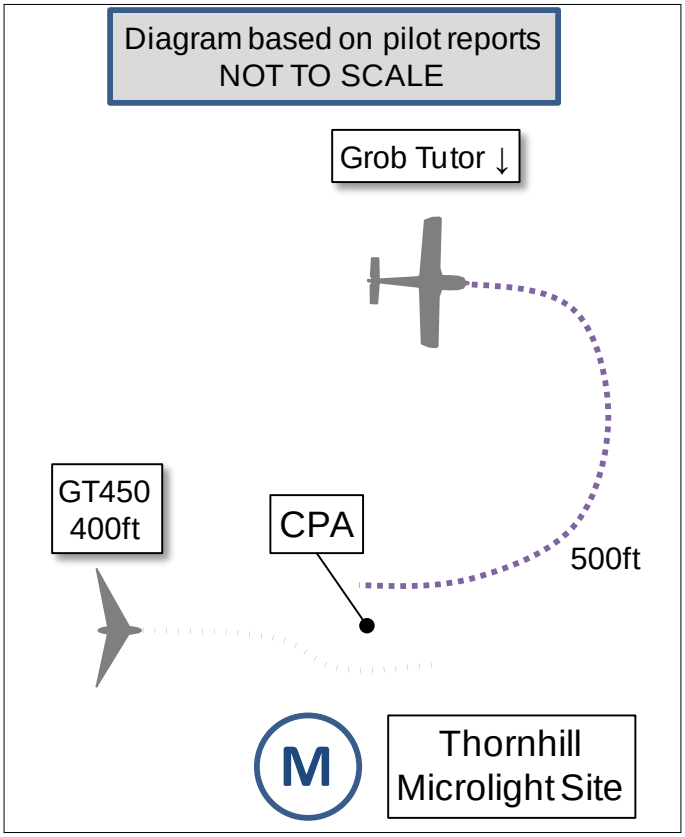
AIRPROX REPORT No 2012121

Date/Time:	9 Aug 2012 1430Z	
Position:	5608N 00411W (Thornhill Microlight Site elev 45ft)	
Airspace:	Scot FIR	(*Class: G*)
	Reporting Ac	*Reported Ac*
Type:	Quik GT450	Grob Tutor TMk1
Operator:	Civ Pte	HQ Air (Trg)
Alt/FL:	400ft (1025hPa)	500ft QNH (1009hPa)
Weather:	VMC CLBC	VMC CLBC
Visibility:	20km	30km
Reported Separation:	200ft V/100m H	200ft V/0.5nm H
Recorded Separation:	NK	



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE QUIK GT450 PILOT reports flying downwind (DW) at Thornhill Microlight Site (Thornhill), to the N of the site, over the Flanders Moss and away from neighbouring buildings, for the W'ly RW. He was operating autonomously under VFR in a grey coloured microlight with a landing light. The ac is not fitted with an SSR transponder or ACAS. Heading 090° at 50kt and 400ft [1025hPa], he checked the two windsocks 'as it was reasonably choppy'. When he looked back up he saw the [conflicting] ac coming the opposite way, not far above him and 500m 'off to the port side'. He took avoiding action by descending and turning R and kept the [conflicting] ac in sight until he landed.

He assessed the risk of collision as 'High'.

[UKAB Note(1): The Quik GT450 is a 2-place, tandem, tricycle gear, weight-shift microlight with a MTOW of 450kg, V_{NE} of 110mph and V_S of 38mph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THE GROB TUTOR TMK1 PILOT reports occupying the L seat, whilst demonstrating a PFL to a student in the R seat, to the area of Flanders Moss, N of Thornhill. He was operating under VFR with a BS from Scottish Information [119.875MHz], he thought, in a white ac with navigation lights and HISLs on. The SSR transponder was configured to squawk Modes A and C and the ac was also fitted with an ACAS. Whilst in a descending turn to the R, heading 260° at 80kt and approaching 500ft [QNH 1009hPa], he saw 'people on the ground and a microlight below him and 0.75nm to the L'. He initiated a go-around to maintain 500ft MSD and climbed above and to the R of the microlight. He estimated that he remained 200ft above and ½nm away from the microlight, having seen him before he commenced the go-around. He watched the microlight pilot complete his cct and land. He noted that there was no NOTAM advising Thornhill as active. He also noted that he had a 'poor cross-cockpit view' during the first half of the PFL 'final turn'.

He assessed the risk as 'Low'.

ATSI reports that an Airprox was reported by the pilot of a Quik GT450 Microlight (M'light) when he came into proximity with a Grob G115E (G115) in the vicinity of Thornhill.

The M'light was on a VFR flight from Islay to Thornhill and was not in receipt of an ATS. The G115 was on a VFR flight, which departed from Glasgow; the pilot indicated in his report that he was in receipt of a BS from Scottish Information [119.875MHz].

Thornhill is notified in UK AIP ENR 5.5 and depicted on both 1:250,000 and 1:500,000 charts. The Scottish Airsports Club request that all ccts and manoeuvring are carried out to the N of the site only, over Flanders Moss. Activity times are not given in the AIP.

ATSI had access to both pilots' reports, recorded area surveillance and recording of the Scottish Information RTF.

Meteorological information for Glasgow (18nm SSW of Thornhill) was as follows:
METAR EGPF 091420Z 28009KT 240V310 9999 FEW031 19/12 Q1026=

[UKAB Note(2): The reported heights and altimeter pressure settings of the Quik GT450 [1025hPa] and Grob Tutor [1009hPa] results in a calculated vertical separation of approximately 550ft. However, the Glasgow QNH was reported as 1026hPa and both pilots were in close agreement as to the vertical separation. In a subsequent telephone call, the Grob pilot said that he could not recall the QNH setting and that he had probably reported a mistaken QNH.]

