commenced a hard R turn for avoiding action, estimating he passed 100m in front of the M/Light. The M/Light did not appear to take any action, which led him to believe that its pilot was not visual with his ac. Once clear of conflict he reported the incident to Solent Radar requesting to file an Airprox. He assessed the risk as medium.

THE PEGASUS FLEXWING MICROLIGHT PILOT reports en-route from Sandown to Popham, VFR and in receipt of a BS from Solent Radar on 120·225MHz; no transponder was fitted. Close to Lee-on-Solent heading 036° at 43kt and 2400ft QNH a twin-engine ac suddenly appeared in his 2 o'clock range 100m banking R to avoid a collision before it passed 100m in front on a W'ly course. The other ac's pilot and he both reported the incident to Solent Radar. He assessed the risk as high. At the time of the Airprox, the F406 approached from the E and there was glare from the sun, 30° to his R.

THE SOLENT RADAR CONTROLLER reports that the F406 flight, which was under a BS, advised that it wished to file an Airprox against a M/Light O/H Lee-On-Solent. The M/Light flight was under a BS and had reported over the mainland coast descending from 3000ft to 2200ft. The F406 pilot reported he was tracking 300° at 2400ft and the M/Light was crossing his track at 90°, estimating separation as 50m. The M/light pilot then reported passing 2300ft and seeing the F406 with separation of 100m.

ATSI reports that the Airprox occurred at 0748:31 within Class G airspace in the vicinity of Lee-on-Solent. Prior to the Airprox the F406 was conducting an approved flight survey, within the Solent Control Area (CTA), Class D controlled airspace (CAS). The Pegasus Microlight was on a VFR flight within Class G airspace, from Sandown to Popham. The Solent Radar Controller was providing a BS to both flights. CAA ATSI had access to radar recordings from NATS Swanwick and written reports.

METAR EGHI 310720Z VRB01KT CAVOK 11/10 Q1026=
METAR EGHI 310750Z 00000KT CAVOK 12/11 Q1026=

At 0738:50 the Microlight flight contacted Solent Radar routeing from Sandown to Popham at 3000ft, QNH 1026mb. Solent Radar instructed the Microlight to report at the mainland coast and a BS was agreed. The radar recording shows the F406 within the Solent CTA, manoeuvring to the S of Southampton Airport at FL70. At 0739:00, the F406 commenced a descent to 2400ft, QNH 1026mb, in order to fly a SE'ly track towards Gosport [3nm SE Lee-on-Solent]. This routed the F406 outside CAS and the pilot's written report indicates that he intended to carry out a teardrop turn to establish on a NW'ly track of 300°, which would lead the F406 to re-enter CAS. The F406 pilot confirmed his intention to operate VFR. At 0742:14, radar recording shows the F406 leaving the Solent CTA descending through altitude 3400ft and just under 1min later Solent Radar agreed a BS. Shortly afterwards at 0743:24, in response to a request from Solent Radar, the Microlight pilot reported halfway across the Solent. At 0744:00, Solent Radar gave the F406 a clearance to enter CAS at 2400ft and to report any change in level. At this point radar recording shows the F406 continuing to track SE in Class G airspace.

At 0745:51, the Microlight pilot reported approaching the mainland coast at Lee-on-Solent, descending to 2200ft. Solent Radar instructed the pilot to report at New Alresford and to remain outside CAS. No primary contact was seen on the radar recording. However, the Southampton unit investigation report indicated that a primary contact was observed on the Southampton radar recording, approximately 3nm SE of Lee-on-Solent. At 0745:56 the radar recording shows the F406, 5·9nm SE of Lee-on-Solent at 2400ft commencing a L turn onto a NW'ly track.

At 0748:34 the radar recording shows the F406, 1·5nm SE of Lee-on-Solent but no primary contact is observed. The Southampton unit investigation report indicated that the Southampton radar recording showed the F406 merge with a primary contact.

At 0749:04 the F406 pilot asked Solent Radar if they were aware of a Microlight in the vicinity. Solent Radar reported the position of a Microlight, as N of Lee-on-Solent. The pilot of each ac then reported an Airprox.

The F406 pilot's written report indicates that he believed the Microlight to be crossing the Solent at 2200ft and considered it was 200ft below. However, the Microlight was at 3000ft and it was only when the Microlight crossed the coast at Lee-on-Solent, that the pilot had reported descending to 2200ft.

CAP493, Manual of Air Traffic Services, Part 1, Section 1, Chapter 11, Page 4, Paragraph 3.1.1 states:

> 'A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.'

Paragraph 3.5.1 states:

> 'Pilots should not expect any form of traffic information from a controller, as there is no such obligation placed on the controller under a Basic Service outside an Aerodrome Traffic Zone (ATZ), and the pilot remains responsible for collision avoidance at all times. However, on initial contact the controller may provide traffic information in general terms to assist with the pilot's situational awareness. This will not normally be updated by the controller unless the situation

has changed markedly, or the pilot requests an update. A controller with access to surveillance derived information shall avoid the routine provision of traffic information on specific aircraft, and a pilot who considers that he requires such a regular flow of specific traffic information shall request a Traffic Service. However, if a controller considers that a definite risk of collision exists, a warning may be issued to the pilot.'

Both flights were in receipt of a BS from Solent Radar. CAA ATSI considered that although the provision of TI is not a requirement, the passing of a traffic warning would have aided the situational awareness of both pilots and would, in this case, have been appropriate.

UKAB Note (1): The radar recording shows the F406 approaching Lee-on-Solent from the SE tracking 300° level at altitude 2500ft LON QNH 1027mb before passing about 0·75nm SW abeam of Lee-on-Solent tracking towards the Solent CTA.

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.

An experienced pilot Member informed the Board that survey flight operations normally led to a busy cockpit environment, particularly when flown by a single pilot. Members wondered why the F406 pilot had not asked for a TS from Solent as the flight was leaving CAS to reduce his workload and supplement his lookout scan for other traffic. It was clear that the F406 pilot was under the misapprehension that the Microlight was at 2200ft, which had clouded his SA. The Pegasus pilot had reported his altitude as 3000ft and 2min before the Airprox had made a position report approaching the mainland and descending to 2200ft. Although both flights were on the same frequency for some time, the Pegasus pilot would have had great difficulty in assessing the F406's intended flightpath from the RT exchanges and so his SA was reduced. With both flights under a BS, both pilots were responsible for maintaining their own separation from other traffic through see and avoid. It was unfortunate that the Solent Radar controller had not issued a traffic warning to either flight as this might have taken the 'sting' out of the Airprox. As it was, the F406 pilot saw the Microlight late on his LHS and immediately made an abrupt R turn to avoid it, estimating 100m separation. The Pegasus pilot only saw the F406 as it crossed in front by 100m from R to L, as it was taking avoiding action, which Members agreed had been effectively a non-sighting. The visual acquisition by the F406 pilot and his prompt and robust actions were thought to have been just enough to remove the actual collision risk; however, the Board believed that the ac had passed with margins reduced such that safety was compromised during this encounter.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: Effectively a non-sighting by the Pegasus Microlight pilot and a late sighting by the F406 pilot.

Degree of Risk: B.