The G115 pilot departed Glasgow at 1407 and, climbing to altitude 1800ft, departed the Glasgow CTR to the NW in the vicinity of Alexandria. He then turned R onto a direct track for Thornhill and climbed to 3400ft. The G115 pilot retained SSR code 2607 (Glasgow APP) as he flew towards Thornhill.

A primary position indication symbol was observed on radar replay to have routed to the E, outside CAS and N of the N'ly boundary of the Glasgow CTR. This ac was also on a direct track to Thornhill and ahead of the G115.

At 1418:00 the primary only ac had manoeuvred such that it was N of Thornhill, over Flanders Moss. It then manoeuvred such as to suggest it was DW, then base leg, for Thornhill's westerly strip.

At 1419:00 the G115 was 4nm WSW of Thornhill at 3400ft on track to the Microlight Site. The primary only ac had disappeared from surveillance coverage whilst on base leg. The M'light pilot's report indicated that his ac was inbound to land.

The G115 then flew to the NE of Thornhill by 2nm before executing a 180° R turn and descending to overfly Thornhill at 1424:38 at 2600ft on a WSW'ly track.

The G115 then executed a sharp R turn onto N, continuing descent and then disappearing from surveillance coverage approximately 1nm NE of the Microlight Site.

Between 1427:27 and 1428:11 a primary position indication symbol is seen to fly on a WSW'ly track slightly to the S of Thornhill.

By 1429:06 the G115 was climbing through 2300ft, away from Thornhill to the E, with full SSR being detected. The G115 climbed back to 3400ft before setting course back towards the Microlight Site where it descended again over Flanders Moss and out of surveillance coverage.

At 1437:06 the G115 was detected by SSR climbing through 2100ft, still displaying SSR code 2607, and routeing away from Thornhill to the E. The G115 SSR code changed to 7401 at 1439:00 indicating the pilot had established an ATS with Scottish Information.

The radar identity of the reporting M'light cannot be confirmed; however, it seems likely that, given the routeing and subsequent manoeuvring in the vicinity of Thornhill, the primary position indication symbol first observed ahead of the G115 was the reporting M'light.

The G115 pilot retained a SSR code indicating that he was in receipt of an ATS from Glasgow Approach; however, given the G115 pilot's report that he was in receipt of an ATS from Scottish Information at the time of the incident, no RTF recording from Glasgow ATC was obtained. Similarly there was no report of the incident by Glasgow ATC and it would seem unlikely that Glasgow ATC were monitoring the G115 as it manoeuvred in the vicinity of Thornhill.

The G115 executed manoeuvres O/H and in the vicinity of Thornhill and Flanders Moss. It is more than likely that during one of these manoeuvres the reported incident occurred. The theoretical base of area surveillance coverage in the vicinity of Thornhill is between 2100 and 2300ft and hence the reported incident cannot be described in further detail.

An Airprox occurred in the vicinity of Thornhill Microlight site when a G115 flew in the vicinity of the site at the same time as an inbound Microlight, which was being manoeuvred to land.

HQ AIR (TRG) comments that the Tutor pilot reports making an initial visual assessment that the site was inactive before proceeding with his PFL practice. Having become aware of the potential for that assessment to be wrong, he elected to go around, sighting the microlight in the process. Whilst a notified microlight site might at first consideration seem to be a good choice of location to execute a forced landing, the potential for such sites to be active despite appearances to the contrary makes them a less attractive site to practise such procedures.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both ac, a recording of the Scottish Information RTF and radar video recordings.

Board Members first discussed the way in which M/L sites are regarded by other pilots, in particular common preconceptions about the levels of site activity and extent of cct area. GA Members opined that modern M/L performance and economy of operation resulted in a situation where M/L A/D activity was often on a par with busy, licensed GA A/Ds. Whilst the latter benefited from an ATZ and prominent chart labelling, M/L site marking was less prominent, perhaps resulting in a subconscious level of assessment of the M/L site's activity level as 'low'. In addition, the CAA Flt Ops Advisor confirmed that M/L sites meet the ANO definition of 'Aerodrome'; as such M/L sites enjoy the protection of Rule 12 whereby pilots flying in the vicinity of a promulgated M/L site must either conform to the pattern of traffic or keep clear.

Members assumed the Tutor pilot's perception was that he was performing a PFL sufficiently N of the M/L site that he would remain clear of cct traffic. From the M/L pilot's reported downwind position

this would seem to have been a misjudgement on the part of the Tutor pilot, not helped by the poor cross-cockpit view as he turned R in the PFL. Members opined that on the one hand, due to the flat low-lying ground, the Tutor pilot had chosen an ideal area in which to undertake a PFL; on the other hand this area was also used as a M/L site due to this same suitability. There was broad agreement that this was an excellent area to conduct a forced landing in the event of an engine failure but a less than ideal area in which to conduct a practice. It was also established that the M/L site was correctly promulgated and that there was no requirement for a NOTAM to be issued to notify the site as active.

In the absence of radar position data it was agreed that the Tutor pilot and M/L pilot flew into confliction in the vicinity of the M/L site but that both parties had maintained sufficient lookout such that they had seen each other and had taken timely and effective avoiding action.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in the vicinity of a promulgated and active microlight site.

Degree of Risk: C.